Condit Hydroelectric Project Decommissioning
FERC Project No. 2342

CAPTURE and TRANSPORT of LOWER COLUMBIA RIVER FALL CHINOOK SALMON

Prepared by

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Prepared for

PACIFICORP ENERGY
A DIVISION OF PACIFICORP

March 15, 2011

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Introduction and Background

The White Salmon Working Group (U.S. Fish and Wildlife Service - USFWS, Yakama Indian Nation-YIN, Washington Department of Fish and Wildlife-WDFW, National Marine Fisheries Service-NMFS, U.S. Forest Service-USFS, PacifiCorp and U.S. Geological Survey-USGS) has been meeting since late 2006 to determine the actions needed to restore fish populations in the White Salmon River after Condit Dam removal. An important component of this restoration effort was to identify the roles and responsibilities of the various parties of the Working Group. Based on the results of these meetings, in addition to current information and data collected annually by several agencies within the Working Group, a consensus decision was made to outplant adult fall Chinook salmon upstream of Condit Dam during the year of dam removal. This option was chosen in lieu of adult collection and subsequent propagation previously required in the National Marine Fisheries Service 2006 Biological Opinion (NMFS 2006). In fall 2008 and 2009, two studies were conducted in the White Salmon River related to this decision. These studies identified and evaluated the efficacy of the preferred methods that will be implemented in the year of dam removal (Engle and Skalicky 2009, Engle et al. 2010). Capturing adult LCR fall Chinook salmon in the lower White Salmon River and transporting them upstream of Condit Dam is the preferred conservation measure. The purpose is to mitigate for the impacts of sediment released downstream on the spawning population of Endangered Species Act-Listed (ESA-Listed) Lower Columbia River (LCR) fall Chinook salmon by enabling a portion of the population to spawn naturally above the dam in historically occupied habitat.

The goal is to mitigate for the brood year impacts (i.e., sedimentation, redd scour, shear flows, etc…) on LCR fall Chinook salmon spawning grounds below Condit Dam during the year of removal. To accomplish this a minimum of 500 LCR fall Chinook salmon will be captured, transported, and released upstream of Condit Dam prior to removal. In 2008, the White Salmon Working Group established 500 LCR fall Chinook salmon as a reasonable goal for seeding the available spawning habitat in the White Salmon River.

This project is a cooperative effort between the members of the White Salmon Working Group for collection and transportation of adult LCR fall Chinook salmon during the year of Condit Dam removal and includes standard hatchery and fish research protocols for those actions. The actions outlined within this plan address the Reasonable and Prudent Measures, Terms and Conditions #2 in the NMFS (2006) Biological Opinion,

> "*Minimize direct take of listed species during adult salvage operation by following standard hatchery protocols for collecting, holding, and spawning brood stock*".

The actions outlined within also address the Reasonable and Prudent Measures, Terms and Conditions #5 in the USFWS (2002) Biological Option,

"*Develop and implement a bull trout protection plan, in consultation with the Service, that addresses handling and relocation protocols in the event bull trout are trapped and collected during the fish salvage efforts*."

Methods

To achieve the minimum goal of 500 ESA-Listed fall Chinook salmon captured and transported upstream of Condit Dam, the following methods will be employed. These methods were enhanced from previous studies conducted in 2008 (Engle and Skalicky 2009) and 2009 (Engle et al. 2010). Both of these documents are attached for reference.

Resistance Board Weir and Collection Facility

A Resistance Board Weir (RBW) was designed and integrated with the White Salmon Ponds, a dormant brood stock collection facility (Engle et al. 2010) and is considered a temporary weir for the operation and collection of LCR fall Chinook salmon during the year of dam removal. Washington Department of Fish and Wildlife provided technical expertise on the resistance board weir and supervised construction, installation and removal of the weir (Engle and Skalicky 2010). The U.S. Fish and Wildlife Service along with assistance from the White Salmon Working Group will be tasked with the installation and removal of the weir in the year of dam removal. Per the 2009 study recommendations, installation is slated for mid-July during the year of dam removal and will coincide with a temporary operational request by the USFWS – Spring Creek National Fish Hatchery to PacifiCorp for reduced flows from Condit Dam in the lower White Salmon River to facilitate safe and efficient installation. The operation of the weir is the responsibility of the USFWS and proper signage for in-river users (fisherman, recreational boaters, etc.) and potential trespassers to the White Salmon Ponds will be posted. Removal of the weir will occur no later than mid-October and, if permitted, coincide with a subsequent operation request by the USFWS to reduce flows from Condit Dam in the lower White Salmon River to facilitate removal of the weir. Logistical considerations with the removal timeline of Condit Dam may change timing of weir removal to earlier or later in the month of October.

