

**ANNUAL REPORT
CALENDAR YEAR 2006
OF ACTIVITIES UNDER THE ANADROMOUS FISH AGREEMENT
AND HABITAT CONSERVATION PLAN**

**WELLS HYDROELECTRIC PROJECT
FERC LICENSE NO. 2149**

Prepared for

Federal Energy Regulatory Commission
888 First Street N.E.
Washington, D.C. 20426

Prepared by

Anchor Environmental, L.L.C.
1423 Third Avenue, Suite 300
Seattle, Washington 98101
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Public Utility District No. 1
of Douglas County, Washington
1151 Valley Mall Parkway
East Wenatchee, Washington 98802-4497

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1 INTRODUCTION

On June 21, 2004, the Federal Energy Regulatory Commission (FERC) approved an Anadromous Fish Agreement and Habitat Conservation Plan (HCP) for the Wells Hydroelectric Project (Wells Dam – FERC License No. 2149) on the Columbia River in Washington State. The Wells Project is owned and operated by Public Utility District No. 1 of Douglas County (Douglas PUD). The HCP provides a comprehensive and long-term adaptive management plan for species covered under the HCP (Plan Species) and their habitat. This document is intended to fulfill Section 6.9 of the HCP and Article 59 of the Wells Project FERC License requiring an annual report of progress toward achieving the No Net Impact (NNI) goal described in Section 3 of the HCP, and a summary of common understandings based upon completed studies.

Designated representatives of the signatories of the Mid-Columbia HCPs (HCPs of the Wells, Rocky Reach, and Rock Island hydroelectric projects) comprise the Coordinating Committees, Hatchery Committees, and Tributary Committees for each HCP, which meet collectively to expedite the process for overseeing and guiding the implementation of their respective HCPs. Minutes from the monthly meetings are compiled in Appendices A (Coordinating Committees), B (Hatchery Committees), and C (Tributary Committees); Appendix D lists members of the Wells HCP Committees. The Coordinating Committee for the Wells HCP oversaw the preparation of this third Annual Report for calendar year 2006, which covers the period from January 1 to December 31, 2006. (The first and second Annual Reports covered January 1 to December 31, 2004 and 2005, respectively.)

2 PROGRESS TOWARD MEETING NO NET IMPACT

The Wells Dam HCP requires preparation of an Annual Report that describes progress toward achieving the performance standard of NNI for each Plan Species. The NNI standard consists of two components: 1) 91 percent combined adult and juvenile project survival achieved by project improvement measures implemented within the geographic area of the project, and 2) 9 percent compensation for unavoidable project mortality provided through hatchery and tributary programs, with 7 percent compensation provided through hatchery and 2 percent through tributary programs (Section 3.1 of the HCP). Section 4.1 of the HCP states that, given the present inability to differentiate between the sources of adult mortality, initial compliance with the combined adult and juvenile survival standard will be based on the measurement of 93 percent juvenile project survival or 95 percent juvenile dam passage survival (described further in Section 4.1.2 of the HCP).

A major feature of the Wells HCP is what is termed a “phased implementation plan” to achieve the survival standards. Briefly, Phase I consists of implementation of juvenile and adult operating plans and criteria to meet the survival standards, and a monitoring and evaluation program to determine compliance with the survival standards. Following completion of the 3-year monitoring and evaluation program in Phase I, the Wells HCP Coordinating Committee will determine whether the pertinent survival standards have been achieved. Depending upon the results of this determination, Douglas PUD would either proceed to Phase II (if the applicable survival standards have not been achieved) or Phase III (if the applicable survival standards have been achieved). Under Phase II conditions (where the Wells HCP Coordinating Committee has determined that the standards have not been met), Douglas PUD would be responsible for evaluating additional tools to improve survival. Under Phase III conditions (where the Wells HCP Coordinating Committee has determined that the survival standards have been achieved), Douglas PUD would be required to re-evaluate survival at 10-year intervals. It should be noted that juvenile survival studies conducted during Phase I may result in different phase designations for each of the Plan Species. Since February 2005, Douglas PUD has been in Phase III of the phased implementation, as summarized in Table 1.

Table 1
Phase Designations for Wells Dam

Plan Species	Phase Designation	Date
Upper Columbia River (UCR) steelhead	Phase III (Standards Achieved)	February 22, 2005
UCR yearling spring Chinook	Phase III (Standards Achieved)	February 22, 2005
UCR subyearling summer/fall Chinook	Phase III (Additional Juvenile Studies)	February 22, 2005
Okanogan River sockeye	Phase III (Additional Juvenile Studies)	February 22, 2005
Coho*	N/A	N/A

* A “threshold population” (as defined in the HCP) of coho salmon does not yet exist, nor has the Wells HCP Hatchery Committee made a determination on the existence of a continuing coho hatchery program.

The following sections of this report describe progress made in 2006 toward achieving the HCP objectives as they relate to decision making, continued implementation of the juvenile and adult passage plans, and project improvements for hatchery programs and tributary programs.

2.1 2006 HCP Decisions

Throughout 2006, the HCP Coordinating, Hatchery, and Tributary Committees made and noted a number of agreements during committee meetings in order to document HCP decisions and support the future achievement of NNI. These agreements are summarized in Table 2 and are discussed in the remainder of this report.

Table 2
2006 Decisions for Wells HCP

Date	Agreement	HCP Committee	Reference
Mar. 15, 2006	2006 Action Plan, Wells HCP	Coordinating	Appendix F; Appendix A, Mar. 15, 2006
Mar. 15, 2006	Proposed 2006 Juvenile Bypass Operating Plan	Coordinating	Appendix F and H; Appendix A, Mar. 15, 2006
Apr. 25, 2006	Floating Debris Boom Installation at Wells Dam	Coordinating	Appendix F; Appendix A, Apr. 25, 2006
Apr. 25, 2006	Rock Trap Excavation at Wells Dam	Coordinating	Appendix F; Appendix A, Apr. 25, 2006
May 17, 2006	Methow Hatchery 2003 Brood Spring Chinook Salmon Production Wells Hatchery 2003 Brood Summer Chinook Salmon Production	Hatchery	Appendix G; Appendix B, Mar. 15, 2006
Jul. 19, 2006	Proposed Strategy for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams, and the 2006 Study Plan for Evaluating Potential Reference Streams	Hatchery	Appendix G; Appendix B, Jul. 19, 2006
Aug. 16, 2006	Wells Hatchery Surface Water Screens	Hatchery	Appendix G; Appendix B, Aug. 16, 2006
Sep. 20, 2006	Implementation Plan for the Analytical Framework for Monitoring and Evaluating PUD Programs	Hatchery	Appendix G; Appendix B, Sep. 20, 2006
Nov. 15, 2006	Hatchery Monitoring and Evaluation Implementation Plan 2007	Hatchery	Appendix G; Appendix B, Nov. 15, 2006
Nov. 15, 2006	Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon	Hatchery	Appendix G; Appendix B, Nov. 15, 2006
Nov. 27, 2006	Pursue Design and Permitting for the Retrofitting of the Twisp Weir in the Present Perpendicular Configuration, with an Additional Notch and Trap	Hatchery	Appendix B, Nov. 27, 2006
Dec. 27, 2006	Decisions of Deferral of a Decision on the Status of a Long-term Coho Hatchery Program (Hatchery Committee), and on the Compensation for Coho (Coordinating Committee).	Coordinating and Hatchery	Appendices F and G; Appendices A and B, Dec. 27, 2006.

2.2 Project Operations and Improvements

This section summarizes project operations and progress toward meeting HCP requirements at Wells Dam in 2006. Actions in 2006 were guided by the 2006 Douglas PUD Action Plan, as approved by the Coordinating Committees (Appendix L).

2.2.1 Operations

Similar to past years, operation of the juvenile bypass system in 2006 was guided by the Bypass Operating Plan, contained within Section 4.3 of the Wells HCP. The bypass initiation date of April 12, 2006 and bypass termination date of August 26, 2005 were implemented per the Pre-season Operating Plan agreed to by the Wells HCP

Coordinating Committee in March 2006 (Appendix A, F, and H). In September 2006, Douglas PUD prepared a bypass operation summary that described the operational criteria for the bypass system, as well as the initiation and termination dates for the Wells bypass operation. The year 2006 was the third year that operation of the bypass system was guided by representatives of the Wells HCP Coordinating Committee.

Flows at Wells Dam during the 2006 juvenile plan species migration (April to August) were at 118 percent of the 20-year average. Operationally, all five bypass bays were available for utilization at one time or another during the 2006 outmigration.

The spring bypass season started on April 12 at 0000 hours, and the system operated continuously through June 13 at 2400 hours (63 days). Spring bypass operations utilized a total discharge of 1.26 million acre feet (MAF), or 5.8 percent of total project discharge. During the spring bypass operation, there was forced spill during 743 hours or 49.1 percent of the season. Many of the forced spill events recorded during this year's outmigration were scheduled in order to conduct the 2006 Total Dissolved Gas and Spill Dynamics Study.

Summer bypass started on June 14 at 0000 hours and ran until August 26 at 2400 hours, for a total of 75 days. There was 1.23 MAF or 6.3 percent of the total discharge dedicated to summer bypass. During the summer bypass operating period, there were 298 hours or 16.6 percent of the hours with forced spill.

2.2.2 Assessment of Project Survival

As previously noted, Douglas PUD has met the HCP survival standard of 91 percent combined adult and juvenile project survival, and is in Phase III of the phased implementation plan. In 2006, Douglas PUD continued to successfully implement the juvenile and adult passage plans, participate in selection of tributary improvement projects, make progress toward achieving hatchery improvements, and conduct hatchery facilities maintenance.

2.2.2.1 *Adult Passage Monitoring*

The HCP acknowledges that no scientific methodology currently exists that would allow the Wells HCP Coordinating Committee to assess adult project survival (presumed to be 98 percent). This is because available methodologies are unable to differentiate between mortality caused by the project versus other sources of non-detection (such as mortality from natural causes, injuries resulting from passage at downstream projects, or injuries sustained by harvest activities; or fish not detected for other reasons, such as spawning in locations downstream from Wells Dam). However, the Wells HCP Coordinating Committee is able to evaluate information to assess whether or not there is a high likelihood that the presumed adult survival rates are being achieved. Table 3 details detections at Priest Rapids Dam of known origin adult steelhead and Chinook salmon tagged with Passive Integrated Transponders (PIT), the number of those adults redetected at Wells Dam, the estimated conversion rate (Priest Rapids Dam to Wells Dam), and average per project (i.e., four dams and four reservoirs) conversion rates. These conversion rates are best viewed as a minimum survival estimate between the two detection sites, since they encompass mortalities from all sources and non-detected fish (as described above) between the two detection sites. They do not include any indirect or delayed mortality that might occur upstream of Wells Dam (the redetection site). The per-project conversion rate exceeded 98 percent for steelhead and spring and summer Chinook salmon (that is, mortalities from all sources averaged less than 2 percent through each project). As noted above, this 2-percent figure reflects a combination of mortality attributable to both non-project related causes (e.g., harvest, tailrace spawning, and disease) and dam passage, as well as non-detections resulting from straying and spawning below Wells Dam. For this reason, it is highly probable that the actual conversion rate for adult Plan Species surpasses the 2 percent per project performance standard set forth in the HCP.

Table 3
Adult Conversion Rates for All Available Release Groups

Stock Species	Priest Rapids Dam	Wells Dam	Priest Rapids to Wells Total Conversion Rate	Priest Rapids to Wells Average Per Project Conversion Rate¹
All Releases ² Summer Steelhead 2004-2006	4,885	4,524	92.6%	98.1%
All Releases ³ Spring Chinook 2003-2006	323	304	94.1%	98.5%
All Releases ⁴ Summer Chinook 2003-2004	15	14	93.3%	98.3%

Source: Columbia River DART website: http://www.cbr.washington.edu/dart/pit_obs_adult_conrate.html

- 1 Calculated as Priest Rapids Dam to Wells Dam Total Conversion Rate to the 4th root (four dams and four pools). Adults detected at Wells Dam that were not also detected at Priest Rapids Dam were excluded from the analysis.
- 2 Summer steelhead released into the Okanogan and Methow River Systems – PIT-tag release site designations: CHEWUR, METHR, OKANR, OMAKC, SIMILR, TWIS2P, TWISPR, BEAV2C, and WINT.
- 3 Spring Chinook salmon released into Methow River System – PIT-tag release site designations: CHEWUP, METH, TWISPP, BEAV2C, and WINT.
- 4 Summer Chinook salmon released into Columbia River System above Wells Dam – PIT-tag release site designations: OKANR.

In previous annual reports, adult conversion rates from McNary to Wells for the report year have been included as Table 3. Initially, McNary to Wells was the only possible calculation because of a lack of PIT-tag detection at intervening projects. The McNary-to-Wells conversion rate calculations encompassed the free-flowing Hanford Reach, and mortality through that reach was evenly apportioned between the projects upstream of McNary Dam. With subsequent installation of PIT-tag detection at intervening projects, we can now exclude the Hanford Reach from the calculations by using a Priest Rapids-to-Wells calculation.

The annual conversion rate estimates reported in previous Annual Reports were based on single-year calculations with limited sample sizes. In Table 3, we have opted instead to provide the average conversion rate over all available years of adult passage for the respective species. By reporting the average in the 2006 report, we are also able to include returns of summer Chinook that were released above Wells Dam that otherwise would not have been reported since no fish from those releases returned in 2006.

Although not part of the HCP process, bull trout were considered as part of adult passage issues addressed at Wells Dam in 2006. In 2004, FERC issued an order incorporating the HCP and the U.S. Fish and Wildlife Service *Bull Trout Biological Opinion* into the FERC license for the Wells Dam Project. Article 61 of the Wells Project license requires Douglas PUD to file an annual report with FERC describing the activities required by Douglas PUD's *Bull Trout Monitoring and Management Plan*; Douglas PUD filed this report with FERC on March 30, 2006.

2.2.2.2 Completed Studies 2006

In March 2006, Douglas PUD documented the removal of 23,336 northern pikeminnow from the Wells Reservoir and tailrace during annual removal efforts occurring from March to July 2005. Documentation from the 2006 northern pikeminnow removal efforts is expected in early 2007.

Douglas PUD assembled a team of hydraulics and Total Dissolved Gas (TDG) experts from the Pacific Northwest to develop a monitoring program for a study that would examine various operational scenarios and their respective TDG production dynamics. The study, implemented in 2006, monitored TDG in the Wells tailrace from a series of "tests" conducted utilizing several "shaped" spill configurations including:

- Spread Spill (spill as much as possible equally distributed across all gates)
- Full Gate (high volume of spill through as few gates as possible)
- Crowned Spill (high volume of spill in the center of the spillway)
- Dentated Spill (alternating spill gates with high and low volumes of spill)
- Right/Left Bank Spill (spilling all of the available water on either the right or left bank)

To monitor tailrace TDG, 13 sensors were placed along three transects in the tailrace at 1,000, 2,500, and 15,000 feet below Wells Dam. There were also three sensors placed across the forebay, one being a fixed monitoring station midway across the face of the dam and two more, each a distance of 300 feet from the dam.

Each test required the operators of the dam to maintain static flows through the powerhouse and spillway for at least a 3-hour period. While there were 30 scheduled spill events during which tests were conducted, there were an additional 50 events where the powerhouse and spillway conditions were held constant for a minimum 3-hour period. These “incidental” events provided an opportunity to collect additional TDG data on a variety of project operations that met study criteria and are included in the results of the 2006 TDG Abatement Study.

Spill amounts ranged from 5.2 percent to 52 percent of project flow, and volume of spill and total flows ranged from 2.2 to 124.7 thousand cubic feet per second (kcfs) for spill and 16.4 to 254.0 kcfs for total discharge. There were six tests that were completed at flows that exceeded the Wells 7Q10 flows (7-day 10-year frequency flood flow¹), of 246 kcfs. A final draft report detailing the results of the 2006 TDG Abatement Study will be available for review and comment in early 2007.

2.2.2.3 *Planned Studies 2007*

In 2007, Douglas PUD will undertake genetic studies to examine historical and current population structure of spring Chinook salmon in the Methow basin. The study plan was approved by the Hatchery Committees in November 2006 (Appendices B and G). The study also explores the effects of hatcheries and a sustained genetic bottleneck on natural populations consistent with the *Monitoring and Evaluation Plan* (M&E Plan) approved by the Hatchery Committee. The study is organized into two phases, the first of which will establish whether the Twisp, Chewuch, and Methow spring Chinook salmon populations, as well as the WNFH Carson broodstock, were differentiated prior to wild fish interacting with returns from hatchery supplementation programs (i.e., prior to 1994). The second phase will determine whether genetic bottlenecks changed the genetic variation and population structure of the naturally produced populations. In addition, the second phase will examine the tissue sample collections for genetic changes attributable to supplementation programs, as well as the relationship between spawning

¹ As described in WAC 173-201A-200(1)(f) and in Pickett, P.J., H. Rueda, and M. Herold. 2004. Total Maximum Daily Load for Total Dissolved Gas in the Mid-Columbia River and Lake Roosevelt, Submittal

population size and effective population size. Finally, the study will determine the probability, using existing technologies, of correctly differentiating the tributary-of-origin for fish from the Methow Basin; this information will inform discussions regarding the potential for broodstock collection at Wells Dam in lieu of collection at tributary trapping facilities.

2.3 Hatchery Compensation

As required by the HCP, Douglas PUD supported hatchery production in 2006 to compensate for unavoidable project mortality. Section 8 of the Wells Dam HCP outlines a Hatchery Compensation Plan with two hatchery objectives for Douglas PUD: 1) to provide hatchery compensation for spring Chinook salmon, summer/fall Chinook salmon, sockeye salmon, and summer steelhead (and coho salmon, should they become established under the criteria set forth in HCP Section 8.4.5.1); and 2) to implement specific elements of the hatchery program consistent with the overall objectives of rebuilding natural populations and achieving NNI. Compensation for coho salmon remains to be evaluated based upon the criteria set forth in HCP Section 8.4.5.1 and as deferred by the HCP Hatchery and Coordinating Committees in December 2006 (Appendices A and B, December 27, 2006 minutes).

Broodstock Collection Protocols were reviewed by the Hatchery Committees in April 2006 and were implemented by Washington Department of Fish and Wildlife (WDFW) at program hatcheries (Appendix I); in-season revisions were made as needed in coordination with the Hatchery Committees. Hatchery compensation in 2006 included the release of 834,515 yearlings and 430,203 subyearling salmonids from hatcheries associated with the Wells Project (Appendix J). This total does not include the sockeye production gained through the Fish-Water Management Tool project administered by the Okanagan Nation Alliance.

Report. Prepared jointly by Washington State Department of Ecology, U.S. Environmental Protection Agency, and Washington State Department of Ecology. WSDOE Publication No. 04-03-002.

2.3.1 Hatchery Production Summary

Tables 4 and 5 summarize and compare HCP hatchery production objectives and actual 2006 production levels for both the original inundation compensation program and HCP passage loss compensation program.

2.3.1.1 Inundation Compensation Program

The FERC license to operate the Wells Hydroelectric Project requires Douglas PUD to raise and release fish to compensate for original impacts associated with the development of the Wells Reservoir. All of the fish for this program are raised at the Wells Fish Hatchery. The number and pounds of fish to be released each year for the Inundation Compensation Program can be found in Section 8.4.6 of the Wells HCP Agreement.

Table 4
Production Objectives for the Inundation Compensation Program and Releases in 2006

Inundation Compensation Program	Numeric Target	Poundage Target	Target Weight	Number Released	Pounds Released
Yearling Summer/Fall Chinook (2004 brood year)	320,000	32,000	10 fpp	312,980 ¹	35,892
Subyearling Summer/Fall Chinook (2005 brood year)	484,000	24,200	20 fpp	430,203 ²	12,450
Yearling Summer Steelhead (2005 brood year)	300,000	50,000	6 fpp	304,138 ³	36,427

fpp – fish per pound

- 1 C. Snow May 2006 Memo for the total released.
- 2 C. Snow May 2006 and June 2006 show an early release on May 12 of 204,970 (42 fpp) and a late release on June 14 of 225,233 (29.4 fpp). The poundage obligation was not met due to an early experimental release of fish conducted by WDFW hatchery evaluation staff.
- 3 C. Snow May 2005 Memo shows total release of 473,505 steelhead smolts at 56,712 pounds. Of these, 67,988 fish are assigned to Wells Dam NNI, 304,138 fish for Wells Inundation, and 101,379 fish for Group 3 Grant PUD Sharing Agreement.

(The memos referenced above are available upon request.)

2.3.1.2 NNI Compensation Program

Section 8.4.3 of the Wells HCP contains specific numbers and pounds of juvenile Plan Species to be produced to meet Douglas PUD's NNI production levels for unavoidable juvenile losses at the Wells Hydroelectric Project. Juvenile passage losses are offset through the production of juvenile Plan Species at three facilities (Wells Fish Hatchery, Methow Fish Hatchery, and Eastbank Fish Hatchery) and

through the implementation of mitigation options identified in the Sockeye Enhancement Decision Tree.

Table 5
Production Objectives for the HCP Passage Loss Compensation Program and Releases in 2006

No Net Impact Compensation Program	Numeric Target	Poundage Target	Target Weight	Number Released	Pounds Released
Yearling Summer Steelhead (2005 brood year)	48,858	8,143	6 fpp	67,988 ¹	8,143
Yearling Summer/Fall Chinook (2004 brood year)	108,570 ¹	10,857	10 fpp	108,717 ²	9,060
Yearling Spring Chinook (2004 brood year)	286,071 ²	19,071	15 fpp	40,692 ³	3,296
Yearling Osoyoos Lake Sockeye ⁴	7%	NA	NA	55%	NA

- 1 C. Snow May 2005 Memo shows total release of 473,505 steelhead smolts at 56,712 pounds. Of these, 67,988 fish are assigned to Wells Dam NNI, 304,138 fish for Wells Inundation, and 101,379 fish for Group 3 Grant PUD Sharing Agreement.
- 2 Carlton Pond Summer Chinook released by Chelan PUD for Douglas PUD as part of Douglas-Chelan Hatchery Sharing Agreement.
- 3 There were 29,688 pounds (366,513 fish) of spring Chinook smolts released at 12.3 fpp from the Methow Hatchery (April 2006 Memo from C. Snow). The target release of 36,667 pounds (550,000 fish) was a combination of Wells NNI (61,071) and the sharing agreements with Chelan PUD (288,000) and Grant PUD (201,000). The 2006 release represents a poundage shortfall of 19 percent. The shortfall was equally applied to the three programs giving Wells NNI 40,692, Chelan PUD 191,895 and Grant PUD 133,927 fish in 2006. Release numbers were below the numeric target level due to Enzyme Linked Immunosorbent Assay ELISA management for Bacterial Kidney Disease (BKD). Substantial numbers of Methow spring Chinook (202,763 fish) were released as sub-yearling age consistent with BKD ELISA levels and recommended rearing densities.
- 4 Okanogan Sockeye obligation for NNI is handled through the Fish/Water Management Tool program managed through the Okanogan Nation Alliance. The Wells HCP Hatchery and Coordinating Committees have agreed that the continued implementation of this program will satisfy Douglas PUD's 7 percent hatchery compensation requirement.

(The memos referenced above are available upon request.)

2.3.2 Hatchery Planning

In 2005, Douglas PUD and WDFW completed an M&E Plan for operation of Douglas PUD hatchery programs to assist in the determination of whether the specific hatchery objectives defined by the HCP are being met. Implementation of this M&E Plan began in 2006. The Wells HCP Hatchery Committee, in cooperation with the Rocky Reach and Rock Island HCP Hatchery Committees, prepared and approved the *Analytical Framework for Monitoring and Evaluating PUD Hatchery Programs* (September). The Wells HCP Hatchery Committee also approved the *Proposal for the Implementation of the Comprehensive Monitoring and Evaluation of Hatchery Programs funded by Douglas County PUD* in November 2006 for M&E activities in the 2007 calendar year, anticipating that adaptive modification of the plan may be necessary in future years.

In December of 2006, the Wells Hatchery Committee decided to defer a decision to October 2007 on whether a continuing hatchery program for coho salmon and/or a Threshold Population of naturally reproducing coho in the Methow Basin has been established. In November, the Joint Fisheries Parties (JFP) met with the Bonneville Power Administration (BPA) regarding funding programs for listed and unlisted species under the umbrella of the 2004 Federal Columbia River Power System (FCRPS) Biological Opinion Remand process; the JFP and the Action Agencies (BPA, Bureau of Reclamation, and the U.S. Army Corps of Engineers [USACE]) intend to prepare a Memorandum of Agreement in 2007 outlining future funding strategies. The BPA indicated that it would fund the Yakama Nation's coho program for at least one additional fiscal year (Appendix B, November 15, 2006 minutes).

On December 27, 2006, the Wells Coordinating Committee approved the schedule changes agreed to by the Wells Hatchery Committee, which delayed until October 2007 a decision on potential coho compensation as outlined in Section 8.4.5.1 in the HCP (Appendix A and Appendix F). In a related decision made at the same meeting, the Rocky Reach and Rock Island Coordinating Committees agreed to a two-step process in which the Committees would delay any decision on coho migration (either to further defer or to make a final determination) until March 31, 2007, in order to further explore issues of phase designation and the specific nature of the mitigation. If the Committees agree in March 2007 to defer the determination, a final determination would be made by October 2007. Because a March decision for Rocky Reach and Rock Island would pre-date the October decision for Wells, the outcome of the earlier decision may affect the latter. During the interim time until the October decision for Wells, Douglas PUD will work with the Yakama Nation, the BPA, Chelan and Grant PUDs, and the Wells HCP Hatchery Committee to develop program details that would be used to address Douglas PUD's coho mitigation obligations, if it is determined that a continuing hatchery program exists. Consistent with the expectation that coho salmon survive passage of Wells Dam at a level similar to other spring migrant salmonids, the Coordinating Committee would designate coho as being in Phase III (Additional Juvenile Studies), if it is determined that a continuing hatchery program and/or a Threshold Population of coho salmon in the Methow Basin exists.

The Hatchery Committee made significant progress in setting forth a process for selection of reference streams for Douglas PUD's M&E program, and approved an experimental approach to determining the hatchery vs. natural origin of spawning steelhead in selected streams and tributaries of the Mid- and Upper Columbia (Appendices B and G). Information regarding steelhead spawning ground composition is required for implementation of the M&E Plan.

Throughout 2006, the Hatchery Committees engaged in discussions regarding the management of Bacterial Kidney Disease (BKD) as it pertains to HCP hatchery operations. BKD is important in the implementation of the HCPs on several levels: 1) the prevalence of BKD in fish is often used as a criterion in setting rearing densities at hatcheries to reduce the fish health risk of rearing fish that tested positive for high levels of BKD antigen (thus influencing capacity); 2) long-term population implications of including or excluding fish testing positive for high levels of BKD antigen within hatchery production; and 3) Objective 9 of the Hatchery M&E Plans is an evaluation of the potential for hatchery supplementation programs to increase the prevalence of diseases that typically occur in the natural environment. The goal of the Hatchery Committees' discussions was to lay out a path forward for managing BKD in HCP hatchery programs, and to work on a strategy for implementing Objective 9.

To this end, in September 2006, the Hatchery Committees considered a draft recommendation for BKD management that included an option for limited culling of progeny of hatchery broodstock that tested positive for high levels of BKD antigen; however, this document was not finalized due to a lack of consensus on a definition of "limited culling." A Policy Committees² meeting was thus scheduled to discuss these issues, among other HCP issues of note (see Section 3.2). In December, the Hatchery Committees reviewed the document, *Draft Objectives for BKD Management*, that was developed in discussions among staff of WDFW, Chelan PUD and Douglas PUD. The document represented progress toward forging an agreement on a BKD strategy that would allow, but limit, culling by proposing a ceiling on the proportion of high BKD progeny that would be reared at reduced density. This latter provision, if approved by

² The Policy Committee oversees the activities of the HCP Committees in the capacity of dispute resolution, according to Section 11.1.2 of the HCP.

the Hatchery Committees, will minimize year-to-year fluctuations in production levels caused by varying prevalence of BKD. At the scheduled Policy Committees meeting, the Policy Committees received an update of the Hatchery Committees' progress on this document and therefore did not need to initiate policy-level discussion on this matter. At the close of 2006, the Hatchery Committees intended to further develop this plan and consider a Hatchery Committees recommendation for managing BKD in the long term, including potential options to conduct site-specific studies to assess the population implications of including or excluding fish testing positive for high levels of BKD antigen within hatchery production. The Hatchery Committees are continuing to work on a strategy for implementing Objective 9 of the M&E Plan.

2.3.3 Maintenance and Improvements

Maintenance activities supporting hatchery production at Wells Dam in 2006 included several design projects, as well as work at existing facilities. Collection of broodstock for Douglas PUD's hatchery programs remained a noteworthy challenge in 2006. Severe damage in 2006 to the recently renovated Twisp Weir and the community opposition that thwarted the planned installation of the proposed Chewuch Weir in 2005 prompted discussion within the Hatchery Committee regarding options for improving the certainty of broodstock collection.

Following the moderate but destructive flood event in the Methow Basin in May of 2006, which destroyed the function of the Twisp Weir, Douglas PUD presented a memorandum to the Hatchery Committee regarding the Committee's commitment to the continued collection of broodstock in tributary trapping facilities. The intent of the memorandum was to stimulate discussion on the practicality of continuing to pursue the expensive and logistically difficult efforts toward installing and maintaining tributary trapping facilities, and the contrasting ease of collection at Wells Dam and the potential for stock differentiation using genetic techniques. The memorandum concluded by asking the Committee to express their commitment to the concept of tributary broodstock collection.

The Hatchery Committee discussed the memo at both the June 21 and July 19 meetings (Appendix B, 21 June 21, 2006 and July 19, 2006, minutes). The consensus from those

discussions was that the Committee members maintained their commitment to tributary trapping (because of the importance of maintaining population structure), but they were willing to consider evaluating other options for broodstock collection such as the differentiation of tributary stocks at Wells Dam when an appropriate technology became available. Accordingly, Douglas PUD proceeded with the development of designs for the repair of the Twisp Weir and for a new collection facility on the Chewuch River. Additionally, a genetics study was initiated to determine (among other objectives) the efficacy of existing genetics technology for correctly differentiating the tributary of origin for fish from the Methow Basin. Results of the study would inform future Committee discussions regarding broodstock collection methods for Douglas PUD hatchery programs.

2.3.3.1 Chewuch Weir

In 2006, Douglas PUD participated in discussions with stakeholders and nearby landowners regarding the installation of a broodstock collection facility on the Chewuch River. This culminated in the decision to investigate installing a broodstock collection facility at the site of the existing Chewuch Dam. Conceptual designs were developed in August 2006 for a prototype structure associated with the roughened-channel fishway at Chewuch Dam, and input from WDFW, the National Marine Fisheries Service (NMFS), and Bureau of Reclamation engineers was solicited. Progress on the Chewuch facility was superseded in the fall by efforts to implement winter construction of the proposed modifications to the Twisp Weir. The design for the Chewuch facility will be completed in 2007, with the installation anticipated to be completed in time for the 2008 spring Chinook migration.

2.3.3.2 Wells Hatchery Screens

In 2006, significant discussions occurred within Douglas PUD regarding cost and design refinements for the installation of new fish screens on the surface water intake for the Wells Hatchery. In August 2006, the Hatchery Committees agreed to support the current designs (Appendix G). However, refinement of the approved design revealed unforeseen safety concerns, complicated construction logistics, and lack of conformance to existing permits. Thus, Douglas PUD initiated a value engineering review of design options for the new Wells Hatchery Intake Screens and

expects to finalize designs and implement the project in 2007. This review may include modifying the previously agreed-to design in favor of an improved design, subject to approval by the Hatchery Committee.

2.3.3.3 Twisp Weir Improvements

The Twisp Weir was heavily damaged in high flows occurring in spring 2006. By the end of 2006, many of the design considerations for the new Twisp Weir had been resolved, and Douglas PUD is proceeding with planning/engineering for a perpendicular configuration with an additional notch and trap box near the left bank. Construction is anticipated to occur in time to allow for broodstock collection in 2008.

2.3.3.4 Rock Trap Excavation

As approved by the Coordinating Committee (Appendix F), Douglas PUD performed the removal of accumulated bed load from the spillway rock trap in the tailrace of Wells Dam. This work occurred in late summer 2006 in the interim between the adult spring Chinook run and the bulk of the adult steelhead run. In order to conduct the work without impacting the operation of the juvenile bypass system, the work was restricted to times at night when daily average river flows were less than 140 kcfs.

2.3.3.5 Debris Boom Installation

As approved by the Coordinating Committee (Appendix F), Douglas PUD began design for installation of a floating debris boom in the forebay of Wells Dam. In the early phases, Douglas PUD solicited input from the committee regarding the proposed configuration and design of the debris boom. The general use pattern of predatory fish will be investigated before and after installation through observational means (video and angling), and if an increase in predator use or predation is observed in the forebay, the increase in predation would be addressed through predator control measures in consultation with the Coordinating Committee. Work is expected to be completed in 2008.

2.4 Tributary Committees and Plan Species Accounts

As outlined in the Wells HCP, the signatory parties designated one member each to serve on the Tributary Committee. The Rock Island, Rocky Reach and Wells Tributary Committees meet on a regularly scheduled basis as a collective group to enhance coordination and minimize meeting dates and schedules. Subject items requiring decision making are voted on in accordance with the terms outlined in the specific HCPs. With few exceptions, the Tributary Committees have met monthly since August 2004 (Appendix C). The initial focus of the Tributary Committees was to adopt operating procedures, which provide a mechanism for decision making on various issues related to the Committees, and which were provided in the 2005 HCP Annual Report (Anchor 2005³). Subsequently, the Tributary Committees developed policies for soliciting, reviewing, and approving project proposals (Anchor 2005). The policies document provides formal guidance to project sponsors on submission of proposals for projects to protect and restore habitat of Plan Species within the geographic scope of the HCP. The operating procedures and funding policies of the Rock Island, Rocky Reach, and Wells Tributary Committees are essentially the same. The Committees established two complementary funding programs, the General Salmon Habitat Program and the Small Projects Program, each of which is discussed below.

The Committees also approved revisions to both the Operating Procedures and Funding Policies and Procedures in 2006. Changes to the Operating Procedures pertaining to the Wells Tributary Committee were minor, regarding only membership and meeting schedules. Notable changes to the Funding Policies and Procedures gave the Committees discretion on whether to hold project sponsor workshops and also set guidelines to project sponsors for management of lands protection through conservation easements or acquisition.

³ Anchor Environmental, L.L.C. 2005. Annual Report, Calendar Year 2005, of Activities Under the Anadromous Fish Agreement and Habitat Conservation Plan. Wells Hydroelectric Project, FERC license no. 2149. Prepared for FERC by Anchor Environmental L.L.C. and Public Utility District No. 1 of Douglas County.

2.4.1 Regional Coordination

To improve regional coordination, the Tributary Committees invited Grant PUD to participate in Committees meetings. A representative from Grant PUD and the facilitator of the Priest Rapids Coordinating Committees attend these sessions. This benefits the Tributary Committees through increased coordination and sharing of expertise; however, the Grant PUD representative has no voting authority. The Tributary Committees, through the Coordinating Committees, also invited American Rivers and the Confederated Umatilla Tribes to participate in Committees meetings. Both parties contributed to the development of the HCP, yet elected not to sign the document. Neither of these parties participated in the deliberations of the Tributary Committees in 2006.

In conjunction with the Washington State Salmon Recovery Funding Board (SRFB), the Tributary Committees held a workshop in June 2006 to inform the public of the procedures to request funds for habitat projects. Moreover, the chairperson of the Tributary Committees typically attends the meetings of the SRFB and the Upper Columbia Salmon Recovery Board to foster coordination in developing and selecting projects for funding. Many of the policies and procedures of the SRFB and Tributary Committees are complementary.

2.4.2 Fiscal Management of Plan Species Accounts

The Tributary Committees set up methods for the long-term management of the funds made available through the Plan Species accounts for each HCP. The Wells Tributary Committee agreed to have Douglas PUD manage the accounting services internally, and to structure the relationship so that it can invoice these administrative costs to the Wells Plan Species accounts. The beginning balance of the Wells Plan Species Account on January 1, 2006 was \$2,353,757.94, interest accrued during 2006 was \$109,933.77, funds disbursed for projects in 2006 totaled \$962,700.50, and \$4,451.79 was paid to Douglas PUD for account administration during 2006, resulting in an ending balance of \$1,496,539.42 on December 31, 2006.

The Tributary Committees delegated signatory authority to the chairperson for processing of payments for invoices approved by the committees, with the Coordinating

Committee Chairperson serving as the alternate. The Tributary Committee Chairperson secured status as a limited liability corporation to carry out this responsibility, and the Tributary Committees provide funds for liability insurance.

2.4.3 General Habitat Projects

The Tributary Committees established the General Salmon Habitat Program as the principal mechanism for funding projects. The goal of the program is to fund habitat protection and restoration projects that contribute to the rebuilding of the Plan Species. An important aspect of this program is to assist project sponsors in developing practical and effective applications for relatively large projects. Many habitat projects are increasingly complex in nature and require extensive design, permitting, and public participation to be feasible. Often, a reach-level project involves many authorities and addresses more than one habitat factor. To address this, the General Salmon Habitat Program was designed to fund relatively long-term projects. There is no maximum financial request in the General Salmon Habitat Program; the minimum request is \$25,000.

In an effort to coordinate with ongoing funding and implementation programs within the region, the Tributary Committees used the previously established technical framework and review process for this area, and worked with the other funding programs to identify cost-sharing procedures.

2.4.3.1 2005 General Fund Projects

The Wells Tributary Committee approved two projects for funding from the 2005 General Salmon Habitat Program project solicitation (actual approval occurred on January 12, 2006). The two funded projects were: 1) the Okanagan River Restoration Initiative Phase III, funding the design and site preparation for a levy setback and channel reconfiguration project on the Okanagan River in Canada (\$191,038); and 2) the Methow Riparian Protection Phase III, funding the purchase of conservation easements on three properties on the upper Methow River (\$1,177,500). At the time of this report, both projects are underway, and one is nearing completion. The total amount allocated for the two funded projects was \$1,368,538; of that total, \$150,000.50 was disbursed in 2006 for the Okanagan River Restoration Initiative

Phase III, and \$812,700.00 was disbursed for the Methow Riparian Protection Phase III.

2.4.3.2 2006 General Fund Projects

The Tributary Committees announced their request for project proposals in March 2006, with an application due date of September 30, 2006. The Committees received 21 applications to the General Salmon Habitat Program, about the same number as in 2005, the Tributary Committees' first year of operation. While most of the 2005 projects were "cost-shares" with the SRFB, almost all projects (15 of 21) received in 2006 were submitted in whole to both the SRFB and the Tributary Committees. Moreover, several of these same projects were also submitted for funding by BPA under the Northwest Power and Conservation Council's (NPCC) Fish and Wildlife Program. In December 2006, the SRFB approved funding for eight of these projects, obviating the need for funding by the HCP Tributary Committees. Moreover, the Washington Delegation of the NPCC released its funding recommendations in November 2006, and some of the remaining projects were recommended for funding by BPA.

The Tributary Committees reviewed the remaining proposals and agreed to fund the Elbow Coulee Floodplain Restoration Project, Phase 1 by the Methow Salmon Recovery Foundation (MSRF) for the total of \$83,080. The Tributary Committees did not specify which Plan Species account would fund this project, and asked the two PUDs to identify which account would be most appropriate and report back to the Tributary Committees. MSRF had also submitted an application to BPA requesting funding for the Elbow Coulee project, and, at the time of the Tributary Committees' funding decision, the potential for BPA funding for the project appeared likely. Subsequently, BPA funding for the Elbow Coulee project was secured, and the Tributary Committees asked MSRF to decide between the BPA funds or the Tributary Committee funds. MSRF elected to decline funding by the Tributary Committees in favor of the BPA funding for two reasons: 1) the Tributary Committee had negotiated a reduced scope for the project and was thus offering less money than BPA; and 2) the BPA funding offered programmatic Endangered Species Act

permit coverage for the proposed in-stream work, representing substantial savings in permitting costs, staff workload, and implementation time.

Ultimately, all of the projects submitted to the Tributary Committees and the SRFB in 2006 were funded by either the SRFB or BPA. Since many of the habitat project applications from the 2005 and 2006 project-solicitation rounds were submitted to all three of these funding sources, the Committees are working with the SRFB and NPCC staff to ensure close coordination—and to eliminate duplication in future funding rounds. Such coordination will be an ongoing effort for the Tributary Committees. The situation in 2006 that resulted from the overlapping funding sources with near-parallel processes has prompted the Committees to consider long-term approaches to reduce this duplication of effort, and perhaps establish a unique niche for the Tributary Committees.

2.4.4 Small Projects Program

The Small Projects Program has an application and review process that increases the likelihood of participation by private stakeholders that typically do not have the resources or expertise to go through an extensive application process. The Committees encourage small-scale projects by community groups, in cooperation with landowners, to support salmon recovery on private property. Project sponsors may apply for funding at any time, and in most cases, will receive a notification of funding within three months. The maximum contract allowed under the Small Projects Program is \$25,000.

In 2006, the Tributary Committees received two requests for funding under their Small Projects Program, of which one was approved for funding. The Rocky Reach Tributary Committee funded the Entiat PUD Canal Juvenile Habitat Enhancement project for the amount of \$23,640. This project is part of a larger effort by many jurisdictions to develop juvenile salmonid rearing habitat in a side-channel to the Entiat River.

3 HCP ADMINISTRATION

This section lists events of note that occurred in 2006 related to the administration of the HCPs.

3.1 Mid-Columbia HCP Forum

Similar to 2005, in March 2006, representatives of the HCP Committees (Coordinating, Hatchery, and Tributary Committees) participated in Mid-Columbia Forum (Forum) meetings. The Forum was designed as a means of communicating and coordinating with the non-signatories and other interested parties on the implementation of HCP. This year's Forum was separated into two meetings in order to provide opportunities for the participation of stakeholders in various geographic areas. The Forums were held at the Methow Valley Community Center in Twisp, Washington on March 28 from 12:30 pm to 4:30 pm with an additional question/answer session from 6:00 to 8:30 pm, and at the Confluence Technology Center in Wenatchee, Washington from 12:30 to 4:30 pm on March 29; meeting minutes were prepared (Appendix E). Current non-signatory parties at the time of the 2006 meeting included the Confederated Tribes of the Umatilla Reservation and American Rivers. These parties were invited by letter to review and comment on the agenda and to attend the Forum, in conformity with the 2005 FERC Order on Rehearing 109 FERC 61208 and in accordance with the offer to non-signatory parties of non-voting membership in HCP Tributary and Hatchery Committee processes (Appendix K). The parties did not comment on the agenda and were not in attendance at the Forums.

3.2 Policy Committees Meeting

The Policy Committees met on December 14, 2006, to review progress on implementation of the HCPs, and discuss HCP topics that had yet to be resolved. Topics discussed included progress toward a BKD management plan; a process for allocation of surplus HCP hatchery production; the decision as to whether coho are a Plan Species that requires mitigation, or whether to continue to defer this decision; and the distinct roles of the U.S. v. Oregon process and the Mid-Columbia HCP process. The meeting also served as an opportunity to welcome the new members of the HCP Committees.

3.3 HCP Related Reports Published in Calendar Year 2006

The following is a list of reports released in 2006 related to the implementation of the Wells HCP:

- WDFW. 2006. Memorandum from Michael Humling and Charlie Snow of WDFW to Rick Klinge of Douglas PUD. Date: 3 February 2006. Subject: Methow Hatchery 2003 Brood Spring Chinook Salmon Production.
- WDFW. 2006. Memorandum from Charlie Snow of WDFW to Rick Klinge of Douglas PUD. Date: 3 February 2006. Subject: Wells Hatchery 2003 Brood Summer Chinook Salmon Production.
- Humling, M.H. and C. Snow. 2006. Spring Chinook Spawning Ground Surveys in the Methow River Basin in 2005. Prepared for: Public Utility District No. 1 of Douglas County. March 2006.
- Columbia Research. 2006. 2005 Public Utility District No. 1 of Douglas County: Northern Pikeminnow Removal and Research Program. Prepared for: Public Utility District No. 1 of Douglas County, 1151 Valley Mall Parkway, East Wenatchee, WA 98802-4497. March 4, 2006.
- Anchor Environmental, L.L.C. 2006. FINAL - Review of Management of Bacterial Kidney Disease in the Pacific Northwest. Prepared for Wells, Rocky Reach and Rock Island Habitat Conservation Plans Hatchery Committees and Priest Rapids Coordinating Committee. Anchor Environmental, L.L.C., 1423 Third Avenue, Suite 300, Seattle, WA 98101, March 8, 2006.
- LGL Limited Environmental Research Associates and Public Utility District #1 of Douglas County. 2006. Wells Bull Trout Monitoring and Management Plan 2005 Annual Report. Wells Hydroelectric Project, FERC No. 2149. March 30, 2006.
- Public Utility District No. 1 of Douglas County. 2006. Annual Report of Operations, Fish Facilities: 2005. Wells Hydroelectric Project, FERC No. 2149. April 2006.
- Snow, C., and A. Fowler. 2006. Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005. Prepared for: Public Utility District No. 1 of Douglas County. May 2006.
- Hays, S., T. Hillman, T. Kahler, R. Klinge, R. Langshaw, B. Lenz, A. Murdoch, K. Murdoch, and C. Peven. 2006. Analytical Framework for Monitoring and Evaluating PUD Hatchery Programs. Final. Prepared for: Habitat Conservation Plans Hatchery Committee. September 20, 2006.

APPENDIX A

HABITAT CONSERVATION PLAN COORDINATING COMMITTEES MEETING MINUTES AND CONFERENCE CALL MINUTES

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Chuck Peven

Date: March 1, 2006

Re: Final Minutes of January 24, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Gateway Hotel in SeaTac, Washington, on January 24, 2006 from 9:30 am to 2:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final December Meeting Minutes to the Coordinating Committees by email (Item I).
- Ali Wick will forward the list of items funded by the Tributary Committees to the Committees (Item II).
- Mike Schiewe will send the final text of the decision on ownership of Plan Species Accounts to the Coordinating Committees (Item II).
- Shaun Seaman will send the finalized 404 Federal Energy Regulatory Commission (FERC) Report to Ali for distribution to the Committees (Item III).
- Ali Wick will revise the final Statement of Agreement for the Biological Evaluation for the Rocky Reach Juvenile Fish Bypass System as amended at the meeting and send it out to the group as final (Item IV).
- Shaun Seaman will send the revised list and schedule of 2006 reports and study plans to the Committees; this will be a decision item at the next meeting (Item VI).
- Committees members will provide comments to Chelan Public Utility District (PUD) on the Study Plan for the Biological Evaluation for the Juvenile Fish Bypass System at Rocky Reach by February 11, 2006 (Item VI).

- Chuck Peven will provide the document “Strategy to Determine Sources of Mortality for Sockeye Salmon Passing through Rocky Reach Dam” to Ali Wick for distribution to the Committees (Item VI).
- Ali Wick will send the proposal for Interim Review of the HCP Hatchery and Tributary Programs to the Coordinating Committees (Item VIII-A).
- Mike Schiewe will provide a draft agenda for the Mid-Columbia Forum on Thursday, January 26, 2006 for Committees’ review (Item VIII-B).
- Ali Wick will provide the service list for the Mid-Columbia Forum to Shaun Seaman and Rick Klinge; Bob Rose will provide a list of invitees to Ali Wick (Item VIII-B).

DECISION SUMMARY

- The Committees approved the 404 FERC Report for Rocky Reach and Statement of Agreement as amended at the meeting (Item III).
- The Committees approved the Statement of Agreement for the Biological Evaluation for the Rocky Reach Juvenile Fish Bypass System with modified text to state that the Committees agree “with the findings stated in the report and accept the report as final” (Item IV).
- The Committees approved the Statement of Agreement for the Predator Impact Proposal (Item V).

Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the December 2005 Meeting Minutes. The Meeting Minutes were approved with no amendments and Ali Wick will send out final Meeting Minutes by email. Attendees to this meeting are listed in Attachment A to these Meeting Minutes.

Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following items have been discussed in the Hatchery Committees:

- Decision Rules for Monitoring and Evaluation (M&E) Program (presentation by Tracy Hillman of BioAnalysts)

- Lake Wenatchee sockeye program (presentation by Andrew Murdoch of Washington Department of Fish and Wildlife [WDFW])
- Draft Bacterial Kidney Disease (BKD) White Paper (presentation by Mike Schiewe) and document out for review
- Wells Hatchery screen construction update
- Chewuch Weir process
- 2006 Douglas PUD Action Plan
- Steelhead Acclimation Proposal in Wenatchee
- Proposal to Acclimate Turtle Rock Island Production Fish
- Memo on protocol for Work Requests for Chelan PUD
- Upcoming Bilateral Okanogan Basin Technical Working Group (BOBTWG) meeting in Canada
- Acclimation of coho presmolts at Wells Hatchery by Yakama Nation
- Chelan M&E Request for Proposal (RFP) decision process
- Fish Health Update and Recommendation at Chiwawa Ponds
- Reference stream selection

Mike Schiewe updated the group that the Tributary Committees have made decisions on the following:

- Final decisions for projects and easements to be funded in 2006 (including small projects). Ali Wick will forward the list of funded items to the Coordinating Committees.
- Ownership of the Plan Species Accounts. Mike Schiewe will send the final text describing fund ownership to the Coordinating Committees.

I DECISION POINT: 2005 Article 404 Report to FERC (Shaun Seaman)

Shaun Seaman introduced this topic of an Article 404 Report for Rocky Reach to the FERC on construction and study results from 2005-2006 for the Juvenile Fish Bypass System. This report is due February 15. The Committees approved the report and Statement of Agreement (Attachment B.1). Shaun Seaman will send the finalized report to Ali for distribution to the Committees (Attachment B.2).

II DECISION POINT: Biological Evaluation for the Rocky Reach Juvenile Fish Bypass System (Shaun Seaman)

Shaun Seaman introduced this topic of the Biological Evaluation for the Rocky Reach Juvenile Fish Bypass System. The Committees approved the Statement of Agreement with modified text to state that the Committees agree “with the findings stated in the report and accept the report as final.” Ali Wick will send out the final Statement of Agreement and send it out to the group as final (Attachment C).

III DECISION POINT: Predator Impact Proposal (Shaun Seaman)

Shaun Seaman introduced this topic of the Predator Impact Proposal and the proposed predator impact study. The Committees approved this Statement of Agreement as final (Attachment D).

IV Updates: Chelan PUD (Shaun Seaman)

Shaun Seaman distributed a list and schedule of reports and study plans that will be provided to the Committees for review and comment. The list and schedule will be up for approval as a decision item at the next meeting. Committees members will provide comments to the previously provided Study Plan for the Bypass Evaluation to Chelan PUD by February 11, 2006.

Chuck Peven will provide the document “Strategy to Determine Sources of Mortality for Sockeye Salmon Passing through Rocky Reach Dam” to Ali Wick for distribution to the Committees. This will be up for approval as a decision item at the next meeting.

V Updates: Douglas PUD (Rick Klinge)

Rick Klinge updated the Committees that the Proposed 2006 Juvenile Bypass Operating Plan has been provided and this item will be a decision item at the next meeting. Klinge also provided the 2006 Action Plan for the Wells HCP for the Committees’ information.

VI Other Items (Mike Schiewe)

A. *Proposal for Interim Review of HCP Hatchery and Tributary Programs*

Mike Schiewe updated the Committees that the Hatchery Committees were somewhat equivocal about the proposed workshop to review progress and controversies associated with the hatchery and tributary habitat program, and that the proposal was currently on hold. Carmen Andonaegui and Bob Rose indicated that they were interested in the discussion moving forward sooner rather than later. For their information, Ali Wick will send this proposal to the Coordinating Committees.

B. Mid-Columbia Forum(s)

Mike Schiewe introduced this topic by saying that there has been some confusion over the term “Mid-Columbia Forum” because it had been used for both 1) a meeting with the non-signatories, and 2) a meeting with the broader public in the regions where different aspects of the HCPs were being implemented.

With regard to the former, Mike Schiewe updated the Committees that he had sent a letter to the HCP non-signatories asking about their interest in a meeting with the HCP Committees to learn of progress toward No Net Impact (NNI) and answer any questions they had. The HCP signing Parties have previously informed FERC that they were willing to meet with the non-signatories periodically as a means of continuing coordination. Schiewe will inform the Committees when and if he hears back.

With regard to the latter, Schiewe indicated that final decisions on agenda, date, and location needed to be made ASAP so that the public could be notified. The strategy for this year’s Forum meeting was to hold two sessions: one in the Pateros or Twisp area, and one in the Wenatchee area, both with a focus on public interaction and one-on-one discussion between Committee members and interested citizens. Bob Rose and Carmen Andonaegui commented that they have interest in supporting some overlap between the Upper Columbia River Salmon Recovery Board and the HCP; the Committees discussed that the Board would be invited to the Forum.

The Committees selected two dates for Forums: March 28 in Twisp (12:30 pm to 4:30 pm) and March 29 in Wenatchee (Convention Center – 12:30 pm to 4:30 pm). Mike Schiewe will provide a draft agenda for Committees’ review by January 26. Ali Wick will provide the

working service list for the Forum to Shaun Seaman and Rick Klinge; Bob Rose will provide a list of invitees to Ali Wick.

C. Annual Report Outline

Ali Wick confirmed the schedule and deliverables for the Annual Reports. The PUDs will provide comment on the Annual Report Outline by Thursday, January 26.

D. Critical Habitat

Ritchie Graves updated the Committees that National Marine Fisheries Service (NMFS) received a letter from Douglas PUD requesting that the project area of the HCP not be considered for critical habitat. Graves indicated that this topic had been the subject substantial internal discussion, and that a decision had not yet been made.

E. Next Meeting

The next meeting will be held on Tuesday, February 28 at the Radisson in SeaTac.

List of Attachments

Attachment A	List of Attendees
Attachment B.1	Approved Statement of Agreement for Article 404 Report to FERC for Rocky Reach
Attachment B.2	Approved Article 404 Report to FERC for Rocky Reach
Attachment C	Approved Statement of Agreement for Biological Evaluation for Rocky Reach Juvenile Fish Bypass System
Attachment D	Approved Statement of Agreement for the Predator Impact Proposal

Attachment A
List of Attendees

Name	Organization
Mike Schiewe *	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Ritchie Graves *	NMFS (by conference call)
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW
Bob Rose *	Yakama Nation

* Denotes Coordinating Committees member

ATTACHMENT B.1

**APPROVED STATEMENT OF AGREEMENT FOR ARTICLE 404
REPORT TO FERC FOR ROCKY REACH**

**Statement of Agreement
2005 Article 404 Report to FERC
Rocky Reach HCP Coordinating Committee
January 24, 2006**

The Rocky Reach HCP Coordinating Committee has reviewed the Rocky Reach Bypass System report and agrees with the findings stated in the report and has no comments to include with the report.

ATTACHMENT B.2

**APPROVED ARTICLE 404 REPORT TO FERC FOR ROCKY
REACH**



PUBLIC UTILITY DISTRICT NO. 1 *of* CHELAN COUNTY

P.O. Box 1231, Wenatchee, WA 98807-1231 • 327 N. Wenatchee Ave., Wenatchee, WA 98801
(509) 663-8121 • Toll free 1-888-663-8121 • www.chelanpud.org

February 11, 2005

Ms. Magalie Roman Salas, Secretary
FEDERAL ENERGY REGULATORY COMMISSION
Mail Code: DHAC, PJ-12.3
888 First Street NE
Washington, DC 20426

Subject: Rocky Reach Hydroelectric Project, FERC No. 2145-055
Article 404 – Juvenile Survival Study / Operation Modification Reports

Dear Secretary Salas:

Article 404 of the January 26, 2003, Order Modifying and Approving Plan for Assessing Operation Effects of the Juvenile Bypass System, directs the Public Utility District No. 1 of Chelan County (Chelan PUD) to provide a report to the Federal Energy Regulatory Commission (FERC) summarizing the results of the previous year's (2004) survival study and a schedule for the next year's (2005) monitoring, as well as report on any changes to the operations and maintenance of the juvenile bypass system. This report includes the Habitat Conservation Plan Coordinating Committee's (Committee) comments and Chelan PUD's response to the comments.

Enclosed are an original and seven copies. Please forward any questions regarding this filing or requests for additional information to the FERC Compliance Manager, Chelan PUD, 327 North Wenatchee Avenue, Wenatchee, Washington 98801.

Sincerely,

Rosana Sokolowski
Licensing and Compliance Coordinator

cc: Michelle Smith, Chelan PUD
Andrew Grassell, Chelan PUD

Attachments: original and seven copies

ROCKY REACH HYDROELECTRIC PROJECT NO. 2145

ARTICLE 404

2004 JUVENILE SURVIVAL STUDIES & RESULTS

2005 SCHEDULE AND STUDY PLAN

2004 JUVENILE FISH BYPASS OPERATION

2005 JUVENILE FISH BYPASS OPERATION

FEBRUARY 11, 2005

2004 Studies and Results

2004 was the first year of studies designed to measure juvenile salmonid survival at Rocky Reach Dam in accordance with the requirements stated in the Rocky Reach Habitat Conservation Plan (HCP). Survival of the four permit species (yearling Chinook, steelhead, sockeye, and subyearling Chinook) was measured with the results provided to the HCP Coordinating Committee (Committee). Project survival estimates were generated for all four species using acoustic tags (1,000 tags per species). Due to the relative newness of using acoustic tags to measure project survival, the Committee requested that a PIT-tag and acoustic tag side-by-side comparison study be conducted through the Rocky Reach Project with yearling Chinook in 2004. Chelan PUD released 100,000 PIT tagged yearling Chinook to accomplish this request. The results of the comparison were very close (see Table 1), and the Committee has agreed to the use of acoustic tags for all future yearling Chinook and sockeye studies. A similar comparison study using steelhead will take place in 2005.

Table 1. 2004 Survival Study Results

Species	Survival Estimate- Acoustic Tag (Percent)	Standard Error (Percent)	Survival Estimate- PIT tag (Percent)	Standard Error (Percent)
Yearling Chinook	92.9	1.96	92.6	1.23
Steelhead	98.3	1.84	NA	NA
Sockeye	83.5	2.13	NA	NA
Subyearling Chinook	Invalid	3.14	NA	NA

In the HCP, three years of study results are averaged to determine if the Project Operations are meeting the goal of 93%. Two of the species, yearling Chinook (both PIT and acoustic tags) and steelhead are either close or have exceeded this goal for the first year. Because the estimate was low for sockeye, more information is needed to determine if mortality or some other factor (such as synergistic tag effects) was actually measured in 2004. The Committee has agreed to a study plan for 2005 that will help make this determination. The Standard Error for subyearling Chinook was greater than the criteria agreed to in the HCP to automatically make it a valid study. Although the Committee could have agreed to the survival estimate, an independent tag effect study conducted in 2004 indicated that actual project-related survival may not have been measured. Instead, it appears the survival study likely measured the effect of the tag and the procedure used to implant the device. At this time, Chelan PUD and the Committee have agreed that current tags and/or techniques do not exist for measuring survival for subyearling Chinook. The Committee and Chelan PUD have agreed to postpone additional survival studies on subyearling Chinook until a more suitable tagging methodology is developed.

2005 Schedule and Study Plan

Information learned from the 2004 studies has been used as the foundation for the 2005 study plan and schedule which has been approved by the Committee. In 2005, Project survival will be measured for steelhead, yearling Chinook, and sockeye salmon using 1,000 acoustic tags per species. In addition, 80,000 PIT tagged steelhead will also be released to provide a comparison of estimates between PIT and acoustic tags. These studies will begin on April 15 and will be completed by May 31. In addition to the project survival studies, additional behavioral information on sockeye and yearling Chinook will be gathered to help guide Chelan PUD (with input from the Committee) in future operations and studies decisions. Additional detection arrays will be installed in the Rocky Reach reservoir to provide more detail on fish behavior within the reservoir.

2004 Juvenile Fish Bypass Operation

In 2004, the Juvenile Fish Bypass (JFB) operated from April 1 through August 31. In order to determine if fish were passing through the bypass safely, fish were collected and their condition was assessed for descale, injury, and mortality. These levels were compared against a pre-agreed to descale, injury, mortality threshold diagram (see Table 2) which would determine if marked-fish releases were to be made, or if the bypass system would require shutdown.

Table 2. Flow diagram of proposed phased approach and threshold values for conducting marked-fish releases in the juvenile bypass system at Rocky Reach Dam (Skalski and Townsend 2003).

Phase 1			Phase 2			Phase 3			Phase 4		
<i>Threshold</i>		5% initl			A*+5%			A*+15%			
Descale	Index sampling for for descale rate	→	Mark-releases to est. ambient descale	→	In-system mark-releases to isolate descale problem	→	Refer to HCP Coordinating Committee (HCPCC)				
<i>Threshold</i>		3% initl			A*+3%			A*+10%			
Injury	Index sampling for for injury rate	→	Mark-releases to est. ambient injury	→	In-system mark-releases to isolate injury problem	→	Temp. bypass shutdown; refer to HCPCC				
<i>Threshold</i>		2% initl			A*+2%			A*+4%			
Mortality	Index sampling for for mortality rate	→	Mark-releases to est ambient mortality	→	In-system mark-releases to isolate mortality problem	→	Temp. bypass shutdown; refer to HCPCC				

A* = Ambient percentage

Results of the monitoring are in Table 3 and show that the JFB operated effectively and in compliance with required permits.

Table 3. Season-wide estimates of descale, injury and mortality from biological monitoring at Rocky Reach Dam's juvenile sampling facility, 2004.

Species	No. of fish examined	Percent Descal	Percent Injury	Percent Mortality
YEARLING CHINOOK	5799	2.44%	0.48%	0.19%
SUBYEARLING CHINOOK	6486	1.34%	0.09%	0.08%
STEELHEAD	3061	1.89%	0.52%	0.00%
SOCKEYE	3833	1.28%	0.16%	0.00%
COHO	2068	3.05%	0.29%	0.19%

2005 Juvenile Fish Bypass Operation

There will be no changes to the Juvenile Fish Bypass Operations and Maintenance in 2005. Additionally, there are no proposed structural or design changes to the Juvenile Fish Bypass System for 2005.

Reference

Skalski, J. R., and R. L. Townsend. 2003. Protocol for conducting Marked-releases in the bypass system at Rocky Reach Dam. Prepared for Chuck Peven and Thad Mosey, Public Utility District No. 1 of Chelan County. Columbia Basin Research School of Aquatic and Fishery Sciences, University of Washington.

ATTACHMENT C

**APPROVED STATEMENT OF AGREEMENT FOR BIOLOGICAL
EVALUATION FOR ROCKY REACH JUVENILE FISH BYPASS
SYSTEM**

Statement of Agreement
Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System 2005
Rocky Reach HCP Coordinating Committee
January 24, 2006

The Rocky Reach HCP Coordinating Committee has reviewed the 2005 Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System report and agrees with the findings stated in the report and accepts the report as final.

ATTACHMENT D

**APPROVED STATEMENT OF AGREEMENT FOR THE
PREDATOR IMPACT PROPOSAL**

Statement of Agreement for Predator Impact Study in 2006

Agreement:

The Coordinating Committee agrees that Chelan PUD should move forward with a proposed predator impact study as outlined in the document, *Proposal to Qualitatively Estimate Predator Residency and Impact in the Upper Rocky Reach Reservoir*, by Peven et al., December 2005.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Chuck Peven, and Bryan Nordlund

Date: April 6, 2006

Re: Final Minutes of February 28, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Gateway Hotel in SeaTac, Washington, on Tuesday, February 28, 2006 from 9:30 am to 2:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final January 24 Meeting Minutes to the Coordinating Committees by email (Item I).
- Bob Rose will contact Mike Schiewe on Monday, March 6, to confirm his vote on various decision items (Items III through V).
- Rick Klinge will send the approved Douglas PUD Action Plan to Ali Wick for distribution to the Committees (Item VIII).
- Mike Schiewe will contact Coordinating Committee members before the end of next week (March 10) to discuss an agenda for the Mid-Columbia Coordination Meeting (Item IX).
- At Bryan Nordlund's request, Shaun Seaman will provide an email to the Coordinating Committees regarding the status of the downlooking transducer at the right powerhouse entrance for measuring water elevation (Item X-C).
- Ali Wick will email the current attendee list for the Mid-Columbia Forum breakout groups to the Coordinating Committee members, and will set up a conference call for the members to discuss potential questions and responses (Item XII-A).

DECISION SUMMARY

- The Committees approved the Statement of Agreement and the 2006 Survival Study Plan for Chelan PUD (Item III).
- The Committees approved the Statement of Agreement and the 2006 Route-Specific Passage (RSP) Study Plan for Chelan PUD (Item IV).
- The Committees approved the Statement of Agreement and the *Study Plan for the Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System* (Item V).
- The Committees approved the Statement of Agreement and the *Strategy to Determine Sources of Sockeye Salmon Mortality Passing through Rocky Reach Dam* (Item VI).
- The Committees approved the 2006 Wells Bypass Operating Plan (Item VII).
- The Committees approved the 2006 Douglas PUD HCP Action Plan (Item VIII).

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the January 24, 2006 Meeting Minutes. The Meeting Minutes were approved with no amendments and Ali Wick will send out final Meeting Minutes by email. Attendees to the February 28, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following items have or are being discussed in the Hatchery Committees:

- Development of a Chelan PUD Monitoring and Evaluation (M&E) Implementation Plan, and contractor scopes of work
- Progress made by the Decision Rules Subcommittee (Yakama Nation, Washington Department of Fish and Wildlife [WDFW], BioAnalysts, Chelan PUD, Douglas PUD) in developing analytical protocols for Chelan and Douglas PUD M&E data
- Selection of M&E reference criteria for Plan Species, and assignment of the Decision Rules Subcommittee to develop a list of candidate streams
- Development of an “Analytical Team Approach” for analyzing Chelan PUD M&E data
- Update on the Integrated Status and Effectiveness Monitoring Program (ISEMP) that is funded by the Bonneville Power Administration

- Progress by Douglas PUD in selecting a new site for a Chewuch weir
- Progress of the Steelhead Acclimation Subcommittee in selecting potential sites in Wenatchee subbasin
- Status of the Lake Wenatchee sockeye program

Mike Schiewe updated the group that the Tributary Committees have been mostly working through contracting issues regarding the projects selected to receive funding through the 2006 Tributary Fund.

III DECISION POINT: 2006 Survival Study Plan (Shaun Seaman)

Shaun Seaman introduced this topic and asked for the Committee's approval of the Survival Study Plan for 2006 and the Statement of Agreement for this document. The Committees (with the exception of Bob Rose of the Yakama Nation) approved the Statement of Agreement and the Study Plan (Attachment A); Rose asked for additional time to review the Study Plan. On March 6, 2006, Rose contacted Mike Schiewe by e-mail to indicate that he had reviewed the Study Plan and concurred with the Committees in approving the Study Plan.

IV DECISION POINT: 2006 Route-Specific Passage Plan (Shaun Seaman)

Shaun Seaman introduced this topic and asked for the Committee's approval of the RSP Study Plan for 2006 and the Statement of Agreement for this document. Seaman clarified that the study will use essentially the same methodology as in the past, but will also include the collection of qualitative information useful for investigating RSP. With the exception of Bob Rose, the Committees approved the Statement of Agreement and the Study Plan (Attachment B). On March 6, 2006, Rose contacted Mike Schiewe by e-mail to indicate that he had reviewed the Study Plan and concurred with the Committees in approving the Study Plan.

V DECISION POINT: Study Plan for Biological Evaluation of Rocky Reach Juvenile Fish Bypass System (Shaun Seaman)

Shaun Seaman introduced this topic and asked for the Committee's approval of the *Study Plan for the Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System* and the Statement of Agreement for this document. Bryan Nordlund asked for clarification of how

Chelan PUD considered the effect of debris accumulating on the screens and trash racks in the bypass system. He noted that these were cleaned at intervals or as needed during the passage season, and asked about the cleaning protocol during biological evaluation of the bypass system and whether Chelan PUD considered this evaluation protocol to adequately represent actual operating conditions. Chuck Peven clarified that the Study Plan stated that the screens would be regularly cleaned during the period the bypass operated.

With the exception of Bob Rose (Yakama Nation), who requested additional time to review the Study Plan, the Committees approved the Statement of Agreement and the Study Plan (Attachment C). On March 6, 2006, Rose contacted Mike Schiewe by e-mail to indicate that he had reviewed the Study Plan and concurred with the Committees in approving the Study Plan.

VI DECISION POINT: Strategy to Determine Sources of Sockeye Mortality Passing Through Rocky Reach Dam (Chuck Peven)

Chuck Peven introduced this topic and asked for the Committee's approval of the *Strategy to Determine Sources of Sockeye Salmon Mortality Passing Through Rocky Reach Dam* and the Statement of Agreement for this document. This study is intended to investigate the various sources of mortality at Rocky Reach for sockeye, including predation by mergansers and piscivorous fish species. The Committees approved the Statement of Agreement and the document (Attachment D).

VII DECISION POINT: 2006 Wells Bypass Operating Plan (Rick Klinge)

Rick Klinge introduced the 2006 Wells Bypass Operating Plan and asked for the Committee's approval of the plan. The Committees approved this plan as written.

VIII DECISION POINT: 2006 Douglas PUD HCP Action Plan (Rick Klinge)

Rick Klinge introduced the 2006 Douglas PUD HCP Action Plan and asked for Committee agreement with the plan. Klinge provided updates to several items shown on the plan, including the Chewuch weir and the Wells Hatchery surface water intake screens. The Committees approved this plan with minor changes; Rick Klinge will send this to Ali Wick for Committees distribution.

IX Mid-Columbia Coordination (Carmen Andonaegui)

Carmen Andonaegui brought up this topic to discuss the coordination between various processes in the Mid-Columbia (HCP Committees, Priest Rapids Coordinating Committees [PRCC], and others). Andonaegui noted that the PRCC will be discussing at their next meeting the idea of selected committees meeting on a quarterly basis in a combined meeting. Bryan Nordlund expressed his support for this idea. Bob Rose also expressed support and commented that setting something like this up has been tried in the past, but has lost momentum after one or two meetings. The Committees agreed that following this week's PRCC meeting, the HCP Coordinating Committees could compile a list of items that would benefit from this type of coordination, identifying which HCP Committees would potentially be involved, and potential agenda items. Mike Schiewe will contact Coordinating Committee members before the end of next week (March 10) to discuss this.

X Updates: Chelan PUD (Shaun Seaman)

A. Predator Study Program

Chuck Peven updated the Committees on the predator study program; the program was successful in February in marking 10 walleye and five pikeminnow in the upper Rocky Reach Reservoir. Water temperature has been approximately 38 degrees. The largest walleye caught was approximately 11 pounds. Stomach contents examined so far have contained stickleback and ammocoetes (lamprey larvae).

B. Rock Island Smolt Trap Data and DART

Shaun Seaman updated the Committees that Rock Island Smolt Trap data will continue to be collected and will still be posted to the Columbia River DART system (Data Access in Real Time) during the transition of Fish Passage Center duties.

C. Ladder Outages at Rock Island

Shaun Seaman updated the Committees that Chelan PUD has prepared a ladder outage report outlining the outage dates and the work that had been accomplished for the Committees. Shaun Seaman provided the 2006 Electrical Fish Ladder Overhaul document, with work orders and work notes, for the Committees information. At Bryan Nordlund's

request, Seaman will provide an email to the Committees on the status of installing a down-looking transducer at the right powerhouse entrance for measuring water elevation.

XI Updates: Douglas PUD (Rick Klinge)

Rick Klinge mentioned that Douglas PUD anticipates providing an update on the Chewuch weir process to interested parties at the Mid-Columbia Forum.

XII Other Items (Mike Schiewe)

A. Mid-Columbia Forums

Mike Schiewe updated the Committees that notifications have been sent out for the Mid-Columbia Forums on March 28 and 29. The agenda will be sent out this week. Ali Wick will send around the current attendee list for the breakout groups and will set up a conference call so that members from the Hatchery and Tributary Committees can discuss potential questions that might be raised in the breakout sessions.

B. Next Meeting

The next meeting will be held on Tuesday, March 27 at noon at Chelan PUD.

List of Attachments

Attachment A	List of Attendees
Attachment B	Approved Statement of Agreement for 2006 Survival Study Plans
Attachment C	Approved Statement of Agreement for Route-Specific Passage Plan
Attachment D	Approved Statement of Agreement for <i>Study Plan for Biological Evaluation of Rocky Reach Juvenile Fish Bypass System</i>
Attachment E	Approved Statement of Agreement for <i>Strategy to Determine Sources of Mortality for Sockeye Salmon Passing through Rocky Reach Dam</i>

Attachment A
List of Attendees

Name	Organization
Mike Schiewe *	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Bryan Nordlund	NMFS
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW
Bob Rose *	Yakama Nation

* Denotes Coordinating Committees member

ATTACHMENT B

**APPROVED STATEMENT OF AGREEMENT FOR 2006 SURVIVAL
STUDY PLANS**

Statement of Agreement
Study Plan for the Estimation of Juvenile Salmonid Survival Using Acoustic Tag
Methodologies at Rocky Reach and Rock Island Dams in 2006
Rocky Reach and Rock Island HCP Coordinating Committees
February 28, 2006

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the Study Plan for the Estimation of Juvenile Salmonid Survival Using Acoustic Tag Methodologies at Rocky Reach and Rock Island Dams in 2006 and accept the plan as final.

ATTACHMENT C

**APPROVED STATEMENT OF AGREEMENT FOR ROUTE-
SPECIFIC PASSAGE PLAN**

Statement of Agreement
Study Plan for Measuring Route Specific Passage Using Acoustic Tag
Methodologies at Rocky Reach and Rock Island Dams in 2006
Rocky Reach and Rock Island HCP Coordinating Committees
February 28, 2006

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the Study Plan for Measuring Route Specific Passage Using Acoustic Tag Methodologies at Rocky Reach and Rock Island Dams in 2006 and accept the plan as final.

ATTACHMENT D

**APPROVED STATEMENT OF AGREEMENT FOR STUDY PLAN
FOR BIOLOGICAL EVALUATION OF ROCKY REACH JUVENILE
FISH BYPASS SYSTEM**

Statement of Agreement
Study Plan for the Biological Evaluation of the Rocky Reach Juvenile Fish Bypass
System 2006

Rocky Reach HCP Coordinating Committee
February 28, 2006

The Rocky Reach HCP Coordinating Committee has reviewed the Study Plan for the Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System, 2006 and accepts the plan as final.

ATTACHMENT E

**APPROVED STATEMENT OF AGREEMENT FOR STRATEGY TO
DETERMINE SOURCES OF MORTALITY FOR SOCKEYE
SALMON PASSING THROUGH ROCKY REACH DAM**

Statement of Agreement
Strategy to Determine Sources of Mortality for Sockeye Salmon Passing Through
Rocky Reach Project
Rocky Reach HCP Coordinating Committee
February 28, 2006

The Rocky Reach HCP Coordinating Committees has reviewed the Strategy to Determine Sources of Mortality for Sockeye Salmon Passing Through Rocky Reach Project and accepts the plan as final.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Becky Gallaher, Chuck Peven, Tom Kahler, Ali Wick, Kris Petersen

Date: April 26, 2006

Re: Final Minutes of March 27, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Chelan PUD Service Building in Wenatchee, Washington, on Monday, March 27, 2006, from 12:00 pm to 2:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final February 28 Meeting Minutes to the Coordinating Committees by email (Item I).
- Shaun Seaman will send the approved *Rocky Reach and Rock Island Hydro Projects 2006 Spill Plan* to Ali Wick for distribution to the Committees (Item III).
- Shaun Seaman will send the approved *Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2005* to Ali Wick for distribution to the Committees (Item IV).
- Chuck Peven will provide a graph showing fish size distribution vs. survival results to Ritchie Graves (Item IV).
- The Committee will provide comments on rock trap dredging to Shane Bickford by April 25, 2006 (Item VI A).
- The Committee will provide comments on debris boom proposal to Rick Klinge by April 25, 2006 (Item VI B).

DECISION SUMMARY

- The Committees approved the Statement of Agreement and the Rocky Reach and Rock Island Hydro Projects 2006 Fish Spill Plan.

- The Committees approved the Statement of Agreement and the Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts through Rocky Reach and Rock Island Reort for 2005.

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the February 28, 2006 Meeting Minutes. There was a minor revision to these Meeting Minutes, and they were approved subject to the change. Ali Wick will send out final Meeting Minutes by email. Attendees to the March 27 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following items have been or are being discussed in the Hatchery Committees:

- Progress is being made on the development of Chelan PUD Monitoring & Evaluation (M&E) Implementation Plan, and contract approval.
- An engineering study by Chelan PUD has identified modifications at the Chiwawa Ponds that will minimize the icing problems and minimize the use of Wenatchee River water.
- A subcommittee of the HCP Hatchery Committees is developing M&E Decision Rules that define analytical protocols for Chelan and Douglas PUD M&E data; the same subcommittee is developing criteria for selection of reference streams.
- A different subcommittee of the HCP Hatchery Committees is developing a list of candidate *near-term* acclimation facilities for steelhead; the list has been narrowed to four sites: Dryden Canal, Blackbird Island, Chiwawa Pond, and Wenatchee River Pump Station.
- Chelan PUD is developing a "Draft Near-Term Production Level Analysis" for the Hatchery Committees to use as a means of starting the discussion about future production levels.
- The Hatchery Committees have agreed to an abbreviated (30-day) review period for technical memoranda.
- The comment period has closed for the Douglas PUD reports "Fish-Water Management Tool: a 25 Year Retrospective Analysis and the FMT 2005 Operation"

and the “Fish Water Management Tool Record of Management Decisions Report for the Year 2004-2005.”

- Douglas PUD updated the Hatchery Committees regarding progress on identifying a site for a Chewuch weir; Douglas PUD will prepare an information sheet for distribution at the Mid-Columbia Forum.
- Plans for Mid-Columbia Forum breakout sessions are being finalized.

Mike Schiewe updated the group that the following items have been or are being discussed in the Tributary Committees:

- The 2006 General Salmon Funding cycle has been established:

DATE	ACTIVITY
28 March	Announce Tributary Fund cycle at Mid-Columbia Forum
1 May	Project sponsor workshop
2 June	Pre-proposals due to Tributary Committees
8 June	Pre-proposals reviewed by Tributary Committees
28 July	Full proposals due to Tributary Committees, lead entities
7-9 August	Project tours and Regional Technical Team reviews
14 September	Project presentations to Tributary Committees
9 November	Tributary Committees make formal decisions
- A Tributary Fund project proposal workshop is scheduled for May 1, 2006.
- Four proposals have been received from accounting firms in response to an RFP to manage the Rocky Reach and Rock Island Tributary Fund accounts.
- The Committee is working on a Delegation of Authority so that the Chair of the Tributary Committees can sign documents regarding the selection of projects and the transfer of funds.

III DECISION POINT: 2006 Rocky Reach and Rock Island Spill Plan (Shaun Seaman)

Shaun Seaman introduced this topic and asked for the Committee’s approval of the research plan *Rocky Reach and Rock Island Hydro Projects 2006 Fish Spill Plan* and the Statement of Agreement accepting the plan as final. The Committees approved the plan and Statement of Agreement (Attachment B). Shaun Seaman will send the final plan to Ali Wick for

distribution to the Committees.

IV DECISION POINT: 2005 Survival Study Results Report (Shaun Seaman)

Shaun Seaman introduced this topic and asked for the Committees' approval of the study report *Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2005* and the Statement of Agreement accepting this report as final. The Committees approved the report and Statement of Agreement (Attachment C). Shaun Seaman will send the final report to Ali Wick for distribution to the Committees. Ritchie Graves approved the report, but requested a graph showing size distribution of the tagged fish vs. survival. Chuck Peven will provide the graph to Graves as requested.

V Updates: Chelan PUD (Shaun Seaman)

A. Hatchery Contracts for Operations and M&E

Shaun Seaman reported that he would be seeking approval of the Washington Department of Fish and Wildlife (WDFW) contract at today's (March 27) Chelan PUD Board of Commissioners meeting. Seaman explained that the operation of the Eastbank and Rocky Reach Annex hatchery programs have been contracted with WDFW under a 2001 agreement with annual amendments. The Chelan Falls Hatchery is under a 1963 agreement with Washington State Department of Game (now a part of WDFW). That agreement is due to expire on June 30, 2006. A new 5-year master agreement with separate task authorizations for all work contracted to WDFW is being reviewed by WDFW and the District. It will not be ready in the near future and agreements are needed to continue hatchery and M&E work. To ensure there are agreements in-place through June 30th 2006, the District is following the same procedure followed in previous years. New agreements should be signed prior to June 30 when the 1963 Chelan Falls agreement expires.

Seaman noted that as of today, the Joint Fisheries Parties (JFP) has not yet provided final comments on the M&E Plan; however, based on a preliminary review at the last Hatchery Committees meetings, and a general agreement that there were no major issues that would affect funding, Seaman will proceed with an interim contract. Edits from the preliminary review have been incorporated into the Plan and were distributed to the JFP for use at their meeting on March 30.

B. Startup of Bypass System

Chuck Peven reported that the first marked fish release for 2006 was conducted on March 24, 2006: two hundred fish were released, with 199 recaptured. Recapture assessment showed that no fish were considered descaled or injured; however, a few fish exhibited minor scratches that were likely caused by the fish brushing up against debris or tumbleweeds. Peven noted that there was no evidence to suggest that a previously expressed concern that fish entering the bypass would become stuck in a water vortex at the bypass entrance (caused by the removal of the cruciform structure last fall). Full operations will take place from April 1 to August 31 with samples being taken at half hour intervals every day between 8:00 a.m. and 11:00 am (four samples daily).

C. Preparation for 2006 Studies

Chuck Peven reported that all staffing and logistical arrangements for the 2006 field research were nearing completion, and crews were mobilized.

D. Predator Study Program

Chuck Peven provided an update on the predator impact study, stating that a total of 25 fish have been successfully tagged. Chuck noted that because the radio tags had not been received until recently, only two of the 25 walleye caught have been tagged with radio tags. Floy tags were used to tag fish until the radio tags were received. Tracking will be conducted in conjunction with bull trout tracking. To date, there have not been any recaptures.

E. Spill Gate #8 Trunnion Bearing Replacement - Update

Chuck Peven provided a brief update on the spill gate #8 trunnion bearing replacement at Rocky Reach Dam; work is scheduled to begin in April 2006 and is expected to be completed by July 8, 2006.

VI Updates: Douglas PUD (Rick Klinge)

A. Rock Trap Excavation – Wells Tailrace

Shane Bickford introduced a proposal for excavation of the Wells Dam spillway rock trap. Bickford noted that most of the debris is large cobble and the accumulation is estimated at

about 10,000 cubic yards, all of which will be removed and barged up stream to be deposited on land. Mike Schiewe asked if hydro operations could cause the one-sided build up of material on the east side of the project. Bickford did not believe that operations would have caused an imbalanced distribution; however, he thought that an earthquake event several years ago may have influenced the distribution.

Because the east side of Wells Dam will have to be shut down, Bickford stated that the work needs to be conducted when flows are lower than 140 cubic feet per second. Hence, Douglas PUD is proposing to conduct the work during July and/or August 2006, or January 2007 when the flows are optimal for this work. All work will be conducted at night and excavation is expected to be complete within 3 weeks. Ritchie Graves commented that Douglas PUD should avoid conducting excavation during the adult spring Chinook and steelhead runs. Bickford noted that Douglas PUD's preferred work window (July – early August) would avoid adult spring chinook and most of the steelhead run. Working at night would also minimize passage delays. Additional comments and recommendations regarding the proposal should be submitted to Douglas PUD by April 25, 2006.

B. Forebay Modification – Debris Boom

Rick Klinge introduced a Douglas PUD proposal for a new debris boom in the Wells forebay, similar to the one located in the Rocky Reach forebay. The current boom does not prevent material from clogging and blocking fish ladder exits, spillways, bypass system, and other components of the dam.

The proposed design shows the boom extending four feet below the water, about 700 feet upstream of the dam. Ritchie Graves raised a question about the potential effect the boom depth would have on downstream passage. Rick Klinge explained that Douglas PUD does not believe the boom would pose any passage interference or other negative effects. But, rather, the PUD believes that the effect would be a benefit by improving fish passage conditions. Chuck Peven added that the 3-D tracking system used by Chelan PUD to track juvenile movement at Rocky Reach Dam shows little effect on passage. Discussion continued, and Ritchie Graves agreed that the impact on juvenile behavior would likely be minimal. Ritchie Graves also raised the issue of the possible effect the boom may have on predation, and particularly predation by fish and birds. He recommended that Douglas

PUD determine if there is relevant research at other dams that could be used to address any potential predation effects. Tom Kahler noted that predation has not been an issue at other hydro projects similar to Wells (e.g., Lower Granite Dam on the Snake River). Additional benefits of the new boom include much more effective debris collection at Wells Dam, as well as reducing the amount of debris arriving at the Rocky Reach bypass system.. Rick Klinge requested comments and recommendations by April 25, 2006.

VII HCP Administration (Mike Schiewe)

A. Mid-Columbia Forums

Mike Schiewe confirmed with the Committee that all was in order for the Mid-Columbia Forums and requested that presentations be sent to Ali Wick and copied to Becky Gallaher at Chelan PUD.

B. Additional Discussion Items

On the occasion of his last meeting, Ritchie Graves (who is moving to a different assignment with the National Marine Fisheries Service) offered the following thoughts:

- Kelt reconditioning: Ritchie Graves noted that reconditioning of steelhead kelts was one of a limited number of ways for increasing productivity of this listed species.
- Survival testing of sockeye salmon at Wells Dam: In light of Chelan PUD tests of juvenile sockeye survival at Rocky Reach and Rock Island Dams, there was a brief discussion regarding whether sockeye survival studies could be conducted at Wells Dam. The ability to obtain run-of-river fish near Wells Dam and the ability to tag and hold fish in a highly turbid environment remain as major limiting factors to a sockeye study at Wells Dam.

C. Next Meeting

The next meeting will be held on Tuesday, April 25, in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment B – Approved Statement of Agreement and 2006 Rocky Reach and Rock Island Spill
Plan

Attachment C – Approved Statement of Agreement and Survival of Yearling Chinook, Sockeye
Salmon, and Steelhead Smolts through Rocky Reach and Rock Island Projects
in 2005

Attachment A
List of Attendees

Name	Organization
Mike Schiewe *	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Becky Gallaher	Chelan PUD
Rick Klinge*	Douglas PUD
Shane Bickford	Douglas PUD
Tom Kahler	Douglas PUD
Ritchie Graves *	NMFS
Kris Peterson	NMFS
Carmen Andonaegui *	WDFW
Bob Rose *	Yakama Nation
Jerry Marco*	Colville Confederated Tribes

* Denotes Coordinating Committees member

ATTACHMENT B

**APPROVED STATEMENT OF AGREEMENT AND 2006 ROCKY
REACH AND ROCK ISLAND SPILL PLAN**

Statement of Agreement
Rocky Reach and Rock Island Hydro Projects 2006 Fish Spill Plan
Rocky Reach and Rock Island HCP Coordinating Committees
March 27, 2006

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the **Rocky Reach and Rock Island Hydro Projects 2006 Fish Spill Plan** and agree with the plan and accept the plan as final.

ATTACHMENT C

**APPROVED STATEMENT OF AGREEMENT AND SURVIVAL OF
YEARLING CHINOOK, SOCKEYE SALMON, AND STEELHEAD
SMOLTS THROUGH ROCKY REACH AND ROCK ISLAND
PROJECTS IN 2005**

Statement of Agreement
Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts
through Rocky Reach and Rock Island Projects in 2005
Rocky Reach and Rock Island HCP Coordinating Committees
March 27, 2006

Background

In accordance with the HCP, Chelan performed survival studies at Rocky Reach and Rock Island on all Plan species in 2005. Hydroacoustic Technology Inc. (HTI) and Columbia Basin Research have prepared a draft final report on the findings from the studies. The report presents the methods, survival estimates, standard errors, and conclusions for the 2004 survival studies at Rocky Reach and Rock Island dams.

Agreement Statement

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the **Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2005** and accept the survival estimates and the standard errors reported by HTI and Columbia Basin Research for the 2005 survival studies at Rocky Reach and Rock Island dams. The HCPCC agree with the methodologies as reported and accept the report as final.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Chuck Peven, Tom Kahler, Ali Wick

Date: May 24, 2006

Re: Final Minutes of April 25, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Gateway Hotel in SeaTac, Washington, on Tuesday, April 25, 2006, from 9:30 am pm to 12:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final March 27, 2006 Meeting Minutes and the March 28 to 29, 2006 Mid-Columbia Forum Meeting Minutes to the Coordinating Committees by email (Item I).
- Mike Schiewe will contact Kris Petersen to discuss 2006 broodstock collection protocols, the resolution of which should involve discussion between Washington Department of Fish and Wildlife (WDFW), National Marine Fisheries Service (NMFS), and the U.S. Fish and Wildlife Service (USFWS). Mike Schiewe will contact the Hatchery Committees to inform them that this discussion is taking place (Item II).
- Mike Schiewe will check with Denny Rohr, who facilitates the Priest Rapids Coordinating Committee (PRCC) meetings, to check in on the progress of a proposed Mid-Columbia meeting agenda for coordination of the PRCC and HCP processes (Item VII-B).

DECISION SUMMARY

- The Committees approved the Statement of Agreement for the Wells Dam rock trap excavation with an edit to the statement that will describe proposed work timing (Item III).

- The Committees approved the installation of the debris boom and the Statement of Agreement with an edit to the statement that will describe proposed work timing (Item IV).

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the March 27, 2006 Meeting Minutes and the minutes from the March 28 to 29, 2006 Mid-Columbia Forum. Both the Meeting Minutes and the Forum Minutes were approved with no revisions. Ali Wick will send out final minutes by email. Attendees to the April 25 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following items have been or are being discussed in the Tributary Committees:

- The Tributary Committees have selected LeMasters and Daniels as fiscal managers of the Plan Species Accounts.
- The Tributary Committees are discussing programmatic permitting options for Tributary Fund projects.

Mike Schiewe updated the group that the following items have been or are being discussed in the Hatchery Committees:

- Monitoring and Evaluation (M&E) Memorandums are to be approved on a different schedule than typical study reports; these will be approved in 30 days, or at the next Hatchery Committee meeting, whichever comes later.
- The Chelan Hatchery M&E Implementation Plan was approved; this is a working document that may change in the future.
- At the next meeting, the Committees will be considering the program shift and location for the summer/fall Chinook yearling program at Chelan Falls (moved from Turtle Rock and changed from a subyearling program).
- The Committees are considering long- and short-term steelhead acclimation sites (currently considering Chiwawa Ponds).
- The Committees are preparing lists of future agenda items for use at upcoming meetings.

- Water source issues at Chiwawa Hatchery are being discussed, and a proposal for winter 2006/2007 will be up for approval at the next meeting.
- The Committees are discussing Bacterial Kidney Disease (BKD) management and action following the completion of the BKD report; Mike Schiewe is preparing a recommendation summary for discussion at the next meeting.
- The Committees are discussing whether current permits would be affected by the proposed net pen rearing of White River spring Chinook in Lake Wenatchee from March to May.
- Douglas PUD is investigating using the Chewuch Dam for broodstock collection, instead of installing a separate weir elsewhere.
- The Yakama Nation is requesting becoming a co-signer to the permits for the spring Chinook M&E work.
- Discussions are ongoing regarding the fate of surplus Wells hatchery summer Chinook that may be transferred to the Colvilles and/or the Yakama Nation; the Committees are generally in agreement with providing these fish to the tribes.
- Draft broodstock collection protocols are being discussed, and issues outside the Committees have been raised. There is an apparent contrast between meeting Section 10 permit conditions for the HCPs and meeting production goals for the U.S. v. Oregon proceeding.
- WDFW is investigating natural production monitoring in the Methow Basin by Passive Integrated Transponder (PIT) tagging spring Chinook at the west ladder of Wells Dam, with the goal of investigating fish per-redd-ratios.
- WDFW is currently preparing a proposal to rear approximately 100,000 summer Chinook yearlings in net pens in the Chelan River.
- The Committees approved ending the existing practice of lethally sampling sockeye leaving Lake Wenatchee to extract coded-wire-tags. Sampling and reading tags was used to compare survival of early- and late-release fish. Because of significantly higher survival, the current plan is to transition exclusively to a late-release strategy.
- The Yakama Nation provided comments to a WDFW memorandum that was circulated to the Committees regarding volitional versus forced release for spring Chinook in the Wenatchee River. The focus of the comments was that the Yakama Nation is more supportive of volitional release. WDFW will have study results in

- several years that will allow evaluation of a relationship between release strategies and adult returns.
- The Committees agreed that future reports on snorkeling surveys in the Chiwawa River will use the fecundity estimate from Chiwawa broodstock to calculate annual egg deposition.
 - The Committees agreed that Smolt-to-Adult Returns (SARs) should be provided (and noted as draft or final) as a point of reference in each year's M&E Annual Reports.
 - The Committees agreed that for the reason of increased homing fidelity, it is important that the Chelan River is the water source for the new program for Turtle Rock yearlings at Chelan Falls.