The White Salmon Ponds facility was constructed in the early 1950's on the White Salmon River at RM 1.4 and consists of two adjacent 12 x 220 x 5 ft raceway ponds. The facility was built as a brood stock collection site for the Spring Creek NFH and used annually up until the early 1970's and sporadically thereafter to either collect adult LCR fall Chinook salmon or acclimate juvenile salmon releases into the White Salmon River. The ponds have not been used for production since 2002 because the water intake does not meet NMFS criteria for incidental take of listed salmonids. A waiver or Section 10 permitting for "take" of ESA-listed salmon and steelhead must be granted by NMFS to use the ponds during the year of Condit Dam removal.

Base flows in the White Salmon River during September average 670 cubic feet per second (cfs) and approximately 3.3 cfs can be diverted through the pond water supply intake for the proposed

operations (Northwest Environmental Services 2005). This flow will attract returning LCR fall Chinook to enter the ponds through a fish ladder.

Actual capture of LCR fall Chinook salmon adults will occur by installation of the RBW across the river near the entrance to the White Salmon Ponds. Adults will encounter the weir, be attracted by flow to the ponds' entrance and, through a number of fish ladder steps, enter a holding area in the pond (Figure 1). The RBW will use the streambed anchor system installed in 2009 located on the historical concrete sill that transects the White Salmon River. Unlike the 2009 operation, the resistance weir will not be equipped with a passage chute to allow fish to bypass the collection ponds. Downstream passage will occur from fish moving over the top of the weir from the upstream side with the aid of sandbags placed to "sink" portions of the weir where flows are greater. A target of 1.5 feet of water will flow, unimpeded, over the top of the weir. This method worked in 2009 (Engle et al. 2009) and with other resistance board weir operations where downstream steelhead passage was a concern (Kenneth Gates, USFWS, personal communication, June 29, 2009).

Figure 1. Pictures of White Salmon Ponds. Complete with installation of a resistance board weir during 2009. An identical installation (1) will be used in the White Salmon River during the year of Condit Dam removal to capture lower Columbia River fall Chinook salmon. The yellow, dotted path shows the entrance path LCR fall Chinook salmon will follow into the ponds. The remaining pictures reference (1) the weir as it looks installed, (2) the secure holding area, and (3) the ladder steps to the entrance of the ponds.

White Salmon Ponds Operation

If removal of Condit Dam occurs in 2011, the collection ponds will be operated daily after August 29th to capture LCR fall Chinook salmon throughout the adult return to the White Salmon River until approximately October 11th (Appendix A). All captured adult LCR fall Chinook salmon within the White Salmon Ponds will be crowded within the ponds daily and removed for transportation. For biological sampling, individual fish will be placed in a 150 gallon container with river water and positioned in a fish cradle consisting of wood and foam padding with synthetic fish "slime". Alternatively fish may be anesthetized using a low voltage DC current while being physically held by staff or within a fabric fish sleeve. For these fish a fin clip will be removed for later genetic analysis to determine origin (hatchery or natural origin). Natural origin LCR fall Chinook (with adipose fin present) will be examined for a coded wire tag in their snout since a small number of Spring Creek NFH Chinook are coded wire tagged and are not adipose fin clipped. Once fish have recovered from electro-anesthetic (usually in seconds), they will be either held in the ponds, placed into a waiting transport vehicle, or released back into the river below the weir (hatchery origin releases). Pending further discussions within the White Salmon Working Group, some number of captured hatchery LCR fall Chinook salmon may also be surplused, particularly if recaptures of floy-tagged hatchery origin adults becomes a regular occurrence. The Yakama Indian Nation would receive the first opportunity for use of surplused hatchery fish. Any natural origin adult LCR fall Chinook salmon captured in the ponds will be eventually transported upstream of Condit Dam. Hatchery origin adults collected in the White Salmon River may also be transported upstream of Condit Dam as a secondary option based on a sliding scale of adult run timing in the White Salmon and to reach the minimum goal of 500 adult LCR fall Chinook salmon. For all LCR fall Chinook salmon, an individually numbered floy tag will be inserted adjacent to the dorsal fin, in the white muscle tissue for subsequent identification.