The Coordinating Committees discussed the resolution of 2006 broodstock collection protocols. Shane Bickford brought up the subject of whether these protocols should be approved in the HCP Committee process. This was an item of some discussion because these have been approved by the Hatchery Committees in the past; but at this time, there is disagreement between some of the fisheries co-managers regarding the protocols, and the fisheries co-managers are attempting to resolve these disagreements outside the HCP process. To discuss resolving these, Mike Schiewe will contact Kris Petersen of NMFS in order to facilitate discussion between WDFW, NMFS, and the USFWS. Mike Schiewe will contact the Hatchery Committees to inform them that this discussion is taking place.

III DECISION POINT: Rock Trap Excavation (Shane Bickford)

Shane Bickford introduced this topic that Douglas PUD is proposing to excavate material from the rock traps at Wells Dam. This work is a maintenance activity that is typically completed every 10 years. Douglas PUD is proposing to conduct the work at night during this summer because fish passage during this time is typically low (at a flow of less than 140 cubic feet per second), and would be using several barges and a clamshell dredge. The U.S. Army Corps of Engineers (Corps) has communicated that it views this action as a maintenance action associated with routine operation of the dam and will not require additional permitting for this work. Douglas PUD will be discussing with WDFW whether a Hydraulic Project Approval will be needed. The Committees approved the action and the Statement of Agreement with an edit that will include proposed work timing. Bickford will

send the revised Statement of Agreement to Ali Wick for inclusion in the final Meeting Minutes.

IV DECISION POINT: Debris Boom Installation (Shane Bickford)

Shane Bickford introduced this topic, stating that Douglas PUD proposes to install a floating debris boom at Wells Dam. The Committees approved the installation of the debris boom and the Statement of Agreement with the inclusion of an edit to describe proposed project timing. Bickford will send the revised Statement of Agreement to Ali Wick for inclusion in the final Meeting Minutes.

V Updates: Chelan PUD (Shaun Seaman)

A. Spill Update

Chuck Peven updated the Committees that spring spill is ongoing as of April 17, 2006 at Rock Island Dam.

B. Predator Control Update

Chuck Peven updated the Committee that the reservoir long-line predator fishing effort has removed 17,260 fish from both the Rocky Reach and Rock Island reservoirs (13,499 from Rocky Reach and 3,761 from Rock Island)¹. Long-lining will end in the next few weeks and angling will begin on May 1, ending at the end of July.

Thus far in the potential predator tagging study, 14 radio tags have been placed in pikeminnow, 2 radio tags in smallmouth, and 29 radio tags and 25 Floy tags in walleye. Average size for walleye are 22.5 inches, and over 6 pounds. There have been no recaptures so far. Walleye stomachs investigated so far have not included salmonids, but they are currently in spawning season, so this is not unexpected.

C. Survival Study Update

Chuck Peven updated the Committees that there has been one full set of juvenile steelhead releases from one location, including the tailraces of Wells, Rocky Reach, and Rock Island Dams.

¹ These values were updated for these minutes following the meeting, since numbers given at the meeting were inaccurate.

D. Startup of Juvenile Bypass System Update

Chuck Peven updated the Committees that the juvenile bypass system is currently operating at Rocky Reach and was put into operation on April 1, 2006.

VI Updates: Douglas PUD (Shane Bickford)

A. Startup of Juvenile Bypass System Update

Rick Klinge updated the Committees that similar to previous years, the juvenile fish bypass was put into operation on April 12 at 0000 hours.

B. Status Report on Proposed TDG Study in May and June 2006

Shane Bickford updated the Committees that Douglas PUD is drafting the study plan and the study is scheduled to begin in mid-May and end in mid- to late-June. Four different spill regimes will be tested, and tests are expected to take about 2 to 3 hours each. Detailed plans will be available prior to the start of testing. It was discussed that Douglas PUD would need to coordinate this testing with Chelan PUD, who is releasing survival study fish in the Wells tailrace during this same time period.

C. Proposed New Bull Trout Trapping Protocol

Shane Bickford brought up the subject of modifying the existing bull trout trapping protocol from 3 days per week, 16 hours per day in both ladders to a new practice of 6 days per week, 8 hours per day (10 am to 6 pm) on the east fish ladder only. This is being proposed because Douglas PUD has observed that bull trout are typically passing through during the mid-day hours on the east side of the dam. The PUD estimates that the proposed trapping method would likely cause reduced levels of spring Chinook delay in migration compared to the existing trapping method, and would increase the likelihood of obtaining 10 bull trout as recommended in the 2005 to 2008 Bull Trout Monitoring and Management Plan. The Committees approved Douglas PUD's modification of the existing protocol (Attachment D).

VII HCP Administration (Mike Schiewe)

A. Meeting Agreements

This section summarizes agreements reached by the Committees during this meeting, which were not formally proposed by the Committee as decision items. There was one meeting agreement made at this meeting.

- The Committees approved Douglas PUD's modification of the existing bull trout trapping protocol to 6 days per week for 8 hours (10 am to 6 pm) (Item VI-C).

B. Mid-Columbia Coordination

In response to a question from Carmen Andonaegui, Mike Schiewe discussed the topic of a coordination meeting between members of the Hatchery and Tributary Committees of the HCP process and the PRCC process. Preliminary discussion among all parties indicated an interest in setting up such a meeting. When last discussed, Carmen Andonaegui and Bob Rose were checking with the PRCC subcommittees to identify agenda items of interest to both the HCP and the PRCC Committee members. Mike Schiewe will check with Denny Rohr, who facilitates the PRCC meetings, to check in on the progress toward identifying potential agenda items.

C. Next Meeting

The next meeting will be held on Tuesday, May 23, at Rocky Reach Dam, beginning with a dam tour at 9:00 am, and a HCP Coordinating Committees meeting at 1:00 pm.

List of Attachments

Attachment A – List of Attendees

Attachment B – Approved Statement of Agreement for Floating Debris Boom

Attachment C – Approved Statement of Agreement for Rock Trap Excavation

Attachment D – Memorandum to Wells HCP Coordinating Committee from Shane Bickford, Douglas PUD. April 21, 2006. RE: Proposed Bull Trout Trapping Operations – 2006.

Attachment A
List of Attendees

Name	Organization
Mike Schiewe *	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Rick Klinge	Douglas PUD
Shane Bickford *	Douglas PUD
Tom Kahler	Douglas PUD
Bryan Nordlund *	NMFS
Carmen Andonaegui * (by conference call)	WDFW
Bob Rose * (by conference call)	Yakama Nation
Jerry Marco*	Colville Confederated Tribes

* Denotes Coordinating Committees member

ATTACHMENT B

**APPROVED STATEMENT OF AGREEMENT FOR FLOATING
DEBRIS BOOM**

Statement of Agreement
Rock Trap Excavation at Wells Dam
April 25, 2006

On 27 March 2005, Douglas PUD presented a proposal for the removal of accumulated bed load from the spillway rock trap in the tailrace of Wells Dam, as described in the March 16, 2006 memo from Shane Bickford, Douglas PUD to the Wells HCP Coordinating Committee. The proposed work would be initiated during the last week of July and end by August 31, 2006 in the interim between the adult spring Chinook run and the bulk of the adult steelhead run. In order to conduct the work without impacting the operation of the juvenile bypass system, work would also be restricted to times when daily average river flows are expected to be less than 140 kcfs. The proposed work will take place at night (from dusk to dawn). The Wells Coordinating Committee discussed the proposal, and are in agreement that the work can go forward as proposed¹.

¹ The National Marine Fisheries Service (NMFS) recommends that the District tie off barges away from the project during daylight hours.

ATTACHMENT C

**APPROVED STATEMENT OF AGREEMENT FOR ROCK TRAP
EXCAVATION**

**Statement of Agreement
Floating Debris Boom Installation at Wells Dam
April 25, 2006**

On 27 March 2005, Douglas PUD presented a proposal for installing a floating debris boom in the forebay of Wells Dam, as described in the March 16, 2006 memo from Shane Bickford, Douglas PUD to the Wells HCP Coordinating Committee. Douglas PUD solicited input from the committee regarding the proposed configuration and design of the debris boom. The Wells Coordinating Committee discussed the proposal, and had questions regarding the effects of the debris boom on adult fish exiting the east ladder, and the potential of the proposed structure to increase predation in the forebay of Wells Dam.

Douglas PUD described how the proposed design would be unlikely to influence the behavior of adult fish exiting the east ladder, or modify the behavior of juvenile migrants passing through the Wells bypass system. Additionally, Douglas PUD stated that in studies of similar installations of offshore, floating debris booms or walkways, those structures were not being utilized by predatory fish. The general use pattern of predatory fish will be investigated before and after installation through observational means (video and angling). Members of the Wells Coordinating Committee were supportive of the installation of the floating debris boom provided that if an increase in predator use or predation is observed in the forebay that the increase in predation would be addressed through predator control measures in consultation with the committee. Work is expected to be completed between November and March.

ATTACHMENT D

**MEMORANDUM TO WELLS HCP COORDINATING COMMITTEE
FROM SHANE BICKFORD, DOUGLAS PUD. APRIL 21, 2006. RE:
PROPOSED BULL TROUT TRAPPING OPERATIONS – 2006.**



Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553

Memorandum

TO: Wells HCP Coordinating Committee

FROM: Shane Bickford, Douglas PUD

DATE: April 21, 2006

SUBJECT: Proposed Bull Trout Trapping Operations - 2006

Proposed Operation: Douglas PUD is proposing to change the frequency of trapping operations at the Wells Dam fish ladder traps to increase the probability of capturing and tagging 10 adult-sized bull trout, as specified in the Wells Bull Trout Monitoring and Management Plan. The proposed operations will be to trap for a total of 8-hours per day for six days per week (48 hours per week) on the east fish ladder only as opposed to the previous trapping protocol of 16-hours per day, three days per week in both ladders (96 hours per week). Similar to previous years, bull trout trapping is expected to begin as early as May 1st and end as late as June 28th. The goal is to collect 10 adult sized bull trout. Once 10 fish have been captured, bull trout trapping will cease for the year.

The proposed operational changes are based upon an analysis of hourly spring chinook and bull trout passage rates, followed by an analysis of ladder preference by species. The exercise concluded that bull trout passage at Wells Dam is not random. In fact, bull trout are more likely to pass Wells Dam between the hours of 10AM-6PM and are more likely to pass on the east ladder as opposed to the west ladder (>50% pass of bull trout pass via the east ladder). Over the past 5 years, 59% of the spring Chinook, on average, selected to pass Wells Dam via the west ladder.

In a comparison between the 16-hour, three days per week trapping method and the more “directed” 8-hour trapping method (10AM-6PM, six days per week), the 8-hour per day method resulted in 10 bull trout being captured in significantly fewer trapping hours (224.6 h), as compared to the 16-hour trapping method (290.2 h). Model runs also showed that the 8-hour method failed to catch all 10 bull trout in less than 1% of the model runs, whereas the 16-hour method had a significantly higher rate of failure (14%).

To address the effect of the proposed operations on spring Chinook, Douglas PUD estimated the proportion of the spring Chinook run that could be delayed during the implementation of the 8-hours per day, east ladder only method.

2006 Bull Trout Trapping Proposal
April 21, 2006

The average number of spring Chinook that have passed Wells Dam annually from 2000-2005 is 4,247 fish. Of that annual average, 41% or 1,741 of the 4,247 fish pass Wells Dam instead of the east fish ladder. Current trapping operations for bull trout are for 3 days per week, 16 hours per day. Proposed trapping operations are for 6 days per week for 8 hours (10AM to 6PM). During the time period for proposed trapping operations, we estimate that 21% (898/4247) of spring Chinook passing Wells Dam could be delayed from 1-8 hours during bull trout trapping operations (Attachment A). Overall, the proposed trapping method would likely cause reduced levels of fish delay compared to the current trapping method. Further, the proposed method has a higher probability of capturing and tagging 10 bull trout as recommended in the 2005-2008 Bull Trout Monitoring and Management Plan.

Based upon the higher likelihood of capturing 10 bull trout in fewer hours trapped, Douglas PUD is requesting approval from the Wells HCP Coordinating Committee to alter the previously approved bull trout trapping protocol from three days per week, 16-hours per day in both ladders (total of 96 hours of trapping per week) to six days per week, 8-hours per day on the east fish ladder only (total of 48 hours of trapping per week).

Attachment A

Spring Chinook passing Wells Dam (5/1-6/15)

2000 2,219
2001 9,953
2002 6,472
2003 1,965
2004 2,632
2005 2,239
2000-2005 Average: 4,247

Proportion of spring Chinook passing Wells Dam over the east ladder versus the west ladder, 2000-2005

2000 $1,370/2,219=62\%$
2001 $4,839/9,953=49\%$
2002 $2,177/6,472=34\%$
2003 $699/1,965=36\%$
2004 $1,187/2,632=45\%$
2005 $284/2,239=13\%$
2000-2005 Average: $10,556/25480=41\%$

$4247 \times .41 = \mathbf{1,741 \text{ fish}}$ (annual average number of spring Chinook using the east ladder versus the west ladder)

Spring Chinook passing the east ladder from 10AM-6PM (proposed trapping times) vs. total 24-hour period, 2000-2005

2000 $1,053/1,370=77\%$
2001 $2,729/4,839=56\%$
2002 $1,358/2,177=62\%$
2003 $319/699=46\%$
2004 $672/1,187=57\%$
2005 $186/284=65\%$
2000-2005 Average: $6,317/10,556=60\%$

4,247 avg. annual run

$4,247 \times .41 = \mathbf{1,741}$ (spring Chinook using the east fish ladder

$1,741 \times .86$ (trapping 6 out of 7 days a week) = **1,497**

$1,497 \times .60$ (Chinook passing during proposed daily trapping hours) = **898**

Conclusion: $898/4,247 = \mathbf{21\%}$ of the spring Chinook passing Wells may be delayed by the proposed bull trout trapping operations.
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Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Chuck Peven, Ali Wick

Date: June 27, 2006

Re: Final Minutes of May 23, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at Rocky Reach Dam on Tuesday, May 23, 2006, from 9:30 am to 1:00 pm. The meeting began with a dam tour at 9:30 am, followed by a working session at 11:00 am. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final April 25, 2006 Meeting to the Coordinating Committees by email (Item I).
- Mike Schiewe will get in touch with Carmen Andonaegui (WDFW) and Bob Rose (Yakama Nation) to determine continuing interest setting up a combined HCP and PRCC committees meeting and, if so, what issues should be addressed (Item VII).

DECISION SUMMARY

There were no decision items at this meeting.

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the April 25, 2006 Meeting Minutes. The Meeting Minutes were approved with no revisions. Ali Wick will send out final minutes by email. Attendees to the May 23 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following activities are ongoing in the Tributary Committees:

- Working with the Chelan-Douglas Land Trust and the Methow Conservancy to resolve ownership issues (including deeds) for projects funded in 2005
- Evaluating stewardship processes for 2005 funded projects
- Preparing for evaluation at the June meeting of a recently submitted proposal for a small habitat project (total less than \$25,000)
- Preparing for preliminary review of several concept proposals that may be submitted for funding for the 2006 Funding Cycle

Schiewe updated the group that the following agreements were reached by the Hatchery Committees:

- Approval of the conversion of the subyearling program at Turtle Rock to a yearling program, and the selection of the Chelan Falls location for the program
- Approval of the proposed protocols for 2006-2007 for the Chiwawa Water Warming Program at Chiwawa Ponds
- Approval of the location of Chiwawa Ponds for a long-term steelhead rearing location in the Wenatchee Basin
- Approval of a Washington Department of Fish and Wildlife (WDFW) proposal for a late-release strategy for Lake Wenatchee sockeye

The Committees have also recently focused on the following:

- Discussion of engineering concepts and design criteria for:
 - Steelhead rearing ponds at Chiwawa
 - Steelhead adult holding at Eastbank
 - Alternatives for water supply issues at Similkameen
 - Chelan Falls Ponds for former Turtle Rock production
- Discussion of reference streams
- Discussion of broodstock collection protocols and U.S. v. Oregon / HCP production levels
- Discussion and development of a Hatchery Committee consensus recommendation for managing Bacterial Kidney Disease (BKD) in hatchery populations

- Discussion of progress in locating a Chewuch broodstock collection weir; it is increasingly likely that a broodstock collection facility can be constructed at the Chewuch Dam

V Updates: Chelan PUD

A. Spill and Bypass (Steve Hemstrom and Jen Schoolcraft)

Steve Hemstrom updated the group that spring spill began May 2 at Rocky Reach Dam at a level of 24 percent. The RealTime run prediction program estimated that less than 1 percent of the sockeye passage was complete as of May 2. Spill will continue until the 95th percentile of the run passes the dam. At Rock Island, spill began on April 17 and cumulative fish passage to date is approximately 21 percent. When 95 percent of sockeye migration has passed, spill flows will be reduced to summer levels.

Jen Schoolcraft updated the Committees that bypass crews have observed high turbidity and a large amount of debris passing through the facility, which has complicated fish sorting. Despite the additional debris, however, percent descaling and injury have been much lower this year than last year. Although at a much lower prevalence than last year, there have been several observations of circular descaling and vertical stripe patterns on juvenile migrants. Noteworthy in this regard, a Fish and Wildlife Helper recently observed a pikeminnow that had captured a smolt, and being unable to completely swallow it, expelled it uneaten. The expelled smolt had a descaling pattern similar to the circular patterns observed last year; further, the pattern was consistent with the arrangement of teeth on a pikeminnow mouth/throat. This was an interesting finding and Chelan PUD will continue to observe and investigate the potential relationship between pikeminnow predation and descaling problems.

Steve Hemstrom updated the group that the long-line pikeminnow removal project is complete for 2006 at the Rock Island and Rocky Reach reservoirs. Columbia Research, one of Chelan PUD's two pikeminnow predator control contractors, caught and removed 22,564 pikeminnow from Feb 16 through contract completion on May 1. Rod and reel fishing by the USDA has slowed dramatically in the last week as Columbia River flows increased markedly, carrying debris and mud.

B. Adult Ladder at Rock Island (Thad Mosey)

Thad Mosey updated the group that maintenance has been necessary for the traveling screens as well as the attraction water pumps at the right fishway at Rock Island. Redesign and contracting issues have delayed installation of the pumps, which will likely be installed in the next week. The state inspection, which occurred on May 22, verified that fish are still using the fishway successfully despite the attraction pump issues.

VI Updates: Douglas PUD (Rick Klinge)

A. Total Dissolved Gas Study

Rick Klinge updated the group that Douglas PUD is implementing a Total Dissolved Gas (TDG) study. There are 26 scheduled tests for May and June. There have been ten tests completed. This includes testing spill conditions to identify which conditions minimize TDG effects on fish. Jen Schoolcraft confirmed that fish bypass crews have not observed physical signs of gas bubble disease on fish in the Chelan PUD bypass systems (e.g. skin bubbles, bubbled eyes, etc.).

B. Sockeye Sampling 2006 Letter

Rick Klinge updated the Committees that Douglas PUD has received the annual request by the Columbia River Intertribal Fish Commission (CRITFC) for sockeye sampling at Wells Dam fish ladders. The study will be collecting scale samples from up to 400 fish and will begin in late June or early July, coordinated with Wells Hatchery broodstock collection programs. Study results will be used to complete a stock assessment for Okanogan and Wenatchee sockeye.

VII HCP Administration (Mike Schiewe)

A. HCP and PRCC Committees Coordination

Mike Schiewe updated the group that he received few suggested topics from parties interested in coordinating a meeting between HCP and Priest Rapids Coordinating Committee (PRCC) Committees to discuss mutually pertinent issues. He plans to get in touch with Carmen Andonaegui (WDFW) and Bob Rose (Yakama Nation) to determine whether there is still interest and, if so, what issues should be addressed at this potential meeting.

B. Next Meeting

The next meeting will be held on Tuesday, June 27 in SeaTac, or may occur as a conference call, depending on topics.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Todd West	Chelan PUD
Jennifer Schoolcraft	Chelan PUD
Thad Mosey	Chelan PUD
Steve Hemstrom	Chelan PUD
Jerry Marco *	Colville Confederated Tribes
Rick Klinge*	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS

* Denotes Coordinating Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Chuck Peven, Ali Wick, and Tom Kahler

Date: July 26, 2006

Re: Final Minutes of June 27, 2006 HCP Coordinating Committees Conference Call Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met by conference call on June 27, 2006, from 9:30 am to 1:00 pm. Call attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final May 23, 2006 Meeting Minutes to the Coordinating Committees by email (Item I).
- Chelan PUD will provide a proposal to approve the attraction water pumps work schedule at the next meeting (Item V).
- Mike Schiewe will be in touch with Douglas PUD regarding a previous concern about joint meetings between the HCP and Priest Rapids Coordinating Committees (PRCC) Committees (Item VII.B).

DECISION SUMMARY

There were no decision items at this meeting.

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the May 23, 2006 Meeting Minutes. The Meeting Minutes were approved with no revisions. Ali Wick will send out final minutes by email. Attendees to the June 27 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following activities are ongoing in the Tributary Committees:

- **2006 General Fund** – The Tributary Committees received 21 pre-proposals for funding from the 2006 General Fund. The Tributary Committees and the Upper Columbia Regional Technical Team completed their initial reviews of these pre-proposals and developed recommendations to the sponsors on means to improve the applications. The final applications are due to the Committees on July 28. The Tributary Committees are collaborating with staff from the Salmon Recovery Funding Board to hold a project sponsor workshop in Chelan on June 28 to review policies, procedures, and timelines for the development, review, and submission of project proposals to both organizations.
- **Small Projects Fund** – The Rocky Reach Committee authorized the funding of the small project *Entiat PUD Canal Juvenile Habitat Enhancement* for the amount of \$23,640. The project sponsor is Chelan County Conservation District, in collaboration with the Entiat Planning Unit.

Schiewe updated the group that the Hatchery Committees have recently focused on the following:

- Updates from the Hatchery Evaluation Technical Team (HETT):
 - The HETT will complete and distribute a Decision Rules document for the Monitoring and Evaluation (M&E) Program in July, which will be up for approval by the Hatchery Committees in August.
 - The HETT is investigating technology and protocols for determining steelhead spawner composition (hatchery vs. natural-origin) and reference streams for M&E work, and will be considering the Spawner Composition Study Plan next week (week of July 3).
- The National Marine Fisheries Service (NMFS) has been meeting with co-managers to resolve the differences in broodstock collection protocols specified in U.S. v. Oregon agreements versus those in the Section 10 permits; thus far no change has been proposed. Fortunately, the large return of Chinook to the basin is expected to provide enough fish this year that these differences will not likely be a factor.

- The Yakama Nation, Washington Department of Fish and Wildlife (WDFW), and Douglas PUD will be preparing a proposal and initial study plan for surveying the Lost River and considering its use as a potential reference stream.
- The Yakama Nation has proposed to NMFS to move fish from the Chiwawa Hatchery to a program at Nason Creek.
- The Committees confirmed that they have no objection to the Columbia River Intertribal Fish Commission's (CRITFIC) sampling of sockeye at Tumwater and Wells Dams.
- WDFW has provided a creel census monitoring plan for Committees review and incorporation into the Hatchery M&E Plan. This document will not be formally approved by the Committees; rather, the Committees will have an opportunity to provide comment.
- WDFW is nearing completion of broodstock collection at the Methow Hatchery.
- WDFW has provided some information on disk tags vs. jaw tags for tagging steelhead due to some question on the potential for fish damage with jaw tags; based on the information that jaw tags can cause serious damage, WDFW has elected to use disk tags for 2006.
- The Colville Tribes updated the Committees on the availability of the Bonaparte Acclimation Ponds on the Okanogan River for summer Chinook rearing. The Colvilles introduced this as a potential option for Chelan PUD to shift up to 100,000 fish from Similkameen program to Bonaparte Pond, and will work with Chelan PUD to provide a proposal at the July meeting.
- Douglas PUD's trapping locations have sustained severe damage due to early summer high flows; Douglas PUD is investigating the extent and cost of repairing this damage.
- Douglas PUD polled the Committees regarding their interest in supporting a tributary trapping program; this question was prompted due to recent discussions with the public and issues selecting a tributary trapping facility. The Committees affirmed that this was indeed an appropriate direction; Douglas PUD indicated that they would seek further discussion on this topic.
- A meeting will be held with WDFW, Chelan PUD, Douglas PUD, and Mike Schiewe to discuss the path forward for the Bacterial Kidney Disease (BKD) management recommendation.

- Chelan PUD has been developing an approach for estimating post-2013 production levels in order to proceed with planning for facilities.
- Chelan PUD provided a facilities update on several ongoing projects at hatchery facilities.
- The next Hatchery Committees meeting will be a joint meeting between the PRCC, the Hatchery Committees, and the Okanagan Nation Alliance, to facilitate discussion on the status of the Skaha sockeye program.

V Updates: Chelan PUD

A. Attraction Water Pumps Work Schedule

Shaun Seaman updated the Committees that Chelan PUD proposes to begin repairs on the attraction water pumps during the next outage period on December 5, 2006. Fishway operations would resume no later than March 1, 2007. This is for the Committees' information; Chelan PUD requests comments or questions on this work, and will provide a proposal to approve this date at the next meeting.

B. Juvenile Fish Bypass Operations

Shaun Seaman and Chuck Peven provided an update on fish condition being observed at the Juvenile Fish Bypass System (JFBS). General fish condition is excellent, and the circular descaling pattern from last year has not been observed at the same level this year (it has been significantly less). Last week, Steve Hemstrom and Andrew Grassell observed an incident when fish were observed in the space between the surface collector and powerhouse wall, which is the place where a clamshell crane removes trash from the racks. Chelan PUD believes this is an isolated incident likely caused by rapid changes in headwater elevation and the PUD will keep the Committees updated as progress occurs on remedying this condition.

C. Intake Screen System and Surface Collector

Shaun Seaman updated the Committees that the attraction pumps and surface collector had shut down for a short time in June due to rapid and significant fluctuations in pressure in the forebay, but these facilities have since been brought back online.

D. Predator Control Program

Chuck Peven provided an update on the predator control program that adequate numbers of smallmouth bass and walleye are being collected in the Rocky Reach reservoir for the recapture study. So far, researchers have recaptured 12 smallmouth, 4 with radio tags. A few walleye were recaptured in early May but Columbia River flows were so high since then that it has been difficult to sample the areas where recapture is most likely. The recapture effort will be reinitiated in July and August, because walleye typically are difficult to recapture during the period between now and then. Early radio telemetry efforts indicate that walleye and smallmouth bass are typically residing in the same areas.

E. Flows during Spring 2006

Shaun Seaman updated the Committees that flows during spring 2006 (from April 16 through May 31) averaged 146,056 cubic feet per second (cfs). The flow window required by the HCP is 100,253 to 205,381 cfs; therefore, this year's flow falls in this window.

VI Updates: Douglas PUD (Rick Klinge)

A. Flow Barriers Bypass Bay 8 Wells Dam

Rick Klinge updated the group that flow barriers at Bypass Bay 8 have been removed at Wells Dam.

B. Rock Trap

Tom Kahler updated the Committees that the Joint Aquatic Resources Permit Application (JARPA) has been submitted to the agencies and a contractor has been selected for the rock trap work. The expected construction date is July 24 through the end of August.

C. Debris Boom

Rick Klinge updated the Committees that Douglas PUD is working on the options for design of the debris boom.

D. Total Dissolved Gas Studies

Rick Klinge updated the Committees that the Total Dissolved Gas (TDG) study is ongoing to evaluate dissolved gas levels following various flow configurations and power operations at Wells Dam. Douglas PUD anticipates providing initial results to the Committees in early

fall 2006 for their review. Douglas PUD has been in communication with various groups handling juvenile fish downriver and there have not been any reports of gross symptoms of gas bubble trauma.

E. Pikeminnow Control Activity

Rick Klinge updated the Committees that pikeminnow control is ongoing at the tailrace of Wells Dam; fishers are approximately halfway complete with the removal of about 20,000 fish.

VII HCP Administration (Mike Schiewe)

A. Estimation of Passage Survival in Technology-Deficient Cases

Mike Schiewe noted the HCP requirement that passage survival needed to be estimated for those Plan Species where the technology was not developed to collect data for empirically-based estimates. He suggested that the Committees members begin thinking about how to accomplish this, and who wanted to be directly involved in the process. The Committees agreed that the path forward should be that Chelan and Douglas PUD will work together to craft recommendations, and will keep NMFS and WDFW closely apprised of progress. Once ideas have been formulated with NMFS and WDFW input, these will be presented to the full Committees for consideration.

B. HCP and PRCC Committees Coordination

Mike Schiewe updated the Committees on efforts to develop an agenda for a joint HCP and PRCC Hatchery and Tributary Committees coordination meeting. Schiewe indicated that Grant PUD has communicated to him that it would be most favorable to an annual (likely first of the year) meeting in which the Hatchery and Tributary Committees would address upcoming plans for the year and discuss overlapping issues. Mike Schiewe will be in touch with Douglas PUD regarding a previous concern about joint meetings between the HCP and PRCC Committees.

C. Next Meeting

The next meeting will be held in person on Tuesday, July 25 in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Confederated Tribes
Rick Klinge*	Douglas PUD
Tom Kahler	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS

* Denotes Coordinating Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Chuck Peven, Ali Wick, and Tom Kahler

Date: August 22, 2006

Re: Final Minutes of July 25, 2006 HCP Coordinating Committees Conference Call Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Hotel Gateway in SeaTac, Washington on July 25, 2006, from 9:30 am to 12:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final June 27, 2006 Meeting Minutes to the Coordinating Committees by email (Item I).
- Ali Wick will send the June Tributary Committees meeting minutes to the Coordinating Committees by email (Item II).
- Ali Wick will send the handouts on the Okanagan Fish/Water Management Tool from Kim Hyatt to the Coordinating Committees (Item II).
- Ali Wick will work with the Okanagan Nation Alliance (ONA) to obtain the presentations on the Skaha Lake Sockeye reintroduction program and will distribute them to the Coordinating Committees (Item II).

DECISION SUMMARY

There were no decision items at this meeting.

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the June 27, 2006 Meeting Minutes. The Meeting Minutes were approved with minor revisions. Ali Wick will send out final

minutes by email. Attendees to the July 25 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Ali Wick will send the Tributary Committees' June meeting minutes to the Coordinating Committees by email. Mike Schiewe updated the group that the following activities are ongoing in the Tributary Committees:

- Projects for 2007 are under review and site visits are scheduled for August 9 and 10. Applications are due on July 28, 2006.
- The Tributary Committees worked with staff from the Salmon Recovery Funding Board to hold a project sponsor workshop in Chelan on June 28, 2006, to review policies, procedures, and timelines for the development, review, and submission of project proposals to both organizations.
- The Committees will focus on review of the applications in the September and October meetings, with the goal of making their formal funding decisions at the November meeting. Some of these are expected to be cost-shares with the Salmon Recovery Funding Board.

Schiewe updated the group that the Hatchery Committees have recently focused on the following:

- The Hatchery Committees have agreed to a study plan for 2006 for steelhead spawner composition and the general approach for evaluating potential reference streams.
- The Hatchery Evaluation Technical Team (HETT) has prepared a Decision Rules document for evaluating Monitoring and Evaluation (M&E) data.
- The HETT will complete an assessment of out-of-basin steelhead streams and of both in- and out-of-basin Chinook streams for use as reference streams by the end of the year; the Entiat River will be evaluated for its potential as a reference stream for Chinook, by the end of September.
- The fisheries co-managers (Washington Department of Fish and Wildlife [WDFW], National Marine Fisheries Service [NMFS], and the tribes) have been meeting to discuss Chiwawa broodstock collection and permit issues related to maintaining the appropriate level of hatchery vs. natural-origin fish in the broodstock.

- WDFW has tested net pens in the tailrace of the Chelan Falls powerhouse to evaluate stability under existing flows. Acclimating Chinook here would be an interim measure before permanent facilities are constructed to complete the relocation of Turtle Rock production to this site.
- Sockeye broodstock collection has begun at Tumwater Dam.
- Chelan PUD and the Colville Tribes are working together to coordinate a proposal to rear summer Chinook at Bonaparte Ponds for 2006-2007.
- The Yakama Nation has been investigating the feasibility of reintroducing summer Chinook into the Yakima River.
- The Hatchery Committees received a presentation and handouts on the 2005-2006 use of the Okanagan Fish/Water Management Tool, which is a quantitative, decision-support model with the goal of reducing uncertainties and improving the basis for water management decisions that influence annual fish production variations. Ali Wick will send the handouts on the presentation from Kim Hyatt to the Coordinating Committees.
- The Hatchery Committees confirmed their earlier decision to require tributary trapping in the Methow River basin until a viable alternative for stock identification at Wells Dam is available.
- Douglas PUD is currently in the planning and engineering phases for the following projects: Wells Hatchery Screens, Twisp Weir, and Chewuch Dam design.
- Douglas PUD has received requests for hatchery sharing agreements with Chelan and Grant PUDs for 2006. At the Coordinating Committees meeting today (July 25), Rick Klinge updated the group that NMFS had notified Douglas PUD that unless there is an amendment to the Section 10 permit, Douglas PUD would not be able to fulfill the Grant PUD request for 200,000 yearling Chinook to be reared at Wells Dam.
- The Committees discussed that a check-in for Committee questions on M&E documents could be a standing agenda item at Hatchery Committee meetings and that it is not necessary to formally approve these documents on a monthly basis.
- The Committees discussed the need for public outreach for hatchery programs; following Grant PUD's public meeting on the White River program, it is evident that it will be important to engage the public in implementation of new hatchery programs.
- The Committees discussed the draft recommendation for a bacterial kidney disease (BKD) management strategy. Mike Schiewe will be providing an update on WDFW discussions on this matter at an upcoming Hatchery Committees conference call.

- The Committees discussed Chelan PUD's proposed approach for calculating 2013 production levels as they relate to facilities planning. The process would be used for future Chelan PUD facilities planning at this time, and will not necessarily be the chosen or only mechanism used in 2013 to identify production levels. This is a Chelan PUD exercise.
- Facility improvements are being made at Dryden Dam; the Yakama Nation and Chelan PUD will be meeting to discuss a list of additional improvements being requested by the Yakama Nation staff working at the dam.
- Sam Dilly, a Chelan PUD facilities engineer, provided an update on ongoing facilities work, including water quality studies at Similkameen hatchery, the Adult Holding Pond and Spawning Structure Enclosure at Eastbank, and the Chelan Falls Acclimation Facility.
- Regarding Priest Rapids and HCP coordination meetings, the Hatchery Committees are in favor of an annual first-of-the-year meeting to discuss objectives and schedules for the upcoming year.
- The Hatchery Committees joined the Priest Rapids Hatchery Committees for a discussion on recent results from the Skaha Lake sockeye reintroduction program currently being funded in part by Chelan PUD and Grant PUD. Ali Wick will obtain the presentations from the ONA and distribute them to the Coordinating Committees.

III Phase Designations (Mike Schiewe)

Mike Schiewe introduced this topic, stating that the Douglas PUD wanted to clarify the status of phase designation for Plan Species thus far. Currently, Douglas PUD is in Phase III (Standards Achieved) for yearling Chinook and steelhead and Phase III (Additional Studies) for sockeye and subyearling Chinook. Schiewe clarified that Phase III (Additional Studies) with sockeye and subyearling Chinook means that in future years, if technology becomes available, additional studies may be required. These phase designations were documented in the 2005 HCP Annual Report, which is available on the ftp site.

Chelan PUD is currently working on Phase Designation issues, and will be presenting this information to the Committees as it becomes available.

IV Updates: Chelan PUD (Shaun Seaman)

A. 2006-2007 Ladder Outages

Shaun Seaman introduced this topic, stating that a ladder outage at Rocky Reach Dam is necessary to complete maintenance work on one of the attraction water pumps. The outage would occur during the normal winter work window (December 1, 2006, to February 28, 2007). Chelan PUD notified the Committees that every attempt will be made to minimize the duration of the ladder outage, and if possible, to provide water in the ladder during the period the attraction pumps are out of service.

B. Bypass Operations

Shaun Seaman updated the Committees that Chelan PUD is on schedule to shut the Bypass System down on August 31. There will only be minor maintenance issues for this year.

C. Spill Program – Anticipated Termination Dates

Shaun Seaman has distributed information on subyearling Chinook passing Rocky Reach Dam; currently, subyearlings are approaching 95 percent of the run for 2006. At Rock Island, passage is still well below 90 percent. Seaman will be checking with Steve Hemstrom, Chelan PUD's fish spill passage coordinator, for more updated information on this. There will likely be a conference call next week to discuss shut-down of the system. Bob Rose will check with Steve Parker as to who will be the Yakama Nation contact for this call.

D. Predation Study and Preliminary Results from Sockeye Acoustic Tagging Study

Chuck Peven updated the Committees that the predation study is ongoing, and Peven will be intensifying the effort to capture smallmouth bass in the coming days.

Chelan PUD has received some preliminary information from the sockeye acoustic tagging study; Peven presented a graphic and some video to the Committees showing that there may be a gradation in survival for fish released in locations from the left bank to the right bank, and that many of the sockeye not detected at Beebe Bridge (i.e., “missing tagged fish”) may be not showing up at Beebe because they may be aggregating in the right bank side of the Wells tailrace. Peven also commented that it is likely that there are more smallmouth bass and walleye than previously thought.

E. Avian Predation Monitoring

Shaun Seaman notified the Committees that the avian predation monitoring study results will be ready for the October or November meeting.

F. Survival Study Schedule of Deliverables

Shaun Seaman updated the Committees that survival study results will be ready for the October or November meeting so that decisions can be made regarding future studies based on this information.

V HCP Administration (Mike Schiewe)

A. Next Meeting

The next meeting will be held on Tuesday, August 22, in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Confederated Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS

* Denotes Coordinating Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Steve Hemstrom

Date: August 22, 2006

Re: Final Minutes of August 11, 2006 Rocky Reach and Rock Island HCP Coordinating Committees Conference Call

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Coordinating Committees met by conference call on Friday, August 11, 2006 from 10:00 a.m. to 10:30 a.m. to discuss terminating 2006 fish spill at Rocky Reach and Rock Island Dams.

Mike Schiewe opened the call by stating that the purpose of the call was to review the Chelan PUD proposal to end fish spill at Rocky Reach and Rock Island Dams. Attendees are listed in Attachment A to these Call Minutes.

Shaun Seaman reminded the Committees that Chelan PUD had noted at the last Coordinating Committees meeting on July 25, 2006 that fish counts had begun to diminish and that a conference call to discuss terminating spill was imminent. However, beginning in early August, Chelan PUD observed a second peak in fish counts, but counts have again diminished, and percent passage criteria are expected to be met soon. Thus, the Committees need to consider ending spill.

Rocky Reach

Steve Hemstrom updated the Committees that the program RealTime is currently estimating 99.8 cumulative passage percent at Rocky Reach. The total index count at Rocky Reach as of August 10 was 19,487 fish. Current estimates are that if 59 or less fish arrive at Rocky Reach today, August 11 (Friday), the percent passage criteria will be met and spill could be terminated. If an increase in fish counts above this number occurs today, the Committees would convene again on Monday, August 14.

Rock Island

Steve Hemstrom updated the Committees that the total index count at Rock Island as of August 10 was 22,280. Current estimates are that if 78 or less fish arrive at Rock Island today, August 11 (Friday), 12 (Saturday), or 13 (Sunday), the percent passage criteria will be met and spill could be turned off. If an increase in fish counts above this number occurs, the Committees would again convene on Monday, August 14.

Bob Rose asked whether there was a mechanism to turn spill back on if a large pulse of fish were to arrive following termination of spill. Mike Schiewe commented that this was in fact the case in 2004, when spill was prematurely terminated and then was restarted at the direction of the Coordinating Committees. Shaun Seaman commented that the situation that occurred then was clearly not ideal; thus, Chelan has taken a conservative stance in recent years in order to minimize potential for the situation to happen again. Jerry Marco added that one of the reasons why Chelan PUD was not eager to repeat the 2004 scenario was that when the reinitiation of spill occurred, it had been very difficult to reach percent passage criteria after turning spill back on.

The Committees agreed to the Chelan PUD proposal to terminate spill if criteria were met, and reconvene via conference call on Monday if not met. It was also agreed that Steve Hemstrom would provide an email update to the Committees later this afternoon after today's index passage counts were available (Attachment B). There was no further discussion on the call.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Steve Hemstrom	Chelan PUD
Shaun Seaman *	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW
Bob Rose *	Yakama Nation

* Denotes Coordinating Committees member

Attachment B
Spill Update

From: Hemstrom, Steven

Sent: Friday, August 11, 2006 1:10 PM

Subject: Rocky Reach, Rock Island subyearling chinook counts both meet stop spill criteria

Today's subyearling chinook counts at both Rocky Reach and Rock Island met the necessary criteria to end spill tonight, Friday August 11, at midnight. Nine (9) subyearlings were sampled in the index count today (0.05 % of the cumulative) at Rocky Reach, fulfilling the criteria of three out of five days with a count of 0.3% or less of the cumulative count. As agreed in our conference call yesterday August 10, Chelan will end spill tonight at midnight August 11, having met the end spill criteria at Rocky Reach. The juvenile bypass will continue to operate, and daily index counts will also continue, up through August 31. Chelan will continue to watch subyearling numbers on a daily basis; If numbers unexpectedly increase such that the 95% spill passage percentile may be jeopardized, we will notify you immediately to determine a course of action.

The Rock Island bypass trap sampled a total of 49 subyearling chinook today (0.19% of cumulative), achieving 3 out of five days with a count of 0.3% or less of the cumulative index count to date. As agreed in our conference call Chelan will terminate spill today, Friday August 11, at midnight having met the stop spill criteria. The Rock Island bypass trap will continue to operate and daily index counts performed through August 31. If subyearling counts unexpectedly increase following cessation of spill, Chelan will notify you immediately to determine a course of action.

Thank you.

Steve Hemstrom
Fisheries Biologist
Fish Spill Coordinator
Chelan County PUD

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Chuck Peven, Ali Wick, and Tom Kahler

Date: October 12, 2006

Re: Final Minutes of August 22, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Hotel Gateway in SeaTac, Washington on Tuesday, August 22, 2006, from 9:30 am to 12:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final July 25, 2006 Meeting Minutes and the August 11, 2006 Conference Call Minutes to the Coordinating Committees by email (Item I).

DECISION SUMMARY

There were no decision items at this meeting.

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by asking for approval of the July 25, 2006 Meeting Minutes and the August 11, 2006 Conference Call Minutes. The Meeting and Conference Call Minutes were approved with minor revisions. Ali Wick will send out final minutes by email. Attendees to the August 22 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following activities are ongoing in the Tributary Committees:

- The Tributary Committees have received applications for 2006, some of which are cost-shares for Salmon Recovery Funding Board (SRF-Board).
- The Tributary Committees conducted site visits of project sites in early August.
- The Upper Columbia River Regional Technical Team (RTT) provided a technical review of the projects in August.
- The Tributary Committees' final determinations for 2007 projects will be made in November 2006.

Schiewe updated the group that the Hatchery Committees have made decisions on the following:

- About 100,000 summer Chinook from the Similkameen Pond production will be reared at the Colville Tribes' Bonaparte pond facility for calendar year 2006-2007.
- Designs were approved for the Wells Hatchery Screens, pending some Committees members getting in touch with their engineering staff for their final check.

Schiewe updated the group that the Hatchery Committees have recently focused on the following:

- The Monitoring and Evaluation (M&E) Decision Rules (now called the Analytical Framework) document will be up for approval next month; this has been a collaborative effort by the Hatchery Evaluation Technical Team and the Hatchery Committees.
- The Hatchery Committees are somewhat split on the path forward for the draft recommendation on bacterial kidney disease (BKD) management. Washington Department of Fish and Wildlife (WDFW) has proposed managing high titer BKD fish by implementing early releases. National Marine Fisheries Service (NMFS) is concerned that early release is not covered under the existing Endangered Species Act (ESA) permits, and may have undesired ecological consequences. Mike Schiewe will be drafting a position statement for the Coordinating Committees' consideration.
- The draft Similkameen water quality study results are in, and Chelan PUD is considering various technologies and/or improvements for remedying the problems identified in the study.
- Chelan PUD has been developing and discussing some methods with the Hatchery Committees for use in estimating post-2013 production levels for the purpose of facilities planning. This is a Chelan PUD exercise.

- EPA is considering mandating requirements for additional space at hatcheries (“quiescent zone”), which, if implemented, would have implications for hatcheries used for HCP production.
- The Committees are discussing the installation of PIT-tag detectors in Peshastin Creek and Chelan PUD has been in conversations with some local landowners on the creek, who have expressed their support for the effort.
- Some Hatchery Committees members and agency representatives have met with the Entiat Watershed Planning Unit to discuss installation of PIT-tag detectors on the Entiat River and the potential use of the river as a reference stream for the HCP.
- Chelan, Grant, and Douglas PUDs met with Jim Waldo’s Hatchery Reform Group, and Waldo had expressed interest in the M&E Plan. Waldo suggested that the Committees might be interested in meeting with Lars Mobrand of the Hatchery Review Technical Team.
- Chelan PUD has made progress on planning the location of facilities at Chelan Falls to relocate Turtle Rock production.
- Douglas PUD has made progress in design for the Twisp weir and the potential modifications to the Chewuch Dam for the purpose of broodstock trapping.
- The Hatchery Committees discussed hatchery sharing agreements for Wells and Methow hatcheries. The Chelan PUD production is covered in the HCP Appendix and no further Committees approval are required. However, any new sharing agreement involving production of fish at Wells Hatchery for Grant PUD would require Hatchery Committees concurrence.
- WDFW and Chelan PUD are discussing staffing at Chiwawa ponds for winter 2006-2007.
- Between 1,500 and 2,000 surplus summer Chinook are being held at Wells Dam, and these fish will be made available for tribal and/or charity use. Douglas PUD was concerned with the process by which the surplus fish were being allocated. The Hatchery Committees concluded that the Hatchery Committees were the appropriate forum for determining whether or not a surplus existed, but that allocation decisions were outside of the purview of the Hatchery Committees and should possibly be referred to the Coordinating or Policy Committees. Mike Schiewe agreed to write a brief issue paper summarizing the situation for possible use by the Coordinating Committees

(At this meeting on August 22, The Coordinating Committees agreed that the Hatchery Committees should not be responsible for allocation decisions).

- WDFW commented last week at the Hatchery Committees meeting that they had had some difficulty meeting collection quotas out of the east ladder of Wells Dam for the summer Chinook Methow-Okanogan (MEOK) program. An update this week is that sufficient fish have arrived and WDFW will be able to meet broodstock goals.
- The Yakama Nation plans to be in touch with the Okanogan Nation Alliance (ONA) regarding the potential to use PIT tags to obtain additional survival information on Skaha smolts; this additional information would supplement what is already being done in the Okanogan subbasin.
- The Yakama Nation is discussing with the ONA the idea of collecting adult sockeye (collected at Wells Dam) in U.S. waters as part of the Skaha sockeye program.
- WDFW will be taking the lead and updating the Committees on research for the potential use ultrasound technology to accurately determine the gender of returning Chinook at Wells Hatchery prior to fish exhibiting obvious spawning secondary sex characteristics, and will update the Committees at the next meeting. The inability to determine gender of these fish has historically contributed to underproduction.
- The Independent Scientific Review Panel (ISRP) has reviewed the Yakama Nation's Master Plan, and recommended partial funding. The review identified several issues that the ISRP would like to see addressed regarding the plan, and requested a revised Master Plan be provided for its consideration. Mike Schiewe will work with Tom Scribner, Douglas PUD, and Chelan PUD to develop a schedule for meeting the HCP requirement for determining whether a hatchery program and/or naturally reproducing population of coho exists by the end of 2006. The Yakama Nation has received several letters of support for its program from various HCP entities (NMFS, USFWS, and WDFW) and these have been forwarded to the Hatchery Committees.

IV Updates: Chelan PUD (Keith Truscott)

A. End of Spill Update

Keith Truscott provided an update on the end of fish spill at Rocky Reach and Rock Island on August 11. A summary was sent out to the Committees documenting that Chelan PUD met the targets

IV Updates: Douglas PUD (Rick Klinge)

B. 2006 Bypass Operations and Suspension of Bypass on August 26

Rick Klinge updated the Committees that the bypass operation at Wells will be shut down at midnight on Saturday, August 26, 2006. About half of the spill hours were dedicated to forced spill (and most of this was used for conducting the total dissolved gas study). The Wells bypass operated April 12 through August 26 for 2006, which are fixed dates under the HCP.

C. Rock Trap Operations at Wells Dam

Rick Klinge provided an update on rock trap operations at Wells Dam. Debris has accumulated over the years in the rock trap at the exit to the turbine draft tubes, and this debris must be removed. The Committees had previously recommended performing this work in August to avoid spring Chinook and steelhead passage. For permitting, this work falls under routine maintenance for the Dam. This work is under way and expected to be completed by the end of this weekend (likely by August 27).

D. East Ladder Grate Failure and Repair

Rick Klinge updated the Committees on the problem with sockeye trapped behind the east ladder grate; the Committees had been alerted to this situation by email prior to this meeting. Douglas PUD hired a dive team to make the grate repair, and the repair has been made. The reason behind the failure of the grating is unknown but is still under investigation. A more accurate assessment will take place after the ladder is dewatered for maintenance, this winter. Douglas PUD has seen some summer Chinook and sockeye congregating in the lighted area behind the grate, but will not be able to accurately determine the abundance of these fish until the ladder is dewatered.

V HCP Administration (Mike Schiewe)

A. Policy Committee Meeting

Mike Schiewe indicated that there has been some interest in convening a Policy Committee meeting to discuss the following topics:

- Reconvening the Policy Committees for a check-in several years after the first meeting occurred in September 2004
- Welcoming the Yakama Nation in signing the HCP

- Bringing new general manager at Chelan PUD up to speed on current HCP issues
- BKD management discussions
- Surplus of adult fish at Wells Dam

The Committees members indicated their support or, at least, non-disagreement for scheduling this meeting. This meeting would likely occur in October of 2006.

B. Next Meeting

The next meeting will be held on Tuesday, September 26, in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Keith Truscott *	Chelan PUD
Jerry Marco * (by conference call)	Colville Confederated Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Scott Carlon *	NMFS
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW

* Denotes Coordinating Committees member or alternate

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Chuck Peven, Ali Wick, and Tom Kahler

Date: October 26, 2006

Re: Final Minutes of September 26, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Hotel Gateway in SeaTac, Washington, on Tuesday, September 26, 2006, from 9:30 am to 12:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Draft August 22, 2006 Meeting Minutes to the Coordinating Committees for approval by email (Item I).
- Chuck Peven will send the summary of 2006 Chelan PUD survival study results to Ali Wick for distribution to the Committees prior to the next meeting (Item IV-A).
- Shaun Seaman will send the handouts on the avian monitoring study electronically to Ali Wick for distribution to the Committees (Item IV-C).

DECISION SUMMARY

There were no decision items at this meeting.

I Meeting Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by stating that the August 22, 2006 Meeting Minutes were not sent out after the last meeting, and these will be now be sent out for email review and approval. Following this, Ali Wick will send out final minutes by email. Attendees to the September 26 meeting are listed in Attachment A to these Meeting Minutes.

II Hatchery and Tributary Committees Update (Mike Schiewe)

Mike Schiewe updated the group that the following activities are ongoing in the Tributary Committees:

- The Tributary Committees have received project applications for 2006, and are busy considering and reviewing proposals.
- The Tributary Committees are also discussing the potential to establish a more unique niche for HCP funding, as many of the project proposals they are considering have also been submitted for Salmon Recovery Funding Board (SRFB) and Bonneville Power Administration (BPA) consideration.

Schiewe updated the group that the Hatchery Committees have made decisions on the following:

- The Monitoring and Evaluation (M&E) Analytical Framework document prepared by the Hatchery Evaluation Technical Team (HETT) was approved and posted on the FTP site under the Hatchery Committees folder, in the HETT folder.

Schiewe updated the group that the Hatchery Committees have recently focused on the following:

- Washington Department of Fish and Wildlife (WDFW) is evaluating the potential use of ultrasound to determine gender during broodstock collection in HCP hatchery programs.
- WDFW reported that broodstock collection has gone well this year, with program goals being met for all programs.
- The Committees are continuing to work on a bacterial kidney disease (BKD) management recommendation.
- Ken Warheit (geneticist with WDFW) will be making a presentation on several genetic monitoring techniques, including the new Single Nucleotide Polymorphism (SNP), at an upcoming Hatchery Committee meeting.
- The Yakama Nation (YN) is talking with Okanagan Nation Alliance (ONA) representatives about the potential to Passive Integrated Transponder tag (PIT-tag) outmigrant Skaha Lake sockeye and make survival estimates as they move downstream through the mid- and lower-Columbia River; they are also developing a rationale for how this would fit with the hatchery M&E program.

- The YN is exploring the logistical and legal implications of collecting adult Skaha Lake sockeye at Wells Dam, rather than on the spawning grounds in Canada, as a means of more efficiently collecting broodstock.
- The Northwest Power Planning Council did not recommend funding for the YN coho reintroduction project for the period 2007-2009.
- The designs for the Twisp weir and Wells Hatchery screens have been finalized and Douglas PUD is evaluating cost options.
- The Committees continued the discussion of allocation of surplus fish at hatcheries, and the need for a more clarity with regard to decision makers and criteria. The general agreement was that allocation should be the responsibility of the Joint Fisheries Parties (JFP). (At this meeting, the Coordinating Committees members expressed their agreement with this conclusion. Further, Carmen Andonaegui suggested that the WDFW protocol already in place at several WDFW hatcheries might serve as a good starting place for the JFP to work from.
- Chelan PUD has developed production requirement estimates for Wenatchee steelhead and Chelan Falls Chinook salmon to guide the construction of new facilities for these programs. Once approved, these estimates will effectively establish a ceiling on production for the period 2013-2023. The estimation procedure and the estimates will be on the October Hatchery Committees meeting agenda for approval.
- Chelan PUD has met with several groups for public outreach regarding upcoming hatchery projects.
- Discussions are ongoing between Chelan PUD and the Colville Tribes regarding potential cost-sharing at the Chief Joseph Hatchery.
- Chelan PUD is providing regular briefings to the Hatchery Committees on all of their hatchery projects.
- WDFW, National Marine Fisheries Service (NMFS), and U.S. Fish and Wildlife Service (USFWS) representatives are discussing the permit and consultation needs for a potential spring Chinook hatchery selective fishery in the Entiat subbasin.

IV Updates: Chelan PUD (Shaun Seaman and Chuck Peven)

A. Preliminary Plans with Survival Study Results

Shaun Seaman updated the Committees on the results of survival studies at Rock Island and Rocky Reach in 2006. With these results, Chelan PUD will be proposing a Phase III

(Standards Achieved) for steelhead and sockeye at Rock Island, and steelhead at Rocky Reach. Seaman and Chuck Peven will be providing the Committees with summaries of these studies for review prior to the next meeting.

B. Combining Annual Report and Article 404 Reporting

Shaun Seaman updated the Committees that for Rocky Reach Dam, Chelan PUD will be sending a letter to Federal Energy Regulatory Commission (FERC) to inform them that the HCP Annual Report and Article 404 reporting will be combined this year in the Annual Report. The Rocky Reach Annual Report will now include a section on survival studies and plans. The Committee agreed with the reporting change.

C. Avian Monitoring Results for 2006

Shaun Seaman provided an update and some handouts on the avian piscivore monitoring project. Seaman will send these handouts electronically to Ali Wick for distribution to the Committees. One of Chelan PUD's wildlife biologists conducting this work will be attending a future meeting to make a more complete presentation of these results and answer questions.

D. Predation Study Update

Chuck Peven updated the Committees that 124 walleye have been caught (a portion of these were tagged) thus far in the study; the average size was 22 inches and 5.5 pounds. They also caught 152 smallmouth bass (with a portion of these tagged); the average size was 17.75 inches, 1.4 pounds. Lastly, 48 northern pikeminnow were caught, averaging 14.75 inches and 1.5 pounds. So far, walleye diets have included such prey as crawfish, whitefish, and stickleback; work is ongoing on diets as tagged fish are recaptured. This effort will be ongoing until the end of 2006.

IV Updates: Douglas PUD (Shane Bickford and Rick Klinge)

A. Status of Relicensing and HCP Parties Support for Anadromous Fish Issues

Shane Bickford provided several handouts on the Wells Hydroelectric Project relicensing; the current license expires on May 31, 2012. The official 51/2-year relicensing process kicks off in December 2006 under the new Integrated Licensing Process (ILP). Bickford brought this issue to the Committees for the purpose of discussing how the Committees would want

Douglas PUD to approach relicensing-related study requests that would conflict with the HCP requirements or goals. Mike Schiewe suggested that the Wells Committee could weigh in jointly or as individual entities, but if possible speaking as a Committee was certainly an efficient means of dealing with these types of issues. Bryan Nordlund noted that any new or proposed actions that resulted in take of listed species would require individual attention by NMFS, but any actions that did not involve take that would affect plan species could be jointly addressed by the Committee. Carmen Andonaegui mentioned that WDFW would likely want to reserve the right to comment individually on projects, but that, where possible, a joint response would be preferable. She indicated she needed to discuss this with WDFW leadership. Jerry Marco and Bob Rose commented that they generally agreed with the WDFW position for a joint response.

B. 2006 Bypass Operations Summary

Rick Klinge provided an update on the 2006 bypass operations; a written summary was an attachment to the agenda. The Committees agreed that the summary was complete and accepted the information as final.

V HCP Administration (Mike Schiewe)

A. Meeting Agreements

The Coordinating Committees made the following informal agreement at this meeting: For Rocky Reach Dam, the HCP Annual Report and Article 404 reporting will be combined this year in the Annual Report, and the Rocky Reach Annual Report will now include a section on survival studies and plans.

B. Policy Committee Meeting

Mike Schiewe indicated that the upcoming Policy Committee meeting will likely be scheduled for early December (Update: now scheduled for 1:30 to 4:30 pm on December 14 in SeaTac).

C. Surplus Hatchery Fish

The Committees discussed the issue of surplus adult hatchery fish (surplus = surplus of hatchery origin fish in excess of those needed for broodstock and not needed for natural production needs or recovery) and agreed that the allocation of these fish will be an issue

handled by the JFP and not the Hatchery or Coordinating Committees. The Hatchery Committees' responsibility is limited to determining that the fish are not needed for broodstock in any of the HCP hatchery programs.

D. Next Meeting

The next meeting will be held on Tuesday, October 24, in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Confederated Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Shane Bickford *	Douglas PUD
Bryan Nordlund *	NMFS
Carmen Andonaegui *	WDFW
Bob Rose * (by conference call)	Yakama Nation

* Denotes Coordinating Committees member or alternate

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Chuck Peven, Andrew Grassell, and Tom Kahler

Date: December 12, 2006

Re: Final Minutes of October 24, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Hotel Gateway in SeaTac, Washington on Tuesday, October 24, 2006, from 9:30 am to 12:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final September 26, 2006 Meeting Minutes to the Coordinating Committees for approval by email (Item I).
- Ali Wick will email the flyer out to the Committees for the Juvenile Salmonids Acoustic Tag System (JSATS) workshop planned for November 28 and 29 at Bonneville Dam (Item V-A).
- Committees members will provide to Chelan PUD any additional information that they request be included in the first draft of Chelan PUD's proposals for: 1) Rock Island Spring Spill Reduction Study; and 2) Rocky Reach Unit Operation Study by the end of this week, October 27 (Items V-B and -D).
- Andrew Grassell will provide the study plan for the 2007 Rock Island Spring Spill Reduction by November 14 (Item V-B).
- Shaun Seaman will provide a list of upcoming Operations and Maintenance (O&M) hatchery actions to the Hatchery Committees for their information (Item V-C).
- Andrew Grassell will provide the 2006 draft results from the spill on-off study by Friday, November 3 (Item V-D).
- Chuck Peven will provide the plan for the 2007 Rocky Reach Unit Operation Study prior to the next meeting (Item V-D).

DECISION SUMMARY

- The Coordinating Committees approved the Statement of Agreement for Survival of Sockeye Salmon and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2006 (Item III).
- The Coordinating Committees approved the Statement of Agreement for Phase III Standard Achieved Designation for Steelhead and Sockeye at Rock Island Project and Steelhead at Rocky Reach Project (Item IV).

I Meeting Welcome

Mike Schiewe opened the meeting and asked for approval of the September 26, 2006 Meeting Minutes. These minutes were approved with minor revisions. Ali Wick will send the Final September 26, 2006 Meeting Minutes to the Coordinating Committees for approval by email. Attendees to this October 24 meeting are listed in Attachment A to these Meeting Minutes.

II Tributary and Hatchery Committees Update

Mike Schiewe updated the Committees that the following activities are ongoing in the Tributary Committees:

- The Tributary Committees are continuing to review applications for the 2006 General Fund, with funding decisions planned for the November Meeting. Projects funded in 2005 are generally permitted and proceeding.
- The Tributary Committees are having discussions about the benefits of a programmatic Biological Opinion for projects funded under the HCP Plan Species Accounts.
- Salmon Recovery Funding Board (SRFB) is sponsoring a Project Status Review Workshop on April 26, 2007 in Tacoma. There may also be a local workshop for Upper Columbia Region projects, and/or a science review workshop sponsored by other Upper Columbia Region parties.

Schiewe updated the Committees about the following Hatchery Committees activities:

- Ken Warheit (Washington Department of Fish and Wildlife [WDFW] geneticist) gave a presentation on genetics as related to the Monitoring and Evaluation (M&E) program.

- The Committees approved the Statement of Agreement on Production Levels for Chelan County PUD's Turtle Rock Summer Chinook Hatchery Program (when relocated to Chelan Falls).
- The Committees are considering production levels for Wenatchee steelhead through 2023 for the purposes of facilities planning, and will be discussing these levels at an upcoming conference call.
- The Yakama Nation would like to move forward with a Hatchery Committees decision for the coho program; to this end, Chelan PUD, Douglas PUD, and the Yakama Nation will be meeting to discuss with the Bonneville Power Administration (BPA) its schedule and intent for a decision to potentially provide long-term funding for the Yakama Nation coho program.
- The Hatchery Committee Technical Team (HETT) is discussing the following
 - Proposals to address M&E Objectives 9 and 10
 - Proposal from Grant PUD for using reference condition instead of spatial reference location for hatchery evaluation
 - Methods for estimating steelhead Smolt-to-Adult Return Rates (SARs) that take into account tag loss (elastomer tags)
- WDFW and Chelan PUD are exploring the use of ultrasound for identifying broodstock gender.
- Broodstock collection updates:
 - Collection of wild steelhead at Wells Dam is running slightly behind schedule, and they may need to use additional hatchery females to achieve program levels.
 - WDFW has about 122,000 extra eggs in the Methow spring Chinook program. About 60,000 will be transferred to the Winthrop Hatchery and the balance have been thermally marked at Wells Hatchery pending a decision on their ultimate fate. The thermal marking is intended to allow their future identification as hatchery fish should they be released at a stage prior to the application of CWTs or other marking.
 - Kirk Truscott is working with Bob Rogers to draft a memo regarding production capacity at Methow Hatchery.
- The HETT will be reviewing a proposal to monitor downstream survival of Skaha sockeye salmon.

- The Yakama Nation is exploring the potential to collect and spawn returning adult Skaha Lake sockeye at Wells Hatchery as a way to enhance and simplify broodstock collection.
- Chelan PUD is currently working with WDFW on 2007 hatchery work plans, including staffing at Chiwawa Hatchery for the water warming operation.
- Chelan PUD is currently finalizing its 2007 M&E Implementation Plan, which will be up for approval at the next Hatchery Committees meeting.
- Chelan PUD provided updates on a variety of hatchery facility projects. These included recent progress toward resolving water quality problems at Similkameen Hatchery, and the development of new well water sources at Chelan Hatchery.
- Douglas PUD has three documents currently out for review: *Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005*, *Spring Chinook Spawning Ground Surveys in the Methow River Basin in 2005*, and the draft scope of work for their 2007 Hatchery M&E Implementation Plan. These will be up for approval at the next Hatchery Committees meeting.
- Douglas PUD is evaluating four alternative engineering proposals and permitting issues associated with the installation of a new screen system at the Wells Hatchery; also, the Twisp Weir designs have been evaluated and will be finalized soon following concurrence by National Marine Fisheries Service (NMFS) and WDFW engineers.
- The bacterial kidney disease (BKD) position paper that is being prepared is nearing completion; this will likely be a discussion item at the Policy Committee meeting on December 14.
- The Joint Fisheries Parties (JFP) will be meeting to define a policy regarding the allocation of surplus fish at hatcheries.

III DECISION ITEM: Statement of Agreement: Survival of Sockeye Salmon and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2006

Shaun Seaman introduced John Skalski of the University of Washington. Skalski conducted the analyses of the 2006 survival studies at Rocky Reach and Rock Island Projects. He provided a summary of results of acoustic tag survival studies for steelhead and sockeye at Rock Island Project, and steelhead at Rocky Reach Project. Following this discussion, the Committees accepted the survival estimates as valid for the purposes of phase designation, and approved the Statement of Agreement, with minor changes (Attachment B).

IV DECISION ITEM: Phase Designation for Steelhead and Sockeye at Rock Island Project and Steelhead at Rocky Reach Project

Shaun Seaman introduced this Statement of Agreement for phase designation for steelhead and sockeye at Rock Island Project and steelhead at Rocky Reach Project. With the addition of the 2006 results to the previous years' results, the three required studies are now complete and each of these plan species met the criteria for Phase III (standards achieved). The Committees approved the Statement of Agreement with minor changes (Attachment C).

V Updates: Chelan PUD (Shaun Seaman)

A. JSATS Seminar and Hands-On Workshop

Shaun Seaman updated the Committees that Battelle and NMFS are hosting a workshop on November 28 and 29 at Bonneville Dam to demonstrate the JSATS. Ali Wick will email the flyer for this workshop to the Committees.

B. 2007 Rock Island Spring Spill Reduction Study

Shaun Seaman updated the Committees that Chelan PUD is currently developing a study plan for a Rock Island Spring Spill Reduction Study. Chelan PUD brought this item to the Committees to gather ideas for what information the Committees would like to see in the study plan. Bryan Nordlund noted that the survival standard was exceeded by less than $\frac{1}{2}$ of a percent for listed spring Chinook, and did not understand how this translated into Chelan PUD's proposed spill reduction of 50%. Chelan PUD responded that the survival number that Nordlund referred to was the PIT-tag result, and the District, as agreed by the CC, would be using the result from acoustic tag technology. Measurements with acoustic tags over the 3-year period yielded a survival of 94.4 percent. The District will provide supporting information at the November meeting. The Committees indicated that they would like to see detailed information for rationale and background for Chelan PUD's proposed reduction of spill percentages. Bob Rose asked for an evaluation using block tests (20% versus 10% spill) with test blocks differing by the percentage that achieved the survival standard with Chelan PUD's proposed reduced spill percentage to allow comparison within the same outmigration. Bryan Nordlund stated his support for the block study proposal by Bob Rose. The Committee asked that the Chelan PUD draft study plan to

include their rationale for not considering this type of test, so that the Committee could provide informed comment.

The Committees would need as much time as possible to review the proposed study plan and Chelan PUD's rationale for not considering a block test plan prior to the next meeting. The plan will be distributed by Andrew Grassell by November 14 for the Committees review, with approval on the agenda for the November Coordinating Committees meeting.

C. Chelan PUD Budgeting Issues

Shaun Seaman updated the Committees that Chelan PUD was engaged in a strategic planning exercise and that the operating units were required to develop 2007 budgets that were no more than 5 percent above the 2006 level. This may affect funding for new items in 2007, but items that have already been committed to will not be affected (e.g., steelhead acclimation facility). Because these decisions may affect hatchery items, Seaman indicated that he will be providing a list of upcoming O&M hatchery actions that may be affected to the Hatchery Committees for their information. Bryan Nordlund asked if any funds generated from spill reduction, if agreed to by the Committee, could be used to offset any shortfalls for O&M hatchery actions. Chelan PUD responded that the amount of savings from the proposed operation is close to the cost of the survival study.

D. 2007 Rocky Reach Unit Operation Study

Chuck Peven updated the Committees that Chelan PUD is developing a proposal for a Rocky Reach Unit C1 Operation study in 2007. Issues being addressed include configurations of the powerhouse units, spill, and the surface collector. Currently, the spill-off operation is proposed during the sockeye passage study at Rocky Reach so that it does not compete with fish attraction to the surface collector. The Committees members expressed reservations about the spill-off option, and agreed to provide comments on the issues that they would like to see addressed in the study plan. The study plan will be sent out to the Committees shortly. Andrew Grassell agreed to provide the 2006 draft results from the spill on-off study by Friday, November 3.

E. Beebe Springs Development

Shaun Seaman mentioned to the Committees that there is currently a development proposal on the table for a large marina associated with an already permitted development across from Beebe Springs (called Beebe Ranch). This is just an FYI for the Committees.

F. PIT-Tag Coil Installation

Shaun Seaman updated the Committees that Chelan PUD is considering design ideas for Passive Integrated Transponder tag (PIT-tag) coil installation at Tumwater Dam. Bryan Nordlund commented that he had not seen these coils installed in a fish ladder design that features vertical slots. Chuck Peven indicated that he will be meeting with Chelan PUD's fisheries and engineering teams soon and would like to have input from WDFW and NMFS' engineers. Chelan PUD confirmed that they will be evaluating designs to assure that they will not affect the hydraulics of the existing fish ladder.

VI Updates: Douglas PUD (Rick Klinge)

Rick Klinge updated the Committees that fish counters at Wells Dam have seen a large number of Chinook jacks and mini-jacks this year at the dam, and that there was a discrepancy in counts between Rocky Reach and Wells dams (i.e., higher counts of jacks at Wells than at Rocky Reach Dam). Douglas has been including the mini-jacks in their jack counts; Chelan indicated that they are not including the mini-jacks in their jack counts, and it was suspected that this difference in reporting was resulting in the apparent discrepancy. The PUDs agreed to review their counting protocols to ensure consistency.

VII HCP Administration (Mike Schiewe)

A. Next Meeting Dates

- November: same time as usual, same date as originally planned: Tuesday, November 28, in SeaTac.
- December: New date: Thursday, December 14 in SeaTac. Because the afternoon is reserved for the Policy Committee meeting, the Coordinating Committees may want to start earlier than 9:30 am if the agenda requires more than about 3 hours.

List of Attachments

Attachment A – List of Attendees

Attachment B – Statement of Agreement: Survival of Sockeye Salmon and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2006

Attachment C - Statement of Agreement for Phase Designation for Steelhead and Sockeye at Rock Island Project and Steelhead at Rocky Reach Project

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Andrew Grassell	Chelan PUD
Jerry Marco * (by conference call)	Colville Confederated Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Bryan Nordlund *	NMFS
John Skalski	University of Washington
Carmen Andonaegui *	WDFW
Bob Rose *	Yakama Nation

* Denotes Coordinating Committees member or alternate

ATTACHMENT B

**STATEMENT OF AGREEMENT: SURVIVAL OF SOCKEYE
SALMON AND STEELHEAD SMOLTS THROUGH ROCKY REACH
AND ROCK ISLAND PROJECTS IN 2006**

Statement of Agreement
Survival of Sockeye Salmon, and Steelhead Smolts
through Rocky Reach and Rock Island Projects in 2006
Rocky Reach and Rock Island HCP Coordinating Committees
October 24, 2006

Background

In accordance with the HCP, Chelan performed survival studies on steelhead at Rocky Reach Project and sockeye and steelhead at Rock Island Project. Hydroacoustic Technology Inc. (HTI) and Columbia Basin Research have prepared a draft final report on the findings from the studies. The report presents the methods, survival estimates, standard errors, and conclusions for the 2006 survival studies at Rocky Reach and Rock Island Projects.

Agreement Statement

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the **Survival of Sockeye Salmon and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2006** and accept the survival estimates and the standard errors reported by HTI and Columbia Basin Research for the 2005 survival studies at Rocky Reach and Rock Island Projects. The HCPCC agree with the methodologies as reported.

ATTACHMENT C

**STATEMENT OF AGREEMENT FOR PHASE DESIGNATION FOR
STEELHEAD AND SOCKEYE AT ROCK ISLAND PROJECT AND
STEELHEAD AT ROCKY REACH PROJECT**

Statement of Agreement
Phase Designation for Steelhead and Sockeye at Rock Island Project and Steelhead
at Rocky Reach Project
Rocky Reach and Rock Island HCP Coordinating Committees
October 24, 2006

Agreement

Because the District exceeded the Juvenile Project Survival Standard (93%) from the HCP, we agree that, for steelhead and sockeye at Rock Island Project and steelhead at Rocky Reach Project, the District is in Phase III (Standard Achieved).

Background

Between 2004 and 2006, the District conducted studies on steelhead and sockeye to estimate Project survival using run-of-river fish and acoustic tagging methods. The average for the three years for steelhead and sockeye at Rock Island Dam and steelhead at Rocky Reach Dam exceeded the 93% standard required in the HCP (Table 1 and 2).

Table 1. Three-year summary of steelhead and sockeye survival at Rock Island Project (Standard Error).

Rock Island	2004	2005	2006	3-Year Average
Steelhead	.966 (.011)	.916 (.015)	.940 (.013)	.941
Sockeye	.985 (.014)	.953 (.011)	.960 (.011)	.966

Table 2. Three-year summary of steelhead survival at Rocky Reach Project (Standard Error).

Rocky Reach	2004	2005	2006	3-Year Average
Steelhead	.983 (.018)	.930 (.013)	.960 (.01)	.958

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Chuck Peven, Steve Hays

Date: January 25, 2007

Re: Final Minutes of November 28, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Hotel Gateway in SeaTac, Washington on Tuesday, November 28, 2006, from 9:30 am to 4:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final October 24, 2006 Meeting Minutes to the Coordinating Committees for approval by email (Item II).
- Ali Wick will send out call line information for two Committees conference calls: at 3:00 pm on Tuesday, December 5 and at 11:00 am on Friday, December 1 (Item III).
- Andrew Grassell will provide Ali Wick both the draft 2006 report on the spill on and off study at Rocky Reach and a slide showing dam survival in 2005 to 2006 using spill and no spill for distribution to the Committees (Item V-A).
- Ali Wick will contact the Committees to check their availability to meet earlier than 9:30 am on December 14 in SeaTac (Item VII-C).

DECISION SUMMARY

- There were no decision items at this meeting.

I Avian Predation Presentation (Von Pope – Chelan PUD)

Mike Schiewe opened the meeting and invited Von Pope of Chelan PUD to give his presentation on avian predation. Pope presented the latest results on Chelan PUD's study of

piscivorous bird abundance and predation for the 2002 to 2006 time period; the study was done in cooperation with the University of Washington. Key points were:

- Early in the season, the study used tools to deter bird predation at the dams (cannons, piling caps, and hazing), and late in the season, this equipment was used in a limited fashion.
- The natural offset timing of the bird vs. smolt migration limits take of smolts at Rocky Reach and Rock Island.
- There is high variation in annual smolt consumption estimates.

The presentation was emailed to the Coordinating Committees and will be posted to the ftp site. CDs of the report were distributed, and the report will also be posted to the ftp site. Chelan PUD will be developing a management plan for bird predation in the future.

II Meeting Administration

Mike Schiewe asked for approval of the October 24, 2006 Meeting Minutes. Shaun Seaman noted that in the Chelan PUD budget issues section of the October minutes, there was a question from Bryan Nordlund about whether any funds generated from a spill reduction (if agreed to by the Committees) could be used to offset any shortfalls for other HCP actions (e.g., hatchery facilities). Seaman noted that the October minutes did not include an answer to Nordlund's question because Seaman, at that time, did not have any information on cost vs. cost savings. Therefore, Seaman wanted to clarify at this meeting today (November 28) that the answer to this question was thus: the amount of savings from the proposed operation is close to the cost of the survival study. Seaman also clarified that the HCPs are outcome based and the District uses various tools to meet the outcome. The cost associated with each tool varies and there is no aspect of the HCP associated with increased or decreased cost of the various tools. Because of this clarification and other minor changes, Ali Wick will circulate the Final October 24, 2006 Meeting Minutes with the revisions discussed at today's meeting for approval by email.

III DECISION ITEM: Chelan PUD 2007 Rock Island Survival Study Plans for 10 Percent Spill

Shaun Seaman introduced this topic and invited Andrew Grassell to discuss the study plan. At the last meeting, the Committees had asked Chelan PUD to add text to the plan explaining the basis for which Chelan PUD believes the survival standard for yearling Chinook will still be

met under a 10 percent spill operation. As part of this discussion, some Committees members voiced concern that year-to-year variability (such as a low water year) might result in lower point estimates for project survival with the reduced spill. Grassell responded that one of the key reasons for implementing the study is to better understand the relationship between 10 and 20 percent spill and project survival. Grassell commented that in planning the study, a model run for the study used a low water year (2002) as a worst-case environmental conditions scenario to model predicted project survival under 10 and 20 percent spill; results suggested that the difference in project survival between 10 percent and 20 percent spill would be very small during worst-case water conditions.

After considerable discussion, the majority of the Committees members indicated they needed additional time to evaluate the information that Chelan PUD had presented at today's meeting, and wanted the opportunity for additional discussion among Joint Fisheries Parties (JFP) members. The Committees agreed to set a conference call for 3:00 pm on Tuesday, December 5 to reconsider a Statement of Agreement to approve the study. The JFP representatives will be meeting by conference call at 11:00 am on Friday, December 1. Ali Wick will send out conference call information for these two calls.

IV Douglas PUD (Rick Klinge)

A. Improvements to Fish Guidance in the Wells Ladders

Rick Klinge updated the Committees that Douglas PUD has been developing a physical model of Wells Dam to inform the design of a telemetry study in 2007. The study will be designed to evaluate the difference in passage time of summer Chinook from entrance into the collection gallery to commitment into the fish ladder for the ladder fitted with the flow directing baffle and the ladder without the baffle. Klinge would like to invite a Committees tour of the model sometime in January to further explain Douglas PUD's plans for this.

B. Winter Maintenance Schedule for Wells Ladders 2006/2007

Rick Klinge distributed a handout on the upcoming schedule for the 2006/2007 Wells Dam fish ladder maintenance. Klinge noted that if Committees members are interested, tours of the ladder could be organized after December 19 when the ladder will be de-watered for maintenance. Committees members are encouraged to contact Klinge if they are interested in a tour.

C. Issue of Chinook Jack and Mini Jack Counts at Wells Dam in 2006

At the last meeting, Douglas PUD had updated the Committees that there was a discrepancy in the Wells Dam jack counts compared to those at Rocky Reach in 2006. Rick Klinge updated the Committees that the counts at Wells Dam were inflated due to mini jacks being included in the count as well as jacks. Currently, the correct jack counts (excluding mini jacks) are posted on the DART webpage, and Douglas PUD can provide data on mini jack counts if Committees members are interested.

V Chelan PUD (Shaun Seaman)

A. Development of the 2007 Rocky Reach Unit Operation Study

Shaun Seaman introduced this topic of the 2007 Rocky Reach Unit Operation Study, which was distributed earlier in the month for Committees review; the study was aimed at optimizing the fish passage system by manipulating Unit 1 operations. Tracy Steig gave a presentation discussing juvenile fish passage as measured by acoustic tags in the area up to 300 feet from Unit 1. Steig indicated he had concluded that the zone of influence for the downdraft of Unit 1 (which would have the effect of drawing fish toward Unit 1) may only extend approximately 25 feet from the unit. This and the results suggested that there would be only a small group of fish that would benefit by the 'off' status of Unit 1 and could potentially pass the dam via the surface collector (the preferred route of passage through the dam, which leads to the juvenile fish bypass system). Seaman indicated that based on further consideration of this information, Chelan PUD was rethinking pursuing this study.

Carmen Andonaegui suggested that any new study lay out options for testing spill geometry as well as tests to investigate increasing the efficiency of the surface collector. Andrew Grassell provided a slide showing dam survival in 2005/2006 using spill and no spill. This slide showed that mathematically redistributing the fish that passed through the powerhouse through the surface collector makes no difference in project survival. Grassell will provide this slide as well as the draft 2006 report on the spill on and off study to Ali Wick for distribution to the Committees. The PUD is still considering options for fish passage research at Rocky Reach in 2007 and will have a more definitive approach for a study by December 14.

B. Tumwater PIT-Tag Coil Installation Design

Shaun Seaman updated the Committees that Chelan PUD will be moving forward with design of the Passive Integrated Transponder tag (PIT-tag) Coil at Tumwater Dam and will install a blank structure in the place of the future coil this winter in order to perform some measurements and assessment on the coil's potential impact on hydraulics.

C. Rocky Reach Fishway Overhaul 2006/2007

Shaun Seaman commented that a schedule for the overhaul of Rocky Reach Fishway was sent out to the Committees, and that members should contact Thad Mosey if they have questions.

VI Tributary and Hatchery Committees Update (Mike Schiewe)

Mike Schiewe updated the Committees that the Tributary Committees are continuing to review applications for the 2006 General Fund, with funding decisions planned for the December meeting. A memorandum was previously forwarded to the Coordinating Committees with further details of the update.

In the interest of time, Schiewe commented that the November Hatchery Committees minutes, once finalized, will be routed to the Coordinating Committees for their information.

VII HCP Committees Administration (Mike Schiewe)

A. Committees Communication between Meetings

Mike Schiewe encouraged Committees members to be in communication as much as possible between meetings to facilitate efficient discussions and decision-making at meetings.

B. Policy Meeting Agenda and BKD Issue Papers

Mike Schiewe updated the Committees on the draft Policy Committees agenda, and mentioned the key issues for the meeting. He noted that the Policy Committees will not be asked to make decisions on the agenda items; however, discussions at the meeting will serve

update and include them on ongoing discussions.

C. Next Meeting Dates

Mike Schiewe updated the Committees that the next meeting date is Thursday, December 14 in SeaTac. Ali Wick will contact the Committees to check their availability to meet earlier than 9:30 am on this day. Meetings are also scheduled for 9:30 am to 1:00 pm on Tuesday, January 23 in Wenatchee and 9:30 am to 1:00 pm on Tuesday, February 27 in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe (by conference call)	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Von Pope	Chelan PUD
Steve Hemstrom	Chelan PUD
Steve Hays	Chelan PUD
Andrew Grassell	Chelan PUD
Jerry Marco * (by conference call)	Colville Confederated Tribes
Rick Klinge *	Douglas PUD
Tracy Steig	HTI
Bryan Nordlund *	NMFS
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW
Kris Ryding (by conference call)	WDFW
Bob Rose * (by conference call)	Yakama Nation

* Denotes Coordinating Committees member or alternate

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Tom Kahler, Chuck Peven, Andrew Grassell

Date: January 22, 2007

Re: Final Minutes of December 5, 2006 Rocky Reach and Rock Island HCP Coordinating Committees Conference Call

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Coordinating Committees met by conference call on Tuesday, December 5, 2006 from 3:00 p.m. to 5:15 p.m.

Mike Schiewe welcomed everyone to the call and stated that the purpose of the call was to review and comment on the latest draft Statement of Agreement (SOA) for the 2007 Rock Island survival study plan for evaluating 10 percent spill. As background, the Joint Fisheries Parties (JFP) had met by conference call on December 1, 2006, and based on their discussions made a number of changes to Chelan PUD's original draft SOA. This JFP-modified SOA was distributed to the full Coordinating Committees on December 1, 2006. Just prior to today's conference call, Shaun Seaman distributed a third revision of the SOA, one that proposed additional modification to the JFP version.

Shaun Seaman started the discussion by reviewing Chelan's proposed changes to the JFP revision of the SOA. Subsequent discussions focused on the following issues: 1) a decision path for a first year result of 91 to 93% survival; 2) the timing of follow-up testing with steelhead, if the yearling Chinook testing extended beyond one year; and 3) the potential to gain insight into sockeye salmon survival early on by using the single release survival model to estimate survival of sockeye released for studies at Rocky Reach to estimate survival at Rock Island. There was also considerable discussion of the HCP's adaptive management framework and its use of performance standards to measure progress toward the goal of No Net Impact.

There was also discussion of whether the status of yearling Chinook salmon at RI Dam should be changed to Phase III (Additional Juvenile Studies) during testing of new operations.

Following extensive discussion of all of these issues, Chelan PUD agreed to revise the draft SOA for the RI spill studies to reflect the following: if first year results of the yearling Chinook testing were between 91 and 92% survival, the Coordinating Committee would have to agree to any additional testing, and spill would return to 10% unless a different operation was agreed to by the Committee; if results were 92% or higher, then at least one additional year of testing would be approved. The Committee also requested that Chelan PUD consider testing steelhead in the second year of testing rather than wait until the third year. The Committee also requested additional time to consider the proposed use of the single release survival model to get a preliminary indication of any effect of the spill reduction on sockeye.

The revised draft SOA will be distributed to the Coordinating Committee by Wednesday, December 6 for further review by the Committee. Schiewe will contact Bob Rose who was unable to join today's call to provide an update, and will refer him to Bryan Nordlund with any further questions as they relate to the JFP. The Committees will reconvene this Friday, December 8, at 9:30 am to review the new draft and attempt to reach agreement and approve the SOA.

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Chuck Peven	Chelan PUD
Shaun Seaman *	Chelan PUD
Andrew Grassell	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW

* Denotes Coordinating Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Tom Kahler, Chuck Peven, Andrew Grassell

Date: January 22, 2007

Re: Final Minutes of December 8, 2006 Rocky Reach and Rock Island HCP Coordinating Committees Conference Call

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Coordinating Committees met by conference call on Friday, December 8, 2006 from 9:30 a.m. to 11:00 a.m.

Mike Schiewe welcomed everyone to the call and stated that the purpose of the call was to review the latest draft Statement of Agreement (SOA) for the 2007 Rock Island survival study plan for evaluating 10 percent spill. As background, the Joint Fisheries Parties (JFP) had met by conference call on December 1, 2006, and based on their discussions made a number changes to Chelan PUD's original draft SOA. This JFP-modified SOA was distributed to the full Coordinating Committees on December 1, 2006, and was the subject of review and discussion at a Coordinating Committees conference call on December 5, 2006. On December 6, 2006, Mike Schiewe distributed to the Committees members a new version of the SOA that incorporated changes discussed during the Dec 5 conference call. On December 7, 2006, Bryan Nordlund and Bob Rose each distributed red-line versions of the December 5 SOA with suggested edits and changes. The purpose of the call today is to review the most recent versions of the SOA, consider changes, and attempt to reach a final decision on approval of the SOA.

Bryan Nordlund opened the discussion by reviewing the changes he suggested in the Dec 7, 2006 version that he marked up and sent to Mike Schiewe for distribution to the Committees. Nordlund's suggested changes included a clarification that both the spill level and powerhouse operations were important parameters that affect passage survival, and that reevaluation of any new operation or spill level would occur at 10-year intervals. He also suggested several

Attachment A

List of Attendees

changes to simplify the language of the SOA. Lastly, he raised the issue of how any changes in operation might affect the downstream passage of steelhead kelts.

Bob Rose continued the discussion of kelt passage, indicating that for upper Columbia River steelhead recovery that survival needed to be high. Steve Hayes indicated that there was no information to suggest that kelt survival at Rocky Island was a problem, or that a change from 20% to 10% would affect survival. Committees members also discussed the importance of conducting survival tests with steelhead survival in 2008, and importance of using the single release model to estimate sockeye survival beginning in 2007.

The Committees approved the SOA pursuant to the revisions agreed to during today's call. Mike Schiewe will revise the SOA accordingly, and the final version will be appended to these call minutes (Attachment A). (Note: An advance final version was sent by e-mail to Committees members on December 11, 2006).

List of Attachments

Attachment A: List of Attendees

Attachment B: Statement of Agreement for the 2007 Rock Island Survival Study Plans for 10% Spill:
Rock Island HCP Coordinating Committee

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Chuck Peven	Chelan PUD
Shaun Seaman *	Chelan PUD
Andrew Grassell	Chelan PUD
Steve Hays	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Bob Rose*	Yakama Nation
Rick Klinge	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS
Steve Hemstrom	Chelan PUD
Carmen Andonaegui *	WDFW

* Denotes Coordinating Committees member

Attachment B
Statement of Agreement

**Statement of Agreement – Approval of the 2007 Rock Island Survival Study Plans for
10% Spill
Rock Island HCP Coordinating Committee**

December 8, 2006

Agreement Statement

The Rock Island Coordinating Committee (RICC) approves testing a 10% spill operation in 2007 at Rock Island Dam to assess yearling chinook survival, subject to the following conditions:

- 1) If 2007 study results indicate that juvenile project survival is less than 91%, spring spill at Rock Island will revert back to 20% in 2008 unless the committee decides to test a different operation based on compelling information gained from the 2007 studies. The status of Phase III (Standards Achieved) for spring migrants will remain effective as long as project operations, including spill levels of 20%, are maintained that are reasonably similar to 2002-2006 project operations that led to standard achieved.
- 2) If 2007 valid study results (as defined in the HCP) indicate that juvenile project survival is over 91% but less than 92%, the committee will evaluate the study results and relevant environmental conditions and determine if additional years of studies under 10% spill operation should be performed. If the results are 92% or greater, but less than 93%, a second year of testing will occur at the 10% spill level. If the average of the two years of valid studies (assuming 2007 and 2008) is less than 93%, the committee will decide, based on information from the two years of studies, whether or not to proceed with a third year of studies. If the committee agrees that a third year of studies is not appropriate, then spill for the next spring period will revert to 20%, unless agreed otherwise by the committee. The status of Phase III (Standards Achieved) for spring migrants will remain effective as long as project operations, including spill levels of 20%, are maintained that are reasonably similar to 2002-2006 project operations that led to standard achieved.
- 3) If valid 2007 study results indicate that juvenile project survival is 93% or more, two additional years of studies will be conducted using yearling Chinook with the three-year average estimated survival used in consideration for phase designation for yearling Chinook.
- 4) If 2007 yearling Chinook salmon survival results are 92% or higher or the RICC agrees to a second year of study at 10% spill, Chelan PUD shall conduct a steelhead survival study in 2008, with additional years of study implemented as determined by the committee based on the initial survival result under alternative operations, and using the path forward as described above for yearling Chinook studies. The District will be performing studies with sockeye at Rocky Reach in 2007 and likely in subsequent years. The District will evaluate survival of the Rocky Reach test sockeye migrating through the Rock Island project, using a single release model. If the result of this evaluation (based on studies performed in 2007 and likely in 2008) indicates that sockeye survival meets the survival standard, the committee may determine that additional sockeye survival studies at RI are not necessary. Such a determination will not prevent the committee from making a phase designation for sockeye under the 10% spill regime. If the single release evaluation provides an indication that measured survival is below the standard, the committee will determine the need to perform standard pair-release studies for Rock Island. The committee recognizes that survival estimates based on the single release model may underestimate actual survival since the model does not account for handling and tagging mortalities. At the same time a high survival estimate (e.g., >93%) from the single release model would provide a measure of confidence that the standard is being achieved.

Attachment B Statement of Agreement

5) The committee recognizes that completion of studies under this agreement requires Phase III reevaluation studies to occur every ten years. The committee will determine the appropriate initial date for reevaluation studies at the completion of studies under this agreement.

6) All testing will be conducted using protocol accepted by the committee, and subject to representative flow conditions and other test protocol as defined in the HCP.

Background

2006 marked the third year of Phase 1 testing for spring species at Rock Island Dam in accordance with the Rock Island Habitat Conservation Plan (HCP) under a 20% spill regime. The three-year average for project survival using 20% spill for passing each of the three spring species (yearling Chinook salmon, sockeye salmon, and steelhead) exceeded the 93% survival standard and met the required standard error (Table 1.). The RI CC agreed on October 24, 2006 that Chelan PUD has achieved Phase III (Standards Achieved) for all juvenile salmonid spring migrants (yearling Chinook and sockeye salmon, and steelhead) at Rock Island Dam under project operations that included 20% spill. The RI CC can consider new information and analysis to assess whether the 93% project survival standard can be achieved with alternative project operations and approve testing of such operations. Chelan PUD has presented new analyses that indicate a 93% or higher project survival can be achieved for yearling Chinook salmon under a 10% spill operation during the spring outmigration. The proposed project survival study plan at Rock Island in 2007 is designed to determine if the HCP standard can be maintained under an alternative Rock Island Dam spring spill level of 10% of the daily average flow.

Table 1. Summary of Rock Island Phase-1 Survival Study Results with Standard Errors

Species	2002	2003	2004	2005	2006	3-Year Average
Yearling Chinook	.956* (.025) ----- .952^ (.026)	.934* (.016) ----- .939^ (.016)	.914* (.023) ----- .942^ (.012)			.935* ----- .944^
Steelhead	NA	NA	.966 (.011)	.916 (.015)	.940 (.013)	.941
Sockeye	NA	NA	.985 (.014)	.953 (.011)	.960 (.011)	.966

*Estimates generated using PIT tags.