All captures of coho salmon and steelhead will be handled and sampled as previously described for LCR fall Chinook salmon. Wild steelhead (adipose fin present) will be floy-tagged and a fin clip will be removed for genetic analysis by PacifiCorp or another agency. Passage to the area immediately upstream of the weir will not occur during 2011. Once these fish have recovered from anesthetic (usually seconds), they will be released back into the White Salmon River downstream of the weir. Towards the end of September and early October, captured coho salmon or steelhead may be collected for transport to Drano Lake, approximately 4 miles downstream of the White Salmon River. Recaptured wild steelhead may either be transported upstream of Condit Dam if genetic results indicate relatedness to *Oncorhynchus mykiss* populations upstream of Condit Dam, or held in Little White Salmon NFH adult brood ponds for release after Condit Dam removal (Table 1). This would remove these fish from the lower White Salmon River prior to dam removal and allow completion of their migration to areas upstream of the White Salmon River. This action, along with other transports of later arriving coho salmon

and steelhead should reduce their potential mortality from sediment released during dam removal.

Table 1. Steps determining genetic relatedness of wild steelhead intercepted during capture activities and associated actions based on results. Steps relate to the first capture of an adult steelhead with adipose fin present. Recaptured adults would start at step 3 of the process.

Step	Desciption of Action	Result
1	Captured adult wild (adipose present) steelhead will be floy tagged (individual number and identifier) and a fin clip will be collected for analysis.	Fish will be released at capture site
2	Genetic analysis will be performed to determine relatedness to previously collected *O. mykiss* samples collected upstream of Condit Dam	Results will be provided back to U.S. Fish and Wildlife and adult steelhead with corresponding floy tag will be identified for future transport upstream of Condit Dam.
3	Captured adult wild steelead has floy tag.	Two Outcomes; if genetic results identify a relatedness to upstream White Salmon River *O. mykiss* populations, the steelhead will be transported upstream of Condit Dam. If genetic results indicate otherwise, fish will be held in Little White Salmon NFH adult ponds until after Condit Dam Removal and released to continue upriver migration.

Further refinements among the White Salmon Working Group may alter these actions prior to Condit Dam removal.

No bull trout were encountered during 2008 and 2009 during our studies in the lower White Salmon River (Engle and Skalicky 2009, Engle et al. 2009). Based on statements within the U.S. Fish and Wildlife Service Biological Opinions on Condit Dam Removal (USFWS 2002, 2005), the potential for capture of a bull trout downstream of Condit Dam area and in the White Salmon River is unlikely. Should a bull trout be captured during the year of Condit Dam removal, the U.S. Fish and Wildlife Service would perform the following actions.

1. The bull trout should be anesthetized and handled to collect fork length (mm), weight (g) and a photograph with a size reference visible.
2. A genetic fin clip from the upper caudal area no smaller than 1 mm x 1 mm be taken and placed in a vial of 100% ethyl-alcohol. The clip would be analyzed by Abernathy Fish Technology Center for genetic relatedness to known bull trout populations within the Columbia River Basin and Bull Trout Distinct Population Segments.
3. A 12 mm Passive Integrated Transponder (PIT) tag be placed in the fish within the dorsal sinus (if larger than 165 mm) or within the abdominal cavity (less than 165 mm).

4. The bull trout will be allowed to recover fully from anesthesia, transported to the area below the Little White Salmon NFH (Little White Salmon River), and released. Water temperatures should be nearly identical to the White Salmon River and this area is outside of the fishing boundaries in Drano Lake and would not be affected by sediment from Condit Dam removal.
5. The collected information and genetic analysis would be presented to the White Salmon Working Group and to the Western Washington Fish and Wildlife Office in Olympia, Washington.

Seining in Lower White Salmon River

Seines will be used in the lower White Salmon River to capture LCR fall Chinook salmon that do not migrate into the White Salmon Ponds. In 2008, beach seines deployed by boat in simple arc and fast-pursuit sets for the capture of LCR fall Chinook salmon were found to be effective (Engle and Skalicky 2009). Variable lengths (75'-225') of 6' and 8' deep, 2.5-3.5 inch diamond panel seines will be fished through aggregations of adults staging below and on spawning grounds throughout the lower White Salmon River (RM 0.5 to the White Salmon Ponds). Seining activities will be adjusted from 2008 levels to account for run timing, run size, and logistical considerations of capturing adult LCR fall Chinook salmon and transporting from two different locations. Seining activities will occur approximately 3 times per week starting near mid-September during the year of removal, which is an increase from activities conducted in 2008. Appendix A lists dates of potential seining activities in September and October of 2011. Logistical considerations with the removal timeline of Condit Dam and effectiveness of capture may move the proposed seining activities earlier or later than proposed. Seining effort may be adjusted based on run timing, run strength and capture success, including successful capture at the White Salmon Ponds.

Adult Handling During Seining & Transportation of Captured Adult Salmon or Steelhead

Fish caught by active capture techniques will be removed from seines either by hand or by dip net and then transferred immediately to a 150-gallon tote with fresh river water. All natural origin LCR fall Chinook salmon will be retained for transport upstream of Condit Dam. Prior to transport upstream, fish will be moved from boats to a floating barge located at RM 0.7. The barge consists of three 150-gallon totes supplied with fresh river water. Retained LCR fall Chinook salmon will be processed using identical methods described for pond captures with the possibility of MS-222 anesthetic as well as electroanesthesia. Natural origin LCR fall Chinook may be held in this barge one to three hours depending on daily catch, transport vehicle activities, or until a suitable number are available for tagging and transport ($\geq$ 4 salmon). Retained fish will then be transferred from containers, placed, into 150-gallon totes, transported by boat to the Underwood In-Lieu Site at RM 0.1, and then placed in a transport vehicle for release above Condit Dam. Permission and guidance on using this site will be requested by the U.S. Fish and Wildlife Service through the Yakama Indian Nation and the Bureau of Indian

Affairs. At the In-Lieu site a transport vehicle staffed by personnel trained in fish handling and transport will be waiting. Water temperature in the transport vehicle will be approximately 48°F and river temperatures at the floating barge should be near 47°F during seining activities in September and early October (Engle and Skalicky 2009). No additional temperature buffer will be required. Fish will be transferred at no greater density than one fish per 4.5 ft^3 of water, or 34 gallons as recommended by WDFW and USFWS adult transportation guidelines.

For seining captures of coho salmon or steelhead, all fish will be handled, sampled and tagged as previously described for LCR fall Chinook salmon. All captured coho salmon and steelhead will be released after being handled. Recaptured wild steelhead will either be transported upstream of Condit Dam or held at Little White Salmon NFH until after Condit Dam removal (Table 1) . Towards the end of September and early October, other captured coho salmon or steelhead may be collected and transported to Drano Lake, approximately 4 miles downstream of the White Salmon River. This would remove these fish from the lower White Salmon River prior to dam removal and allow completion of their migration to areas upstream of the White Salmon River thus reducing their potential mortality from sediment released during dam removal. Further discussions among the White Salmon Working Group may refine these actions prior to Condit Dam removal. The previously outlined process for bull trout handling and release at the White Salmon Ponds will be followed with an unexpected capture of a bull trout during seining.

Transportation Vehicle and Duties

Transportation of adult LCR fall Chinook captures in the 2008 study (Engle and Skalicky 2009) was conducted by specialized WDFW fish transport staff from local hatcheries using a vehicle modified for adult transfer (large swing gate in rear of tank). This vehicle was dimensionally smaller than a standard transport vehicle to gain access to the outplant site near Husum Falls. This feature may also be important to an additional proposed release site (see Release Sites section). The WDFW staff and vehicle, if available, would be requested for use in the year of removal to transport adults and work with the USFWS staff, and the White Salmon Working Group.