^ Estimates generated using acoustic tags

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Coordinating Committees

From: Michael Schiewe, Chair, HCP Coordinating Committees

CC: Ali Wick, Chuck Peven, and Tom Kahler

Date: January 25, 2007

Re: Final Minutes of December 14, 2006 HCP Coordinating Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Coordinating Committees met at the Radisson Hotel Gateway in SeaTac, Washington on Thursday, December 14, 2006, from 8:30 am to 12:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will distribute the draft November 28, 2006 Meeting Minutes and the December 5 and 8, 2006 Conference Call Minutes to the Committees for their review (Item I).
- Rick Klinge will distribute the 2007 Douglas PUD Action Plan (Item III-C).
- Chelan PUD will distribute the 2007 Chelan PUD Action Plan (Item III-C).
- Committees members will provide input for incorporation into Chelan PUD's Unit Operation Study Plan to Shaun Seaman (Item IV-A).
- Chelan PUD will provide a detailed Unit Operation Study Plan, including a schedule, prior to the next meeting (Item IV-A).
- Tom Kahler will provide Ali Wick with the Battelle and NOAA presentations from the Juvenile Salmonids Acoustic Tagging System (JSATS) group, for distribution to the Committees (Item IV-B).
- Shaun Seaman will distribute a table of HCP reports and study plans for 2007 (Item IV-C).
- Chelan and Douglas PUDs will meet regarding potential coordination of radio telemetry studies for summer Chinook (Item IV-C).

- Tom Kahler will verify and confirm with Ali Wick that the dates for review and submittal of the 2006 HCP Annual Report are the same as last year (Item V-A).
- In January, Ali Wick will prepare a schedule for review of the 2006 Annual Reports for the PUDs (Item V-A).

DECISION SUMMARY

- There were no decision items at this meeting.

I. Approval of Meeting Minutes and Agenda (Mike Schiewe)

Mike Schiewe updated the Committees that due to the short timeframe between this meeting and last month's meeting, the November 28, 2006 Meeting Minutes are still being prepared, as are those for the December 5 and 8 Conference Calls. Ali Wick will distribute these Minutes by email to the Committees for their review.

II. Update: Tributary and Hatchery Committees (Mike Schiewe)

Mike Schiewe updated the group that the Hatchery Committees are working on the following items; the final November Hatchery Committee meeting minutes will be forwarded to the Coordinating Committees for their information:

- Hatchery Monitoring and Evaluation (M&E) Plan funding and implementation
- Capacity and maximizing the use of the Methow Hatchery
- Twisp Weir plans and schedule
- Chewuch River trapping facility and schedule
- Ultrasound gender ID technology
- Facilities work and planning
- Impending decision on whether coho are a Plan Species that requires mitigation
- The Hatchery Evaluation Technical Team (HETT) is focusing on these items:
 - Implementation of Objectives 9 (effect of supplementation on disease prevalence) and 10 (effect of supplementation on non-target taxa) of the M&E Implementation Plan.
 - Identifying reference streams for steelhead and spring Chinook
 - Effects of less than 100 percent marking for evaluating programs

Mike Schiewe updated the group that the Tributary Committees are working on making funding decisions for the coming year for two proposals, as well as investigating securing a “programmatic” Biological Opinion for habitat protection and restoration projects funded by the HCP Plan Species Accounts.

III. Douglas PUD (Rick Klinge)

A. Draft 2007 Bypass Plan for Wells Dam

Rick Klinge updated the group that Douglas PUD has distributed the draft 2007 Bypass Plan that proposes to provide spill from April 20 through August 26, 2007, the same dates as in past years. This will be a decision item at the next meeting.

B. Ladder Passage Improvements and Telemetry Study for 2007

Rick Klinge updated the group that modifications to one of the fish ladders at Wells Dam planned for this winter’s outage are expected to reduce the time that fish are confused in the collection gallery, which should improve fish passage through that area. Klinge would like to organize a tour in January 2007 of a model of the fishway at a hydraulics lab in Vancouver, British Columbia. Also, Klinge noted that Douglas PUD will be conducting a radio telemetry study for lamprey in 2007, and intends to expand the scope of the study to also compare ladder-passage times of summer Chinook through the modified and unmodified ladders; the study plan will be available in January.

C. 2007 Action Plan

Rick Klinge updated the group that he will distribute the 2007 Douglas PUD Action Plan soon. Shaun Seaman noted that Chelan PUD will have its Action Plan sometime in January and will distribute the plan soon.

IV. Chelan PUD (Shaun Seaman)

A. Proposed Rocky Reach Unit Operation Study

Shaun Seaman updated the group on Chelan PUD planning for upcoming passage studies at Rocky Reach Dam. Chuck Peven gave an overview of the 2007 Unit Operation Study at Rocky Reach, and the options that are being discussed; he is currently developing this plan in cooperation with John Skalski at the University of Washington. The study will focus on

modifying spill at Rocky Reach to improve sockeye salmon passage survival, with the expectation that the study will help improve passage for other Plan Species as well. The Committees engaged in a productive discussion of the proposed plan elements, as well as the issues they would like addressed in the final study plan. After today's discussion, Peven requested further feedback from the Committees on their ideas or direction of the plan; Committees members will provide this input soon for incorporation into the plan. A detailed plan, including a schedule, will be distributed for discussion prior to the next meeting. A Committees decision on the plan will likely be requested in February.

B. Path Forward for Subyearling Chinook Update

Shaun Seaman updated the group that Chelan PUD will discuss the path forward for Phase Designation of subyearling Chinook salmon at Rock Island and Rocky Reach at the next meeting. A key aspect of this discussion will be that methods are not currently available for tagging and tracking small subyearling Chinook. In response to an inquiry by Carmen Andonaegui regarding the applicability of the JSATS tag being developed by the U.S. Army Corps of Engineers, Tom Kahler noted that technologies for effectively tagging subyearlings may be emerging, but are not ready for use at this time; he will provide Ali Wick with the Battelle and NOAA presentations discussing tagging and fish size from the recent JSATS workshop and the 2006 AFEP Annual Review, for distribution to the Committees. Tom also noted that, regardless of advancements in JSATS tag technology, there would remain no way of differentiating between "natural" and project-related mortality for the substantial numbers of the subyearling fish that exhibit delayed migration following tagging, especially considering the potential for delayed mortality associated with tagging (i.e., observations of test fish with unhealed sutures in long-term holding experiments).

C. Upcoming Reports and Study Plans for Completion of 2005 and 2006

Shaun Seaman noted that Chelan PUD has been in communication with Federal Energy Regulatory Commission (FERC) about the plan to combine Chelan PUD HCP Annual Reports with FERC reporting. Seaman distributed a table of past HCP reports and study plans from late 2005 and all of 2006, commenting that he will be providing the updated 2007 list soon. This list will be similar to 2006, but will also include a schedule for study results from plans described in the list. One of the studies on this list is a potential radio telemetry

study with summer Chinook, which may be funded jointly with Douglas PUD; Chelan PUD will be meeting with Douglas PUD to discuss this plan.

D. Hatchery Improvement List

Shaun Seaman updated the group that Julie Pyper (Chelan PUD) is working on the list of hatchery improvements and it will soon be available.

V. HCP Committees Administration (Mike Schiewe)

A. Annual Report Dates

Ali Wick checked in with the PUDs on the dates for the Annual Report drafts. Chelan PUD confirmed that dates would be the same as last year. Tom Kahler will verify and confirm with Ali Wick that their dates are the same as last year as well. In January, Ali Wick will prepare a schedule for review to the PUDs.

B. Upcoming Policy Committee Meeting (this afternoon)

Mike Schiewe briefly reviewed the agenda items to be discussed at this afternoon's Policy Committees meeting.

C. Next Meeting Dates

Mike Schiewe updated the Committees that the next Coordinating Committees meeting dates are:

- January 23 in Wenatchee – 9:30 am to 12:00 pm
- February 27 in SeaTac – 9:30 am to 1:00 pm
- March 27 in SeaTac – 9:30 am to 1:00 pm

VI. List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Confederated Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Bryan Nordlund *	NMFS
Brian Cates *	USFWS
Carmen Andonaegui *	WDFW
Steve Parker *	Yakama Nation
Tom Scribner	Yakama Nation
Bob Rose *	Yakama Nation

* Denotes Coordinating Committees member or alternate

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery and Coordinating Committees

From: Michael Schiewe, Chair, HCP Hatchery and Coordinating Committees

CC: Ali Wick, Chuck Peven, Julie Pyper, Tom Kahler, Bob Clubb, Keely Murdoch, Shane Bickford

Date: February 22, 2007

Re: Final Minutes of December 27, 2006 Wells, Rocky Reach and Rock Island Hatchery and Coordinating Committees Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery and Coordinating Committees met by conference call on Wednesday, December 27, 2006 from 10:00 am to 12:00 pm to review and approve Statements of Agreement for deferral of decisions regarding the status of coho salmon as a Plan Species with HCP mitigation requirements. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- Mike Schiewe will work with the PUDs to revise the SOAs consistent with today's discussion and circulation to the Committees for email approval by January 2, 2007.

I Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by stating that the purpose of today's call was to review and attempt to reach agreement on the Statements of Agreement (SOAs) deferring or delaying a determination on whether the PUDs have mitigation requirements for coho salmon as described in the Wells, Rocky Reach, and Rock Island HCPs.

II Review of Douglas PUD Statements of Agreement

Rick Klinge introduced the discussion of the proposed Wells HCP SOAs for the coho decision by describing the development of the proposal and its review and approval by the Douglas PUD managers and the Commissioners. The SOA, 1) proposed a deferral of a decision until October 2007, on whether or not Douglas PUD would be required to meet NNI for coho salmon;

2) required the Wells Hatchery Committee to define the mitigation requirement prior to November 2007; and 3) proposed that, should it be determined that Douglas PUD be required to meet NNI for coho as per Section 8.4.5.1 of the Wells HCP, coho would be designated to be in Phase III (Standards Achieved).

Tom Scribner indicated that the Yakama Nation (YN) had some proposed changes to the SOA that he incorporated by redline in the version that was distributed to the Committees on December 26, 2006. The proposed change required that the mitigation (if required) would be consistent with the Coho Master Plan that the YN was developing. After considerable discussion by members of both the Coordinating and Hatchery Committees, it was agreed that *in lieu* of a reference to the Coho Master Plan that a statement would be added to the SOA requiring Douglas PUD to work with the Yakama Nation, the Bonneville Power Administration, Chelan and Grant PUDs, and the Wells Hatchery Committee to work out details of any potential mitigation. It was also agreed that, if the Wells Hatchery Committee determines that Douglas PUD must compensate for coho passage losses as per Section 8.4.5.1 of the Wells HCP, the Coordinating Committee would designate it as Phase III (Additional Juvenile Studies), and not as Phase III (Standards Achieved) as initially suggested by Douglas PUD. The latter would preserve the option for the Coordinating Committee to require survival studies if existing information did not support the use of a surrogate species (e.g., spring Chinook salmon) for Phase designation.

Mike Schiewe agreed to make the changes to the SOAs and to circulate the drafts to the Committee members by the end of the day. Approval of the new drafts would occur by email no later than January 2, 2007. A tentative conference call was scheduled for January 3, 2007, if necessary, to resolve any outstanding issues. Approval by all parties was emailed or phoned in by January 3, 2007.

III Review of Chelan PUD's proposed SOA for Delay/deferral of Coho Decision

Shaun Seaman introduced the proposed SOA for the coho decision under the Rock Island and Rocky Reach HCPs. The proposed Hatchery Committees SOA was structured as a decision to delay the decision until January 31, 2007, with a decision to defer until October 2007 if certain conditions were met. The conditions of the SOA were that the following issues were to be resolved: 1) the use of a surrogate species for coho salmon to determine juvenile passage

survival and hydro operations; 2) the clarification of options available for meeting any hatchery mitigation obligation; and 3) the definition of out-year conditions or situations that would lead to terminating a HCP coho obligation.

Tom Scribner suggested several changes to the SOAs. He indicated that the YN was looking for a commitment from Chelan PUD that any mitigation would be consistent with the YN's Coho Master Plan. He also indicated that he felt that the January 31, 2007 date for working through the conditions was too short a time period. After a lengthy discussion, the Committees agreed to adding a statement to the SOA requiring Chelan PUD to work with BPA, the Douglas and Grant PUDs, and the HCP Committees (similar to that approved for the Wells HCP coho SOA) as the approach to defining a potential mitigation program. The Committees agreed that the January 31 date was inadequate to work through the issues raised by Chelan PUD, and changed the proposed date to March 31, 2007. The balance of the discussion served primarily to clarify expectations by Chelan PUD regarding what could be accomplished prior to March 31, 2007.

Mike Schiewe agreed to incorporate the agreed-to changes into the draft SOA for the Hatchery Committee to review. He also agreed to draft a companion SOA for the Coordinating Committee that addresses approval of the schedule change and acknowledges the commitment to evaluate the potential use of surrogate species for determining initial phase designation and hydro operations. Both documents will be distributed later today and Committees approval would be requested by email response no later than January 2007.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Jerry Marco ***	Colville Tribes
Chuck Peven	Chelan PUD
Shaun Seaman ***	Chelan PUD
Julie Pyper	Chelan PUD
Bob Clubb	Douglas PUD
Tom Kahler	Douglas PUD
Rick Klinge ***	Douglas PUD
Shane Bickford	Douglas PUD
Bryan Nordlund **	NMFS
Brian Cates ***	USFWS
Kirk Truscott *	WDFW
Carmen Andonaegui **	WDFW
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

** Denotes Coordinating Committees members

*** Denotes member of both Committees

APPENDIX B

HABITAT CONSERVATION PLAN HATCHERY COMMITTEES MEETING MINUTES AND CONFERENCE CALL MINUTES



Anchor Environmental, L.L.C.
1423 3rd Avenue, Suite 300
Seattle, Washington 98101
Phone 206.287.9130
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Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Tom Kahler, Chuck Peven, Dick Nason, Ali Wick

Date: January 19, 2006

Re: Final Minutes of January 5, 2006 HCP Hatchery Committees Conference Call -
WDFW Steelhead Acclimation Proposal

Selected members of the Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Thursday, January 5, 2006 from 9:00 am to 9:15 am to discuss WDFW's recent work on a proposal for scoping steelhead rearing sites in the Upper Columbia area. The context of the discussion was to re-visit WDFW's work on this proposal and discuss Committee concerns with overlapping HCP mitigation obligations. Attendees included are listed in Call Minutes Attachment A.

CALL MINUTES

Kirk Truscott updated the Committees that at this time, WDFW plans one of two paths forward: 1) to not submit a proposal, or 2) submit a proposal that will not involve HCP mitigation fish, and will involve only mitigation fish as related to the (Federal Columbia River Power System (FCRPS)). The Committees agreed that either of these decisions would be agreeable to them. Kirk Truscott will be meeting today (January 5) with Art Viola (WDFW) and Chelan PUD to discuss this path forward, and if the outcome of this meeting is anything other than the above two decisions, WDFW will involve the Committees in the discussions for the new path forward.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe *	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Dick Nason	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick, Joe Miller, Keely Murdoch, Tom Kahler, Russell Langshaw, and Erich Wolf

Date: February 16, 2006

Re: Final Minutes of January 18, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington on January 18, 2006 from 9:30 am to 4:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final December 14, 2005 Meeting Minutes and the January 5, 2006 Conference Call Minutes to the Hatchery Committees by email (Item I).
- Chuck Peven and Rick Klinge will update the Committees at the February meeting on the schedule for finalizing the Monitoring and Evaluation (M&E) decision rules (Item II).
- Ali Wick will post Andrew Murdoch's presentation on Lake Wenatchee sockeye to the Committees' ftp site (Item III).
- Tom Scribner agreed to email several questions and concerns regarding the future of the Lake Wenatchee sockeye program to Ali Wick for distribution to the Committees for further discussion (Item III).
- Committees members will provide comments to Mike Schiewe on the Bacterial Kidney Disease (BKD) White Paper by January 31, 2006 (Item IV).
- Committees members will provide comments to Douglas PUD on the Draft Fish and Water Management Tools Project Record of Management Strategy and Decisions Report for Year 2004-2005 and the document Okanogan Fish Water Management Tool – Results of a 25-year Retrospective Analysis within 60 days (Item V-A).

- Chuck Peven will send out an email organizing a call or meeting of the steelhead acclimation subgroup; the subgroup will provide a schedule and path forward at the next meeting (Item VI-A).
- Committees members will provide comments to Chuck Peven by February 3, 2006 on the Steelhead Study Proposal and Interim measures (Item VI-A).
- Tom Scribner will provide a memo to Ali Wick for distribution to the Committees regarding the plan to acclimate 150,000 coho salmon pre-smolts at Wells Hatchery (Item VII-A).
- Tom Scribner will develop an action plan consistent with the Douglas and Chelan PUD M&E Plans for identifying reference streams for one or more Plan Species (Item VII-B).
- Rick Klinge will provide Douglas PUD's M&E plan scope of work to Ali Wick for distribution to the Committees (Item VII-B).
- Shaun Seaman will provide the Chelan PUD M&E plan scopes of work for the M&E contracts to the Committees by January 27, 2006 (Item VII-B).
- Kirk Truscott will send the fish health recommendation from Bob Rogers to Ali Wick for distribution to the Committees (Item VIII-A).

DECISION ITEM SUMMARY

- There were no decision items at this meeting.

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the December 14, 2005 Meeting Minutes and the January 5, 2006 Conference Call Minutes as revised. Ali Wick will send the Final Minutes by email. Attendees are listed in Attachment A to these Meeting Minutes.

II Presentation: M&E Decision Rules (Tracy Hillman)

Tracy Hillman of BioAnalysts provided a presentation on the draft decision rules for the HCP Hatchery M&E Program. The presentation focused on a statistical power analyses and assumptions (e.g., sample sizes, statistical power, etc.) to detect differences between

supplemented and non-supplemented programs¹. The analysis suggested that, in several cases, biological (rather than statistical) decision rules may need to be used. For example, a 100-year evaluation timeframe would be necessary to detect a statistically significant difference in numbers of returning adults ($\alpha = 0.5$, $\beta = .08$); hence, program effectiveness might be more amendable to evaluation if it were based on an agreed-to biological significance level instead of a statistically significant difference in treatment effect size. In other cases (e.g., spawning distribution of hatchery vs. wild fish), the statistical power is so high that a treatment effect will almost always be detected using typical statistical significance levels; again indicating a decision rule for biological significance will be necessary. Also, the analysis of smolts and parr per redd in Chiwawa spring Chinook indicated that there are density-dependent effects in the Chiwawa basin as related to over-winter survival, and likely this is the case in other basins near to the Chiwawa.

Hillman will refine this information and Chuck Peven and Rick Klinge will update the Committees at the next meeting on schedule for finalizing the decision rules. Keely Murdoch will be joining the group that meets to refine the decision rules (Rick Klinge, Tom Kahler, Russell Langshaw, Chuck Peven, and Andrew Murdoch)

III Presentation: Lake Wenatchee Sockeye Studies (Andrew Murdoch)

Andrew Murdoch provided a presentation on recent Washington Department of Fish and Wildlife (WDFW) work on Lake Wenatchee sockeye, including summarizing the historical program (1989 to 1998), potential factors limiting sockeye survival, program modifications, results, and recommendations. The historical program was characterized by low parr-to-adult survival as measured by Parr-to-Adult Returns (PAR). Beginning in 1999, program modifications included a shift to early and late release groups into Lake Wenatchee, which alleviated some (but not all) disease exposure from spawners. The program shift has resulted in an overall survival advantage of 2 to 3 times the survival percentage for the larger late-release smolts. This work also indicated that the late-release groups contribute more to adult returns

¹ Hillman noted that for the analysis of returning adults the underlying hypothesis was that the return numbers were the same in the supplemented and non-supplemented programs (this contrasts with the more traditional null hypotheses as used by a recent Independent Scientific Advisory Board (ISAB) analysis which used a null hypothesis that the numbers of returning adults in the supplemented and non-supplemented program were different.

than the early-release groups. WDFW recommends discontinuing adult holding/spawning at Lake Wenatchee, converting adult net pens to juvenile net pens, and restricting the program to only late-release smolts (two different sizes: 15 fish per pound and 20 fish per pound).

Regarding spawning ground surveys, WDFW analyses indicate that there are inconsistencies between estimates of returning adults based on combined tributary spawner counts and the number passing Tumwater Dam. Murdoch also noted that harvest of hatchery sockeye in the mainstem Columbia is not consistently sampled or reported. WDFW recommends conducting total ground redd count, developing stream-specific spawning escapement estimates and sample rates, and expanding the geographic distribution and frequency of spawning ground surveys. Ali Wick will post this presentation to the Committees ftp site. Tom Scribner raised several questions and concerns regarding the future of the program; Scribner agreed to email these to Ali Wick for distribution to the Committees for further discussion.

IV Presentation: BKD White Paper (Mike Schiewe)

Mike Schiewe provided a presentation summarizing the BKD White Paper; the presentation contained background information on the pathogen, the disease, and current BKD management approaches and strategies. The presentation also summarized the risks and benefits of the various management approaches, based on assumptions supported by the literature and the interviews. Schiewe included some further thoughts that resulted from preparing the presentation and encouraged Committees members to consider these thoughts in their review of the paper. He clarified that the intent of the paper is to provide a starting point for Committees discussion and welcomes comments by January 31, 2006.

V Updates: Douglas PUD (Rick Klinge)

A. Okanagan Fish-Water Management Tools for 2005

Rick Klinge updated the Committees that the document 'Draft Fish and Water Management Tools Project Record of Management Strategy and Decisions Report for Year 2004 – 2005' and the document 'Okanagan Fish Water Management Tool – Results of a 25-year Retrospective Analysis' have been provided; Douglas PUD requests Committees comments within 60 days.

B. Wells Hatchery Screen

Rick Klinge provided copies of a recently emailed memorandum to the Committees regarding bids for the Wells Hatchery Screen. The current plan is to prepare a modified project bid for summer 2006, expecting to implement construction between October 2006 and February 2007.

C. Chewuch Weir

Rick Klinge updated the Committees that Douglas PUD staff will be meeting with some Methow subbasin parties to investigate potential options for installing a broodstock collection weir on the Chewuch River.

D. 2006 Wells Action Plan

Rick Klinge provided copies of the previously provided 2006 Action Plan for the Wells HCP.

VI Updates: Chelan PUD (Shaun Seaman)

A. Steelhead Study Proposal with Potential Intermediate Measures for Non-Study Fish

Chuck Peven introduced this topic regarding a study proposal for steelhead acclimation in the Wenatchee subbasin. The Committees discussed the path forward for study fish and the remaining balance of hatchery steelhead available at the hatchery. Tom Scribner indicated that the Yakama Nation has concerns about any approach to this that may involve more studies; he agreed with the steelhead proposal as long as the remainder of the population was acclimated, even if it was short term. He suggested that it was well established that over winter acclimation reduced residualism and improved survival of steelhead. Kirk Truscott commented that the study proposal was potentially acceptable to WDFW, but had a continuing concern about the need to better define an interim acclimation strategy for the 360,000 steelhead that are not part of the study. A subgroup of the Committees will work to further refine the study proposal, and in particular the interim acclimation strategy for the non study fish. This group will include Keely Murdoch, Kirk Truscott, Chuck Peven, Brian Cates, and Jerry Marco. Peven will send out an email organizing a meeting of this subgroup. Committees members will provide comments to Chelan PUD by February 3, 2006 regarding the steelhead study proposal and interim measures.

B. Acclimation Pond in Lake Chelan Tailrace

Shaun Seaman introduced this topic, stating Chelan PUD's position that a proposed acclimation pond for Turtle Rock Island fish at the Lake Chelan Tailrace is acceptable, but that the acclimation pond must be designed so as to meet the refill level in spring, not substantially affect lake level, and not otherwise affect the Federal Energy Regulatory Commission (FERC) license for the dam.

C. Work Requests

Shaun Seaman updated the Committees about a recently provided memo from Thad Mosey (Chelan PUD) containing protocols for scheduling work requests. This memorandum has been provided for the Committee's information.

D. Upcoming Bilateral Okanogan Biological Technical Working Group (BOBTWG) Meeting

Shaun Seaman updated the Committees that he and Chuck Peven will be attending a meeting of the Bilateral Okanogan Biological Technical Working Group (BOBTWG) on February 3 to receive an update on progress on the Skaha sockeye project.

VII Yakama Nation (Tom Scribner)

A. Potential Coho Acclimation at Wells Hatchery

Tom Scribner updated the Committees that the Yakama Nation has met with WDFW and Douglas PUD about acclimating 150,000 Mid-Columbia brood coho pre-smolts at Pond 2 at Wells Hatchery (smolts coming from Cascade Hatchery); the outcome of this meeting is that WDFW agreed that it will be able to accommodate these fish without affecting production. The production of these fish resulted as an overage at Cascade Hatchery. Scribner will provide a memo to Ali Wick for distribution to the Committees regarding this plan.

B. Chelan PUD M&E RFP Contracting

Tom Scribner commented that the Yakama Nation has the following concerns about the selection of contractors for the RFP:

- There may be a disconnect between data collection and analysis in that the resource managers responsible for the species recovery will be collecting but not analyzing the data.

- In addition, the Yakama Nation is concerned that the scope of work related to reference stream selection will not be complete.

Chelan PUD responded to these concerns that:

- The purpose of the Chelan PUD M&E work is to document the effectiveness of its HCP hatchery programs (and not recovery) and that the HCP allows them discretion in who they chose to complete the various work components.
- The scope of work will need to be verified and approved by the entire Committees and thus will be subject to review by the various HCP signatories, including the Yakama Nation.

Pursuant to this discussion, Tom Scribner agreed to develop an action plan consistent with the Douglas and Chelan PUD M&E Plans for identifying reference streams for one or more Plan Species.

The Committees discussed that the flow of data and reports as part of Chelan PUD's M&E work should be as follows: Collected data will be transferred to Chelan PUD, who will transfer it concurrently to BioAnalysts for analysis and to the Hatchery Committees for their information. Following analysis of these data, analyses or reports from BioAnalysts will be concurrently transmitted to all members of the Hatchery Committees. BioAnalysts will not provide previews of analyses to Chelan PUD before transmission of data or reports to Committees. This data flow path will be a decision item at the next meeting.

Shaun Seaman clarified that due to the quickly approaching M&E season, the Chelan PUD M&E plan scopes of work will be distributed to the Committees by January 27, 2006 and that a conference call would be necessary prior to the next meeting to discuss the scopes and to allow the District time to complete the contracts and agreements. Rick Klinge commented that he will provide the Douglas PUD M&E plan scope of work from WDFW to Ali Wick for distribution to the Committees.

VIII WDFW (Kirk Truscott)

A. *Fish Health Recommendation at Chivawa Hatchery*

Kirk Truscott updated the Committees that Bob Rogers has provided a fish health recommendation regarding fish at Chiwawa Hatchery. The recommendation is to reduce pond volume to increase the water exchange rate and to take 1,000 fish back to the Rocky Reach Annex to be put on warmer water and medicated feed. The Committees agreed that WDFW could proceed with this recommendation and Kirk Truscott will send the fish health recommendation to Ali Wick for distribution to the group.

B. Potential Proposal for Net Pen Summer Chinook Rearing at Chelan Falls

Kirk Truscott updated the Committees that WDFW is gathering background information that may be used in a proposal to rear summer Chinook in net pens at Chelan Falls. If this information indicates that the proposal is feasible, WDFW will work with Chelan PUD to further investigate the proposal.

IX Other Items (Mike Schiewe)

A. Proposal for Status Review of HCP Hatchery Programs

Mike Schiewe introduced this topic and asked for comments on the proposal previously emailed to the group. He requests that Committee members comment on specific issues they would like to see addressed; this would occur in the June 2006 timeframe.

B. Survival Study Workshop

Mike Schiewe updated the group that the Survival Study Workshop will occur on February 6, 2006 and asked the Committee members to inform Ali Wick of their attendance (or invitees' attendance).

C. Potential Meeting with HCP Non-Signatories

Mike Schiewe updated the group that he had contacted the HCP non-signatory parties (American Rivers and the Confederated Tribes of the Umatilla Indian Reservation) regarding their interest in meeting with the Committees for an update on implementation of the HCPs.

D. Mid-Columbia Forum Potential Meeting Date

Mike Schiewe updated the Committees that the Mid Columbia Forum was likely to be scheduled for the last week of March, with meetings held in both Wenatchee and Pateros. He reminded the Committee that the focus was the hatchery and tributary programs, and the

format would include breakout sessions where Committees members from both the Hatchery and Tributary Committees could meet with local constituents. Final dates will be an agenda item at the January 24 Coordinating Committee meeting.

E. Next Meeting

The next meeting will be held on Wednesday, February 15, 2006, at the Radisson Hotel Gateway in SeaTac.

List of Attachments

Attachment A—List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Tracy Hillman	BioAnalysts
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Russell Langshaw	Grant PUD
Erich Wolf	Sapere Consulting
Brian Cates *	USFWS
Andrew Murdoch	WDFW
Joe Miller	WDFW
Rick Stilwater	WDFW
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick

Date: March 16, 2006

Re: Final Minutes of February 9, 2006 HCP Hatchery Committees Conference Call -
Chelan PUD M&E Plan Scopes of Work

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Thursday, February 9, 2006 from 3:30 pm to 4:30 pm to discuss the Chelan PUD Monitoring and Evaluation (M&E) Plan scopes of work (SOWs). Attendees included are listed in Call Minutes Attachment A.

CALL MINUTES

Mike Schiewe opened the call by welcoming everyone and stating the reason for the call, which was to discuss the recently drafted Chelan PUD M&E Plan SOWs for WDFW, the Yakama Nation, and BioAnalysts, and Chelan PUD. Chelan PUD requests concurrence from the Hatchery Committees that the draft SOWs are complete.

The Committees noted that the SOWs should include a detailed implementation plan to clarify which data will be collected, as well as an implementation matrix in order to summarize the proposed work. Kirk Truscott suggested that implementation plans could be structured similar to WDFW's submittal to Douglas PUD for M&E activities. Julie Pyper confirmed that Chelan PUD is requiring each contractor to prepare a conceptual implementation plan which will then be finalized as a detailed implementation plan, including methods to be used. These plans would be approved by the Hatchery Committees prior to commencing work. Before the next Hatchery Committees meeting on February 15, Chelan PUD will send out a plan for clearer presentation of overall and specific objectives and tasks for the M&E Plan, and a path forward for coming to agreement on the SOWs.

During the call, Shaun Seaman clarified that work on reference areas will likely be considered under additional effort as an expansion of the current contracts.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe *	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Steve Hays	Chelan PUD
Julie Pyper	Chelan PUD
Jerry Marco *	Colville Tribes
Kris Petersen *	NMFS
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Keely Murdoch, Ali Wick, Dick Nason, and Kevin Kytola

Date: March 16, 2006

Re: Final Minutes of February 15, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at the Radisson Gateway Hotel in SeaTac, Washington, on February 15, 2006, from 9:30 am to 4:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final January 18, 2006 Meeting Minutes to the Hatchery Committees by email (Item I).
- Ali Wick will send out conference line information for a Hatchery Committees Conference Call on Tuesday, February 21, 2006 at 8:30 am (Item II).
- Chuck Peven will get back to the Committees on the schedule for when a menu of recommendations for M&E Decision Rules can be provided (Item IV-A).
- Kevin Kytola will provide the meeting minutes and revised requirements matrix from the steelhead acclimation subcommittee to Ali Wick for distribution to the Committees (Item VI).
- Chuck Peven will provide an update to the Committees with a schedule for a subcommittee's products and recommendations for identification of reference streams (Item VII-A).
- Ali Wick will send out conference line information for a Hatchery Committees Conference Call on Monday, February 27 at 2:00 pm (Item VII-B).
- Shaun Seaman will provide an update on implementing Alternative 3 of the Facilities Evaluation Report (Item VII-C).

- Mike Schiewe will circulate a sign-up list for note-takers and session chairs for the small breakout group sessions of the Mid-Columbia Forum (Item VIII-B).

DECISION ITEM SUMMARY

- The Hatchery Committees agreed that each of the tasks in the Chelan PUD M&E Plan has been assigned to a contractor, per the gap analysis prepared by Chelan PUD (Item II).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the January 18, 2005 Meeting Minutes as revised. Ali Wick will send the Final Minutes by email. Attendees are listed in Attachment A to these Meeting Minutes.

II Discussion: Chelan PUD M&E Plan Scopes of Work (Shaun Seaman)

Shaun Seaman introduced a list of the tasks necessary for implementing the Chelan PUD M&E Plan, and the parties responsible for each of the tasks. Using this as a gap analysis, Chelan PUD identified two unassigned tasks: 5.3 and 7.6. Chelan PUD will provide an addendum to the M&E Plan to clarify that Task 5.3 (Appendix D to the M&E Plan) will be completed as directed by the Hatchery Committee, and WDFW will clarify the purpose and usage for potential data collected under Task 7.6 (Appendix F to the M&E Plan). The Committees agreed that aside from these clarifications, each of the tasks identified in the M&E Plan has been assigned to a contractor.

The Committees then discussed specific monitoring and analytical methods to be used for selected M&E Plan tasks. The Committees asked for clarification regarding methods for assessing reproductive success and smolt production of steelhead (Tasks 6.1 through 6.6). These discussion points were noted, and Chelan PUD will address these during the development of an implementation plan. Kirk Truscott noted that Washington Department of Fish and Wildlife (WDFW) was looking for a level of detail in Chelan PUD's implementation plan that was similar to that in the Douglas PUD implementation plan.

Several Committees members noted that development of an implementation plan for several M&E activities needed to be on an expedited schedule for Committee discussion; these activities included: 1) steelhead spawning ground surveys; and 2) screw trap operations and juvenile fish monitoring in general. The parties that are involved in the implementation of the M&E plan (WDFW, Yakama Nation, and Chelan PUD) will meet to agree on the level of detail to be provided in the implementation plans in order to ultimately provide this information to the Committees. This group will meet by conference call at 8:30 am on Tuesday, February 21; Ali Wick will send out conference line information.

III Integrated Status and Effectiveness Monitoring Program (Chris Jordan and Mike Ward)

Chris Jordan and Mike Ward described the proposed Integrated Status and Effectiveness Monitoring Program that they have been developing for the Columbia River basin—in particular the Wenatchee and Entiat subbasins component. The overall objective of the study is to understand life history and life-stage specific survival between subpopulations of spring Chinook and steelhead in these subbasins. This study would commence in 2006 and would potentially extend to several generations of fish production. While reviewing this study is not directly Hatchery Committees business, representatives on the Hatchery Committees agreed to review this proposed program for their respective entities to ensure consistency with the HCP M&E programs.

IV Updates: Chelan PUD (Shaun Seaman)

A. M&E Decision Rules and Schedule Update

Chuck Peven provided a handout summarizing discussions of the Hatchery Committees subcommittee working on M&E Decision Rules. He noted that after a very productive meeting held earlier in the week, the group would be suggesting two ways to analyze results: the use of a predetermined “effects level” for some comparisons, and comparisons among test and reference streams in others. The subcommittee recommended that reference streams or conditions not be used for adult data, but was needed for determining freshwater production (smolts per redd) was being affected by the hatchery program. Peven requested that the Committees decide on what effect levels were biologically significant, but the Committees recommended that the subcommittees should develop a “menu” of what they felt were

biologically significant levels. Committee members would then seek internal agency review and provide any comments back to the subcommittee. Chuck Peven will get back to the Committees on the schedule for when this menu can be provided.

B. Facilities Update

Chuck Peven updated the Committees that a high-speed phone connection with dedicated terminal has been installed at Eastbank Hatchery. Also at Eastbank, Chelan PUD is currently investigating the structural integrity of the adult holding pond walls to determine the feasibility of constructing an adjacent holding pond for summer/spring Chinook salmon. Further, the Chelan Falls well field project is still in the process to select additional wells. In addition, Sam Dilly will be preparing periodic summaries on Chiwawa Rearing Ponds water supply project, which Chuck Peven will provide to the Committees. The current cold weather will provide an opportunity to test the system under icing conditions. Finally, water quality issues are being addressed at Similkameen Hatchery.

V Updates: Douglas PUD (Rick Klinge)

Rick Klinge provided an update on the Chewuch Weir process. Douglas PUD is working on compiling a list of candidate areas (from Fulton Dam to the Chewuch Acclimation Pond) for the weir; the rationales for these sites will be the topic of continuing discussions with landowners.

VI Updates: WDFW (Kirk Truscott)

A. Steelhead Acclimation Subcommittee Update

Kirk Truscott provided an update on the subcommittee's progress regarding steelhead acclimation. The subcommittee identified criteria and minimum requirements for steelhead acclimation, including discussing water source issues. The next steps are for subcommittee members to provide a list of potential sites to the Hatchery Committees. Kevin Kytola will provide the meeting minutes and revised requirements matrix developed by the subcommittee to Ali Wick for distribution to the Committees.

VII Yakama Nation (Tom Scribner)

A. Reference Stream Selection Discussion

Tom Scribner updated the Committees that Keely Murdoch has developed a document outlining the Yakama Nation's recommendations for identification of reference streams under the Chelan and Douglas PUD M&E Plans. This includes a table of potential reference streams identified in the Chelan PUD M&E Plan and the Douglas PUD M&E Implementation Proposal, as well as other possibilities for streams not identified in these documents. Because the primary use of reference stream data will be for a comparison of smolts per redd in supplemented and non-supplemented streams (see Item IV-A), the majority of the discussion on this topic focused on the need to determine what the composition of hatchery and naturally produced fish were on the spawning grounds prior to monitoring juveniles. The Committees agreed that the same subcommittee that meets to discuss M&E Decision Rules should make recommendations for a path forward for selection of reference streams. Chuck Peven will provide an update with a schedule for products and recommendations for selecting these streams. Mike Delarm indicated that documentation would need to be submitted to National Marine Fisheries Service (NMFS) approximately 5 to 6 months ahead of any proposed action that required a permit modification.

B. Chelan PUD M&E Plan Data Analysis

Tom Scribner updated the Committees that the Joint Fisheries Parties (JFP) had met and discussed idea that a subcommittee should be formed to work with and provide guidance to BioAnalysts' during the analytical phase of M&E work. Shaun Seaman indicated that Chelan PUD would need additional time to consider this proposal; there will be a conference call to further discuss this possibility on Monday, February 27 at 2:00 pm. Ali Wick will send out details for this call.

C. Lake Wenatchee Sockeye

Tom Scribner asked whether a Hatchery Committee discussion was needed to clarify and/or approve WDFW recommendations for the Lake Wenatchee sockeye salmon program. Shaun Seaman responded that these items are being discussed as part of the M&E detailed work plan. Seaman clarified that he will provide any updates needed to the Committee regarding the schedule for implementing Alternative 3 from the Facilities Evaluation Report.

VIII Other Items (Mike Schiewe)

A. Draft Annual Reports

Ali updated the Committees that the Draft 2005 Annual Reports have been submitted to the Coordinating Committees, and comments will be returned by March 13.

B. Mid-Columbia Forum Update

Mike Schiewe updated the Committees that the Mid-Columbia Forum is set for March 28 (Twisp) and March 29 (Wenatchee) from 12:30 pm to 4:30 pm. Also, Schiewe noted that the Tributary Committees had discussed adding an evening session (an additional question/answer opportunity) at the Mid-Columbia Forum in Twisp; this would occur from approximately 6:00 pm to 8:30 pm (March 28, 2006). The Committees indicated their interest in participating in this session. Schiewe will circulate a sign-up list for note-takers and session chairs for the small breakout groups that will make up this part of the Forum.

C. Next Meeting

The next meeting will be held on Wednesday, March 15, 2006, at Chelan PUD in Wenatchee.

IX List of Attachments

Attachment A—List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Dick Nason	DNC
Russell Langshaw	Grant PUD
Mike Delarm	NMFS
Chris Jordan (by conference call)	NMFS
Kevin Kytola	Sapere Consulting
Mike Ward (by conference call)	Terraqua Consulting
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick

Date: March 16, 2006

Re: Final Minutes of February 21, 2006 HCP Hatchery Committees Conference Call -

Level of Detail for PUD M&E Plan Work Plans

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Tuesday, February 21, 2006 from 8:30 am to 9:30 am to discuss the level of detail necessary for the Chelan PUD's Monitoring and Evaluation (M&E) Implementation Plan. Attendees included are listed in Call Minutes Attachment A.

CALL MINUTES

Mike Schiewe opened the call by welcoming everyone and stating the reason for the call, which was to agree on the appropriate level of detail for the Chelan PUD M&E Implementation Plan, and to develop a schedule for completing a draft plan to be submitted to the full Hatchery Committees for review. The Plan would focus primarily on the steelhead spawning ground surveys and the smolt monitoring; activities that occur in spring; the remaining components would follow. Schiewe suggested that, as a starting place, the Committees consider the Douglas PUD M&E Implementation plan (prepared by WDFW) as a potential model. Tom Scribner suggested attaching the M&E Plan appendices to the work plan so that additional detail regarding methods and analysis was available as part of the same document; Chelan PUD agreed to do so. The attendees on the call agreed that the level of detail provided in the Douglas PUD Implementation Plan was appropriate for the Chelan PUD Implementation Plan; the attendees further agreed that Chelan PUD should proceed to work with its contractors to consolidate the information into a single Implementation Plan for Hatchery Committees review. The contractors will provide their input to Chelan PUD by February 28, who will, in turn, compile the information into a draft plan to be provided to the Hatchery Committees by March

7. Acceptance of the Implementation Plan will be a decision item at the next Committees meeting on March 15.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Rick Klinge	Douglas PUD
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Rocky Reach and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick

Date: March 16, 2006

Re: Final Minutes of February 27, 2006 HCP Rocky Reach and Rock Island Hatchery
Committees Conference Call - M&E Analytical Subcommittee

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Monday, February 27, 2006 from 2:00 pm to 2:30 pm to discuss Chelan PUD's proposed HCP Monitoring and Evaluation (M&E) data analysis protocol. Attendees are listed in Attachment A.

CALL MINUTES

Mike Schiewe opened the call by welcoming everyone and invited Shaun Seaman to provide an overview of the proposed data analysis protocol for the Chelan PUD M&E Plan. Seaman explained to the Committees that Chelan PUD has worked with staff of WDFW and the Yakama Nation to prepare a document that describes the goals, objectives, transmittal of data, and schedule of the proposed analysis. Those on the call agreed in principle that the document accurately described an acceptable process to be followed, and that this process will function to assist the Committees in receiving and processing M&E information efficiently. The protocol will be up for approval at the next Hatchery Committees meeting. Mike Delarm (NMFS) and Tom Scribner (Yakama Nation) were not able to join the call, so Schiewe agreed to contact them to confirm their agreement with the Committee decision. On February 28, 2006 both Delarm and Scribner provided an e-mail to Schiewe documenting their concurrence with the Committees acceptance of the analytical protocol.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge	Douglas PUD
Brian Cates *	USFWS
Kirk Truscott *	WDFW

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick, Erich Wolf, Tom Kahler, Keely Murdoch, Dick Nason

Date: April 24, 2006

Re: Final Minutes of March 15, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on March 15, 2006, from 9:30 am to 3:30 pm. Attendees are listed in Attachment A to these Meeting Minutes. The National Marine Fisheries Service (NMFS) and the Colville Tribes were not able to attend the meeting; Mike Schiewe will check with these parties to ensure their agreement with Committee decisions as agreed to here.

ACTION ITEM SUMMARY

- Ali Wick will send the Final February 15, 2006 Meeting Minutes and Feb. 9, 21, and 27 Conference Call Minutes to the Hatchery Committees by email (Item I).
- Chuck Peven will provide an addendum to the Monitoring and Evaluation (M&E) Plan to clarify that Task 5.3 (Appendix D to the M&E Plan) will be completed as directed by the Hatchery Committees (Item I).
- Kirk Truscott will clarify the purpose for and use of data collected under Task 7.6 (Appendix F to the M&E Plan) (Item I – also see Item VII-C).
- Chuck Peven recorded edits to the Chelan PUD Hatchery Program M&E Implementation Plan and will provide a second review version to the Joint Fisheries Parties (JFP) by Friday, March 17 (Item II).
- Kirk Truscott and Mike Schiewe will contact Kris Petersen to give an update on the JFP's work on the Chelan PUD Hatchery Program M&E Implementation Plan thus far (Item II).

- The JFP will meet on March 30 to discuss comments to the Chelan PUD Implementation Plan and will meet with Chelan on the same day to review comments (Item II).
- Kevin Kytola will give an update at the next meeting of the subcommittee's work on the long-term steelhead acclimation strategy (Item IV-C).
- Douglas PUD will prepare a draft public information brochure on the Chewuch weir for the Mid-Columbia Forum; the draft will be discussed at the pre-meeting conference call on March 21 (Item V-A).
- Russell Langshaw will provide an example public information brochure to Ali Wick for distribution to the Committees (Item V-A).
- Douglas PUD will finalize the Fish-Water Management Tool (FWMT) of 25 Year Retrospective Analysis and the FWMT 2005 Operation; and the Fish Water Management Tool Record of Management Decisions Report for the Year 2004-2005 (Item V-B).
- Ali Wick will send the final draft of the Wells HCP Hatchery Production Compliance Report electronically to the Committees (Item V-C).

DECISION ITEM SUMMARY

- The Committees agreed to defer the decision on the Chelan PUD Hatchery Program M&E Implementation Plan until the April 19, 2006 Hatchery Committees Meeting to allow the JFP to meet and jointly review the draft Plan (Item II).
- The Committees approved the Chelan PUD Proposed Hatchery M&E Data Flow and Analysis Plan and the Statement of Agreement (Attachment B) (Item III).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the February 15, 2006 Meeting Minutes and the Feb. 9, 21, and 27 Conference Call Minutes as revised. As clarified in the meeting minutes from the February 15 meeting, Chuck Peven will provide an addendum to the M&E Plan to clarify that Task 5.3 (Appendix D to the M&E Plan) will be completed as directed by the Hatchery Committees. Also, Kirk Truscott will clarify the purpose for and use of data collected under Task 7.6 (Appendix F to the M&E Plan). Ali Wick will send the Final Minutes by email. Attendees are listed in Attachment A to these Meeting Minutes.

II DECISION ITEM: Chelan PUD Hatchery Program M&E Implementation Plan (Shaun Seaman)

Shaun Seaman introduced the draft Chelan PUD Hatchery Program M&E Implementation Plan as provided to the Committees. Kirk Truscott and Tom Scribner indicated that the JFP have not had time to jointly review and coordinate comments on the document, and are planning to meet on March 30 to do so. Shaun Seaman noted that the contracts to implement the M&E work require approval by the Chelan PUD Board of Commissioners, and that he was scheduled to seek approval at the March 27 meeting. Hence, he needed to know immediately of any issues or comments that would potentially affect budgeted amounts. To address these time-sensitive comments, the Committees agreed to a preliminary review of the Plan during today's meeting. Chuck Peven recorded edits and will provide a second review version to the JFP by Friday, March 17. The results of the review suggested that there were not likely to be any major changes in the draft Implementation Plan that would affect budgeting. Kirk Truscott and Mike Schiewe will contact Kris Petersen to update her on the Committees' work on the Plan thus far. The JFP will still meet on March 30 and Chelan PUD will meet with them at 1 pm, if necessary, to discuss comments. The Implementation Plan will be up for final approval at the next meeting.

III DECISION ITEM: Chelan PUD Proposed Hatchery M&E Data Flow and Analysis (Shaun Seaman)

Shaun Seaman introduced the Chelan PUD Proposed Hatchery M&E Data Flow and Analysis Plan produced by a subgroup of the Committees composed of Chelan PUD, Yakama Nation, and Washington Department of Fish and Wildlife (WDFW). The Committees approved this document and the Statement of Agreement (Attachment B).

IV Updates: Chelan PUD (Shaun Seaman)

A. *Chiwawa Water Supply (Sam Dilly)*

Sam Dilly provided an update on the testing at Chiwawa Hatchery. The studies indicated that spraying a small volume of Wenatchee River water on the water intake screens (3-4 degrees warmer than Chiwawa River water) was an effective tool in maintaining free-flowing water at the screens. Dilly recommended a list of actions for winter 2007 to extend this practice to future years; permitting actions include procurement of a water right permit and water quality

opinion from Ecology, and site actions include development of a mechanism for flow return to both rivers, as well as electrical infrastructure and backup systems. For the time being, and due to the novelty of the water switching method, Dilly recommends that the water switching activity be modulated by the operators. The Committees agreed with these recommendations and asked for a proposed operations plan for Committee approval in May 2006.

B. Schedule for Menu of Recommendations for M&E Decision Rules and Identification of Reference Streams (Chuck Peven)

Chuck Peven updated the Committees that the subcommittee for M&E Decision Rules had discussed metrics (both measured and derived) for evaluating the hatchery programs. The subcommittee refined rules for Objectives 1, 2, and 7 of the M&E Plan, but will continue to discuss rules for Objective 3 (which deals with genetics) and the remainder of the Objectives. For escapement estimates, reference values will come from the Biological Assessment and Management Plan (BAMP) until and unless research in the lower Columbia River indicates that escapement estimates should come from reference streams. Productivity will be measured as the ratio of spawning adults to the number of returning adults for adults (adult-to-adult) and as smolts outmigrating per redd (smolts-per-redd) for juveniles. The schedule for these meetings will be the second Friday of each month.

Peven also reported that the subcommittee had discussed criteria for the selection of reference streams, and had developed a list of candidate tributaries, both in and out of basin, for steelhead and spring Chinook salmon.

The next subcommittee discussions will include the following topics: finalization of a menu of proposed decision rules, a study plan for determining hatchery/wild composition on spawning grounds by 2006/2007 adult returns, and recommendations for the process of reference stream selection. The Hatchery Committees concluded that at this time, a specific timeline for the completion of these items could not be realistically developed. It was agreed that the subcommittee will keep working on these items and a decision on a schedule will be revisited at the April 19, 2006, Hatchery Committees meeting.

C. Steelhead Acclimation Subcommittee (Kevin Kytola)

Kevin Kytola updated the Committees that potential sites for steelhead acclimation were identified during the last subcommittee meeting. These are as follows: 1) near the Wenatchee Pump Station, 2) Chiwawa Ponds (depending on spring Chinook needs at the Ponds), 3) Dryden Canal, and 4) Blackbird Island. Key uncertainties for many sites include water availability, capacity, and infrastructure. Other outstanding issues include the threshold number of fish to be acclimated at a potential facility for both the short and long term. Kytola commented that if during the site selection process, attributes of certain sites are identified that indicate that those sites may be desirable (or undesirable) for long-term use, the subcommittee will note these for future feasibility work. Tom Scribner suggested that a conceptual representation for each of the sites be prepared for the next Hatchery Committee meeting which would include number of steelhead that potentially could be acclimated. Kevin Kytola will give an update at the next meeting of the subcommittee's work on the long-term steelhead acclimation strategy.

D. Facilities Update (Chuck Peven and Shaun Seaman)

Chuck Peven indicated that there is no site-specific Facilities Update at this time. Shaun Seaman then provided handouts of a Hatchery Program Overview and a list of Anticipated Hatchery Committees meeting agenda items. The Committees agreed that the Hatchery Program Overview flow chart was a useful way to organize and display Hatchery Committees decisions that will be required over the next 8 years; they also agreed with the proposed schedule for Anticipated Decision items for 2006.

E. Memorandum Review Periods (Mike Schiewe)

Mike Schiewe suggested a process by which technical memorandum-type documents could be accepted by the Committees after 30 days, rather than the 60-day review period required for major studies. After some discussion, the Committees agreed that 30 days was adequate to review technical memoranda; and that the report would be up for approval at the next meeting if the meeting is at least 30 days from the date of distribution. If the document is provided less than 30 days from the date of the next meeting, approval will be deferred until the meeting following the next meeting. In this regard, the memorandum from BioAnalysts describing

abundance and total numbers of Chinook salmon and trout in the Chiwawa River Basin (dated December 30, 2005) will be up for approval at the next meeting.

F. Draft Near-Term Production Level Analysis (Shaun Seaman)

Shaun Seaman introduced a document titled, "Draft Near-Term Production Level Analysis" for the Committees to begin consideration of the range of possible future production levels (e.g., the 2013 production review and adjustment). This document is for Committees information and discussion at future meetings.

V Updates: Douglas PUD (Rick Klinge and Tom Kahler)

A. Discussion on Chewuch Weir

Tom Kahler updated the Committees that Douglas PUD will be meeting on Monday, March 20 in Twisp with the Methow Recovery Coordination team to discuss options for the Chewuch weir. Douglas PUD will prepare a draft public information brochure for the Mid-Columbia Forum conference call discussions on March 21; this brochure could be provided to the public at the Forum. Russell Langshaw will provide an example public information brochure being prepared for the White River project to Ali Wick for distribution to the Committees.

B. End of 60-day Comment Period

Rick Klinge reminded the Committees that the 60-day comment period has ended for two reports: the Fish-Water Management Tool of 25 Year Retrospective Analysis and the FMT 2005 Operation; and the Fish Water Management Tool Record of Management Decisions Report for the Year 2004-2005. The Committees had no comments on these drafts and Douglas PUD will finalize the final documents.

C. Revision of the Wells HCP Hatchery Production Compliance Report

Rick Klinge updated the Committees that the final draft of the Wells HCP Hatchery Compliance Report has been prepared. Ali Wick will send the final draft of the Wells HCP Hatchery Compliance Report electronically to the Committees.

VI Yakama Nation (Tom Scribner)

A. Objective 7 of M&E Plan – Steelhead Monitoring

Tom Scribner commented that he would like to reiterate the importance of selecting reference streams to collect adult data in order to gather information that will be useful in selecting reference streams from which to ultimately collect juvenile data. He also wanted to verify that for steelhead that the infrastructure would be in place so that hatchery/wild spawner composition would be in place so that Objective 7 of the M & E plan would be addressed with next year's steelhead spawning population. By July, 2006 infrastructure and logistics issues need to be worked out in order to address Objective 7 in 2007 for steelhead spawning. The Committee will discuss these issues related to this activity in subsequent meetings.

VII WDFW (Kirk Truscott)

A. Methow/Okanogan Summer Chinook

Kirk Truscott updated the Committees that WDFW is proposing to apportion brood year 2005 Methow/Okanogan summer Chinook as follows: 377,000 to Okanogan River and 270,000 to Methow River). The Committees agreed that this apportionment is appropriate.

B. 2006 Brood Year Wells Steelhead Adults

Kirk Truscott mentioned that WDFW finished steelhead spawning yesterday, and there are 24 surplus fish (10 females and 12 males) that will be offered to the Colvilles for kelt reconditioning research (dependent up on NMFS authorization that the Tribes are awaiting). The Committees agreed that this would be acceptable.

C. Task 7.6 of the Chelan PUD M&E Implementation Plan

Kirk Truscott clarified that data will be collected in the snorkel surveys under Task 7.6 (Appendix F to the M&E Plan) as a means to identify the extent to which precocious males participate in spawning in the Chiwawa River.

VIII Other Items (Mike Schiewe)

A. Mid-Columbia Forum Update

Mike Schiewe communicated some last-minute details on the schedule, method, and format of the upcoming Mid-Columbia Forum.

B. Proposal for Interim Hatchery Review

Mike Schiewe updated the Committees that there appears to be momentum in the Hatchery Committees to support an informal review of hatchery programs and potential changes in program goals. This proposal will be discussed at a later date. This review would be separate from the 2013 review and would not be intended to replace or supplement the 2013 review.

C. Mid-Columbia Coordination

Mike Schiewe updated the Committees that the HCP Coordinating Committees were discussing the idea of a combined coordination meeting between the HCP Coordinating and Priest Rapids Coordinating Committees (PRCC). The HCP Coordinating Committees are working on formulating a proposed agenda for this potential meeting.

D. Meeting Agreements

This section summarizes agreements reached by the Committees during this meeting, which were not formally proposed by the Committee as decision items.

- The Committees agreed with the Chiwawa water supply recommendations from Sam Dilly (Item IV-A).
- The Committees agreed that the Hatchery Program Overview flow chart was a useful way to organize and display Hatchery Committees decisions that will be required over the next 8 years; they also agreed with the proposed schedule for Anticipated Decision items for 2006 (Item IV-D).
- The Committees agreed that 30 days was adequate to review technical memoranda; and that the report would be up for approval at the next meeting if the meeting is at least 30 days from the date of distribution. If the document is provided less than 30 days from the date of the next meeting, approval will be deferred until the meeting following the next meeting (Item IV-E).
- The Committees agreed with WDFW's proposal to release 2005 brood year summer Chinook as follows: 377,000 in the Okanogan River and 270,000 in the Methow River) (Item VII-A).

- The Committees agreed that WDFW's proposed plan to provide 24 surplus adult steelhead (10 females and 12 males) to the Colvilles for a kelt reconditioning research is acceptable (Item VII-B).

E. Next Meeting

The next meeting will be held on Wednesday, April 19, 2006, at Chelan PUD in Wenatchee.

List of Attachments

Attachment A—List of Attendees

Attachment B—Approved Statement of Agreement and Chelan PUD Hatchery M&E Data Flow and Analysis Protocol

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Steve Hayes	Chelan PUD
Sam Dilly	Chelan PUD
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Dick Nason	DNC
Russell Langshaw	Grant PUD
Erich Wolf	Sapere Consulting
Kevin Kytola (by conference call)	Sapere Consulting
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

APPROVED STATEMENT OF AGREEMENT AND CHELAN PUD HATCHERY M&E DATA FLOW AND ANALYSIS PROTOCOL

Hatchery M&E Data Flow and Analysis Protocol

Chuck Peven and Shaun Seaman

Approved by Hatchery Committees on March 15, 2006

Data collection and analysis is paramount to understanding whether the hatchery program is meeting the goals and objectives that have been developed (Murdoch and Peven 2005). The District is proposing the following structure to ensure that the data flow and analysis is efficient, robust, and can be used by the HCP HC to make informed decisions.

The District, WDFW, BioAnalysts, and the Yakama Nation will be collecting data consistent with Murdoch and Peven (2005) and other tasks that may be identified by the HCP HC. The contracts that the District is entering into with these entities states that the information collected will be entered into spreadsheets and sent to the District Coordinator on a monthly basis.

The spreadsheets will be examined by the District Coordinator for completeness and qualifying information. If there are questions concerning the information, the District Coordinator will contact the entity and rectify any problems.

After the information is deemed complete, it will be sent to BioAnalysts (and the HCP HC if desired). BioAnalysts will then employ the methods outlined and agreed to by a subcommittee of the HCP HC that will be amended to Murdoch and Peven (2005). BioAnalysts will send a monthly report back to the HCP HC, which will then evaluate the information and comment. BioAnalysts will incorporate appropriate comments from the HCP HC and finalize the monthly report.

In the first year (2006) of implementing the M&E plan, the organizations that collect field data will meet once monthly (assuming an eight-hour meeting) from March through November with BioAnalysts to discuss data completeness, any qualifications that should be considered during analysis, and all aspects related to the data compilation and analysis of the information collected for the District's hatchery program. The meetings will be held roughly on the following schedule:

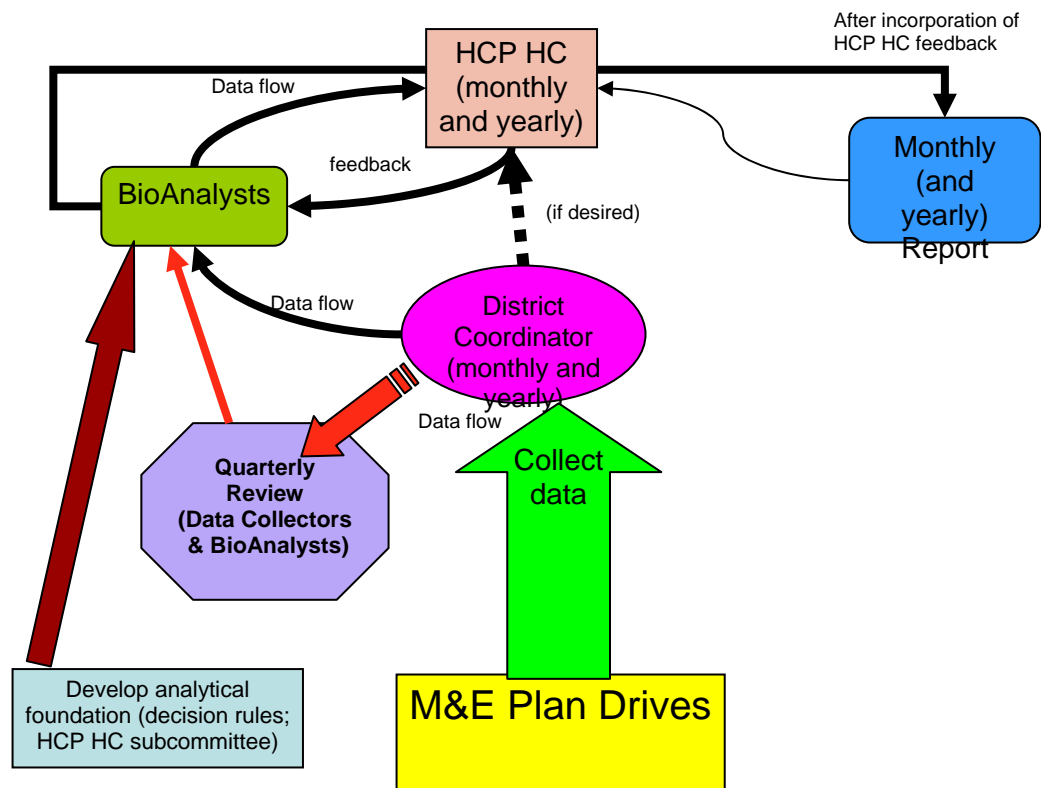
- Prior to the data collection period to coordinate (at a minimum) the forms used to report field data, and the form of the final delivered information and any other issues relevant to the collection and use of the data.
- Monthly during the field season
- At the end of the field season to ensure completeness of the data and coordinate the final report.
- A year end meeting to assess the efficiency of the data sharing and analysis process describe above. This group will make a report to the Hatchery Committee on their findings and recommendations.

In subsequent years, meetings will be held at least quarterly to ensure that the objectives noted above continue and to discuss any changes to the collection or analysis processes that may have occurred. The meetings should occur as follows:

- Prior to the beginning of the data collection season,
- At the beginning of the smolt data collection and steelhead spawning ground survey period
- At the beginning of the remaining spawning ground survey period
- At the end of the field season to ensure completeness of the data and coordinate the final report

The development of a yearly report will go through a similar review process. The figure below diagrams the proposed flow described above.

Proposed Hatchery M&E Data Flow and Analysis



**Statement of Agreement for the Hatchery Monitoring and Evaluation Data Flow
and Analysis**

Rock Island and Rocky Reach Hatchery Committee Meeting 03/15/2006

<p>The Rocky Reach and Rock Island Hatchery Committees have reviewed the Hatchery Monitoring and Evaluation Data Flow and Analysis Proposal and agree with the final plan as attached.</p>
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Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick, Kevin Kytola, Tom Kahler, Keely Murdoch, Dick Nason

Date: May 18, 2006

Re: Final Minutes of April 19, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on April 19, 2006, from 9:30 am to 4:00 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final March 15, 2006 Meeting Minutes to the Hatchery Committees by email (Item I).
- Chuck Peven will provide the final Chelan PUD Hatchery Monitoring and Evaluation (M&E) Implementation Plan for 2006 by April 21 to Ali Wick for distribution to the Committees (Item V).
- For the next meeting, Kirk Truscott will provide a draft plan for a creel census monitoring effort for summer Chinook and steelhead, as referred to in the M&E Implementation Plan under Objective 8 (Item V).
- Ali Wick will update and attach the Anticipated Chelan PUD Hatchery Committee Meeting Agenda Items table to subsequent agendas (Item VI-C).
- Mike Schiewe will provide a draft recommendation summarizing the results of the Bacterial Kidney Disease (BKD) White Paper for Kirk Truscott's use as a starting point for internal Washington Department of Fish and Wildlife (WDFW) discussions (Item VI-E).
- Committees members will provide comments to Kirk Truscott on 2006 Broodstock Collection Protocols (Item IX-A).

- Committees members will provide comments to Kirk Truscott by April 26 on a memorandum from WDFW to the Hatchery Committees proposing to conduct spring Chinook sampling at the west ladder at Wells Dam (Item IX-B).
- Kirk Truscott will prepare a Statement of Agreement for the next meeting for WDFW to move to a late-release program for Lake Wenatchee sockeye (Item IX-D).
- Ali Wick will contact Hatchery Committees members about the June meeting date (Item X-B).

DECISION ITEM SUMMARY

- The Committees approved the Statement of Agreement accepting as final the technical memorandum summarizing the 2005 Chiwawa River Basin Snorkeling Surveys (Item III).
- The Committees approved the Statement of Agreement accepting as final the following technical memoranda from WDFW with no revisions (Item IV):
 - 2003 Brood Sockeye and Chinook Salmon Reared and Released from Eastbank Fish Hatchery
 - 2005 Chiwawa and Wenatchee River Smolt Estimates
 - 2005 Upper Columbia River Summer Chinook Spawning Ground Surveys
 - 2005 Wenatchee River Basin Steelhead Spawning Ground Surveys
- The Committees approved the 2006 Chelan PUD Hatchery M&E Implementation Plan document with Committee revisions, and approved the Statement of Agreement with revisions clarifying that the Plan is a working document (Item V).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the March 15, 2006 Meeting Minutes as revised. Ali Wick will send the Final Minutes by email. Attendees to the April 19, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II Mid-Columbia Forum Debrief

Mike Schiewe invited discussion about the recent Mid-Columbia Forum (March 28 and 29, 2006). The Committees discussed the idea of targeting more public participation in the meeting

for next year, via efforts to identify and inform specific groups or individuals who may have interest in the HCP process.

III DECISION ITEM: Chiwawa Snorkeling Surveys Memorandum (Shaun Seaman)

The Committees approved this memorandum and the Statement of Agreement with no revisions (Attachment B). Kirk Truscott requested that future reports from snorkeling surveys in the Chiwawa River use the fecundity estimate from Chiwawa broodstock program to calculate annual egg deposition. The Committees agreed that this will be done.

IV DECISION ITEM: WDFW M&E Memorandums (Shaun Seaman)

The following four WDFW memoranda and the Statement of Agreement regarding M&E work were approved as final with no revisions (Attachment C):

- 2003 Brood Sockeye and Chinook Salmon Reared and Released from Eastbank Fish Hatchery
- 2005 Chiwawa and Wenatchee River Smolt Estimates
- 2005 Upper Columbia River Summer Chinook Spawning Ground Surveys
- 2005 Wenatchee River Basin Steelhead Spawning Ground Surveys

There was Committees discussion regarding the schedule and items to be included in the M&E Implementation Reports. The Committees agreed that Smolt-to-Adult Returns (SARs) should be provided (and noted as draft or final) as a point of reference in each year's M&E Annual Reports.

V DECISION ITEM: Chelan PUD Hatchery M&E Implementation Plan (Shaun Seaman)

Shaun Seaman introduced the 2006 Chelan County PUD Hatchery M&E Implementation Plan (Plan). The Committees agreed to accept the Plan for 2006, with the understanding that it is a working document that may be modified in the future. Mike Schiewe provided copies of some changes to the text on methods for WDFW's spawning ground surveys from Kirk Truscott. The Committees approved this document with Committee revisions, and approved the Statement of Agreement with revisions clarifying that the Plan is a working document (Attachment D). Chuck Peven will provide the final Plan to Ali Wick for distribution to the Committees by April

21, and the PUD will provide hard copies to each Committees member. For the next meeting, Kirk Truscott will provide a draft plan for a creel census monitoring effort for summer Chinook and steelhead, as referred to in the M&E Implementation Plan under Objective 8.

VI Updates: Chelan PUD (Shaun Seaman)

A. Turtle Rock Decision Discussion

Shaun Seaman reminded the group that in 2005 the Committees agreed on a conversion of the Turtle Rock summer/fall Chinook program from a subyearling to yearling program, but that the Committees had not approved a Statement of Agreement for the conversion because of uncertainty over a future location for the program. Seaman updated the Committees that the PUD has retained a contractor to study potential acclimation pond sites in the Chelan Falls area, but discussions are still ongoing within the PUD for specific criteria within this area. Chelan PUD anticipates that the location will be selected by the end of 2006. The Committees agreed with the location and schedule for this program discussed at today's meeting, and the Statement of Agreement for the program conversion will be up for approval at the next meeting.

In addition, the Committees discussed water source and agreed that for homing fidelity, it is important that the Chelan River is the water source for this facility.

B. Steelhead Subcommittee Update: Long- and Short-Term Steelhead Acclimation Strategy

Kevin Kytola updated the Committees on the Steelhead Subcommittee's work on developing a draft strategy for long- and short-term steelhead acclimation. He provided a handout outlining the various near-term actions for water, land, and infrastructure needed for the potential acclimation sites (Blackbird Pond, Dryden Canal, Chiwawa Pond, and Wenatchee River Pump Station). The Committees discussed the most viable option, which is the expansion of the Chiwawa Pond facility. The Committees discussed that it would be ideal if the new infrastructure installed would contain flexibility to manage various water sources. Kris Petersen suggested that the subcommittee may want to research designs at existing acclimation facilities and naturalized streams. The next Steelhead Subcommittee meeting will be on May 9 in Wenatchee.

C. *Committee Comments on “Anticipated Chelan PUD Hatchery Committee Meeting Agenda Items” Handout*

Shaun Seaman asked for Committees feedback regarding the handout on anticipated Hatchery Committees meeting agenda items provided at the last meeting. The Committees had no comments regarding the content of the document, and endorsed its use; the document will be updated and attached to future agendas.

D. *Chiwawa Water Source and Permitting Update*

Sam Dilly provided an update on the water testing results at Chiwawa Hatchery and a memorandum describing the proposed Chiwawa Water Warming Operation Protocol for winter 2006/2007 (memo previously provided by email). There was Committees discussion about the idea that during the early stages of low temperature (less than 20 degree) conditions in 2006/2007, staff may need to be on-site during non-working hours to assess water and ice conditions.

Chelan PUD will be meeting with the Washington State Department of Ecology (Ecology) this week to further discuss returning mixed Chiwawa/Wenatchee River water to the Wenatchee River. Early discussions indicate that Ecology does not consider returning the anticipated amounts of mixed water to the Wenatchee River to be a significant water quality issue. This proposal for water source management at Chiwawa Hatchery will be a decision item at the next meeting.

E. *BKD Management Strategy*

Shaun Seaman introduced this topic and next steps for developing a management plan for BKD, following the finalization of the BKD White Paper. The Committees discussed the idea of developing a Committee recommendation for BKD management based on the findings of this report, potentially to include addressing the option of culling eggs of high BKD fish. Kirk Truscott commented that WDFW has typically interpreted the relevant House Bill to mean that egg culling from hatchery-origin fish is prohibited by law and concerns with hatchery production in removing gametes from production; some Committees members question this interpretation of the bill, and believe that the intent of the bill is to prohibit killing hatchery-

origin eggs over wild-origin eggs. Mike Schiewe will provide a draft recommendation using the results of the BKD White Paper for Kirk Truscott's use as a starting point for internal WDFW discussions. This will be an ongoing discussion item at future meetings.

F. Spring Chinook Net Pen Rearing

Shaun Seaman updated the Committees that Chelan PUD would like to find out whether current permits would be affected by the proposed net pen rearing of White River spring Chinook in Lake Wenatchee from March to May. Kirk Truscott commented that the Hydraulic Project Approval (HPA) would need to be modified (and up for public comment) for the 2-month period of rearing that the current HPA does not cover (it currently covers June 1 to November 15, from 2003 to 2008). In addition, there were some inquiries regarding the role of Washington Department of Natural Resources (DNR) in permitting any changes, because this agency owns the lake bottom.

G. Facilities Update

Shaun Seaman updated the Committees that a gate has been installed at Dryden Dam by the Washington State Department of Transportation (WSDOT). On further questioning, WSDOT staff indicated that Chelan PUD, at some point, had requested installation of this gate and the lock. Seaman verified that Hatchery Committee entities had keys to this gate for their necessary operations, and suggested to the Committees that they have documentation of agency affiliation while working in this area.

VII Updates: Douglas PUD (Rick Klinge and Tom Kahler)

Tom Kahler updated the Committees that Douglas PUD had received feedback at the Mid-Columbia Forum that they should use the Chewuch Dam as a broodstock collection site, and not consider construction and operation of a separate weir unless the Chewuch Dam facility is found to be unsuitable for broodstock collection. Douglas PUD has been in communication with Bryan Nordlund at National Marine Fisheries Service (NMFS) and the PUD is investigating property ownership and design issues at the site. The Dam is on WDFW property that is not encumbered by easements. However, access to the right bank is through an adjoining property also owned by WDFW that is encumbered by an IAC conservation easement. The PUD is investigating the potential of whether or not the easement would

preclude necessary access and/or space for facilities. Kirk Truscott stated that any inquiries to IAC or WDFW regarding the use of the easement-encumbered land should go through him. Kris Petersen requested to be copied on emails with Nordlund regarding this opportunity.

VIII Yakama Nation (Tom Scribner)

A. Steelhead Adult Spawner Composition

Tom Scribner stated that the Yakama Nation would like to move forward with planning adult spawner composition studies by summer 2006, and requests comments to the proposal to do this. Mike Schiewe pointed out that this is a working proposal in the Hatchery Evaluation Technical Team (HETT) subcommittee, and that this will need to be finalized in the HETT prior to consideration by the Hatchery Committees.

B. M&E Permit Issues

Tom Scribner updated the group that the Yakama Nation has requested that it be added as a permittee to Endangered Species Act (ESA) Permit 1196 for the spring Chinook salmon research and monitoring in the Wenatchee River basin. Should this not be possible, they would need to be part of a new permit that would likely include Grant PUD.

C. Reference Streams

Tom Scribner requested an update on reference streams, and Mike Schiewe responded that the next HETT meeting will be addressing this, and there will be an update at the next Hatchery Committees meeting.

D. Surplus Wells Hatchery Summer Chinook

Tom Scribner updated the group that discussions are ongoing regarding the use of surplus Wells hatchery summer Chinook that may be transferred to the Colvilles and/or the Yakama Nation. Kris Petersen commented that NMFS is in favor of this transfer for several reasons, including reducing the risk of straying of these fish, and providing the consumptive benefit to tribes that a portion of this fishery is intended to provide. The rest of the Committee members were also in agreement with the practice of providing these fish to these tribes. However, Douglas PUD indicated that despite the PUD's biologist's agreement with the practice, the PUD management had serious reservations about the practice following last year's transfer of surplus

fish. PUD biological staff will discuss the proposal with PUD management to determine whether those reservations remain, and will provide more information at the next meeting for the Committees to consider.

IX WDFW (Kirk Truscott)

A. Broodstock Collection Protocols

Kirk Truscott updated the group that he has provided draft Broodstock Collection Protocols and has received a few comments. Tom Scribner commented that he had been in touch with Truscott and informed him of the Yakama Nation concern that the protocol will not meet the production levels set forth in U.S. v. Oregon. The Committees discussed the idea that the protocols are consistent with the Section 10 permits currently in place, but the permit provisions in some years may conflict with U.S. v. Oregon or limit HCP production levels. Dick Nason pointed out that the goals of the HCPs are not tied to the goals of U.S. v. Oregon. Mike Schiewe thanked everyone for their input, and commented that the resolution of this issue will not occur within the Hatchery Committees; rather, this issue will need to be addressed at an interagency policy level outside the HCP process.

Truscott requested more discussion on the Broodstock Protocols so that it can be finalized for this year, and the Committees brought up other comments. The Committees also discussed the program to collect and transfer adult Chiwawa River spring Chinook collected at Tumwater Dam for release in the Chiwawa River as a way to minimize straying into the White River. USFWS, NMFS, and Chelan PUD are currently in favor of this program, and to date the Yakama Nation is opposed to it. Committees members will provide additional comments to Kirk Truscott on these protocols.

B. Spring Chinook M&E Work at Wells in 2006

Kirk Truscott brought up the topic that WDFW is investigating natural production monitoring in the Methow Basin. Truscott provided a memorandum from WDFW to the Hatchery Committees proposing to conduct spring Chinook sampling at the west ladder at Wells Dam, sampling once every 4 days between May and July at an overall sampling rate of 22 percent. Kirk Truscott requested comments to the memorandum by next Wednesday, April 26.

C. Summer Chinook Net Pen Rearing in Chelan River

Kirk Truscott updated the Committees that WDFW is currently preparing a proposal to rear approximately 100,000 summer Chinook yearlings in net pens in the Chelan River. Truscott commented that funding outside of the existing Turtle Rock program would be borne by WDFW.

D. Lake Wenatchee Sockeye Juvenile Emigration Monitoring

Kirk Truscott brought up the issue to the Committees that WDFW recommends ending the existing practice of extracting coded-wire-tags from Lake Wenatchee sockeye at Lake Wenatchee in order to compare late- and early-release survival because sufficient data already exists to support management actions. The Committees agreed with WDFW's recommendation; this was not set up as a typical decision item because of the timeliness of the issue. Truscott will prepare a Statement of Agreement for next meeting for WDFW to move to a late-release program.

E. Upper Columbia River Spring Chinook Release Strategies

Tom Scribner brought up comments to a WDFW memorandum that was circulated to the Committees regarding volitional versus forced release for spring Chinook in the Wenatchee River (this memorandum was from Kirk Truscott to Mid-Columbia HCP and Priest Rapids Coordinating Committee [PRCC] Hatchery Committees, dated April 11, 2006). Scribner's comment was that the Yakama Nation supports using volitional releases in as many circumstances as possible. The Committees discussed the efficacy of these various types of releases and some of the research regarding encouraging fish to begin migration. WDFW will have study results in several years that will allow evaluation of a relationship between release strategies and adult returns.

X Other Items (Mike Schiewe)

A. Meeting Agreements

This section summarizes agreements reached by the Committees during this meeting, which were not formally proposed by the Committee as decision items.

- The Committees agreed that future reports on snorkeling surveys in the Chiwawa River will use the fecundity estimate from Chiwawa broodstock to calculate annual egg deposition.
- The Committees agreed that SARs should be provided (and noted as draft or final) as a point of reference in each year's M&E Annual Reports.
- The Committees agreed that for the purpose of increasing homing fidelity, it is important that the Chelan River be the water source for the new program for Turtle Rock yearlings at Chelan Falls.
- The Committees agreed on the Chelan Falls location and schedule for the Turtle Rock Program as presented at today's meeting.
- The Committees approved ending the existing practice of extracting coded-wire-tags from Lake Wenatchee sockeye at Lake Wenatchee in order to compare late- and early-release survival.

B. Future Meetings

The next meeting will be held on Wednesday, May 17, 2006, at Chelan PUD in Wenatchee. The July meeting may be held in SeaTac. There was discussion about possibly changing the June meeting to June 14; Ali Wick will email the Committees about this date.

List of Attachments

Attachment A—List of Attendees

Attachment B—Approved Statement of Agreement – Abundance and Total Numbers of
Chinook Salmon and Trout in the Chiwawa River Basin, Washington, 2005

Attachment C – Approved Statement of Agreement - WDFW Hatchery Monitoring and
Evaluation Memorandums

Attachment D – Approved Statement of Agreement - Chelan PUD Hatchery Monitoring and
Evaluation Implementation Plan

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Steve Hayes	Chelan PUD
Sam Dilly	Chelan PUD
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Dick Nason	DNC
Kris Petersen *	NMFS
Kevin Kytola	Sapere Consulting
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

**APPROVED STATEMENT OF AGREEMENT – ABUNDANCE AND
TOTAL NUMBERS OF CHINOOK SALMON AND TROUT IN THE
CHIWAHA RIVER BASIN, WASHINGTON, 2005**

Statement of Agreement
Abundance and Total Numbers of Chinook Salmon and Trout in the Chiwawa
River Basin, Washington, 2005
April 19th, 2006

The Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the **Abundance and Total Numbers of Chinook Salmon and Trout in the Chiwawa River Basin, Washington, 2005** and accept the memo as final.

ATTACHMENT C

**APPROVED STATEMENT OF AGREEMENT - WDFW HATCHERY
MONITORING AND EVALUATION MEMORANDUMS**

**Statement of Agreement
Washington Department of Fish and Wildlife
Hatchery Monitoring and Evaluation Memorandums
April 19th, 2006**

The Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the following documents and accept the memos as final:

2003 Brood Sockeye and Chinook Salmon Reared and Released from Eastbank Fish Hatchery Complex Facilities

2005 Chiwawa and Wenatchee R Smolt Estimates

2005 Upper Columbia River Summer Chinook Spawning Ground Surveys

2005 Wenatchee River Basin Steelhead Spawning Ground Surveys

ATTACHMENT D

**APPROVED STATEMENT OF AGREEMENT - CHELAN PUD
HATCHERY MONITORING AND EVALUATION IMPLEMENTATION
PLAN**

Statement of Agreement
Chelan County PUD
Hatchery Monitoring and Evaluation Implementation Plan 2006
April 19th, 2006

The Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the Chelan County PUD Hatchery Monitoring and Evaluation (M&E) Implementation Plan for 2006 (Plan) and agree that it covers the work that needs to be accomplished in 2006. Further, the Committees anticipate and recognize that this first year of the Hatchery M&E program could result in changes to the Plan in this and future years.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick, Kevin Kytola, Tom Kahler, Dick Nason

Date: June 23, 2006

Re: Final Minutes of May 17, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on May 17, 2006, from 9:30 am to 3:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final April 19, 2006 Meeting Minutes to the Hatchery Committees by email (Item I).
- The Steelhead Acclimation Subcommittee will work with Sam Dilly to develop a scope of work and design criteria to be used to evaluate two or three alternative designs for the Chiwawa Hatchery steelhead rearing/acclimation facility; these documents will be provided to the Committees for approval (Item VI-B.1).
- Kevin Kytola will provide the finalized *Wenatchee Steelhead Long Term Acclimation Facility – Draft Feasibility Study Design Criteria* to Ali Wick for distribution to the Committees (Item VI-B.1).
- Shaun Seaman will provide the aerial photo maps and an update of Chiwawa Hatchery issues discussed at today's meeting to Ali Wick for distribution to Tom Scribner and Kris Petersen since they were not able to be present during the afternoon portion of the meeting (Item VI-B.1).
- CH2M Hill will provide a table to Kevin Kytola to use in drafting design criteria for adult steelhead holding ponds at Eastbank Hatchery; Kytola will provide the draft table to Kirk Truscott for review; after Truscott's review, the table and a draft scope of

work for the design process will be circulated to the full Committees for review and approval at the next meeting (Item VI-B.2).

- CH2M Hill will provide a preliminary table of design criteria for the Chelan Falls yearling Chinook salmon holding ponds to Kevin Kytola for review and completion; Kytola will work with Kirk Truscott to prepare a final draft for circulation to the full Committees for final review and approval at the next meeting (Item VI-B.4).
- Ali Wick will check whether the Monitoring & Evaluation (M&E) Decision Rules document was finalized in the Hatchery Evaluation Technical Team (HETT), and if so, will distribute it to the Committees (Item VIII-B).
- Ali Wick will check with Tracy Hillman regarding his availability to attend the next Hatchery Committees meeting to discuss the Decision Rules document (Item VIII-B).
- Jerry Marco will prepare a short summary with background information on the use of Bonaparte Ponds for some of the Similkameen production and will discuss this summary at the next meeting (Item X-A).

DECISION ITEM SUMMARY

- The Committees approved the Statement of Agreement (SOA) confirming the Committees' previous approval of the proposal to convert the Turtle Rock Island subyearling program production to a yearling program, and further approved the relocation of the program to the Chelan Falls area (Attachment B, Item II).
- The Committees approved the SOA regarding the protocol for the proposed 2006-2007 operation of the water supply system at the Chiwawa Hatchery (Attachment C, Item III).
- The Committees approved the SOA and proposal for the location of a long-term steelhead rearing facility at the current Chiwawa River rearing pond site (Attachment D, Item IV).
- The Committees approved the SOA and proposal to modify the Wenatchee sockeye juvenile rearing and release strategy to a late release at 15 fish per pound in order to improve release-to-smolt survival for Lake Wenatchee sockeye (Attachment E, Item V).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the April 19, 2006 Meeting Minutes as revised at the meeting. Ali Wick will send the Final April 19 Minutes by email. Attendees at the May 17, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II DECISION ITEM: Turtle Rock Program Conversion and Relocation (Shaun Seaman)

Shaun Seaman introduced this topic and noted that the Committees previously agreed to a conversion of the Turtle Rock subyearling production program to a yearling production conversion, but that a SOA had not been prepared because a decision regarding location of the program had not yet been made. The new SOA confirms the Committees' previous agreement to the conversion and new program production requirements, and verifies a new Committee agreement that the program will be relocated to the area of Chelan Falls. The Committees approved the SOA as revised at the meeting.

III DECISION ITEM: Chiwawa Water Operation Protocol 2006-2007 (Shaun Seaman)

Shaun Seaman introduced a SOA to approve the proposed protocol for operation of the Chiwawa Hatchery water supply system. The protocol had been discussed in detail at the April Hatchery Committee meeting. At this time, several Committees members had additional questions about Table 1 in the protocol, and specifically whether the estimated volumes of Wenatchee and Chiwawa River water were consistent with the flow index for the poundage of fish located at the facility. Sam Dilly joined the meeting in the afternoon session and confirmed that Table 1 of the proposed protocol contained only examples of hypothetical mixing volumes, and was not to be considered specific operational guidelines. The Committees approved the revised SOA and it will be sent out for review with the draft meeting minutes.

IV DECISION ITEM: Long-term Wenatchee Steelhead Location (Shaun Seaman)

Shaun Seaman introduced the proposal for the location of a long-term steelhead rearing facility at the current Chiwawa River rearing pond site. Tom Scribner requested several changes to the SOA to clarify that the agreement would not preclude the development of satellite acclimation facilities in tributary location for spring acclimation if it is later determined necessary by the Hatchery Committees. The Committees agreed with the SOA as revised at the meeting.

V DECISION ITEM: Proposal for Late Release Sockeye at Lake Wenatchee (Kirk Truscott)

Kirk Truscott introduced this topic, noting that the rationale for this program change was discussed in detail at the April Hatchery Committees meeting. The SOA proposed a modification to the Wenatchee sockeye juvenile rearing and release strategy that would eliminate any early release juveniles. As revised, the new program strategy would specify only a late release at 15 fish per pound in order to improve release-to-smolt survival for Lake Wenatchee sockeye. The Committees approved the SOA as revised at the meeting.

VI Updates: Chelan PUD (Shaun Seaman)

A. Bacterial Kidney Disease Management Strategy

Mike Schiewe introduced the draft recommendation on proposed management of Bacterial Kidney Disease (BKD), which has been sent out for the Committees' review. Kirk Truscott indicated that he was circulating this document internally within the Washington Department of Fish and Wildlife (WDFW) for review. In general, he expressed a concern that the recommendations may not be appropriate for all programs (e.g., would not be appropriate for Endangered Species Act [ESA]-listed species). Schiewe noted that the intent of the recommendation was to establish the flexibility to cull the eggs of high BKD females, and not necessarily require it. There would always be cases (such as extremely low population abundance) where culling would not be advisable. This will continue to be a discussion item at future meetings.

B. Facilities Update

Sam Dilly introduced Bob Gatton and James Kapla from CH2M Hill; CH2M Hill is the contractor that Chelan PUD has hired for design of several hatchery facilities. The Committees discussed the following facilities projects:

1. Design Considerations for Wenatchee Steelhead Long-Term Acclimation Facility

The Steelhead Acclimation Subcommittee has met several times over the past several months to develop facility concepts and design criteria for long-term rearing and acclimation of juvenile steelhead in the Wenatchee basin; these included both semi-natural rearing and conventional hatchery concepts. Steve Hayes indicated that the

subcommittee had ruled out a full naturalized rearing enhancement approach (NATURES) facility due to the large production required (400,000 smolts) and space maintenance considerations. However, Hayes indicated that the inclusion of some NATURES-type features were still possible. Hayes provided a draft document entitled *Wenatchee Steelhead Long Term Acclimation Facility – Draft Feasibility Study Design Criteria* for this discussion. Gatton and Kapla indicated that this type of document is what they need to proceed with preliminary engineering studies; however, Kevin Kytola pointed out that this document still needs to be finalized by the Steelhead subcommittee. Once it is finalized, Kytola will provide this finalized document to Ali Wick for distribution to the Committees.

Sam Dilly provided poster-sized aerial photos of the existing Chinook rearing facility and the surrounding area at Chiwawa; these photos were used as background for the Committees to discuss property-ownership and water source questions associated with developing additional facilities at this location. Dilly confirmed that the approved Chiwawa Water Warming program will not require a sizeable amount of water from the water right (approximately 1,400 gallons per minute during operation). Gatton updated the group that a new set of pipes and a new pump station will be required. Gatton stated that the location of the water intake would likely not be in jeopardy by a 1,000 year flood, according to the Channel Migration Study.

The Steelhead Acclimation Subcommittee will work with Sam Dilly to develop a scope of work and design criteria to be used to evaluate two or three alternative designs for the Chiwawa Hatchery steelhead rearing/acclimation facility; these documents will be provided to the Committees for approval. Shaun Seaman will provide the aerial photo maps to Ali Wick for distribution to Tom Scribner and Kris Petersen since they were not able to be present during the afternoon portion of the meeting. Seaman indicated that he and Sam Dilly would probably meet in Portland with Scribner and Petersen to further discuss the facilities and the process. (Follow-up note: Chuck Peven will be meeting with Tom Scribner and Kris Petersen and will provide the aerial photos at these meetings).

2. *Adult Steelhead Holding at Eastbank Hatchery*

The Committees discussed alternatives to the current practice of moving adult steelhead from Eastbank Hatchery to Wells Hatchery or Chelan Falls Hatchery during winter to avoid warmer water. The warmer conditions at Eastbank during the winter disrupt the normal maturation process. The Committees agreed with the following path forward: Bob Gatton of CH2M Hill will provide a table of information needs for design criteria to Kevin Kytola; Kytola will incorporate into this table the criteria from the *Facilities Evaluation Report* and will send on to Kirk Truscott for review; this table and a draft scope of work will then be distributed to the full Committees for review and approval at the next meeting.

3. *Feasibility Study for Water Quality at Similkameen Summer Chinook Acclimation Facility*

Sam Dilly introduced the topic that certain pathogens (primarily *Dermocystidium*) from adults spawning upstream of Similkameen Ponds are being shed and are infecting juvenile fish held at Similkameen. Dilly and CH2M Hill are investigating alternatives to remedy this situation. Options being considered include a) changing water supply to a location upstream of where adults spawn; b) moving juveniles to Similkameen later in the rearing cycle (e.g., after adult spawning upstream is complete); c) utilizing selected water treatment technologies (e.g., hydrogen peroxide, ozone, or ultraviolet light) to treat the water supply; and d) relocating the program. Dilly requested comments on whether the Committee believes any of these options should be removed from consideration or if others should be considered; the Committees agreed that this list was satisfactory. The path forward is that CH2M Hill will review existing data and provide a prioritized list of water quality factors that contribute to juvenile mortality at Similkameen Ponds. In addition, they will develop conceptual alternatives and identify and describe three preferred alternatives, and then complete a feasibility study for the selected preferred alternative.

4. *New Sites for Turtle Rock Summer\Fall Chinook Yearling Rearing and Acclimation at Chelan Falls*

James Kapla of CH2M Hill introduced the topic of developing acclimation ponds in the vicinity of the Chelan Powerhouse for rearing and acclimation of yearling summer Chinook (i.e., the reprogrammed Turtle Rock production). CH2M Hill will be evaluating alternative locations and providing cost estimates for this work. For use in the study, CH2M Hill is requesting that the Committees provide design criteria. The path forward is that CH2M Hill will provide their preliminary design criteria to Kevin Kytola; Kytola will incorporate into this table the criteria from the *Facilities Evaluation Report* and will send on to Kirk Truscott for review; this table and a draft scope of work will then be distributed to the full Committees for review and approval at the next meeting.

VII Updates: Douglas PUD (Tom Kahler)

A. Status of Chewuch Adult Broodstock Collection Facility

Tom Kahler updated the Committees that Douglas PUD had visited Chewuch Dam site this week. Recent discussions with the project engineer have focused on ensuring fish passage during non-trapping flows, as well as several land ownership issues. For agency coordination purposes, Kirk Truscott will contact Kim Bondi of WDFW and Chris Johnson representing the U.S. Bureau of Reclamation.

B. Committee Comments to Reports out for Review

Rick Klinge updated the Committees that the *Wells Hatchery 2003 Brood Summer Chinook Salmon Production Report* and the *Methow Hatchery 2003 Brood Spring Chinook Salmon Production Report* have been out for comment the required 60 days, and that no comments were received. The Committee accepted these two reports as final.

VIII Yakama Nation (Tom Scribner)

A. Reference Streams and Spawner Composition Study Plan

Tom Scribner introduced this topic and indicated that a decision on the reference streams document and the spawner composition study plans produced in the HETT will need to occur prior to the next Hatchery Committees meeting on June 21. This is necessary to meet the Committees' commitment to initiate studies to determine steelhead spawner composition in 2007; if approved, Passive Integrated Transponder (PIT) tagging of returning adult steelhead

would need to begin in July 2006. The Committees scheduled conference calls for May 30 and June 6 (both at 1:30 pm) to move forward on these issue. The May 30 call will focus on resolving any questions regarding the study plan and agreeing on a short list of potential reference streams, and the June 6 call will focus on Committees final approval.

B. Decision Rules

Ali Wick will check with Tracy Hillman whether the M&E Decision Rules document has been finalized by the HETT, and if so, will forward it to the full Committees for review and approval. If the document has been finalized by HETT, Wick will check with Hillman regarding his availability to attend the next meeting and this may be a decision item at the meeting.

C. Surplus Wells Hatchery Summer Chinook

Tom Scribner updated the Committees that Douglas PUD agrees with the Yakama Nation's and Colville's use of the surplus of Wells Hatchery summer Chinook, and the Yakama Nation will work directly with WDFW on the use of these fish.