Release Sites

In 2008, two sites were used to release LCR fall Chinook salmon back into the White Salmon River above Condit Dam. One was located at Northwestern Lake Park (RM 4.9) and the other was located on private property near Husum Falls (RM 7.6). These sites will be requested for use again by the U.S. Fish and Wildlife Service. Permission to use an additional release site near RM 6.4, which is potentially on private property, or possible owned by the U.S. Forest Service, may also be requested by the U.S. Fish and Wildlife Service. A new release site in this area might improve use of some spawning areas that were previously underused by adult LCR fall Chinook salmon in 2008 (Engle Skalicky 2009). A map of the sites in presented in Figure 2.

Recreational Fishing and User Information Related to Fish Transport Activities

Regulational changes to sport fishing in and around the White Salmon Ponds will not be modified and current state of Washington regulations prohibit fishing in and around weirs or fish collection structures. Additionally, harvest of either natural or hatchery origin adult salmon or steelhead that would be transported upstream of Condit Dam would not be allowed under current State of Washington harvest restrictions in Northwestern Reservoir or the upper White Salmon River based on their designation as a "food fish". Additional enforcement efforts of fishing regulations in the area as well as informational flyers for fisherman will be in placed in the upper White Salmon River as capture and transport of fall Chinook salmon upstream of Condit Dam is initiated.

Additional flyers will be developed and posted by the U.S. Fish and Wildlife Service in cooperation with the U.S. Forest Service and the White Salmon Working Group to help recreational users in the upper White Salmon River identify salmon redds and actions that allow observation of spawning activities and locations without disturbance. Information on the overall capture and transport actions, salmon carcasses and tag reporting will also be provided.

Tasks and Timeline for Completion

The U.S. Fish and Wildlife Service will complete the following tasks (Table 1) and provide monthly progress updates (May through December 2011) to the White Salmon Working Group members and PacifiCorp. Several permitting processes are currently underway including additional ESA coverage (NMFS-ESA Section 10 permit) the Scientific Collectors Permit to the State of Washington, and the State of Washington Future Brood Document. These, and potentially other permits and permissions, will need to be completed and in possession of the U.S. Fish and Wildlife Service to operate the White Salmon Pond and resistance board weir in the White Salmon River as well as conduct seining and transport activities in the upper White Salmon River and Drano Lake. Coordination between U.S. Fish and Wildlife Service staff working with the capture and transport efforts and with PacifiCorp will occur weekly through the period of fish collection activities in the White Salmon River regarding removal activities that could rapidly fluctuate discharge downstream of Condit Dam and be safety concerns for boat or weir operations.

Deliverables and Budget

The U.S. Fish and Wildlife Service will be responsible for a final report delivered to the White Salmon Working Group during December 2011 on the capture and transport of LCR fall Chinook salmon. A detailed budget request, as well as in-kind funding provided by the U.S. Fish and Wildlife Service and the White Salmon Working Group, is currently under development. In-kind funding from the U.S. Fish and Wildlife Service will be focused on salary and use of

existing, previously purchased or acquired equipment. Requested funding will be focused on salary and additional equipment needs related to the White Salmon Ponds or seining, and travel expenses incurred by U.S. Fish and Wildlife Service. Fish transportation activities outlined within this proposal will be conducted by WDFW and will be a separate budget request to PacifiCorp.