IX WDFW (Kirk Truscott)

A. Spring Chinook Returns

Kirk Truscott updated the Committees that spring Chinook returns have improved relative to early returns, and there have now been over 80,000 fish counted at Bonneville Dam, with a typical daily passage rate of approximately 1,500 fish. Truscott indicated that these numbers likely mean that there will be adequate broodstock to meet production levels for the Methow program.

X Other Items (Mike Schiewe)

A. Calendar of Future Discussion and Decision Items

Mike Schiewe introduced this topic and invited the Committee to add items to this calendar previously provided to the Committees. Jerry Marco suggested discussing the use of Bonaparte Ponds for the Similkameen program. Marco will summarize past use of these ponds for this purpose, and will provide this summary at the next meeting.

B. Hatchery Committee Review of Broodstock Collection Protocols

Mike Schiewe introduced the topic of whether the broodstock collection protocols for HCP Plan Species should be approved annually by the Hatchery Committees. This question came up because ESA Permit 1196 states only that WDFW will prepare annual broodstock collection protocols “in consultation with” the HCP Hatchery Committees and does not require Committees’ agreement or approval. However, it was pointed out that historically in the Mid-Columbia (i.e., in the Mid-Columbia Settlement Process), approval of the protocols was an annual event. Several members felt strongly that since hatchery mitigation and the achievement of program goals were such an important component of the HCP agreement, that it was important to ensure a formal and meaningful role for the Hatchery Committees in the process. The Committees discussed this issue and agreed that it is within the HCP Committees duty and jurisdiction to approve broodstock collection protocols concerning HCP Plan Species.

The Committees also discussed that, although the current draft protocols (as proposed) are consistent with the existing Section 10 permits, the permit provisions in some years may conflict with U.S. v. Oregon production goals and limit HCP production levels. Tom Scribner updated the Committees that the U.S. v. Oregon Policy Group met last week to discuss this apparent inconsistency. Scribner related that (in this meeting) National Marine Fisheries Service (NMFS) has indicated that its highest priority was meeting mitigation obligations. NMFS staff will be meeting on May 26 with WDFW and the Yakama Nation to further discuss resolution of this issue. Kirk Truscott noted that until this meeting occurs and any changes are agreed upon, that the protocols will remain consistent with the protocols document provided on April 3 to the Committees. The Committees scheduled a conference call at 1:30 pm on May 30 for NMFS and WDFW to provide an update from this meeting.

C. Hatchery Committee Review of ESA Permit Reports

Mike Schiewe brought up this topic and asked for Committee comment on the Committees’ review of the annual ESA Permit Reports. The Committees agreed that review of these reports should be a Committee responsibility. Currently, WDFW prepares these reports, which are due to NMFS by January 31 of each year.

A. Meeting Agreements

This section summarizes agreements reached by the Committees during this meeting, which were not formally proposed by the Committee as decision items.

- The Committees agreed with the following path forward for the Chiwawa Hatchery steelhead acclimation and rearing facility: the Steelhead Acclimation Subcommittee will meet with Sam Dilly to develop a scope of work and design criteria document to be used to evaluate two or three design alternatives; these documents will be provided to the Committees for approval (Item VI-B.1).
- The Committees agreed with the following path forward for the Eastbank adult steelhead holding pond feasibility study: Bob Gatton will provide a table of information needs for design criteria to Kevin Kytola; Kytola will incorporate into this table the criteria from the *Facilities Evaluation Report* and will send to Kirk Truscott for review; Kytola will provide this to Ali Wick for distribution to the Committees and this table and the scope of work will be up for approval at the next meeting (Item VI-B.2).
- The Committees agreed that the options currently being considered for remediation of water quality issues at Similkameen Ponds are satisfactory (Item VI-B.3).
- The Committees agreed with the following path forward for the acclimation ponds at Chelan Falls Hatchery: CH2M Hill will provide the working table of design criteria to Kevin Kytola; Kytola will prepare a table of criteria based on the *Facilities Evaluation Report* for Kirk Truscott's review; Truscott and Kytola will provide this to Ali Wick for distribution to the Committees and for review and approval at the next meeting (Item VI-B.4).
- The Committees accepted as final the *Wells Hatchery 2003 Brood Summer Chinook Salmon Production Report* and the *Methow Hatchery 2003 Brood Spring Chinook Salmon Production Report* (Item VII-B).
- The Committees agreed that it is within the HCP Committees duty and jurisdiction to approve broodstock collection protocols concerning HCP Plan Species (Item X-B).
- The Committees agreed that review and approval of annual ESA Permit Reports should be a Committee function (Item X-C).

D. Future Meetings

The next meeting will be held on Wednesday, June 21, 2006, at Chelan PUD in Wenatchee. The July meeting will be held in SeaTac.

List of Attachments

Attachment A – List of Attendees

Attachment B – Approved SOA – Movement of the Turtle Rock Summer Chinook Hatchery
Program to a New Facility near the Chelan Falls Powerhouse

Attachment C – Approved SOA – WDFW Hatchery Monitoring and Evaluation Memorandums

Attachment D – Approved SOA – Chelan PUD Hatchery Monitoring and Evaluation
Implementation Plan

Attachment E – Approved SOA – Decision on consensus of the Lake Wenatchee sockeye
juvenile rearing and release strategy

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Steve Hayes	Chelan PUD
Sam Dilly	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Bob Gatton	CH2M Hill
James Kapla	CH2M Hill
Tom Kahler	Douglas PUD
Rick Klinge*	Douglas PUD
Dick Nason	DNC
Jerry Marco*	Colville Confederated Tribes
Kris Petersen* (by conference call)	NMFS
Kevin Kytola	Sapere Consulting
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner* (by conference call)	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

**APPROVED SOA – MOVEMENT OF THE TURTLE ROCK
SUMMER CHINOOK HATCHERY PROGRAM TO A NEW FACILITY
NEAR THE CHELAN FALLS POWERHOUSE**

Statement of Agreement for the Program Conversion and Movement of the Turtle Rock Summer Chinook Hatchery Program to a New Facility near the Chelan Falls Powerhouse¹.

**Rocky Reach and Rock Island HCP Hatchery Committees
May 17th, 2006**

Statement

The Rocky Reach and Rock Island HCP Hatchery Committees agree that Chelan PUD should move final rearing and acclimation for the Turtle Rock summer Chinook program, to a new facility that will be built near the Chelan Powerhouse area. The new yearling program will be made up of 400,000 fish from the conversion from subyearlings and an additional 200,000 fish from the current production requirements (that are subject to revision in 2013 per the HCP). The District agrees to consider retaining some portion of the subyearling program, as long as it can be accommodated within the current future facility modifications that have been agreed to by the hatchery committee previously.

Background

Originally, the District built a spawning channel on Turtle Rock Island to mitigate for lost spawning areas in the mainstem Columbia for late-run (summer/fall) Chinook. It was built to accommodate 300 Chinook pairs (600 fish total). The following highlights programmatic changes that have occurred since 1963.

- 1963: two acre pond built to improve fry survival
- 1967: it was agreed that this program was a failure due to poor survival for spawners and juveniles
- 1968: a new agreement was reached that changed production to coho (for fish culture reasons)
- 1975: installed two portable raceways, immediately downstream of RR for this program
- 1977: installed three more raceways for a survival study
- 1980: the District and WDF agreed to experiment with rearing summer Chinook in addition to the coho program (which had been about 500,000 fish per year). The intent of this agreement was to raise 500,000 summer Chinook, with 300,000 raised as accelerated subyearlings, and the other 200,000 raised to yearlings. This program required additional portable raceways, so the total was increased to eight.
- 1984: As part of the first interim stipulation, 200,000 late-run Chinook were designated for passage losses
- 1993: Coho program terminated under the auspices of the third revised stipulation,² it was abandoned because of poor performance (number of returning adults) in favor of

¹ This document was revised in May 2006 from an original agreement considered by the Committee in 2005.

² The first agreement signed between the agencies and tribes and the District occurred in 1979 under what is called the "mid-Columbia Proceeding." The original agreement lasted until 1984, when an interim stipulation of the was entered into for 2 years for Rocky Reach (Rock Island's portion of the mid-C Proceeding was satisfied under the Settlement Agreement through the relicensing process in 1989). Further interim stipulations were agreed to through 1995 (which

a fall Chinook program. District required to fund the raising of 54,400 pounds of fall Chinook and 30,000 pounds of steelhead (no change).

- Current Chinook production goals are 200,000 yearlings and 1,694,000 subyearlings.

WDFW has proposed that the subyearling program be converted to a yearling program (1,694,000 subyearlings to 400,000 yearlings), and that the final rearing of the fish be moved from Turtle Rock to the area near Chelan Falls, so a local fishery can be developed in the vicinity. Achieving this objective is more in line with the original intent of the hatchery program goals, and is recommended in the BAMP:

“In Phase B, production of 1,620,000 subyearling summer Chinook salmon at Rocky Reach FH would be changed to 400,000 marked yearling summer chinook for acclimation and release from a facility (preferably near Whitestone Creek confluence) on the Okanogan River.” (Section 2.66, page 59)

“Stray” rates from the Turtle Rock program can be extensive in some years. Since the fish are released in the mainstem upstream of Rocky Reach Dam, fish are not necessarily, homed into a specific return location. Therefore, releasing fish raised on Chelan River water will most likely have them return to that location. This relocation should compliment the new habitat improvements that the District will make under its new license in the lower section of the Chelan River.

Survival of yearling fish compared to subyearlings is much higher, so less infrastructure and resource (broodstock) would be necessary to achieve the same number of adults returning.

was the fourth). Efforts were made to enter into a 5th interim stipulation, but were abandoned because the HCP negotiations were under way at the time. The HCP specifically states that the RI settlement agreement and all other processes for Rocky Reach (the only legally binding process is the Biological Opinion for the construction of the bypass trap, and the new BiOp for the HCP) will be superceded upon FERC’s insertion of the HCP into our licenses.

ATTACHMENT C

**APPROVED SOA – WDFW HATCHERY MONITORING AND
EVALUATION MEMORANDUMS**

**Statement of Agreement Concerning Operation of the Chiwawa Hatchery Supply to
Maximize Use of Chiwawa River water**

**Rocky Reach and Rock Island HCP Hatchery Committees
May 17th, 2006**

Statement of Agreement

The Rock Island HCP Hatchery Committee approves the protocols outlined in the memo, *Chiwawa Water Warming Program Winter 2006-2007 Operational Protocol* and agree that WDFW should operate within the guidelines and suggestions that are outlined within the memo for the 2006-2007 rearing period. A decision for continued operation under this protocol will be determined by the Rock Island HCP Hatchery Committee prior to the following rearing period. The Committees recognize that the operational guidelines in the protocol provide a proactive approach to rearing fish on Chiwawa River water to the fullest extent possible; however, certain unforeseen events¹ may lead to operational deviations from the protocol. The Committees also recognize that Chelan PUD will provide adequate funding assurances for an operation consistent with the protocol.

Background

The average stray rate of Chiwawa River spring Chinook has been over 25% in the last few years, making up a large percentage of the spawners in some subpopulations within the Wenatchee Basin.

Groundwater is not available near the Chiwawa rearing ponds in enough volume to raise fish, and water throughout the winter has always been provided from an intake on the Wenatchee River because of ice blockages at the Chiwawa River intake. It is reasonable to assume that running Wenatchee water throughout the winter has probably lead to the high stray rate from this program.

In 2005, a feasibility study was conducted by Chelan PUD to determine alternatives to increase the total Chiwawa flow throughout the rearing period at Chiwawa rearing ponds. While many alternatives were considered, the HCP HC determined that the PUD should pursue infusing Wenatchee water on the intake screens of the Chiwawa River intake to keep formation of ice at a minimum, or to completely eliminate it.

In the winter of 2005-2006, Chelan PUD was able to test infusion of Wenatchee water in the Chiwawa River intake, and it was determined to be promising.

Instituting a complete operational switch (current protocol is to switch to Wenatchee River water in November and leave it there until February) will be challenging, and modifications to the protocols should be expected. However, it is imperative that the operations of the facility is to maintain Chiwawa River water on the rearing fish to the fullest extent possible.

¹ e.g. facility emergencies, extreme environmental conditions, fish transfer water temperatures, or fish health issues.

ATTACHMENT D

**APPROVED SOA – CHELAN PUD HATCHERY MONITORING AND
EVALUATION IMPLEMENTATION PLAN**

Statement of Agreement Concerning Location of a Long-term Steelhead Rearing Facility

Rocky Reach and Rock Island HCP Hatchery Committees
May 17th, 2006

Statement of Agreement

The Rocky Reach and Rock Island HCP Hatchery Committees agree that further investigation should be conducted to determine whether a long-term steelhead over-winter rearing facility can be retrofitted at the current Chiwawa River rearing pond site using Wenatchee and/or Chiwawa River water. No other sites will be considered and studied unless it is determined by the committee that the Chiwawa site can not accommodate the long-term over-winter acclimation facilities. However, expansion of the Chiwawa River rearing pond site to accommodate over-winter acclimation for steelhead does not preclude the development of satellite acclimation facilities in tributary locations for spring acclimation if it is later determined necessary by the HCP HC.

Background

Current hatchery rearing practices split the incubation and early rearing of steelhead between Eastbank and Chelan Falls hatcheries. Final rearing occurs at Turtle Rock after Columbia River temperatures begin to cool in the fall. In the spring, fish are placed in trucks and driven to release locations in the Wenatchee River Basin.

Stray rates from the steelhead program have been documented to be greater than 10% outside of the Wenatchee Basin, which is inconsistent with recommendation by the Interior Columbia River Technical Recovery Team (TRT). As such, the steelhead program is not meeting some of the ecological objectives established by the HCP HC.

It is reasonable to assume that because fish are reared over winter on a water source upstream of the Wenatchee River, that homing fidelity to the Wenatchee River may be compromised. The HCP HC, in accordance with the HCP, has directed Chelan PUD to begin work to locate a facility in the Wenatchee River Basin to rear steelhead over winter on Wenatchee River and/or Chiwawa River water.

If evaluations later determine that over-winter acclimation on Wenatchee River water with a direct release via truck to tributary locations (ex: Nason Creek) does not result in adequate dispersal of returning adults within the Wenatchee Basin, a satellite facility(s) for spring (short term) acclimation in tributary locations will be considered.

A subcommittee of the HCP HC was formed and that committee evaluated multiple potential locations and recommended to the HCP HC that investigations begin to increase the capabilities of the Chiwawa River site to rear steelhead over winter.

ATTACHMENT E

APPROVED SOA – DECISION ON CONSENSUS OF THE LAKE WENATCHEE SOCKEYE JUVENILE REARING AND RELEASE STRATEGY

Decision on consensus of the Lake Wenatchee sockeye juvenile rearing and release strategy.	Date: May 17, 2006
<p>Statement of Agreement:</p> <ul style="list-style-type: none"> • The Rock Island Habitat Conservation Plan (HCP) Hatchery Committee agree that the juvenile rearing and release strategy for the BY 2005 Lake Wenatchee sockeye will include an average release size of 15 FPP and an Oct.-Nov. release date. Further, the Committee also agree that this revised rearing and release strategy will be the standard for the Lake Wenatchee sockeye program unless modified through the HCP Hatchery Committee. <p>Background: This rearing and release strategy was developed to maximize the within-lake juvenile survival of hatchery origin sockeye released from the Lake Wenatchee net pens. Improving within-lake juvenile survival of hatchery sockeye released into Lake Wenatchee has been a central focus of adaptive management of this program in efforts to increase the juvenile release- to- smolt survival rates.</p> <p>Beginning with the 2000 BY, WDFW, through the Rock Island Fish Hatchery Complex (RIFHC) Monitoring and Evaluation program began assessing the relative survival of early (25 FPP) and late (15 FPP) release groups of sockeye from the Lake Wenatchee net pens. Monitoring data through 2004 indicates that late-release juvenile sockeye (13 FPP) achieved significantly greater release- to- smolt survival ($P < .01$) than the early release groups (28 FPP)(Table 1). Although the late-release group (October release) rear in the net pens for a greater duration and may be at greater risk of mortality through disease than the early-release group (August release), transfer- to- release survival of early and late release groups were not significantly different ($P = .29$) (Tables 2).</p> <p>Considering the apparent release-to- smolt survival advantage of late release fish at approximately 13-15 FPP, converting the entire program to late release fish at 15 FPP is considered a reasonable and prudent action to improve release-to-smolt survival for Lake Wenatchee sockeye</p>	

Murdoch, A.R., 2006. Wenatchee sockeye hatchery program summary presentation to the Habitat Conservation Plan (HCP) Hatchery Committee, February 2006.

Table 1. Brood year 2000-2003 average release -to -smolt survival for juvenile hatchery sockeye released from Lake Wenatchee net pens, 2001-2004 (Murdoch 2006).

Release Group	Release to smolt survival rate (SD)	
Direct	2.2 (3.1)	
Early	42.4 (25.5)	P <.01
Late	93.6 (10.2)	

Table 2. Brood Year 2000-2003 average transfer-to-release survival of early and late release Lake Wenatchee sockeye, (Murdoch 2006).

Release Group	Transfer to release survival	
Early	98.9 (0.01)	P = 0.29
Late	97.1 (0.03)	

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Tom Kahler, Keely Murdoch, Rick Klinge, Steve Hays, Ali Wick

Date: June 23, 2006

Re: Final Minutes of May 30, 2006 HCP Wells, Rocky Reach and Rock Island Hatchery Committees Conference Call - 2006 Broodstock Collection

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Tuesday, May 30, 2006 from 1:30 pm to 2:30 pm to discuss a) an update on agency discussions regarding broodstock protocols and b) review the steelhead spawner composition study plan. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- Mike Schiewe will call Kris Petersen at NMFS for another update on fisheries co-managers discussions of Chiwawa Hatchery broodstock protocols; he will send this information to the Committees.
- Douglas PUD will investigate the feasibility of installing additional PIT-tag detection antennae in the Methow and Okanogan Rivers, and Chelan PUD will investigate this for the Wenatchee and Entiat Rivers; the PUDs will provide an update for the conference call next week on June 6.
- Mike Schiewe will prepare a Statement of Agreement for the approach to the steelhead sampling composition study plan for next week's call.
- Chuck Peven will check with Kris Petersen to discuss whether there are ESA-related issues with identifying Rocky Reach Dam as a potential tagging location.
- Kirk Truscott will investigate the feasibility of employing a jaw tag instead of a dorsal sinus tag for PIT-tags and will relate this information at next week's call.
- Mike Schiewe will prepare a Statement of Agreement for approving the short list of potential reference streams needing PIT-tag detectors; this will be up for approval on next week's call.

- Chuck Peven agreed to prepare information on the level of effort to identify spawning ground survey information for the Lost River, another potential reference stream which already has PIT-tag detectors installed.

CALL MINUTES

Mike Schiewe opened the call by welcoming everyone and invited Tom Scribner to provide an update on the first call topic, the recent Fishery Co-Manager meeting (NMFS, Yakama Nation, WDFW) regarding broodstock collection for the Chiwawa spring Chinook salmon program. The parties discussed collection levels necessary to meet the 672,000 smolt production level identified in the HCP. Options discussed include the collection of additional hatchery-origin fish at Tumwater Dam or at the Chiwawa trap. Kirk Truscott commented that this could result in an adjustment to the requirement that broodstock include a minimum of one-third natural-origin fish. NMFS is currently discussing broodstock collection options internally. Mike Schiewe will call Kris Petersen at NMFS for another update and he will send this information to the Committees when available.

The second topic on this call was the steelhead spawner composition study plan. The Committees discussed the study plan, including the questions that the study will be able to answer. Keely Murdoch confirmed that the study will be able to determine whether spawners return to the creeks into which they were planted at smolts. The Committees discussed detection site locations and the PUDs agreed to investigate the ability to install detection antennae at new locations in 2006. Douglas PUD will investigate this for the Methow and Okanogan Rivers, and Chelan PUD will investigate this for the Wenatchee and Entiat Rivers; the PUDs will provide an update for the conference call next week on June 6. Kirk Truscott commented that ad-clipped, PIT-tagged (hatchery-origin) fish would need to be excluded from the authorized fishery due to public health concerns with the PIT-tag. Keely Murdoch also pointed out that excluding study fish in the fishery would also keep study fish from being removed from the system. The Committees agreed that the conceptual approach for the study plan is appropriate in principle and the approach will be up for formal approval at next week's conference call. Mike Schiewe will prepare a Statement of Agreement for next week's call. Chuck Peven will check with Kris Petersen to discuss whether there are ESA-related issues with identifying Rocky Reach Dam as a potential tagging location. Kirk Truscott will investigate the

feasibility of employing a jaw tag instead of a dorsal sinus tag to allow visual identification of PIT-tagged fish..

The Committees discussed potential reference streams for steelhead and identified Peshastin Creek, the Entiat River, and the Lost River as potential steelhead reference streams that would require new PIT-tag detectors for the steelhead study data collection effort. Mike Schiewe will prepare a Statement of Agreement for approving the short list of potential reference streams needing PIT-tag detectors; this will be up for approval on next week's call. To support this information, Chuck Peven agreed to prepare information on the level of effort to identify spawning ground survey information for the Lost River, another potential reference stream which already has PIT-tag detectors installed.

Lastly, Chuck Peven updated the Committees on the current list of spring Chinook reference streams. This will be discussed in detail at the next meeting.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Kirk Truscott	WDFW
Steve Hays	Chelan PUD
Chuck Peven	Chelan PUD
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Shane Bickford	Douglas PUD
Brian Cates *	USFWS
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Tom Kahler, Keely Murdoch, Rick Klinge, Steve Hays, Ali Wick

Date: July 21, 2006

Re: Final Minutes of June 6, 2006 HCP Wells, Rocky Reach and Rock Island Hatchery Committees Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Tuesday, June 6, 2006 from 1:30 pm to 2:30 pm to discuss a) an update on status of broodstock protocols and b) discuss approval of the steelhead spawner composition study plan and the short list of reference streams for steelhead. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- Mike Schiewe will check in with Kris Petersen on the NMFS meeting regarding broodstock protocols and will provide an update at the next conference call, scheduled for June 14 at 1:30 pm. Ali Wick will send out conference line information for this call (Paragraph 2).
- Kirk Truscott and Tom Scribner will discuss proportion of natural- and hatchery-origin broodstock in the Methow basin off-line and will relay information to the Committees on these discussions (Paragraph 2).
- Chuck Peven and Ali Wick will verify with the HETT their availability to attend the next Hatchery Committees meeting on June 21 (Paragraph 3).
- Mike Schiewe will revise the SOA for candidate reference streams to include comments raised on today's conference call (Paragraph 4).
- Tom Scribner will send the link to ISRP comments on the Yakama Nation's coho proposal to Ali Wick for distribution to the Committees (Paragraph 6).

CALL MINUTES

Mike Schiewe opened the call by welcoming everyone and invited Kirk Truscott to give an update on broodstock collection protocols. Truscott related that the Chinook run has increased to the point that it now appears that the HCP production level will be met. Schiewe updated the group that Kris Petersen would be meeting soon with NMFS staff to evaluate options for integrating HCP vs. U.S v. Oregon production levels. Tom Scribner expressed interest that natural origin proportions in the offspring remain high. Mike Schiewe will check in with Kris Petersen on the NMFS meeting and will provide an update at the next conference call, scheduled for June 14 at 1:30 pm. Ali Wick will send out conference line information for this call.

Truscott also related that due to the damage to the Methow Basin traps (reduced trapping capabilities in the tributary locations), WDFW has revised the Methow Basin spring Chinook trapping protocol to include trapping adipose present CWT hatchery-origin fish at Wells Dam; these protocols have been distributed to the Committees by email. Brian Cates expressed concern that these new trapping protocols may inadvertently collect Methow Composite fish (Met-Comps). Truscott related that fish would be trapped based on CWT number to verify that the correct fish are being collected. Tom Scribner indicated that the Yakama Nation prefers to increase collection of natural origin fish at Wells Dam to increase the percent of natural origin fish in the broodstock; Truscott related that at this point in the run, there may not be sufficient numbers of natural origin fish at Wells Dam to do this. Truscott and Scribner will discuss off-line and will relay information to the Committees on these discussions.

The Committees discussed the proposed Statement of Agreement (SOA) for the *Proposed Study Plan for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams*. Committees members had substantial concerns with the SOA as proposed and the Committees agreed that further discussion was needed. The Hatchery Evaluation Technical Team (HETT) will be addressing some of these comments at its next meeting on June 16, and the Committees decided that these SOAs will be discussed at a joint meeting between the HETT and Hatchery Committees meeting on June 21. Chuck Peven will contact Tracy Hillman to verify his availability to attend the next Hatchery Committees meeting; Ali Wick will send a notification to the remainder of the HETT as well.

The Committees discussed the proposed Statement of Agreement (SOA) for the short list of candidate reference streams for steelhead. Based on discussions on the last conference call and the information provided by Chuck Peven on the number of steelhead redds in the Lost River, the Committees discussed whether the Lost River should be dropped from the short list. Mike Schiewe will revise the SOA to include comments raised on today's call.

Chuck Peven brought up the topic of Committee comments on the reduction of PIT tags for sockeye. Currently, there will only be one release group of sockeye, so Chelan PUD is proposing reducing tagging to 15,000 fish (from 25,000 tags split over two release groups). The Committees agreed that the number of tags can be reduced as proposed.

Tom Scribner mentioned to the Committees that discussions are ongoing regarding ISRP funding for the Yakama Nation's coho studies for 2007. He will send the link to these comments to Ali Wick for distribution to the Committees.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Julie Pyper	Chelan PUD
Steve Hays	Chelan PUD
Chuck Peven	Chelan PUD
Shaun Seaman *	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Ali Wick, Keely Murdoch, Tom Kahler, Kevin Kytola, and Dick Nason

Date: July 21, 2006

Re: Final Minutes of June 21, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on June 21, 2006, from 9:30 am to 3:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final May 17, 2006 Meeting Minutes to the Hatchery Committees by email (Item I).
- The Hatchery Effectiveness Technical Team (HETT) will finalize the Decision Rules document and send to Ali Wick for distribution to the Committees prior to the July Hatchery Committees meeting for discussion (Item II.A-1).
- Keely Murdoch will provide a Steelhead Spawning Composition Study Plan for 2006 with revisions discussed at today's meeting by noon on Wednesday, June 28 (Item II.A-2).
- Ali Wick will send out information for a Committees conference call on Wednesday, July 5 at 1:30 pm (Item II.A-2).
- Mike Schiewe will revise the Statements of Agreement for the experimental approach for steelhead spawning composition and for reference stream selection and will send these out for Committees approval at the July Hatchery Committees meeting (Item II.A-2).
- Kirk Truscott will modify the broodstock protocols as per the impending letter from National Marine Fisheries Service (NMFS) to Washington Department of Fish and Wildlife (WDFW) and the Yakama Nation (YN), if need be, or will send out a memorandum indicating why the protocols had not been modified (Item III).

- For the next meeting, the YN, WDFW, and Douglas PUD will provide a proposed study plan for surveying the Lost River (Item IV.A).
- Kirk Truscott will provide the annual report for the reproductive success for Wenatchee River spring Chinook to Ali Wick for distribution to the Committees, for the Committees' information (Item IV.B).
- Kirk Truscott will provide an electronic version of the creel census monitoring document for summer Chinook and a similar document for steelhead to Ali Wick for distribution to the Committees and their comment (Item V.A).
- Chelan PUD and the Colville Tribes will meet to work toward a proposal for rearing summer Chinook at Bonaparte Acclimation Ponds; this proposal will be for the Committees consideration at the July meeting (Item VI).
- Shaun Seaman, Mike Schiewe, and Kirk Truscott will meet to discuss further intermediate steps that may help WDFW address Bacterial Kidney Disease (BKD) (Item VIII.A).
- Steve Hays will provide the post-2013 presentation to Ali Wick for distribution to the Committees for further discussion at the next meeting (Item VIII.B).
- Shaun Seaman will send the calendar of future discussion and decision items out via email (Item VIII.C).
- Mike Schiewe will send an email soliciting specific agenda items and issues for discussion between the Priest Rapids Coordinating Committee (PRCC) and HCP Hatchery and Tributary Committees (Item IX).

DECISION ITEM SUMMARY

- There were no decision items at this meeting.

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the May 17, 2006 Meeting Minutes and the May 30 and June 6 Conference Call Minutes as revised at the meeting. Ali Wick will send the final minutes by email. Attendees at the June 21, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II Subcommittee Updates

A. Hatchery Evaluation Technical Team Subcommittee

1. Decision Rules

Tracy Hillman (via phone) updated the Committees on progress developing Decision Rules for interpreting results of the Monitoring and Evaluation Program. It includes discussion of evaluation indicators, hypotheses, variables, scales, statistical analyses, and decision rules that will guide the analyses. The HETT will meet in early July to finalize the document, and will send it to Ali Wick for distribution to the Committees prior to the July Hatchery Committees meeting for discussion. This document will be up for approval in August.

2. Statements of Agreement for Reference Streams and Spawning Composition Study Plan

Mike Schiewe introduced the draft Statement of Agreement for the steelhead spawning composition study plan. The Committees discussed recent developments regarding installation of Passive Integrated Transponder tag (PIT-tag) detectors in reference streams. Andrew Murdoch updated the group that Integrated Status and Effectiveness Monitoring Program (ISEMP) and NMFS are beginning this process under a separate project and have contracted with WDFW to install monitoring stations in the Chiwawa River, Nason Creek, and in the middle, upper, and lower Wenatchee River. Tom Scribner expressed concern that the discussions and development process to install instream detectors has spanned too long a period given that the Committees began discussing their potential use in 2005. Shaun Seaman stated that he understood this concern, and commented that Chelan PUD is committed to a strong level of effort moving forward to install these detectors as the Committees agreed, but certain factors beyond the PUD's control may have an effect on the outcome and timing of the installation. Andrew Murdoch noted that stream conditions are an important consideration for this technology, mentioning that installation and use of these detectors should be characterized as experimental on larger eastern Washington streams, as opposed to the western Washington creeks in which the use of the technology was initially begun. Shaun Seaman commented that Chris Jordan, who has been working on these detectors in the Methow basin, has indicated that the flashiness, channel instability, and vandalism in Methow streams have affected the efficacy of his detectors.

Kris Petersen requested that the Steelhead Spawning Composition Study Plan include a table of potential 'take' and reporting requirements that would support permit development for this work. For example, more information should be provided on handling and tagging protocols, as well as percentages of adults and juveniles to be tagged and some indication of how this amount might change over time as tagged fish data are collected. The Committees agreed that Keely Murdoch would revise the Study Plan for 2006, incorporating changes discussed at today's meeting by noon on Wednesday, June 28, to be approved by conference call on Wednesday, July 5 (1:30 pm). Ali Wick will send out information for this conference call. Mike Schiewe will revise the Statements of Agreement for the experimental approach for steelhead spawning composition and for reference stream selection, to be approved at the July Hatchery Committees meeting.

Chuck Peven commented that spring Chinook reference streams will be considered during HETT discussion of steelhead reference streams from outside the basin.

III NMFS (Kris Petersen)

Kris Petersen provided an update on NMFS, WDFW, and the YN efforts to resolve differences in broodstock collection protocols, specifically for the Chiwawa River. Those involved in the effort agreed to review permit language to identify potential issues in future years. NMFS has met internally on this issue, and has prepared a letter to WDFW and YN responding to the concerns expressed during meetings, including the number of natural origin fish to be included in the broodstock. Kris Petersen will provide Chelan PUD a copy of this letter when signed, if Chelan PUD was not copied on the letter. Kirk Truscott commented that he would modify the protocols as per this letter, if need be, or send out a memorandum indicating why these had not been modified.

IV Yakama Nation (Tom Scribner)

A. Lost River as Reference Stream

Tom Scribner indicated that the YN would like the Committees to consider the Lost River as a potential in-basin reference stream. He provided photos, a map of the river, and a

memorandum detailing current knowledge of spawning surveys in the river. For the next meeting, the YN, WDFW, and Douglas PUD will provide an initial study plan for surveying the Lost River and further determining its suitability as a reference stream.

B. 2006 Chiwawa Program

Tom Scribner updated the Committees that NMFS is aware of the YN's proposal to move fish from Chiwawa Hatchery to begin a program at Nason Creek, but NMFS is not entirely ready to accept the proposal. Scribner introduced this as a discussion topic for Committee opinion. The Committees' initial feedback on this proposal was that they would not be supportive of this proposal without knowing the potential impact on the Wenatchee population, given the recent efforts to reduce straying of Chiwawa Hatchery fish to the Wenatchee River population. To support further discussion, Kirk Truscott will provide the annual report for the reproductive success for Wenatchee River spring Chinook to Ali Wick for distribution to the Committees.

Seaman clarified with Tom Scribner that the YN desire is to have 672,000 hatchery spring Chinook raised in the upper Wenatchee River basin, but that this production could be split between a Nason Creek and Chiwawa River program.

C. Sockeye Sampling at Tumwater and Wells Dams by Columbia River Intertribal Fish Commission

The Committees confirmed that they have no objection to the Columbia River Intertribal Fish Commission's (CRITFC) sampling of sockeye at Tumwater and Wells Dams.

V WDFW (Kirk Truscott)

A. Creel Census/Monitoring for Summer Chinook and Steelhead Harvest

Kirk Truscott provided copies of a proposed creel census/monitoring protocol for summer Chinook harvest. Truscott will provide an electronic version of this document and a similar document for steelhead to Ali Wick for distribution to the Committees for comment. The eventual approval of these study plans will be an informal meeting agreement and not a formal Statement of Agreement.

B. Update on Broodstock Collection in the Methow

Kirk Truscott updated the group that WDFW currently has 299 of 363 spawners at Methow Hatchery. Twisp and Fulton are close to reaching the number of fish needed.

C. Jaw Tags vs. Disc Tags for Steelhead

Kirk Truscott updated the Committees that Jerry Harman of NMFS strongly recommended not using plastic zip-ties as jaw tags, as they cause too much damage to fish tissue.

D. Translocation of Chiwawa Fish

Seaman asked for confirmation that the committee agreed to proceed with translocating Chiwawa spring Chinook trapped at Tumwater dam to the Chiwawa River. The committee members acknowledge that they had agreed with this effort.

VI Colville Tribes (Jerry Marco)

Jerry Marco provided a handout with information on the Bonaparte Acclimation Ponds on the Okanogan River. The purpose of rearing summer Chinook at these ponds is to encourage natural production in underutilized reaches of the Okanogan River. The Colville Tribes brought this issue before the Committees today to introduce it as a potential option for Chelan PUD for shifting up to 100,000 Chinook from Similkameen program to Bonaparte Pond. From a biological standpoint, the Committees had no objections to Chelan PUD potentially supporting this program. Chelan PUD and the Colville Tribes will meet to work toward a proposal for the Committees consideration at the July meeting.

VII Updates: Douglas PUD (Rick Klinge and Tom Kahler)

A. Tributary Trap Damage

Rick Klinge updated the Committees that the unusually high flow conditions in the Methow and Twisp Rivers this spring have heavily impacted traps on these rivers. Douglas PUD will continue to monitor these facilities as the flows recede and will keep the Committees posted as to potential plans for repair.

B. Chewuch Broodstock Traps

Tom Kahler updated the group that Douglas PUD has met with Bryan Nordlund and Bruce Heiner (WDFW) to discuss modifications to the Chewuch Dam to install a broodstock trapping facility. Kahler pointed out that key issues include the following: 1) modifications for trapping broodstock at the roughened channel at design flows, 2) discouraging target fish from attempting to pass the dam crest instead of the roughened channel trapping area, and 3) evaluating the potential that the proposed modifications to the dam might impede passage by non-target fish. The roughened channel at Chewuch Dam is considered experimental, and the agency engineers are still evaluating its performance as a fish-passage option. Modifications to the dam that change the hydraulic characteristics of the roughened channel could compromise the ability of the structure to pass fish. A phased approach to dam modifications is proposed, where trapping facilities at the upstream end of the roughened channel would be installed and tested prior to making any modifications to the dam crest or apron in subsequent phases. Douglas PUD consulting engineers are presently working on concept designs for a prototype removable trapping facility on the roughened channel, for consideration by Bruce and Bryan. Douglas PUD hopes to have their buyoff on the prototype design by the July meeting.

C. Tributary Collection of Broodstock

Rick Klinge provided a memorandum to the Committees asking for clarification that the Committees are committed to the concept of tributary collection of spring Chinook broodstock, particularly in light of the past lack of success in achieving broodstock targets, lack of community support for this activity, and lack of success in developing a facility which can maintain separation of broodstock. The Committees provided initial comments as follows, with the expectation to discuss this issue in more detail at the next meeting:

- Kirk Truscott commented that the forthcoming genetic study results due out in the winter of 2006 will provide insight to whether tributary trapping is taking advantage of diverse genetic pools.
- Jerry Marco commented that the Colville Tribes prefer tributary trapping to mainstem trapping, given that the Colvilles are developing a program for spring Chinook in the Okanogan that will ideally include tributary trapping.
- Kris Petersen commented that NMFS would be willing to consider evaluating other options, including differentiation of tributary stocks at Wells Dam if and when an

appropriate technology was available. Brian Cates and Tom Scribner concurred with Petersen.

D. Wells Hatchery Surface Water Screens

For the Committees' information, Rick Klinge provided several 3-D design drawings for surface water screens at Wells Hatchery that would attach to the existing screen house and function during the full range of pool operations and that would contain cleaning mechanisms.

VIII Updates: Chelan PUD (Shaun Seaman and Steve Hays)

A. Bacterial Kidney Disease Management Strategy

Kirk Truscott indicated that there is no update in WDFW's internal policy dialogue regarding a revised BKD policy. Shaun Seaman, Mike Schiewe, and Kirk Truscott will meet to discuss further intermediate steps that may help WDFW address BKD.

B. Post 2013 Production Levels

Steve Hays provided an introduction to Chelan PUD's recent work regarding estimating post-2013 production levels. Chelan PUD is looking at these levels at this time because they are critical in informing the design of some of the hatchery improvements under consideration. Hays provided data showing that, among other factors, the size of hatchery facilities needed is influenced by Smolt-to-Adult Return (SAR) rates. In addition, because of salmonid lifecycle timing and the length of time required to acquire information from Coded Wire Tag (CWT) analysis, the last data year that can be used to calculate 2013 SARs will be 2007. Hays will provide this presentation to Ali Wick for distribution to the Committees for further discussion at the next meeting.

C. Calendar of Future Discussion and Decision Items

Shaun Seaman will send this calendar out via email instead of addressing it at the meeting.

D. Facilities Update

Sam Dilly provided an update on work for the *Similkameen Water Quality Analysis*; an informational graph and table were presented that show that there have been 2 years between 1989 and 2004 that actual releases have not reached the release goal of 576,000. Chelan PUD has a contract with CH2M Hill to evaluate options to improve water quality at

the Similkameen Ponds. The Hatchery Committees also approved the preliminary engineering Design Criteria for steelhead acclimation ponds at the Chiwawa Hatchery site, for adult steelhead holding ponds at East Bank Hatchery, and the spring chinook acclimation ponds being planned near the Chelan Falls Powerhouse.

IX Other Items (Mike Schiewe)

A. PRCC/HCP Hatchery and Tributary Coordination

Mike Schiewe updated the Committees that Carmen Andonaegui (HCP Coordinating Committees) and Bob Rose (HCP Coordinating Committees and HCP Tributary Committees) were interested in setting a joint committee meeting between PRCC and HCP Hatchery and Tributary Committees. Schiewe will send an email soliciting specific agenda items and issues for discussion between these four committees.

B. Future Meetings

The next meeting will be held on Wednesday, July 19, 2006, at the Radisson Gateway Hotel in SeaTac. There will be a joint PRCC/HCP Hatchery Committees meeting on July 20 with the Okanagan Nation Alliance to discuss recent results from the Skaha sockeye program; the joint meeting will be held from 9:00 am to 12:00 noon at the Grant PUD offices in SeaTac, and the regular PRCC meeting will convene following the morning session.

List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Tracy Hillman (morning - by conference call)	BioAnalysts
Shaun Seaman *	Chelan PUD
Chuck Peven (morning – by conference call)	Chelan PUD
Julie Pyper	Chelan PUD
Sam Dilly (afternoon)	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Dick Nason	DNC
Russell Langshaw	Grant PUD
Kris Petersen *	NMFS
Kevin Kytola	Sapere Consulting
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Andrew Murdoch	WDFW
Keely Murdoch	Yakama Nation
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Dick Nason, Julie Pyper, and Tom Kahler

Date: July 21, 2006

Re: Final Minutes of July 5, 2006 HCP Wells, Rocky Reach and Rock Island Hatchery Committees Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Wednesday, July 5, 2006 from 1:30 pm to 2:30 pm to discuss the 2006 Steelhead Spawning Composition Study Plan. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- Keely Murdock will incorporate changes to the 2006 Steelhead Spawning Composition Study Plan and send to Mike Schiewe to distribute to the Hatchery Committees (Item II).
- Mike Schiewe will modify the Statement of Agreement for use of the PIT-tag strategy to determine steelhead spawner composition for approval at the July Hatchery Committee Meeting (Item II).
- Kirk Truscott will provide a memo summarizing changes to the Wenatchee sockeye salmon broodstock collection protocol to Mike Schiewe for distribution to the Hatchery Committees (Item III).

I Welcome (Mike Schiewe)

Mike Schiewe opened the call by welcoming everyone and stating that the purpose of the call was to review and finalize the draft 2006 Steelhead Spawning Composition Study Plan.

Approval by the Committees was needed for Washington Department of Fish and Wildlife (WDFW) staff to begin Passive Integrated Transponder (PIT) tagging adult steelhead at Priest Rapids Dam. Kirk Truscott noted that he would also like to discuss changes to Wenatchee

sockeye salmon broodstock collection protocols with the Committees. Attendees are listed in Attachment A to these Call Minutes.

II 2006 Steelhead Spawning Composition Study Plan

Shaun Seaman suggested that the introduction to the Study Plan clearly state that Chelan PUD would focus their efforts on Peshastin Creek (Wenatchee Basin) and the Entiat River in 2006; and that the Hatchery Committees may consider expanding the study to additional Wenatchee Basin and Methow or Okanogan Rivers locations in the future. This focus on Peshastin Creek and the Entiat River for 2006 resulted in several other editorial changes in the Study Plan to reflect this focus. Based on comments from Seaman, Kris Petersen, and Kirk Truscott, the section entitled "Adult Steelhead Tagging and Sampling Sites" was modified to explicitly state that tagging was proposed for Priest Rapids and Dryden Dams only; Tumwater and Wells Dams were removed from the list of potential tagging sites. Based on information provided by Truscott, it was clarified that, when possible, carbon dioxide would be used as an anesthetic, that a disk tag would be used to identify fish that had been anesthetized with MS 222, and that PIT tags would be inserted in the pelvic girdle rather than the dorsal sinus. Lastly, the table summarizing the 2006 project timeline was modified to include the steps of: 1) site identification and permitting, 2) site preparation, and 3) installation of instream arrays. Seaman reminded the group that although Chelan PUD was making an all-out effort to complete the installation and make the system operational for the 2007 spawning, there are several factors outside their control that still need to be dealt with. The Committees agreed that the Study Plan, with the proposed changes, was acceptable and gave WDFW the go-ahead to begin tagging adult steelhead at Priest Rapids Dam. Keely Murdock will incorporate changes to the 2006 Steelhead Spawning Composition Study Plan and send to Mike Schiewe to distribute to the Hatchery Committees. Mike Schiewe indicated that he would modify the Statement of Agreement for use of the PIT-tag strategy to determine steelhead spawner composition, and that it would be on the agenda for approval at the July Hatchery Committee Meeting.

III Brood Collection Protocol for Wenatchee Sockeye Salmon

Kirk Truscott proposed a change to the brood collection protocol for Wenatchee sockeye salmon. Historically, 260 adult fish were collected to produce the required 200,000 juvenile sockeye. However, because of over-production in earlier years, the number of adults was reduced to 218. Subsequently, because of reduced fecundity and skewed sex ratios, this has

resulted in under-production in the last two brood years. To resolve this problem, WDFW is proposing to return to collecting 260 adults at Tumwater Dam, and holding the fish at Lake Wenatchee until ripe. After the appropriate number of females are spawned to produce the program objective of 200,000 juveniles, the remainder will be released back to Lake Wenatchee to spawn naturally. Hatchery Committees members agreed that this was an acceptable change, and Truscott indicated he would provide the Committees with a memo summarizing this change.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Chuck Peven	Chelan PUD
Shaun Seaman *	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Julie Pyper	Chelan PUD
Keely Murdoch	Yakama Nation
Dick Nason	Chelan PUD

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Chuck Peven, Sam Dilly, Julie Pyper, Ali Wick, Keely Murdoch, Tom Kahler, Erich Wolf, and Dick Nason

Date: August 18, 2006

Re: Final Minutes of July 19, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at the Radisson Gateway Hotel in SeaTac, Washington, on July 19, 2006, from 9:30 am to 4:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final June 21, 2006 Meeting Minutes to the Hatchery Committees by email (Item I).
- Ali Wick will send out conference line information for a call on August 8, 2006, at 1:30 pm for the Committees to wrap up discussions on the Decision Rules document (Item III).
- Tom Scribner will forward to Ali Wick, and Ali will forward to the Committees, an email discussion about Chiwawa spring Chinook broodstock collection protocol that includes comments from Mike Delarm and Kirk Truscott (IV-A).
- The Committees will provide comments to Jerry Marco and Shaun Seaman by August 1 on the draft Statement of Agreement for the Rock Island Hatchery Committee regarding the use of Bonaparte Ponds for rearing up to 200,000 summer Chinook from the Similkameen Program in the 2006-2007 rearing season (Item V-A).
- Shaun Seaman and Tom Scribner will discuss the list of potential improvements requested by the Yakama Nation staff at Dryden Dam. Scribner will email this list to Seaman to facilitate this discussion (Item VIII-E).

DECISION ITEM SUMMARY

- The Committees approved the Statement of Agreement for Investigating Steelhead Spawning Composition in Treatment and Potential Reference Streams, and the 2006 Study Plan for Evaluating Potential Reference Streams (Item II).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the June 21, 2006 Meeting Minutes and the June 6 and July 5, 2006 Conference Call Minutes as revised at the meeting. Ali Wick will send the final minutes by email. Attendees at the July 19, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II DECISION POINT: Steelhead Spawning Composition in Treatment and Potential Reference Streams, and 2006 Study Plan for Evaluating Potential Reference Streams

The Committees approved the Statement of Agreement for Investigating Steelhead Spawning Composition in Treatment and Potential Reference Streams, and the 2006 Study Plan for Evaluating Potential Reference Streams, with minor text revisions (*Attachments B.1 and B.2*).

III Hatchery Evaluation Technical Team

A. Decision Rules Document Discussion

Tracy Hillman introduced the draft Decision Rules document that the Hatchery Evaluation Technical Team (HETT) has been working on for the past several months. He briefly described the general organization of the document and walked the Committees through several examples of how the rules applied to specific hatchery program objectives. He then asked the Committees for comments. Hillman and others from the HETT addressed the comments, and Hillman will edit the document as requested. The Committees were generally very pleased with the document. There were, however, several issues that will require additional discussion, such as the proposed criterion of less than 10 percent stray rates among spawning aggregates. There was a concern that this could be overly stringent when considering very small spawning aggregates. It was pointed out that it would take only a few strays to exceed this criterion in spawning aggregates of less than 50 fish. This will need to be resolved prior to approval of the document at the next meeting; Ali Wick will send out conference line information for August 8 at 1:30 pm for the Committees to wrap up these discussions.

B. Chinook Reference Streams and Out-of-Basin Steelhead Reference Streams

Chuck Peven updated the Committees that by the end of the year the Hatchery Evaluation Technical Team will complete an assessment of the out-of basin steelhead streams and the Chinook streams identified as potential reference streams. Peven indicated that consideration of the Entiat River as a potential reference stream for Chinook was on a faster track and should be completed by the end of September.

IV WDFW (Committees on behalf of Kirk Truscott)

A. Chiwawa Brood Collection Update

Tom Scribner updated the Committees that the fisheries co-managers have been meeting to discuss Chiwawa broodstock collection and permit issues, and that a letter has been received by the Yakama Nation from Bob Lohn stating National Marine Fisheries Service (NMFS) position on the issues. Tom Scribner will forward to Ali Wick, and Ali will forward to the Committees, an email discussion about this that includes comments from Mike Delarm (NMFS) and Kirk Truscott (Washington Department of Fish and Wildlife [WDFW]).

B. Chelan Falls Net Pens

Steve Hays updated the Committees that WDFW has installed net pens in the tailrace of the Chelan Falls powerhouse to test their stability under existing flows. Both the frames and the nets performed well during flows of this test; following this test, the nets were removed and the net pen frames were left in place. The plan is to acclimate about 100,000 yearling Chinook there in 2007.

C. Sockeye Brood Collection Update

Mike Schiewe updated the Committees that WDFW started collection of sockeye broodstock on July 17 at Tumwater Dam with the goal to collect 260 fish, and release those not needed to meet the production goal of 200,000 smolts.

V Colville Tribes (Jerry Marco)

A. Use of Bonaparte Ponds for Similkameen Production

Jerry Marco provided the Committees with a draft Statement of Agreement for the Rock Island Hatchery Committee regarding the use of Bonaparte Ponds for rearing up to 200,000 summer Chinook from the Similkameen program in the 2006-2007 rearing season. For 2006, Marco noted that WDFW suggests rearing 100,000 fish, with the balance reared at Similkameen. The Statement of Agreement will be modified to reflect the plan for 2006 and the potential increase to 200,000 fish in future years. Marco noted that all fish transferred to Bonaparte Ponds would be differentially marked. The Committees are asked to provide comments on the draft Statement of Agreement to Marco and Shaun Seaman by August 1; the statement will be up for approval at the next meeting.

VI Yakama Nation (Tom Scribner)

A. Feasibility of Reintroducing Summer Chinook into Yakima River

Tom Scribner introduced a Yakama Nation proposal to test the feasibility of reintroducing summer Chinook into the Yakima River. The proposal identified the need for 100,000 eyed eggs, which would be obtained from summer Chinook returning to Wells Dam in 2006. Scribner invited Committees to comment on this proposal. Mike Schiewe noted that Committee members would want to consider the potential impact of this proposal on the HCP implementation or production, in light of their respective agencies. Since the eggs would only represent the production of about 25 females, no one of the Committees felt that there was an HCP issue.

VII Updates: Douglas PUD (Rick Klinge and Tom Kahler)

A. Okanagan Fish/Water Management Tool

Kim Hyatt of Department of Fisheries and Oceans Canada (DFO) provided a presentation and handouts on the 2005-2006 use of the Okanagan Fish/Water Management Tool, which is a quantitative, decision-support model with the goal to reduce uncertainties and improve the basis for water management decisions that influence annual production variations of sockeye. Results from retrospective analyses suggest that routine operational use of the tool by fish and water managers could result in an average annual increase in Okanagan

sockeye salmon juveniles by as much as 50 percent without significantly increasing socioeconomic losses associated with other water use interests.

B. Tributary Broodstock Collection

Rick Klinge reinitiated discussion regarding the Committees direction on tributary broodstock collection; this discussion was begun at the last meeting. Jerry Marco indicated that the Colvilles would consider mainstem trapping at Wells if it were possible to identify and segregate fish prior to their return to their tributaries of origin. However, since this is currently not possible, the Colvilles support continued tributary trapping. All other Committees members present indicated that they remain supportive of continuing tributary trapping until a viable alternative for stock identification was available that could be implemented at Wells Dam.

C. Construction Projects Update

Tom Kahler updated the Committees on the following ongoing construction projects:

- Wells Hatchery Screen Replacement: Permit documents are being modified for the reinitiation of consultation. Construction is anticipated to occur in November 2006.
- Twisp Weir Repair: As the Committees are aware, during late spring runoff, the weir picket panels and PVC plates on the Twisp Weir failed. Douglas PUD is investigating purchase or recovery of these items and repair of the weir.
- Chewuch Dam: The latest designs for the Chewuch Dam trap include a conceptual prototype trapping facility constructed on a foundation of Ecology Blocks instead of poured concrete in the area of the roughened channel; the plan drawings were revised based on initial comments from the permitting agencies regarding the permanence of a poured concrete structure in this location, and the effects of such a “permanent” installation on the hydraulics of the dam and fishway. Douglas PUD requests Committees comments on these new designs. The next step will be to flesh out the design of the trapping facility based on the conceptual prototype.

D. Hatchery Sharing Agreements

Rick Klinge commented that requests have been received from Chelan and Grant PUDs for hatchery sharing arrangements. Broodstock collection will need to be adjusted based on these requests. As long as there were no impacts on HCP programs, the Committees

agreed that Douglas could produce 100,000 steelhead and 200,000 yearling Chinook at Wells for Grant PUD in 2006. [Update on August 16, 2006: Subsequent discussions between NMFS and WDFW indicated that the current permit authorizations did not cover this production and this collection will not be pursued this year.]

VIII Updates: Chelan PUD (Shaun Seaman)

A. Process for Reviewing M&E Progress Reports

Shaun Seaman requested input from the Committees on whether monthly Monitoring and Evaluation (M&E) progress reports need to be approved on a monthly basis by the Committees. The Committees discussed that a check-in for Committees regarding questions or comments on these documents should be a standing agenda item at Hatchery Committee meetings; but that it was not necessary to formally approve these documents. Tracy Hillman agreed to highlight any data that he thought might generate extra discussion.

B. Public Process for Hatchery Programs

Shaun Seaman introduced the subject of public outreach and requested input regarding the Committees' interest in being directly involved in the public process for hatchery programs. Seaman suggested that the public meeting on the White River captive broodstock was a good example of why an enhanced public outreach program is important. The Committees endorsed an enhanced public outreach program and indicated that they wanted to be directly involved.

C. BKD Management Strategy

Shaun Seaman invited Mike Schiewe to summarize the recent meeting among WDFW and Chelan and Douglas PUDs regarding the Committees draft recommendation for bacterial kidney disease (BKD) management. Schiewe noted that recent edits to the proposed strategy document had not resolved Kirk Truscott's concerns with the proposed strategy, because it still contained the possibility of culling of wild fish from broodstock. There was also a discussion of the potential to limit or cap the production of progeny of high-BKD females at a fixed level (e.g., less than 20 percent) as a means of potentially lowering the prevalence of BKD in the population and providing some certainty to Chelan PUD for facility planning. The path forward is for Kirk Truscott to expedite internal WDFW

discussions on this strategy, and to provide feedback to Mike Schiewe to report at the August 8 conference call.

D. Post-2013 Production Levels

Shaun Seaman invited Steve Hays to give an update on Chelan PUD's proposal for estimating post-2013 production levels that was begun at the last meeting. Hays has sent out a two-page memorandum to clarify the rationale and purpose behind Chelan PUD's interest in starting to look at calculations of production levels as they relate to facilities planning. Tom Scribner requested clarification on the use of this process, namely, that the process would be used for future Chelan PUD facilities planning at this time, and would not necessarily be the chosen or only mechanism used in 2013 to identify production levels. The Committees agreed that this was their understanding as well. Also, Douglas PUD clarified that this is a Chelan PUD exercise, and that it was their intent to wait and deal with the production adjustment provision as 2013 approached. For the next meeting, Chelan PUD will provide some examples of the use of this estimation procedure for steelhead production for the Committees to review.

E. Dryden Dam Improvements

Shaun Seaman updated the Committees on current improvements being implemented at Dryden Dam. Tom Scribner provided to Seaman a list of other improvements being requested by Yakama Nation staff working at Dryden Dam. It was agreed that Seaman and Scribner will discuss these improvements directly.

F. Facilities Updates

Sam Dilly provided an update on facilities, including the following:

- Similkameen: The water quality study at Similkameen has identified the key issue as disease (*Dermocystidium* and *Ichthyophthirius* transmitted via water from spawning fish above the water intake) and not water temperatures. Study results will be provided at the next meeting for discussion.
- Adult Holding Pond and Spawning Structure Enclosure at Eastbank: WDFW is currently reviewing pond designs.
- Chelan Falls Acclimation Facility: The feasibility study for locating the acclimation facility at Chelan Falls will be up for approval at the next meeting. It was discussed

that a Committees letter endorsing the water right application would be helpful in gaining approval.

IX Other Items (Mike Schiewe)

A. Meeting Agreements

This section provides non-formal agreements made by the Committees during the course of the meeting.

- The Committees agreed that Douglas could provide 100,000 steelhead and 200,000 yearling Chinook at Wells Hatchery in 2006 (Item VII-D).

B. PRCC/HCP Hatchery and Tributary Coordination Meeting

Mike Schiewe updated the Committees that the majority of the Committees members favored an annual first-of-the-year meeting in which Hatchery and Tributary Committees from both the HCP and PRCC processes got together and share objectives and schedules for the upcoming year. At this point, the meeting would not include Coordinating Committees members, but they would welcome to attend.

C. Next Meeting

The next meeting will be held on Wednesday, August 16, 2006, at Chelan PUD in Wenatchee.

X PRCC Meeting - Skaha Sockeye Presentation (Deana Machin and Kim Hyatt)

On Thursday, July 20, 2006, the Hatchery Committees joined the Priest Rapids Hatchery Committees for a discussion on recent activities for the Skaha Lake sockeye reintroduction program currently being funded in part by Chelan PUD and Grant PUD. This meeting was held from 9:00 am to 12:15 pm at the Grant PUD offices in SeaTac. Deana Machin (of Okanagan Nation Alliance [ONA]) provided a presentation on the history of the program, and Howie Wright (of ONA) presented on the 2004-2005 broodyear collection, rearing, and release of sockeye juveniles. Kim Hyatt of DFO joined the presenters and answered questions on the program.

List of Attachments

Attachment A – List of Attendees

Attachment B.1 - Statement of Agreement for Steelhead Spawning Composition in Treatment and Potential Reference Streams, and 2006 Study Plan for Evaluating Potential Reference Streams

Attachment B.2 - Proposed Study Plan for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams, 2006

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Tracy Hillman	BioAnalysts
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Steve Hays	Chelan PUD
Sam Dilly	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Kim Hyatt (afternoon)	Department of Fisheries and Oceans Canada (DFO)
Dick Nason	DNC
Russell Langshaw	Grant PUD
Erich Wolf	Sapere Consulting
Brian Cates *	USFWS
Keely Murdoch	Yakama Nation
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B.1

STATEMENT OF AGREEMENT FOR STEELHEAD SPAWNING COMPOSITION IN TREATMENT AND POTENTIAL REFERENCE STREAMS, AND 2006 STUDY PLAN FOR EVALUATING POTENTIAL REFERENCE STREAMS

FINAL - July 19, 2006

Statement of Agreement Regarding the Proposed Strategy for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams, and the 2006 Study Plan for Evaluating Potential Reference Streams.

Wells, Rocky Reach and Rock Island HCP Hatchery Committees

Statement of Agreement

The Wells, Rocky Reach, and Rock Island Hatchery Committees agree to the general experimental strategy for determining steelhead spawner composition outlined by the Hatchery Evaluation Technical Team (HETT) in the attached memo, *Proposed Study Plan for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams, 2006* (dated July 5, 2006), and to the specific study plan for 2006. The overall experimental approach will require Passive Integrated Transponder (PIT) tagging of returning adult steelhead at multiple locations on the mainstem Columbia River and selected tributaries, and installation and maintenance of PIT tag detection antennae near the mouths of reference and treatment streams and tributaries. In 2006 the study will focus on Peshastin Creek (Wenatchee Basin) and the Entiat River, and the collection of data to determine their suitability as Hatchery Monitoring and Evaluation Plan reference streams. The selection of these locations for initial investigation does not preclude the evaluation and identification of additional steelhead reference streams in future years.

Background

The Hatchery Evaluation Technical Team (HETT) of the Wells, Rocky Reach, and Rock Island HCP Hatchery Committees met several times during spring 2006 to consider, among other issues, an experimental approach to determining the hatchery vs. natural origin of spawning steelhead in selected streams and tributaries of the Mid- and Upper-Columbia. Information regarding steelhead spawning ground composition is required for implementation of the Chelan and Douglas PUD Hatchery Monitoring and Evaluation Plans. The HETT ultimately settled on an approach described in the attached memorandum, *Proposed Study Plan for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Stream, 2006*. The approach will require PIT-tagging about 30% of the adult steelhead spawning the Wenatchee and Methow subbasins. This will be accomplished by PIT tagging returning adults at Priest Rapids Dam and Dryden Dam, and possibly at Wells Dam, Tumwater, and Rocky Reach Dams in the future. Monitoring the spawning locations of these marked fish will require installation and maintenance of PIT tag detection antennae in multiple locations on the mainstem Columbia River and selected tributaries, including the Entiat River, Peshastin Creek, Nason Creek, Chiwawa River, Twisp River, Chewuch River, and Methow River. In an effort to begin collecting data on spawning composition in potential reference

streams, Chelan and Douglas PUD will ensure installation of antennae in Peshastin Creek (Wenatchee Basin) and the Entiat River by early 2007. In addition, it is expected that antennae will be installed and maintained in additional Wenatchee and Methow basin tributaries by early 2007 as part of the Integrated Status and Effectiveness Monitoring Project (ISEMP).

ATTACHMENT B.2

PROPOSED STUDY PLAN FOR EVALUATION OF STEELHEAD SPAWNING COMPOSITION IN TREATMENT STREAMS AND POTENTIAL REFERENCE STREAMS, 2006

19 July 2006

TO: HCP Hatchery Committee

From: Hatchery Evaluation Technical Team

CC: Michael Schiewe, Chair, HCP Hatchery Committee

Subject: Proposed study plan for evaluation of steelhead spawning composition in treatment streams and potential reference streams, 2006

INTRODUCTION

The Chelan and Douglas County PUD Hatchery Compensation M&E Plans (Murdoch and Peven 2005) rely upon the use of reference streams to make inferences regarding the efficacy of hatchery programs. One of the important aspects of this Plan is to compare changes in productivity of a supplemented population to a non-supplemented population. Adult-to-adult productivity is compared through Objective 1, while productivity during the freshwater life stages is compared through Objective 7. In order to evaluate these objectives, data regarding the spawning composition (proportion of the spawning population comprised of hatchery versus natural origin fish) must be known for both the treatment and reference populations. For salmon (i.e., Chinook and sockeye) this data is usually acquired through recovery of carcasses on the spawning grounds. For steelhead, spawning composition is more difficult to assess. Herein, we present a proposal to determine the steelhead spawning composition in the Wenatchee, Entiat, and Methow rivers. In 2006, Chelan County PUD will focus on Peshastin Creek (Wenatchee Basin) and the Entiat River. If the PIT detection technology allows for an adequate evaluation of steelhead spawning composition, the HCP Hatchery Committee may consider expanding the study to include the remainder of the Wenatchee Basin and the Methow or Okanogan rivers in future years.

This study presents a method to collect data regarding the proportion of hatchery fish on the spawning grounds using PIT tags and in-stream detection sites, and seeks to answer the following questions:

- 1) What is the spawning composition of steelhead within potential reference streams (i.e., Entiat River and Peshastin Creek)?
- 2) What is the spawning composition within steelhead treatment streams (i.e., Nason Creek and Chiwawa River)?

- 3) Do steelhead treatment/release groups (HxH, HxW, and WxW) primarily spawn in the tributaries in which they were planted?

METHODS

To determine the proportion of hatchery fish on the spawning grounds, we propose to use a combination of PIT tagging returning adult steelhead at mid-Columbia sampling facilities and in-stream PIT tag antenna arrays to detect the movement and most probable spawning locations for steelhead within the Wenatchee and Entiat rivers. The HCP HC could expand the study design to include the Methow and Okanogan rivers if warranted. To accomplish this task while minimizing handling of UCR steelhead, we propose to make extensive use of ongoing steelhead stock assessment activities and broodstock collection facilities within the mid- and upper-Columbia. These efforts will be closely coordinated with the ISEMP (BPA project number 2003-017-00) for both PIT tag detection and future monitoring through the PIT tagging of juvenile steelhead emigrants.

The proposed study design requires that returning steelhead be randomly sampled and assumes that the sample is representative of the run-at-large. To ensure that the sample is representative at each Tagging/Sampling site, hatchery and naturally produced steelhead must be sampled and tagged in the proportions that they exist from throughout the run. We propose PIT tagging every adult steelhead collected during normal trap operations and not taken as broodstock from each of the proposed tagging sites (i.e., Priest Rapids and Dryden dams), with a sample size goal of 30% of the spawning population (T. Hillman, pers. comm.). The target sample size will ensure that accurate inferences can be made regarding spawner composition within smaller spawning aggregates. Hatchery steelhead that were tagged as juveniles and recaptured during sampling at any of the sample sites can be included in the study. However, inclusion of hatchery steelhead PIT tagged as juveniles and not recaptured at a designated tagging facility could not be included, since their inclusion would violate the assumption that the sample is representative of the run-at-large.

Adult Steelhead Tagging and Sampling Sites

We propose to sample and PIT tag returning steelhead in 2006 at Priest Rapids and Dryden Dam.

Priest Rapids Dam

Priest Rapids Dam currently serves as the primary steelhead stock assessment site for UCR steelhead. Washington Department of Fish and Wildlife (WDFW) personnel sample approximately 10% of the adults returning to the upper Columbia River. Steelhead are examined for fish origin, any distinguishing marks including elastomer tags, PIT tags, and CWTs, injury, length, and scales are taken to determine age composition. Sampling at Priest Rapids Dam occurs annually between July 11th and October 19th. The facility may need to be operated beyond October 19th, if steelhead are still migrating past the

facility. The trap is typically operated two days per week, eight hours per day. All steelhead entering the trap are routinely anesthetized with MS-222 and interrogated for the presence of PIT tags. All steelhead without PIT tags would be tagged in the pelvic girdle by samplers at the facility. All adipose clipped fish, which have the potential to be captured in a fishery within 21 days of the conclusion of the sampling, will be marked with an anchor tag (i.e., Petersen disc or floy tag)(note: adipose clipped fish sampled at Priest Rapids Dam would be marked with a Petersen disc tag regardless of this evaluation). Adult hatchery steelhead that were PIT tagged as juveniles would be included in the study only if they were actually encountered and sampled (see above).

Dryden Dam

An unknown proportion of steelhead are handled at Dryden Dam annually during broodstock collection efforts. WDFW currently operates Dryden Dam for the collection of steelhead and summer Chinook broodstock between July 11th and the end of October. The Yakama Nation continues operation of the facility for the purpose of coho salmon broodstock collection through late November. During these time periods, WDFW and/or YN will be sampling all steelhead not retained for broodstock. During sampling, a PIT tag would be applied to the pelvic girdle of each steelhead handled. The trap is typically operated five days per week, 24 hours per day. Steelhead captured at Dryden Dam within 21 days of a potential fishery would be anesthetized with carbon dioxide rather than MS-222, whenever possible. If MS-222 is used as an anesthetic, adipose absent steelhead will be supplementary tagged with an anchor tag (i.e. Petersen Disc or Floy Tag) and removed from the fishery until 21 days following the conclusion of sampling at Dryden Dam.

Trap efficiency is correlated to river discharge. At high discharge, the trap efficiency is reduced and fish may pass over the dam structures. At low discharge, trap efficiency is increased. Based on numbers of fish handled in previous years, we would expect to handle and tag a minimum of 12-15% of the steelhead inter-dam counts (i.e., Rocky Reach counts minus Rock Island Dam counts). This number can be viewed as a minimum because in some years the trap has not been consistently operated five days per week 24/hours per day.

We assume that the current sampling period sufficiently covers the range of steelhead migration past Dryden Dam. However, it is possible that some steelhead, especially those spawning in mid-elevation tributaries, such as Peshastin Creek, do not pass Dryden Dam until late winter or early spring. We propose to operate the Dryden Dam fish traps three days per week between February and June to verify run-timing assumptions and subsequently ensure an adequate number of steelhead destined for Peshastin Creek are PIT tagged. If steelhead are captured during the late winter and early spring, the sampling frequency would need to be increased to five days per week to remain consistent with the sampling protocols and assumptions that the sample is representative of the run. Any BY 2007 steelhead trapped during this time period would be included in the study.

The proportion of steelhead PIT tagged at Dryden and Priest Rapids dams could also be estimated through PIT interrogation at Tumwater Dam (*see Tumwater Dam*).

Tumwater Dam

Tumwater Dam is currently operated by WDFW seven days per week from May through August or when spring Chinook are no longer observed passing the facility. After this date the trap is typically operated 3 days per week for steelhead and coho broodstock collection. While the trap is operating, all steelhead collected could be sampled and examined for the presence of a PIT tag.

The objective at Tumwater Dam would be to determine the proportion of steelhead that were PIT tagged through the combination of tagging efforts at Priest Rapids Dam and Dryden Dam, and to ensure that the tag rate was applied equally to both hatchery and wild fish.

PIT Tagging and Marking Procedures

All steelhead encountered and not retained as broodstock, during normal trap operations, would be sampled as described for Priest Rapids Dam. All PIT tags will be applied following the procedures recommend in CBFWA (1999) with the exception of the implantation site. We propose to apply the tag within the pelvic girdle. This implantation site was chosen so that any adipose fin-clipped steelhead captured in a fishery could be retained for consumption. Currently, adipose clipped steelhead sampled at Priest Rapids Dam are marked with a Petersen Disc Tag; as such they cannot be consumed within 21 days of the conclusion of sampling efforts at Priest Rapids Dam, but would be available for consumption following the 21 day depuration period. As described above, steelhead captured a Dryden Dam within 21 days of a potential fishery would be anesthetized with carbon dioxide rather than MS-222 whenever possible. If MS-222 is used as an anesthetic, adipose absent steelhead will be supplementary tagged with an anchor tag (i.e. Petersen Disc or Floy Tag).

PIT Tag Detection Sites

PIT tag detection sites are needed for each tributary in which steelhead spawning composition will be evaluated. Preferably, the PIT tag detection sites would be located downstream from the majority of the steelhead spawning habitat within each study tributary. Opportunities may exist to collaborate with ISEMP for the purchase, installation, and maintenance and operation of some of the detection sites. Though not a stated objective of this study, the opportunity exists to collect valuable spawner composition data through coordination with the USGS operated PIT antenna arrays on Gold and Beaver, and Libby Creeks. The core proposed in-stream PIT tag detection sites are listed in Table 1. In future years, additional detection sites on the Little Wenatchee, White, and/or Okanogan rivers could allow the scope of the study to be expanded.

Table 1. Proposed PIT tag detection sites for evaluation of steelhead spawning composition.

Location	2006 Evaluation	Type	ISEMP coordination
Entiat River	Yes	Reference*	No
Peshastin Creek	Yes	Reference*	No
Nason Creek	No**	Treatment	Yes
Chiwawa River	No**	Treatment	Yes
Twisp River	No	Treatment	No
Chewuch River	No	Treatment	No
Methow River	No	Treatment	No

* Proposed references streams

** May be included in the 2006 evaluation if ISEMP installation occurs prior to Steelhead ascending tributaries to spawn in early spring 2007.

Estimated Sample Sizes

As an example of expected sample sizes, Table 2 predicts the estimated PIT tag sample sizes within the Wenatchee and Entiat rivers based upon 2005 steelhead spawning distribution and redd counts. Actual samples sizes will be dependant upon the total BY2007 run size and trap efficiency.

Table 2. Estimated number of PIT tagged steelhead in tributaries of the Wenatchee River and the Entiat River using 2005 redd counts.

Spawning Location	Redd Count	Min. estimated spawning esc.	Min. estimated PIT tags (10%)	Min. estimated PIT tags (20%)	Min. estimated PIT tags (30%)
Chiwawa River	162	356	36	71	107
Nason Creek	412	906	91	181	272
White River	2	4	0	1	1
L. Wenatchee	0	0	0	0	0
Icicle Creek	8	18	2	2	5
Peshastin Creek	97	213	21	43	64
Entiat River	273	600	60	N/A	N/A

DATA ANALYSIS

Overall results will be expressed in terms of the proportion of hatchery fish spawning in potential reference streams and the proportion of hatchery fish spawning in treatment streams. Analysis within treatment streams would include spawning composition in relation to treatment/release groups (WxW, HxW, HxH), allowing for the comparison of supplementation strategies through M&E Objectives 1 and 7. The data will also

contribute to the analysis of Objectives 1 and 7, as currently being determined by the HETT.

BY2007 PROJECT TIMELINE

Year	Months	Activity
2006	May – June	Project planning
2006	July – October	Site identification and permitting
2006	July – October	Sampling and tagging at Priest Rapids Dam, BY2007
2006	July – November	Sampling and tagging at Dryden and Tumwater dams, BY2007
2006	November - December	Site Preparation
2007	January-February	Install in-stream antenna arrays ¹
2007	February – June	Run timing verification, sampling and tagging at Dryden Dam, BY2007
2007	February – June	In-stream PIT tag monitoring

¹ Installation of antenna arrays will occur as soon as reasonably possible but no later than March 1st 2007.

Literature Cited

Columbia Basin Fish and Wildlife Authority (CBFWA) PIT Tag Steering Committee. 1999. PIT Tag Marking Procedures Manual version 2.0. 22pgs.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Keely Murdoch, Steve Hays, Julie Pyper, and Tom Kahler

Date: August 18, 2006

Re: Final Minutes of August 8, 2006 HCP Wells, Rocky Reach and Rock Island Hatchery Committees Conference Call

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Tuesday, August 8, 2006 from 1:30 pm to 2:30 pm to discuss the Decision Rules document. In addition, the Committees received an update on the ongoing Bacterial Kidney Disease (BKD) Management Strategy discussions. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- Ali Wick will be in touch with Tracy Hillman of BioAnalysts and will ask him to call Shaun Seaman or Steve Hays regarding edits to the Decision Rules document (Item II).

I Welcome (Mike Schiewe)

Mike Schiewe opened the call by stating that the purpose of the call was to review the Decision Rules document and to receive an update on BKD Management strategy discussions that have been ongoing in the Committees and within WDFW. The Colville Tribes were unable to join this call; prior to the call, Jerry Marco of the Colville Tribes indicated to Ali Wick his intent to defer to the Committees' consensus for today's decisions, if any. Attendees are listed in Attachment A to these Call Minutes.

II Decision Rules document

The Committees discussed potential changes to the Decision Rules document, recognizing that the section on genetics had yet to be added. Kris Petersen suggested changing the term 'Decision Rules...' in the title to 'Analytical Framework...' to better reflect the purpose of the document. Further, she suggested the need for some additional introductory text explaining

that this document was “one leg on a three-legged stool,” that is, this was a companion document to the “Conceptual Framework” and the “Annual Implementation Plan,” documents, and that the three together formed the basis of the Chelan and Douglas PUDs hatchery monitoring and evaluation programs. Petersen suggested the need to be clear about which monitoring and evaluation objectives applied to supplementation programs only, to production programs only, or to both supplementation and production programs. She also indicated that somewhere in one of the three documents there should be a description of program purposes, identifying which were intended for supplementation and which for production. Kirk Truscott noted that the document was relatively silent on what parameters could be monitored for steelhead, and in particular those related to spawning. He indicated that language should be added stating that the long-term goal was to monitor the same variables for steelhead as for Chinook, but that doing so would require the development and application of new technology. In addition, the Committees discussed that the threshold criteria for straying among spawning aggregates was potentially overly stringent (i.e., 10%), and could be problematic when straying involved small populations. The Committees agreed that in cases involving straying into small populations the Committees would consider the results on a case-by-case basis. Lastly, there was a general discussion regarding Figure 1, and the need to consider alternative ways of presenting the information. The Committees agreed to these changes and Ali Wick will be in touch with Tracy Hillman of BioAnalysts and will ask him to call Shaun Seaman or Steve Hays regarding edits to the document.

III Update on Bacterial Kidney Disease Management Strategy

Kirk Truscott updated the Committees that the Draft Recommendation for BKD Management had been reviewed within WDFW. The result of that review was that WDFW was not supportive of any recommendation that included the option of culling the eggs of high antigen titer or highly infected females, and that the current WDFW strategy of reduced rearing density and/or early-release was the WDFW position. Kris Petersen commented that NMFS has significant concerns with any strategy that involved early release based on potential for adverse ecological impacts on naturally rearing fish. She further noted that early release was not covered in the ESA permits that authorize the operation of any of the HCP yearling spring chinook programs. Petersen and Truscott will review this situation, and there will be further discussion at the next regularly-scheduled Hatchery Committees meeting on August 16 in Wenatchee.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Steve Hays	Chelan PUD
Shaun Seaman *	Chelan PUD
Julie Pyper	Chelan PUD
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Kris Petersen *	NMFS
Brian Cates *	USFWS
Keely Murdoch	Yakama Nation
Tom Scribner	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Chuck Peven, Tom Kahler, Julie Pyper, Erich Wolf, Dick Nason, Rick Stilwater, and Keely Murdoch

Date: September 22, 2006

Re: Final Minutes of August 16, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on August 16, 2006, from 9:30 am to 3:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final July 19, 2006 Meeting Minutes and the Final August 8, 2006 Conference Call Minutes to the Hatchery Committees by email (Item I).
- Shaun Seaman will provide the revised text of the *Statement of Agreement for Use of Bonaparte Pond for Rearing up to 100,000 Summer Chinook from the Similkameen Program in the 2006-2007 Rearing Season* to Ali Wick for finalization (Item II).
- Shaun Seaman will send the updated Monitoring and Evaluation (M&E) Decision Rules document to Ali Wick for the Committees' consideration (Item III).
- Mike Schiewe will bring the Bacterial Kidney Disease (BKD) Management Strategy discussions to the Coordinating Committees to update them that a dispute resolution may be brought to them; Schiewe will also draft an outline for a short position statement for the various parties in the Hatchery Committees to support this process (Item IV).
- Chuck Peven will send Ali Wick some background information (including a sensitivity analysis) and a Statement of Agreement for estimated hatchery production levels criteria for steelhead and Turtle Rock summer Chinook for distribution to the Committees (Item V-B).
- Erich Wolf will update the Hatchery Program Overview table for the Committees' information (Item V-F).

- Jerry Marco will forward comments to Kirk Truscott on the methods in the draft Creel Survey Plans (VII-A).
- Tom Scribner will provide a description of the additional monitoring that the Yakama Nation would like the Committees to consider for the Skaha sockeye program and will re-provide the handout from today on Skaha M&E electronically to Ali Wick for distribution to the Committees (Item VIII-A).
- Washington Department of Fish and Wildlife (WDFW) will research the potential of using ultrasound on a routine basis to determine fish gender during broodstock collection at Wells Dam, and will update the Committees at the next meeting (Item VIII-C).
- Mike Schiewe will work with Tom Scribner, Douglas PUD, and Chelan PUD to develop a schedule for meeting the HCP requirement for determining whether a hatchery program and/or naturally reproducing population of coho exists (Item VIII-D).
- Tom Scribner will forward four letters of support that the Yakama Nation received from Hatchery Committee entities for the coho reintroduction program to Ali Wick for distribution to the Committees (Item VIII-D).

DECISION ITEM SUMMARY

- The Committees approved the *Statement of Agreement for Use of Bonaparte Pond for Rearing up to 100,000 Summer Chinook from the Similkameen Program in the 2006-2007 Rearing Season* (Item II).
- The Committees approved the Statement of Agreement for the Wells Hatchery Surface Water Screens, subject to WDFW and National Marine Fisheries Service (NMFS) confirming agreement with the engineers by August 23, 2006; if no information is provided by August 23, the Committees will consider the statement approved (Item VI-C).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees approved the July 19, 2006 Meeting Minutes and the August 8 Conference Call Minutes as revised at the meeting. Ali Wick will send the final minutes by email.

Attendees at the August 16, 2006 meeting are listed in Attachment A to these Meeting Minutes. Brian Cates of U.S. Fish and Wildlife Service (USFWS) was unable to attend this meeting or provide a replacement; he indicated to Mike Schiewe prior to the meeting that, for this meeting, USFWS will concur with the Committees consensus on all items on the agenda.

II DECISION POINT: Bonaparte Pond Proposal

Shaun Seaman updated the Committees that there have been some changes to the *Statement of Agreement for Use of Bonaparte Pond for Rearing up to 100,000 Summer Chinook from the Similkameen Program in the 2006-2007 Rearing Season*. He noted that this agreement is for 2006 only, and that a modified statement would be up for Committee consideration in subsequent years. Shaun Seaman will provide revised text clarifying this change to Ali Wick for finalization. The Committees approved this Statement of Agreement as revised (Attachment B).

III Update: M&E Decision Rules Document

Mike Schiewe indicated that the revised M&E Decision Rules document had not been distributed in time for review prior to this meeting, and that a Statement of Agreement will be up for decision at the next meeting, pending consideration of changes by Tracy Hillman of BioAnalysts. Changes to the document were requested at the last Hatchery Committees meeting and a follow-up conference call that occurred on August 8, 2006. Shaun Seaman will send the updated document to Ali Wick for the Committees' consideration.

IV Discussion: BKD Management Strategy

Mike Schiewe invited Committees discussion on the Recommended BKD Management Strategy. Currently, the status is that some Committees members would like to retain the option to cull eggs of high antigen titer or highly infected females, while at least one member believes this is inconsistent with WDFW policy. Kris Petersen commented that NMFS has significant concerns with strategies to manage BKD that involve early release of high titer BKD fish. NMFS' concerns are two-fold: first, there is concern that early releases may adversely affect naturally rearing fish by exposing them to high levels of BKD; and second, there is concern that such releases may impact natural production by over seeding rearing habitat. In addition, NMFS does not believe that existing Endangered Species Act (ESA) permits cover early release as a practice. Kirk Truscott agreed that early releases of high BKD fish could potentially affect existing naturally rearing fish, but any impacts would depend on the location

and timing of these releases. He gave the example that WDFW has some evidence that early released high ELISA fish released during the fall into the Lower Wenatchee River (below confluence of Icicle Creek) would release sub-yearling spring Chinook in an area of low density rearing for spring Chinook and may represent only a minor risk of disease transmission and hatchery/wild ecological interaction.

Kris Petersen suggested that WDFW may want to devise a study design that would experimentally test the effect of high BKD early releases on survival and BKD levels in naturally rearing fish. The Committees discussed that they need an interim decision in order to move forward with hatchery planning for Chelan PUD's future production under the HCP. The path forward is that Mike Schiewe will bring this up to the Coordinating Committees to update them that the dispute resolution process may be brought to them; Schiewe will also draft an outline for a short position statement for the various parties in the Hatchery Committees.

V Updates: Chelan PUD

A. Results from Similkameen Water Quality Study

Shaun Seaman updated the Committees that the preliminary results were in from the water quality study at Similkameen Hatchery. Chelan PUD had contracted with CH2MHill to evaluate options for alleviating the water quality issues at the hatchery that are caused by fish spawning in water upstream of the hatchery. Several options were considered; these included (in no particular order): water treatment, bringing fish to the hatchery after upstream spawning was complete, tempering hatchery water sources with clean water, or relocation of the facility. The preliminary results indicated ultraviolet light (UV) treatment would be the least-costly water treatment system, but that even this option was very expensive (greater than \$4 million). Chelan PUD will further evaluate the various options and this will be a discussion item for the next meeting. Seaman noted that based on this new information, any physical changes to the facility to address water quality would likely not occur until after 2007 at the earliest.

B. Post-2013 Production Levels

Shaun Seaman updated the Committees that Chelan PUD has prepared some examples of 2013 production levels for steelhead using the Biological Assessment and Management Plan (BAMP) estimation procedure. These estimates are being made at this time for use in

facility planning. However, Chelan PUD indicated that if it was agreed that, for example, facilities needed to be constructed to accommodate 425,000 steelhead smolts, that 425,000 smolts would be the upper production limit for the 2013-2023 time period. Prior to next month's meeting, Chuck Peven will develop background information in support of a Statement of Agreement covering both facilities planning for steelhead production in the Wenatchee River basin as well as the Turtle Rock summer Chinook salmon program. In addition, Chelan PUD will prepare a sensitivity analysis showing how changes in Smolt-to-Adult return rates (SARs) would influence BAMP estimates. Peven will send this sensitivity analysis to Ali Wick for distribution to the Committees. This will be on the agenda for decision at the next Committees meeting.

Rick Stilwater added that a proposal from U.S. Environmental Protection Agency (EPA) is being circulated and discussed within WDFW that would potentially require each hatchery to provide a 10 percent quiescent zone (area for fish waste to settle, but no fish rearing) for each rearing pond. Stilwater noted that, if approved, this proposal could potentially affect hatchery design in the future.

C. Steelhead Spawner Composition

Chuck Peven updated the Committees that Chelan and Douglas PUDs had met with Chris Jordan and Earl Prentice of NMFS to evaluate cost and logistical concerns related to installing Passive Integrated Transponder tag (PIT-tag) detectors in steelhead reference streams. Chelan PUD has been in touch with some landowners who offered the use of some potential sites for installation of the detectors on Peshastin Creek. The placement of detectors in the Entiat subbasin were also discussed with the Entiat Watershed Planning Unit (EWPU) at yesterday's EWPU meeting (August 15, 2006).

D. Entiat Stakeholder Meeting

Shaun Seaman updated the Committees that the EWPU is still interested in maintaining dialogue with the Hatchery Committees regarding their involvement in the selection of reference streams for the Entiat subbasin, and for the public process in the HCP.

The EWPU expressed interest in the Colville Tribes and Yakama Nation staying in contact with them through participation in any joint meetings of the EWPU and Hatchery Committees.

E. Jim Waldo – NMFS Hatchery Reform

Shaun Seaman updated the Committees that Chelan and Douglas PUDs met with Jim Waldo of the the (Hatchery Reform Group), and that Waldo had expressed interest in the M&E Plan. Waldo suggested that the Committees might be interested in meeting with Lars Mobrand of the hatchery review technical team.

F. Chelan Falls

Shaun Seaman updated the Committees that Chelan PUD had performed additional analysis after the last Hatchery Committee meeting and is still looking at the four Chelan Falls acclimation sites, the leading candidate of which is just adjacent and upriver of the parking lot at the existing Chelan Falls Powerhouse park. Chelan PUD is interested in beginning design as soon as possible, and will be updating the Beebe Springs stakeholders group in mid-September regarding these plans; the Beebe Springs group is looking into land adjacent to the Chelan Falls hatchery for developing an interpretive center.

G. Update to hatchery planning documents

Erich Wolf will update the Hatchery Program Overview table to reflect the status of the above noted projects and any others that have changed.

VI Updates: Douglas PUD (Rick Klinge)

A. Study Plan for Lost River

Rick Klinge updated the Committees that the study plan for the Lost River is on hold while meetings are being organized.

B. Tributary Trapping

Rick Klinge updated the Committees that Douglas PUD is reviewing some designs for the Twisp weir and is expecting to have these finalized and installed by 2007. The Committees discussed the details of these designs, and Bryan Nordlund of WDFW and Bruce Heiner of

WDFW will be reviewing the designs soon. For the next meeting, Klinge will send plans to Ali Wick for distribution to the Committees.

Tom Kahler updated the Committees that Douglas PUD and Bureau of Reclamation (BOR) engineers are evaluating the hydraulics of the proposed modifications at the Chewuch Dam for trapping spring Chinook broodstock. Kahler clarified that the engineering input is still forthcoming, but that in the meantime, further development of designs continues. The final product is intended to be a fully functional prototype trapping facility for testing the efficacy of trapping in the existing roughened-channel fishway. One objective is to avoid pouring any new concrete but rather to use existing infrastructure and non-permanent structures to comprise the trapping facility.

C. Wells Hatchery Screens Design

Rick Klinge provided copies of the final screen designs for the Wells Hatchery intake. These screens and their design have been an ongoing discussion item for several months in the Hatchery Committees. Mike Schiewe clarified that a Statement of Agreement for approving these designs was provided for the Committees' consideration, and though it was not provided within the usual 10 days prior to the meeting, the Committees members could approve this Agreement if ready to do so. Rick Klinge clarified that the screens are designed to meet the current water right, and that engineers Bryan Nordlund of NMFS and Bruce Heiner of WDFW have both reviewed these designs. The Committees approved the Statement of Agreement for the Wells Hatchery Surface Water Screens subject to WDFW and NMFS confirming agreement with their engineers by August 23; if no information is provided by August 23, Douglas PUD will consider the statement approved (Attachment C).

D. PUD Sharing Agreements at Methow and Wells Hatcheries

Rick Klinge updated the Committees that Douglas PUD intends to discuss PUD sharing agreements with Chelan and Grant PUDs for fish production programs at Methow and Wells Hatcheries. The Committees discussed that those sharing agreements that are part of the HCP Appendix (Chelan PUD) need no further discussion, as they are already approved. Any new sharing agreement involving production of fish at Wells Hatchery for Grant PUD would require Committees concurrence.

E. 2005 Methow Smolt Trapping Report

Rick Klinge updated the Committees that the report *Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005*, which was previously distributed to the Committees for review, is being withdrawn pending revisions clarifying the purpose of the report.

VII WDFW (Kirk Truscott)

A. Creel Survey Plan Drafts

Kirk Truscott solicited comments to the creel survey plans that were distributed to the Committees for their review. Jerry Marco will forward comments to Truscott on the methods in the draft plans. The rest of the Committees members had no comments.

B. Chiwawa Water Management and Staffing for Winter Operations

Kirk Truscott updated the Committees that WDFW is currently reviewing staffing needs for the Chiwawa Hatchery water management program for winter 2006-2007. Shaun Seaman said that Chelan PUD remains committed to providing additional staffing funds if needed, and that Chelan PUD would work with WDFW through the budgeting process. The water rights and Hydraulic Project Approval issues are being discussed.

C. Summer Chinook Surplus at Wells

Kirk Truscott updated the Committees that between 1,500 and 2,000 surplus summer Chinook are being held at Wells Dam, and these fish will be surplus for tribal use. Truscott requested the Committees' input regarding whether this would be acceptable in light of the HCP. The Committees agreed that, for 2006, there were no technical HCP-related concerns related to this proposal, and agreed that this proposal could move forward. The Committees noted that this is the appropriate forum for HCP coordination of this action, but that discussions regarding the allocation of these fish should, in the future, be a discussion item for the Coordinating Committees or higher. For coordination purposes, Kris Petersen requested to be copied on correspondence for these actions at the time proposals of this nature are being discussed.

D. Methow-Okanogan Summer Chinook Broodstock Collection at Wells

Kirk Truscott updated the Committees that WDFW has had some difficulty meeting collection quotas out of the Wells Dam east ladder for the summer Chinook Methow-Okanogan (MEOK) program, which may be related to the night dredging operation near the east ladder or the current associated flow dynamics in the tailrace. For example, there have been collections as low as 1 to 4 fish per day at the east ladder, which is highly unusual for this time of year. The purpose of bringing this topic up is that Truscott wanted to alert the Committees that WDFW may need to make an in-season adjustment to initiate some collection in the west ladder to attempt to meet quotas.

VIII Yakama Nation (Tom Scribner)

A. M&E for Skaha Sockeye Program

Tom Scribner briefed the Committees that he had been in touch with Deana Machin and Howie Wright of the Okanagan Nation Alliance (ONA) regarding the potential to use PIT-tags to obtain additional survival information on Skaha smolts. Scribner provided a handout with some preliminary text on how this information could be useful for HCP M&E Objectives 1, 2, and 3. Tom Scribner agreed to provide the Committees with a more detailed explanation of how the additional information would supplement what was already being done, and will provide the handout from today on Skaha M&E electronically to Ali Wick for distribution to the Committees; this will be a discussion item at the next meeting. For coordination purposes, the Committees suggested that Scribner get in touch with the Priest Rapids Coordinating Committees (PRCC) to discuss other funding considerations.

B. Discussion on Feasibility of Skaha Sockeye Adult Holding/Spawning in U.S.

Tom Scribner suggested discussing with the ONA the idea of potentially holding adult sockeye (collected at Wells Dam) in U.S. waters as part of the Skaha sockeye program. The Committees were in agreement that this could be pursued and that further exploration of the logistics of this idea would be appropriate. Scribner will also raise this with the PRCC at their next meeting, and this will be a discussion item at the next Hatchery Committees meeting.

C. Summer Chinook Broodstock Gender Identification at Wells Hatchery

Tom Scribner briefed the Committees that the inability to accurately determine the gender of returning Chinook at Wells Hatchery prior to fish exhibiting obvious spawning secondary sex characteristics has contributed to underproduction. The Yakama Nation has made contact with some researchers that have been using ultrasound to determine sex of fish in the field. WDFW will take the lead to research the potential of using this technology and will update the Committees at the next meeting.

D. ISRP Review of Yakama Nation Master Plan

Tom Scribner updated the Committees that the Independent Scientific Review Panel (ISRP) has reviewed the Yakama Nation's Master Plan, and complimented the Yakama Nation for this effort. The ISRP identified several issues that it would like to see addressed regarding the plan, and requested a revised Master Plan be provided for its consideration. Scribner commented that the Master Plan will be revised in September 2006, when the Yakama Nation's staff council makes its funding decisions for the next year. The path forward for this is that Mike Schiewe will work with Tom Scribner, Douglas PUD, and Chelan PUD to develop a schedule for meeting the HCP requirement for determining whether a hatchery program and/or naturally reproducing population of coho exists by the end of 2006. Tom Scribner will forward four letters of support that the Yakama Nation received from Hatchery Committee entities for the coho reintroduction program to Ali Wick for distribution to the Committees.

IX Other Items (Mike Schiewe)

A. Meeting Agreements

This section provides non-formal agreements made by the Committees during the course of the meeting.

- The Committees agreed that the Hatchery Committees are the appropriate forum for the HCP coordination of surplus hatchery fish, but that discussions regarding the allocation of these fish should, in the future, be a discussion item for the Coordinating Committees or higher (Item VII-C).
- The Committees agreed that it would be appropriate for the Yakama Nation to pursue discussions with the ONA to potentially hold adult sockeye in U.S. waters as part of the Skaha sockeye program (Item VIII-B).

B. Next Meeting

The next meeting will be held on Wednesday, September 20, 2006, at Chelan PUD in Wenatchee.

List of Attachments

Attachment A – List of Attendees

Attachment B – Final Statement of Agreement for Use of Bonaparte Pond for Rearing up to

100,000 Summer Chinook from the Similkameen Program in the 2006-2007 Rearing Season

Attachment C – Final Statement of Agreement for the Wells Hatchery Surface Water Screens

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Jerry Marco *	Colville Tribes
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Dick Nason	DNC
Kris Petersen *	NMFS
Erich Wolf	Sapere Consulting
Kirk Truscott *	WDFW
Rick Stilwater	WDFW
Keely Murdoch	Yakama Nation
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

**FINAL STATEMENT OF AGREEMENT FOR USE OF BONAPARTE
POND FOR REARING UP TO 100,000 SUMMER CHINOOK FROM
THE SIMILKAMEEN PROGRAM IN THE 2006-2007 REARING
SEASON**

FINAL

Statement of Agreement For Use of Bonaparte Pond For Rearing up to 100,000 Summer Chinook From The Similkameen Program in the 2006 – 2007 Rearing Season

**Rock Island HCP Hatchery Committee
August 16, 2006**

Statement of Agreement

Based on an expected transfer population of 350,000-380,000 Methow/Okanogan River summer Chinook at Eastbank FH, the Rock Island HCP Hatchery Committee approves the rearing of 100,000 of the 2005 brood year Similkameen summer Chinook at Bonaparte Pond for the 2006 – 2007 rearing season. These fish will be raised initially at Eastbank along with the remaining Similkameen production fish and will be transferred to the Bonaparte Pond in late October/early November '06. Chelan County PUD will be responsible for the cost to rear these fish and the Colville Confederated Tribes will be responsible for operation of the pond and rearing/releasing the fish. Fish health monitoring will be provided by WDFW. Fish raised at the Bonaparte pond will be differentially marked with coded wire tags at Eastbank FH prior to transfer to Bonaparte Pond. Should the available number of fish for transfer from Eastbank FH be less than 300,000, the Rock Island HCP Hatchery Committee will re-assess the number of fish transferred to Bonaparte Pond. Use of and production level for this pond for Similkameen Program production in subsequent years will require approval of the Rock Island Hatchery Committee.

Background

The artificial production program focused on summer Chinook salmon in the Okanogan subbasin has demonstrated a high degree of success. Annually, approximately 576,000 summer Chinook salmon parr are reared to yearling stage at the Similkameen acclimation pond on the Similkameen River. This program is funded by Chelan Public Utility District and the facility is operated by the Washington Department of Fish and Wildlife (WDFW).

Summer Chinook salmon are reared for approximately six months on water from the Similkameen River. In doing so, the homing instincts of hatchery fish are strengthened and exhibit a high fidelity to this reach of river. Naturally produced spawners also occupy this reach. During years of good in-river and ocean survival abundant hatchery and naturally produced adults return to the vicinity of the acclimation pond. The abundant adult returns to this reach have resulted in superimposition and has negatively affected the Natural Recruitment Rate (NNR) for the Similkameen spawning aggregate. Furthermore, suitable summer Chinook habitat in the Okanogan River (those areas with appropriate substrate and gradient), appear to be underutilized.

In an effort to increase NNR for the Methow/Okanogan summer Chinook in the Similkameen River and to promote adult spawning distribution in suitable spawning habitat in the Okanogan River, the Colville Confederated Tribes, in collaboration with WDFW have initiated rearing approximately 100,000 summer Chinook salmon approximately 1 mile south of Tonasket, Washington. The rearing facility is a modified sedimentation pond of the Oroville Tonasket Irrigation District, referred to as the Bonaparte Acclimation Pond (Photo 1).

Redistributing 100,000 summer Chinook salmon smolts from the Similkameen acclimation pond and rearing these fish on water from the Okanogan River is expected to reduce superimposition in the Similkameen River and promote spawning in currently under-utilized habitat along the Okanogan River. Furthermore, it is anticipated that redistributing returning adults will increase the proportion of naturally-produced summer Chinook and overall abundance.

ATTACHMENT C

**FINAL STATEMENT OF AGREEMENT FOR THE WELLS
HATCHERY SURFACE WATER SCREENS**

Wells Habitat Conservation Plan - Hatchery Committee
Statement of Agreement
August 16, 2006

Public Utility District No. 1 of Douglas County (Douglas PUD) has received the final set of design drawings for the Wells Hatchery Surface Water Screens. The screen system shown on the August 7, 2006 plans and reviewed at the meeting on August 16, 2006 will allow for delivery of surface water to the hatchery at all appropriate reservoir elevations. Engineering staff from the National Marine Fisheries Service and the Washington Department of Fish and Wildlife have been actively involved with the design and approach presented in the August 7, 2006 drawings.

The HCP-HC was presented with the concept design for the screens at the June 21, 2006 meeting and was supportive of the design concepts presented by Douglas PUD at the meeting. The next steps in the implementation of this project are to provide the attached set of final drawings to FERC for approval and to produce the final bid designs and documents. Toward meeting these steps, Douglas PUD is requesting HCP HC approval of the final design drawings prior to their submittal to FERC for their approval.

In summary, the members of the HCP-HC are supportive of the August 7, 2006 design drawings of the Wells Hatchery Surface Water Intake Screen and request that the District proceed with the implementation of this project.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Chuck Peven, Tom Kahler, Julie Pyper, Dick Nason, Steve Hays, and Keely Murdoch

Date: October 20, 2006

Re: Final Minutes of September 20, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on September 20, 2006, from 9:30 am to 3:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final August 16, 2006 Meeting Minutes to the Hatchery Committees by email (Item I).
- The Hatchery Evaluation Technical Team (HETT) will develop a proposal for monitoring Regional Objectives 9 and 10 of the Monitoring and Evaluation (M&E) program, including a description of an analytical approach for evaluating the results (Item II).
- Kirk Truscott will provide Ali Wick with the proposal from Allen Evans on the potential use of ultrasound in fisheries management for broodstock gender identification, for distribution to the Committees. Truscott will work with the PUDs on a recommendation regarding a path forward for evaluating the application of this technology in the HCPs' hatchery programs (Item III-A).
- Mike Schiewe, Kirk Truscott, and Kris Petersen will continue to work on the draft bacterial kidney disease (BKD) Issue Paper, and will provide it to the Committees either prior to or at the next meeting (Item III-C).
- Committees members will contact Kirk Truscott by October 4 with any questions regarding Single Nucleotide Polymorphism (SNP) genetic monitoring that they would like Ken Warhiet to address in his upcoming genetics presentation (Item III-D).

- Tom Scribner will provide an update at the next meeting on the Okanagan Nation Alliance's (ONA's) interest in Passive Integrated Transponder tagging (PIT-tagging) outmigrant Skaha sockeye to obtain survival estimates during passage through the mid- and lower-Columbia River; his update will address how this work integrates with the objectives of the HCP M&E Plan (Item IV-A).
- Tom Scribner will discuss with ONA biologists the possibility of collecting returning adult sockeye at Wells Dam as part of the Skaha sockeye program; he will also present this idea to the Priest Rapids Coordinating Committee (PRCC) Hatchery Subcommittees (Item IV-B).
- Tom Scribner will work with Mike Schiewe on a draft recommendation for a path forward for the HCP determination regarding a continuing coho hatchery program and/or the establishment of a threshold population of naturally reproducing coho (Item IV-E).
- Rick Klinge will email the designs for the Twisp Weir to Ali Wick for distribution to the Committees (Item V-A).
- Mike Schiewe will bring the surplus fish issue up to the Coordinating Committees for discussion; he asked Committees members to review and comment on the issue paper that was prepared for this topic (Item V-B).
- Mike Schiewe will re-distribute the issue paper prepared for the surplus fish allocation topic (Item V-B).
- Brian Cates will get in touch with Kris Petersen regarding the need for a bull trout consultation for any proposed selective fishery on hatchery Entiat River Spring Chinook (Item VI-G).
- Chuck Peven will track the progress of permitting such a fishery, and will periodically update Sarah Walker of the Entiat Watershed Planning Unit (Item VI-G).

DECISION ITEM SUMMARY

- The Committees approved the document *Analytical Framework for Monitoring and Evaluating PUD Hatchery Programs*, subject to minor changes discussed at the meeting and an acknowledgment in the Statement of Agreement that the documents covered all three HCPs (Wells, Rocky Reach, and Rock Island) (Item II).

I Welcome and Meeting Minutes Approval (Mike Schiewe)

Mike Schiewe opened the meeting. The Committees will approve the August 16, 2006 Meeting Minutes by email pending Washington Department of Fish and Wildlife (WDFW) review of the section discussing BKD management. Ali Wick will coordinate approval and send the final minutes by email. Attendees at the September 20, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II DECISION POINT: Analytical Framework Document

Mike Schiewe opened the discussion and introduced the Statement of Agreement for accepting the document *Analytical Framework for Monitoring and Evaluating PUD Hatchery Programs* as final. Tom Scribner noted that the plan lacked detail on how Objectives 8 and 9 would be addressed. After some discussion, it was agreed that the HETT will develop a proposal for monitoring Regional Objectives 9 and 10 of the M&E program, to include a description of the analytical approach to be used to evaluate the results. The Committees approved the document subject to minor changes discussed at the meeting and an acknowledgment in the Statement of Agreement that the documents covered all three HCPs (Wells, Rocky Reach, and Rock Island).

III WDFW

A. Ultrasound Fish Gender ID Update

Kirk Truscott provided the Committees with a proposal from Allen Evans of RealTime Research on the potential use of ultrasound for determining the gender of adult salmon before secondary sex characteristics are evident. Truscott will provide this information in electronic form to Ali Wick for distribution to the Committees. Truscott will work with the PUDs to develop a recommendation to the Committees regarding the path forward with the proposal.

B. Broodstock Collection Update

Kirk Truscott updated the Committees that WDFW is on track with broodstock collections to meet program goals for all HCP programs. Currently, broodstock collection for the Wenatchee summer steelhead is complete, and they are still collecting fish for the Wells steelhead hatchery component. Summer Chinook collection at Wells is now complete. Chiwawa spring Chinook collection included sufficient females to meet full program, and they were able to meet and exceed the permit-required 33 percent wild component by a

few percentage points. Also, because there was no pre-spawn broodstock mortality, there will be several hatchery males that will not be used in the program and these fish will be released according to typical WDFW protocols.

C. BKD Issue Paper

Mike Schiewe updated the Committees that he has been working with Kris Petersen and Kirk Truscott to prepare a draft issue paper summarizing the Committees' positions on BKD management. Truscott indicated he needed more time to coordinate WDFW's position with WDFW leadership, and committed to completing WDFW's review of this paper by no later than the next Committees meeting. This paper will be on the agenda for discussion at the October meeting.

D. Fish Genetics Related to M&E Plan

Kirk Truscott updated the Committees that the genetic evaluations discussed in the M&E Plan can be addressed using new genetic monitoring tools, such as the SNP test. Truscott suggested (and the Committees agreed) that it would be useful for Ken Warhiet, a WDFW geneticist, to come to a future Hatchery Committee meeting and present a talk on genetic monitoring. Committees members will send any questions that they would like have Warhiet address in his talk to Truscott by October 4.

IV Yakama Nation (Tom Scribner)

A. M&E for Skaha Sockeye Program Update

Tom Scribner updated the Committees that he had contacted representatives of the ONA regarding opportunities to monitor downstream survival of Skaha sockeye salmon. Howie Wright (of ONA) indicated an interest in PIT-tagging fish to obtain survival information for sockeye emigrating from Skaha Lake, but wanted to get in touch with Kim Hyatt (of Department of Fisheries and Oceans – Canada) to get his input. Tom Scribner will provide an update at the next meeting on the ONA's interest in working with the Hatchery Committees on this proposal, and will address how this work integrates with the objectives of the HCP M&E Plan.

B. Skaha Sockeye Adult Holding/Spawning in U.S.

Tom Scribner will contact ONA representatives regarding the logistics and legal feasibility of collecting and spawning returning adult Skaha Lake sockeye at Wells Hatchery as a way to enhance and simplify broodstock collection. Scribner will also discuss this potential program modification with the PRCC Hatchery Subcommittees.

C. Coho Broodstock Collection in 2006

Tom Scribner updated the Committees on various activities associated with coho salmon broodstock collection for the Yakama Nation's (YN's) coho reintroduction study. Several documents had been distributed to the Committees with the meeting agenda. Rick Klinge and Keely Murdoch indicated that there would be coordination with WDFW staff at Wells Dam regarding trapping logistics.

D. Request to Trap Coho at Wells Dam

Tom Scribner wanted to make the Committees aware that coho trapping will begin soon at Wells Dam.

E. Coho Decision

Tom Scribner noted that the YN's coho introduction project was not recommended for funding by the Northwest Power Planning and Conservation Council under the 2007-2009 Fish and Wildlife funding. The YN is currently funded through the end of January, and will proceed on a "business as usual" basis until that time. Tom Scribner will work with Mike Schiewe to draft a Statement of Agreement for a path forward for the required HCP determination regarding the status of a continuing coho hatchery program and/or the establishment of a threshold population of naturally reproducing coho for consideration at the next meeting.

V Updates: Douglas PUD (Tom Kahler)

A. Construction Updates: Wells Hatchery Screens and Twisp Weir Designs

Tom Kahler updated the Committees that the designs are final on the Wells Hatchery Screens and the costs for certain screen materials is much higher than anticipated; Douglas PUD is evaluating options and will update the Committees at the next meeting. Also, Rick Klinge will email the preliminary designs for the Twisp Weir to Ali Wick for distribution to

the Committees. Currently, Douglas PUD is looking at a Chiwawa-style design for this weir.

B. Follow-Up on Surplus Fish Allocation Discussions

Rick Klinge noted that Douglas PUD management had concerns about the allocation of surplus fish at Wells Hatchery in recent years and would like to clarify the decision-making process for future years. Douglas PUD's concern stems from the fact that these fish are being produced and allocated at the Wells Hatchery facility, but the PUD does not want to be the decision-maker in allocation issues. The Committees discussed that allocation of surplus fish should be a matter for the Joint Fisheries Parties (JFP) and Mike Schiewe will bring this up to the Coordinating Committees along with an issue paper that he prepared for this topic. Schiewe will re-distribute the issue paper to Committees members for review.

VI Updates: Chelan PUD

A. Chiwawa Steelhead Production Estimation White Paper

Steve Hays presented an overview of a white paper describing Chelan PUD's recommended approach to estimating future production requirements. These estimates will be used for facility planning purposes prior to 2013, but will also establish an upper limit on 2013 to 2023 production. Included in the document was a sensitivity analysis describing how different Smolt-to-Adult Return Rates (SARs) would influence the estimates. The Committees raised a number of questions about the use of these estimates and in particular about how they shaped future year production requirements. The Committees scheduled a conference call for October 5 at 1:30 pm to further discuss these issues. Chelan PUD will request formal agreement from the Committees on this approach and the resulting estimates at the October meeting.

B. Chelan Falls Chinook Production Estimation White Paper

This agenda item was similar to Item VI-A above for Chiwawa steelhead, but instead covered the use of the same approach to estimate production requirements for Chelan Falls Chinook salmon. Steve Hays distributed a white paper on the approach and walked the Committees through the process. The paper included a sensitivity analyses looking at how

SARs would influence the estimates. The Committees will discuss this further during the conference call on October 5.

C. Public Outreach Schedule for Chiwawa and Chelan Falls

Shaun Seaman updated the Committees that the following meetings have been organized for public coordination:

- September 21 with Beebe Springs stakeholders
- September 23 with Chiwawa Homeowners Association
- October 2 with Chelan County Commissioners
- October 5th with Wenatchee Watershed Planning Unit
- October 19 with Chelan Falls customer group

D. Chief Joseph Hatchery Cost-Sharing Update

Shaun Seaman updated the Committees that Chelan PUD has been meeting with representatives of the Colville Tribes to evaluate opportunities to cost-share with the Tribes regarding production at Chief Joseph Hatchery. Jerry Marco noted that the discussions are in the very preliminary stages.

E. Facilities Updates

Sam Dilly provided updates (details in a handout that was an attachment to the agenda) on a number of hatchery issues, including the following:

- Chelan Hatchery Wellfield Improvements
- Chiwawa Water Supply Warming Study
- Eastbank Adult Holding Pond and Spawning Structure Enclosure
- Chelan Falls Acclimation Facility
- Chelan Falls Resident Fish Hatchery Evaluation
- Similkameen Hatchery Water Supply Feasibility Study
- Eastbank Hatchery Adult Steelhead Holding Study
- Chiwawa Juvenile Steelhead Study
- Chemical Handling Improvements
- Similkameen Wastewater Improvements
- Hatchery Alarm System Analysis

F. Hatchery Program Overview Table Update

Julie Pyper updated the Committees that she and Sam Dilly had updated the Hatchery Program Overview Table and distributed it to the Committees.

G. Entiat River Spring Chinook Hatchery Selective Fishery

Shaun Seaman updated the Committees that Chelan PUD had met with the Entiat subbasin stakeholders and other agencies on August 15. One issue that came up was the potential for a hatchery spring Chinook fishery in future years. It was pointed out by WDFW at the meeting that they would have to work with National Marine Fisheries Service (NMFS) on an Endangered Species Act (ESA) permit modification for such a fishery to be authorized. Brian Cates noted that a bull trout consultation would also be required. It was agreed that Cates will get in touch with Kris Petersen regarding this issue. Also, Chuck Peven will periodically update Sarah Walker of the Entiat Watershed Planning Unit on progress.

VII Other Items (Mike Schiewe)

A. Policy Committee Meeting

Mike Schiewe noted that efforts to find a date where all the Policy Committees members and interested executives could meet had yet to be identified but those additional dates were still being considered. He also noted that some of the issues that had been on the draft agenda for potential dispute resolution may be resolved by the time a meeting is convened (a positive outcome) and that the meeting may primarily be an opportunity to review progress after the first 2 years of HCP implementation.

B. Next Meeting

The next meeting will be held on Wednesday, October 18, 2006, at Chelan PUD in Wenatchee.

List of Attachments

Attachment A – List of Attendees

Attachment B – Final Analytical Framework Document and Statement of Agreement

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Steve Hays	Chelan PUD
Sam Dilly	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Dick Nason	DNC
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Keely Murdoch	Yakama Nation
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

**FINAL ANALYTICAL FRAMEWORK DOCUMENT AND
STATEMENT OF AGREEMENT**

**Statement of Agreement
Implementation Plan for the
Analytical Framework for Monitoring and Evaluating PUD Programs
Wells, Rocky Reach and Rock Island HCP Hatchery Committees
September 20, 2006**

The Wells, Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the **Analytical Framework for Monitoring and Evaluating PUD Programs** and accept the document as final.

ANALYTICAL FRAMEWORK FOR MONITORING AND EVALUATING PUD HATCHERY PROGRAMS

Final

September 20, 2006



Prepared by (alphabetically):

Steve Hays
Tracy Hillman
Tom Kahler
Rick Klinge
Russell Langshaw
Ben Lenz
Andrew Murdoch
Keely Murdoch
Chuck Peven

Prepared for:

Habitat Conservation Plans Hatchery Committee

Analytical Framework for Monitoring and Evaluating PUD Hatchery Programs

This document is a supplement to the Monitoring and Evaluation Programs for the Mid-Columbia PUDs Hatchery Programs (e.g., Murdoch and Peven 2005; Cates et al. 2005). The analyses and data used to support the information contained in this document are subject to change as new information becomes available. Any changes to these programs are subject to the approval of the HCP Hatchery Committees or PRCC Hatchery Subcommittee as appropriate.

There are currently 10 objectives associated with monitoring the effectiveness of hatchery programs funded by the mid-Columbia PUDs (Murdoch and Peven 2005; Cates et al. 2005). For each objective specific data are needed to assess the risks to the resource and to determine if the hatchery programs are meeting their goals. Effectiveness monitoring requires analytical rules that guide statistical analyses and management decisions. In many cases these rules come directly from agreements between the agencies and the PUDs. Other rules are made outside the directives of the agreements, but nonetheless are necessary in managing hatchery programs and guiding effectiveness monitoring. Identified below are descriptions of analytical rules that need to be made in developing a hatchery monitoring program.

Effect Size—Effect size refers to the size of change in a variable that constitutes the level of acceptable change. More formally, it is the amount of departure of the data from the null hypothesis (i.e., that the treatment or management action has resulted in no important change in the variable) that is needed before accepting the alternative hypothesis (i.e., that the treatment or management action has resulted in an important or unacceptable change in the variable). Effect size should be identified before conducting effectiveness monitoring and is usually identified in binding agreements (e.g., number and size of hatchery smolts produced) or is a policy decision associated with the risk or scientific uncertainty in the parameter of interest.

Minimum Detectable Difference (a.k.a. Minimum Detectable Effect Size)—The size of change in the variable of interest (e.g., the difference between the treatment and reference condition) that can be detected statistically at the specified significance level, power, and sample size. The minimum detectable difference could be greater than the effect size identified by management.

Type I Error—A Type I Error occurs when one concludes that there is a difference between treatment and reference condition when in fact there is no difference. This error may be costly to funding entities, because one may conclude that the hatchery program is not successful when in fact it

is. Committing a Type I Error may result in additional studies or management actions that are not necessary. This error is under the control of the investigator and is set before conducting effectiveness monitoring. In this plan, we follow the generally accepted standard of $P < 0.05$ (i.e., a 5% chance of committing a Type I error).¹

Type II Error—A Type II Error occurs when one concludes that there is no difference when in fact there is a real difference. This error may be harmful to the resource, because one may conclude that the hatchery program is successful when in fact it is not. This error can be reduced by selecting the appropriate sample size needed to detect a biological or practical effect size (see below).

Power—Power is the probability that a statistical test will result in a significant difference (reject the hypothesis of no difference when there is truly a difference—a correct decision). More technically, it is the probability of detecting a specified treatment effect when it is present. This is the intent of all monitoring programs. Power is calculated as $1 - \text{Type II Error}$.

Sample Size—Sample size indicates the number of replicates (in space or time) that is needed to avoid making a Type II error (failing to reject the hypothesis of no difference). Typically, a larger sample size is needed to increase power (or reduce the probability of a Type II error).

The monitoring program is set up so that the null hypothesis is stated as “no difference.” Therefore, in some but not all cases, the null hypothesis will be stated such that the supplementation program has no harmful effect on the natural population (or that hatchery goals have been met). The alternative hypothesis is that supplementation has harmed the natural population. In this case, failure to reject the null hypothesis leads to the conclusion that there is no real evidence that supplementation has harmed the natural population. In other words, the data have to provide “evidence” that the supplementation program is harmful. The supplementation program is “innocent” until proven “guilty.”²

¹ In this plan we do not attempt to make an experiment-wide error-rate adjustment. Our analyses are predicated on the idea that all of the null hypotheses are true. Making an adjustment effectively penalizes us for conducting multiple tests, because the standard for rejection of the null hypothesis increases as more tests are conducted. Yet it is the pattern of which particular tests are rejected that is important in this program. Adjusting the error-rate may cause us to throw out this important information (see Gotelli and Ellison (2004) for a discussion on error-rate adjustments). We do, however, avoid excessive statistical tests that are not independent of one another.

² The alternative is to state the null hypothesis so that the supplemented population and reference population are not equivalent (the concept of bioequivalence). In this case the data have to provide evidence that the null hypothesis is not true before the populations are declared to be equivalent (i.e., supplementation has no harmful effects). Thus, an adverse effect is assumed unless the data suggest otherwise.

A primary goal of supplementation is to contribute to the rebuilding and recovery of naturally reproducing populations within their native habitat. In this plan, natural replacement rates (NRR), recruitment of naturally produced fish (NOR), and juvenile productivity (juveniles/redd) are important indicators for assessing the success of supplementation. However, these indicators are difficult to measure precisely and are quite variable in space and time (i.e., these measures can carry high uncertainty).³ Therefore, this plan identifies several other indicators that will be measured to help explain some of the uncertainty associated with productivity indicators. These monitoring indicators, which are either directly or indirectly affected by the hatchery programs, can be evaluated to determine if changes (or no changes) in productivity were related to the hatchery programs or other unexplained factors. These indicators include stray rates, hatchery replacement rates, genetics, run timing, spawn timing, spawning distribution, age-at-maturity, and size-at-maturity.

The relationship between supplementation hatchery programs and indicators can be viewed in a chain-of-causation (Figure 1). That is, management actions within hatchery programs affect the status of monitoring indicators, which influence productivity indicators. Non-supplementation programs, such as harvest-oriented programs, include many of the same factors.

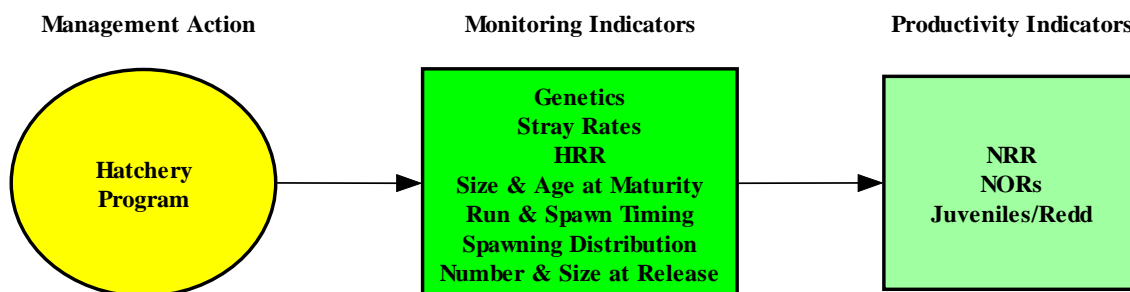


Figure 1. The relationship of indicators to the assessment of supplementation programs viewed in a chain-of-causation. In the chain-of-causation, the hatchery program affects monitoring indicators, which influence productivity indicators. Data may be available in the future that identify monitoring indicators having greater influence on productivity.

Both monitoring and productivity indicators will be used to evaluate the success of hatchery programs. In the event that productivity indicators cannot be measured with enough precision (e.g., 95% certain that the point estimates fall within some specified range of the true value) to make sound decisions, some of the monitoring indicators may be used instead.

³ Natural replacement rates are affected by many factors that are independent of the hatchery programs. For example, natural replacement rates are affected by climatic conditions; mainstem, estuary, and ocean conditions; predators and competitors; different fisheries; and habitat. These factors add variability (uncertainty) to estimates of productivity.

Identified below are the types of indicators (monitoring or productivity) associated with each objective described in Murdoch and Peven (2005). For each indicator we identified monitoring questions, specific populations and species associated with each indicator, hypotheses, measured variables, derived variables, spatial and temporal scales of analysis, and statistical analyses. Lastly, we identified draft analytical rules for each indicator. We included effect sizes and statistical rules for each indicator.

Objective 1: Determine if supplementation programs have increased the number of naturally spawning and naturally produced adults of the target population relative to a non-supplemented population (i.e., reference stream) and if the change in the natural replacement rate (NRR) of the supplemented population is similar to that of the non-supplemented population.

At the core of a supplementation program is the objective of increasing the number of spawning adults (i.e., the combined number of naturally produced and hatchery fish) in order to affect a subsequent increase in the number of returning naturally produced fish or natural origin recruits (NOR). This is measured as the Natural Replacement Rate (NRR) or the ratio of NOR to the parent spawning population. The proportion of the hatchery origin spawners that will increase natural production without creating adverse effects to the genetic diversity or reproductive success rate of the natural population is not known. All other objectives of the M&E Plan either directly support this objective or seek to minimize impacts of the supplementation program to non-target stocks of concern.

Differences in carrying capacities of supplemented and non-supplemented streams can confound the effects of supplementation on total number of spawners returning to the streams. For example, if the supplemented population is at carrying capacity and the non-supplemented population is not, the total number of spawners returning to the non-supplemented population may show an increasing trend over time, while the supplemented population would show no increasing trend. To avoid concluding that the supplementation program has no effect or perhaps a negative effect on total spawners, the capacity of the habitats must be estimated and removed from the analyses. The Supplementary Hypotheses offered under each “regular” hypothesis are designed to remove the confounding effects of different carrying capacities from the analyses.

1.1 Adult Return Rates of Hatchery Fish (*Monitoring Indicator*)

Monitoring Questions:

Q1: Is the annual number of hatchery fish that spawn naturally greater than the number of naturally and hatchery produced fish taken for broodstock?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis:

- H_{o1} : The annual number of hatchery produced fish that spawn naturally is less than or equal to the number of naturally and hatchery produced fish taken for broodstock.
- H_{a1} : The annual number of hatchery produced fish that spawn naturally is greater than the number of naturally and hatchery produced fish taken for broodstock.

Measured Variables:

- Number of hatchery produced fish on spawning grounds annually
- Number of naturally and hatchery produced fish removed for broodstock annually

Derived Variables:

- No derived variables needed for the analysis

Spatial/Temporal Scale:

- Analyzed annually based on return year.
- On a five-year period analyze return years for patterns that correlate with extraneous factors such as ocean conditions.

Statistical Analysis:

- No statistical test is needed for hypothesis 1.
- Additional analysis over time may include correlating (regressions analysis) escapements with other extraneous variables (e.g., ocean conditions, climatic effects, etc.).
 - Analysis may include the use of reference areas.

Analytical Rules:

- This indicator is simply used to document whether or not the annual number of hatchery fish that return and spawn is greater than the number of naturally and hatchery produced fish taken for broodstock.
- No statistical analysis is needed.

1.2 Hatchery Contribution to Recruitment of Naturally Produced Fish (Productivity Indicator)

Monitoring Questions:

Q1: Is the annual change in the number of natural origin recruits (NORs) produced from the supplemented population greater than or equal to the annual change in NORs in a non-supplemented population?

Target Species/Populations:

- Q1 applies to all supplemented species and populations assuming reference populations are available.

Hypothesis:

- $H_{01}: \Delta \text{NOR/Max Recruitment}_{\text{Supplemented population}} \geq \Delta \text{NOR/Max Recruitment}_{\text{Non-supplemented population}}$
- $H_{a1}: \Delta \text{NOR/Max Recruitment}_{\text{Supplemented population}} < \Delta \text{NOR/Max Recruitment}_{\text{Non-supplemented population}}$
 - These hypotheses incorporate carrying capacity.⁴

Measured Variables:

- Number of hatchery and naturally produced fish on spawning grounds
- Number of naturally produced fish harvested

Derived Variables:

- Number of naturally produced recruits by brood year for both naturally produced parents and hatchery parents ($\geq \text{age-3}$).
- May include ratio or difference scores of NORs (requires reference area).
- Spawner-recruit ratios (in part rely on data from Objective 7).

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period; i.e., 5-year mean of annual change).
- H_{01} will be used for both temporal scales.

Statistical Analysis:

- Two-sample t-test (other tests may include RIA, ARIMA, or other tests) to evaluate difference scores or ratios over time (initial 5-year period).
- On a five-year period analyze brood years for patterns that correlate with extraneous factors such as ocean conditions.
 - Analysis may include the use of reference areas.

⁴ At this time, estimates of carrying capacity (maximum recruits) is unknown at this time for all populations within the Upper Columbia.

Analytical Rules:

- This is a productivity indicator that will be used to assess the success of the supplementation program.
- Type I Error of 0.05.
- Interim analytical rules will be based on effect sizes reported in Table 1.

**1.3 Natural Replacement Rates of Supplemented Populations
(Productivity Indicator)****Monitoring Questions:**

Q1: Is the change in natural replacement rates (NRRs) within the supplemented population greater than or equal to the change in natural replacement rates in a non-supplemented population?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 1.3:

- $H_{01}: \Delta \text{NRR}_{\text{Supplemented population}} \geq \Delta \text{NRR}_{\text{Non-supplemented population}}$
- $H_{a1}: \Delta \text{NRR}_{\text{Supplemented population}} < \Delta \text{NRR}_{\text{Non-supplemented population}}$

Measured Variables:

- Number of hatchery and naturally produced fish on spawning grounds.
- Number of hatchery and naturally produced fish taken for broodstock.
- Number of hatchery and naturally produced fish taken in harvest (if recruitment is to the Columbia).

Derived Variables:

- NORs (number of naturally produced recruits (total recruits) by brood year for both naturally produced parents and hatchery parents ($\geq \text{age-3}$)).
- NRRs (calculated as NORs/spawner).
- May include ratio or difference scores of NRRs (requires reference area).

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data; i.e., 5-year mean of annual change).
- H_{01} will be used for both temporal scales.

Statistical Analysis:

- Two-sample t-test (other tests may include RIA, ARIMA, or other tests) to evaluate difference scores or ratios over time (initial 5-year period).

- On a five-year period analyze brood years for patterns that correlate with extraneous factors such as ocean conditions.
 - The testing is appropriate if populations are below carrying capacity and density-dependent factors are not regulating the populations at high spawner abundances.

Analytical Rules:

- This is a productivity indicator that will be used to assess the success of the supplementation program.
- Type I Error of 0.05.
- Interim analytical rules will be based on effect sizes reported in Table 1.

Objective 2: Determine if the run timing, spawn timing, and spawning distribution of both the natural and hatchery components of the target population are similar.

Inherent in the supplementation strategy is that hatchery and naturally produced fish are intended to spawn together and in similar locations. Run timing, spawn timing, and spawning distribution may be affected through the hatchery environment (i.e., domestication). If supplemented fish are not fully integrated into the naturally produced spawning population, the goals of supplementation may not be achieved. Hatchery adults that migrate at different times than naturally produced fish may be subject to differential survival. Hatchery adults that spawn at different times or locations than naturally produced fish would not be integrated into the naturally produced spawning population (i.e., segregated stock).

2.1 Migration Timing (*Monitoring Indicator*)

Monitoring Questions:

Q1: Is the migration timing of hatchery and naturally produced fish from the same age class similar?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 2.1:

- Ho: Migration timing_{Hatchery Age X} = Migration timing_{Naturally produced Age X}
- Ha: Migration timing_{Hatchery Age X} ≠ Migration timing_{Naturally produced Age X}

Measured Variables:

- Ages of hatchery and naturally produced fish sampled via pit tags or stock assessment monitoring.
- Time (Julian date) of arrival at Bonneville, Priest Rapids, Wells, and within tributaries (e.g., Tumwater, Dryden, weirs).

Derived Variables:

- Mean Julian date for a given age class.

Spatial/Temporal Scale:

- Analyzed annually based on return year and age class.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- ANOVA by age and origin

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

2.2 Timing of Spawning (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the timing of spawning (measured as the time female salmon carcasses are observed) similar for hatchery and naturally produced fish? (Timing of spawning of hatchery and naturally produced steelhead may be evaluated if marking or tagging efforts provide reasonable results)

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 2.2:

- Ho: Spawn timing_{Hatchery} = Spawn timing_{Naturally produced}
- Ha: Spawn timing_{Hatchery} ≠ Spawn timing_{Naturally produced}

Measured Variables:

- Time (Julian date) of hatchery and naturally produced salmon carcasses observed on spawning grounds within defined reaches.
- Time (Julian date) of ripeness of steelhead captured for broodstock.

Derived Variables:

- Mean Julian date.
- Elevations (covariate)

Spatial/Temporal Scale:

- Analyzed annually based on return year.

- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- ANOVA by sex and location

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

2.3 Distribution of Redds (*Monitoring Indicator*)

Monitoring Questions:

Q1: Is the distribution of redds similar for hatchery and naturally produced fish?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 2.3:

- H_0 : Redd distribution_{Hatchery} = Redd distribution_{Naturally produced}
- H_a : Redd distribution_{Hatchery} \neq Redd distribution_{Naturally produced}

Measured Variables:

- Location (GPS coordinate) of female salmon carcasses observed on spawning grounds. (The distribution of hatchery and naturally produced steelhead redds may be evaluated if marking or tagging efforts provide reasonable results)

Derived Variables:

- Location of female salmon carcass in Rkm (0.01).
- Calculate percent overlap in distribution across available spawning habitat.

Spatial/Temporal Scale:

- Analyzed annually based on return year (ANOVA).
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- ANOVA by origin and sex

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

Objective 3: Determine if genetic diversity, population structure, and effective population size have changed in natural spawning populations as a result of the hatchery program. Additionally, determine if hatchery programs have caused changes in phenotypic characteristics of natural populations.

The genetic component of the M&E Plan specifically addresses the long-term fitness of supplemented populations. Fitness, or the ability of individuals to survive and pass on their genes to the next generation in a given environment, includes genetic, physiological, and behavioral components.⁵ Maintaining the long-term fitness of supplemented populations requires a comprehensive evaluation of genetic and phenotypic characteristics. Evaluation of some phenotypic traits (i.e., run timing, spawn timing, spawning location, and stray rates) is addressed under other objectives.

Assessing the genetic component of the hatchery program does not require annual sampling. Meeting stray-rate targets (hypotheses tested under Objective 5) should prevent significant changes in population genetics. Therefore, testing statistical hypotheses associated with genetic components (Hypotheses 3.1, 3.2, and 3.3) should be conducted every three to five years, depending on the type of hatchery program. More frequent genetic sampling may be necessary if actual stray rates exceed targets.

3.1 Allele Frequency (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the allele frequency of hatchery fish similar to the allele frequency of naturally produced and donor fish?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 3.1:

- H_0 : Allele frequency_{Hatchery} = Allele frequency_{Naturally produced} = Allele frequency_{Donor pop.}

⁵ These metrics are difficult to measure, and phenotypic expression of these traits may be all we can measure and evaluate.

- H_a : Allele frequency_{Hatchery} \neq Allele frequency_{Naturally produced} = Allele frequency_{Donor pop.} or
- H_a : Allele frequency_{Hatchery} = Allele frequency_{Naturally produced} \neq Allele frequency_{Donor pop.} or
- H_a : Allele frequency_{Hatchery} \neq Allele frequency_{Naturally produced} \neq Allele frequency_{Donor pop.}

Measured Variables:

- Microsatellite genotypes

Derived Variables:

- Allele frequency

Spatial/Temporal Scale:

- Analyze as a time series, initially comparing pre- and post-hatchery samples and thereafter every 3-5 years.
- Compare samples within drainages.

Statistical Analysis:

- Population differentiation tests, analysis of molecular variance (AMOVA), and relative genetic distances.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

3.2 Genetic Distances Between Populations (*Monitoring Indicator*)

Monitoring Questions:

Q1: Does the genetic distance among subpopulations within a supplemented population remain the same over time?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 3.2:

- H_o : Genetic distance between subpopulations_{Year x} = Genetic distance between subpopulations_{Year y}
- H_a : Genetic distance between subpopulations_{Year x} \neq Genetic distance between subpopulations_{Year y}

Measured Variables:

- Microsatellite genotypes

Derived Variables:

- Allele frequencies

Spatial/Temporal Scale:

- Analyze as a time series, initially comparing pre- and post-hatchery samples and thereafter every 3-5 years.
- Compare samples among drainages.

Statistical Analysis:

- Population differentiation tests, AMOVA, and relative genetic distances.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

3.3 Effective Spawning Population (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the ratio of effective population size (N_e) to spawning population size (N) constant over time?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 3.3:

- $H_0: (N_e/N)_{t0} = (N_e/N)_{t1}$ for each population
- $H_a: (N_e/N)_{t0} \neq (N_e/N)_{t1}$ for each population

Measured Variables:

- Microsatellite genotypes

Derived Variables:

- Allele frequencies

Spatial/Temporal Scale:

- Analyze as a time series, initially comparing pre- and post-hatchery samples and thereafter every 3-5 years.
- Compare samples among drainages.

Statistical Analysis:

- Population differentiation tests, relative genetic distances, statistics to calculate effective population size (e.g., harmonic means).

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

3.4 Age at Maturity (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the age at maturity of hatchery and naturally produced fish similar?

Target Species/Populations:

- Q1 applies to all supplemented species and populations.

Hypothesis 3.4:

- H_0 : Age at Maturity_{Hatchery} = Age at Maturity_{Naturally produced}
- H_a : Age at Maturity_{Hatchery} \neq Age at Maturity_{Naturally produced}

Measured Variables:

- Age of hatchery and naturally produced salmon carcasses collected on spawning grounds.
- Age of broodstock.
- Age of fish at stock assessment locations (e.g., Dryden, Tumwater, Wells, Priest Rapids).

Derived Variables:

- Saltwater ages

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- Chi-square or ANOVA by origin and gender.
 - Whenever possible age at maturity will be measured at weirs or dams near the spawning stream to avoid the size-related carcass recovery bias on spawning grounds (carcass sampling).

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

3.5 Size at Maturity (*Monitoring Indicator*)

Monitoring Questions:

- Q1:** Is the size (length) at maturity of a given age and sex of hatchery fish similar to the size at maturity of a given age and sex of naturally produced fish?

Target Species/Populations:

- Q1 applies to all species and populations.

Hypothesis 3.5:

- Ho: Size (length) at Maturity _{Hatchery Age X and Gender Y} = Size (length) at Maturity _{Naturally produced Age X and Gender Y}
- Ha: Size (length) at Maturity by age and gender _{Hatchery} ≠ Size (length) at Maturity by age and gender _{Naturally produced}

Measured Variables:

- Size (length), age, and gender of hatchery and naturally produced salmon carcasses collected on spawning grounds.
- Size (length), age, and gender of broodstock.
- Size (length), age, and gender of fish at stock assessment locations (e.g., Dryden, Tumwater, Wells, Priest Rapids).

Derived Variables:

- Calculate total age and saltwater age

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- ANOVA by origin, gender, and age

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

Objective 4: Determine if the hatchery adult-to-adult survival (i.e., hatchery replacement rate) is greater than the natural adult-to-adult survival (i.e., natural replacement rate) and equal to or greater than the program specific HRR expected value based on survival rates listed in the BAMP (1998).

The survival advantage from the hatchery (i.e., egg-to-smolt) must be sufficient to overcome the survival disadvantage after release (i.e., smolt-to-adult) in order to produce a greater number of returning adults than if broodstock were left to spawn naturally. If a hatchery program cannot produce a greater number of adults than naturally spawning fish the program should be modified or discontinued. Production levels were initially developed using historical run sizes and smolt-to-adult survival rates (BAMP 1998). Using the stock specific NRR and the values listed in the BAMP, comparisons to actual survival rates will be made to ensure the expected level of survival has been achieved.

4.1 Hatchery Replacement Rates (HRRs) (*Monitoring Indicator*)

Monitoring Questions:

- Q1:** Is the adult-to-adult survival rate of hatchery fish (HRR) greater than or equal to the adult-to-adult survival rate (NRR) of naturally produced fish?
- Q2:** Is the adult-to-adult survival rate of hatchery fish (HRR) greater than or equal to the value in BAMP (Table 6 in Appendix D; includes sum of adults harvested, taken for broodstock, and adults on spawning grounds)?

Target Species/Populations:

- Q1 applies to all species and populations.
- Q2 applies to all species and populations.

Hypothesis 4.1:

- H_{01} : $HRR_{Year\ x} \geq NRR_{Year\ x}$
- H_{a1} : $HRR_{Year\ x} < NRR_{Year\ x}$
- H_{02} : $HRR \geq \text{BAMP value (preferred)}$
- H_{a2} : $HRR < \text{BAMP value}$

Measured Variables:

- Number of hatchery and naturally produced fish on spawning grounds
- Number of hatchery and naturally produced fish harvested
- Number of hatchery and naturally produced fish collected for broodstock.
- Number of broodstock used by brood year (hatchery and naturally produced fish).

Derived Variables:

- Number of hatchery and naturally produced adults by brood year ($\geq \text{age-3}$).
- HRR (number of returning adults per brood year/broodstock)
- NRR (from above)

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period but include pre-2006 data to the extent possible).

Statistical Analysis:

- For Q1 a two-sample t-test to compare HRR to NRR
- For Q2 a one-sample t-test to evaluate HRR.
- On a five-year period analyze brood years for patterns that correlate with extraneous factors such as ocean conditions.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

Objective 5: Determine if the stray rate of hatchery fish is below the acceptable levels to maintain genetic variation between stocks.

Maintaining locally adapted traits of fish populations requires that returning hatchery fish have a high rate of site fidelity to the target stream. Hatchery practices (e.g., rearing and acclimation water source, release methodology, and location) are the main variables thought to affect stray rates. Regardless of the adult returns, if adult hatchery fish do not contribute to the donor population the program will not meet the basic condition of a supplementation program. Fish that do stray to other independent populations should not comprise greater than 5% of the spawning population. Likewise, fish that stray within an independent population should not comprise greater than 10% of the spawning population.

5.1 Stray Rates among Populations for Brood Return (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the stray rate of hatchery fish less than 5% for the total brood return?

Target Species/Populations:

- Q1 applies to all species and populations.

Hypothesis 5.1:

- Ho: Stray rate_{Hatchery fish} \geq 5% of total brood return
- Ha: Stray rate_{Hatchery fish} $<$ 5% of total brood return

Measured Variables:

- Number of hatchery carcasses found in non-target and target spawning areas.
- Number of hatchery fish collected for broodstock.
- Number of hatchery fish taken in fishery.

Derived Variables:

- Hatchery carcasses and take in fishery estimated from expansion analysis.
- Locations of live and dead strays (used to tease out overshoot).

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- A simple statistical approach is to use a one-sample t-test to compare the actual stray rate with the target (5%) stray rate.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

5.2 Stray Rates among Populations for Return Year (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the stray rate of hatchery fish less than 5% of the spawning escapement within other independent populations?

Target Species/Populations:

- Q1 applies to all species and populations.

Hypothesis 5.2:

- Ho: Stray hatchery fish \geq 5% of spawning escapement (based on run year) within other independent populations
- Ha: Stray hatchery fish $<$ 5% of spawning escapement (based on run year) within other independent populations⁶

⁶ This stray rate is suggested based on a literature review and recommendations by the ICTRT. It can be re-evaluated as more information on naturally-produced Upper Columbia salmonids becomes available. This will be evaluated on a species and program specific basis and decisions made by the HCP HC. It is important to understand the actual spawner composition of the population to determine the potential effect of straying.

Measured Variables:

- Number of hatchery carcasses (PIT tagged steelhead) found in non-target and target spawning areas.

Derived Variables:

- Hatchery salmon carcasses (PIT tagged steelhead) estimated from expansion analysis.

Spatial/Temporal Scale:

- Analyzed annually based on return year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- A simple statistical approach is to use a one-sample t-test to compare the actual proportion of strays with the target of 5% strays

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

5.3 Stray Rates within the Population (*Monitoring Indicator*)**Monitoring Questions:**

- Q1:** Is the stray rate of hatchery fish less than 10%⁷ of the spawning escapement within other spawning aggregations within the target independent population?

Target Species/Populations:

- Q1 applies to all species and populations.

Hypothesis 5.3:

- Ho: Stray hatchery fish \geq 10% of spawning escapement (based on run year) of any non-target streams within independent population
- Ha: Stray hatchery fish $<$ 10% of spawning escapement (based on run year) of any non-target streams within independent population

Measured Variables:

- Number of hatchery carcasses (possibly PIT tagged steelhead) found in non-target and target spawning aggregates.

⁷ This value should be reviewed annually by the Hatchery Committee. See footnote 5 for additional information.

Derived Variables:

- Hatchery salmon carcasses (possibly PIT tagged steelhead) estimated from expansion analysis.

Spatial/Temporal Scale:

- Analyzed annually based on return year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- A simple statistical approach is to use a one-sample t-test to compare the actual proportion of strays with the target of 10% strays.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

Objective 6: Determine if hatchery fish were released at the programmed size and number.

The HCP outlines the number and size of fish that are to be released to meet NNI compensation levels. Although many factors can influence both the size and number of fish released, past hatchery cultural experience with these stocks should assist in meeting program production levels.

6.1 Size of Hatchery Fish (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the size of hatchery fish released equal to the program goal?

Target Species/Populations:

- Q1 applies to all species and populations.

Hypothesis 6.1:

- Ho: Hatchery fish _{Size at release} = Programmed _{Size}
- Ha: Hatchery fish _{Size at release} ≠ Programmed _{Size}

Measured Variables:

- Length and weights of random samples of hatchery smolts.

Derived Variables:

- CVs.

Spatial/Temporal Scale:

- Analyzed annually.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- A simple statistical approach is to use a one-sample t-test to compare the actual size of hatchery fish at time of release with the program goal.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

6.2 Number of Hatchery Fish (*Monitoring Indicator*)**Monitoring Questions:**

Q1: Is the number of hatchery fish released equal to the program goal?

Target Species/Populations:

- Q1 applies to all species and populations.

Hypothesis 6.2:

- Ho: Hatchery fish _{Number} = Programmed _{Number}
- Ha: Hatchery fish _{Number} ≠ Programmed _{Number}

Measured Variables:

- Numbers of smolts released from the hatchery.

Derived Variables:

- NA

Spatial/Temporal Scale:

- Review annually.

Statistical Analysis:

- No statistical analysis needed.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- No statistical analysis is necessary.

Objective 7: Determine if the proportion of hatchery fish on the spawning grounds affects the freshwater productivity (i.e., number of smolts per redd) of supplemented streams when compared to non-supplemented streams.

Out-of-basin effects (e.g., smolt passage through the hydro system and ocean productivity) have a strong influence on survival of smolts after they migrate from the tributaries. These effects introduce substantial variability into the adult-to-adult survival rates (NRR and HRR), which may mask in-basin effects (e.g., habitat quality, density related mortality, and differential reproductive success of hatchery and naturally produced fish). The objective of long-term smolt monitoring programs in the Upper Columbia ESU is to determine the egg-to-smolt or egg-to-juvenile survival of target stocks. Smolt production models generated from the information obtained through these programs will provide a level of predictability with greater sensitivity to in-basin effects than spawner-recruitment models that take into account all effects.

Differences in carrying capacities of supplemented and non-supplemented streams can confound the effects of supplementation on numbers of juveniles per redd. For example, if the supplemented population is at or above carrying capacity and the non-supplemented population is not, numbers of juveniles per redd in the non-supplemented population may be significantly greater than the number of juveniles per redd in the supplemented population. To avoid concluding that the supplementation program has no effect or perhaps a negative effect on juveniles per redd, the capacity of the habitats must be included in the analyses. The Supplementary Hypotheses are designed to address the confounding effects of different densities on the analyses.

7.1 Juvenile Productivity (*Productivity Indicator*)

Monitoring Questions:

- Q1:** Is the change in numbers of juveniles (smolts, parr, or emigrants) per redd in the supplemented population greater than or equal to that in the non-supplemented population?
- Q2:** Does the number of juveniles per redd decrease as the proportion of hatchery spawners increases?⁸

Target Species/Populations:

- Q1 applies to all supplemented species and populations (depending on reference areas).
- Q2 applies to all supplemented species and populations.

⁸ Information is needed to estimate the effects of density dependence on these questions.

Hypothesis 7.1:

- H_{01} : Slope of $\ln(\text{juveniles}/\text{redd})$ vs redds Supplemented population = Slope of $\ln(\text{juveniles}/\text{redd})$ vs redds Non-supplemented population
- H_{a1} : Slope of $\ln(\text{juveniles}/\text{redd})$ vs redds Supplemented population \neq Slope of $\ln(\text{juveniles}/\text{redd})$ vs redds Non-supplemented population
- H_{02} : The relationship between proportion of hatchery spawners and juveniles/redd is ≥ 1 .
- H_{a2} : The relationship between proportion of hatchery spawners and juveniles/redd is < 1 .

Measured Variables:

- Number of hatchery and naturally produced fish on spawning grounds.
- Numbers of redds.
- Number of juveniles (smolts, parr [not appropriate for all populations], and emigrants).

Derived Variables:

- Number of juveniles per redd.

Spatial/Temporal Scale:

- Analyzed annually based on brood year.
- Analyze as a time series (initially as a 5-year period and to the extent possible use pre-2006 data).

Statistical Analysis:

- Two-sample t-test to evaluate differences between treatment and reference slopes (initial 5-year period).
- Regression analysis to examine relationships between hatchery adult composition and juveniles/redd.

Analytical Rules:

- This is a productivity indicator that will be used to assess the success of the supplementation program.
- Type I Error of 0.05.
- Interim decisions will be based on effect sizes reported in Table 1.

Objective 8: Determine if harvest opportunities have been provided using hatchery returning adults where appropriate (e.g., Turtle Rock program).

In years when the expected returns of hatchery adults are above the level required to meet program goals (i.e., supplementation of spawning populations and/or brood stock requirements), surplus fish may be available for harvest (i.e., target population). The M&E Plan specifically addresses harvest and harvest opportunities upstream from Priest Rapids Dam. Harvest or removal of surplus hatchery fish from the spawning grounds would also assist in reducing potential

adverse genetic impacts to naturally produced populations (loss of genetic variation within and between populations).

8.1 Harvest Rates (*Monitoring Indicator*)

Monitoring Questions:

- Q1:** Is the harvest on hatchery fish produced from harvest-augmentation programs high enough to manage natural spawning but low enough to sustain the hatchery program?
- Q2:** Is the escapement of fish from supplementation programs in excess of broodstock and natural production⁹ needs to provide opportunities for terminal harvest?

Target Species/Populations:

- Q1 applies to summer Chinook reared at Turtle Rock.
- Q2 applies to all supplemented stocks.

Hypothesis 8.1:

- H_{01} : Harvest rate \leq Maximum level to meet program goals
- H_{a1} : Harvest rate $>$ Maximum level to meet program goals
- H_{02} : Escapement \leq Maximum level to meet supplementation goals
- H_{a2} : Escapement $>$ Maximum level to meet supplementation goals

Measured Variables:

- Numbers of hatchery fish taken in harvest.

Derived Variables:

- Total harvest by fishery estimated from expansion analysis.

Spatial/Temporal Scale:

- Reviewed annually.

Statistical Analysis:

- A one-sample t-test can be used to compare harvest rates with the level needed for program goals.

Analytical Rules:

- This is a monitoring indicator that will be used to support management decisions.
- Type I Error of 0.05.
- Effect sizes will be reported annually.

⁹ At this time, the escapement of adults needed to fully seed habitat in the Upper Columbia is unknown.

Regional Objectives

Hatchery programs have the potential to increase diseases that typically occur at low levels in the natural environment (Objective 9). In addition, hatchery fish can reduce the abundance, size, or distribution of non-target taxa through ecological interactions (Objective 10). These are important objectives that will be monitored at a later time. Analytical rules will be established for these objectives before monitoring activities begin.

Adaptively Managing Monitoring Results

Because of naturally large variation in productivity indicators, several years of data may be required before statistical inferences can be made regarding the effects of hatchery fish on productivity of naturally produced fish. Furthermore, given the large natural variation of productivity indicators, productivity could decrease as a result of the hatchery programs before a difference is detected statistically. In the interim, risk associated with supplementation programs and the productivity of naturally produced fish can be quantified based on observed natural variation in the indicator of interest (Table 1). If large differences in rates of change between supplemented and reference populations are observed, management actions may be required earlier than anticipated (every five years).

Assuming hatchery programs do not negatively affect the productivity of naturally produced fish, the observed difference in rates of change between the supplemented and reference populations should decrease over time as more of the natural variation within and between populations is incorporated into these data. More simply, as the number of years increases, the acceptable observed difference in the indicator(s) decreases. The value of the difference at any point in time would determine if management actions are warranted.

Table 1. Average differences between supplemented and reference conditions that represent different levels of management concerns. Large differences (red) indicate the need for relatively quick management changes, moderate differences (yellow) indicate that indicators need to be reviewed carefully before making management changes, and small differences (green) indicate that management changes are not currently necessary. Average differences corresponding to each level of concern are scaled to reflect the increasing risk associated with multiple brood years that show differences between supplemented and reference conditions. These differences are currently based on the temporal variability associated with each productivity indicator and will change as more information becomes available (i.e., information on the variability in difference scores between treatment and reference conditions).

Indicator	Number of Brood Years	No Concern	Warning	Concern
NRR	1	0-50%	51-100%	>100%
	2	0-40%	41-80%	>80%
	3	0-30%	31-60%	>60%
	4	0-20%	21-40%	>40%
	5	0-10%	11-20%	>20%
NOR	1	0-50%	51-100%	>100%
	2	0-40%	41-80%	>80%
	3	0-30%	31-60%	>60%
	4	0-20%	21-40%	>40%
	5	0-10%	11-20%	>20%
Juv/Redd	1	0-100%	101-200%	>200%
	2	0-80%	81-160%	>160%
	3	0-70%	71-140%	>140%
	4	0-60%	61-120%	>120%
	5	0-50%	51-100%	>100%

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Steve Hays, and Tom Kahler

Date: October 26, 2006

Re: Final Minutes of October 5, 2006 HCP Rocky Reach and Rock Island Hatchery Committees Conference Call

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Tuesday, October 5, 2006 from 1:30 pm to 2:30 pm to discuss the Chelan PUD preliminary estimates of 2013 production levels for use in facility planning for Wenatchee steelhead and Chelan Falls Chinook salmon production. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- There were no Action Items at this meeting.

I Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by stating that the purpose of today's call was to review Chelan PUD's preliminary estimates of 2013 production levels for use in facility planning for the Chelan Falls Chinook program and the Wenatchee steelhead facilities on the Chiwawa River. The Colville Tribes and Yakama Nation were unable to join this call, and Mike Schiewe will get in touch with them after the call. Attendees are listed in Attachment A to these Call Minutes.

II Chelan PUD Preliminary Estimates of 2013 Production Levels For Use in Facility Planning at Chelan Falls

Steve Hays introduced the discussion of the Chelan Falls Chinook rearing facilities by referring to the white paper that had been prepared and distributed at the last Hatchery Committees meeting. The white paper included a history of Chinook production by the PUD, summarized

recent run sizes and production levels, and discussed future uncertainties. Taking this information into account, Chelan PUD proposed to design the Chelan Falls facility for a maximum production of 600,000 yearling Chinook. Hayes indicated the PUD considered this to be an upper limit and fixed number that would be in effect through the life of the HCP; any future adjustment (either an increase or decrease) in the overall Chinook production would not occur at Chelan Falls, but would take place through changes in production numbers at one or more of the other Chinook production facilities. Kris Petersen and Kirk Truscott expressed concern that limiting program adjustments to rearing locations other than Chelan Falls might limit the options available for future efforts in supplementing natural production. The issue of how future program adjustments would be made was left unresolved, but there was general support expressed for a Chelan Falls facility that would support production of 600,000 yearling Chinook. Chelan PUD will draft a Statement of Agreement for the Hatchery Committees' action at the next meeting. The committee did agree that the adults that return from the 200,000 juveniles would be included in the calculations to determine smolt production values at the 10-year check-in points.

III Chiwawa Program

Steve Hays opened the discussion of the Wenatchee steelhead rearing facilities (proposed to be located at the existing Chiwawa Hatchery facility) by referring to the white paper that had been prepared and distributed at the last Hatchery Committees meeting. The white paper summarizes recent run sizes, smolt-to-adult return rates (SARs), and discusses future uncertainties. Based on this information (including an average SAR of 0.47), Chelan PUD is proposing a facility that would accommodate production of up to 450,000 fish. Hays noted that a production level of 450,000 smolts was greater than the 437,000 production level that would result if calculated today, based on current SAR estimates that do not account for lower-river harvest or elastomer tag loss. This bias would lead to an overestimate of the production level required. Kirk Truscott noted that the 0.47 average SAR used by Chelan PUD was perhaps a little high because eliminating the highest and lowest SARs would yield an average SAR of 0.34; this exercise would suggest that a higher production level might be required. At the same time, it was noted that NMFS had some concerns about limits on the number of steelhead to be released in the Wenatchee subbasin. It was clear that many factors needed to be considered in determining an appropriate production level to plan for, and the Committees discussed the need for more time to consider the options before the next meeting.

IV New Tumwater Dam Coils

The Committees discussed that they would like to review information at the next meeting regarding the new Tumwater Dam PIT-tag collection coils; Shaun Seaman verified that Thad Mosey will attend the next meeting to further explain the work.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Steve Hays	Chelan PUD
Shaun Seaman *	Chelan PUD
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Kris Petersen *	NMFS
Brian Cates *	USFWS
Kirk Truscott *	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Chuck Peven, Tom Kahler, Julie Pyper, Steve Hays, Keely Murdoch

Date: November 16, 2006

Re: Final Minutes of October 18, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on October 18, 2006, from 9:30 am to 4:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final September 20, 2006 Meeting Minutes and the October 5 Conference Call Minutes to the Hatchery Committees by email (Item I).
- Steve Hays will provide revised text to Ali Wick for the Statement of Agreement (SOA) on Production Levels for Chelan County PUD's Turtle Rock Summer Chinook Hatchery Program to be relocated to Chelan Falls (Item III-A).
- Steve Hays and Andrew Murdoch will revise the Steelhead Production White Paper to include Smolt-to-Adult Return Rates (SARs) for two additional brood years not previously reported, and to consider tag loss in estimating SARs. This will be provided to Ali Wick by end-of-day Monday, October 30, for distribution to the Committees (Item III-B).
- Ali Wick will send out conference call information for a call on Thursday, November 2, 1:30 pm to discuss the Hays/Murdoch memo and the Chelan PUD steelhead hatchery program (Item III-B).
- Chelan PUD, Douglas PUD, and the Yakama Nation will discuss with the Bonneville Power Administration (BPA) its schedule and intent for a decision to potentially provide long-term funding for the Yakama Nation coho program (Item IV).
- Washington Department of Fish and Wildlife (WDFW) and Chelan PUD will meet to discuss the path forward for ultrasound gender ID and will provide an update at the

next meeting, which may include meeting with RTR (Allen Evans) or Grant PUD to discuss this technique (Item VI-A).

- Kirk Truscott will provide to Ali Wick a brief memo from Bob Rogers (WDFW fish health specialist) regarding current and future pond allocations for these fish (Item VI-C).
- The Hatchery Evaluation Technical Team (HETT) will review and report back to the Hatchery Committees on the Yakama Nation proposal to Passive Integrated Transponder tag (PIT-tag) outmigrant Skaha Lake sockeye to estimate downstream survival. The HETT will specifically consider the relevance of this information to the Hatchery Monitoring and Evaluation (M&E) program (Item VII-A).
- Chuck Peven will develop and distribute the plan for implementing 2007 M&E activities in advance of the next meeting (by November 5) for approval at the next meeting (VIII-C).
- Kirk Truscott will provide information to Ali Wick on WDFW's statewide bull trout take authorization for the Committees information (Item X).
- Mike Schiewe will provide the bacterial kidney disease (BKD) Issue Paper to Truscott and then distribute it to the Hatchery Committees for their information. Following the distribution of this paper to the Hatchery Committees, Schiewe will bring this issue up to the Coordinating Committees for their information (Item XI-A).

DECISION ITEM SUMMARY

- The Committees approved the SOA on Production Levels for Chelan County PUD's Chelan Falls Summer Chinook Hatchery Facility as provided at the meeting with the revisions discussed at the meeting (Item III-A).

I Welcome and Meeting Minutes Approval

Mike Schiewe opened the meeting. The Committees approved the September 20, 2006 Meeting Minutes as revised for the meeting. For the October 5 Conference Call Minutes, Ali Wick will incorporate Chelan PUD's comments and will coordinate Committees review and approval by email. Attendees at the October 18, 2006 meeting are listed in Attachment A to these Meeting Minutes.

II Presentation by Ken Warheit, WDFW: Genetics

Ken Warheit of WDFW provided a presentation on genetic terminology, markers, and analyses; null models as relevant to the M&E program; and methods used to assign individuals to specific populations. Ali Wick will send out this presentation by email following the meeting. Ken's contact information is warhekiw@dfw.wa.gov or (360) 902-2595.

III DECISION POINT: Chelan PUD Statements of Agreement for Production Levels Related to Facility Planning

Mike Schiewe opened the discussion and introduced the Chelan PUD SOAs for production levels and facility planning for the Turtle Rock yearling summer Chinook program (to be located at Chelan Falls), and the Wenatchee steelhead program (to be located at the Chiwawa Rearing Ponds). Chelan PUD made some changes to the SOAs sent out prior to the meeting and provided hard copies for review at the meeting.

A. Statement of Agreement on Production Levels for Chelan PUD's Turtle Rock Summer Chinook Hatchery Program

The Committees approved the SOA as provided at the meeting with one revision discussed at the meeting. The revision was a clarifying statement that broodstock would continue to be collected at Wells Hatchery unless new information warranted a change; this revision was approved by the Hatchery Committee. Steve Hays will provide revised text to Ali Wick for the SOA, which will be amended to these minutes as final (*Attachment B*).

B. Statement of Agreement on Production Levels for Chelan County PUD's Steelhead Hatchery Program

The Committees discussed the proposed SOA, and requested that Steve Hays and Andrew Murdoch revise the Steelhead Production White Paper to include SARs for two additional brood years not previously reported, and to consider tag loss in estimating previous SARs. This will be provided to Ali Wick by the end-of-day Monday, October 30 for distribution to the Committees. Ali Wick will send out conference call information for a call on Thursday, November 2, 1:30 pm to discuss these. This SOA regarding Wenatchee steelhead production will be up for decision at the next meeting.

IV DECISION POINT: Coho Decision

Tom Scribner introduced this topic and noted that the Yakama Nation is asking the Committees to set the course of action for a coho decision to either: 1) defer the determination until a final BPA funding decision is made for 2007-2009; or 2) presume that funding will continue and move forward to assess program viability on that basis. The Committees were not yet prepared to make a decision today, and the decision will be considered at the next meeting. Before the next meeting, Chelan PUD, Douglas PUD, and the Yakama Nation will meet with the BPA to discuss BPA's schedule and intent for a decision to potentially provide long-term funding to the Yakama Nation coho program (Item IV).

V HETT Update

Kirk Truscott and Chuck Peven updated the Hatchery Committees that the HETT is currently working on the following topics:

- The HETT is considering means for considering tag loss when estimating steelhead SARs. One possibility would be applying both a PIT-tag and elastomer tag to verify the loss rate of elastomer tags.
- The HETT has sent the Grant PUD proposal for using reference condition instead of spatial reference locations for hatchery evaluation to Mike Ford at the National Marine Fisheries Service (NMFS) Northwest Fisheries Science Center for review.
- The HETT has started to discuss ways to address Objectives 9 (spread of disease) and 10 (effect on non-target taxa) of the Hatchery M&E Plan. The HETT has previously received some proposals that may help contribute to addressing these issues and will begin to discuss these at the next HETT meeting.
- HETT members are reviewing a proposal from Ben Lenz (Grant PUD) for evaluating adult spawner carrying capacity using geographic information system (GIS) and aerial photo interpretation in the White River or other streams. The HETT suggested that Lenz could improve the proposal by updating the background section with additional technical details, and describe how the results would be used in addressing the objectives of the Hatchery M&E program.

VI WDFW

A. Ultrasound Fish Gender ID Update

Kirk Truscott updated the Committees that he met with Chelan PUD to discuss funding for the use of ultrasound technology for identifying broodstock gender. WDFW and Chelan PUD will meet again in the next few weeks to discuss the path forward and will provide an update at the next meeting, which may include meeting with RTR (Allen Evans) or Grant PUD to discuss this technique.

B. Steelhead Broodstock Collection Update

Kirk Truscott updated the Committees that steelhead broodstock collection at Wells Dam had dropped off from last month, and that they may have difficulty meeting program goals for wild steelhead. If this is the case, WDFW will likely make up the shortfall with hatchery origin fish.

C. Methow Spring Chinook Update

Kirk Truscott updated the Committees that WDFW has about 122,000 extra eggs above program for the Methow program. Truscott will prepare a memo to the Committees explaining the path forward, which is that 60,000 fish will be transferred to U.S. Fish and Wildlife Service (USFWS) at Winthrop for their spring Chinook program and the remaining 62,000 will likely be early released; these have been transferred to Wells Hatchery for thermal otolith marking, which will ensure that they can be correctly identified as hatchery-origin fish when they return as adults. Truscott also indicated that the ponding capacity at the Methow Hatchery was currently only 500,000, instead of the expected 550,000.

The Committees discussed whether or to what degree facilities space at Methow Hatchery currently limits production when BKD levels are high. Tom Scribner expressed concern that program production goals are not being met in these situations. Rick Klinge questioned the assertion that ponding capacity was only 500,000, and wanted an explanation of how the facilities space is currently being allocated. Kirk Truscott expressed WDFW's position that unless the ELISA results are all below O.D. of 0.12 and stock composition is optimal (i.e. 33% Twisp and 67% MetComp.), the Methow Hatchery can not rear 550,000 smolts at the rearing density criteria utilized for other Chinook programs in the Upper Columbia River. Klinge questioned the basis of the 0.12 and 0.6 rearing densities, and also asked to review the documentation supporting the pond-allocation

decision. Kirk Truscott will provide to Ali Wick a brief memo from Bob Rogers regarding current and future pond allocations for these fish. Tom Scribner asked for an explanation regarding the reduced water availability at the hatchery, and Klinge explained that, for some reason—perhaps related to recent repairs to the water system—the hatchery well field was apparently producing less than the rated capacity, as reported by hatchery staff. Klinge indicated that he would be visiting the hatchery with the District’s well-maintenance contractor on October 25 to investigate the water-production shortfall.

VII Yakama Nation

A. M&E for Skaha Sockeye Program Update

Tom Scribner updated the Committees that he contacted representatives of the Okanagan Nation Alliance (ONA) regarding opportunities to monitor downstream survival of Skaha sockeye salmon. Scribner distributed a brief memo addressed to the Committees that discusses the Yakama Nation’s interest in these opportunities and some preliminary estimates of the numbers of fish that would need to be PIT-tagged. The Committees referred this issue to the HETT for review, and a recommendation on the how these data would contribute to meeting objectives of the Hatchery M&E program.

B. Skaha Sockeye Adult Holding/Spawning in U.S.

Tom Scribner indicated he will be contacting various parties (including Committees members) regarding the logistics and legal feasibility of collecting and spawning returning adult Skaha Lake sockeye at Wells Hatchery as a way to enhance and simplify broodstock collection.

C. Status of Updates at Dryden Dam

In response to questions regarding the Dryden facility, Shaun Seaman indicated that Mike Simpson (Chelan PUD Dryden facility supervisor) will be available after the meeting to discuss the status of facility modifications with WDFW and Yakama Nation staff.

VIII Updates: Chelan PUD

A. Temporary Budgetary Issues for the PUD

Shaun Seaman updated the Committees that Chelan PUD was engaged in a strategic planning exercise that was limiting funding to about 5 percent above the 2006 level. This

may affect funding for new items in 2007; in particular, it may affect the proposal for the new PIT-tag coil at Tumwater Dam. There is, however, a placeholder in for ultrasound gender ID work.

B. 2007 Hatchery Operations

Julie Pyper updated the Committees that Chelan PUD is currently considering 2007 hatchery operations, including staffing at Chiwawa Hatchery for the water warming operation. Chelan PUD is working with Rick Stilwater to involve WDFW in the PUD's planning process.

C. 2007 Hatchery M&E Plan

Julie Pyper updated the Committees that Chelan PUD is currently drafting the 2007 Hatchery M&E Implementation Plan. Chuck Peven will be distributing this plan in advance of the next meeting (by November 5) for acceptance at the next meeting. Kirk Truscott advised the Committees that there appears to be a scheduling inconsistency with approving the 2007 implementation plan in November 2006 and completing the year-end 2006 implementation plan review in early 2007. The concern is how the Committees can utilize information from the 2006 review to modify (if needed) the 2007 implementation plan if the 2007 plan is approved prior to the 2006 review.

D. Facilities Updates

Sam Dilly provided updates on a number of hatchery-related projects (details in a handout that was an attachment to the agenda), as follows:

- Chelan Hatchery Well Field Improvements
- Chiwawa Water Supply Warming Study
- Eastbank Adult Holding Pond and Spawning Structure Enclosure
- Chelan Falls Acclimation Facility
- Chelan Falls Resident Fish Hatchery Evaluation
- Similkameen Hatchery Water Supply Feasibility Study
- Eastbank Hatchery Adult Steelhead Holding Study
- Chiwawa Juvenile Steelhead Study
- Chemical Handling Improvements
- Similkameen Wastewater Improvements

- Hatchery Alarm System Analysis

Additionally, Shaun Seaman provided a preliminary concept drawing for installation of a PIT-tag detector at Tumwater Dam. Chelan will be sharing these proposed designs with Bryan Nordlund (NMFS) and Bruce Heiner (WDFW) for their review and input.

Kirk Truscott requested that Chelan PUD include Art Viola (WDFW Area Fisheries Biologist) in discussions/plans associated with the Chelan Hatchery Well Field Improvements and Chelan Falls Resident Fish Hatchery Evaluation.

IX Updates: Douglas PUD

A. Construction Updates: Wells Hatchery Screens and Twisp Weir Designs

Tom Kahler updated the Committees that Douglas PUD is conducting a value engineering review of design options for the new Wells Hatchery Intake Screens. Rick Klinge updated the Committees that the Twisp Weir designs have been evaluated and commented on by Bryan Nordlund (NMFS). Once the designs have been finalized, Douglas PUD may request immediate concurrence from the Committees, either by conference call or by email so as to proceed with construction this winter.

B. Methow Hatchery Reports for 2005 to a 30-day Review Period

Rick Klinge noted that Ali Wick sent these documents (*Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005* and *Spring Chinook Spawning Ground Surveys in the Methow River Basin in 2005*) out to the Committees for review; Klinge asked that the Committees consider a shortened 30-day review period for these reports. The Committees agreed that this review period will be adequate; these reports will thus be up for approval at the next meeting.

C. Draft Scope of Work for Hatchery Evaluation Projects out for Review

Rick Klinge updated the Committees that Douglas PUD has provided to the Committees a draft scope of work from WDFW for the 2007 Hatchery M&E program. This item will be up for acceptance at the next meeting.

X Bull Trout Consultation on Potential Hatchery Entiat River Spring Chinook Fishery

Brian Cates updated Kris Petersen that her USFWS contact for discussions on the bull trout consultation for a potential hatchery Entiat River spring Chinook fishery will be Jessica Gonzalez (USFWS); Gonzalez reported to Cates that she has not yet seen any proposed regulation changes for the proposed fisheries in the Entiat. Kirk Truscott noted that he will provide information to Ali Wick on bull trout authorization statewide, for the Committees information.

XI Other Items

A. BKD Issue Paper Update

Mike Schiewe noted that the BKD Issue Paper (a collaborative effort between himself, Kirk Truscott, and Kris Petersen) is nearing completion. Schiewe will provide this to Truscott for a final look and then distribute it to the Hatchery Committees for their information. Following the distribution of this paper to the Hatchery Committees, Schiewe will bring this issue up to the Coordinating Committees for their information, and then it may go to the Policy Committees for their discussion at the December 14 Policy Committees meeting.

B. Surplus Fish Issues

Mike Schiewe noted that the Coordinating Committees agreed that, from an HCP perspective, the Joint Fisheries Parties (JFP) are the correct group to develop a policy regarding the allocation of surplus fish at hatcheries. However, Kirk Truscott indicated that recent discussions within WDFW suggested that WDFW was not ready to agree to this arrangement, and that further discussions among the JFP will need to occur. Schiewe mentioned to the JFP that the Hatchery Committees would definitely like to see this resolved within the next year.

C. Future Meeting Schedule

- Wednesday, November 15, 2006, at Chelan PUD in Wenatchee.
- Wednesday, December 13, 2006, at the Radisson Gateway Hotel in SeaTac.
- Wednesday, January 17, 2007, at the Radisson Gateway Hotel in SeaTac

List of Attachments

Attachment A – List of Attendees

Attachment B – Final Statement of Agreement for Production Levels for Chelan PUD's Turtle
Rock Summer Chinook Hatchery Program

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Steve Hays	Chelan PUD
Sam Dilly	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Russell Langshaw	Grant PUD
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Andrew Murdoch	WDFW
Ken Warheit	WDFW
Keely Murdoch	Yakama Nation
Tom Scribner *	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

**FINAL STATEMENT OF AGREEMENT FOR PRODUCTION
LEVELS FOR CHELAN PUD'S TURTLE ROCK SUMMER
CHINOOK HATCHERY PROGRAM**

Rocky Reach and Rock Island HCP Hatchery Committees
Statement of Agreement on Production Levels for
Chelan County PUD's Turtle Rock Summer Chinook Hatchery Program
October 18th, 2006

Statement

The HCP Hatchery Committee (HC) agrees that the hatchery production levels to be raised at the new facility at Chelan Falls shall not exceed 600,000 yearling summer Chinook, 400,000 for original inundation and no greater than 200,000 for Rocky Reach passage losses. The HC agrees that broodstock collection, holding and spawning for the Chelan Falls facility will continue to be conducted at Wells Hatchery, unless the HCP HC agrees in the future that new information warrants a change.

Background

At the May 17, 2006 meeting, the HCP HC agreed to change the current Turtle Rock summer Chinook program from approximately 1.6 million sub yearlings to 400,000 yearlings, raised at a new facility at Chelan Falls. In addition, there is currently a component of the Turtle Rock Island hatchery program that can be adjusted beginning in 2013. The current production level for the adjustable component of the program is 200,000 fish.

Since this is primarily a harvest augmentation program, which most likely will supplement a limited spawning habitat (being constructed in the lower Chelan River under the new license), it seems reasonable that the production from this facility should be capped at 600,000 yearling Chinook. Further, since this program is not designed to supplement an existing locally adapted population, the broodstock for this program will be collected and spawning will be conducted at the Wells Hatchery, unless the HCP HC agrees in the future that new information warrants a change in broodstock source. Carcass surveys at the Chelan River confluence have consistently shown that the majority of Chinook spawning at this location are of hatchery origin, predominately of Wells stock released from Wells Hatchery and Turtle Rock.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Steve Hays, Julie Pyper, Tom Kahler, Keely Murdoch, Andrew Murdoch

Date: November 27, 2006

Re: Final Minutes of November 2, 2006 HCP Rocky Reach and Rock Island Hatchery Committees Conference Call

The Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Thursday, November 2, 2006 from 1:30 pm to 2:30 pm to discuss Wenatchee River steelhead Smolt-to-Adult Returns (SARs). Steve Hays (Chelan PUD) and Andrew Murdoch (WDFW) analyzed steelhead return data for the 2001 and 2002 brood years to supplement previously available information. They also revised some the earlier SAR estimates for previous years by adjusting for tag loss. The new and revised SARs will be used to revise the Steelhead Production White Paper that is the background for a proposed Statement of Agreement on the facility capacity for the new steelhead over-winter acclimation ponds planned for construction at the site of the Chiwawa Rearing Ponds.

Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- There were no Action Items at this meeting.

I Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by stating that the purpose of today's call was to review Chelan PUD's memorandum on steelhead SARs. Attendees are listed in Attachment A to these Call Minutes.

II Steelhead SAR Memo

Steve Hays summarized the new and revised SAR data for Wenatchee steelhead. Hays noted that Andrew Murdoch had developed the estimates shown in the table of SARs, and that the entire data set was potentially useful for a variety of additional analyses. The new 5-year geometric mean SAR (adjusted for tag loss) is 0.66%, compared to the previous estimate of 0.35%. The arithmetic average of SARs for all brood years with estimates (1996 – 2002) increased from 0.48% to 1.21%. The memo concluded that future production would not likely need to exceed 450,000 smolts (Attachment B). Committee members discussed these new data and generally agreed that these were the appropriate SAR estimates to use in the facility design process. Although the revised SARs indicate that future (post 2013) mitigation production levels may be less than 450,000 smolts, WDFW cautioned against downsizing the facility to only the level associated with the revised SARs because recent SARs and early adult returns from the most recent juvenile releases indicate a possibility of reduced SARs through 2013.

Shaun Seaman updated the Committees that Chelan PUD is currently engaged in discussions with landowners, Chelan County, and the U.S. Forest Service to work out space and location issues and possible constraints at the proposed Chiwawa Ponds site. The PUD will be continuing these discussions to ensure that plans for facilities are consistent with this SAR analysis and the concerns of the permitting agencies and stakeholders near the hatchery. Chelan PUD will likely have a Statement of Agreement by the end of the year for this item.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Steve Hays	Chelan PUD
Shaun Seaman *	Chelan PUD
Julie Pyper	Chelan PUD
Tom Kahler	Douglas PUD
Rick Klinge *	Douglas PUD
Kris Petersen *	NMFS
Brian Cates *	USFWS
Andrew Murdoch	WDFW
Kirk Truscott *	WDFW
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Chuck Peven, Julie Pyper, Steve Hays, and Keely Murdoch

Date: December 15, 2006

Re: Final Minutes of November 15, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at Chelan PUD in Wenatchee, Washington, on November 15, 2006, from 9:30 am to 4:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final October 18, 2006 Meeting Minutes and will route the November 2, 2006 Conference Call Minutes to the Hatchery Committees for approval by email (Item I).
- Rick Klinge will send Ali Wick several Statements of Agreement for the Douglas PUD Decision Items (Item II).
- Rick Klinge will send out the final Wells Hatchery surface water screen designs by email along with a Statement of Agreement for email approval (Item II-D).
- Kirk Truscott will email Ali Wick by November 22 with his concurrence for the 2007 Chelan PUD Hatchery M&E Implementation Plan (Item III-A).
- Chuck Peven will test the sensitivity of the area-under-the-curve (AUC) method for estimating spawner numbers to a range of stream life estimates for sockeye salmon; this analysis will be included in the 2007 Chelan PUD Hatchery Monitoring and Evaluation (M&E) Implementation Plan. Peven will also add a comparison between the spawning escapement estimates from spawner surveys and Tumwater Dam counts in 2004-2005 (Item III-A).
- The joint Endangered Species Act (ESA) permit-holders (Washington Department of Fish and Wildlife [WDFW], Douglas PUD, and Chelan PUD) for the HCP hatchery programs will meet with National Marine Fisheries Service (NMFS) to coordinate the

2006 M&E Report timelines with permit reporting; Julie Pyper will take the lead on this action (Item III-A).

- Ali Wick will route the amended Statement of Agreement for the Operation of Chelan PUD's Chelan Falls summer Chinook Hatchery Program to the Hatchery Committees for email approval (Item III-B).
- The Hatchery Evaluation Technical Team (HETT) will evaluate minimum ad-clip marked sample sizes needed to evaluate summer Chinook released from Eastbank in 2006-2007 and the effects of less than 100 percent marking (Item IV-B).
- For the January meeting, Kirk Truscott will prepare a briefing memo on the production capacity of spring Chinook at the Methow Hatchery, as well as information on projected 2006 production levels (Item IV-C).
- Chuck Peven will follow up with Allen Evans of RTR to find out the lead time on procuring ultrasound units for use in fish gender ID (Item IV-A).
- Kirk Truscott will prepare and provide to the Hatchery Committees a memo by November 29 that outlines potential WDFW actions to acquire additional steelhead broodstock for the Wells program (Item V-B).
- The Hatchery Committees will provide any comment to the draft Policy Committees agenda and bacterial kidney disease (BKD) Issue Paper by this Friday, November 17, and then Mike Schiewe will send the agenda out to the Coordinating Committees for their review (IX-B).

DECISION ITEM SUMMARY

- The Committees approved the *Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005* report and the *Spring Chinook Spawning Ground Surveys in the Methow River Basin, 2005*. Statements of Agreement will be prepared for these documents (Item II-A).
- The Committees approved the planned 2007 M&E activities by WDFW as laid out in the study plan entitled *Proposal for the Implementation of Comprehensive Monitoring and Evaluation of Hatchery Programs Funded by Douglas PUD*. A Statement of Agreement will be prepared for this document (Item II-B).
- The Committees approved the *Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon*. A Statement of Agreement will be prepared for this document (Item II-C).

- The Committees approved the Statement of Agreement for the Chelan PUD 2007 Hatchery M&E Implementation Plan, subject to WDFW concurrence (Item III-A).

I Welcome and Meeting Minutes Approval

Mike Schiewe opened the meeting; attendees at this November 15, 2006 meeting are listed in Attachment A to these Meeting Minutes. The Committees approved the October 18, 2006 Meeting Minutes as revised at the meeting. For the November 2, 2006 Conference Call Minutes, Ali Wick will incorporate Committees comments and will coordinate Committees review and approval by email.

II DECISION ITEMS: Douglas PUD

A. Monitoring Reports

The Committees approved the *Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005* report and the *Spring Chinook Spawning Ground Surveys in the Methow River Basin, 2005*. Statements of Agreement will be prepared for these documents (Attachment B).

B. 2007 Douglas PUD Hatchery M&E Implementation Plan

The Committees approved the planned 2007 M&E activities by WDFW as laid out in the study plan entitled *Proposal for the Implementation of Comprehensive Monitoring and Evaluation of Hatchery Programs Funded by Douglas PUD*. A Statement of Agreement will be prepared for this document (See Attachment B).

C. Methow Spring Chinook Genetics Study Plan

The Committees approved the *Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon*. A Statement of Agreement will be prepared for this document (Attachment B).

D. Wells Hatchery Surface Water Screen Design

Rick Klinge updated the Committees that Douglas PUD would like to defer the agreement for Wells Hatchery surface water screen designs at this time until final drawings are

prepared. Klinge will send these out by email along with a Statement of Agreement for email approval.

III DECISION ITEMS: Chelan PUD

A. 2007 Chelan PUD Hatchery M&E Implementation Plan

The Committees approved the Statement of Agreement for the Chelan PUD 2007 Hatchery M&E Implementation Plan, subject to WDFW's concurrence (Attachment C). Truscott will email Ali Wick by November 22 with his concurrence.

During the discussion on the above 2007 Hatchery M&E Implementation Plan, Chuck Peven noted the proposed use of the AUC method for estimating sockeye spawner numbers in the Wenatchee Basin. Peven agreed to provide the Committees with a brief write up showing the sensitivity of the AUC method to different sockeye salmon stream life estimates. He also agreed to provide the Committees with a comparison of 2004-2005 spawning ground counts and Tumwater Dam counts.

In addition, it was agreed that the joint ESA permit-holders for the HCP hatchery programs (WDFW, Douglas PUD, and Chelan PUD) will get together with NMFS to discuss how to coordinate the reporting requirements for M&E programs with those of the ESA permit; Julie Pyper will take the lead to arrange this discussion.

B. Operation of Chelan PUD's Chelan Falls Summer Chinook Hatchery Program

Shaun Seaman introduced a Statement of Agreement regarding the operation of the Chelan Falls Powerhouse as it relates to the Chelan Falls summer Chinook hatchery program. Seaman noted that Chelan PUD wants to be clear that the operation of the powerhouse is independent of the hatchery program. Several Committees members requested that the following text be added to the Statement section:

If it is determined by the Hatchery Committees that powerhouse operation is substantially altered in ways that adversely affect the efficacy of the program, the Hatchery Committees shall consider changes in the hatchery program. To the extent practicable, Chelan PUD will coordinate internally to minimize impacts on the hatchery program.

Ali Wick will route this amended Statement to the Committees for approval by email (Attachment D).

IV Yakama Nation

A. Coho Decision Update

Keely Murdoch updated the Committees that the Joint Fisheries Parties (JFP) met with the Bonneville Power Administration (BPA) regarding funding programs for listed and unlisted species under the umbrella of the 2004 Federal Columbia River Power System (FCRPS) Biological Opinion Remand process; the JFP and the Action Agencies (BPA, Bureau of Reclamation, and the U.S. Army Corps of Engineers [USACE]) intend to prepare a Memorandum of Agreement during 2007. Murdoch noted that BPA indicated that they would fund the Yakama Nation's coho program for at least one additional year. Shaun Seaman noted that Chelan and Douglas PUDs and a representative from the Yakama Nation will be meeting with BPA before December 13 to discuss issues regarding funding this program as relevant to the HCPs.

B. Mass Marking of Summer Chinook at Eastbank Hatchery in 2006-2007.

Keely Murdoch explained that all parties to US v Oregon agreed to ad-clip summer Chinook reared at Eastbank Hatchery (brood years 2005-2007) only as needed for evaluation purposes. The YN requested that the HETT evaluate the minimum ad-clip rate needed to meet the objectives of the M&E Program for summer Chinook released from Eastbank in 2006-2007, and the effects of less than 100 percent marking. The Committees discussed that they may want to expand this analysis to evaluate the purpose and rationale for 100 percent marking and the total number of tags needed for all HCP program hatchery fish, but ultimately concluded that the analysis for summer Chinook would be a good starting point, and other fish groups could be analyzed later as needed.

C. Concerns about Spring Chinook Production Potential at Methow Hatchery

Keely Murdoch introduced the topic that the Yakama Nation is concerned that the spring Chinook production at Methow Hatchery would not meet agreed to production levels due to space constraints. This has become an issue because Methow Hatchery production levels were established without considering the potential for reduced rearing densities of progeny of rearing adults with ELISA values greater than 0.12. Shaun Seaman commented

that this production level issue is confounded by year-to-year differences in BKD and the resulting rearing capacities. Kirk Truscott commented that realistic production levels will likely always be affected by difficulties such as shortfalls in spawner abundance or high BKD levels. Currently, WDFW is working to compile information on a realistic estimate of average production per year and will review this information with Douglas PUD. Truscott will then forward this information to the Committees for the January meeting; he will also provide information on projected 2006 production levels in the coming weeks.

V WDFW

A. Ultrasound Fish Gender ID Update

Chelan PUD discussed with Allen Evans a potential demonstration of ultrasound equipment and/or training during spring Chinook collection at Tumwater or Leavenworth (June), or during next summer's Chinook broodstock collection at Wells, which would be in mid-July or August 2007. Chuck Peven will follow up with Allen Evans to find out the lead time on procuring the ultrasound units.

B. Steelhead Broodstock Collection at Wells Dam

Kirk Truscott updated the Committees that steelhead broodstock collection at Wells Dam, Dryden, and Tumwater are all short on wild fish. Truscott will prepare and provide to the Hatchery Committees a memo by November 29 that outlines potential WDFW actions to acquire additional steelhead broodstock for the Wells program; these actions will be consistent with current ESA authorizations for broodstock collection.

VI HETT Update

Ali Wick updated the Hatchery Committees that the HETT is currently working on the following topics:

- Chuck Peven is contacting Linda Rhodes (NMFW) to find out how successful her work has been on diagnosing BKD in hatchery vs. wild adults on the spawning grounds. The HETT is interested in the potential to use a similar approach in meeting Objective 9 of the M&E Plan.
- The HETT will be further evaluating work from Todd Pearsons and evaluating whether his risk analysis process can be modified and applied to the Upper Columbia.

- The HETT will continue to discuss the Grant PUD proposal for an alternative to reference streams.
- Ben Lenz will further develop the proposal to evaluate adult spawner carrying capacity in stream habitats.
- The HETT is compiling information on potential steelhead reference streams and will be developing recommendations next month.
- John Skalski had provided a memorandum to the HETT that concluded that at least 10,000 fish would need to be Passive Integrated Transponder tagged (PIT-tagged) to evaluate downstream survival of sockeye released as part of the Skaha program. Keely Murdoch will be contacting the Okanagan Nation Alliance (ONA) regarding the possibility of tagging this number of fish.
- Tracy Hillman updated the HETT that the Research, Monitoring, and Evaluation (RM&E) team working on the FCRPS Biological Opinion (BiOp) has identified a desire to develop a regional PIT-tagging program and a stock assessment program.

VII Updates: Douglas PUD

A. Twisp Weir Repair

Rick Klinge updated the Committees that NMFS and WDFW engineers requested that Douglas PUD consider a diagonal design for the Twisp weir. The engineers suggested that such a design would allow fish to move more easily across the weir, would improve trap efficiency, and could withstand a wide range of flows. The weir design currently under consideration is perpendicular to the stream channel. The perpendicular weir may be permissible/constructable in 2007 or 2008; the diagonal weir may potentially be permissible and constructable in 2008 or not at all depending on the ability to obtain land owner agreement/easement. The perpendicular weir is the most workable for permitting, especially for next season. The Hatchery Committees will meet by conference call on Monday, November 27 at 3:00 pm to further discuss weir design options.

VIII Updates: Chelan PUD

A. Facilities Updates

Sam Dilly provided updates on a number of hatchery-related projects (details in a handout that was an attachment to the agenda), as follows:

- Chelan Hatchery Well Field Improvements

- Chiwawa Water Supply Warming Study
- Eastbank Adult Holding Pond and Spawning Structure Enclosure
- Chelan Falls Acclimation Facility
- Chelan Falls Resident Fish Hatchery Evaluation
- Similkameen Hatchery Water Supply Feasibility Study
- Eastbank Hatchery Adult Steelhead Holding Study
- Chiwawa Juvenile Steelhead Study
- Chemical Handling Improvements
- Dryden Right Bank Fish Hopper
- Dryden Left Bank Flip Screens
- Dryden Right Bank Rotating Screens (Fish Trap Supply Water Screens)
- Dryden Canal Headwork's Flow Measurement (Orifice Plates)

IX Other Items

A. BKD Issue Paper Update

Mike Schiewe noted that the BKD Issue Paper (a collaborative effort between himself, Kirk Truscott, and Kris Petersen) is complete. Schiewe will provide this to the Coordinating Committees at their next meeting, and then it will go to the Policy Committees for their discussion at the December 14 Policy Committees meeting.