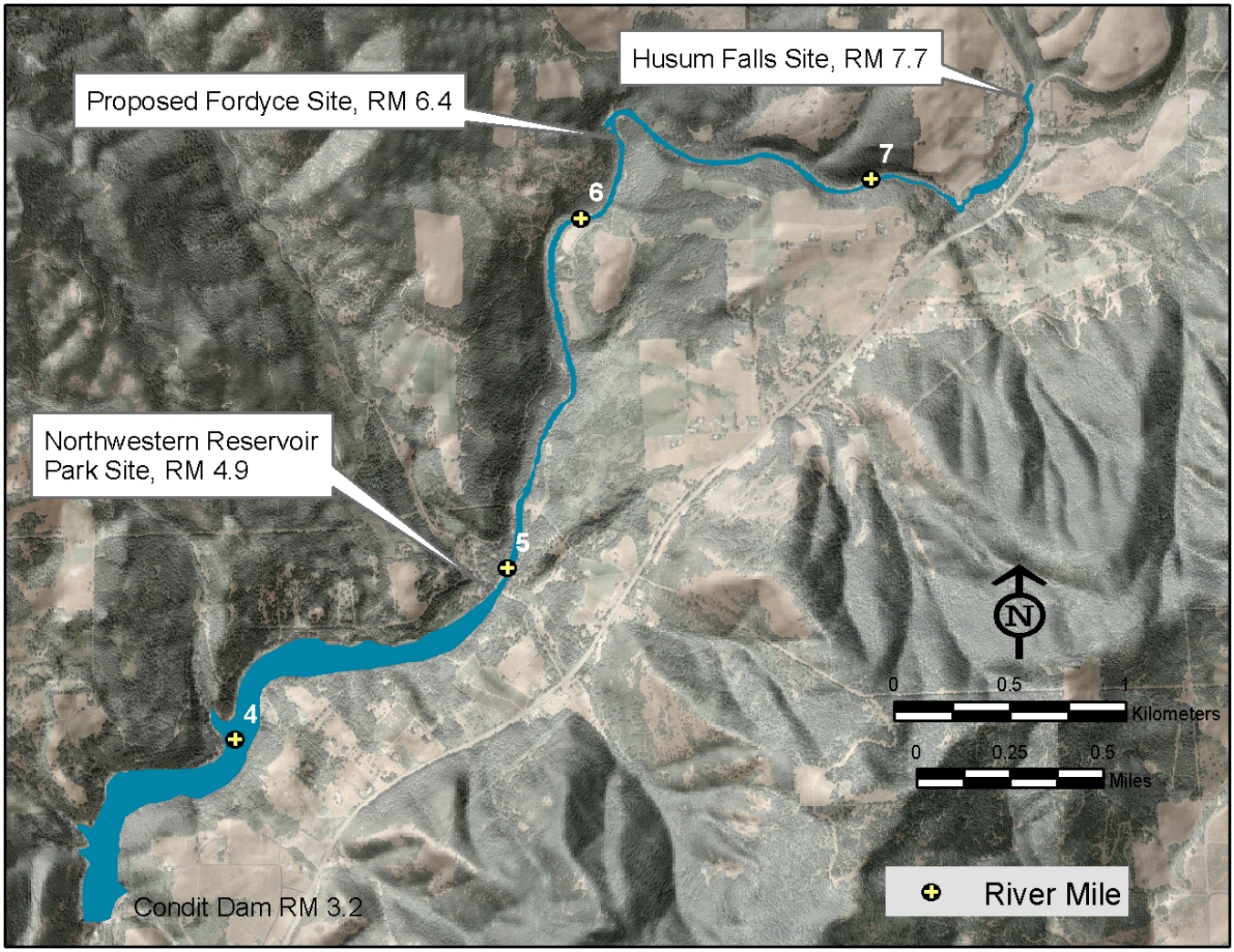

Figure 2. Map of the White Salmon River upstream of Condit Dam where Lower Columbia River fall Chinook salmon will be released in the year of Condit Dam removal. Release sites identified were also used in the study conducted in 2008 (Engle and Skalicky 2009) except for the Fordyce Site at RM 6.4, which is proposed for releases the year of Condit Dam removal.

Table 2. Tasks and approximate timeline for completion by U.S. Fish and Wildlife staff from Columbia River Fisheries Program Office during a proposed 2011 Condit Dam Removal Year.