B. Upcoming Policy Committees Meeting

Mike Schiewe provided a draft agenda for the upcoming Policy Committees meeting and asked for the group's review. The Hatchery Committees will provide any comment on the agenda and BKD Issue Paper by this Friday, November 17, and then Schiewe will send the agenda out to the Coordinating Committees for their review.

C. PRCC/HCP Committees Coordination Update

Mike Schiewe updated the Committees that he and Denny Rohr have been discussing potential agenda items and dates for a future Priest Rapids Coordinating Committee (PRCC)/HCP Coordination meeting; this meeting has been tentatively scheduled for Wenatchee on January 24, 2007.

D. Next Meetings

- Wednesday, December 13, 2006, at the Radisson Gateway Hotel in SeaTac.
- Wednesday, January 17, 2007, at the Radisson Gateway Hotel in SeaTac.

X List of Attachments

Attachment A – List of Attendees

Attachment B – Final Statements of Agreement for *Proposal for the Implementation of Comprehensive Monitoring and Evaluation of Hatchery Programs funded by Douglas PUD; Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon ; Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005; and Spring Chinook Spawning Ground Surveys in the Methow River Basin, 2005*

Attachment C - Final Statement of Agreement for 2007 Hatchery Monitoring and Evaluation Implementation Plan

Attachment D - Final Statement of Agreement for Operation of Chelan PUD's Chelan Falls Summer Chinook Hatchery Program

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Steve Hays	Chelan PUD
Sam Dilly	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Russell Langshaw	Grant PUD
Kirk Truscott *	WDFW
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

ATTACHMENT B

**FINAL STATEMENTS OF AGREEMENT FOR PROPOSAL FOR
THE IMPLEMENTATION OF COMPREHENSIVE MONITORING
AND EVALUATION OF HATCHERY PROGRAMS FUNDED BY
DOUGLAS PUD; STUDY PLAN FOR EXAMINING THE GENETIC
STRUCTURE OF METHOW SPRING CHINOOK SALMON ;
METHOW RIVER BASIN SPRING CHINOOK AND STEELHEAD
SMOLT MONITORING IN 2005; AND SPRING CHINOOK
SPAWNING GROUND SURVEYS IN THE METHOW RIVER BASIN,
2005**

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Hatchery Monitoring and Evaluation Implementation Plan 2007**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the “Proposal for the Implementation of the Comprehensive Monitoring and Evaluation of Hatchery Programs funded by Douglas County PUD” for the 2007 calendar year. The HC approves the implementation of this study and that it covers the work that needs to be accomplished in 2007. Further, the HC anticipates and recognizes that adaptations may need to occur in future years.

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the “Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon.” The HC approves the implementation of this study to provide information as part of the monitoring and evaluation plan, “Conceptual Approach to Monitoring and Evaluation of Hatchery Programs funded by Douglas County Public Utility District.” This genetic study plan will become an amendment to the “Proposal for the Implementation of the Comprehensive Monitoring and Evaluation of Hatchery Programs funded by Douglas County PUD” for the 2007 calendar year.

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Approval of Final Report**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the draft report "Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005." Comments have been sent to the author for preparation of a final document. The HC approves the report as final.

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Approval of Final Report**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the draft report “Spring Chinook Spawning Ground Surveys in the Methow River Basin, 2005.” Comments have been sent to the author for preparation of a final document. The HC approves the report as final.

ATTACHMENT C

**FINAL STATEMENT OF AGREEMENT FOR 2007 HATCHERY
MONITORING AND EVALUATION IMPLEMENTATION PLAN**

Rocky Reach and Rock Island HCP Hatchery Committees
Statement of Agreement
Chelan County PUD
Hatchery Monitoring and Evaluation Implementation Plan 2007
November 15, 2006

Statement

The Rocky Reach and Rock Island HCP Hatchery Committees (HC) have reviewed the Chelan County PUD Hatchery Monitoring and Evaluation Implementation Plan for 2007 (Plan) and agree that it covers the work that needs to be accomplished in 2007. Further, the HC anticipates and recognizes that modifications of this plan may be required as new information becomes available.

ATTACHMENT D

**FINAL STATEMENT OF AGREEMENT FOR OPERATION OF
CHELAN PUD'S CHELAN FALLS SUMMER CHINOOK
HATCHERY PROGRAM**

Rocky Reach and Rock Island HCP Hatchery Committees
Statement of Agreement on Operation of
Chelan County PUD's Chelan Falls Summer Chinook Hatchery Program
November 15, 2006

Statement

The HCP Hatchery Committee (HC) agrees that the operation of the Chelan Falls summer/fall Chinook rearing pond is independent of the operations of the Lake Chelan project and the implementation of the Lake Chelan license and is not linked nor will interfere with operations of the project in any way for the life of the HCPs. If it is determined by the HC that powerhouse operation is substantially altered in ways that adversely affects the efficacy of the program, the HC shall consider changes in the hatchery program. To the extent practicable, Chelan PUD will coordinate internally to minimize impacts to the Chelan Falls summer Chinook Rearing Facility while not impairing the District's ability to operate the project in a manner consistent with the District's objectives for that project.

Background

At the May 17, 2006 meeting, the HCP HC agreed to change the current Turtle Rock summer Chinook program from approximately 1.6 million subyearlings to 400,000 yearlings, raised at a new facility at Chelan Falls. In addition, there is currently a component of the Turtle Rock hatchery program that can be adjusted beginning in 2013. The current production level for that component of the program is 200,000 fish.

On October 18, 2006, the HCP HC further agreed to cap the production of the program at this facility at 600,000 fish. This was agreed to so Chelan could begin design and implementation of the construction of the site.

One of the primary reasons that this program is being moved from its current location on Turtle Rock Island is to increase homing fidelity to the release site. Furthermore, the primary purpose of this program is to provide a fishery for the original inundation of Rocky Reach Reservoir.

By moving the program to Chelan Falls area and rearing on Chelan River (Lake) water, the HCP HC agrees that 1) homing fidelity to the release area should increase, and 2) a local fishery will most likely develop in the area, similar to what currently occurs near the mouth of the Okanogan River.

However, there may be very limited times when the source water (Lake Chelan) may not be the primary water source because of powerhouse operations. Analysis suggests that this should occur less than 10% of the time fish would be rearing at the site.

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Chuck Peven, Julie Pyper, Keely Murdoch

Date: January 12, 2007

Re: Final Minutes of November 27, 2006 HCP Wells, Rocky Reach and Rock Island Hatchery Committees Conference Call

The Wells, Rocky Reach and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCP) Hatchery Committees met by conference call on Monday, November 27, 2006 from 3:00 pm to 4:00 pm to discuss designs for the Twisp Weir and to follow up on items from the last Hatchery Committees meeting. Attendees are listed in Attachment A.

ACTION ITEM SUMMARY

- There were no Action Items at this meeting.

I Welcome (Mike Schiewe)

Mike Schiewe opened the meeting by stating that the purpose of today's call was to review design issues affecting a decision to proceed with construction of a new Twisp Weir; and to discuss WDFW comments on the Chelan PUD 2007 M&E Implementation Plan, and to review modifications to the Chelan Falls rearing facility Statement of Agreement.

II Twisp Weir Designs

At the last Hatchery Committees meeting, the Committees had discussed the timing and feasibility for permitting a new diagonal design for the Twisp Weir versus using the existing footing for a perpendicular weir design. The diagonal design was previously suggested to Douglas PUD by Bryan Nordlund of NMFS as a way to potentially increase weir effectiveness in broodstock collection. At the meeting, Douglas PUD had indicated that a new weir orientation would pose significant permitting obstacles that would likely put the construction of the new weir on a different (and slower) track than the existing perpendicular design (2008 or

not at all for diagonal weir; 2007 or 2008 for perpendicular weir). On today's call, Rick Klinge related that Bruce Heiner of WDFW had since indicated that a diagonal weir with a trap box located mid-stream might achieve similar efficiency as a diagonal weir. The Committees discussed the feasibility of a weir design featuring two working locations (notches) for a trap box; such that the location would be changeable depending on experience with trap efficiency from year to year. However, with this design, due to the logistics of assembling the trap box, the box would need to remain stationary throughout the season and could not be easily or safely switched to a new location during trapping. Klinge related that because the notched perpendicular weir represents a change from the current design, the window of opportunity for constructing and permitting the design would likely be missed for the 2007 construction season.

Tom Scribner commented that the Hatchery Committees should continue to discuss the effectiveness of any weir design in light of the historical difficulty in collecting enough broodstock in the Twisp River to meet program goals and wild/hatchery-origin ratios. Scribner commented that adult collection should be efficiently managed in order to meet HCP production levels.

The Committees agreed that it was appropriate for Douglas PUD to pursue design and permitting for the notched perpendicular weir. Klinge indicated that Douglas PUD was willing and interested in working with WDFW or any other party to locate additional Mitsubishi weir panels to be used for a temporary weir in 2007.

III Chelan PUD 2007 M&E Implementation Plan

Mike Schiewe invited Kirk Truscott to comment on his review of the M&E Implementation Plan which followed the last Hatchery Committees meeting, since this had only been discussed over email. Truscott commented that both the redd count and Area-Under-the-Curve (AUC) method for estimating adult returns have accuracy limitations that should be discussed in the Hatchery Committees. Truscott was in agreement with the proposed 2007 Chelan PUD M&E Plan, but would like to see the Hatchery Committees or HETT continue discussions regarding the need for accuracy in year-to-year comparisons as it relates to Chelan and Douglas PUDs M&E Plans. The Hatchery Committees will discuss at the next meeting the potential for the HETT to determine the importance of accuracy vs. repeatability in total escapement estimates (and/or other M&E metrics).

IV Chelan Falls Statement of Agreement from 11/15 meeting

Shaun Seaman updated the group that Chelan PUD would like to amend the Statement of Agreement for the Chelan Falls project to clarify the following: Chelan PUD will coordinate internally to minimize impacts to the Chelan Falls summer Chinook Rearing Facility while not impairing the District's ability to operate the Lake Chelan Hydroelectric Project in a manner consistent with the District's objectives for that project. Ali Wick will send the amended Statement out for the Committees' email consideration and approval.

Attachment A
List of Attendees

Name	Organization
Michael Schiewe	Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Chuck Peven	Chelan PUD
Shaun Seaman *	Chelan PUD
Julie Pyper	Chelan PUD
Rick Klinge *	Douglas PUD
Kris Petersen *	NMFS
Brian Cates *	USFWS
Kirk Truscott *	WDFW
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

Final Memorandum

To: Wells, Rocky Reach, and Rock Island HCP Hatchery Committees

From: Michael Schiewe, Chair, HCP Hatchery Committees

CC: Ali Wick, Chuck Peven, Julie Pyper, Keely Murdoch, and Tom Kahler

Date: February 22, 2007

Re: Final Minutes of December 13, 2006 HCP Hatchery Committees Meeting

The Wells, Rocky Reach, and Rock Island Hydroelectric Projects Habitat Conservation Plans (HCPs) Hatchery Committees met at the Radisson Hotel in SeaTac, Washington, on December 13, 2006, from 9:30 am to 4:30 pm. Attendees are listed in Attachment A to these Meeting Minutes.

ACTION ITEM SUMMARY

- Ali Wick will send the Final November 15, 2006 Meeting Minutes to the Hatchery Committees (Item I).
- Mike Schiewe will draft some Statements of Agreement for the current options for decision-making regarding whether coho are a Plan Species under the HCPs (Item II-A).
- Kirk Truscott will follow up with Kris Petersen on Washington Department of Fish and Wildlife's (WDFW's) proposed disposition of progeny of the 2006 brood year Methow spring chinook salmon (Item III-A).
- Kirk Truscott will modify the tables in the brood year disposition memorandum to reduce confusion regarding the range of ELISA values (Item III-A).
- Kirk Truscott will finalize a memo describing WDFW's current proposal to implement hook-and-line sampling or to reinitiate collection efforts at Dryden or Tumwater to boost steelhead broodstock collection (Item III-B).
- Mike Schiewe will contact Drs. Diane Elliott and Linda Rhodes about their willingness to participate in a Hatchery Committees technical discussion on Bacterial Kidney Disease (BKD) and implementation of Objective 9 of the Monitoring and Evaluation (M&E) Program. The session is tentatively scheduled for January 16, 2007, the afternoon before the regularly scheduled January 17 Hatchery Committees meeting (Item IV).

- Chuck Peven will send a recently published scientific paper on the effects of observer error and efficiency on redd counts to Ali Wick for distribution to the Committees (Item IV).
- Rick Klinge will send the 2007 Action Plan to the Committees by Friday, December 15 (Item V-A).
- Kirk Truscott will talk offline with Sam Dilly regarding whether construction of the Dryden Right Bank Fish Hopper will conflict with steelhead broodstock collection in early 2007 (Item VI-A).
- Ali Wick will forward an email from Howie Wright (of the Okanagan Nation Alliance [ONA]) summarizing the status of 2006 brood year Skaha sockeye (Item VI-A).
- Mike Schiewe will meet with Shaun Seaman and Kirk Truscott to discuss the path forward for BKD management (Item VI-C).

DECISION ITEM SUMMARY

- There were no decision items at this meeting.

I Welcome and Meeting Minutes Approval

Mike Schiewe opened the meeting; attendees at this December 13, 2006 meeting are listed in Attachment A to these Meeting Minutes. The Committees approved the November 15, 2006 Meeting Minutes as revised at the meeting. Ali Wick will send the Final November 15, 2006 Meeting Minutes to the Hatchery Committees.

II Yakama Nation

A. Coho Decision Update

Tom Scribner updated the group that bridge funding for 2007 has been secured for the Yakama Nation's coho program from the Bonneville Power Administration. Mike Schiewe reminded the Committees that a HCP Hatchery Committees decision is required by the end of 2006 and that because of the short time between now and then, he reminded them that one or more conference calls may be needed to either make a decision or agree to a deferral. Mike Schiewe agreed to draft some potential Statements of Agreement capturing the current options for decision-making, and will distribute these to the Committees next week.

III WDFW

A. Broodyear 2006 Disposition of Methow Hatchery Spring Chinook Salmon

Kirk Truscott noted that he had received comment from Douglas and Chelan PUD on the recent memorandum on disposition of Broodyear 2006 Methow Hatchery Spring Chinook and invited further comment. The Committees discussed the density index and proposed release locations for these fish. It was agreed that Truscott would follow up with Kris Petersen for input on this topic; she was unable to make today's meeting. Truscott also agreed to modify some of the text and tables to reduce confusion regarding the range of ELISA values. Following this discussion, this memo was accepted by the group present today.

B. Wenatchee and Wells Steelhead Broodstock

Kirk Truscott noted that WDFW is still short of its goal for broodstock collection for Wenatchee and Wells steelhead. To date, WDFW has collected 168 adult Wenatchee steelhead (which is 40 short of the goal of 208) and 393 adult Wells steelhead (which is 22 fish short of the goal of 415). Truscott commented that this shortfall was attributed to fall freshets, earlier run timing, and fewer hatchery fish in the basin this year. WDFW is currently developing a proposal to implement hook-and-line sampling or to reinstate collection efforts at Dryden or Tumwater, both of which are approved in WDFW's Section 10 permits. Truscott will finalize a memo describing this proposal, and will distribute it to the Committees. Truscott also confirmed that WDFW is already working with Dryden operators to confirm that the Dryden facility would be operable for such a process. Hook-and-line sampling could begin when cleared through WDFW. The Committees discussed the importance of an aggressive communications plan if a hook-and-line collection was pursued.

IV HETT Update

Chuck Peven updated the Hatchery Committees that the Hatchery Evaluation Technical Team (HETT) is currently focusing on the following topics:

- Study protocols for Objectives 9 and 10 of the M&E Plan
- Reference stream selection process (which will be the key topic at the next meeting)
- Precision versus accuracy for spawner surveys
- Effect of less than 100 percent mass marking

Chuck Peven also noted that Trout Unlimited had commissioned Chuck Huntington to prepare a report on hatcheries in the upper Columbia; this report will likely address PUD hatchery programs.

During this update, in the discussion of Objective 9, Mike Schiewe agreed to follow up with Diane Elliott and Linda Rhodes to organize a tentative meeting for January 16, 2007 to discuss potential approaches to implementing Objective 9 with the HCP parties. In the discussion of precision versus accuracy for spawner surveys, Chuck Peven agreed to send a paper regarding the effects of observer error and efficiency in redd counting to Ali Wick for distribution to the Committees; Peven noted that Tracy Hillman suggested this paper as reading for the Hatchery Committees as well as the HETT.

V Updates: Douglas PUD

A. Capacity Issues at Methow Hatchery

Rick Klinge introduced this topic and noted that Douglas PUD has been discussing the capacity issues at Methow Hatchery with Kirk Truscott and WDFW pathologists. The remaining issue is determining the correct fish densities to maximize health and production. Douglas PUD and WDFW will be continuing these discussions as they relate to BKD and rearing density; more information is needed from the fish pathologists before a decision can be reached. Klinge noted that Douglas PUD hopes to have some answers by the January meeting.

Klinge also noted that he intends to email the Douglas PUD 2007 Action Plan to the Committees this Friday, December 15. Shaun Seaman commented that Chelan PUD would have its 2007 Action Plan available in January.

B. Updates on Construction Projects

Tom Kahler updated the group that many of the issues regarding design of a new Twisp Weir had been resolved, and that Douglas PUD is proceeding with planning/engineering for a perpendicular configuration. The PUD currently estimates that construction will likely occur in 2008, and toward that end, the PUD continues to refine the designs for the weir and will provide these as they are available. The current discussions for weir designs

center on the safety issues that need to be considered if two trapping boxes are used. Regarding the Chewuch Weir, progress has slowed in the wake of the Twisp discussions, but the design for the Chewuch structure will be taken up again in the new year.

VI Updates: Chelan PUD

A. Facilities Updates

Sam Dilly provided updates on a number of hatchery-related projects (details in a handout that was an attachment to the agenda), as follows:

- Chelan Hatchery Well Field Improvements
- Chiwawa Water Supply Warming Study
- Eastbank Adult Holding Pond and Spawning Structure Enclosure
- Chelan Falls Acclimation Facility
- Chelan Fish Hatchery Evaluation
- Similkameen Hatchery Feasibility Study
- Eastbank Hatchery Adult Steelhead Holding Study
- Chiwawa Juvenile Steelhead Study
- Chemical Handling Improvements
- Dryden Right Bank Fish Hopper
- Dryden Left Bank Flip Screens

It was noted during this discussion that Kirk Truscott will talk offline with Sam Dilly regarding whether construction of the Dryden Right Bank Fish Hopper will prevent use of the facility for early spring collection of Wenatchee steelhead broodstock. Also, Shaun Seaman noted that he had sent an email to Ali Wick regarding Skaha sockeye eggs that he received from Howie Wright. Seaman requested that Wick forward this email to the Hatchery Committees.

B. Ultrasound Gender ID

Chuck Peven updated the group that he contacted Allen Evans and that the equipment that may be needed for the 2007 broodstock collection will be available in time for the collection. Allen suggested that a training event could occur prior to broodstock collection and the Committee recommended the Leavenworth National Fish Hatchery as a potential

site. Kirk Truscott commented that it may be best if Brian Cates goes to the Leavenworth National Fish Hatchery ahead of time to get things in order for the training event.

C. BKD Management

Shaun Seaman introduced the topic of the Draft Objectives for BKD Management and provided a handout at the meeting. The document provides background for the reason that the objectives were drafted and sets a baseline for establishing a BKD plan. Seaman noted that the purpose of bringing the document today was for discussion before taking it to the Policy Committees. Chelan PUD intends to collect data from WDFW and other sources to address some of the existing data gaps and allow evaluation and decision for BKD management at the Hatchery Committees level. Mike Schiewe suggested that a subcommittee could convene to work on a draft implementation plan based on the objectives set forth in the document. Shaun Seaman and Kirk Truscott agreed to meet to discuss how this implementation plan would be laid out; they will then share this vision with the Hatchery Committees. Mike Schiewe will meet with Shaun to discuss this arrangement.

VII Other Items

A. PRCC/HCP Hatchery Committees Coordination Update

Mike Schiewe updated the group that the Priest Rapids and HCP Hatchery Committees will be meeting on January 24 in the Chelan PUD auditorium. An agenda will be forthcoming.

B. Next Meetings

Mike Schiewe noted that the schedule for the next meetings are as follows:

- Wednesday, January 17, 2007, at the Radisson Gateway Hotel in SeaTac.
- Wednesday, February 21, 2007, at Chelan PUD in Wenatchee.
- Wednesday, March 21, 2007, at Chelan PUD in Wenatchee.

Schiewe also noted that the next meeting may include a meeting with Diane Elliott and may begin in the afternoon of January 16 in SeaTac.

VIII List of Attachments

Attachment A – List of Attendees

Attachment A
List of Attendees

Name	Organization
Mike Schiewe	Anchor Environmental, L.L.C.
Paul Schlenger	Anchor Environmental, L.L.C.
Shaun Seaman *	Chelan PUD
Chuck Peven	Chelan PUD
Julie Pyper	Chelan PUD
Sam Dilly (by conference call)	Chelan PUD
Jerry Marco *	Colville Tribes
Rick Klinge *	Douglas PUD
Tom Kahler	Douglas PUD
Kirk Truscott *	WDFW
Brian Cates *	USFWS
Tom Scribner *	Yakama Nation
Keely Murdoch	Yakama Nation

* Denotes Hatchery Committees member

APPENDIX C

HABITAT CONSERVATION PLAN TRIBUTARY COMMITTEES
MEETING MINUTES

**Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 12 January 2006**

Members Present: Dennis Beich (WDFW), Dennis Carlson (alternate for Dale Bambrick, NMFS), Chris Fisher (Colville Tribes), Tom Kahler (Douglas PUD), Bob Rose (Yakama Nation), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator), Chris Parsons (alternate for Dennis Beich, WDFW), Ben Lenz (Grant PUD), Gordon Congdon (Chelan-Douglas Land Trust), Katharine Bill (Methow Conservancy)

David Morgan (USFWS) notified the chair in advance of his inability to attend the meeting because of schedule conflicts.

1. Review of proposed agenda

The Committees adopted the proposed agenda, with one addition: Chris Parsons and Tom Kahler asked for an update on the Salmon Recovery Funding Board (SRFB) funding decisions.

2. Review of past meeting notes

The Committees reviewed and adopted the 8 December 2005 meeting notes, with revisions provided by Chris Fisher, Tom Kahler, and Keith Truscott.

3. Funding Decision by Salmon Recovery Funding Board

Bob Bugert notified the group of the recent decisions by the SRFB on Sixth Round projects. The following projects in Chelan County were approved for funding: Gagnon Channel Migration Zone (\$366,325), Entiat Instream Structures (\$212,500), Nason Channel Migration Zone Assessment (\$106,247), Skinney Creek Culvert (\$64,592), and Beebe Springs (\$120,000). The following projects in Okanogan County were approved for funding: Methow Valley Irrigation District (MVID) West Diversion (\$80,000), MVID East Diversion (\$300,000), and Twisp River Conservation Purchase (\$151,272).

4. DECISION ITEM: Draft contract forms

Julie Pyper distributed copies of ten draft forms for working with project sponsors. Included for review and approval are notification letters for those sponsors whose project have, and have not, been approved for projects. Other items to be addressed are the invoice voucher, budget amendments request, funded project checklist, time extension request, landowner willingness form, and professional engineer's acknowledgement.

The Committees approved the *Funded Project Checklist* with one revision recommended by Tom clarifying the first sentence in the checklist that stated that the checklist should be completed during the meeting when funding decisions are made. The group noted that this document is for tracking purposes only and is not legally binding. The Committees approved the *Invoice Voucher* and the *Notification Letters* with several minor modifications suggested by members.

5. Options for supporting habitat protection

The Committees welcomed Gordon Congdon of the Chelan-Douglas Land Trust (CDLT) and Katharine Bill of the Methow Conservancy (MC). Gordon briefly described the recent decision by the SRFB to reallocate the funds (\$1.3 million) from Icicle Creek to the White River. The decision by the SRFB was conditioned upon work by CDLT to address concerns by Chelan County about the net loss of privately-owned properties. Katharine discussed the similar concerns of Okanogan County, and the efforts to use easements in lieu of acquisitions.

The Committees asked both to describe their short and long-term conservation objectives—and needs. Gordon responded that their short-term approach is to begin negotiations and appraisals of White River habitats using the SRFB funds. At this time, the CDLT has no established long-term conservation plan. Katharine said the MC has more of a short-term cash flow issue because they were not funded by SRFB and have some owners that want to sell at this time. There are seven projects pending, but two are imminent (Lehman and Heath properties) and need to be addressed soon. The Lehman property has both agricultural and riparian easements, but the MC request to the Tributary Committees is only for the riparian easement; the Heath property has only a riparian easement.

The MC completed a conservation needs assessment for the long term (up to thirty years) and identified the funding necessary to protect all easements upstream of Twisp (including riparian, agricultural, and upland habitats in the Chewuch, Twisp, and Methow drainages). Katharine can provide the estimates for the riparian easements to the committees if necessary. Gordon said he could develop a similar estimate for the Wenatchee and Entiat, noting that landowners in Chelan County are not as interested in easements as those in the Methow.

The Committees then dismissed Gordon and Katharine. After further discussion, the Committees directed the chair to ask the CDLT to develop a proposal for an assessment that can be delivered within six months that identifies critically sensitive areas in Chelan County. The assessment should determine the feasibility for all protection options. They stressed that the assessment should address the concerns of the county in converting lands into public ownership. This is meant specifically to set priorities for how the funds should be spent, consistent with the mitigation obligations for which the Plan Species Accounts were established.

6. DECISION ITEM: Chelan County's Small Project Proposal on behalf of Public Lands Dialogue Group: Chelan County Land Exchange Assessment

The Committees discussed Chelan County's request for funding to hire a contractor to facilitate the exchange of properties between public and private sectors. The intent of the exchange is to transfer critically-sensitive fish and wildlife areas to public ownership, and place less sensitive areas (with attendant development rights) into private ownership. The CDLT, in consultation with Chelan County and the state and federal land managers, established the Public Lands Dialogue Group to set up the infrastructure to accomplish this deed exchange. The Committees recognized that this approach is conceptually easy, but very difficult to implement and will be a protracted effort. In the short term, there is a need to get support for specific projects that are pending. Conversely, the group noted that there are economies of scale in transaction costs if many parcels are dealt with as a composite

All members supported the concept, but were concerned about the lack of clarity in the application and whether the assessment would yield tangible results. The group saw advantages to using the White River as a "pilot project" for this assessment, but recognized that land swaps must be done for many habitat types, not just riparian areas. In essence, for this process to work well, it must involve all constituents involved in land use issues, not just those involved in salmon

recovery. The Committees decided not to fund this application as presented, but wish to work with Chelan County (and its constituents) to address this issue in a comprehensive, collaborative manner. If they decide to fund such an effort in the future, they may likely have the work address Douglas and Okanogan Counties as well.

7. Cultural assessment and consultation

Julie reviewed the draft language on cultural assessment and consultation, to be included in the Operating Procedures for the Tributary Committees. The group approved the language with the revisions suggested by Bob Rose. The Operating Procedures will be revised accordingly.

8. Annual report to stakeholders

Julie reported that she has been working on a format for an annual report to stakeholders. She deferred discussion on this issue until a subsequent meeting because of time constraints.

9. Ownership of Plan Species Accounts

Dennis Beich and Dennis Carlson said that WDFW and NMFS have removed their caveat to the organizational structure of the Tributary Committees and the resultant ownership of the Plan Species Accounts. Dennis Beich also noted that WDFW will likely explore the potential of seeking legislation to give WDFW and the PUDs authority to award grants, and may seek support from Committee members in securing this legislation. Dennis said that this would provide additional protection and capability to the members of the Committees in funding projects.

10. DECISION ITEM: Funding of 2005 General Salmon Habitat Proposals

The Committees reviewed the applications and agreed to fund nine projects for the amounts under the following Plan Species Accounts:

Account	Project	Amount
Wells	Okanagan River Restoration Initiative	\$191,038
	Methow Valley Riparian Protection ¹	\$1,177,500
	McDonald property	
	Prentice property	
	Heath property	
	Total	\$1,368,538
Rocky Reach	Twisp River Conservation Acquisition	\$40,000
	Clees Well and Pump	\$15,000
	Entiat Engineering and Permitting	\$59,375
	Entiat Instream Structures	\$37,500
	Total	\$151,875
Rock Island	White River Riparian Protection	\$686,000
	Nason Creek Channel Migration Zone	\$18,787
	Alder Creek Bridge	\$89,804
	Total	\$794,591
Grand Total		\$2,315,004

¹ Funding of the specific parcels identified in the proposal is dependent on specific negotiations on these items with the Conservancy.

11. Project Sponsor Notification

The Committees approved the request by Bob Bugert to contact the Project Sponsors that received approval for funding as noted in item 10 above. The formal written notifications to Project Sponsors addressing the projects they did/did not receive approval will be mailed out the week of January 16, 2006.

12. Next steps

The next regularly scheduled meeting of the Tributary Committees is set for Thursday, 9 February (9:00 to 3:00) at Chelan PUD Auditorium. Tentative agenda items include:

- Project technical review criteria
- Status of contracting with approved project sponsors
- Annual report to stakeholders
- Revisions to small project application form

Meeting notes by Bob Bugert (BobBugert@nwi.net)

Wells, Rocky Reach, and Rock Island HCP Tributary Committees Meeting Notes, 9 March 2006

Members Present: David Morgan (USFWS), Dennis Beich (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Tom Kahler (Douglas PUD), Bob Rose (Yakama Nation), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Chris Parsons (WDFW), Julie Pyper (HCP Project Coordinator)

1. Review of proposed agenda

The Committees adopted the agenda with two additional items: Bob Rose asked to discuss programmatic permitting on the Entiat and Dale Bambrick asked to discuss coordination of permitting on District-owned lands.

2. Review of past meeting notes

The Committees reviewed and adopted the 12 January 2006 meeting notes, with revisions provided by Keith Truscott and Julie Pyper.

3. Programmatic permitting for instream structures on the Entiat

Bob Rose said there is a need to improve the permitting process for the installation of instream structures on the lower Entiat, as the Entiat Plan calls for sixty to seventy structures to be installed over the duration of the plan. The current approach is to address each structure individually, which is quite cumbersome. He noted that there are six entities engaged in permitting (local, state, and federal), which may delay implementation of projects on the Entiat. Bob thought it may be cost-effective in the long-term if the Tributary Committee provided financial support for an approach to streamline this permitting process, and possibly develop a programmatic permit.

Chris Parsons said she would have to work within the statute that WDFW operates under; she said their capability to develop this permit would depend on whether it would cover all structures proposed, or an aggregate of similar structures. Dave noted that the agencies' capability would also depend on the time frame for the permit. He suggested that the permit could cover a short time period (perhaps up to five projects per year for five years), then the agencies could review the progress and status of the overall project for an extended permit. Dale said they would probably be able to address the scope of actions required for the reach below the moraine, but it would be problematic to address this action in the Stillwaters reach. The programmatic permit would place provisions for the type of actions that would ensure compliance for each structure.

Bob Bugert noted that the Bureau of Reclamation expressed an interest in this concept, and may be able to provide financial support as well. The group agreed to further investigate this with the Entiat Planning Unit. This will be further discussed at the April meeting of the Tributary Committees.

4. Permits for docks within Wells Pool

Dale mentioned that there is a pending permit for a dock near the Methow River confluence, within the lands owned by Douglas PUD, and expressed concern about its deleterious effects on salmonids. He suggested that the Committee members coordinate on the decision whether to

issue the permit. Tom was unaware of the permit application in question, but stated that the District, since they are the owner of the land around the reservoir, only provides permission to adjacent landowners to locate a dock on District land provided that the applicant can obtain permission for the dock from the regulatory agencies. The District's policy is to defer to the regulatory agencies (i.e., Corps of Engineers, NMFS, USFWS, WDFW, counties) as to the appropriateness of the application relative to pertinent statutes. There was some discussion regarding whether or not it was within the purview of Trib Committee to deal with such permitting issues. Keith noted that there is language in the Settlement Agreements about coordination of permitting on District-owned lands, and that it could provide guidance on how the Committees handle this issue. Tom agreed that the HCP includes a provision that the District would notify and solicit comments from parties to the HCP regarding land-use requests, but that there was nothing in Section 7 of the HCP about Tributary Committee oversight on permitting decisions. Bugert will distribute the specific language in the Wells Agreement to the Committees for discussion and action at the April meeting. Dale and David both agreed to discuss the matter with Tom following the meeting.

5. Delegation of Authority

The Committees reviewed the revisions proposed by Bill Frymire of the Attorney's General Office to the 31 January *draft* Delegation of Authority to the Committees' chairperson. Bob Bugert reported that he received a legal review of the document and his attorney said that the 31 January draft provided him appropriate indemnification, but he was concerned that the revisions to that draft may make him liable for errors and omissions made by the Committees. The group directed Bob to work with his attorney and Bill Frymire to reconcile the difference, and then advise the District attorneys on the proposed language.

Bob Rose notified the group that he has not yet received approval from the Yakama Tribal Council to sign the Delegation of Authority, but is capable of signing documents on behalf of the Yakama Nation in the interim. Julie said that if the Committees do not have a Delegation of Authority completed by April, it will hinder implementation of projects approved for the 2006 season. The Committees agreed that it would be appropriate for all members to sign the necessary documents until the chairperson is authorized.

6. Procedures to make decisions on contracts and correspondence

Julie reported to the Committees on the proposed approach for reporting to the group on decisions she made, versus those issues that warrant a full discussion—and decision—by the Committees. The group commended Julie on this approach, and the thoroughness of the table that outlines the decisions. Julie then described the issues that warrant Committee decision, described below:

Julie said the sponsor for the Clees Pump Project incurred costs for drilling of the well and installation of the pump, so the Committees need to act on this. The group agreed to jointly sign a statement that authorizes reimbursement of the expenses incurred for the pump. Julie then prepared a signature page, which all members signed.

Julie said that Chelan County Natural Resources suggested several changes to the proposed contract for their projects to be funded. A principal concern of the County is the ten-year requirement for coordination on level 1 monitoring, as it may become a burden to the sponsor. The Committees felt strongly that the ten-year stipulation should remain. They then discussed the options available to support the sponsor in serving as the point of contact; and perhaps would provide some limited funds for twenty hours work over the duration of the contract.

Julie described the debate on how to address the need for certification of project designs by professional engineers. The Committees agreed that the final product must be approved by a professional engineer, yet do not have an interest in how the project sponsor gets the approval; it is the prerogative of the sponsor on how to obtain this. Julie said that a project sponsor has asserted that the Committees would assume liabilities if they approve a contract. Additionally, for assessments that require engineering design, the Committees will review the final design.

Julie then described the need to review and potentially revise any statements of work, and how to address the cost increases associated with the revisions. The Committees agreed that they would review—and approve if needed—any requests by project sponsors for cost changes.

7. Fiscal management of Plan Species Accounts

Julie said she released a Request for Proposals (RFP) to conduct the fiscal management of the Rocky Reach and Rock Island Plan Species Accounts. She distributed the RFP to about forty firms; she has received inquiries from five parties to date. She requested that two committee members participate in the interview and selection process; Chris Parsons and David Morgan agreed to participate. Chelan PUD would also have some fiscal managers on the selection committee. Given the uncertainty in costs for management of the funds, Julie said she will provide a synopsis of the cost ranges, and how the estimates were derived, prior to the interviews. The hope is to have an agreement signed by the April meeting.

David reminded the group of the concern expressed in the February meeting about the potential for excessive administrative costs. Dale concurred and said that if this concern remains after the proposals have been received the Committees may ask that the Coordinating Committee consider this issue. Keith asked Dale what would be the benefit to raise this issue to the Coordinating Committee. Dale responded that high administrative costs, relative to project implementation, would lessen the capability to address the compensation objectives, and that some reconciliation of this may be necessary.

Keith said that Chelan PUD has been working to develop a contingency plan to accommodate the funding of contracts, in case the designation of a fiscal manager is not completed in a timely manner. He stressed that this is not a feasible or permanent solution, and probably could be conducted for a month at maximum.

8. Recusal language in Operating Procedures

The Committees reviewed the *draft* language on procedures for recusal during voting. The group agreed that the following language will be inserted in Section VII of the Committees' Operating Procedures:

Committee members should recuse themselves from voting on a particular project if they represent an entity that may benefit from that project.

9. Heath property conservation easement

Tom Kahler said that he and others have had ongoing discussions with the Methow Conservancy about the negotiations on the Heath Conservation Easement. When the Conservancy submitted its application to the Tributary Fund, they estimated the value of the Heath Property based on past easement values, and an overall diminution of property value of 30% by the easement. This was based on the average diminution of values from their easements up to that point. Since the time the Conservancy submitted the application, riparian property values have increased substantially, and the Heath family also decided to make the easement both smaller and more restrictive than the original proposal.

The original application was for the entire 173 acre ownership, which includes 31 acres on a bench above the riparian zone and 142 acres that are rolling and primarily riparian in character. The Heath family has had the property surveyed, and according to that survey and the county's severe channel migration zone maps, 28 of the 142 riparian acres are not in the floodplain. These 28 acres could be subdivided in such a way that the associated density in the riparian zone would allow up to 20 homes to be built. Any development in 142 acre-area would involve significant filling and grading in side-channel habitat to access the home sites. The original estimate was \$800,000 for the Heath Property, but the recent appraised value is \$2 million, because of the changes in the terms of the conservation easement. Tom distributed two maps that show the property and the potential for development of short plats.

Bob and Julie reported to the Committees that they met with the Conservancy and representatives of Bonneville Power Administration (BPA) and National Fish and Wildlife Foundation (NFWF), who have been asked to financially support the conservation easement. The group debated on the need to submit a composite letter to BPA, the Northwest Power and Conservation Council, and NFWF that supports their funding of this project. Some members stated that it may be internally difficult for their organization to commit to sign a letter of support. All noted that a commitment of \$800,000 for the project is a strong statement of support. The group then discussed whether to provide additional funds, but chose not to take action at this time.

10. Funding strategy for 2006

Bob Bugert reported to the group that the anticipated start and end dates for the Salmon Recovery Funding Board (SRFB) Sixth Round Cycle is 15 May and 8 December, 2006, respectively.

About \$16 million in federal funds are available for this SRFB cycle. The Committees agreed to work in concert with this process, similar to last year, but will make their decision on funding prior to the SRFB decisions, rather than immediately after. With this approach in mind, the group set the following tentative dates:

- 28 March Announce new funding cycle at Mid-Columbia Forum
- 1 May Project sponsor workshop
- 1 June Pre-proposals due
- Mid June Pre-proposals reviewed
- 1 August Full proposals due
- Mid-August Project tours, RTT reviews, etc
- 1 September Project presentations
- 15 October Tributary Committees make internal decisions
- 15 November Tributary Committees make formal decisions

The Committees directed Julie and Bob to work with local project sponsors, Lead Entities, and others to confirm the final dates and milestones—hopefully by 28 March. Bob Rose proposed to the group the notion of retaining funds for discretionary projects, and announcing to the stakeholders a lesser amount of funds available for this funding cycle. After some discussion, the Committees agreed that the current approach does not financially commit them in any way, so it allows for discretionary funding. The Committees also agreed that the SRFB application forms are acceptable, but certainly not preferred. The group will encourage, but not require, sponsors to submit their applications on the Tributary Committee application forms.

11. Annual report to stakeholders

Julie distributed a *draft* 2005 annual report to stakeholders, to be reviewed by the Committees. She asked that they provide comments to the text (which she will provide electronically) by 17 March. She could then complete the product for the Mid Columbia Forum.

12. Preparations for March 28 and 29 Mid-Columbia Forum

The group reviewed the *final* agenda for the HCPs' Mid-Columbia Forum, and reviewed the issues that should be highlighted in presentation about the status of the Tributary Committees:

- A recap of the first funding cycle,
- A discussion of the Small Projects Program,
- The announcement of the 2006 funding cycle, and
- A solicitation on recommendations on means to improve the process.

13. Next steps

The next regularly-scheduled meeting of the Tributary Committees is set for Thursday, 13 April (9:00 to 12:00) at the Chelan PUD Auditorium. Tentative agenda items include:

- Programmatic permitting,
- Coordination on permitting on district-owned lands,
- Details on the 2006 funding cycle, and
- Delegation of authority to the chairperson.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

Wells, Rocky Reach, and Rock Island HCP Tributary Committees Meeting Notes, 13 April 2006

Members Present: Chris Parsons (WDFW), Dale Bambrick (NMFS), Tom Kahler (Douglas PUD), Bob Rose (Yakama Nation, on phone), Shaun Seaman (alternate for Keith Truscott, Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator)

David Morgan and Chris Fisher notified the chair of their inability to attend; Chris provided his votes on agenda items 4, 5, and 6 prior to the meeting.

1. Review of proposed agenda

The Committees adopted the proposed agenda, with the addition of one item: the submission of the small projects application *Entiat PUD Canal Juvenile Habitat Enhancement* (item 15).

2. Review of past meeting notes

The Committees reviewed and adopted the 9 March 2006 meeting notes, with revisions provided by Tom Kahler.

3 HCP Project Coordinator monthly report

Julie Pyper distributed her monthly report. She said that contracts have been completed with Okanogan Nations Alliance, Methow Salmon Recovery Foundation, and Okanogan County Conservation District. She has not yet begun negotiations with Methow Conservancy and the Chelan Douglas Land Trust, as they have no immediate need to begin their contracts. The contracts are still under negotiation with Chelan County and Chelan County Conservation District, although she is confident that she can resolve the issue with the Conservation District. Specifically, the County has concerns about the ten-year duration of the contract, coordination of the monitoring component, and the legal status (and liabilities) of the Tributary Committees. The Committees authorized Julie and Keith Truscott to continue discussions with Chelan County, but will ask to meet with the Chelan County Commission if the issues are not resolved.

Julie discussed the issue related to ownership of development rights on property that has been purchased or protected through an easement. Often, the Tributary Fund will share the cost of these projects with other funding organizations. The group discussed the concept of transferring those partial rights to the other funding organization (such as Bonneville Power Administration or Salmon Recovery Funding Board) when the Tributary Committees share costs for a protection project. The Committees recognized that the properties must then be managed in a way consistent with the other funding organizations. This may require coordination with the HCP Hatchery Committees when acclimation ponds or other management activities may be envisioned. Dale suggested that some programmatic language be developed that addresses this

4 Action Item: Execution of 2005 project sponsor agreements

Julie distributed the authorization sheets for the Twisp Conservation Acquisition and Okanogan River Restoration projects for signature by the Committee members. Julie also asked the Committee members to sign the sponsor agreements for the Alder Creek Culvert, Nason Creek Oxbow Reconnection, Entiat Engineering and Permitting, and Entiat Instream Structures projects,

as well as the McDevitt and Gagnon small projects, with the expectation that the contracts for these will be finalized soon. The Committees agreed to sign these agreements with Chelan County and Chelan County Conservation District, pending completion of the contract. Julie will meet with Bob Rose and Chris Fisher next week to get their signatures.

5 Action Item: Selection of fiscal manager

Julie said that the review committee recommended the selection of LeMaster and Daniels of Wenatchee to serve as the fiscal manager for Rocky Reach and Rock Island Plan Species Accounts. The Committees approved this selection, and signed the authorization for the agreements with LeMaster and Daniels to begin their work.

6 Action Item: Revisions to Policies and Procedures

The Committees reviewed the Policies and Procedures Document with the revisions proposed by Julie and Tom Kahler. The document clarified some key issues on closure of application dates, invoicing procedures, and updated the language to make the document consistent with the application forms and project sponsor agreements. The Committees approved the revisions to the Policies and Procedures Document.

7 LIDAR Scope of Work

Bob Rose said that USGS staff is developing a scope of work for a fall 2006 LIDAR survey of Icicle, Nason and Peshastin Creeks. Some individuals in the region have expressed a desire to extend the scope of work to cover the Entiat and perhaps other streams in the Wenatchee Subbasin. Bob said that this work may be funded through the Grant PUD process.

8 Phased approach for project development

Bob Rose said that the Yakama Nation has funds to hire a consultant to begin development of a phased approach for project implementation in Peshastin and Nason creeks. The goal is to set up an appropriate sequence for projects. The Nation would pay for Phase I, which would identify potential projects, based on the assessments done under the ongoing and completed planning efforts in the Wenatchee Subbasin. Phase II (which currently does not have funding) would then be to work with landowners and stakeholders to secure support for projects. Phase III would then be development of engineering design. Bob is hopeful that the Tributary Committees will support and be involved in these subsequent phases when Phase I is successfully completed. The group thought this would have benefit, particularly if linked with both watershed and recovery planning. Bob agreed to keep the Committees posted on the progress of this effort.

9 Update on SRFB 2006 funding cycle, with details on Tributary Committee cycle

Bob Bugert notified the group of decisions made by the SRFB at their April meeting regarding their seventh round funding cycle. The SRFB is strengthening its link between project funding and implementation of regional salmon recovery plans. For their 2006 funding cycle, the SRFB will allocate 90% of its funds toward implementation of regional plans, 11% of that value (about \$1.8 million) will be directed to the Upper Columbia Region. The milestones for both the Tributary Fund and SRFB are as follows:

DATE	ACTIVITY
28 March	Announce Tributary Fund cycle at Mid-Columbia Forum
7 April	Announce SRFB funding cycle
1 May	Project sponsor workshop (tentative)
2 June	Pre-proposals due to Tributary Committees
8 June	Pre-proposals reviewed by Tributary Committees
28 July	Full proposals due to Tributary Committees, Lead Entities

7-9 August	Project tours and RTT reviews
14 September	Project presentations to Tributary Committees
9 November	Tributary Committees make formal decisions
6 December	SRFB makes formal decisions

These dates are the same as those proposed at the Mid-Columbia Forum.

10 Programmatic permitting

The group discussed the means to help the agencies streamline and improve the permitting of projects funded by the Tributary Committees. Chris Parsons said that WDFW is working with the Governors' Office of Regulatory Services to expedite permit processing for specific projects. They are experimenting with means to develop programmatic approaches. Dale believed that the bottleneck with instream project applications is with the Corps of Engineers. If the Section 7 permitting can be "batched processed" then the Corps processing would improve.

If the applicant provided a strong programmatic Biological Assessment, the development of the Biological Opinion would be expedited. Dale said there are standing Biological Assessments on Bonneville-funded restoration projects that would have utility. If we feel that there are some projects that the Tributary Committees would fund that are not covered in this assessment, it may be beneficial to proactively address this in a specific programmatic. We would want to have a firm handle on the types of projects that would be covered.

Bob Rose said that the BiOp Implementation Schedule would cover all projects that would be envisioned in the near future, and could be a good template to identify the scope of projects. Dale agreed to contact the Corps to ascertain whether they would be interested in programmatic permitting of projects funded by the Tributary Committees. The group will resume discussions on this in May.

11 Coordination on permitting on district-owned lands

Dale said he had discussions with Bob Clubb about Douglas PUD permitting for projects on lands owned by the district and would have deleterious effects on salmonids. He said that the PUD does not cover permitting on lands not directly within the Wells Project boundary. The PUD only issues a land use permit after the upland owner has obtain all necessary state, federal and local permits. Dale volunteered to draft a letter to Douglas PUD commissioners that would recommend permitting on lands owned by the district, but not necessarily in Wells pool. The group will then resume discussions on this issue in May, when the draft letter is available.

12 Delegation of authority to the chairperson

Bob Bugert reported on the ongoing discussions of Steve Smith, his legal advisor, and Bill Frymire of the Attorney's General (AG) Office regarding the delegation of authority for him to conduct Committee business as the chairperson. The agreement made between Smith and Frymire is that Bugert should establish his consulting business as a limited Liability Corporation, and to obtain liability insurance for that LLC. It appears that this approach will satisfy the concerns of the AG Office. The Committees directed Bugert to proceed with this approach.

13 Potential legislation for WDFW and PUD grant making authority

Bob Bugert and Chris Parsons described the request of the AG Office to seek legislation for WDFW and the PUDs to gain specific authority for disbursing grants for habitat projects, consistent with the HCP. This would obviate many of the concerns that the AG Office has regarding the authority, responsibility, and structure of the Tributary Committees. Bob Bugert

said that Bill Frymire of the AG is unable to work on specific language at this time, but would assist in the development in the near future.

Shaun and Tom said the PUDs will be better able to respond to this request when specific language is available. Shaun also said that the Washington PUD Association would want to review this. Bob and Chris will continue working with the AG on this, and will notify the Committees when language is drafted.

14 Review of Mid-Columbia Forum and recommendations for the future

Committee members discussed their impressions of the Mid-Columbia Forum, held in late March. They agreed that the benefits of the forum were good cross-committee coordination and informal discussions after each session, but the forum was not effective in its stated purpose—public outreach to stakeholders. Perhaps a better approach is for the committees to go to the stakeholders in their regularly-scheduled meetings, rather than invite them to our established forum. All recognized the importance of engaging with the community on the benefits of the HCP, and should continue the outreach.

15. Small Projects application

The Committees received copies of the small project application by Chelan County Conservation District; *Entiat PUD Canal Juvenile Habitat Enhancement*. The group will begin deliberations on this application at their May meeting, with the goal of having a decision by the June meeting.

16 Next steps

The next regularly-scheduled meeting of the Tributary Committees is set for Thursday, 11 May (9:00 to 12:00) at the Chelan PUD Auditorium. Bob Bugert notified the group that he will not be unable to attend this meeting. Tentative agenda items include:

- Execution of project sponsor agreements
- Programmatic permitting
- Potential legislation for grant making authority
- Small project application

Meeting notes by Bob Bugert (BobBugert@nwi.net)

**Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Conference Call Notes, 11 May 2006**

Members Present: David Morgan (USFWS), Chris Parsons (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Tom Kahler (Douglas PUD), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator)

1 Review and adopt agenda

The Committees adopted the proposed agenda.

2 Update on 2005 Project Sponsor Agreements

Julie Pyper reported that the sponsor agreements for Chelan County Natural Resources and Chelan county Conservation district are nearing completion. The County withdrew its previous concerns related to the ten-year duration of the contract and coordination of the monitoring elements. The sponsors of the Gagnon project are doing some well tests to determine if the distilling well will be reliable. Their agreement is pending, based on these tests. The agreements for the Nason Creek and Alder Creek projects are essentially complete, as well as the agreements for the two Entiat instream structure projects. The Signature Page of the McDivett project was inadvertently not included in the documents for the members' signature at the April meeting. The group agreed to sign the document if sent to them by facsimile.

Julie reported that she, Tom, and Bob Bugert met with the Methow Conservancy to review their pending project sponsor agreements. It appears that the funding from Bonneville for the cost-shares of these conservation easements may be approved. An issue that arose in those discussions with the Conservancy was whether it would be better for the Wells Plan Species Account to provide funding for one of the three parcels (Heath, Prentice, and McDonald) instead of partial funding for all three. The group agreed that it would be administratively easier to have an agreement for one parcel, yet deliberated on what the implications would be—both in strategic terms of protecting critical habitats and in the Committees' capability to leverage cost-shares with other funding entities.

The group also discussed their desire to influence the stewardship plans for these parcels, wanting assurance that the plans will have strong protection elements for salmonid habitat. After some deliberation, the Committees agreed that their preferred approach is to engage in cost-share funding of the three parcels, instead of solely funding one parcel. This decision is consistent with their decision made in January 2006 when they awarded the funds to the Conservancy. The Committees asked Julie and Bob to get copies of ongoing stewardship plans from the Conservancy to get a better handle on the scope of the plans; they will likely get copies of the Hancock Springs plan as an example.

3 Update on fiscal manager for Rocky Reach and Rock Island Plan Species Accounts

Julie Pyper reported that work is progressing well with LeMasters and Daniels on the financial management and invoice voucher processing for the Rocky Reach and Rock Island Plan Species Accounts.

4 Delegation of authority to the chairperson

Bob Bugert reported that he has secured status as a limited liability corporation, at the recommendation of the attorneys working on the delegation of authority. He has revised the draft language in the document to reflect this status. He has not heard back from Bill Frymire on this revised draft: Chris Parsons agreed to contact Bill to solicit his opinion. The group expressed an interest in completing this work, and to take action on this at the June meeting.

5 Reminders for June meeting:

Bob and Julie reminded the committees that several action items are forthcoming: 1) authorization of some of the 2005 Project Sponsor Agreements, 2) authorization of the delegation of authority, 3) decisions on the general fund pre-proposals, and 4) a decision on the pending small project application.

The group agreed to expedite the decision on the small project application: *Entiat PUD Canal Juvenile Habitat Enhancement*, sponsored by Chelan County Conservation District. Bob will contact committee members the week of 15 to 19 May to ascertain their interest in funding this project. If there is not consensus, or if there are unanswered questions, the group will come to a collective decision at the June meeting.

6 Next steps

The next regularly scheduled meeting of the Tributary Committees is set for Thursday, 8 June (9:00 to 3:00) at Chelan PUD Commissioners' Hearing Room. Tentative agenda items include:

- Status of contracting with approved project sponsors
- Delegation of authority
- Fiscal management of Rock Island and Rocky Reach Plan Species Accounts
- Review of General Fund pre-proposals, and
- Action on the Small Projects Fund proposal, if necessary.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

**Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 8 June 2006**

Members Present: David Morgan (USFWS), Chris Parsons (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Lee Carlson (for Bob Rose, Yakama Nation), Tom Kahler (Douglas PUD), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator)

1 Review and adopt agenda

The Committees adopted the proposed agenda.

2 Review and adopt meeting notes

The Committees adopted the 13 April and 11 May meeting notes, with revisions proposed by Bob Clubb for the former.

3 Project Coordinator Monthly report

2005 project sponsor agreements: Julie reviewed the status of the following projects:

- For the Gagnon Project, Chelan Conservation District is working with BOR to test the reliability of the distilling well (the cost for this component of the project is covered by BOR), which affects the scope and start up time for the project. The agreement is pending the results of this test.
- Julie provided a signature page for the McDevitt project, which the Rock Island Committee authorized the chair to execute (per agenda item 4).
- Julie visited the Okanogan River restoration project site with the Okanogan Nations Alliance. She expects that the project sponsor agreement is executed and forthcoming.
- The agreement for the Nason Creek Off-Channel project is complete and was executed by Chelan County. Likewise, the Entiat instream structures are essentially completed for both Chelan County and Chelan Conservation District. Chris Parsons asked Julie for the scopes of work for the Entiat Instream Structures from both the County and the Conservation District.
- The Alder Creek scope of work with Chelan County is also completed, as is the Clees Well and Pump agreement with Okanogan County Conservation District.
- At the request of the Committees, the Methow Conservancy provided copies of stewardship plans and the baseline reports for other lands that could be used as a template for parcels funded for easements. In the May meeting, the Committees discussed what should be covered in the stewardship plans for parcels they funded. The group agreed that the Committees will, at a minimum, outline the expectations for land management on the easements. The group directed Julie to provide general guidelines for easements in a

week for review by the Committees. If approved, this could be used for future work with sponsors who are funded to secure conservation easements on parcels. Notwithstanding this issue, the Wells Committee directed the chair to execute the project sponsor agreement with the Methow Conservancy.

Rock Island/Rocky Reach PSA fiscal management

Julie, in coordination with Douglas County PUD and LeMaster and Daniels, has developed the necessary products to carry out the contractual arrangements with projects sponsors funded under the Rocky Reach and Rock Island Plan Species Accounts. She offered to review them with the Committees, but they declined.

Also, LeMaster and Daniels drafted a memorandum to the Tributary Committees that analyzed the goals and structure of the Committees, and recommended that the group form a tax-exempt, private non-profit organization as the most effective means to conduct business. Keith said that Chelan PUD wants to ensure the funds are separated from them and that there is an adequate method to report the financial status of the Plan Species Accounts to the Internal Revenue Service. Tom said that his attorneys felt that this approach was not necessary for the Wells Plan Species Account. David asked if there were to be additional financial obligations for managing a tax-exempt organization. Keith responded that based on Chelan PUD's initial analysis, he felt that there would be negligible costs in addition to the ongoing administrative efforts. Julie added that this separate account would circumvent public works requirements, which may ultimately reduce administrative costs.

Dale said that this issue should be evaluated by Chelan PUD, but said this is beyond the scope of the Committees. He noted that the agencies have not received authorization to enter into a private non-profit; the individual members would need to solicit legal counsel on this approach. He recommended that another approach would be to establish a tax-exempt organization that has just Chelan PUD, the Committees' Chairperson, and the Project Coordinator as members, eliminating the need for legal review and approval by the agencies and tribes. He is concerned that the procedural review by a federal agency to take such an action is too cumbersome to make this feasible. The members agreed to seek preliminary advice from their respective organizations on the feasibility of this proposal, and to resume discussions at the July meeting.

4 Action Item: Delegation of Authority to Chairperson

With the exception of the Yakama Nation, the parties to the Committees signed the delegation of authority to the chairperson to execute their actions. Lee said the legal review by the Yakama Nation is underway. In the interim, he or Bob Rose will co-sign the project sponsor agreements (or other official documents) with the chairperson until the legal review is completed and authorized by the Nation.

The Rock Island Committee approved the payment for the chairperson's legal review of the draft delegation of authority, in the amount of \$702.91. Bob Bugert also provided the Committees with an insurance quote he received for the specified \$1 million general and professional liability coverage, at an annual cost of \$4,096. Julie suggested that Chelan PUD may be able to assist Bob in finding a lower rate, and would inquire this from their risk manager. Regardless, the Committees approved the expense of the liability insurance from the Committees' administration portion of the Plan Species Accounts. In addition, the Committees agreed that if a claim were to occur that the Committees would pay the deductible of such policy.

5 Action Item: Small Project Application

As a follow-up to the 11 May conference call, the Rocky Reach Committee authorized the funding of the small project *Entiat PUD Canal Juvenile Habitat Enhancement* for the amount of \$23,640. That Committee authorized the chairperson to execute this agreement.

Chris Parsons asked that the project be approved contingent on the correction of the Chelan PUD screen on the canal. Keith explained that the PUD is investigating the ability to consolidate the PUD irrigation system with another system managed by the Entiat Irrigation District. If consolidated, there would no longer be a need for the PUD canal to function as an irrigation diversion (therefore no screens) and it could then be managed solely as a side channel for rearing salmonids. Also, this consolidation could provide approximately an additional 5 cfs into the Entiat, because the point of withdrawal would be changed to the Columbia River. Keith added that if this consolidation effort is unsuccessful, Chelan PUD would replace or repair the screen to make it consistent with current standards. Chris Parsons agreed that this approach is acceptable.

6 Details on procedures and milestones for 2006 General Fund

Bob described the procedures for coordination with the Salmon Recovery Funding Board (SRFB) on the development, technical review, and submission of project proposals to both organizations. Of particular note were the technical reviews by the Upper Columbia Regional Technical Team (RTT) on 14 June and 18 August, for the pre-proposals and final proposals, respectively. Tours of the projects will be held on 9 August for Okanogan County; the Chelan County projects will be on 10 August. The Committees will invite selected project sponsors to a special session on 28 September. The date for the funding decisions will remain on 9 November.

7 Action Items: General Fund pre-proposals

The Committees received 21 pre-proposals for funding under the General Habitat Fund. The group reviewed each project and concluded that two should not be considered for funding (*Rock Ramp Guidelines* and *Habitat Farming*). Comments to each pre-proposal are as follows:

Six Chelan County passage barrier projects: The Committees reviewed the barrier removal pre-proposals by Chelan County (Alder Creek, Clear Creek, Skinney Creek, Beaver Creek, Stormy Creek and North Road). They expressed concern about the costs of installing bridges for some of these streams; would it be less expensive to use alternate structures for some of these passage barriers? Likewise, there were questions about the cost of hydro-seeding, and a blanket cost estimate for some items; there should be more specificity to each project. There was a question about the need for clearing and grubbing 3 acres for the Clear Creek project.

Bob described the work by Casey Baldwin to develop a passage barrier prioritization system, based on VSP criteria. The group directed Bob to invite him to the July meeting to discuss the system that he developed. This should help the Committees deliberate on the appropriateness of each barrier project that is proposed. Tom noted that some of these culvert projects were also submitted for BPA funding; it will help the Committees to consider the response of the Independent Scientific Review Panel on these projects.

Irwin Riparian Restoration Project: The group expressed concern about the high cost of revegetation. Likewise, more detail on the budget would be necessary. This project should be evaluated after the recent high flows recede. Would this project be eligible for Conservation Reserve Enhancement Program (CREP) funding? Is livestock exclusion included in this effort? There was no mention of monitoring efforts (survival rate after 3 years??) This area has a healthy beaver and deer population – plant protection??. This

would be an appropriate site to include in the tour. The Committees ask that the applicant include the landowner willingness form in the final application.

Habitat Farming Project: The Committees support the concept of agricultural leasing of critical riparian areas, but are not willing to fund the water rights assessment or the economic valuation. The sponsor should consider cost sharing from the county, the State Department of Ecology and perhaps BPA. The Committees directed the chairperson to notify the project sponsor of this decision.

Nason Creek Oxbow Reconnection: The Committees felt that this application may be premature. The group would like to review the results from Phase I on the comparison of alternatives. The group would like additional information on cost-sharing opportunities with WDOT.

Entiat Instream Structure Effectiveness: The Committees understand the importance of monitoring the effectiveness of the Bridge to Bridge Project, but do not wish to allocate their entire effectiveness-monitoring package on one action in one watershed. They recommend a scaled-back approach to evaluate the effectiveness of this action type. Some members questioned the transferability of the results of this study. There is some debate on the appropriateness of the proposal, but encouraged the sponsor to apply with a reduced budget. They stressed the need to coordinate with the Upper Columbia Regional Monitoring Strategy.

Wenatchee Riparian Restoration: The group expressed concerns about the costs and administrative overhead (post/rail fencing vs. other less-costly fencing to control livestock), and directed the chair to notify the sponsor of this. Monitoring?? A secondary issue is that the Committees prefer the selection of one area that needs restoration, based on well-established biological criteria, rather than a programmatic approach. This application could be re-worked into 2 applications; 1 for Fromm and 1 for the Programmatic Approach. The group also thought that some areas may be suitable for passive restoration.

Rock Ramp: The Committees felt that the flow and design guidelines study is outside the interest of the Tributary Committees. They would be willing to consider funding projects that implement this technique, but not the study itself. They directed the chairperson to notify the sponsor of this decision.

Elbow Coulee Floodplain: The Committees asked for an explanation of why the entire side channel is not being considered for restoration. The sponsor should explain the method for brook trout removal. The group will probably do a site visit on this one. Please address ISRP comments. Chris Fisher will provide information to the sponsors on techniques for brook trout eradication.

Fender Mill: The Committees need more information on the method for brook trout removal. Please address ISRP comments.

Hancock Springs: The Committees need information on the method for brook trout removal. The Committees had some concerns about necessity of installing instream structures; more detail would be required. Please explain the coordination with BOR. Hatchery outplants are not within the scope of Tributary Committees; this may have to be linked with Hatchery Committees.

Methow Riparian Protection: The Committees deliberated on how to provide guidance to the Conservancy on its long-term approach. They directed the chairperson to invite the Conservancy representatives to the July meeting to discuss this.

Okanogan Livestock and Water: The Committees stated that this project needs to show direct benefit to the Plan Species. The indirect benefit to salmonids of improved water quality is not a compelling reason to support this project. The group felt that there is a higher likelihood of funding if implemented in areas currently used by Plan Species. More detail on budget would be necessary. The Committees encourage the sponsor to seek funding from Farm Bill programs.

Red Shirt Barrier Removal: The applicant should state what the status of the water right is, and the planned use of any water saved from this project.

Upper Beaver Channel Relocation: The Committees had no preliminary comments to this pre-proposal.

8 Programmatic permitting

Dale Bambrick said that Dennis Carlson of NMFS will begin a “batched consultation” for the Entiat instream structures, which will outline the time frame, the objectives for structure installation, side channel connection, and large wood installation. This should expedite the Section 7 consultation. David said that phases 1, 2, and 3 of the batched Bridge-to-Bridge project will be done prior to the work window, pending the receipt of the letter from NMFS on their consultation. He agreed that it would be beneficial to work with Dennis on the USFWS consultation. Chris Parsons will ask Bob Steele (WDFW) to work with Dennis Carlson on this approach.

On a programmatic level, Dale said NMFS is working on efforts with BPA to re-write the Habitat Improvement Plan (HIP) BiOp. He suggested that the activities in that programmatic be submitted to Corps of Engineers for inclusion in a batched approach for projects that are funded by the Tributary Committees. He expects this will not be available until the 2007/8 funding cycle.

9 Next steps

The next regularly-scheduled meeting of the Tributary Committees has been revised to Thursday, 20 July (9:00 to 12:00) at the Chelan PUD Commissioners’ Hearing Room. Tentative agenda items include:

- Barrier prioritization methods (Casey Baldwin)
- Long-term approach by Methow Conservancy (Katharine Bill)
- Status of contracting with approved project sponsors
- Fiscal management of Rock Island and Rocky Reach Plan Species Accounts, and
- Continued review of General Fund pre-proposals.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

**Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 20 July 2006**

Members Present: David Morgan (USFWS), Chris Parsons (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Bob Rose (Yakama Nation), Tom Kahler (Douglas PUD), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator), Becky Gallaher and Carol Wardell (Chelan PUD), Alan Schmidt (Chelan County Natural Resources), John Soden (Jones and Stokes, Inc.), and Katharine Bill (Methow Conservancy)

1 Review and adopt agenda

The Committees adopted the proposed agenda, with revisions to the sequence of the agenda items.

2 Review and adopt meeting notes

The Committees adopted the 8 June meeting notes, with revisions proposed by Julie Pyper, Keith Truscott, and Tom Kahler.

3 Support for Tributary Committees

Keith Truscott said that Becky Gallaher will be playing a larger role in support to the Tributary Committees in invoicing, logistics, and general support. Julie Pyper will assume additional responsibilities in the HCP Hatchery and Coordinating Committees, as well as her ongoing work with the Tributary Committees.

4 HCP Project Coordinator monthly report

Julie Pyper distributed her monthly report that gave an update on the 2005 projects. There are four remaining agreements to sign: *Gagnon*, *White River Protection*, *Methow Riparian Protection*, and *Twisp River Conservation Purchase*. The latter three can be completed pending the Tributary Committees' establishment of the conservation easement management guidelines. After some discussion, the Committees agreed to the management guideline language that will be used for negotiations with project sponsors in the language of their agreements with land owners. The intent of the guideline language was to have the appropriate balance in giving landowners flexibility in their stewardship plans, yet ensure that the conservation expectations of the Committees are achieved in the easements.

Julie noted that the timing for approving payments on invoices could prompt a need for conference calls on the second Thursday of the month, if the meeting on that regularly scheduled date is postponed. To accomplish an expedited invoice-approval process, Julie and Becky would review the invoices as a package and provide a summary sheet for the Committees to approve. The Committees discussed the general logistics of approving invoices, and recognized there may be a need for two or more proxies with authority for voting in lieu of the primary delegate. At this time, each delegate has only one proxy. The committee members agreed that a delegate may formally identify more than one proxy.

5 Rock Island/Rocky Reach Plan Species Account fiscal management

Carol Wardell (Chelan PUD legal counsel) discussed the issue of setting contracts for restoration on private lands without the requirement of meeting the District's requirement on bid laws, prevailing wages, and other procedural issues. She recognized the recommendation of the accounting firm, LeMaster and Daniel, PLLC, about the benefits of the Committees' developing a separate corporation, yet after discussions with the state Attorney's General Office, Carol felt that this may not be feasible. As an alternative, she recommended that Chelan PUD allow the Rocky Reach and Rock Island Committees to use the District's tax identification number, but still use a professional contracting firm to process the invoices and ensure proper tax reporting and accounting. She stipulated that for this to occur, the District must be allowed to audit the financial report on a quarterly basis. She noted that the invoicing would still be processed by the chairperson through the Delegation of Authority, and distributed some draft language as part of the Operating Procedures.

In general, the group felt comfortable with the draft language, but will consult within their respective entities, and will notify the chairperson if they cannot approve the language by 5:00 PM on 28 July. The committees will then seek resolution to the issue if there is a problem with the proposed language.

6 Scope of work for Nason Creek restoration project

John Soden (Jones and Stokes) and Alan Schmidt (Chelan County Natural Resources Department; CCNRD) gave an update on their alternatives analysis for reconnection of the oxbow on Nason Creek. Based upon feedback from the Upper Columbia Regional Technical Team (RTT) and the Washington Department of Transportation, they examined five design alternatives, as follows:

- Alternative 1 – Remove SR 207 from the Nason Creek channel migration zone.
- Alternative 2 – Redirect Nason Creek into the existing oxbow using two 200-foot bridge structures.
- Alternative 3 – Reconnect partial Nason Creek flows to the oxbow with two 12-foot Corrugated Metal Pipe (CMP) culverts.
- Alternative 4 – Reconnect partial Nason Creek flows to the oxbow with two 36-foot CMP culverts.
- Alternative 5 – Reconnect partial Nason Creek flows to the oxbow with one 12-foot CMP culvert at the downstream oxbow connection.

These alternatives were compared through overall salmonid habitat benefit, construction feasibility, cost, and the potential for funding based upon project cost. Based upon this analysis, the CCNRD proposes to construct Alternative 3; the partial reconnection of the oxbow to Nason Creek via two 12-foot CMP culverts. They feel that this alternative directly addresses the limiting habitat factors within Nason Creek, is practical to construct, has comparatively low cost, and meets typical financial limits of current funding sources.

Chris Parsons expressed concern that the increased flows through the oxbow from this project may have deleterious effects, by eliminating an overwinter refuge through dilution of a relatively warm spring-fed, slow-water habitat. She recommended that this be evaluated prior to selection of the final alternative. John Soden acknowledged this concern, yet said that it is unlikely that the

project sponsor can modify the application for the 2006 General Program fund, which is due 28 July.

7 Chelan County barrier prioritization methods

Casey Baldwin (WDFW) was unable to attend the meeting to discuss the work by him and other RTT members to develop a systematic means to set priorities for correcting fish-passage barriers in Chelan County. Bob Bugert distributed their draft report, which described the logic path used by the RTT to identify priorities, based on gradient and available habitat upstream of the barriers, and linkage to the Viable Salmonid Population criteria established under the Upper Columbia Salmon Recovery Plan. Bugert stated that this report was developed at the request of CCNRD, who asked for technical guidance on selection of barriers to correct.

8 Approaches to protect riparian habitat in the Methow

Katharine Bill of the Methow Conservancy discussed the work with CommEn Space and Pacific Biodiversity Institute to identify parcels that are at risk for conservation. They estimated that 25 percent of the privately-owned lands within the Methow Subbasin have been developed, prompting the need to identify which areas are priorities for conservation. Their analysis indicated that the current incentives that drive the selection for areas to develop are: access to river, view-shed, access to trails, access to secondary roads, and adjacency to public land. The biggest disincentive is the proximity to Highway 20. There are more funds available for riparian protection, yet shrub is a habitat type with high risk to development and with limited funds available for protection. The priority areas determined to be central to the Conservancy's work over the next five years are:

- Riparian Zones along the Methow, Twisp and Chewuch Rivers: focusing on the headwater spring Chinook spawning areas
- Farmland between Winthrop and Twisp: between the East County Road and the Methow River
- The Twisp Highlands: shrub-steppe lands between Twisp and Beaver Creek, north to Davis Lake
- The Big Valley Ranch-Rendezvous corridor: riparian, farmland and shrub-steppe habitat. Mule deer winter range and migratory corridor.
- The Winthrop-Twisp Corridor, west of Highway 20: with shrub-steppe, pine forest and a possible non-motorized pedestrian trail.

They developed a matrix to evaluate riparian areas and set priorities based on project size, connectivity habitat quality, landowner interests, and development threat. Katharine showed the priority areas on several maps, which she can make available to the Tributary Committees if needed. The group discussed the dilemma of supporting the efforts of the Conservancy in a cost-effective and prudent manner, given the aggressive real estate market in the Methow Valley. Katharine acknowledged this challenge, and described the Conservancy's exploration of other tools to accomplish its mission. This approach is described in their Conservation Needs Assessment, which she will make available to the Committees.

Katharine then described the funding arrangement the Methow Conservancy had with the Salmon Recovery Funding Board (SRFB) during the Second Round, in 2000. In that contract, the SRFB provided a set amount of funds for the Conservancy to protect unspecified areas within the subbasin, as long as they met the general biological criteria established in the Upper Columbia Biological Strategy. This allowed them to more effectively negotiate conservation easements

with willing landowners. She maintained that this is more cost-effective in the long term, and provides the Conservancy with the capability to be more strategic in its approach.

9 Status and logistics of 2006 General Fund proposals

Julie, Becky, and Bob Bugert gave a brief summary of the arrangements underway for the project sponsor tours on 9 and 10 August in the Methow and Wenatchee subbasins, respectively. Project applications are due to Becky by 28 July; copies of these applications will be sent to the Committee members and the RTT on 2 August.

10 Coordination on effectiveness monitoring

Bob Bugert described the work underway by the Governor's Forum on Monitoring to measure the effectiveness of projects funded by the Pacific Coastal Salmon Recovery Fund. This effort will lay the foundation for development of "high level indicators" which will help funding organizations and others to ascertain which projects appear to be the best investments. Bugert said that Bruce Crawford and Steve Leider of the Forum will be on the 10 August tour, and that there will be time set aside to meet with them and the RTT on the integration of the Upper Columbia Regional Monitoring Strategy to this effort. The meeting will be at Chelan PUD office in Leavenworth, on the afternoon of 10 August.

11 Next steps

The next regularly-scheduled meeting of the Tributary Committees (10 August) has been set as part of the field tours of the proposed projects. The next meeting will then be Thursday, 14 September at the Chelan PUD Auditorium. Tentative agenda items include:

- Status of contracting with approved project sponsors
- Continued review of General Fund pre-proposals.

A special session will be held on 28 September to review specific projects. This will also be held at the Chelan PUD Auditorium.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 14 September 2006

Members Present: David Morgan (USFWS), Chris Parsons (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Bob Rose (Yakama Nation), Tom Kahler (Douglas PUD), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator), Becky Gallaher (Chelan PUD)

1 Review and adopt agenda

The Committees adopted the proposed agenda and added one item: Bob Bugert asked for direction on a request for funding to conduct research on Beaver Creek (item 7).

2 Review and adopt meeting notes

The Committees adopted the 20 July meeting notes, with revisions proposed by Tom Kahler.

3 HCP Project Coordinator monthly report

Julie Pyper and Becky Gallaher reported on the status of contracts with 2005 sponsors:

- The Okanagan River Restoration Project is progressing well. Engineering is underway and 70% drawings will be completed for a multi-agency review of the project on 6 October. Julie reminded the sponsor that the Committees will review the drawings, which will be placed on the ftp site after 22 September. The group will review these materials and may send a delegate to the 6 October project review. The Okanagan Nation Alliance submitted a payment request of \$46,401 CDN; the Wells Committee approved this payment.
- The Chelan Conservation District completed work on the McDevitt screen. They will submit a payment request and project completion by the October meeting.
- The 65% design drawings for Nason Creek Oxbow connection are nearing completion and will then be submitted as part of the permitting process. Landowner agreements are nearing completion. The Committees asked to review these drawings.
- The Chelan Conservation District has an executed agreement for the Entiat Instream Structures Project, with landowner agreements in place. The Bureau of Reclamation (BOR) is completing the design. Chelan County Natural Resources is working under a separate contract with Chelan County Conservation District on this project, and the work is progressing.
- The Heath Property conservation easement by Methow Conservancy is complete, and the negotiations for the MacDonald and Prentice properties are underway.
- The Twisp Conservation purchase is complete. The payment request has been acted on. Julie noted that the MSRF request was for \$40,000, which was the full authorized amount, rather than the actual cost (\$35,430). This allows for full reimbursement by the SRFB who provided funding based on a committed match of 15%.
- The Clees Well and Pump project is underway. The well tests provide adequate water and the search for the appropriate pump is underway. Initial reimbursement request will be in October.

- The Alder Creek culvert replacement project is underway. The BOR is working with USFS and WDFW on the design work; the sponsor is still uncertain whether to install a bridge or culvert. The sponsor is pushing to complete this project soon, but the Committees are concerned that the effort may not be effective if done too quickly. The Committees asked Julie to notify the sponsor that this project is not time sensitive.
- The land in the Gagnon project has been sold, so the Conservation District is working on developing a new commitment with the new landowner on proceeding with the project. The Committees agreed to allow this to proceed.
- Chelan/Douglas Land Trust is finalizing its agreement with the Committees. They must expedite this work to secure their match funds from SRFB (the deadline is 30 September). The land trust is working on several purchase and sale agreements for some of the parcels. There will be a payment request from them soon to meet that deadline. To expedite this payment, the Rock Island Committee agreed to this payment, not to exceed \$250,000.

Bob Rose noted that many of these projects would require a review by an individual with the appropriate technical expertise. Chris Parsons said that Bruce Heiner (WDFW engineer) may be available to review these projects, as he would be involved in permitting. The Committees agreed that this review would help in their deliberations.

Julie also reported on the work to identify a financial institution to hold the Rocky Reach and Rock Island Plan Species Accounts. To facilitate this action, Julie and Becky requested that LeMaster and Daniels poll five to six financial institutions and collect some general information on the institutions. With the collected information, they recommended Cashmere Valley Bank, which is also the financial institution for the Wells Plan Species Account funds. The Rocky Reach and Rock Island Committees approved this recommendation.

4 DECISION ITEM: Approve final language in Delegation of Authority document

Pyper and Bugert reviewed the status of the Delegation of Authority. They requested that Mike Schiewe, chairperson of the Coordinating Committees, be designated as an alternate to the Tributary Committee chairperson for signatory authority. The Tributary Committees agreed to this and signed the revised Delegation of Authority. This will be passed on to Mike for his signature.

5 DECISION ITEM: Adopt revisions to Funding Policies document

Pyper and Bugert reviewed the proposed changes to the Funding Policies and Procedure document. There are two notable changes; the first gives the Committees discretion on whether to hold project sponsor workshops and the second sets guidelines to sponsors for management of lands protection through conservation easements or acquisition. The Committees approved the revisions to the document.

In reviewing the Funding Policies, Bob Rose suggested that the Committees consider a more directed funding approach, and asked the group to discuss this concept after this funding cycle is completed. The Committees agreed to have a more rigorous discussion of funding policies this winter.

6 DECISION ITEM: Adopt revisions to Operating Procedures document

Bugert reviewed the proposed language in the Operating Procedures, which pertains to fiscal management of the Rocky Reach and Rock Island Plan Species Accounts. The revisions were based on the recommendations of Carol Wardell (Chelan PUD legal counsel) on use of Chelan

PUD's tax identification number for transactions related to those plan species accounts (refer to the July notes). The Committees approved the proposed revisions. The group noted the need for some minor changes to the document regarding membership and meeting schedules, and directed Bugert to make the necessary changes.

7. Request for funding for Beaver Creek research

Bob Bugert distributed a preliminary request for funding by Adam StSaviour to evaluate the effectiveness of stream channel restoration on Beaver Creek. The Committees reviewed the request and suggested that the sponsor work with agencies to develop a more comprehensive study plan with several funding partners, rather than submit a stand-alone proposal.

8. Status of projects to be submitted to SRFB in 2006

Bugert distributed a spreadsheet that lists the projects to be submitted by the Upper Columbia Lead Entities to the Salmon Recovery Funding Board (SRFB). The group noted that the prioritized list to the SRFB is essentially the same as those projects submitted for funding by the Tributary Committees. Some projects that were submitted to both the SRFB and the Tributary Fund have been identified by the SRFB Review Panel as "Potential Projects of Concern", which greatly reduces their chances of funding by SRFB if their technical deficiencies are not corrected.

9. Discussion of 2006 General Fund proposals

The Committees reviewed each individual project, and identified which sponsors with whom they had questions regarding either technical or logistical approach on their projects. The Committees agreed to invite the following sponsors to the 12 October meeting to discuss their projects in greater detail:

- Fender Mill Project, proposed by Methow Salmon Recovery Foundation;
- Elbow Coulee Project, proposed by Methow Salmon Recovery Foundation;
- Stormy Creek Culvert Project, proposed by Chelan County Natural Resources Department;
- Entiat Instream Structure Effectiveness Monitoring, proposed by Wenatchee Forest Sciences Laboratory.

Noting that there are many projects pending in the Entiat Subbasin, the group discussed the merit of sponsoring a workshop in winter to discuss efforts underway in that watershed. This may help the Committees in future funding deliberations.

10. Next steps

The Committees cancelled the workshop proposed for 28 September. The next regularly-scheduled meeting of the Tributary Committees will be Thursday, 12 October at the Chelan PUD Auditorium. Tentative agenda items include:

- Status of contracting with approved project sponsors
- Continued review of General Fund proposals.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 12 October 2006

Members Present: David Morgan (USFWS), Chris Parsons (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Lee Carlson (alternate for Bob Rose, Yakama Nation), Tom Kahler (Douglas PUD), Keith Truscott (Chelan PUD), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator), Ben Lenz (Grant PUD), Chris Johnson (MSRF), Greg Knott (USBOR), Jenny Molesworth (USFS), Karl Polivka (WFSL)

1 Review and adopt agenda

The Committees adopted the proposed agenda.

2 Review and adopt meeting notes

The Committees adopted the 14 September meeting notes, with revisions proposed by Tom Kahler.

3 HCP Project Coordinator monthly report

Julie Pyper distributed the monthly report that she and Becky Gallaher produced. The report primarily outlines the status of contracts with 2005 sponsors but also covers administrative issues. The following is a brief summary of the salient issues:

Status of Funded Projects

- The Reiman (formerly Gagnon) project has not begun yet. The new landowner is hesitant to continue with the project. He is evaluating the benefits and risks and will make a decision to proceed, or to decline the funding.
- The McDevitt Diversion Project is completed and the final report is posted on the ftp site. The Rock Island Committee approved the payment of \$2743.00 to Chelan County Conservation District for the McDevitt Diversion.
- The Okanagan Restoration Project is proceeding well, given the scope and complexity of the work. Julie, Becky, and Tom attended the design review meeting and felt comfortable with the capability of the sponsor in accomplishing the project objectives.
- The Nason Creek Oxbow Reconnection Project is proceeding well; the 65% design drawings are expected to be completed by November. These will be forwarded to the Committees when available.
- The interdisciplinary team for the Entiat Instream Structures Project is currently reviewing the alternative approaches for design and placement of the structures. The sponsor has identified four potential sites with willing adjacent landowners.

- Contracting for work began on the Entiat PUD Canal Fish Enhancement Project (water-tight slide gate) is proceeding according to schedule. Installation of the gate is anticipated to take place after the irrigation season (mid/late November).
- The Methow Conservancy is completing the terms of the conservation easement for the MacDonald property and has an agreement in principle for the Prentice property. The Committees asked to see the final language of the conservation easements for those properties, once completed.
- The drilling of the well for the Clees Project is completed. The Rocky Reach Committee approved the payment request of \$2,500.00 to the Okanogan Conservation District for the Clees Well and Pump Project.
- The payment of \$176,391.84 to the Chelan Douglas Land Trust for the White River Protection Project was completed on 28 September, per the directive of the Rock Island Committee in the September meeting.

Administrative Expenses and Issues

The following administrative expenses were approved:

- The Rocky Reach Tributary Committee approved the payment to Chelan PUD of \$3,025.52 for Rocky Reach Plan Species Account administration.
- The Rock Island Tributary Committee approved the payment to Chelan PUD of \$3,186.15 for Rock Island Plan Species Account administration.
- The Wells Tributary Committee approved the payment to Douglas PUD of \$2,194.90 for Wells Plan Species Account administration.
- Mike Schiewe (Chairperson of the Coordinating Committees) and his legal and contractual staff approved the language in the delegation of authority to him as the alternate.

4. Project Status Review Workshop

Bob Bugert said that the Salmon Recovery Funding Board (SRFB) will likely sponsor a statewide Project Status Review Workshop next spring, and noted that there is an interest by the Upper Columbia Citizens' Committees and others to convene a smaller, focused workshop at the regional level. Bugert also noted that the Committees to the Chelan and Douglas HCPs have held their "Mid-Columbia Forum" the past two years, and will likely convene another forum this March. He then noted that the Upper Columbia Regional Technical Team will have a monitoring review workshop this spring. He asked for input from the Tributary Committees on their interest in participating in a regional project status review workshop. At this time, the group expressed a tentative interest; they asked Bugert to coordinate with local interests and the SRFB and report back to them.

5 Fender Mill Project Proposal

Chris Johnson of the Methow Salmon Recovery Foundation (MSRF), Greg Knott (Bureau of Reclamation), and Jenny Molesworth (USFS) said they submitted the Fender Mill project to both the SRFB and the Tributary Committees. This is part of a larger project to remove some structures (levees, abutments and defunct fish screens) to allow more naturalized stream channel function. They reduced the budget cost to \$50,000. This project will be done as part of a larger

approach to protect and restore floodplain function in the reach. This project has a high rank in the regional submission to the SRFB, so the likelihood of funding from that source is good.

6. Elbow Coulee Floodplain Restoration Proposal

Johnson, Knott, and Molesworth discussed the Elbow Coulee restoration project, which is on lands owned by WDFW and USFS. The proposal is to remove the push-up dike, allowing side channel access. Similar to the Fender Mill Project, they propose a scaled back approach from what was previously envisioned. This will lower the project cost some, but not much. This proposal was submitted to both SRFB and Tributary, but the likelihood of funding by the former is not good, since it did not rank highly in the regional scoring. The Committees asked the sponsor to submit a revised budget, prior to the November meeting.

7. Entiat Effectiveness Monitoring Proposal

Karl Polivka of the Wenatchee Forest Sciences Laboratory (WFSL) discussed the application of foraging theory and population ecology to evaluate the effectiveness of the instream structures on the Entiat River. The WFSL proposes four main research objectives: 1) habitat selection and patterns of fish abundance in treated and untreated areas, 2) density-dependent growth in both areas, 3) macroinvertebrate abundance and fish foraging in both areas, and 4) bioenergetic considerations for fish production. These objectives will be integrated to estimate how these treatments affect carrying capacity, which will then allow them to make inferences on the effectiveness of the structures. This proposed study has a cost share from the PNW Research Station, and is linked into the Integrated Status and Effectiveness Monitoring Program (ISEMP).

8. Discussion of 2006 General Fund proposals

Bob Bugert distributed the final recommendations of the Upper Columbia Citizens' Committees to the SRFB on projects to be funded this year. Those projects that were submitted both to the SRFB and the Tributary Committees and likely to be funded by the former are as follows:

- Alder Creek Passage
- Lower Skinney Culvert
- Irwin Riparian Restoration
- Nason Creek Oxbow Reconnection
- Hancock Springs Restoration
- Fender Mill Floodplain
- Methow Riparian Protection IV (proposed as a cost share by SRFB and Tributary Fund).

The Committees discussed the remaining project proposals, and committed to make their decision on which projects to fund on 9 November, as per schedule. The Committees directed the chair to invite a representative from the Methow Conservancy to discuss the Methow Riparian proposal.

9. Schedule changes to accommodate December Policy Committees

Bob Bugert requested that the Tributary Committees adjust their 14 December meeting to accommodate the HCP Policy Committee meeting, set for 1:30 to 3:30 on that date at SeaTac. The group agreed to meet on Friday, 15 December instead.

10. Next steps

The next regularly-scheduled meeting of the Tributary Committees will be Thursday, 9 November at the Chelan PUD Auditorium, probably from 9:00 to 12:00. Keith Truscott notified the group that he is not available for the November meeting because of a schedule conflict, but his proxy would attend the meeting. Tentative agenda items include: 1) status of contracting with approved project sponsors, and 2) decision on 2006 General Fund proposals.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

**Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 9 November 2006**

Members Present: David Morgan (USFWS), Chris Parsons (WDFW), Dale Bambrick (NMFS), Chris Fisher (Colville Tribes), Tom Kahler (Douglas PUD), Keith Truscott (Chelan PUD; on phone), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator), Becky Gallaher (Chelan PUD), Katharine Bill and John Sunderland (Methow Conservancy; for agenda item 7 only)

Bob Rose (Yakama Nation) notified the chair of his inability to attend the meeting, and provided his perspective to the chair on the pending decision items.

1 Review and adopt agenda

The Committees adopted the proposed agenda, with two additional items requested by Bob Bugert: an update on programmatic permitting efforts, and preparations for the Policy Committees meeting on 14 December.

2 Review and adopt meeting notes

The Committees adopted the 12 October meeting notes, with revisions proposed by Tom Kahler and Keith Truscott.

3 HCP Project Coordinator monthly report

Becky Gallaher reviewed the monthly report that she and Julie Pyper developed for the Committees:

Status of contracts with 2005 sponsors

The engineering design drawings for the Okanagan River Restoration Initiative have been completed. The project sponsor submitted a budget reallocation request, primarily from engineering design to site preparation and clean-up. This will not change the overall budget amount. They also requested a time extension from 15 December to 15 April to allow more permit review and public outreach. Julie and Becky said they are making good progress. The Wells Tributary Committee approved this reallocation and time extension.

The Chelan Douglas Land Trust has acquired five properties totaling 308 acres. Julie stated that it is important to do site reviews, and will be working with CDLT on the remaining parcels identified in the White River.

At this time, Chelan County has not submitted the project design drawings for the Nason Creek and Alder Creek projects. Until this is done, it is not possible for the Committees to approve the sponsor proceeding with these projects. These projects are to be discussed at the upcoming BOR design review meeting. Julie and Becky will discuss this with the project sponsor at that time and report back to the Committees with recommendations.

The Methow Conservancy work on the MacDonald and Prentice properties is progressing well, and both easements are expected to be completed in spring 2007.

Approval of payment requests

Becky stated that the Okanogan Nations Alliance submitted a payment request for the Okanogan River Restoration Initiative project. Total amount requested is \$59,628.88 (US). The Wells Tributary Committee approved the payment.

4. Project Status Review Workshop

Bob Bugert said that the tentative dates for the Upper Columbia project and science status review workshop are as follows: February 13 project status reviews (both SRFB and Tributary Fund), February 14 state of science (primarily ISEMP and OBMEP, but also some hatchery evaluations), and February 15 pre-season coordination among those involved in monitoring efforts. Bob said he and others are working to coordinate this to the extent practicable with the HCP Forum, if that will be held.

5. Programmatic Permitting

Bob and Dale discussed the work by GSRO and NMFS to develop a programmatic permit for threatened species under the 4(d) rule for Washington State. The goal is to have this completed by the end of the year, with adoption in January 2007. The intent is to then use this as the foundation to extend coverage to spring Chinook, listed as endangered, and USFWS coverage for bull trout, for projects funded by the Tributary Committees and perhaps other sources.

6. Policy Committees Meeting

Bob reminded the group of the upcoming HCP Policy Committees meeting on 14 December. He asked for general direction from the group on the key talking points. Members stated that a general review of past funding priorities was important, and that future endeavors will likely be coordinated with the implementation schedules of the draft recovery plan.

7. Methow Riparian Protection

John Sunderland and Katharine Bill of Methow Conservancy gave a presentation on the proposal to acquire conservation easements on three parcels (Lehman, 75 acres; Friedrich, 22 acres; and Coon, 10 acres), which total 107 acres and 0.93 miles of shoreline. All three properties border spring Chinook spawning areas and are adjacent to existing conservation easements. John distributed copies of the Conservancy's easement template to protect riparian habitats, and discussed the provisions in the document on allowed—and prohibited—activities within the riparian areas.

Noting that upland habitats comprise a significant part of the easement for the three properties, the Committees inquired about the capability of the Conservancy to focus their easements on the riparian areas alone. For the three properties, the Committees saw that there are high value features to the riparian habitat, but this is a small component of the overall easement. In consideration of the need for the group to provide guidance to the Conservancy in their development of easement proposals, the group offered that a reasonable guideline would be to focus on protection of areas within one site-potential tree height of the channel migration zone.

In concept, the Committees support the efforts of the Conservancy, but wish to negotiate with them on the extent of their proposed easements. The Committees directed Julie, Becky and Bob to discuss this with the Conservancy. Julie suggested that a feasible approach would be for the Conservancy to use the channel migration zone maps developed for Okanogan County. These maps would provide a general guideline for future proposals for easements by the Conservancy.

8. Approval of 2006 General Fund proposals

The Committees reviewed the proposals and agreed to fund the *Elbow Coulee Floodplain Restoration Project, Phase 1* for the total of \$83,080, by the Methow Salmon Recovery Foundation. They did not specify which Plan Species Account will fund this project, and asked the two PUDs to identify which account would be most appropriate and report back to the group. The Committees had two remaining issues to be addressed by the project sponsor:

- The group discussed the existing road upstream of the proposed road. The Committees asked Julie to inquire about the potential to pay the owner of the road for a short-term easement for the duration of the project, rather than building a new road.
- The Committees noted that the total cost is \$83,080 rather than the stated \$84,080.

9. Next steps

The next meeting of the Tributary Committees will be Friday, 15 December at the Chelan PUD Auditorium; from 9:00 to 2:00 (this is a change in schedule to accommodate the Policy Committees meeting on 14 December). Tentative agenda items include:

- Status of 2005 projects,
- Programmatic permitting, and
- Funding strategies for 2007 and beyond.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

Wells, Rocky Reach, and Rock Island HCP
Tributary Committees
Meeting Notes, 15 December 2006

Members Present: Keith Truscott (Chelan PUD), David Morgan (USFWS), Chris Parsons (WDFW), Chris Fisher (Colville Tribes), Dale Bambrick (NMFS; on phone), Bob Rose (Yakama Nation; on phone), Tom Kahler (Douglas PUD; on phone), Bob Bugert (Committee Chair)

Others Present: Julie Pyper (HCP Project Coordinator), Becky Gallaher (Chelan PUD), Denny Rohr PRHC facilitator; on phone for items 8, 9, and 10)

1. Review and adopt agenda

Several committee members were unable to attend in person because of the snowstorm, so they deferred full discussion on several items until the January meeting.

2. Review and adopt meeting notes

The Committees adopted the 9 November meeting notes, with revisions proposed by Tom Kahler and Keith Truscott.

3. HCP Project Coordinator monthly report

Becky Gallaher distributed and reviewed the monthly report that she and Julie Pyper developed for the Committees.

Status of contracts with 2005 sponsors

Becky said that limited project activity has occurred since the November meeting, but noted a couple salient project issues:

- The Okanagan Nations Alliance held a public meeting on the proposed Okanagan River restoration project, which was well attended. They have the final design drawing available on the HCP ftp site.
- The Chelan Douglas Land Trust is negotiating the acquisition and conservation easements on a couple parcels on the White River, all within the floodplain. Keith, Julie and Becky met with CDLT to review the project. Keith said the project is proceeding well, but stressed the importance of site visits for the parcels under consideration, and recommended that the committee members look at the sites; the group may tour the sites this spring. In general however, the Committees were comfortable with the progress and scope of this project.
- The design report for the Nason Creek oxbow reconnection project is available on the County's project management system; Becky said that the County provided access to this site to Committee members. The JARPA for this project has been submitted with an expected start date of July 2007.
- The slide gate for the Entiat side channel has been installed; Keith distributed a photograph of the installation. There will likely be a payment request from Chelan PUD in January.
- The final report for the Twisp Acquisition by Methow Salmon Recovery Foundation is now available on the HCP ftp site.

Approval of payment requests

The Wells Tributary Committees approved the payment request of Okanagan Nations Alliance for \$48, 115.34 USD for the Okanagan River Restoration, Phase III.

The Rocky Reach and Rock Island Tributary Committees approved a total payment to LeMaster and Daniels of \$2,888.00 (half to each committee) for developing and implementing the payment processing system for the Rock Island and Rocky Reach Plan Species Accounts.

Keith noted that the cost estimate for Chelan PUD administrative support over the last 18 months is being developed and there will be a request for approval at the January meeting.

4. Final status of 2006 SRFB project funding

Bob Bugert notified the group that the Salmon Recovery Funding Board awarded their grants on 6 December. Eight projects in the Upper Columbia were funded by the SRFB up to the allowable amount of \$1,812,360, as follows:

Sponsor	Project Name	SRFB Award
MSRF	Chewuch Canal Phase 3d	441,999
Chelan County NRD	Nason Creek Oxbow	402,641
Chelan County NRD	Irwin Riparian Protection	68,327
Yakama Nation	Hancock Springs	128,351
Methow Conservancy	Methow Riparian Protection, Phase 4	425,000
Chelan County NRD	Lower Skinney Culvert	130,291
MSRF	Fender Mill Floodplain, Phase 1	50,000
Chelan County NRD	Alder Creek Culvert	148,543
Total awards		1,795,152

The SRFB decided to “sanction” those projects on the Lead Entity list that fell below the funding “cutoff” line, so that this would notify other funding organizations of SRFB support for those projects, and also enable the SRFB to consider funding these projects if those above the cutoff are funded through other sources. Those projects (and their sponsors) are: Beaver Creek Passage (CCNRD); Clear Creek Passage (CCNRD); Upper Beaver Channel Relocation (OCCD); Red Shirt Barrier Removal (OCCD); Elbow Coulee Floodplain (MSRF); and Similkameen Side Channel Relocation (UCRFEG).

Bob said that it appears that the 2007 funding cycle will be similar to previous years: announcement in early April, proposal submissions in mid-September, and the funding decision in early December. The relative allocation for the Upper Columbia Region will probably be the same—about 10%. The SRFB budget is not known at this time.

5. Current status of 2006 BPA project funding

The group discussed their collective understanding of the funding decisions to be made by BPA, which includes those projects submitted to both the Tributary Committees and BPA. The understanding is that the BPA decision date is 22 December, yet some members understood that that decision may be delayed. Although unlikely, decisions made by BPA on some of these projects may affect the Committees’ decisions on whether to fund them. Given this uncertainty, the group deferred further discussion on this level of coordination until the January meeting.

6. Methow Riparian Protection

Katharine Bill of the Methow Conservancy was unable to attend the meeting because of the inclement weather, so this agenda item is deferred to a later date.

7. DECISION ITEM: Methow Riparian Protection Project, Phase IV

The Committees deferred this decision until after the discussions can be held with the Methow Conservancy.

8. Proposal to meet with Chelan County regarding coordination

Keith reported that he, Becky and Julie met with Chelan County Natural Resources Department to improve coordination on issues related to implementation and reporting of projects funded by the Rocky Reach and Rock Island Tributary Committees. Keith and Julie said that they feel the level of coordination on project implementation has improved. The group agreed that there were difficulties in communications with Chelan County Natural Resources Department, yet it is hoped that coordination will be improving.

9. Tributary Committees' funding policies and procedures

Noting the need to have a "face-to-face" discussion of this important topic, the Committees deferred this issue to the January meeting. The group felt this was appropriate because they could also have a better understanding of the LIDAR results and the UCSRB Implementation Schedule, which are now under development and will be nearing completion by then. Chris Parsons asked for an update on the draft the Implementation Schedule at the January meeting; Bob Rose and Bob Bugert will coordinate on getting this information for that meeting. Bob Bugert suggested that the Committees strive to complete their revisions on the funding policies and procedures by their March 2007 meeting.

10. Next steps

The next meeting of the Tributary Committees will be Thursday, 11 January at the Chelan PUD Auditorium; from 9:00 to 2:00. Tentative agenda items include:

- Status of 2005 projects,
- Methow Riparian Protection
- Programmatic permitting, and
- Review of the Upper Columbia Implementation Schedule
- Funding strategies for 2007 and beyond.

Meeting notes by Bob Bugert (BobBugert@nwi.net)

APPENDIX D

LIST OF WELLS HCP COMMITTEE MEMBERS

Wells Dam Mid-Columbia HCP Committees

Coordinating Committee

Name	Organization
Michael Schiewe (Chair)	Anchor Environmental, L.L.C.
Jerry Marco	Colville Tribes
Rick Klinge	Douglas PUD
Bryan Nordlund	NOAA Fisheries
Brian Cates	USFWS
Carmen Andonaegui	WDFW
Steve Parker	Yakama Nation

Hatchery Committee

Name	Organization
Michael Schiewe (Chair)	Anchor Environmental, L.L.C.
Jerry Marco	Colville Tribes
Rick Klinge	Douglas PUD
Kristine Petersen	NOAA Fisheries
Brian Cates	USFWS
Kirk Truscott	WDFW
Tom Scribner	Yakama Nation

Tributary Committee

Name	Organization
Bob Bugert (Chair)	Consultant
Chris Fisher	Colville Tribes
Tom Kahler	Douglas PUD
Dale Bambrick	NOAA Fisheries
David Morgan	USFWS
Dennis Beich	WDFW
Bob Rose	Yakama Nation

Policy Committee

Name	Organization
Michael Schiewe (Facilitator)	Anchor Environmental, L.L.C.
Joe Peone	Colville Tribes
Bob Clubb	Douglas PUD
Keith Kirkendall	NOAA Fisheries
Mark Miller	USFWS
Bill Tweit	WDFW
Virgil Lewis	Yakama Nation

APPENDIX E

MID-COLUMBIA FORUM MEETING MINUTES

Final Memorandum

To: 2006 Mid-Columbia Forum Attendees

From: Michael Schiewe, Chair, Mid-Columbia HCP Coordinating Committees

Date: April 26, 2006

Re: Final Minutes of March 28 and 29, 2006 Mid-Columbia HCP Forum

The 2006 Mid-Columbia Forum (Forum) was held in two locations in order to facilitate community involvement and dialogue regarding implementation of the Wells, Rocky Reach, and Rock Island Habitat Conservation Plans (HCPs). Sessions were held on March 28 at the Methow Valley Community Center in Twisp, Washington, from 12:30 pm to 4:30 pm with an additional question/answer opportunity from 6:00 pm to 8:30 pm; and on March 29 at the Confluence Technology Center in Wenatchee, Washington, from 12:30 pm to 4:30 pm. These meetings were the second round of periodic meetings scheduled by the HCP Coordinating Committees to communicate and coordinate with non-signatories and other interested parties on the implementation of the Anadromous Fish Agreements and HCPs. The HCPs were signed in April 2002 and approved by the Federal Energy Regulatory Commission (FERC) in June 2004. The purpose of the HCPs is to guide the conservation and management of Plan Species (spring, summer, and fall Chinook salmon; sockeye salmon; coho salmon¹; and steelhead) in the HCP project areas in the Columbia River basin.

Minutes from both meetings are compiled into one list of presentations and questions/answers in this Memorandum. The final meeting agenda used for the Forums is provided as Attachment A and attendees are listed in Attachment B. For more information, please contact Ali Wick (awick@anchorenv.com) or Michael Schiewe (mschiewe@anchorenv.com) at (206) 287-9130.

¹ Efforts are underway (by an entity other than the Public Utility Districts and outside the HCPs) to re-establish coho populations in the geographic areas covered by the HCPs. A determination regarding their status as a Plan Species will be made in 2006.

Welcome and Introduction (Michael Schiewe – Anchor Environmental)

Michael Schiewe opened the meeting by introducing himself and thanking everyone for their attendance. He explained that these meetings are hosted by the signatories of the Rocky Reach, Rock Island, and Wells HCPs in order to provide an opportunity for dialogue between the signatories and interested parties regarding the HCPs. The HCPs were approved by FERC in June of 2004, and signing entities include the National Marine Fisheries Service (NMFS), U.S. Fish and Wildlife Service (USFWS), Washington Department of Fish and Wildlife (WDFW), Colville Tribes, Yakama Tribes, Chelan County Public Utility District No. 1 of Chelan County (Chelan PUD, for Rock Island and Rocky Reach Dams), and Public Utility District No. 1 of Douglas County (Douglas PUD, for Wells Dam). In addition, the power purchasers for the Wells Project have signed the Wells HCP. Members of the HCP Committees are listed in Attachment C.

Schiewe described the structure of the HCP Committees: the Coordinating Committees deal with fish passage issues and coordination among Committees, including dispute resolution; the Hatchery Committees deal with artificial propagation and Monitoring and Evaluation (M&E); and the Tributary Committees deal with project solicitation, review, and selection, as well as fund management (Attachment D). The Committees for the three HCPs meet as one group to facilitate coordination and efficiency, but within these meetings, decisions are made by each HCP Committee as one voting entity for each HCP.

Schiewe reviewed the agenda, indicating that there would be short presentations by Ritchie Graves and Kris Petersen of NMFS providing an overview of the HCPs and hatchery programs, and then a presentation by Bob Bugert on the Tributary Program administered under the HCPs.

Overview of the HCPs (Ritchie Graves – NMFS)

Ritchie Graves of NMFS provided an overview of the HCPs, including a discussion of the Plan Species covered by the HCPs (spring, summer, and fall Chinook salmon, steelhead, sockeye, and coho salmon²) (Attachment D). Graves described the No Net Impact (NNI) goal of the HCPs, including a per project performance standard of 91 percent survival for

² Efforts are underway (outside the HCPs) to re-establish coho populations in the geographic areas covered by the HCPs. A determination regarding their status as a Plan Species will be made in 2006.

combined juvenile and adult passage. The difference between the 91 percent performance standard and the 100 percent NNI level is compensated for by tributary habitat projects providing for about 2 percent of the difference and hatchery programs for the remaining 7 percent. He also described the phased implementation of the HCPs, and reviewed the phase designation system used to characterize the status of progress toward meeting the standards for each plan species. Phases are as follows:

- Phase I: Testing
- Phase II: Interim/Additional Tools
- Phase III: Standard Achieved, Provisional Review, or Additional Juvenile Studies

The combined adult and juvenile survival standard of 91 percent incorporates several survival measurements for juveniles that may be used to meet this standard; all are dependent on the availability of an appropriate technology to make the estimate. These measurements include: juvenile project survival (performance standard 93 percent as measured), juvenile dam passage survival (performance standard 95 percent as measured), or juvenile dam passage survival (performance standard 95 percent as calculated).

Graves provided a map depicting the locations of the dams and the geography of the region, including locations of Passive Integrated Transponder-tag (PIT-tag) readers, which are used to track fish location in the Columbia River basin.

Graves also provided a summary of the current per project adult survival estimates for the Plan Species, including overall survivals from McNary Dam to Wells Dam from 2002 to 2005 (see Attachment D). He also presented the juvenile survival results to date for Wells Dam (1998 to 2000), Rocky Reach Dam (2004 to 2005), and Rock Island Dam (2002 to 2005), including up-to-date project survival estimates and phase designations for the Plan Species under the HCPs (See Attachment D). He provided the “next steps” for the HCP survival study process, including the following:

- Wells Dam: sockeye study feasibility
- Rocky Reach Dam: steelhead and yearling Chinook survival studies, sockeye behavior studies, and juvenile dam passage survival calculations for subyearling Chinook

- Rock Island Dam: steelhead and sockeye survival studies and juvenile dam passage survival metric for subyearling Chinook

Questions from the audience:

What is the difference between data that the Fish Passage Center collects and what the HCP studies collect?

The Fish Passage Center (FPC) collects data for the smolt monitoring program, including fish species, migration timing, and fish condition. As part of the evaluation of fish condition, the FPC specifically monitors for prevalence of signs of gas bubble disease/trauma. The FPC also compiles and reports information on hatcheries releases for distribution to salmon managers in the Columbia River basin. In contrast, the HCP studies are conducted to specifically estimate project passage survival at the dams covered by the HCPs. The PIT-tagged fish released for the HCP studies are often detected at downstream dams, and may be used in estimating survival rates at those dams by the FPC or others groups.

Is it fair to say that the Fish Passage Center also assesses the effects of dam operations on the up- and down-stream passage of salmonids, and specifically evaluates water management decisions and their effects on fish?

Yes, the FPC (and many other entities) often conduct analyses assessing whether dam operations (e.g., percentage spill, duration of bypass operation, etc.) at certain hydroelectric projects are effective in safely passing fish.

What happens if the 3-year average for project survival at a particular dam exceeds 93 percent for juveniles of a given Plan Species?

The HCP Committees would discuss reducing the hatchery compensation requirement for that species under the HCP that covers that particular hydroelectric project.

Given the results to date on sockeye at Rocky Reach Dam, are there any plans to resume assessing sockeye survival?

As I mentioned before, we are trying to focus on learning more about why sockeye aren't surviving at the same rates as most of the other Plan Species. Once we

understand this, and decide to test survival again, these studies would probably require large numbers of PIT-tagged or acoustically-tagged fish.

I have heard that there may be some plans to PIT-tag sockeye at Bonneville in the next few years.

Yes, that might present an opportunity to look at data from the returning adults, some of which may return to the Wenatchee River and Okanogan River. Upstream migration survival of these fish could then be evaluated based on detections at McNary Dam and their re-detection on the spawning grounds.

HCP Hatchery Programs (Kris Petersen – NMFS)

Kris Petersen of NMFS provided an overview of the HCP hatchery programs that produce Plan Species at levels designed to meet the 7 percent compensation required under the HCPs (Attachment E). Petersen also described the M&E Plans that have been prepared as required by the HCPs. The M&E Plans are designed to provide a framework and schedule for assessing whether the programs are meeting the specific goals and targets of the hatchery compensation required in the HCP. The M&E Plans also define reporting requirements, specific research projects, and determinations for adaptive management.

Petersen indicated that the hatchery programs in the HCP project areas can be divided into two categories based on their purpose: 1) programs of fixed size that compensate for production loss due to the original inundation of habitat when the dams were constructed; and 2) programs under the HCP designed to compensate for unavoidable passage mortality (which have adjustable program sizes depending on survival study results). Hatchery production levels required under the HCP are set in accordance with regional recovery planning goals, which are to rebuild or maintain natural populations, promote genetic and ecological integrity, and support harvest when appropriate.

Hatchery programs of the HCP are operated to provide production for a variety of needs, including conservation, harvest, or both conservation and harvest. Overall, 15 programs in the HCP areas are operated for various species: four in the Wenatchee, none in the Entiat, five in the Methow, two in the Okanogan subbasins, and four in the mainstem Columbia River. In addition, there is a program operating out of the Canadian Okanogan subbasin by the Okanogan Nation Alliance to reintroduce sockeye into Skaha Lake in British Columbia.

Most of these programs have been operating since 1989 or 1992, with the exception of the Canadian Okanogan sockeye program, which was begun in 2004.

The HCP Hatchery Committees use the results of the M&E program to monitor the success of the production programs, including potential interactions both among Plan Species and between hatchery and natural-origin fish; and contributions to fisheries. The results of the M&E programs may also form the basis for considering alternative management strategies. One of these alternative management strategies currently being used is a program administered by Douglas PUD which is designed to improve incubation survival for sockeye salmon in the Okanogan subbasin by managing storage and release of water from the Canadian Okanogan lake system.

Petersen presented a series of slides summarizing data from coded-wire-tag (CWT) recoveries of fish returning to hatcheries and captured in various fisheries, including Columbia River, Alaska/California, Canadian, and tribal fisheries, and broodstock collection by WDFW and Oregon Department of Fish and Wildlife (ODFW) (see Attachment E). She also described a vision for hatchery development in the future, which incorporated natural elements into hatchery infrastructure, such as the Yakama Nation's coho acclimation site on Nason Creek.

Questions from the audience:

How do the federal hatchery programs integrate into the HCP hatchery programs?

Federal hatchery programs are separate from the state- and tribal-run programs operated under the purview of the HCP hatchery programs. However, federal representatives participate in the Hatchery Committees and efforts are made to coordinate the different programs.

Are the numbers of fish shown in the Okanogan slide in your presentation actually caught in ocean fisheries?

Yes, that is correct. These data are available to the general public online through the Pacific States Marine Fisheries Commission website.

Are any hatchery programs actually segregated such that wild vs. natural production is separate?

Some are; some are not. None of the HCP process programs include this separation, but that has not been identified as one of the goals of these hatchery programs. The most effectively segregated program right now is the Leavenworth Fish Hatchery, which is not a program that is part of the HCP process. In that program, it is possible to distinguish the wild vs. natural origin of fish returning to the hatchery.

HCP Tributary Programs (Bob Bugert – Biophilia)

Bob Bugert provided a presentation describing the goals and achievements of the Tributary Committees in 2004-2005 (Attachment F). Bugert explained that the goal of the Tributary Committees is to administer the 2 percent compensation funds required under the HCPs. These responsibilities include soliciting projects, reviewing projects, and selecting and funding projects that protect and restore Plan Species habitats. The Tributary Committees are not required to evaluate the effectiveness of the projects relative to the 2 percent compensation requirement. All three Tributary Committees meet monthly as a single Committee, with a representative from each of the HCP signatories. Committee decisions require a unanimous vote of the members, who may solicit input from technical advisors and stakeholders when appropriate. This provides a unified approach and a common perspective for selection of projects.

The Tributary Funds include funding to implement projects, administer Tributary Committee business, and (in selected cases) evaluate the effectiveness of implemented projects. Each of the Plan Species accounts (one for each HCP) is managed independently. In 1998 dollars, the Wells HCP account is set as \$1,982,000 for the first 5 years, and then either \$176,178 per year or \$1,791,780 for 10 years; the Rocky Reach HCP account may allocate up to \$229,800 per year; and the Rock Island HCP account may allocate up to \$485,200 per year, unless otherwise specified by the HCP Committees. The Tributary Committees have the capability to draw up to \$80,000 per year to cover administrative costs, but for 2005, the Committees were actually able to use considerably less than this amount for this first and most complicated year (2005) of funding allocations. The Tributary Assessment program, which was established to evaluate project effectiveness, includes up to \$200,000 per HCP, with an option for additional contribution by the PUDs.

HCP Tributary Committee policies were established in late 2004 and provide for funding projects throughout the HCP project areas that anyone or any entity may apply for. Funding matches are encouraged, but not required, and innovative approaches and ideas are encouraged. Funding is allocated under one of two Tributary Committee programs: 1) the General Salmon Habitat Program focuses on complex, reach-level projects (greater than \$25,000); and 2) the Small Projects Program focuses on simple projects that encourage community participation in the program (less than \$25,000). One unique aspect of the Tributary Fund Program is that projects in the Okanogan River basin in Canada are eligible for consideration for funding.

Projects funded in 2005 included four channel-complexity projects, three riparian-protection projects, three irrigation diversion improvement projects, and one culvert-replacement project. All except four of these were leveraged with other funding sources.

In 2005, the Rock Island HCP Tributary Committee approved the following projects, all within the Wenatchee subbasin (total \$794,591):

- White River Riparian Protection Project proposed by the Chelan/Douglas Land Trust (\$686,000)
- Nason Creek Oxbow Reconnection, proposed by the Chelan County Natural Resources Department (\$18,787)
- Alder Creek Culvert Replacement (Alder Creek is a tributary to the Chiwawa River) proposed by the Chelan County Natural Resources Department (\$89,804)

The Rocky Reach HCP Tributary Committee approved the following projects, two of which are in the Entiat subbasin and two of which are in the Methow subbasin (total \$151,875):

- Entiat Engineering and Permitting Project proposed by the Chelan County Conservation District (\$59,375)
- Entiat Instream Structures proposed by the Chelan County Natural Resources Department (\$37,500)
- Twisp River Conservation Acquisition proposed by the Methow Salmon Recovery Foundation (\$40,000)
- Clees Pump and Well proposed by the Okanogan County Conservation District (\$15,000)

The Wells HCP Tributary Committee approved the following projects, one of which is in the Canadian Okanagan subbasin and one of which is in the Methow subbasin (total \$1,368,538):

- Okanagan River Restoration Initiative, Phase III proposed by the Canadian Okanagan Basin Technical Work Group (\$191,038)
- Methow Valley Riparian Protection proposed by the Methow Conservancy (\$1,177,500)

Under the Small Projects Program, projects approved included the following (total \$19,710):

- Rock Island Committee: McDevitt Irrigation Diversion (\$7,016) and Gagnon Irrigation Diversion (\$12,694) both proposed by the Chelan County Conservation District.

In the future, the Tributary Committees intend to continue to coordinate with the Salmon Recovery Funding Board (SRFB) to leverage funds for projects, including using the Upper Columbia Salmon Recovery Board Biological Strategy and Recovery Plan as at least part of the technical basis for project selection (see Attachment F). For 2006, proposals will be accepted as of March 28, 2006; pre-proposals are due on June 2, and full proposals are due on July 28, with Committee decisions due out on November 9. One schedule change made for 2006 is that the Tributary Committees will make their funding decisions before the SRFB makes theirs instead of after the SRFB decisions, as was the case in 2005. The Tributary Committees remain committed to maximizing the benefits derived from the funds by encouraging cost-sharing and leveraging with other funding sources, streamlining the application process, and facilitating permitting processes. For further information on the Tributary Fund or to suggest ideas regarding schedule or other issues, please contact Bob Bugert (bobbugert@nwi.net) at (509) 662-1127 or Julie Pyper (julie.pyper@chelanpud.org) at (509) 661-4245.

Questions from the audience:

If project sponsors are submitting to both to the SRFB and the Tributary Fund for funding, would they need to repackaging a pre-proposal specific to the Tributary Fund?

Last year, we did not require that proposals be repackaged for our submittal requirements, but we found that we did not get some of the information that we needed. So, yes, in 2006, final proposals will need to be submitted in Tributary Committee proposal format, but pre-proposals can still be submitted in either format. Again, the reason that final proposals will need to be in specific format is to ensure that the Tributary Committees will receive the information needed to make final decisions.

Why did the fund amounts given to project sponsors in 2005 not match the amounts allowable for each year under the HCP Tributary Fund?

Because this was the first year of the process, the Committees simply decided to make prudent decisions in this first funding cycle and not spend the entire allotment.

List of Attachments

Attachment A: Meeting Agenda

Attachment B: List of Attendees

Attachment C: HCP Committees Members

Attachment D: Mike Schiewe PowerPoint presentation

Attachment E: Ritchie Graves PowerPoint presentation

Attachment F: Kris Petersen PowerPoint presentation

Attachment G: Bob Bugert PowerPoint presentation

ATTACHMENT A

MEETING AGENDA

Agenda

2006 HCP Mid-Columbia Forum

March 28, 2006

Methow Valley Community Center Gymnasium
201 South Methow Valley Highway (on Hwy 20)
Twisp, Washington
www.twispinfo.com

March 29, 2006

Confluence Technology Center
285 Technology Center Way
Wenatchee, Washington
www.ncwctc.com

12:30 pm	Welcome and Introduction	Mike Schiewe (Anchor Environmental)
12:45 pm	Overview of HCPs	Ritchie Graves (NMFS)
1:15 pm	HCP Hatchery Programs	Kris Petersen (NMFS)
1:45pm	HCP Tributary Programs	Bob Bugert (Biophilia)

2:15 to 2:30 pm **Break**

2:30 to 4:30 pm **Breakout Sessions for Q&A**

Twisp Meeting on March 28:

- a) Methow Subbasin Discussion Group
- b) Okanogan Subbasin Discussion Group

Wenatchee Meeting on March 29:

- a) Wenatchee Subbasin Discussion Group
- b) Entiat Subbasin Discussion Group

6:00 to 8:30 pm (Twisp Meeting Only)

Additional Q&A Opportunity: All are Welcome!

Sponsored by the Chelan and Douglas Public Utility Districts and the HCP Committees
(Washington Department of Fish and Wildlife, U.S. Fish and Wildlife Service,
National Marine Fisheries Service, Colville Tribes, and Yakama Nation)

Questions? Contact Ali Wick at Anchor Environmental at (206) 903-3333 or awick@anchorenv.com.

ATTACHMENT B

LIST OF ATTENDEES

Tuesday, March 28
Attendees

Name	Organization
Michael Schiewe	Chair, HCP Coordinating Committees, HCP Hatchery Committees Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Bob Bugert	Chair, HCP Tributary Committee Biophilia
Julie Pyper	Chelan PUD
Keith Truscott	Chelan PUD
Shaun Seaman	Chelan PUD
Chuck Peven	Chelan PUD
Jerry Marco	Colville Tribes
Shane Bickford	Douglas PUD
Rick Klinge	Douglas PUD
Tom Kahler	Douglas PUD
Tod Jones	CEDC Fisheries/ARED
Chris Bull	Glenfir Resources
Dave Sabold	Methow Conservancy / Chewuch Basin Council
Steve Bondi	Methow Conservancy
Chris Johnson	Methow Salmon Recovery Foundation
Dale Bambrick	NMFS
Ritchie Graves	NMFS
Kris Petersen	NMFS
Bob Anderson	Okanogan Conservation District
Deana Machin	Okanagan Nation Alliance
Cary Feldmann	Puget Sound Energy
Sam Hanan	Twisp resident
Richard Murray	Twisp resident
Jennifer Molesworth	U.S. Forest Service
Lisa Pelly	Washington Rivers Conservancy
Chris Parsons	WDFW
Dennis Beich	WDFW
Carmen Andonaegui	WDFW
Bob Jateff	WDFW
Charlie Snow	WDFW
Rick Stilwater	WDFW
Kirk Truscott	WDFW
Joe Miller	WDFW
Rick Alford	Yakama Nation
John Jorgensen	Yakama Nation
Keely Murdoch	Yakama Nation
Steve Parker	Yakama Nation
Bob Rose	Yakama Nation

Wednesday, March 29
Attendees

Name	Organization
Michael Schiewe	Chair, HCP Coordinating Committees, HCP Hatchery Committees Anchor Environmental, L.L.C.
Ali Wick	Anchor Environmental, L.L.C.
Bob Bugert	Chair, Tributary Committees Biophilia
Steve Kolk	Bureau of Reclamation
Sarah Walker	Chelan County Conservation District
Edgar Meyer	Chelan-Douglas Land Trust
Julie Pyper	Chelan PUD
Keith Truscott	Chelan PUD
Shaun Seaman	Chelan PUD
Chuck Peven	Chelan PUD
Jen Schoolcraft	Chelan PUD
Craig Kunz	Chelan PUD
Ann Congdon	Chelan PUD Board of Commissioners
Norm Gutzwiller	Chelan PUD Board of Commissioners
Gary Montague	Chelan PUD Board of Commissioners
Jerry Marco	Colville Tribes
Shane Bickford	Douglas PUD
Keith Vradenburg	Entiat Irrigation District
Russell Langshaw	Grant PUD
Ben Lenz	Grant PUD
Jon Soest	NCW Audubon
Ritchie Graves	NMFS
Kris Petersen	NMFS
Cary Feldmann	Puget Sound Energy
Peter Hill	Trust for Public Lands
Kate Terrell	USFWS
Phil Archibald	USDA Forest Service
Karin Whitehall	USDA Forest Service
R. Alex Martinez	USDA Forest Service
Jerry Gutzwiller	Washington Department of Fish and Wildlife Commission
Mark Cookson	WDFW
Dennis Beich	WDFW
Carmen Andonaegui	WDFW
Greg McLaughlin	Washington Water Trust
Keely Murdoch	Yakama Nation
Steve Parker	Yakama Nation
Bob Rose	Yakama Nation
Ken Morley	

ATTACHMENT C

HCP COMMITTEES MEMBERS

Wells Dam HCP Committees

Coordinating Committees

Name	Organization
Michael Schiewe (Chair)	Anchor Environmental, L.L.C.
Jerry Marco	Colville Tribes
Shane Bickford	Douglas PUD
Ritchie Graves	NMFS
Brian Cates	USFWS
Carmen Andonaegui	WDFW
Steve Parker	Yakama Nation

Hatchery Committees

Name	Organization
Michael Schiewe (Chair)	Anchor Environmental, L.L.C.
Jerry Marco	Colville Tribes
Rick Klinge	Douglas PUD
Kris Petersen	NMFS
Brian Cates	USFWS
Kirk Truscott	WDFW
Tom Scribner	Yakama Nation

Tributary Committees

Name	Organization
Bob Bugert (Chair)	Biophilia
Chris Fisher	Colville Tribes
Tom Kahler	Douglas PUD
Dale Bambrick	NMFS
David Morgan	USFWS
Dennis Beich	WDFW
Bob Rose	Yakama Nation

Policy Committees

Name	Organization
Michael Schiewe (Facilitator)	Anchor Environmental, L.L.C.
Joe Peone	Colville Tribes
Bob Clubb	Douglas PUD
Keith Kirkendall	NMFS
Mark Miller	USFWS
Bill Tweit	WDFW
Virgil Lewis	Yakama Nation

Rocky Reach and Rock Island HCP Committees

Coordinating Committees

Name	Organization
Michael Schiewe (Chair)	Anchor Environmental, L.L.C.
Jerry Marco	Colville Tribes
Shaun Seaman	Chelan PUD
Ritchie Graves	NMFS
Brian Cates	USFWS
Carmen Andonaegui	WDFW
Steve Parker	Yakama Nation

Hatchery Committees

Name	Organization
Michael Schiewe (Chair)	Anchor Environmental, L.L.C.
Jerry Marco	Colville Tribes
Shaun Seaman	Chelan PUD
Kris Petersen	NMFS
Brian Cates	USFWS
Kirk Truscott	WDFW
Tom Scribner	Yakama Nation

Tributary Committees

Name	Organization
Bob Bugert (Chair)	Biophilia
Chris Fisher	Colville Tribes
Keith Truscott	Chelan PUD
Dale Bambrick	NMFS
David Morgan	USFWS
Dennis Beich	WDFW
Bob Rose	Yakama Nation

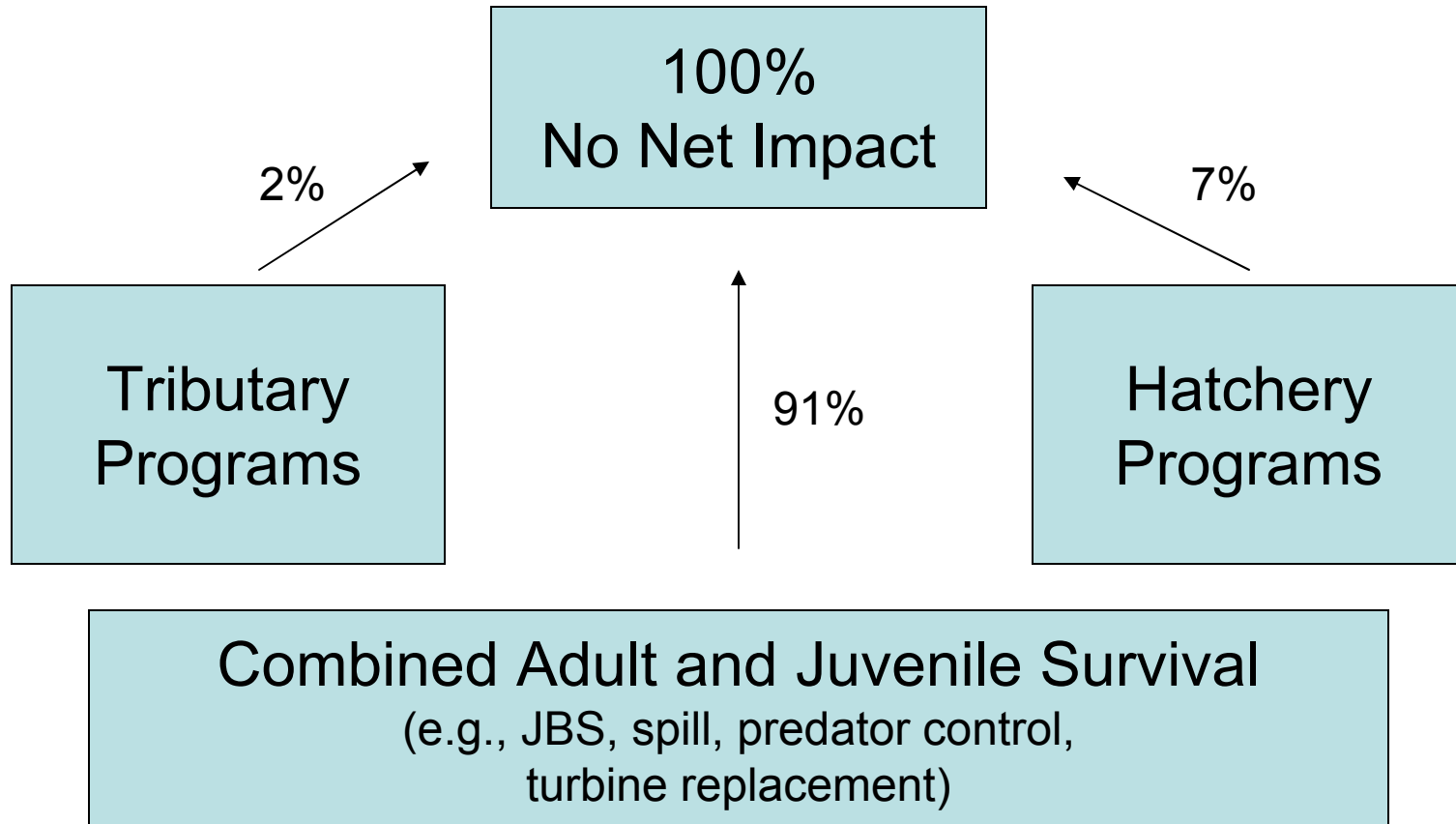
Policy Committees

Name	Organization
Michael Schiewe (Facilitator)	Anchor Environmental, L.L.C.
Joe Peone	Colville Tribes
Tracy Yount	Chelan PUD
Keith Kirkendall	NMFS
Mark Miller	USFWS
Bill Tweit	WDFW
Virgil Lewis	Yakama Nation

ATTACHMENT D

MIKE SCHIEWE POWERPOINT PRESENTATION

Wells, Rocky Reach, Rock Island Habitat Conservation Plans



Signing Parties

- National Marine Fisheries Service
- US Fish and Wildlife Service
- Washington Dept of Fish and Wildlife
- Colville Tribes
- Yakama Nation
- Chelan PUD (Rocky Reach/Rock Island HCP)
- Douglas PUD (Wells HCP)

Plan Species

- Chinook Salmon
 - Spring run
 - Summer/fall run
- Sockeye salmon
- Steelhead

Implementation Committees

- Coordinating Committees
 - Fish passage
 - Committees administration and coordination
- Hatchery Committees
 - Artificial propagation programs
 - Monitoring and evaluation
- Tributary Committees
 - Solicitation of projects
 - Project review and selection
 - Fund management

ATTACHMENT E

RITCHIE GRAVES POWERPOINT PRESENTATION

Mid-Columbia Anadromous Fish Agreements and Habitat Conservation Plans: 2006 Progress Overview

March 28, 2006 – Twisp, WA

March 29, 2006 – Wenatchee, WA

Ritchie Graves

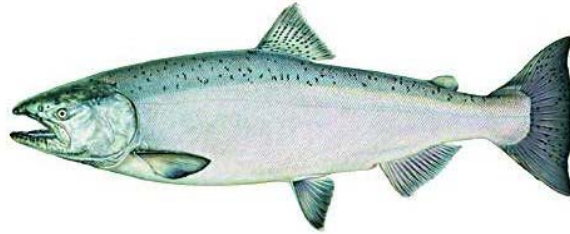
National Marine Fisheries Service



Species Covered

- Chinook

- Spring (yearlings)
- Summer/Fall (subyearlings)



- Steelhead



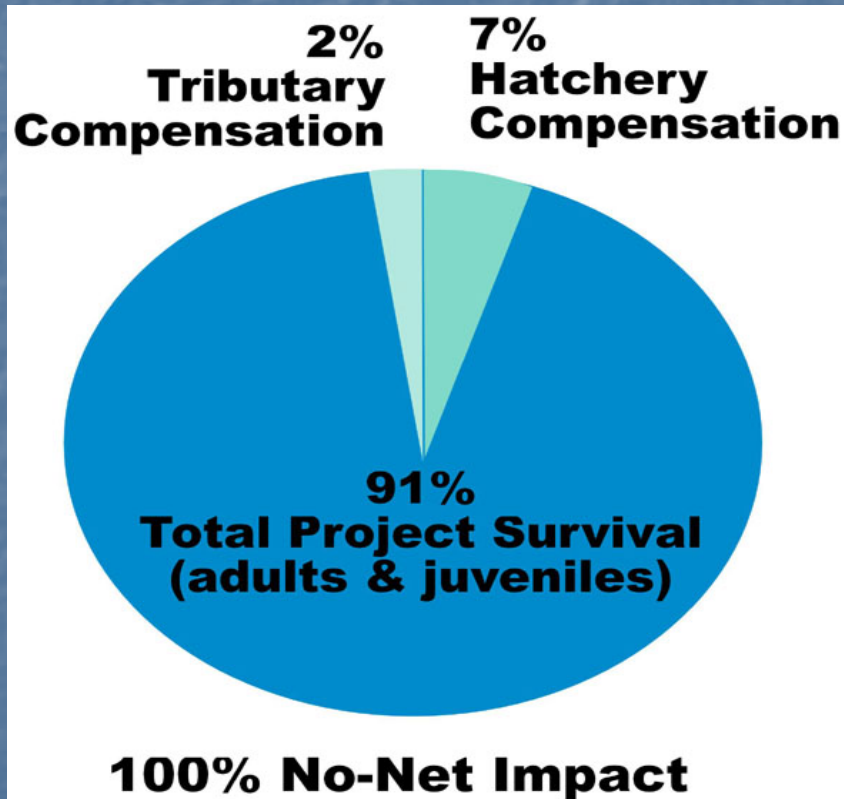
- Sockeye



- Coho
(Reintroduced Stock)



NNI and Phase Designation

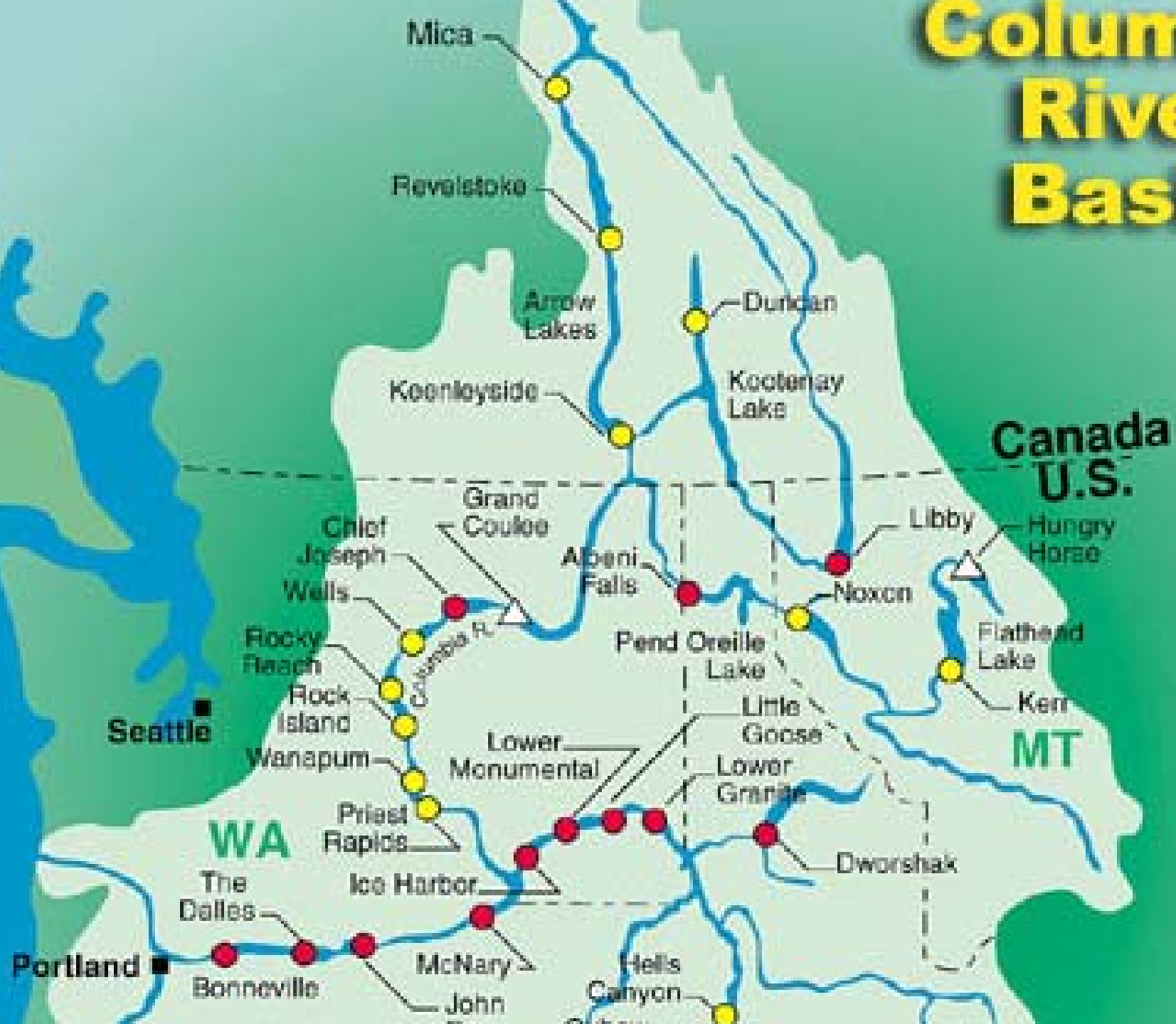


- Phase I: Testing
- Phase II: Interim / Additional Tools
- Phase III: Standard Achieved / Provisional Review / Add. Juvenile Studies

HCP Survival Standards

- 91% Combined Adult and Juv. Survival
- 93% Juvenile Project Survival
- 95% Juvenile Dam Passage Survival (Measured)
- 95% Juvenile Dam Passage Survival (Calculated)

Columbia River Basin



Adult Per Project Survival Estimates (PIT tags – McNary to Wells)

Species	2002	2003	2004	2005	Est. Avg. Per Proj. Survival
Spring Chinook	95.8 (31)	100.0 (22)	99.2 (129)	99.7 (120)	99.1 (302)
Summer Chinook	Y	Y	Y	--	98.2 (23)
Steelhead	--	97.0 (175)	98.8 (705)	96.3* (1613)	97.1* (2493)

Wells Results to Date



Species	1998	1999	2000	Three-Year Avg
Yearling CH PIT tag	99.7	--	--	96.2 Achieved
Steelhead PIT tag	--	94.3	94.6	96.2 Achieved
Sockeye	--	--	--	Achieved JDPS
Sub-CH	--	--	--	Achieved JDPS

Rocky Reach Results to Date



Species	2004	2005	Three-Year Avg
Yearling CH Acoustic	92.9	91.0	??
Steelhead Acoustic	98.3	93.0	??
Sockeye Acoustic	83.5	89.2	PHASE II
Sub-CH Acoustic	NA	--	Calc JDPS

Rock Island Results to Date

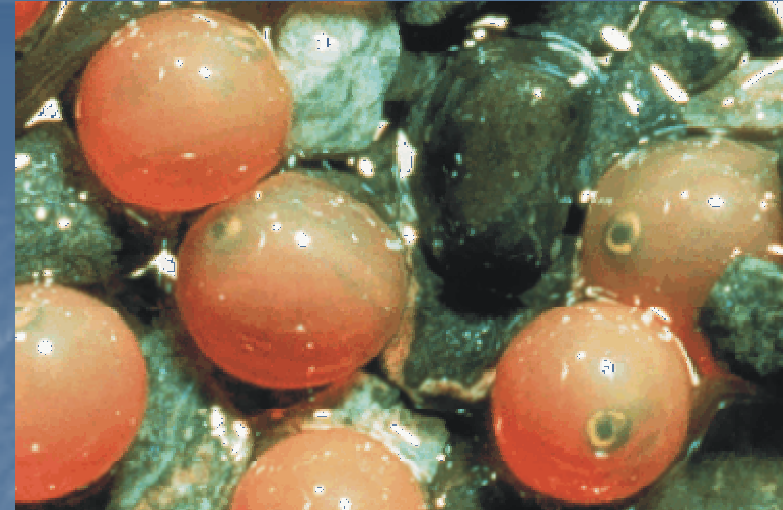
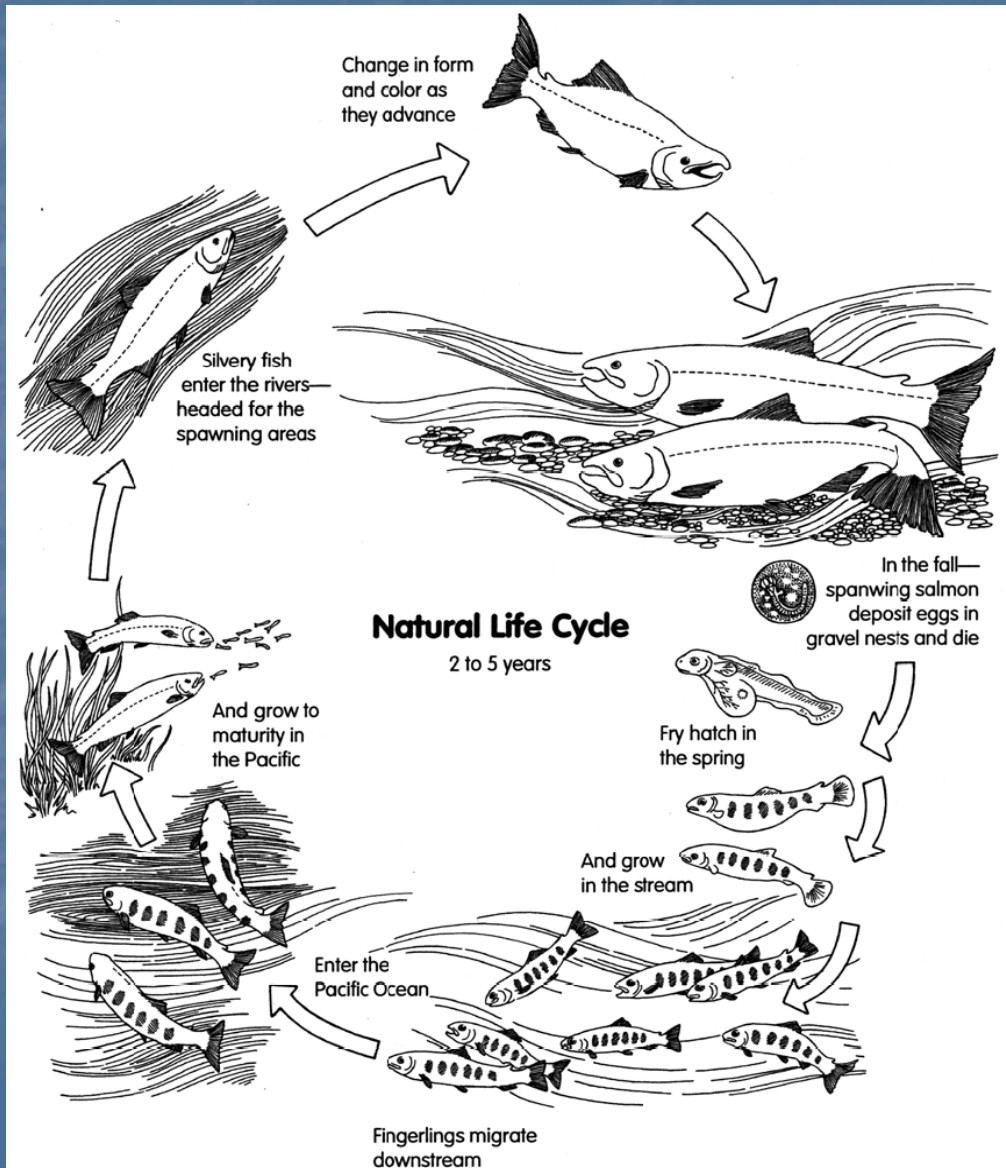


Species	2002	2003	2004	2005	Three-Year Avg.
Yearling CH Acoustic	95.2	93.9	94.2	94.5	94.5 Achieved
Yearling CH PIT Tag	95.6	93.4	91.4	NA	93.5 Achieved
Steelhead Acoustic	--	--	96.6	91.5	??
Sockeye Acoustic	--	--	98.5	95.3	??
Sub-CH Acoustic	--	--	NA	--	Calc. JDPS

Next Steps

- Wells:
 - Sockeye - Assess Study Feasibility
- Rocky Reach:
 - Steelhead / Yearling Chinook Survival Study
 - Sockeye Behavior Study --> Dev. Phase II
Additional Tools
 - Subyearling Chinook – Calc. JDPS
- Rock Island:
 - Steelhead / Sockeye Survival Study
 - Subyearling Chinook – Calc. JDPS

Questions



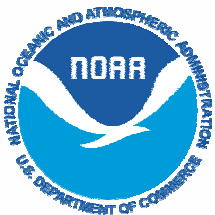
ATTACHMENT F

KRIS PETERSEN POWERPOINT PRESENTATION

Mid-Columbia HCP Hatchery Program Overview

March 28, 2006 – Twisp, WA

March 29, 2006 – Wenatchee, WA



Kris Petersen

National Marine Fisheries Service

Hatchery Committee

- Similar to Coordinating Committee
 - **Members**
 - **Voting**
 - **Disputes elevated to Coordinating Committee**
- Monitoring and Evaluation Plan
 - **Program specific goals and targets**
 - **Reporting requirements**
 - **Specific research projects**
 - **Information feeds adaptive management**

Hatchery Program Objectives

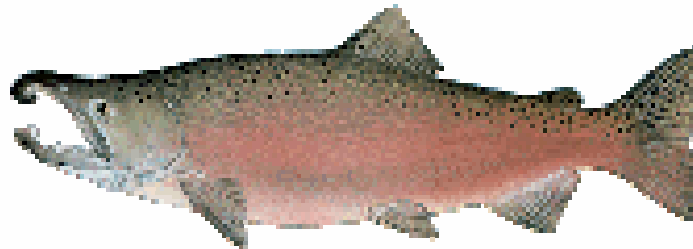
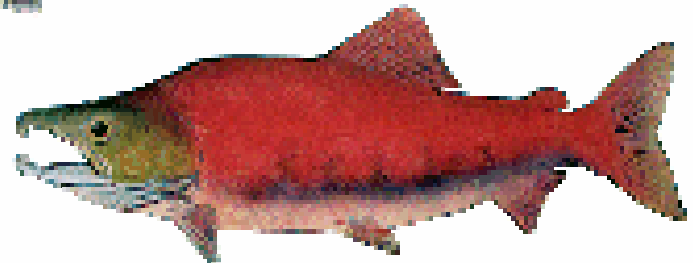
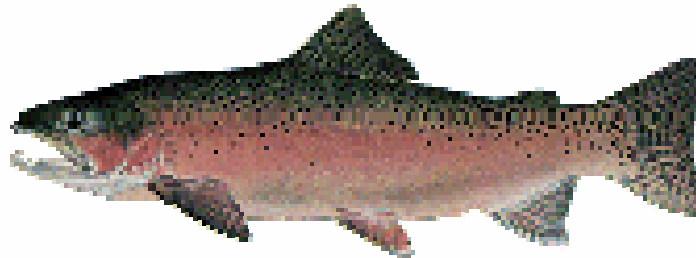
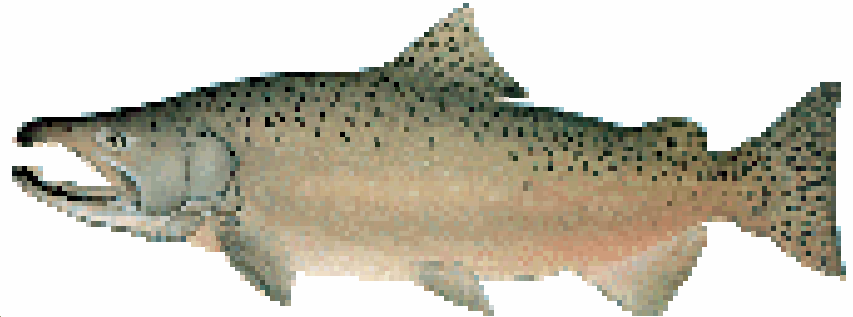
- Artificial propagation to compensate for:
 - Inundation
 - Fixed program sizes
 - “Unavoidable” passage mortality
 - Adjustable program sizes
- Contribute to NNI

Hatchery Goals

- Rebuild or maintain natural populations, promote genetic and ecological integrity (i.e., support Viable Salmonid Populations)
 - **Abundance**
 - **Population growth rate (productivity)**
 - **Population spatial structure**
 - **Diversity**
- Support harvest when appropriate

Species Covered

- Chinook
 - Spring
 - Summer/Fall
- Steelhead
- Sockeye
- Coho (Reintroduced Stock)



Management Principles

- **Conservation Programs** or **Conservation & Harvest Programs**
 - Supplementation of natural population
 - Integrated program designed and operated to protect and promote population viability
- **Harvest Programs**
 - Provide fish for harvest
 - Segregated from natural spawning populations

HCP Hatchery Programs

Basin	Programs	Species
Wenatchee	4	Spring Chinook, summer/fall Chinook, sockeye, steelhead
Entiat	0	
Methow	5	Spring Chinook, summer/fall Chinook, steelhead
Okanogan	2	Summer/fall Chinook, steelhead
Columbia	4	Summer/fall Chinook, steelhead
Total =	15	

A Few Facts....

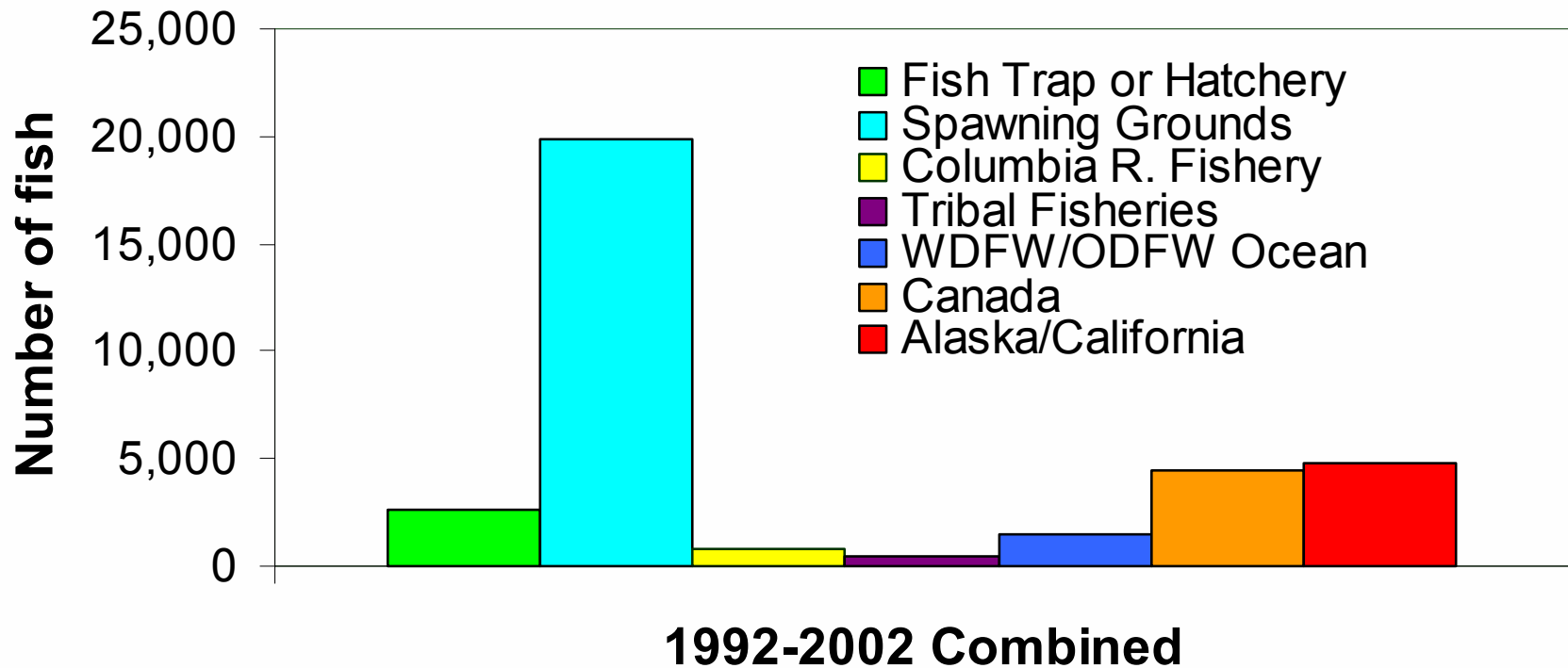
- Most of the hatchery programs started in 1989 or 1992
- Only new hatchery program started since the signing of the HCPs is the sockeye reintroduction program in Canada
- Improvements to some programs are in the process, or have already been identified and some are underway

Mechanisms for Change

- Results of Monitoring and Evaluation, or Targeted Research
 - Program not meeting its objectives or goals
 - Impacts (+ or -) on ESA listed species
 - Contribution to fisheries
 - Alternative management strategies

Okanogan Summer/Fall Chinook

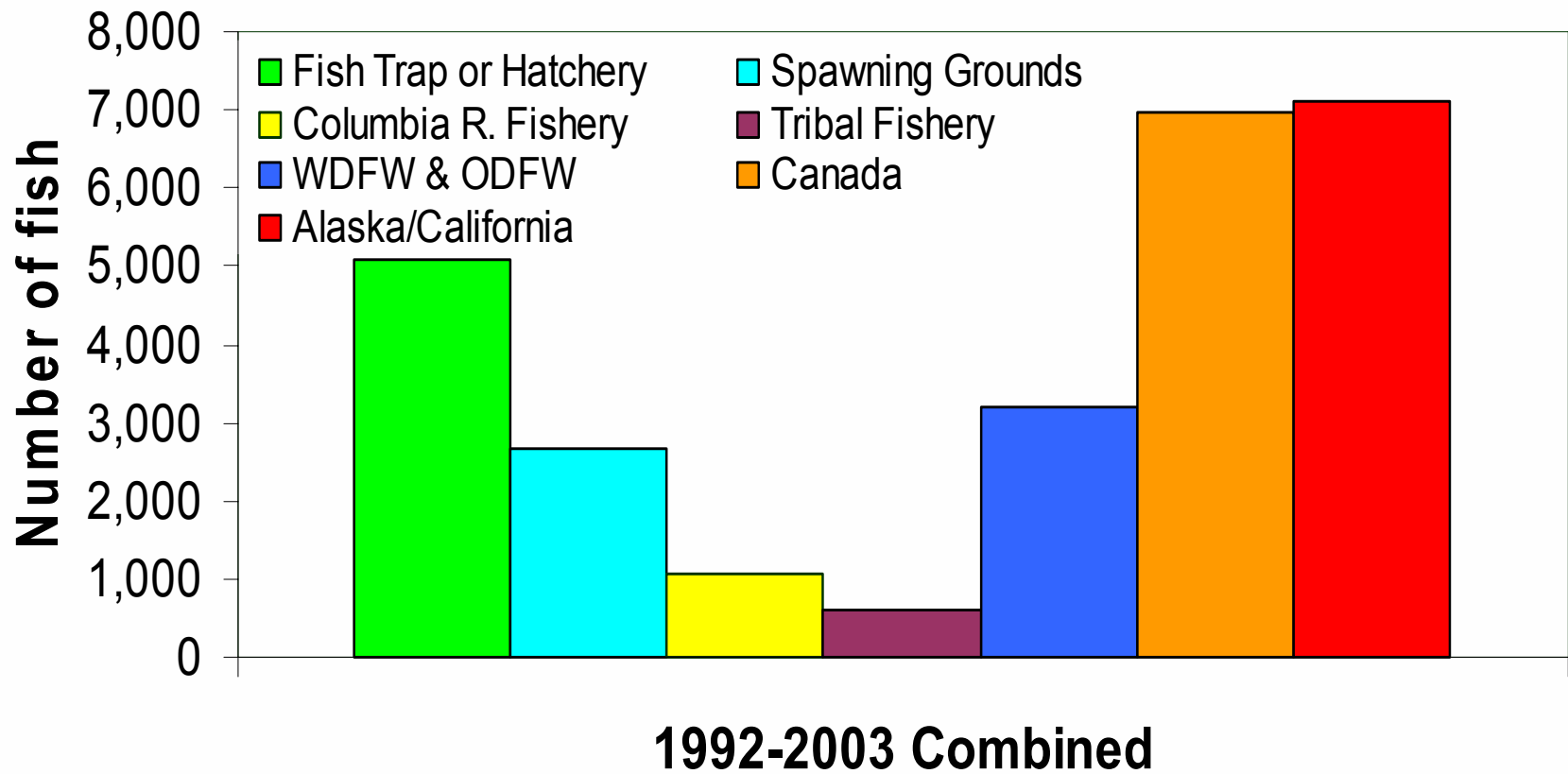
Contribution by Location or Fishery



Coded-wire tag recoveries from Regional Mark Information System (RMIS) queried October 2004

Wells Summer/Fall Chinook

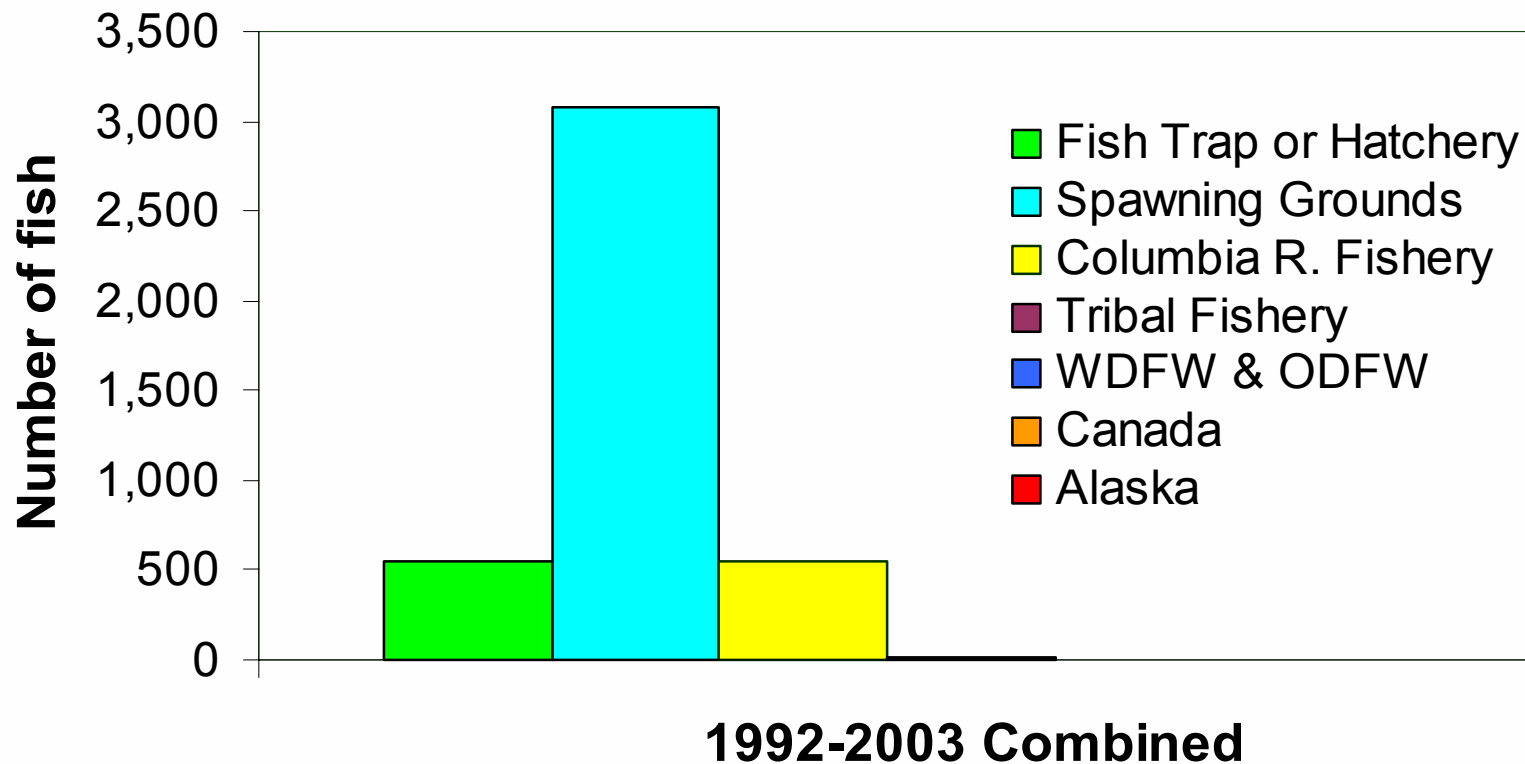
Contribution by Location or Fishery



Coded-wire tag recoveries from Regional Mark Information System (RMIS) queried October 2004

Chiwawa Spring Chinook

Contribution by Location or Fishery



Coded-wire tag recoveries from Regional Mark Information System (RMIS) queried October 2004

Conventional Hatchery Facility



Eastbank
Hatchery

Potential Tributary Facility



Yakama
Nation's coho
acclimation pond
on Nason Creek



Questions?

ATTACHMENT G

BOB BUGERT POWERPOINT PRESENTATION

HABITAT CONSERVATION PLANS

For:

**Chelan County Public Utility District No. 1
Douglas County Public Utility District No. 1**

THE TRIBUTARY COMMITTEES AND ACCOUNTS

**Mid Columbia Forum
March 28 and 29, 2006**

THE PLAN SPECIES ACCOUNTS

- Compensate for two percent mortality at each project
- Fund projects to protect and restore Plan Species habitat
- No obligation to measure two percent criterion

PLAN SPECIES ACCOUNTS: PROJECTS

- WELLS DAM (Douglas PUD)
 - \$1,982,000 for first five years, then either \$176,178/year or \$1,761,780 for ten years
- ROCKY REACH DAM (Chelan PUD)
 - \$229,800/year
- ROCK ISLAND DAM (Chelan PUD)
 - \$485,200/year

These figures are in 1998 Dollars

POLICIES AT A GLANCE

- Habitat projects for Plan Species
- Anyone may apply
- Matches encouraged, but not required
- Innovative ideas are encouraged
- Okanagan River in Canada is eligible

PROGRAMS AT A GLANCE

GENERAL SALMON HABITAT PROGRAM

- Focus on complex, reach-level projects that often address several limiting factors

SMALL PROJECTS PROGRAM

- Focus on simple projects to encourage community participation

GENERAL SALMON HABITAT PROGRAM

- Complex projects
- No maximum award amount
- Minimum \$25,000
- One funding cycle per year
- Projects must be done in 5 years
- Phased approach is encouraged
- Optional Pre-Proposal process

ROCK ISLAND COMMITTEE

White River Riparian Protection	\$686,000
---------------------------------	-----------

Chelan/Douglas Land Trust

Nason Creek Oxbow Reconnection	\$18,787
--------------------------------	----------

Chelan County Natural Resources Dept

Alder Creek Culvert Replacement	\$89,804
---------------------------------	----------

Chelan County Natural Resources Dept

Rock Island TOTAL	\$794,591
--------------------------	------------------

ROCKY REACH COMMITTEE

Entiat Engineering and Permitting <i>Chelan County Conservation District</i>	\$59,375
---	----------

Entiat Instream Structures <i>Chelan County Natural Resources Dept</i>	\$37,500
---	----------

Twisp River Conservation Acquisition <i>Methow Salmon Recovery Foundation</i>	\$40,000
--	----------

Clees Pump and Well <i>Okanogan County Conservation District</i>	\$15,000
---	----------

Rocky Reach TOTAL	\$151,875
--------------------------	------------------

WELLS COMMITTEE

Okanagan River Restoration Initiative, Phase III \$191,038

Canadian Okanagan Basin Technical Work Group

Methow Valley Riparian Protection \$1,177,500

Methow Conservancy

Wells TOTAL \$1,368,538

SMALL PROJECTS PROGRAM

- Maximum: \$25,000
- Minimum: \$1,000
- Apply any time: three month response
- Projects must be done in two years

ROCK ISLAND COMMITTEE

McDevitt Irrigation Diversion	\$7,016
-------------------------------	---------

Chelan County Conservation District

Gagnon Irrigation Diversion	\$12,694
-----------------------------	----------

Chelan County Conservation District

Rock Island (Small Project) TOTAL	\$19,710
--	-----------------

TYPES OF PROJECTS FUNDED

- 4 Channel Complexity Projects
- 3 Riparian Protection Projects
- 3 Irrigation Diversion Improvements
- 1 Culvert Replacement Project

All except four were leveraged with other funding sources.

PROPOSED FUNDING CYCLE

28 March	Funding cycle opens
1 May	Proposal workshop
2 June	Pre-proposals due
28 July	Full proposals due
7-9 Aug.	Project tours, RTT reviews
14 Sept.	Presentations to Committees
9 Nov.	Committees' decisions

WE WANT TO IMPROVE OUR PROCESS

- Maximize the funds getting “on-the ground”
- Cost-share and leverage with other sources
- Streamline application, review, and contracting
- Facilitate permitting processes

Tell us how we can make this work for you...

CONTACTS

www.midcolumbiahcp.org

THE TRIBUTARY FUND

P.O. Box 3301

Wenatchee, WA 98807-3301

BobBugert@nwi.net

509-662-1127

Julie.Pyper@chelanpud.org

509-661-4245

APPENDIX F

STATEMENTS OF AGREEMENT FOR COORDINATING COMMITTEES

Statement of Agreement for Predator Impact Study in 2006

Agreement:

The Coordinating Committee agrees that Chelan PUD should move forward with a proposed predator impact study as outlined in the document, *Proposal to Qualitatively Estimate Predator Residency and Impact in the Upper Rocky Reach Reservoir*, by Peven et al., December 2005.

**Statement of Agreement
2005 Article 404 Report to FERC
Rocky Reach HCP Coordinating Committee
January 24, 2006**

The Rocky Reach HCP Coordinating Committee has reviewed the Rocky Reach Bypass System report and agrees with the findings stated in the report and has no comments to include with the report.

Statement of Agreement
Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System 2005
Rocky Reach HCP Coordinating Committee
January 24, 2006

The Rocky Reach HCP Coordinating Committee has reviewed the 2005 Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System report and agrees with the findings stated in the report and accepts the report as final.

Statement of Agreement
Study Plan for the Biological Evaluation of the Rocky Reach Juvenile Fish Bypass
System 2006

Rocky Reach HCP Coordinating Committee
February 28, 2006

The Rocky Reach HCP Coordinating Committee has reviewed the Study Plan for the Biological Evaluation of the Rocky Reach Juvenile Fish Bypass System, 2006 and accepts the plan as final.

Statement of Agreement
Study Plan for Measuring Route Specific Passage Using Acoustic Tag
Methodologies at Rocky Reach and Rock Island Dams in 2006
Rocky Reach and Rock Island HCP Coordinating Committees
February 28, 2006

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the Study Plan for Measuring Route Specific Passage Using Acoustic Tag Methodologies at Rocky Reach and Rock Island Dams in 2006 and accept the plan as final.

Statement of Agreement
Strategy to Determine Sources of Mortality for Sockeye Salmon Passing Through
Rocky Reach Project
Rocky Reach HCP Coordinating Committee
February 28, 2006

The Rocky Reach HCP Coordinating Committees has reviewed the Strategy to Determine Sources of Mortality for Sockeye Salmon Passing Through Rocky Reach Project and accepts the plan as final.

Statement of Agreement
Study Plan for the Estimation of Juvenile Salmonid Survival Using Acoustic Tag
Methodologies at Rocky Reach and Rock Island Dams in 2006
Rocky Reach and Rock Island HCP Coordinating Committees
February 28, 2006

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the Study Plan for the Estimation of Juvenile Salmonid Survival Using Acoustic Tag Methodologies at Rocky Reach and Rock Island Dams in 2006 and accept the plan as final.

2006 ACTION PLAN WELLS HCP

HCP COORDINATING COMMITTEE

1. BYPASS OPERATING PLAN

- a. Draft to Committee: January 2006.
- b. Approval Deadline: March 2006.
- c. Period Covered: April to August 2006.
- d. Report Deadline: October 2006.

2. BULL TROUT MONITORING AND MANAGEMENT PLAN

- a. Period Covered: March 2005 to July 2008.
- b. Report Deadline: March 2006, March 2007, March 2008 and December 2008

3. Predator Control Programs

- a. Northern Pikeminnow removal program in Wells reservoir (March – July 2006)
- b. Avian Predator Hazing at Wells Dam (April – May 2006)

HCP HATCHERY COMMITTEE

1. 5-YEAR HATCHERY MONITORING AND EVALUATION PLAN

- a. Implementation: 2006 to 2010.
- b. Draft Annual Report: March 2006
- c. Final Annual Report April 2006

2. HCP ANNUAL HATCHERY PRODUCTION COMPLIANCE REPORT

- a. Period Covered: January 2006 to December 2006.
- b. Draft to Committee: November 2006.
- c. Approval Deadline: December 2006.
- d. Submission Deadline: December 2006.

3. 2006 BROOD STOCK PROTOCOL

- a. Draft to Committee: February 2006.
- b. Approval Deadline: April 2006.
- c. Implementation: May 2006 to May 2007.

4. ANNUAL IMPLEMENTION REPORT - SOCKEYE FLOW MANAGEMENT
 - a. Period Covered: Linked to Brood Years (incubation through emergence).
 - b. Draft to Committee: One report per year.
 - c. Final Reports Due: 60-days after comments received from committee.
5. HATCHERY CONSTRUCTION RELATED PROJECTS
 - a. Upgrade of Wells Hatchery Surface Water Screens
 1. Project out for Bids (summer 2006)
 2. Award bids (fall 2006)
 3. Construction activities (October 2006 – February 2007)
 - b. Methow Hatchery Ground Water Well Upgrade
 1. Improve pumps for wells # 2 and #5 (June 2006)
 2. Change meters on pumps (June 2006)
 - c. Chewuch Broodstock Collection weir
 1. Look for alternative locations (January – March 06)
 2. Develop design and permits for construction (May 06)
 3. Seek approval from local residence on preferred location (Spring 06)
 4. Develop permits and begin construction at alternative location (Dec 06)

HCP TRIBUTARY COMMITTEE

1. ANNUAL REPORT - PLAN SPECIES ACCOUNT STATUS
 - a. Draft to Committee: February 2005, February 2006.
 - b. Approval Deadline: March 2005, March 2006.
 - d. Period Covered: August to December 2004, January to December 2005
 - c.
2. FIRST-ROUND REVIEW AND FUNDING DECISIONS
 - a. RFP: *To be determined*
 - b. Approval Deadline: *To be determined*
 - c. Implementation: *To be determined*



Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553

Memorandum

TO: Wells HCP Coordinating Committee

FROM: Shane Bickford, Douglas PUD

DATE: January 16, 2006

SUBJECT: Proposed 2006 Juvenile Bypass Operating Plan

The 2006 spring outmigration at Wells Dam will consist of naturally produced stream-type fish spawned during brood years 2004 and 2005. Counts at Wells Dam included 4,793 adult and jack spring Chinook, 78,053 adult sockeye and 9,963 adult steelhead in 2003 and 9,317 adult steelhead in 2004.

Scheduled hatchery releases, above Wells Dam, include yearling spring Chinook from the Chewuch (210,000), Twisp (155,000) and Methow Acclimation Ponds (65,000), Winthrop National Fish Hatchery (500,000) and from the Colville Tribe's Okanogan spring Chinook reintroduction program (50,000). Summer Chinook yearlings will be released from the Carlton (400,000), Similkameen (500,000), and Bonapart Ponds (100,000). Hatchery summer steelhead will be released throughout the Methow and Okanogan rivers. Hatchery steelhead released above Wells Dam include fish from Wells Hatchery (510,000), Winthrop NFH (102,000) and Omak steelhead programs (18,600). The Yakama Nation was scheduled to release 309,000 yearling coho from the Winthrop NFH, however recent developments may result in these fish being released downstream rather than upstream of Wells Dam.

In general, the hatchery yearling Chinook and steelhead are scheduled to be released starting on April 15th with the yearling coho scheduled to be released on April 20th. By the end of April, all of the Chinook and coho will be released. The steelhead releases historically continue into the middle of May.

The summer outmigration at Wells Dam is made up of 100% naturally produced ocean-type summer/fall Chinook spawned during brood year 2005. Natural escapement of summer / fall Chinook over Wells Dam in 2005 included 31,763 summer Chinook and 3,461 fall Chinook.

Operation of the bypass system throughout the 2006 season will be guided by the criteria contained within the Wells Dam Juvenile Dam Passage Survival Plan (Wells Juvenile Bypass Plan) found in Section 4.3 of the Wells HCP. One of the main goals of the Wells Juvenile

Bypass Plan is to provide bypass operation for at least 95% of both the spring and summer migration of juvenile plan species.

During the last two years, bypass operations have been implemented based upon an analysis of 21 years of hydroacoustic and 14 years of species composition information collected on juvenile run patterns at Wells Dam. Based upon this analysis, Douglas PUD has proposed bypass operating dates that last longer than those specified within the Wells HCP Agreement. The HCP Agreement originally directed the District to operate the bypass continuously from April 10th to August 15th.

However, based upon the District's 21-year run-timing analysis, presented and agreed to by both the Wells HCP Coordinating Committee and the Wells Settlement Coordinating Committee in February 2004, initiation of the Wells bypass system on April 12th and termination on August 26th will conservatively provide bypass operations for at least 95% of both the spring and summer migrations.

Historically, initiation of the bypass system on April 12th would provide a non-turbine passage alternative for 95.5% of the spring migration. Similarly, shutting down the bypass system on August 26th, on average would provide bypass operation for 95.0% of the summer migration. Similar to the past 6 years and for accounting purposes, the end of the 2006 spring bypass season will be June 13th at 2400 hours and the beginning of the summer bypass season will be June 14th at 0000 hours.

Statement of Agreement
Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts
through Rocky Reach and Rock Island Projects in 2005
Rocky Reach and Rock Island HCP Coordinating Committees
March 27, 2006

Background

In accordance with the HCP, Chelan performed survival studies at Rocky Reach and Rock Island on all Plan species in 2005. Hydroacoustic Technology Inc. (HTI) and Columbia Basin Research have prepared a draft final report on the findings from the studies. The report presents the methods, survival estimates, standard errors, and conclusions for the 2004 survival studies at Rocky Reach and Rock Island dams.

Agreement Statement

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the **Survival of Yearling Chinook, Sockeye Salmon, and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2005** and accept the survival estimates and the standard errors reported by HTI and Columbia Basin Research for the 2005 survival studies at Rocky Reach and Rock Island dams. The HCPCC agree with the methodologies as reported and accept the report as final.

Statement of Agreement
Rocky Reach and Rock Island Hydro Projects 2006 Fish Spill Plan
Rocky Reach and Rock Island HCP Coordinating Committees
March 27, 2006

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the **Rocky Reach and Rock Island Hydro Projects 2006 Fish Spill Plan** and agree with the plan and accept the plan as final.

**Statement of Agreement
Floating Debris Boom Installation at Wells Dam
April 25, 2006**

On 27 March 2005, Douglas PUD presented a proposal for installing a floating debris boom in the forebay of Wells Dam, as described in the March 16, 2006 memo from Shane Bickford, Douglas PUD to the Wells HCP Coordinating Committee. Douglas PUD solicited input from the committee regarding the proposed configuration and design of the debris boom. The Wells Coordinating Committee discussed the proposal, and had questions regarding the effects of the debris boom on adult fish exiting the east ladder, and the potential of the proposed structure to increase predation in the forebay of Wells Dam.

Douglas PUD described how the proposed design would be unlikely to influence the behavior of adult fish exiting the east ladder, or modify the behavior of juvenile migrants passing through the Wells bypass system. Additionally, Douglas PUD stated that in studies of similar installations of offshore, floating debris booms or walkways, those structures were not being utilized by predatory fish. The general use pattern of predatory fish will be investigated before and after installation through observational means (video and angling). Members of the Wells Coordinating Committee were supportive of the installation of the floating debris boom provided that if an increase in predator use or predation is observed in the forebay that the increase in predation would be addressed through predator control measures in consultation with the committee. Work is expected to be completed between November and March.

Statement of Agreement
Rock Trap Excavation at Wells Dam
April 25, 2006

On 27 March 2005, Douglas PUD presented a proposal for the removal of accumulated bed load from the spillway rock trap in the tailrace of Wells Dam, as described in the March 16, 2006 memo from Shane Bickford, Douglas PUD to the Wells HCP Coordinating Committee. The proposed work would be initiated during the last week of July and end by August 31, 2006 in the interim between the adult spring Chinook run and the bulk of the adult steelhead run. In order to conduct the work without impacting the operation of the juvenile bypass system, work would also be restricted to times when daily average river flows are expected to be less than 140 kcfs. The proposed work will take place at night (from dusk to dawn). The Wells Coordinating Committee discussed the proposal, and are in agreement that the work can go forward as proposed¹.

¹ The National Marine Fisheries Service (NMFS) recommends that the District tie off barges away from the project during daylight hours.

Statement of Agreement
Survival of Sockeye Salmon, and Steelhead Smolts
through Rocky Reach and Rock Island Projects in 2006
Rocky Reach and Rock Island HCP Coordinating Committees
October 24, 2006

Background

In accordance with the HCP, Chelan performed survival studies on steelhead at Rocky Reach Project and sockeye and steelhead at Rock Island Project. Hydroacoustic Technology Inc. (HTI) and Columbia Basin Research have prepared a draft final report on the findings from the studies. The report presents the methods, survival estimates, standard errors, and conclusions for the 2006 survival studies at Rocky Reach and Rock Island Projects.

Agreement Statement

The Rocky Reach and Rock Island HCP Coordinating Committees have reviewed the **Survival of Sockeye Salmon and Steelhead Smolts through Rocky Reach and Rock Island Projects in 2006** and accept the survival estimates and the standard errors reported by HTI and Columbia Basin Research for the 2005 survival studies at Rocky Reach and Rock Island Projects. The HCPCC agree with the methodologies as reported.

Statement of Agreement
Phase Designation for Steelhead and Sockeye at Rock Island Project and Steelhead
at Rocky Reach Project
Rocky Reach and Rock Island HCP Coordinating Committees
October 24, 2006

Agreement

Because the District exceeded the Juvenile Project Survival Standard (93%) from the HCP, we agree that, for steelhead and sockeye at Rock Island Project and steelhead at Rocky Reach Project, the District is in Phase III (Standard Achieved).

Background

Between 2004 and 2006, the District conducted studies on steelhead and sockeye to estimate Project survival using run-of-river fish and acoustic tagging methods. The average for the three years for steelhead and sockeye at Rock Island Dam and steelhead at Rocky Reach Dam exceeded the 93% standard required in the HCP (Table 1 and 2).

Table 1. Three-year summary of steelhead and sockeye survival at Rock Island Project (Standard Error).

Rock Island	2004	2005	2006	3-Year Average
Steelhead	.966 (.011)	.916 (.015)	.940 (.013)	.941
Sockeye	.985 (.014)	.953 (.011)	.960 (.011)	.966

Table 2. Three-year summary of steelhead survival at Rocky Reach Project (Standard Error).

Rocky Reach	2004	2005	2006	3-Year Average
Steelhead	.983 (.018)	.930 (.013)	.960 (.01)	.958

**Statement of Agreement – Approval of the 2007 Rock Island Survival Study Plans for 10% Spill
Rock Island HCP Coordinating Committee**

December 8, 2006

Agreement Statement

The Rock Island Coordinating Committee (RICC) approves testing a 10% spill operation in 2007 at Rock Island Dam to assess yearling chinook survival, subject to the following conditions:

- 1) If 2007 study results indicate that juvenile project survival is less than 91%, spring spill at Rock Island will revert back to 20% in 2008 unless the committee decides to test a different operation based on compelling information gained from the 2007 studies. The status of Phase III (Standards Achieved) for spring migrants will remain effective as long as project operations, including spill levels of 20%, are maintained that are reasonably similar to 2002-2006 project operations that led to standard achieved.
- 2) If 2007 valid study results (as defined in the HCP) indicate that juvenile project survival is over 91% but less than 92%, the committee will evaluate the study results and relevant environmental conditions and determine if additional years of studies under 10% spill operation should be performed. If the results are 92% or greater, but less than 93%, a second year of testing will occur at the 10% spill level. If the average of the two years of valid studies (assuming 2007 and 2008) is less than 93%, the committee will decide, based on information from the two years of studies, whether or not to proceed with a third year of studies. If the committee agrees that a third year of studies is not appropriate, then spill for the next spring period will revert to 20%, unless agreed otherwise by the committee. The status of Phase III (Standards Achieved) for spring migrants will remain effective as long as project operations, including spill levels of 20%, are maintained that are reasonably similar to 2002-2006 project operations that led to standard achieved.
- 3) If valid 2007 study results indicate that juvenile project survival is 93% or more, two additional years of studies will be conducted using yearling Chinook with the three-year average estimated survival used in consideration for phase designation for yearling Chinook.
- 4) If 2007 yearling Chinook salmon survival results are 92% or higher or the RICC agrees to a second year of study at 10% spill, Chelan PUD shall conduct a steelhead survival study in 2008, with additional years of study implemented as determined by the committee based on the initial survival result under alternative operations, and using the path forward as described above for yearling Chinook studies. The District will be performing studies with sockeye at Rocky Reach in 2007 and likely in subsequent years. The District will evaluate survival of the Rocky Reach test sockeye migrating through the Rock Island project, using a single release model. If the result of this evaluation (based on studies performed in 2007 and likely in 2008) indicates that sockeye survival meets the survival standard, the committee may determine that additional sockeye survival studies at RI are not necessary. Such a determination will not prevent the committee from making a phase designation for sockeye under the 10% spill regime. If the single release evaluation provides an indication that measured survival is below the standard, the committee will determine the need to perform standard pair-release studies for Rock Island. The committee recognizes that survival estimates based on the single release model may underestimate actual survival since the model does not account for handling and tagging mortalities. At the same time a high survival estimate (e.g., >93%) from the single release model would provide a measure of confidence that the standard is being achieved.
- 5) The committee recognizes that completion of studies under this agreement requires Phase III reevaluation studies to occur every ten years. The committee will determine the appropriate initial date for reevaluation studies at the completion of studies under this agreement.
- 6) All testing will be conducted using protocol accepted by the committee, and subject to representative flow conditions and other test protocol as defined in the HCP.

Background

2006 marked the third year of Phase 1 testing for spring species at Rock Island Dam in accordance with the Rock Island Habitat Conservation Plan (HCP) under a 20% spill regime. The three-year average for project survival using 20% spill for passing each of the three spring species (yearling Chinook salmon, sockeye salmon, and steelhead) exceeded the 93% survival standard and met the required standard error (Table 1.). The RI CC agreed on October 24, 2006 that Chelan PUD has achieved Phase III (Standards Achieved) for all juvenile salmonid spring migrants (yearling Chinook and sockeye salmon, and steelhead) at Rock Island Dam under project operations that included 20% spill. The RI CC can consider new information and analysis to assess whether the 93% project survival standard can be achieved with alternative project operations and approve testing of such operations. Chelan PUD has presented new analyses that indicate a 93% or higher project survival can be achieved for yearling Chinook salmon under a 10% spill operation during the spring outmigration. The proposed project survival study plan at Rock Island in 2007 is designed to determine if the HCP standard can be maintained under an alternative Rock Island Dam spring spill level of 10% of the daily average flow.

Table 1. Summary of Rock Island Phase-1 Survival Study Results with Standard Errors

Species	2002	2003	2004	2005	2006	3-Year Average
Yearling Chinook	$\frac{.956^*}{(.025)}$ $\frac{.952^{\wedge}}{(.026)}$	$\frac{.934^*}{(.016)}$ $\frac{.939^{\wedge}}{(.016)}$	$\frac{.914^*}{(.023)}$ $\frac{.942^{\wedge}}{(.012)}$			$\frac{.935^*}{.944^{\wedge}}$
Steelhead	NA	NA	.966 (.011)	.916 (.015)	.940 (.013)	.941
Sockeye	NA	NA	.985 (.014)	.953 (.011)	.960 (.011)	.966

*Estimates generated using PIT tags.

^ Estimates generated using acoustic tags

Rocky Reach and Rock Island HCP Coordinating Committees
Statement of Agreement
Deferral of Decision Regarding District's Coho Obligation
January 3, 2007

Statement

The Rock Island and Rocky Reach Coordinating Committees approve the schedule changes agreed to by the Rock Island and Rocky Reach Hatchery Committees as outlined in the attached Statement of Agreement. This agreement delays until March 31, 2007 a decision on whether to defer the decision on coho compensation as outlined in Section 8.4.3.a in the Anadromous Fish Agreement and Habitat Conservation Plans for the Rock Island and Rocky Reach Hydroelectric Projects. The Coordinating Committees acknowledge that approving this new schedule commits the Coordinating Committees to determining by March 31, 2007, the potential use of surrogate species for determining phase designation of coho salmon if a continuing hatchery program is determined to exist.

Background

Both the Rocky Reach and Rock Island Hydroelectric Project Habitat Conservation Plans (HCPs) contain sections describing the District's general obligations for coho salmon if they are designated a Plan Species that requires mitigation. The criteria for the HCP Hatchery Committees to determine if the District has a coho salmon obligation under the Anadromous Fish Agreement and Habitat Conservation Plan for the Rock Island Hydroelectric Project is the development of a continuing coho hatchery program and/or the establishment of a naturally reproducing population of coho (by an entity other than the District and occurring outside of the HCP). The criteria for coho compensation under the Anadromous Fish Agreement and Habitat Conservation Plan for the Rocky Reach Hydroelectric are the development of a continuing coho hatchery program and/or the establishment of a threshold population of naturally reproducing coho in the Methow Basin (by an entity other than the District and occurring outside this Agreement).

Originally, the Rock Island HCP required the Hatchery Committee to determine whether a continuing coho salmon hatchery program and/or a naturally reproducing coho salmon existed by 2005; however, the Committee chose to defer the decision until the end of 2006, thus aligning the timing of the decision with that specified in the Rocky Reach HCP.

As noted above, one of the criteria for determining if coho salmon is a Plan Species with mitigation requirements is whether or not there is a continuing coho hatchery program. Currently, the Yakama Nation is carrying out a program for the reintroduction of Mid-Columbia coho salmon. This program is currently under consideration for funding by Bonneville Power Administration. Negotiations for continued funding of this program will not be complete until September 30, 2007. As such, the Yakama Nation has requested that the HCP Hatchery Committees defer the decision to determine if coho salmon are eligible for mitigation under the HCP.

**Wells HCP Coordinating Committees
Statement of Agreement
PUD No. 1 of Douglas County
A Decision of Deferral for Coho Compensation
27 December 2006**

Statement

The Wells Coordinating Committee approves the schedule change agreed to by the Wells Hatchery Committee to defer a decision on coho compensation, as outlined in Section 8.4.5.1 in the Anadromous Fish Agreement and Habitat Conservation Plan for the Wells Hydroelectric Project, until October 2007. During this time, Douglas PUD will work with the Yakama Nation, the Bonneville Power Administration, Chelan and Grant PUDs, and the Wells HCP Hatchery Committee to develop program details that would be used to address Douglas PUD's coho mitigation obligations, if it is determined that a long-term hatchery program exists. Consistent with the expectation that coho salmon survive passage of Wells Dam at a level similar to other spring migrant salmonids, the Coordinating Committee would designate coho as being in Phase III (Additional Juvenile Studies), if it is determined that a long-term hatchery program exists.

Background: Section 8.4.5.1 of the Anadromous Fish Agreement and Habitat Conservation Plan calls for an assessment of "compensation for Methow River coho...in 2006 following the development of an anticipated long-term coho hatchery program and/or the establishment of a Threshold Population of naturally reproducing coho in the Methow Basin." The Hatchery Committee is to determine whether a long-term hatchery program and/or naturally reproducing population of coho is present in the Methow basin. The Yakama Nation has worked diligently to establish a population of coho in the Methow Basin through a coho-reintroduction feasibility study funded by the Bonneville Power Administration (BPA), and has sought long-term financing from the BPA for that program. The HCP Hatchery Committee has been awaiting BPA's response to the request by the Yakama Nation for long-term funding of the coho reintroduction program. At the December 13, 2006 meeting, Tom Scribner informed the Hatchery Committee that the BPA has provided a letter to the Yakama Nation stating that the coho reintroduction program will receive "bridge funds" through September 30, 2007, during which time the BPA would make a final determination regarding the long-term funding of the coho reintroduction program.

APPENDIX G

STATEMENTS OF AGREEMENT FOR HATCHERY COMMITTEES

Hatchery M&E Data Flow and Analysis Protocol

Chuck Peven and Shaun Seaman

Approved by Hatchery Committees on March 15, 2006

Data collection and analysis is paramount to understanding whether the hatchery program is meeting the goals and objectives that have been developed (Murdoch and Peven 2005). The District is proposing the following structure to ensure that the data flow and analysis is efficient, robust, and can be used by the HCP HC to make informed decisions.

The District, WDFW, BioAnalysts, and the Yakama Nation will be collecting data consistent with Murdoch and Peven (2005) and other tasks that may be identified by the HCP HC. The contracts that the District is entering into with these entities states that the information collected will be entered into spreadsheets and sent to the District Coordinator on a monthly basis.

The spreadsheets will be examined by the District Coordinator for completeness and qualifying information. If there are questions concerning the information, the District Coordinator will contact the entity and rectify any problems.

After the information is deemed complete, it will be sent to BioAnalysts (and the HCP HC if desired). BioAnalysts will then employ the methods outlined and agreed to by a subcommittee of the HCP HC that will be amended to Murdoch and Peven (2005). BioAnalysts will send a monthly report back to the HCP HC, which will then evaluate the information and comment. BioAnalysts will incorporate appropriate comments from the HCP HC and finalize the monthly report.

In the first year (2006) of implementing the M&E plan, the organizations that collect field data will meet once monthly (assuming an eight-hour meeting) from March through November with BioAnalysts to discuss data completeness, any qualifications that should be considered during analysis, and all aspects related to the data compilation and analysis of the information collected for the District's hatchery program. The meetings will be held roughly on the following schedule:

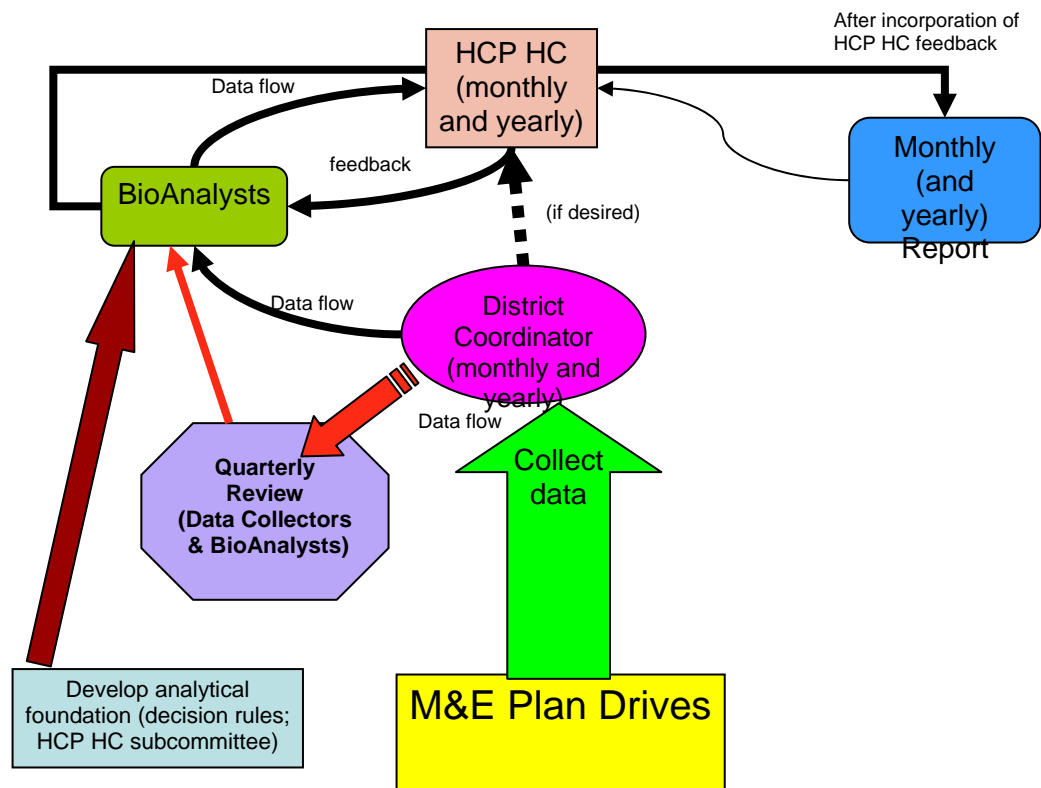
- Prior to the data collection period to coordinate (at a minimum) the forms used to report field data, and the form of the final delivered information and any other issues relevant to the collection and use of the data.
- Monthly during the field season
- At the end of the field season to ensure completeness of the data and coordinate the final report.
- A year end meeting to assess the efficiency of the data sharing and analysis process describe above. This group will make a report to the Hatchery Committee on their findings and recommendations.

In subsequent years, meetings will be held at least quarterly to ensure that the objectives noted above continue and to discuss any changes to the collection or analysis processes that may have occurred. The meetings should occur as follows:

- Prior to the beginning of the data collection season,
- At the beginning of the smolt data collection and steelhead spawning ground survey period
- At the beginning of the remaining spawning ground survey period
- At the end of the field season to ensure completeness of the data and coordinate the final report

The development of a yearly report will go through a similar review process. The figure below diagrams the proposed flow described above.

Proposed Hatchery M&E Data Flow and Analysis



**Statement of Agreement for the Hatchery Monitoring and Evaluation Data Flow
and Analysis**

Rock Island and Rocky Reach Hatchery Committee Meeting 03/15/2006

<p>The Rocky Reach and Rock Island Hatchery Committees have reviewed the Hatchery Monitoring and Evaluation Data Flow and Analysis Proposal and agree with the final plan as attached.</p>
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Statement of Agreement
Washington Department of Fish and Wildlife
Hatchery Monitoring and Evaluation Memorandums
April 19th, 2006

The Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the following documents and accept the memos as final:

2003 Brood Sockeye and Chinook Salmon Reared and Released from Eastbank Fish Hatchery Complex Facilities

2005 Chiwawa and Wenatchee R Smolt Estimates

2005 Upper Columbia River Summer Chinook Spawning Ground Surveys

2005 Wenatchee River Basin Steelhead Spawning Ground Surveys

Statement of Agreement
Abundance and Total Numbers of Chinook Salmon and Trout in the Chiwawa
River Basin, Washington, 2005
April 19th, 2006

The Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the **Abundance and Total Numbers of Chinook Salmon and Trout in the Chiwawa River Basin, Washington, 2005** and accept the memo as final.

Statement of Agreement
Chelan County PUD
Hatchery Monitoring and Evaluation Implementation Plan 2006
April 19th, 2006

The Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the Chelan County PUD Hatchery Monitoring and Evaluation (M&E) Implementation Plan for 2006 (Plan) and agree that it covers the work that needs to be accomplished in 2006. Further, the Committees anticipate and recognize that this first year of the Hatchery M&E program could result in changes to the Plan in this and future years.

Statement of Agreement for the Program Conversion and Movement of the Turtle Rock Summer Chinook Hatchery Program to a New Facility near the Chelan Falls Powerhouse¹.

**Rocky Reach and Rock Island HCP Hatchery Committees
May 17th, 2006**

Statement

The Rocky Reach and Rock Island HCP Hatchery Committees agree that Chelan PUD should move final rearing and acclimation for the Turtle Rock summer Chinook program, to a new facility that will be built near the Chelan Powerhouse area. The new yearling program will be made up of 400,000 fish from the conversion from subyearlings and an additional 200,000 fish from the current production requirements (that are subject to revision in 2013 per the HCP). The District agrees to consider retaining some portion of the subyearling program, as long as it can be accommodated within the current future facility modifications that have been agreed to by the hatchery committee previously.

Background

Originally, the District built a spawning channel on Turtle Rock Island to mitigate for lost spawning areas in the mainstem Columbia for late-run (summer/fall) Chinook. It was built to accommodate 300 Chinook pairs (600 fish total). The following highlights programmatic changes that have occurred since 1963.

- 1963: two acre pond built to improve fry survival
- 1967: it was agreed that this program was a failure due to poor survival for spawners and juveniles
- 1968: a new agreement was reached that changed production to coho (for fish culture reasons)
- 1975: installed two portable raceways, immediately downstream of RR for this program
- 1977: installed three more raceways for a survival study
- 1980: the District and WDF agreed to experiment with rearing summer Chinook in addition to the coho program (which had been about 500,000 fish per year). The intent of this agreement was to raise 500,000 summer Chinook, with 300,000 raised as accelerated subyearlings, and the other 200,000 raised to yearlings. This program required additional portable raceways, so the total was increased to eight.
- 1984: As part of the first interim stipulation, 200,000 late-run Chinook were designated for passage losses
- 1993: Coho program terminated under the auspices of the third revised stipulation,² it was abandoned because of poor performance (number of returning adults) in favor of

¹ This document was revised in May 2006 from an original agreement considered by the Committee in 2005.

² The first agreement signed between the agencies and tribes and the District occurred in 1979 under what is called the "mid-Columbia Proceeding." The original agreement lasted until 1984, when an interim stipulation of the was entered into for 2 years for Rocky Reach (Rock Island's portion of the mid-C Proceeding was satisfied under the Settlement Agreement through the relicensing process in 1989). Further interim stipulations were agreed to through 1995 (which

a fall Chinook program. District required to fund the raising of 54,400 pounds of fall Chinook and 30,000 pounds of steelhead (no change).

- Current Chinook production goals are 200,000 yearlings and 1,694,000 subyearlings.

WDFW has proposed that the subyearling program be converted to a yearling program (1,694,000 subyearlings to 400,000 yearlings), and that the final rearing of the fish be moved from Turtle Rock to the area near Chelan Falls, so a local fishery can be developed in the vicinity. Achieving this objective is more in line with the original intent of the hatchery program goals, and is recommended in the BAMP:

“In Phase B, production of 1,620,000 subyearling summer Chinook salmon at Rocky Reach FH would be changed to 400,000 marked yearling summer chinook for acclimation and release from a facility (preferably near Whitestone Creek confluence) on the Okanogan River.” (Section 2.66, page 59)

“Stray” rates from the Turtle Rock program can be extensive in some years. Since the fish are released in the mainstem upstream of Rocky Reach Dam, fish are not necessarily, homed into a specific return location. Therefore, releasing fish raised on Chelan River water will most likely have them return to that location. This relocation should compliment the new habitat improvements that the District will make under its new license in the lower section of the Chelan River.

Survival of yearling fish compared to subyearlings is much higher, so less infrastructure and resource (broodstock) would be necessary to achieve the same number of adults returning.

was the fourth). Efforts were made to enter into a 5th interim stipulation, but were abandoned because the HCP negotiations were under way at the time. The HCP specifically states that the RI settlement agreement and all other processes for Rocky Reach (the only legally binding process is the Biological Opinion for the construction of the bypass trap, and the new BiOp for the HCP) will be superceded upon FERC’s insertion of the HCP into our licenses.

**Statement of Agreement Concerning Operation of the Chiwawa Hatchery Supply to
Maximize Use of Chiwawa River water**

**Rocky Reach and Rock Island HCP Hatchery Committees
May 17th, 2006**

Statement of Agreement

The Rock Island HCP Hatchery Committee approves the protocols outlined in the memo, *Chiwawa Water Warming Program Winter 2006-2007 Operational Protocol* and agree that WDFW should operate within the guidelines and suggestions that are outlined within the memo for the 2006-2007 rearing period. A decision for continued operation under this protocol will be determined by the Rock Island HCP Hatchery Committee prior to the following rearing period. The Committees recognize that the operational guidelines in the protocol provide a proactive approach to rearing fish on Chiwawa River water to the fullest extent possible; however, certain unforeseen events¹ may lead to operational deviations from the protocol. The Committees also recognize that Chelan PUD will provide adequate funding assurances for an operation consistent with the protocol.

Background

The average stray rate of Chiwawa River spring Chinook has been over 25% in the last few years, making up a large percentage of the spawners in some subpopulations within the Wenatchee Basin.

Groundwater is not available near the Chiwawa rearing ponds in enough volume to raise fish, and water throughout the winter has always been provided from an intake on the Wenatchee River because of ice blockages at the Chiwawa River intake. It is reasonable to assume that running Wenatchee water throughout the winter has probably lead to the high stray rate from this program.

In 2005, a feasibility study was conducted by Chelan PUD to determine alternatives to increase the total Chiwawa flow throughout the rearing period at Chiwawa rearing ponds. While many alternatives were considered, the HCP HC determined that the PUD should pursue infusing Wenatchee water on the intake screens of the Chiwawa River intake to keep formation of ice at a minimum, or to completely eliminate it.

In the winter of 2005-2006, Chelan PUD was able to test infusion of Wenatchee water in the Chiwawa River intake, and it was determined to be promising.

Instituting a complete operational switch (current protocol is to switch to Wenatchee River water in November and leave it there until February) will be challenging, and modifications to the protocols should be expected. However, it is imperative that the operations of the facility is to maintain Chiwawa River water on the rearing fish to the fullest extent possible.

¹ e.g. facility emergencies, extreme environmental conditions, fish transfer water temperatures, or fish health issues.

Decision on consensus of the Lake Wenatchee sockeye juvenile rearing and release strategy.	Date: May 17, 2006
<p>Statement of Agreement:</p> <ul style="list-style-type: none"> • The Rock Island Habitat Conservation Plan (HCP) Hatchery Committee agree that the juvenile rearing and release strategy for the BY 2005 Lake Wenatchee sockeye will include an average release size of 15 FPP and an Oct.-Nov. release date. Further, the Committee also agree that this revised rearing and release strategy will be the standard for the Lake Wenatchee sockeye program unless modified through the HCP Hatchery Committee. <p>Background: This rearing and release strategy was developed to maximize the within-lake juvenile survival of hatchery origin sockeye released from the Lake Wenatchee net pens. Improving within-lake juvenile survival of hatchery sockeye released into Lake Wenatchee has been a central focus of adaptive management of this program in efforts to increase the juvenile release- to- smolt survival rates.</p> <p>Beginning with the 2000 BY, WDFW, through the Rock Island Fish Hatchery Complex (RIFHC) Monitoring and Evaluation program began assessing the relative survival of early (25 FPP) and late (15 FPP) release groups of sockeye from the Lake Wenatchee net pens. Monitoring data through 2004 indicates that late-release juvenile sockeye (13 FPP) achieved significantly greater release- to- smolt survival ($P < .01$) than the early release groups (28 FPP)(Table 1). Although the late-release group (October release) rear in the net pens for a greater duration and may be at greater risk of mortality through disease than the early-release group (August release), transfer- to- release survival of early and late release groups were not significantly different ($P = .29$) (Tables 2).</p> <p>Considering the apparent release-to- smolt survival advantage of late release fish at approximately 13-15 FPP, converting the entire program to late release fish at 15 FPP is considered a reasonable and prudent action to improve release-to-smolt survival for Lake Wenatchee sockeye</p>	

Murdoch, A.R., 2006. Wenatchee sockeye hatchery program summary presentation to the Habitat Conservation Plan (HCP) Hatchery Committee, February 2006.

Table 1. Brood year 2000-2003 average release -to -smolt survival for juvenile hatchery sockeye released from Lake Wenatchee net pens, 2001-2004 (Murdoch 2006).

Release Group	Release to smolt survival rate (SD)	
Direct	2.2 (3.1)	
Early	42.4 (25.5)	P <.01
Late	93.6 (10.2)	

Table 2. Brood Year 2000-2003 average transfer-to-release survival of early and late release Lake Wenatchee sockeye, (Murdoch 2006).

Release Group	Transfer to release survival	
Early	98.9 (0.01)	P = 0.29
Late	97.1 (0.03)	

Statement of Agreement Concerning Location of a Long-term Steelhead Rearing Facility

Rocky Reach and Rock Island HCP Hatchery Committees
May 17th, 2006

Statement of Agreement

The Rocky Reach and Rock Island HCP Hatchery Committees agree that further investigation should be conducted to determine whether a long-term steelhead over-winter rearing facility can be retrofitted at the current Chiwawa River rearing pond site using Wenatchee and/or Chiwawa River water. No other sites will be considered and studied unless it is determined by the committee that the Chiwawa site can not accommodate the long-term over-winter acclimation facilities. However, expansion of the Chiwawa River rearing pond site to accommodate over-winter acclimation for steelhead does not preclude the development of satellite acclimation facilities in tributary locations for spring acclimation if it is later determined necessary by the HCP HC.

Background

Current hatchery rearing practices split the incubation and early rearing of steelhead between Eastbank and Chelan Falls hatcheries. Final rearing occurs at Turtle Rock after Columbia River temperatures begin to cool in the fall. In the spring, fish are placed in trucks and driven to release locations in the Wenatchee River Basin.

Stray rates from the steelhead program have been documented to be greater than 10% outside of the Wenatchee Basin, which is inconsistent with recommendation by the Interior Columbia River Technical Recovery Team (TRT). As such, the steelhead program is not meeting some of the ecological objectives established by the HCP HC.

It is reasonable to assume that because fish are reared over winter on a water source upstream of the Wenatchee River, that homing fidelity to the Wenatchee River may be compromised. The HCP HC, in accordance with the HCP, has directed Chelan PUD to begin work to locate a facility in the Wenatchee River Basin to rear steelhead over winter on Wenatchee River and/or Chiwawa River water.

If evaluations later determine that over-winter acclimation on Wenatchee River water with a direct release via truck to tributary locations (ex: Nason Creek) does not result in adequate dispersal of returning adults within the Wenatchee Basin, a satellite facility(s) for spring (short term) acclimation in tributary locations will be considered.

A subcommittee of the HCP HC was formed and that committee evaluated multiple potential locations and recommended to the HCP HC that investigations begin to increase the capabilities of the Chiwawa River site to rear steelhead over winter.

FINAL - July 19, 2006

Statement of Agreement Regarding the Proposed Strategy for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams, and the 2006 Study Plan for Evaluating Potential Reference Streams.

Wells, Rocky Reach and Rock Island HCP Hatchery Committees

Statement of Agreement

The Wells, Rocky Reach, and Rock Island Hatchery Committees agree to the general experimental strategy for determining steelhead spawner composition outlined by the Hatchery Evaluation Technical Team (HETT) in the attached memo, *Proposed Study Plan for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Streams, 2006* (dated July 5, 2006), and to the specific study plan for 2006. The overall experimental approach will require Passive Integrated Transponder (PIT) tagging of returning adult steelhead at multiple locations on the mainstem Columbia River and selected tributaries, and installation and maintenance of PIT tag detection antennae near the mouths of reference and treatment streams and tributaries. In 2006 the study will focus on Peshastin Creek (Wenatchee Basin) and the Entiat River, and the collection of data to determine their suitability as Hatchery Monitoring and Evaluation Plan reference streams. The selection of these locations for initial investigation does not preclude the evaluation and identification of additional steelhead reference streams in future years.

Background

The Hatchery Evaluation Technical Team (HETT) of the Wells, Rocky Reach, and Rock Island HCP Hatchery Committees met several times during spring 2006 to consider, among other issues, an experimental approach to determining the hatchery vs. natural origin of spawning steelhead in selected streams and tributaries of the Mid- and Upper-Columbia. Information regarding steelhead spawning ground composition is required for implementation of the Chelan and Douglas PUD Hatchery Monitoring and Evaluation Plans. The HETT ultimately settled on an approach described in the attached memorandum, *Proposed Study Plan for Evaluation of Steelhead Spawning Composition in Treatment Streams and Potential Reference Stream, 2006*. The approach will require PIT-tagging about 30% of the adult steelhead spawning the Wenatchee and Methow subbasins. This will be accomplished by PIT tagging returning adults at Priest Rapids Dam and Dryden Dam, and possibly at Wells Dam, Tumwater, and Rocky Reach Dams in the future. Monitoring the spawning locations of these marked fish will require installation and maintenance of PIT tag detection antennae in multiple locations on the mainstem Columbia River and selected tributaries, including the Entiat River, Peshastin Creek, Nason Creek, Chiwawa River, Twisp River, Chewuch River, and Methow River. In an effort to begin collecting data on spawning composition in potential reference

streams, Chelan and Douglas PUD will ensure installation of antennae in Peshastin Creek (Wenatchee Basin) and the Entiat River by early 2007. In addition, it is expected that antennae will be installed and maintained in additional Wenatchee and Methow basin tributaries by early 2007 as part of the Integrated Status and Effectiveness Monitoring Project (ISEMP).

FINAL

Statement of Agreement For Use of Bonaparte Pond For Rearing up to 100,000 Summer Chinook From The Similkameen Program in the 2006 – 2007 Rearing Season

**Rock Island HCP Hatchery Committee
August 16, 2006**

Statement of Agreement

Based on an expected transfer population of 350,000-380,000 Methow/Okanogan River summer Chinook at Eastbank FH, the Rock Island HCP Hatchery Committee approves the rearing of 100,000 of the 2005 brood year Similkameen summer Chinook at Bonaparte Pond for the 2006 – 2007 rearing season. These fish will be raised initially at Eastbank along with the remaining Similkameen production fish and will be transferred to the Bonaparte Pond in late October/early November '06. Chelan County PUD will be responsible for the cost to rear these fish and the Colville Confederated Tribes will be responsible for operation of the pond and rearing/releasing the fish. Fish health monitoring will be provided by WDFW. Fish raised at the Bonaparte pond will be differentially marked with coded wire tags at Eastbank FH prior to transfer to Bonaparte Pond. Should the available number of fish for transfer from Eastbank FH be less than 300,000, the Rock Island HCP Hatchery Committee will re-assess the number of fish transferred to Bonaparte Pond. Use of and production level for this pond for Similkameen Program production in subsequent years will require approval of the Rock Island Hatchery Committee.

Background

The artificial production program focused on summer Chinook salmon in the Okanogan subbasin has demonstrated a high degree of success. Annually, approximately 576,000 summer Chinook salmon parr are reared to yearling stage at the Similkameen acclimation pond on the Similkameen River. This program is funded by Chelan Public Utility District and the facility is operated by the Washington Department of Fish and Wildlife (WDFW).

Summer Chinook salmon are reared for approximately six months on water from the Similkameen River. In doing so, the homing instincts of hatchery fish are strengthened and exhibit a high fidelity to this reach of river. Naturally produced spawners also occupy this reach. During years of good in-river and ocean survival abundant hatchery and naturally produced adults return to the vicinity of the acclimation pond. The abundant adult returns to this reach have resulted in superimposition and has negatively affected the Natural Recruitment Rate (NNR) for the Similkameen spawning aggregate. Furthermore, suitable summer Chinook habitat in the Okanogan River (those areas with appropriate substrate and gradient), appear to be underutilized.

In an effort to increase NNR for the Methow/Okanogan summer Chinook in the Similkameen River and to promote adult spawning distribution in suitable spawning habitat in the Okanogan River, the Colville Confederated Tribes, in collaboration with WDFW have initiated rearing approximately 100,000 summer Chinook salmon approximately 1 mile south of Tonasket, Washington. The rearing facility is a modified sedimentation pond of the Oroville Tonasket Irrigation District, referred to as the Bonaparte Acclimation Pond (Photo 1).

Redistributing 100,000 summer Chinook salmon smolts from the Similkameen acclimation pond and rearing these fish on water from the Okanogan River is expected to reduce superimposition in the Similkameen River and promote spawning in currently under-utilized habitat along the Okanogan River. Furthermore, it is anticipated that redistributing returning adults will increase the proportion of naturally-produced summer Chinook and overall abundance.

Wells Habitat Conservation Plan - Hatchery Committee
Statement of Agreement
August 16, 2006

Public Utility District No. 1 of Douglas County (Douglas PUD) has received the final set of design drawings for the Wells Hatchery Surface Water Screens. The screen system shown on the August 7, 2006 plans and reviewed at the meeting on August 16, 2006 will allow for delivery of surface water to the hatchery at all appropriate reservoir elevations. Engineering staff from the National Marine Fisheries Service and the Washington Department of Fish and Wildlife have been actively involved with the design and approach presented in the August 7, 2006 drawings.

The HCP-HC was presented with the concept design for the screens at the June 21, 2006 meeting and was supportive of the design concepts presented by Douglas PUD at the meeting. The next steps in the implementation of this project are to provide the attached set of final drawings to FERC for approval and to produce the final bid designs and documents. Toward meeting these steps, Douglas PUD is requesting HCP HC approval of the final design drawings prior to their submittal to FERC for their approval.

In summary, the members of the HCP-HC are supportive of the August 7, 2006 design drawings of the Wells Hatchery Surface Water Intake Screen and request that the District proceed with the implementation of this project.

**Statement of Agreement
Implementation Plan for the
Analytical Framework for Monitoring and Evaluating PUD Programs
Wells, Rocky Reach and Rock Island HCP Hatchery Committees
September 20, 2006**

The Wells, Rocky Reach and Rock Island HCP Hatchery Committees have reviewed the **Analytical Framework for Monitoring and Evaluating PUD Programs** and accept the document as final.

Rocky Reach and Rock Island HCP Hatchery Committees
Statement of Agreement on Production Levels for
Chelan County PUD's Turtle Rock Summer Chinook Hatchery Program
October 18th, 2006

Statement

The HCP Hatchery Committee (HC) agrees that the hatchery production levels to be raised at the new facility at Chelan Falls shall not exceed 600,000 yearling summer Chinook, 400,000 for original inundation and no greater than 200,000 for Rocky Reach passage losses. The HC agrees that broodstock collection, holding and spawning for the Chelan Falls facility will continue to be conducted at Wells Hatchery, unless the HCP HC agrees in the future that new information warrants a change.

Background

At the May 17, 2006 meeting, the HCP HC agreed to change the current Turtle Rock summer Chinook program from approximately 1.6 million sub yearlings to 400,000 yearlings, raised at a new facility at Chelan Falls. In addition, there is currently a component of the Turtle Rock Island hatchery program that can be adjusted beginning in 2013. The current production level for the adjustable component of the program is 200,000 fish.

Since this is primarily a harvest augmentation program, which most likely will supplement a limited spawning habitat (being constructed in the lower Chelan River under the new license), it seems reasonable that the production from this facility should be capped at 600,000 yearling Chinook. Further, since this program is not designed to supplement an existing locally adapted population, the broodstock for this program will be collected and spawning will be conducted at the Wells Hatchery, unless the HCP HC agrees in the future that new information warrants a change in broodstock source. Carcass surveys at the Chelan River confluence have consistently shown that the majority of Chinook spawning at this location are of hatchery origin, predominately of Wells stock released from Wells Hatchery and Turtle Rock.

Rocky Reach and Rock Island HCP Hatchery Committees
Statement of Agreement on Operation of
Chelan County PUD's Chelan Falls Summer Chinook Hatchery Program
November 15, 2006

Statement

The HCP Hatchery Committee (HC) agrees that the operation of the Chelan Falls summer/fall Chinook rearing pond is independent of the operations of the Lake Chelan powerhouse and the implementation of the Lake Chelan license and is not linked nor will interfere with operations of the powerhouse in any way for the life of the HCPs. If it is determined by the HC that powerhouse operation is substantially altered in ways that adversely affects the efficacy of the program, the HC shall consider changes in the hatchery program. To the extent practicable, Chelan PUD will coordinate internally to minimize impacts to the Chelan Falls summer Chinook Rearing Facility while not impairing the District's ability to operate the Lake Chelan Hydroelectric Project in a manner consistent with the District's objectives for that project.

Background

At the May 17, 2006 meeting, the HCP HC agreed to change the current Turtle Rock summer Chinook program from approximately 1.6 million subyearlings to 400,000 yearlings, raised at a new facility at Chelan Falls. In addition, there is currently a component of the Turtle Rock hatchery program that can be adjusted beginning in 2013. The current production level for that component of the program is 200,000 fish.

On October 18, 2006, the HCP HC further agreed to cap the production of the program at this facility at 600,000 fish. This was agreed to so Chelan could begin design and implementation of the construction of the site.

One of the primary reasons that this program is being moved from its current location on Turtle Rock Island is to increase homing fidelity to the release site. Furthermore, the primary purpose of this program is to provide a fishery for the original inundation of Rocky Reach Reservoir.

By moving the program to Chelan Falls area and rearing on Chelan River (Lake) water, the HCP HC agrees that 1) homing fidelity to the release area should increase, and 2) a local fishery will most likely develop in the area, similar to what currently occurs near the mouth of the Okanogan River.

However, there may be very limited times when the source water (Lake Chelan) may not be the primary water source because of powerhouse operations. Analysis suggests that this should occur less than 10% of the time fish would be rearing at the site.

Rocky Reach and Rock Island HCP Hatchery Committees
Statement of Agreement
Chelan County PUD
Hatchery Monitoring and Evaluation Implementation Plan 2007
November 15, 2006

Statement

The Rocky Reach and Rock Island HCP Hatchery Committees (HC) have reviewed the Chelan County PUD Hatchery Monitoring and Evaluation Implementation Plan for 2007 (Plan) and agree that it covers the work that needs to be accomplished in 2007. Further, the HC anticipates and recognizes that modifications of this plan may be required as new information becomes available.

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Hatchery Monitoring and Evaluation Implementation Plan 2007**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the “Proposal for the Implementation of the Comprehensive Monitoring and Evaluation of Hatchery Programs funded by Douglas County PUD” for the 2007 calendar year. The HC approves the implementation of this study and that it covers the work that needs to be accomplished in 2007. Further, the HC anticipates and recognizes that adaptations may need to occur in future years.

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

<p>The Wells HCP Hatchery Committee (HC) has reviewed the “Study Plan for Examining the Genetic Structure of Methow Spring Chinook Salmon.” The HC approves the implementation of this study to provide information as part of the monitoring and evaluation plan, “Conceptual Approach to Monitoring and Evaluation of Hatchery Programs funded by Douglas County Public Utility District.” This genetic study plan will become an amendment to the “Proposal for the Implementation of the Comprehensive Monitoring and Evaluation of Hatchery Programs funded by Douglas County PUD” for the 2007 calendar year.</p>

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Approval of Final Report**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the draft report "Methow River Basin Spring Chinook and Steelhead Smolt Monitoring in 2005." Comments have been sent to the author for preparation of a final document. The HC approves the report as final.

**Wells HCP Hatchery Committees
Statement of Agreement
PUD No. 1 of Douglas County
Approval of Final Report**

Presented at the November 15, 2006 HCP-HC meeting for approval

Statement

The Wells HCP Hatchery Committee (HC) has reviewed the draft report “Spring Chinook Spawning Ground Surveys in the Methow River Basin, 2005.” Comments have been sent to the author for preparation of a final document. The HC approves the report as final.

**Wells HCP Hatchery Committee
Statement of Agreement
PUD No. 1 of Douglas County
A Decision of Deferral for Coho Compensation
27 December 2006**

Statement

The Wells Hatchery Committee chooses to defer a decision on potential coho compensation, as outlined in Section 8.4.5.1 in the Anadromous Fish Agreement and Habitat Conservation Plan for the Wells Hydroelectric Project, until October 2007. During this time, Douglas PUD will work with the Yakama Nation, the Bonneville Power Administration, Chelan and Grant PUDs, and the Wells HCP Hatchery Committee to develop program details that would be used to address Douglas PUD's coho mitigation obligations, if it is determined that a long-term hatchery program exists. Consistent with the expectation that coho salmon survive passage of Wells Dam at a level similar to other spring migrant salmonids, the Hatchery Committee anticipates that, after appropriate consideration by the Wells Coordinating Committee, coho would be designated as a Phase III (Additional Juvenile Studies) Plan Species if it is determined that a long-term hatchery program exists.

Background: Section 8.4.5.1 of the Anadromous Fish Agreement and Habitat Conservation Plan calls for an assessment of "compensation for Methow River coho...in 2006 following the development of an anticipated long-term coho hatchery program and/or the establishment of a Threshold Population of naturally reproducing coho in the Methow Basin." The Hatchery Committee is to determine whether a long-term hatchery program and/or naturally reproducing population of coho is present in the Methow basin. The Yakama Nation has worked diligently to establish a population of coho in the Methow Basin through a coho-reintroduction feasibility study funded by the Bonneville Power Administration (BPA), and has sought long-term financing from the BPA for that program. The HCP Hatchery Committee has been awaiting BPA's response to the request by the Yakama Nation for long-term funding of the coho reintroduction program. At the December 13, 2006 meeting, Tom Scribner informed the Hatchery Committee that the BPA has provided a letter to the Yakama Nation stating that the coho reintroduction program will receive "bridge funds" through September 30, 2007, during which time the BPA would make a final determination regarding the long-term funding of the coho reintroduction program.

APPENDIX H

BYPASS OPERATION PLAN AND SUMMARY



Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553

Memorandum

TO: Wells HCP Coordinating Committee

FROM: Shane Bickford, Douglas PUD

DATE: January 16, 2006

SUBJECT: Proposed 2006 Juvenile Bypass Operating Plan

The 2006 spring outmigration at Wells Dam will consist of naturally produced stream-type fish spawned during brood years 2004 and 2005. Counts at Wells Dam included 4,793 adult and jack spring Chinook, 78,053 adult sockeye and 9,963 adult steelhead in 2003 and 9,317 adult steelhead in 2004.

Scheduled hatchery releases, above Wells Dam, include yearling spring Chinook from the Chewuch (210,000), Twisp (155,000) and Methow Acclimation Ponds (65,000), Winthrop National Fish Hatchery (500,000) and from the Colville Tribe's Okanogan spring Chinook reintroduction program (50,000). Summer Chinook yearlings will be released from the Carlton (400,000), Similkameen (500,000), and Bonapart Ponds (100,000). Hatchery summer steelhead will be released throughout the Methow and Okanogan rivers. Hatchery steelhead released above Wells Dam include fish from Wells Hatchery (510,000), Winthrop NFH (102,000) and Omak steelhead programs (18,600). The Yakama Nation was scheduled to release 309,000 yearling coho from the Winthrop NFH, however recent developments may result in these fish being released downstream rather than upstream of Wells Dam.

In general, the hatchery yearling Chinook and steelhead are scheduled to be released starting on April 15th with the yearling coho scheduled to be released on April 20th. By the end of April, all of the Chinook and coho will be released. The steelhead releases historically continue into the middle of May.

The summer outmigration at Wells Dam is made up of 100% naturally produced ocean-type summer/fall Chinook spawned during brood year 2005. Natural escapement of summer / fall Chinook over Wells Dam in 2005 included 31,763 summer Chinook and 3,461 fall Chinook.

Operation of the bypass system throughout the 2006 season will be guided by the criteria contained within the Wells Dam Juvenile Dam Passage Survival Plan (Wells Juvenile Bypass Plan) found in Section 4.3 of the Wells HCP. One of the main goals of the Wells Juvenile

Bypass Plan is to provide bypass operation for at least 95% of both the spring and summer migration of juvenile plan species.

During the last two years, bypass operations have been implemented based upon an analysis of 21 years of hydroacoustic and 14 years of species composition information collected on juvenile run patterns at Wells Dam. Based upon this analysis, Douglas PUD has proposed bypass operating dates that last longer than those specified within the Wells HCP Agreement. The HCP Agreement originally directed the District to operate the bypass continuously from April 10th to August 15th.

However, based upon the District's 21-year run-timing analysis, presented and agreed to by both the Wells HCP Coordinating Committee and the Wells Settlement Coordinating Committee in February 2004, initiation of the Wells bypass system on April 12th and termination on August 26th will conservatively provide bypass operations for at least 95% of both the spring and summer migrations.

Historically, initiation of the bypass system on April 12th would provide a non-turbine passage alternative for 95.5% of the spring migration. Similarly, shutting down the bypass system on August 26th, on average would provide bypass operation for 95.0% of the summer migration. Similar to the past 6 years and for accounting purposes, the end of the 2006 spring bypass season will be June 13th at 2400 hours and the beginning of the summer bypass season will be June 14th at 0000 hours.



Public Utility District No. 1 of Douglas County

1151 Valley Mall Parkway • East Wenatchee, Washington 98802-4497 • 509/884-7191 • FAX 509/884-0553

Memorandum

TO: Wells HCP Coordinating Committee

FROM: Rick Klinge, Douglas PUD

DATE: September 11, 2006

SUBJECT: Summary of 2006 Bypass Operations at Wells Dam

The 2006 spring outmigration at Wells Dam consisted of natural stream-type fish spawned during brood year 2004 and 2005. Escapement of stream-type fish included a 2004 spring Chinook natural escapement of 2,112 adults (Wells Count minus hatchery broodstock minus summer Chinook enumerated during spring Chinook count period¹), a 2004 sockeye escapement of 78,053 adults (Wells Count) and a steelhead escapements of 9,963 in 2003 and 9,317 in 2004 (Wells Counts).

Hatchery releases above Wells Dam included yearling spring Chinook released from the Chewuch, Twisp and Methow Acclimation Ponds, from the Winthrop National Fish Hatchery and from the Colville's Okanogan spring Chinook reintroduction program. Coho were released from the Winthrop National Fish Hatchery and summer Chinook yearlings were released from the Carlton, Similkameen and Bonapart Acclimation Ponds. Hatchery summer steelhead were released throughout the Methow and Okanogan rivers. Hatchery steelhead released above Wells Dam originate from the Wells, Winthrop and Omak steelhead programs.

The summer outmigration that passed Wells Dam consisted entirely of naturally produced ocean-type summer/fall Chinook spawned during brood year 2005. Natural escapement of summer/fall Chinook in 2005 was 35,224 fish counted at Wells Dam.

The initiation and termination of the Wells bypass in 2006 was guided by the Wells HCP Coordinating Committee. Operation of the bypass system was strictly guided by the Bypass Operating Plan contained within Section 4.3 of the Wells HCP Agreement. The initiation and termination dates for the bypass system in 2006 were based upon 21 years of hydroacoustic and 14 years of species composition information collected on hatchery

¹ Humling, Michael and Charlie Snow. 2005. Spring Chinook Spawning Ground Surveys in the Methow River Basin in 2004. Washington Department of Fish and Wildlife; Prepared for Pubic Utility District No. 1 of Douglas County, East Wenatchee, WA; Draft February 2005.

and wild juvenile run patterns at Wells Dam. Based upon an analysis of the run-timing information at Wells Dam, the HCP Coordinating Committee agreed to initiate the Wells bypass system on April 12th. The analysis indicated that on average initiating the bypass system on April 12th would provide a non-turbine passage alternative for 95.5% of the spring migration. Similarly, shutting down the bypass system on August 26th, on average would provide bypass operation for at least 95% of the summer migration. The bypass system operated continuously during the transition period between the spring and summer juvenile fish migrations. For accounting purposes, the end to the 2006 spring bypass season was June 13th at 2400 hours and the beginning of the summer bypass season was June 14th at 0000 hours.

Flows at Wells Dam during the 2006 juvenile plan species migration (April – August) were at 118 percent of the twenty-year average. Operationally, all five bypass bays were available to be utilized at one time or another during the outmigration. Operation of the bypass system throughout the season was guided by the bypass operating criteria contained within Section 4.3 of the Wells HCP.

The spring bypass season started on April 12th at 0000 hours and was operated continuously through June 13th at 2400 hours. The spring bypass operated for a total of 63 days and utilized a total discharge of 1.26 MAF, or 5.8% of total project discharge. During the spring bypass operation, there was forced spill during 743 hours or 49.1% of the season. Many of the forced spill events recorded during this years outmigration were scheduled in order to conduct the 2006 Total Dissolved Gas and Spill Dynamic Study.

Summer bypass started on June 14th at 0000 hours and ran until August 26th at 2400 hours, for a total of 75 days. There was 1.23 MAF or 6.3% of the total discharge dedicated to summer bypass. During the summer bypass operating period, there were 298 hours or 16.6% of the hours with forced spill.

APPENDIX I

BROODSTOCK COLLECTION PROTOCOLS

2006 Weekly collection quota for extraction of spring Chinook at Wells Dam ^{1/}		
Week Ending	Weekly ^{2/, 3/} Collection	% Total
04-Jun	64	35%
11-Jun	64	35%
18-Jun	54	30%
25-Jun	as needed	
Total	182	100%

^{1/} - Alternate trapping scenario required as a result of flood damaged tributary traps.

^{2/} - Trapping 1-7 days/week as needed to meet weekly collection objectives. No greater than 10% "Jacks"

^{3/} - All fish scanned for PIT tags. Known Twisp hatchery-origin fish segregated and retained separately from MetComp hatchery-origin fish.

2006 Weekly collection quota for extraction of spring Chinook from the Methow FH outfall ^{1/}		
Week Ending	Weekly ^{2/, 3/} Collection	% Total
07-May		
14-May		
21-May		
28-May		
04-Jun		
11-Jun	22	12%
18-Jun	44	24%
25-Jun	51	28%
02-Jul	29	16%
09-Jul	18	10%
16-Jul	9	5%
23-Jul	9	5%
30-Jul		
Total	182	100%

^{1/} - Revised 2006 broodstock collection, based on initial damage assessment of tributary traps

^{2/} - Based on May 22, 2006 in-season forecast and 2006 run-timing.

^{3/} - No greater than 10% "jacks"

STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
Mid-Columbia Field Office

3515 Chelan Hwy 97-A Wenatchee, WA 98801 (509) 664-1227 FAX (509) 662-6606

April 3, 2006

To: Mid-Columbia HCP Hatchery Committee

From: Kirk Truscott

Subject: **DRAFT 2006 UPPER COLUMBIA RIVER SALMON AND STEELHEAD
BROODSTOCK OBJECTIVES AND SITE-BASED BROODSTOCK
COLLECTION PROTOCOLS**

This protocol was developed for hatchery programs rearing spring Chinook salmon, sockeye salmon, summer Chinook salmon and summer steelhead associated with the mid-Columbia Habitat Conservation Plans (HCPs), spring Chinook salmon and steelhead programs associated with the Biological Opinion for Section 7 Consultation of the Interim Operation for the Priest Rapids Hydroelectric Project (FERC No. 2114) and fall Chinook consistent with Grant County Public Utility District and Federal mitigation obligations associated with Priest Rapids and John Day dams, respectively. These programs are funded by Chelan, Douglas, and Grant County Public Utility Districts (PUDs) and are operated by the Washington Department of Fish and Wildlife (WDFW). Additionally, the Yakama Nation's Coho Reintroduction Program broodstock collection protocol, when provided by the Yakama Nation, will be included in this protocol because of the overlap in trapping dates and locations.

This protocol is intended to be a guide for 2006 collection of salmon and steelhead broodstocks in the Methow, Wenatchee, and Columbia River basins and was developed using run estimates calculated by WDFW (Appendix A). It is consistent with previously defined program objectives such as program operational intent (i.e., conservation and/or harvest augmentation), production level targets, and to comply with ESA permits. Additionally, Wenatchee spring Chinook broodstock collection strategies employed at Tumwater Dam are intended to provide improved certainty in achieving overall broodstock collection and reduced number of Chiwawa hatchery-origin strays in other Wenatchee basin UCR spring Chinook spawning aggregates. This protocol may be adjusted in-season, based on actual run monitoring at mainstem dams and other sampling locations.

Above Wells Dam

Spring Chinook

Pre-season estimates have 2,491 spring Chinook destined above Wells Dam, 23 percent or 576 fish are expected to be natural-origin. In-season estimates of natural-origin spring Chinook to individual tributaries will be adjusted proportional to the estimated returns detailed in Table 2 of the 2006 WDFW Upper Columbia River Salmon and Steelhead Escapement Forecast and the total spring

Chinook passage at Wells Dam at the 50% and 75% passage dates and may result in adjustments to the broodstock collection targets presented in this document. Natural-origin fish inclusion into the broodstock will be a priority, with natural-origin fish specifically being targeted; however, natural-origin fish collections will not exceed 33 percent of the in-season estimated return to any tributary spawning population. All hatchery origin fish retained for broodstock will be adipose-present, coded-wire tagged.

The Methow Fish Hatchery (FH) rears spring Chinook salmon for three acclimation/release sites on three tributaries of the Methow River; Twisp, Chewuch and Methow Ponds. The total production level target is 550,000 smolts divided equally among the three release sites (183,000 smolts per site.)

Broodstock will be collected at the Methow FH outfall and at tributary traps on the Methow, Chewuch, and Twisp rivers. The Twisp Pond release group is limited to releasing progeny of broodstock collected from the Twisp River. The Chewuch Pond prioritizes progeny of Chewuch River collected broodstock, but may include progeny of broodstock collected from the Methow River. Based on these limitations and the assumptions listed below (Table 1), the following broodstock collection protocol was developed.

For the Twisp program, a total of 120 spring Chinook salmon are required for broodstock; however, based on pre-season run-size forecast (Appendix A), the 2006 collection will likely approach 99 fish (36 wild and 63 hatchery). Trapping will begin on 01 May and is expected to be completed by 06 August. Salmon will be retained from the run, proportionally consistent with estimated run timing. Retention of natural and hatchery-origin Chinook will be limited to no more than 33 percent of the pre-season run size forecast and will be consistent with weekly collection quotas. The trap schedule will include 7-days/week collection with the retention of one of every three Chinook encountered (by origin). Fish not retained for broodstock purposes will be enumerated, examined for marks/tags and released upstream of the weir. Once the weekly quota target is reached, trapping will cease until the beginning of the next week. If a shortfall occurs in the weekly trapping quota, the shortfall will carry forward to the following weeks collection quota. The weir will be manned 24-hours/day during trapping days to facilitate operation to minimize impact to steelhead kelts and spring Chinook fallback. Ninety-nine (99) spring Chinook retained for broodstock represents a 21-fish shortfall for a full Twisp River program, the shortfall will be compensated with additional (21 fish) collection of Methow Composite stock at the Chewuch and or the Methow River Collection locations. However, only juveniles originating from Twisp River adults will be released in the Twisp River. All Methow Composite stock collected as a function of a Twisp River shortfall will be released in the Chewuch or Methow rivers.

For the Chewuch Pond program, a total of 120 spring Chinook salmon are required for broodstock. Collection activities will begin 01 May and are expected to be complete by 06 August. Up to 120 spring Chinook salmon may be collected from the Chewuch River at Fulton Dam. The dam does not block migrating fish and the trap is anticipated to have a low capture rate. No more than 33 percent of the natural-origin return will be retained for broodstock. In the event that sufficient broodstock for the Chewuch Program cannot be attained from the Chewuch River for this program, salmon will be collected from the Methow River as described below to compensate for the shortfall.

The Methow Pond program requires 120 broodstock and will be collected at the Foghorn Dam on

the Methow River in combination with the Methow FH outfall to meet the broodstock target. Trapping will begin on 01 May and is expected to be completed by 06 August. Weekly collection targets will be followed to collect from throughout the run. Once the weekly retention target is reached, all salmon will be released until the beginning of the next week. If the Chewuch Pond and Twisp programs are broodstock deficient, then the weekly collection target may be adjusted to compensate for the shortfalls. If required to meet Methow FH broodstock collection for Methow Composite stock, adipose-present code-wire tagged hatchery fish may be collected at WNFH, consistent with availability of Chinook that are excess to WNFH requirements.

Table 1. Assumptions and calculations to determine number of broodstock needed for each tributary release of 183,000 smolts.

Smolt release		183,000	Smolt release goal
Fertilization-to-release survival	90%	203,333	
ELISA adjustment	15%	35,882	Eggs
Eggtake Target		239,215	Eggs
Fecundity	4,200	57	Females
Female to male ratio	1 to 1	114	
Pre-spawn survival	95%	120	Broodstock collection target

Steelhead

Current estimated upper Columbia River steelhead run size is sufficient to provide the 390 adult steelhead broodstock required to meet mitigation program objectives (Table 1). Steelhead mitigation programs above Wells Dam utilize adult broodstock collections at Wells Dam and incubation/rearing at Wells Fish Hatchery (FH). Based on mitigation program production objectives (Table 1) and program assumptions (Table2), the following broodstock collection protocol was developed.

Trapping at Wells Dam will selectively retain 390 steelhead (east and west ladder collection). The collection will retain no greater than 33% natural origin broodstock for the mitigation programs and 100% hatchery origin within the Ringold FH production component. Overall collection will be limited to no more than 33% of the entire run or 33% of the natural origin return. The east and west ladder trapping at Wells Dam will begin on 01 August and terminate by 31 October and will be operated concurrently three days per week, up to 16 hours per day, if required to meet broodstock objectives. Trapping on the east ladder will be concurrent with summer Chinook broodstocking efforts through 14 September and will continue through 31 October, concurrent with west ladder steelhead collections. Adult return composition including number, origin, age structure, and sex ratio will be assessed in-season at Priest Rapids and Wells dams. Broodstock collection adjustments may be made based on in-season monitoring and evaluation.

Table 2. Adult steelhead collection objectives for programs supported through adult steelhead broodstock collection at Wells Dam.						
Program	# Smolts	# eyed eggs	% Wild	# Wild	# Hatchery	Total Adults
DCPUD ^{1/}	349,000	401,149	33%	59	119	178
GCPUD ^{1/}	100,000	114,943	33%	17	34	51
USFWS ^{1/}	100,000	125,000	33%	18	37	55 ^{3/}
Sub-Total	549,000	641,092	33%	94	190	284
Ringold	180,000	240,000	0%	0	106	106 ^{3/}
Sub-Total	180,000	240,000	0%	0	106	106
Grand Total ^{2/}	729,000	881,092	24%	94	296	390
^{1/} - Above Wells Dam releases. Target HxW parental adults as the hatchery component ^{2/} - Based on steelhead production consistent with Mid Columbia HCP's, GCPUD BiOp and Section 10 Permit 1395. ^{3/} - Based on adults required for eyed egg allotment						

Table 3. Program assumptions used to determine adult collection required to meet steelhead production objectives for programs above Wells Dam and at Ringold Springs Fish Hatchery.

Program assumption	Standard
Pre-spawn survival	97%
Female to male ratio	1.0 : 1.0
Fecundity	5,400
Propagation survival	
87% fertilization to eyed egg	87%
86% eyed egg to yearling release	86% ^{1/}
75% fertilization to yearling release	75% ^{1/}
^{1/} - Not applicable to Ringold Springs Fish Hatchery	

Summer/fall Chinook

Summer/fall Chinook mitigation programs above Wells Dam utilize adult broodstock collections at Wells Dam and incubation/rearing at Eastbank Fish Hatchery (FH). The total production level target is 976,000 summer/fall Chinook smolts for two acclimation/release sites on the Methow and Similkameen rivers (Carlton Pond and Similkameen Pond, respectively).

Current return projections estimate approximately 13,000 summer/fall Chinook to migrate past Wells Dam during 2006, including 10,000 natural-origin fish. Review of recent summer/fall Chinook run timing past Wells Dam indicates previous years broodstock collection activities omitted the latter returning summer/fall Chinook. In an effort to incorporate broodstock that better represent the summer/fall Chinook run timing past Wells Dam, the broodstock collection will extend to the third week of September, concurrent with steelhead collections from the east ladder trap. In-season estimates of natural-origin Chinook to Wells Dam will be adjusted proportional to the estimated returns detailed in the 2006 Upper Columbia River Salmon and Steelhead Escapement Forecast and the total summer/fall Chinook passage at Wells Dam at the 50% and 75% passage dates. Based on initial run projections, program objectives and program assumptions (Table 4); the following broodstock collection protocol was developed.

WDFW will retain 556 natural-origin summer/fall Chinook at Wells Dam east ladder. No more than 33 percent the natural-origin run will be retained for broodstock. Collection will be proportional to return timing between 01 July and 13 September. Trapping will occur 3-days/week, 16 hours/day. The 3-year old component will be limited to 10 percent of the broodstock collection. If the probability of achieving the broodstock goal is reduced based on actual natural-origin escapement levels, broodstock origin composition will be adjusted to meet the broodstock collection objective.

Table 4. Assumptions and calculations to determine number of broodstock needed for summer/fall Chinook production at Carlton and Similkameen ponds.

<u>Program Assumption</u>		<u>Carlton Pond</u>	<u>Similkameen Pond</u>	<u>Total</u>
Smolt release		400,000	576,000	976,000
Fertilization-to-release survival	90%			
Eggtake Target		512,821	738,462	1,251,282
Fecundity	5,000			
Female target		103	148	250
Female to male ratio	1 to 1			
Broodstock target		205	295	501
Pre-spawn survival	95%			
Total collection target		228	328	556

Columbia River Mainstem below Wells Dam

Summer/fall Chinook

Summer/fall Chinook mitigation programs that release juveniles directly into the Columbia River between Wells and Rocky Reach dams are supported through adult broodstock collections at Wells Dam. The total production level supported by this collection is 520,000 yearling and 1,562,000 sub-yearling Chinook.

Adults returning from this program are to support harvest opportunities and are not intended to increase natural production and have been termed segregated harvest programs. These programs have contributed to harvest opportunities; however, adults from these programs have been documented contributing to the adult spawning escapement in tributaries upstream and downstream from their release locations. Because adults from these programs contribute to the natural spawn escapement, the broodstock collection will incorporate 10 percent natural-origin fish into the broodstock to reduce the potential genetic risk to the naturalized summer/fall Chinook stocks in the upper Columbia River region. Based on mitigation objectives and program assumptions (Table 5), the following broodstock collection protocol was developed.

WDFW will collect 1,274 run-at-large summer Chinook including 1,146 hatchery fish from the volunteer ladder trap at Wells Fish Hatchery outfall and 128 natural-origin fish from the Wells Hatchery outfall, and/or Wells Dam east and west ladders. Overall extraction of natural-origin fish passing Wells Dam (Wells program and above Wells Dam summer/fall Chinook programs) will not exceed 33 percent. West ladder collections will begin 01 July and completed by 14 September and will be consistent with run timing past Wells Dam. Due to fish health concerns associated with the volunteer collection site, the volunteer collection will begin 10 July and terminate by 31 August, or when the summer Chinook broodstock collection objective is met, which ever is earliest. The 3-year old component will be limited to 10 percent of the broodstock collection.

Coho

Yakama Nation will provide broodstock collection objectives for the coho reintroduction program in the Methow River basin. WDFW will work collaboratively with the Yakama Nation to facilitate coho collections at Wells Dam.

Table 5. Assumptions and calculations to determine number of broodstock needed for summer/fall Chinook production at Wells and Turtle Rock Island hatcheries.

	<u>Standard</u>	<u>Wells FH</u>	<u>Turtle Rock FH</u>	<u>Lake ^{1/} Chelan</u>	<u>Total</u>					
Program Assumption	Sub- yearling	Yearling	Sub- yearling	Yearling	Sub- yearling	Yearling	eye-egg	Sub- yearling	Yearling	Total
Smolt release			484,000	320,000	1,078,000	200,000	NA	1,562,000	520,000	2,082,000
Fertilization-to-release survival	81%	78%					NA			
Eggtake Target			597,531	410,256	1,330,864	256,410	100,000	1,928,395	666,667	2,695,062
Fecundity	4,700	4,700								
Female target			127	87	283	55	21	432	142	573
Female to male ratio	1 to 1	1 to 1								
Broodstock target			254	175	566	110	42	820	285	1,105
Pre-spawn survival	90%	90%								
Total collection target			282	194	629	122	47	958	316	1,274

^{1/} - Lake Chelan eggs will be incorporated into the last egg take and incubated at Wells Hatchery until eyed stage and then shipped to the Lake Chelan RSI program.

Wenatchee River Basin

Spring Chinook

The Eastbank Fish Hatchery (FH) rears spring Chinook salmon for the Chiwawa River acclimation pond located on the Chiwawa River. The program production level target is 672,000 smolts; however, based on the pre-season spring Chinook forecast to the Chiwawa River Basin, the BY 2006 production level is expected to be 372,504 yearling spring Chinook. Natural-origin fish inclusion into the broodstock will continue to be a priority, with natural-origin fish specifically being targeted. Natural-origin fish collections will not exceed 33 percent of the in-season estimated return to the Chiwawa River and will provide, at a minimum, 33 percent of the total broodstock retained.

Pre-season estimates have 1,988 spring Chinook destined for the Chiwawa River, 11 percent or 213 fish are expected to be natural-origin. In-season estimates of natural origin Chinook to the Chiwawa River will be adjusted proportional to the estimated returns detailed in Table 1 of the 2006 upper Columbia River Salmon and Steelhead Escapement Forecast and the total spring Chinook passage at Tumwater Dam at the 25%, 50% and 75% passage dates. Overall hatchery and natural-origin collections will be modified based on the in-season natural-origin estimates.

Since 2001, Chiwawa hatchery-origin fish have provided varying proportions of annual spawn escapements in the White River Basin, and may represent some risk to the White River population. The Rock Island HCP Hatchery Committee is working diligently on plans to address the Chiwawa Hatchery stray issue through improved homing fidelity measures at the Chiwawa FH.

However, as an interim measure to immediately address straying, broodstock collection efforts at Tumwater Dam will employ actions aimed at hatchery-origin broodstock collection and hatchery-origin fish capture/translocation to the Chiwawa River Basin. Based on these limitations, assumptions listed below in Table 7, and measures to reduce stray Chiwawa Hatchery fish to other sub-basins in the Wenatchee River Basin, the following broodstock collection protocol was developed.

Based on the projected Chiwawa River run-size and origin composition, WDFW will retain 210 spring Chinook for broodstock purposes. One hundred and forty (140) adipose present, coded-wire tagged, hatchery-origin Chinook will be retained from Tumwater Dam and 70 natural-origin spring Chinook will be retained at the Chiwawa Weir. In-season assessment of the magnitude and origin composition of the spring Chinook return above Tumwater Dam will be used to provide in-season adjustments to the total broodstock collection, consistent with a minimum 33% natural origin composition in the broodstock.

Trapping at Tumwater Dam will begin 01 May and will be concurrent with trapping for the Spring Chinook Reproductive Success Study. Collection at both Tumwater Dam and Chiwawa Weir will be based on weekly quotas, consistent with average run timing at Tumwater Dam. If the weekly quota is attained prior to the end of the week, retention of spring Chinook for broodstock will cease. If the weekly quota is not attained, the shortfall will carry forward to the next week. To reduce Chiwawa River hatchery origin fish in other sub-basins, adipose-present, coded-wire tagged spring Chinook that are in excess to weekly quota requirements will be captured and translocated to the Chiwawa River, approximately 10 miles upstream from the Chiwawa Weir. The number of hatchery-origin fish retained at Tumwater Dam will be adjusted, in-season, based on estimated Chiwawa River natural-origin returns, provided through extrapolation of returns past Tumwater Dam. If hatchery-origin Chinook are retained excess to that required to maintain, at a minimum, 33 percent natural-origin composition in the broodstock, excess fish will be returned to the Chiwawa River beginning the third week of July. Capture and translocation of adipose present, coded-wire tagged spring Chinook from Tumwater Dam to the Chiwawa River will require additional staff and equipment (distribution trucks).

Broodstock collection at the Chiwawa Weir will begin 01 June and terminate no later than 10 September. Spring Chinook trapping at the Chiwawa Weir will follow a 4-days up and 3-days down schedule, consistent with weekly broodstock collection quotas that approximate the historical run timing and a maximum 33 percent retention of the projected natural-origin escapement to the Chiwawa River. If the weekly quota is attained prior to the end of the 4-day trapping period, trapping will cease. If the weekly quota is not attained within the 4-day trapping period, the shortfall will carry forward to the next week. Retention of adipose-present, coded-wire tagged, hatchery-origin spring Chinook at Tumwater Dam will occur only if the collections at Tumwater Dam are insufficient to provide the 2:1 hatchery to natural-origin ratio in the broodstock.

All bull trout trapped at the Chiwawa weir will be transported by tank truck and released into a resting/recovery pool at least 1.0 km upstream from the Chiwawa River weir.

Table 6. Assumptions and calculations to determine number of broodstock needed for Chiwawa program release of 672,000 smolts.		
Program Assumption	Standard	Chiwawa program
Smolt release		672,000
Fertilization-to-release survival	83%	
Eggtake Target		809,639
Fecundity	4,400	
Female target		184
Female to male ratio	1 to 1	
broodstock target		368
Pre-spawn survival	97%	
Total broodstock collection		379

Steelhead

Current estimated upper Columbia River steelhead run size is sufficient to provide the 208 adult steelhead broodstock required to meet the Wenatchee Basin production objective of 400,000 smolts. The steelhead mitigation program in the Wenatchee Basin use broodstock collections at Dryden and Tumwater dams located on the Wenatchee River. Broodstock collection will target 50% natural origin fish and 50% hatchery origin fish, not to exceed 33% of the natural origin steelhead return to the Wenatchee Basin. Based on these limitations and the assumptions listed below (Table 3), the following broodstock collection protocol was developed.

WDFW will retain 208 mixed origin, steelhead at Dryden and Tumwater dams. Collection will be proportional to return timing between 01 July and 12 November. Collection may also occur between 13 November and 3 December at both traps, concurrent with the Yakama Nation coho broodstock collection activities. Hatchery x hatchery parental cross, and unknown hatchery parental cross adults will be excluded from the broodstock collection. Hatchery steelhead parental origins will be determined through evaluation of VIE tags and PIT tag interrogation during collection.

In the event that steelhead collections fall substantially behind schedule, WDFW may capture some adult steelhead from the mainstem Wenatchee River by hook and line. In addition to trapping and hook and line collection efforts, Tumwater Dam may be operated between February and early April to supplement broodstock numbers if the fall trapping effort provides fewer than 208 adults.

Table 7. Assumptions and calculations to determine number and origin of adult steelhead needed for Wenatchee Basin Steelhead program release of 400,000 smolts.

Program Assumption	Standard	Wenatchee program
Smolt release		400,000
Fertilization-to-release survival	75%	
Eggtake Target		533,333
Fecundity	5,400	
Female target		99
Female to male ratio	1 to 1	
broodstock target		198
Pre-spawn survival	95%	
Total broodstock collection		208
Natural : hatchery ratio	1 to 1	
Natural origin collection total		104
Hatchery origin collection total		104

Summer/fall Chinook

Summer/fall Chinook mitigation programs in the Wenatchee River Basin utilize adult broodstock collections at Dryden and Tumwater dams, incubation/rearing at Eastbank Fish Hatchery (FH) and acclimation/release from the Dryden Acclimation Pond. The total production level target is 864,000 smolts.

Current return projections estimate approximately 8,463 summer/fall Chinook will return to the Wenatchee Basin during 2006, including and estimated 6,382 naturally-produced fish. Review of recent summer/fall Chinook run-timing past Dryden and Tumwater dam indicates that previous broodstock collection activities have omitted the early returning summer/fall Chinook, primarily due to limitations imposed by ESA Section 10 Permit 1347 to minimize impacts to listed spring Chinook. In an effort to incorporate broodstock that better represent the summer/fall Chinook run timing in the Wenatchee Basin, the broodstock collection will front-load the collection to account for the disproportionate collection timing. Approximately 43 percent of the summer/fall Chinook passage to the upper Basin occurs prior to the end of the first week of July; therefore, the collection will provide 43 percent of the objective by the end of the first week of July. Weekly collection after the first week of July will be consistent with run timing of summer/fall Chinook during the remainder of the trapping period. Collections will be limited to a 33 percent extraction of the estimated natural-origin escapement to the Wenatchee Basin. Based on these limitations and the assumptions listed below (Table 9), the following broodstock collection protocol was developed.

WDFW will retain 492 natural-origin, summer Chinook at Dryden and Tumwater dams. Trapping at Dryden Dam will begin 01 July and terminate no later than 31 August and operate up to 7-days/week, 24-hours/day. Trapping at Tumwater Dam may begin 15 July and terminate no later than 31 October and operate 3-days/week, 8-hours/day. Up to 25 percent (123) of the total broodstock collection may occur at Tumwater Dam. No selection for male or female will occur

during collection with the exception of limiting the 3-year old component to 10 percent of the broodstock total.

If the probability of achieving the broodstock goal is reduced, based on the estimated escapement levels, broodstock composition will be adjusted to meet the broodstock collection objective of 492 fish.

Table 8. Assumptions and calculations to determine number of summer Chinook broodstock needed for Wenatchee Basin program release of 864,000 smolts.		
Program Assumption	Standard	Wenatchee program
Smolt release		864,000
Fertilization-to-release survival	78%	
Eggtake Target		1,107,692
Fecundity	5,000	
Female target		222
Female to male ratio	1 to 1	
broodstock target		443
Pre-spawn survival	90%	
Total broodstock collection		492

Sockeye

Sockeye Salmon mitigation in the Wenatchee River Basin utilizes adult broodstock collections at Tumwater Dam, incubation/rearing at Eastbank Fish Hatchery (FH) and rearing/pre-smolt releases from the net pens in Lake Wenatchee. The total production level for the 2006 BY is 200,000 pre-smolts. ^{1/}

Current return estimates have approximately 7,500 Lake Wenatchee sockeye returning to the Columbia River in 2006, including an estimated 7,130 naturally-produced fish. Based on projected return, 100% natural-origin broodstock composition and assumptions listed below (Table 10), the following broodstock collection protocol was developed.

WDFW will retain 218 natural origin sockeye, proportional to run timing at Tumwater Dam. Due to the unequal sex ratio in previous years, attempts will be made to collect an equal number of males and females. Trapping may begin on 15 July and terminate by 15 August. Trapping will occur no more than 3-days/week, 8- hours/day.

If the probability of achieving the broodstock goal is reduced, based on the estimated escapement levels, broodstock number and composition will be adjusted consistent the retention of 218 sockeye with no more than 10% of the broodstock composed of adipose absent hatchery origin fish and an overall broodstock collection of no more than 10% of the total return past Tumwater Dam.

^{1/-} Chelan HCP Hatchery Committee has agreed to future production level of 280,000 fish, pending appropriate infrastructure improvements.

Table 9. Assumptions and calculations to determine number of sockeye salmon broodstock needed for Wenatchee Basin program release of 200,000 pre-smolts.

Program Assumption	Standard	Wenatchee program
Smolt release		200,000
Fertilization-to-release survival	80%	
Eggtake Target		250,000
Fecundity	2,594	
Female target		96
Female to male ratio	1 to 1	
broodstock target		193
Pre-spawn survival	89%	
Total broodstock collection		218

Coho

Yakama Nation will provide broodstock collection objectives and program assumptions for the coho reintroduction program in the Wenatchee River basin. WDFW will work collaboratively with the Yakama Nation to facilitate coho broodstock collections at Dryden and Tumwater Dam.

White River Spring Chinook Captive Brood

Smolt production associated with the White River Captive Broodstock Program will be separate from the smolt production objective associated with the Chiwawa River adult supplementation program. Spawning, incubation, rearing acclimation and release are components of Grant PUD ESA Section 7 Consultation on Interim Operations for Priest Rapids Hydroelectric Project (FERC 2114) NOAA Fisheries Consultation No. 19999/01878.

Broodstock collection will be consistent with the Priest Rapids Hatchery Committee decision to reduce the White River Captive Brood Program from up to 250,000 smolts to a more biologically appropriate level of 150,000 smolts. Based on egg-to-adult survival for this program (Table 11) and a 150,000 smolt production level, broodstock collection efforts will secure 953 eggs from approximately 25 redds (39 eggs/redd) occupied by known wild x wild origin parents. If fewer than 25 known wild x wild redds are available for egg extraction, an addendum to this protocol will be developed, in-season, by the PRCC Hatchery Committee to provide the number of redds and eggs/redd extraction required to provide 150,000 yearling smolts. All eggs collected will be and transported to Eastbank FH and subsequently to Aquaseed Corp. in Rochester, WA, or another facility identified by the PRCC Hatchery Committee for incubation and rearing.

If eggs are collected from redds with unknown parentage, genetic evaluation will be provided and cross-referenced with origin and genetic samples obtained at Tumwater Dam through the reproductive success study (Bonneville Power Administration Project No. 2003-039-00). Eggs confirmed to be from wild x wild parents will be retained for broodstock purposes to the extent needed to meet the 150,000 smolt production level. If wild x wild eggs are excess are broodstock needs, excess eggs will be reared to a markable size and released in the White River Basin as a sub-yearling. Those eggs confirmed to have hatchery influence, other than White River, will be either incorporated into the appropriate hatchery program and reared to a yearling age or reared to a

markable size and released as a sub-yearling into the most appropriate sub-basin as determined by the PRCC and HCP Hatchery Committees.

Table 11. Assumptions and calculations to determine the number of spring Chinook eggs to extract from White River Basin to meet the 150,000 smolt production objective for the White River Captive Brood Program.		
Program Assumption	Standard	Program Objective
Production level (1+smolt)		150,000
<i>Green-egg-smolt survival</i>	<i>70%</i>	
Eggtake target (green eggs)		214,000
<i>Fecundity</i>	<i>1,500/female</i>	
Number Females		143
<i>Sex ratio</i>	<i>1:1</i>	
Total Adults		286
<i>Eyed egg-adult maturity survival</i>	<i>30%</i>	
Eyed egg collection target		953

Priest Rapids Fall Chinook

Collection of fall Chinook broodstock at Priest Rapids Hatchery will generally begin in early September and continue through mid November. Smolt release objectives specific to Grant PUD (5,000,000 sub-yearlings) and Federal (1,700,000 sub-yearlings) mitigation commitments and biological assumptions are detailed in Table 11.

Table 11. Assumptions and calculations to determine the number of fall Chinook broodstock needed for the Priest Rapids program release of 6,700,000 sub-yearling fall Chinook		
Biological Assumptions	Standard	Program Objective
Smolt Production level:		
Grant PUD Mitigation-PUD Funded		5,000,000
John Day Mitigation- Federally Funded		1,700,000
Fert.-to-release survival	87%	
Eggtake Target		7,700.000
<i>Fecundity</i>	<i>4,500</i>	
Female requirement		1,711
<i>Sex ratio</i>	<i>1:1</i>	
<i>Pre-Spawn Survival</i>	<i>88%</i>	
Broodstock Required		3,911

APPENDIX A

**STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
Mid-Columbia Field Office**

3515 Chelan Hwy 97-A Wenatchee, WA 98801 (509) 664-3148 FAX (509) 662-6606

April 3, 2006

To: HCP Hatchery Committee

From: Kirk Truscott

Subject: **Draft 2006 UPPER COLUMBIA RIVER SALMON AND STEELHEAD
ESCAPEMENT FORECASTS**

The draft adult broodstock collection protocol for year 2006 is keyed on target numbers of anadromous fish at various collection sites operated by the Washington Department of Fish and Wildlife (WDFW). These collections provide broodstock for Mid-Columbia Public Utility District (PUD) mitigation program facilities associated with the mid-Columbia HCPs, the Biological Opinion for Section 7 Consultation on the Interim Operations for the Priest Rapids Hydroelectric Project (FERC NO. 2114), and the Northwest Power Planning Council (NWPPC) Coho Reintroduction Program. Specific sub-basin and tributary run escapement estimates are necessary to guide implementation of broodstock collection protocols that are consistent with mitigation production objectives and conservation of endemic populations, including ESA-listed species and are detailed below, for upper Columbia River (UCR) spring Chinook, summer Chinook and Wenatchee sockeye.

Wenatchee Spring Chinook

Based on BY 2001, 2002 and 2003 estimated natural production (redd counts), natural-origin age class survival (including jack survival), hatchery smolt release numbers and hatchery-origin smolt-to-adult return rates (SAR's) an estimated 2,167 ESA-listed UCR spring Chinook are expected to return to the Wenatchee River Basin (Table 1). Of the 2,167 UCR spring Chinook projected to return to the Wenatchee River Basin above Tumwater Dam, 1,988 are anticipated to return to the Chiwawa River, including 213 natural-origin fish (Table 1).

Wenatchee Summer Chinook

Based on BY 2001, 2002 and 2003 estimated natural production (redd counts), natural-origin age class survival (including jack survival), hatchery smolt release numbers and hatchery-origin smolt-to-adult return rates (SAR's), and expected harvest strategies in the lower Columbia River, an estimated 8,463 summer Chinook are projected to return to the Wenatchee River Basin, including 6,352 natural-origin summer Chinook.

Methow/Okanogan Summer Chinook

The run projection for MEOK summer Chinook was estimated similar to the Wenatchee summer Chinook and provides a run-size projection of 13,238 fish above Wells Dam, including an estimated 10,000 natural-origin summer Chinook.

Wenatchee Sockeye

An estimated 31,000 Lake Wenatchee sockeye are expected to return to the Columbia River in 2006 (2006 TAC estimate), 7,800 of which are expected to be Lake Wenatchee stock. Based on historical parr/adult survival and parr releases for the 2001 and 2002 brood year releases, 7,130 of the 7,800 sockeye returning to the Wenatchee Basin are expected to be naturally-produced fish.

Wenatchee Steelhead

In progress

Methow Spring Chinook

Based on BY 2001, 2002 and 2003 estimated natural production (redd counts), natural-origin age class survival (including jack survival), hatchery smolt release numbers and hatchery-origin smolt-to-adult return rates (SAR's), an estimated 2,491 ESA-listed UCR spring Chinook are expected to return to the Methow River Basin. Of the 2,491 UCR spring Chinook projected to return to the Methow River Basin 576 are anticipated to be naturally-produced fish. The greatest proportion of the run-escapement to the Methow River Basin is destined for the Chewuch River, followed by the mainstem Methow River and the Twisp River (986, 726 and 393 fish, respectively)(Table 2).

Wells Summer Chinook

Based on Wells stock yearling and sub-yearling releases, historical SAR return to the upper Columbia River basin and stray proportions for yearling and sub-yearling Turtle Rock FH an estimated 1,467 Wells stock summer Chinook are expected to return to the Wells FH.

Wells Steelhead

In progress

Table 1. Projected 2006 upper Columbia River spring Chinook run escapement above Tumwater Dam											
Tributary	<u>Brood Year</u>						<u>2005 Adult Return</u>				
	2003		2002		2001		Origin	Age-3	Age-4	Age-5	Total
	Basin	%	Basin	%	Basin	%					
Chiwawa River											
# Redds	111	0.539	344	0.446	1083	0.587					
Wild Emigrants	33,637		184,279		546,266		Natural	2	54	157	213
Hatchery Smolts	222,131		149,668		377,544		Hatchery	155	1,242	378	1,775
Basin-Wide											
Wild Emigrants	62,425		413,021		930,619			4	121	267	392
Total UCR Spring Chinook above Tumwater Dam											2,167

Table 2. Projected 2006 upper Columbia River spring Chinook run escapement to sub-basins above Wells Dam.

	<u>Brood Year</u>			<u>2006 Adult Return (projected)</u>					<u>Natural Proportion</u>
	<u>2003</u>	<u>2002</u>	<u>2001</u>	<u>Origin</u>	<u>Age-3</u>	<u>Age-4</u>	<u>Age-5</u>	<u>Total</u>	
Twisp									
# Redds	18	109	379	Natural	1	31	77	109	0.278
Hatchery Smolts	168,762	52,273	57,471	Hatchery	101	166	16	284	
Chewuch									
# Redds	204	301	1105	Natural	19	75	168	262	0.266
Hatchery Smolts	127,875	254,238	261,284	Hatchery	26	648	49	724	
Methow									
# Redds	252	782	2917	Natural	10	61	134	205	0.282
Hatchery Smolts (Methow FH)	48,831	181,235	130,887	Hatchery	10	461	49	521	
Winthrop NFH				Hatchery				387	
Total Wild Above Wells Dam					30	167	379	576	0.231
Total Hatchery Above Wells Dam					138	1,276	114	1,915	
Total Above Wells Dam **					168	1,443	493	2,491	

** Excludes Okanogan bound Chinook

STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
Mid-Columbia Field Office

3515 Chelan Hwy 97-A Wenatchee, WA 98801 (509) 664-1227 FAX (509) 662-6606

June 16, 2006

To: Mid-Columbia HCP Hatchery Committee

From: Kirk Truscott, WDFW

RE: Revised 2006 Chiwawa River Spring Chinook Collection Protocol

Based on revised 2006 Wenatchee River Basin ESA-listed adult spring Chinook return estimates for natural and fish hatchery-origin fish (Table 1 and 2, respectively), sufficient natural and hatchery origin fish are projected to the Chiwawa River Basin to meet the full 672,000 smolt production objective, while providing, at a minimum, 33% natural-origin broodstock composition. Based on the revised escapement, 379 adult Chinook will be retained for broodstock purposes (289 natural origin and 90 hatchery). Adipose present, CWT hatchery-origin fish will be collected at Tumwater Dam and natural-origin fish will be collected at the Chiwawa weir. If required to meet the collection objective, adipose present and adipose absent, CWT hatchery-origin fish may be retained at the Chiwawa Weir to meet the hatchery composition in the broodstock; however, only Chiwawa hatchery-origin fish will be utilized for the hatchery brood component within the Chiwawa program. Weekly collection quota is provided (Table 3). Weekly quotas may change as we assess in-season migration past Tumwater Dam.

Table 1. BY 2001-2003 Age-class return projection for wild spring Chinook above Tumwater Dam, based on smolt production and estimated SARs (2006 return year in bold).

Adult Return											
Smolt Estimate			Chiwawa				Wen. Basin				
^{1/} ^{2/}											
BY	Chiwawa	Wen. basin	Age-3	Age-4	Age-5	Total	Age-3	Age-4	Age-5	Total	SAR
2001	389,940	616,994	20	294	169	482	31	465	267	763	0.001 ^{3/}
2002	152,664	342,296	4	352	123	479	10	789	276	1075	0.003 ^{3/}
2003	27,997	62,493	11				24				
2006 Return Year			11	696	169	876	24	789	267	1,080	

^{1/} - Smolt estimate based on yearling emigration, including 1+ estimate from subyearling emigration

^{2/} - Expanded Chiwawa smolt production estimate (i.e. Chiwawa Basin estimate/proportion basin-wide redd deposition in the Chiwawa River).

^{3/} - Derived SAR, (i.e. total adult return based on known age-3, age-4 and projected age-5 (5% age-3; 60% age-4 and 35% age-5).

Table 2. BY 2001-2003 age-class return projection for hatchery spring Chinook above Tumwater Dam, based on smolt production and estimated SARs (2006 return year in bold).

		Adult Return				
Smolt release		Chiwawa				
1/						
BY	Chiwawa	Age-3	Age-4	Age-5	Total	SAR
2001	377,544	31	2,992	355	3,378	0.0100 ²
2002	149,668	55	655	83	793	0.0053 ³
2003	222,131	81	972	124	1,177	0.0053 ³
2006 Return Year		81	655	355	1,091	

^{1/} - Smolt estimate based on yearling emigration, including 1+ estimate from subyearling emigration

^{2/} - Derived SAR, (i.e. total adult return based on known age-3, age-4 and projected age-5 (5% age-3; 60% age-4 and 35% age-5).

^{4/} - Estimated SAR (recent 11-year average Chiwawa wild SAR values).

Table 3. 2006 Weekly Collection Objectives for the Chiwawa Spring Chinook Program ^{1/}			
Week Ending	Chiwawa Spring Chinook		
	Hatch ^{2/}	Wild ^{3/}	Total
25-Jun	20		20
02-Jul	23	68	91
09-Jul	17	68	85
16-Jul	12	57	69
23-Jul	9	40	49
30-Jul	4	28	32
06-Aug	3	11	14
13-Aug	1	6	7
20-Aug	1	6	7
27-Aug		6	6
Total	90	289	379
^{1/} - Based on May 06 revised forecast and 2006 run-timing. Weekly quotas to be modified throughout the collection, based in-season run-size projections and within basin run-timing. ^{2/} - Collected at Tumwater Dam as first priority. Subsequent CWT hatchery collection at Chiwawa if required to meet 2:1 hatchery to wild ratio. ^{3/} - Collected at Chiwawa River Weir			

STATE OF WASHINGTON
DEPARTMENT OF FISH AND WILDLIFE
Mid-Columbia Field Office

3515 Chelan Hwy 97-A Wenatchee, WA 98801 (509) 664-1227 FAX (509) 662-6606

July 7, 2006

To: Mid-Columbia HCP Hatchery Committee

From: Kirk Truscott, WDFW

RE: Revised 2006 Chiwawa River Spring Chinook Collection Protocol

As of 07 July 2006, Chiwawa River flows and bedload deposition have prevented broodstock collection operations at the Chiwawa weir. WDFW fully expected to have the weir in operation prior to the first week of July; however, the Chiwawa River flows have been sustained at 1,400-1,500 cfs. Additionally, the high early spring flows deposited substantial bedload on the weir, further inhibiting our ability to clear debris and raise the weir.

Spring Chinook migration past Tumwater Dam is approximately 1,500 fish, representing 70% of the revised 2006 Wenatchee River Basin ESA-listed adult spring Chinook return estimate. Based on the proportional migration at Tumwater Dam, delayed trapping ability at Chiwawa, and initiation of fish translocation from Tumwater Dam to the Chiwawa River, WDFW proposes more aggressive broodstock trapping of hatchery-origin fish at Tumwater in efforts to meet the total broodstock collection, consistent with origin composition provisions within ESA Permit 1196. Beginning the week of 09 July, the over-all adipose present hatchery-origin broodstock collection objective from Tumwater Dam will be 67% of the 379 fish broodstock collection objective (254 fish)(Table 1).

As natural-origin collection efforts are initiated at Tumwater Dam, hatchery-origin fish in the broodstock may need to be released, consistent with maintaining no less than 33% natural origin within the broodstock (ESA Permit 1196). If the release of hatchery fish is required, the fish will be randomly selected from the adipose present broodstock population. The release action will take place 01 August so that Erythromycin inoculated fish have no chance to enter an active spring Chinook fishery (Icicle Creek fishery closes 31 July) while still providing opportunity for the released fish to contribute to natural spawning in the Chiwawa River.

WDFW will continue to work diligently to initiate trapping efforts at the Chiwawa weir in the most expedited manner possible.

If committee members have questions or concerns regarding the proposed action please contact me ASAP.

Table 1. 2006 Weekly Collection Objectives for the Chiwawa Spring Chinook Program ^{1/}	
Chiwawa Spring Chinook	
Week Ending	Hatch ^{2/}
25-Jun	20
02-Jul	23
09-Jul	17
16-30 July	194
Total	254
^{1/} - Based on May 06 revised forecast and 2006 run-timing. Weekly quotas to be modified throughout the collection, based in-season run-size projections and within basin run-timing. ^{2/} - Collected at Tumwater Dam as first priority. Subsequent CWT hatchery collection at Chiwawa if required to meet 2:1 hatchery to wild ratio.	

APPENDIX J

WELLS HATCHERY COMPLIANCE REPORT

Wells HCP Hatchery Production Compliance Report
2006 Wells HCP Action Plan
HCP Hatchery Committee

Inundation Compensation Program

The FERC license to operate the Wells Hydroelectric Project requires Douglas PUD to raise and release fish to compensate for original impacts associated with the development of the Wells Reservoir. All of the fish for this program are raised at the Wells Fish Hatchery. The number and pounds of fish to be release each year, for the Inundation Compensation Program, can be found in Section 8.4.6 of the Wells HCP Agreement.

Inundation Compensation Program	Numeric Target	Poundage Target	Target Wt.	Number Released	Pounds Released
Yearling Summer/Fall Chinook (2004 BY)	320,000	32,000	10 fpp	312,980 ¹	35,892
Subyearling Summer/Fall Chinook (2005 BY)	484,000	24,200	20 fpp	430,203 ²	12,450
Yearling Summer Steelhead (2005 BY)	300,000	50,000	6 fpp	304,138 ³	36,427

¹ C. Snow May 2006 Memo for the total released.

² C. Snow May 2006 and June 2006 show an early release on May 12 of 204,970 (42 fpp) and a late release on June 14 of 225,233 (29.4 fpp). The poundage obligation was not met due to an early experimental release of fish conducted by WDFW hatchery evaluation staff.

³ C. Snow May 2005 Memo shows total release of 473,505 steelhead smolts at 56,712 lbs. Of these, 67,988 fish are assigned to Wells Dam NNI, 304,138 fish for Wells Inundation, and 101,379 fish for Group 3 Grant PUD Sharing Agreement

No Net Impact Compensation Program

Section 8.4.3 of the Wells HCP contains specific numbers and pounds of juvenile plan to be produced to meet Douglas PUD's No Net Impact production levels for unavoidable juvenile losses at the Wells Project. Juvenile passage losses are off-set through the production of juvenile plan species at three facilities (Wells Fish Hatchery, Methow Fish Hatchery and Eastbank Fish Hatchery) and through the implementation of mitigation options identified in the Sockeye Enhancement Decision Tree.

No Net Impact Compensation Program	Numeric Target	Poundage Target	Target Wt.	Number Released	Pounds Released
Yearling Summer Steelhead (2005 BY)	48,858	8,143	6 fpp	67,988 ⁴	8,143
Yearling Summer/Fall Chinook (2004 BY)	108,570	10,857	10 fpp	108,717 ⁵	9,060
Yearling Spring Chinook (2005 BY)	61,071	4,071	15 fpp	40,692 ⁶	3,296
Yearling Osoyoos Lake Sockeye ⁷	7%	NA	NA	55%	NA

⁴ See footnote 3.

⁵ Carlton Pond Summer Chinook released by Chelan PUD for Douglas PUD as part of Douglas-Chelan Hatchery Sharing Agreement.

⁶ There were 29,688 pounds (366,513 fish) of spring Chinook smolts released at 12.3 fpp from the Methow Hatchery (April 2006 Memo from C. Snow). The target release of 36,667 pounds (550,000 fish) was a combination of Wells NNI (61,071) and the sharing agreements with Chelan PUD (288,000) and Grant PUD (201,000). The 2006 release represents a poundage shortfall of 19%. The shortfall was equally applied to the three programs giving Wells NNI 40,692, Chelan PUD 191,895 and Grant PUD 133,927 fish in 2006

⁷ Okanogan Sockeye obligation for NNI is handled through the Fish/Water Management Tool program managed through the Okanogan Nation Alliance. The HCP Hatchery and Coordinating committees have agreed that the continued implementation of this program will satisfy Douglas PUD's 7% hatchery compensation requirement for sockeye.

APPENDIX K
LETTERS TO NON-SIGNATORIES

January 16, 2006

Ms. Brett Swift
American Rivers
320 SW Stark St., Suite 418
Portland, Oregon 97208

Dear Brett:

I'm writing on behalf of the Parties to the Wells, Rocky Reach, and Rock Island Habitat Conservation Plans (HCPs) regarding your interest in attending a meeting with members of the Coordinating, Hatchery, and Tributary Committees. The goal of the meeting would be to review progress toward implementing the HCPs. As parties who were involved in negotiating the HCPs, but elected to not sign the HCPs, the Committees would like to periodically provide you with an implementation progress report, and provide you an opportunity to directly ask questions of Committee members.

As currently envisioned, the meeting would be limited to your representatives as well as those from the Confederated Tribes of the Umatilla Indian Reservation, and invited representatives of Grant County PUD; the latter because of their involvement in HCP negotiations, as well as their recent settlement agreement with the fishery resources agencies and tribes. Also, rather than a series of formal presentations, we anticipate this being more of a work session in which you would hear briefly about the PUDs progress to date, but with a majority of the time available to address your questions and concerns. I would plan to work with you to shape an agenda beforehand. I anticipate that about a half-day would be the right time to allocate; however, if you think more time would be required, that can certainly be worked out.

What I'm looking for now is an indication of your interest in such a meeting. If this is something that you think would be productive, I will work with you to further develop an agenda, and set a time and place. Because the HCP Parties formally notified FERC of their intent to provide for continuing dialogue with the non signatories in this type of periodic meeting, I would appreciate it if you would provide a formal response to this letter. If you have any questions I can be contacted at 206-287-9130 or mschiewe@anchorenv.com.

Sincerely,

Michael H. Schiewe
Anchor Environmental, L.L.C.

CC: Shaun Seaman, Chelan PUD
Shane Bickford, Douglas PUD
Brian Cates, USFWS
Jerry Marco, Colville Tribes
Steve Parker, Yakama Nation
Ritchie Graves, NMFS
Carmen Andonaegui, WDFW
Bob Bugert, Biophilia

January 16, 2006

Mr. Gary James
Confederated Tribes of the Umatilla Indian Reservation
P.O. Box 638
Pendleton, Oregon 97801

Dear Gary:

I'm writing on behalf of the Parties to the Wells, Rocky Reach, and Rock Island Habitat Conservation Plans (HCPs) regarding your interest in attending a meeting with members of the Coordinating, Hatchery, and Tributary Committees. The goal of the meeting would be to review progress toward implementing the HCPs. As parties who were involved in negotiating the HCPs, but elected to not sign the HCPs, the Committees would like to periodically provide you with an implementation progress report, and provide you an opportunity to directly ask questions of Committee members.

As currently envisioned, the meeting would be limited to your representatives as well as those from American Rivers, and invited representatives of Grant County PUD; the latter because of their involvement in HCP negotiations, as well as their recent settlement agreement with the fishery resources agencies and tribes. Also, rather than a series of formal presentations, we anticipate this being more of a work session in which you would hear briefly about the PUDs progress to date, but with a majority of the time available to address your questions and concerns. I would plan to work with you to shape an agenda beforehand. I anticipate that about a half-day would be the right time to allocate; however, if you think more time would be required, that can certainly be worked out.

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Sincerely,

Michael H. Schiewe
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CC: Shaun Seaman, Chelan PUD
Shane Bickford, Douglas PUD
Brian Cates, USFWS
Jerry Marco, Colville Tribes
Steve Parker, Yakama Nation
Ritchie Graves, NMFS
Carmen Andonaegui, WDFW
Bob Bugert, Biophilia

APPENDIX L

2006 ACTION PLAN: WELLS HCP

2006 ACTION PLAN WELLS HCP

HCP COORDINATING COMMITTEE

1. BYPASS OPERATING PLAN

- a. Draft to Committee: January 2006.
- b. Approval Deadline: March 2006.
- c. Period Covered: April to August 2006.
- d. Report Deadline: October 2006.

2. BULL TROUT MONITORING AND MANAGEMENT PLAN

- a. Period Covered: March 2005 to July 2008.
- b. Report Deadline: March 2006, March 2007, March 2008 and December 2008

3. Predator Control Programs

- a. Northern Pikeminnow removal program in Wells reservoir (March – July 2006)
- b. Avian Predator Hazing at Wells Dam (April – May 2006)

HCP HATCHERY COMMITTEE

1. 5-YEAR HATCHERY MONITORING AND EVALUATION PLAN

- a. Implementation: 2006 to 2010.
- b. Draft Annual Report: March 2006
- c. Final Annual Report April 2006

2. HCP ANNUAL HATCHERY PRODUCTION COMPLIANCE REPORT

- a. Period Covered: January 2006 to December 2006.
- b. Draft to Committee: November 2006.
- c. Approval Deadline: December 2006.
- d. Submission Deadline: December 2006.

3. 2006 BROOD STOCK PROTOCOL

- a. Draft to Committee: February 2006.
- b. Approval Deadline: April 2006.
- c. Implementation: May 2006 to May 2007.

4. ANNUAL IMPLEMENTION REPORT - SOCKEYE FLOW MANAGEMENT
 - a. Period Covered: Linked to Brood Years (incubation through emergence).
 - b. Draft to Committee: One report per year.
 - c. Final Reports Due: 60-days after comments received from committee.
5. HATCHERY CONSTRUCTION RELATED PROJECTS
 - a. Upgrade of Wells Hatchery Surface Water Screens
 1. Project out for Bids (summer 2006)
 2. Award bids (fall 2006)
 3. Construction activities (October 2006 – February 2007)
 - b. Methow Hatchery Ground Water Well Upgrade
 1. Improve pumps for wells # 2 and #5 (June 2006)
 2. Change meters on pumps (June 2006)
 - c. Chewuch Broodstock Collection weir
 1. Look for alternative locations (January – March 06)
 2. Develop design and permits for construction (May 06)
 3. Seek approval from local residence on preferred location (Spring 06)
 4. Develop permits and begin construction at alternative location (Dec 06)

HCP TRIBUTARY COMMITTEE

1. ANNUAL REPORT - PLAN SPECIES ACCOUNT STATUS
 - a. Draft to Committee: February 2005, February 2006.
 - b. Approval Deadline: March 2005, March 2006.
 - d. Period Covered: August to December 2004, January to December 2005
 - c.
2. FIRST-ROUND REVIEW AND FUNDING DECISIONS
 - a. RFP: *To be determined*
 - b. Approval Deadline: *To be determined*
 - c. Implementation: *To be determined*