Task	Description	Working Group Agencies Involved	Time Period
1.	Section 10 Permit from NMFS	USFWS, NMFS	Submitted (2010) and awaiting approval.
2.	WDFW Scientific Collectors Permit	USFWS, WDFW	Will be submitted to WDFW in February or March 2011
3.	Request to use Underwood In-lieu Site	USFWS, YIN	Will be coordinated and submitted by USFWS to BIA (or YIN) in February or March 2011.
4.	WDFW – 2011 Future Brood Document In-Season change for transportation of adults.	USFWS, WDFW	Will be submitted to WDFW March 2011
5.	Budget Development	USFWS, PacifiCorp	Submission to PacifiCorp March 2011
6.	Updates and verbal progress reports to White Salmon Working Group	All (USFWS Lead)	March – December 2011
7.	Installation of Resistance Board Weir	All	Mid-July 2011
8.	Operational request for reduced flow at Condit Dam to install resistance board weir.	USFWS, PacifiCorp	Coincides with previous task.
9.	Capture and Transport of LCR fall Chinook	All (USFWS coordinator)	August 29 – October 11
10.	Removal of Resistance Board Weir	All	October 11
11.	Operational request for reduced flow at Condit Dam to install remove resistance board weir.	USFWS, PacifiCorp	Coincides with previous task.

Literature Cited

Engle, R. and J. Skalicky. 2009. Capture, transportation and reintroduction of lower Columbia River Fall Chinook salmon into the upper White Salmon River – A conservation measure in preparation for Condit Dam Removal. U.S. Fish and Wildlife Service, Columbia River Fisheries Program Office, Vancouver, Washington. http://www.fws.gov/columbiariver/publications/Final_Report_Capture_Transport_and_Reintroduction_3_13_2009.pdf

Engle, R.O., W.R. Brignon and J. Skalicky. 2010. Evaluation of a resistance board weir in the White Salmon River for capture of lower Columbia River fall Chinook salmon (Oncorhynchus tshawytscha) for transport during the year of Condit Dam removal – A conservation measure in preparation for Condit Dam removal. U. S. Fish and Wildlife Service, Columbia River Fisheries Program Office, Vancouver, Washington. http://www.fws.gov/columbiariver/publications/Resistance_Board_Weir.pdf

Gates, K.S., J.B. Laker and M.A. Price. 2004. Estimation of adult sockeye salmon escapement into Little River Lake using a flexible picket weir and a remote video recorder. Kodiak National Wildlife Refuge, Alaska, 2001-2003. U.S. Fish and Wildlife Service, Kenai Fish and Wildlife Office, Alaska Fisheries Technical Report Number 68, Kenai, Alaska. http://alaska.fws.gov/fisheries/fish/Technical_Reports/t_2004_68.pdf

National Marine Fisheries Service. 2006. Biological Opinion for ESA Section 7 Consultation for the Condit Hydroelectric Project (FERC No. 2342) NOAA Fisheries Consultation No. 2002/00977. National Marine Fisheries Service, Northwest Region, Seattle, Washington. October 12.

Northwest Environmental Services. 2007. Preliminary Design Study – Fish Screening and Related Improvements for Big White Pond Facility on the White Salmon River. Oregon City, Oregon.

U.S. Fish and Wildlife Service (USFWS). 2002. Endangered Species Act Consultation on Bull Trout (*Salvelinus confluentus*) for the Condit Hydroelectric Project (P-2342). USFWS, Western Washington Office, Lacey Washington. September 6.

USFWS. 2005. Reinitiation of Consultation on Bull Trout and Consultation on Bull Trout Critical Habitat for Condit Dam Removal and Operation. USFWS, Western Washington Office, Lacey Washington. November 30.

Appendix A. Work schedule during the year of Condit Dam removal for capture and transport of lower Columbia River fall Chinook salmon in the White Salmon River. Both actions at the White Salmon Ponds and seining activities in the lower White Salmon River are identified. Dates during 2011 are provided, as well as a general description and action.

Date	Day of Week	General Description	*Action*
7/7		Weir Installation @ White Salmon Ponds (RM 1.1)	Inspection of sill and panels to determine if repairs needed
7/8			
7/9			
7/10			
7/11		Weir Installation @ White Salmon Ponds (RM 1.1)/Spill Request	Repair Sill (TBD) - Could involve spill request at Dam
7/12			
7/13		Weir Installation @ White Salmon Ponds (RM 1.1)/Spill Request	Install weir by moving panels, attaching to sill
7/14		Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/15		Clean and/or Inspect Weir	
7/16			
7/17			
7/18	Monday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/19	Tuesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/20	Wednesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/21	Thursday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/22	Friday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/23	Saturday		
7/24	Sunday		
7/25	Monday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/26	Tuesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/27	Wednesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/28	Thursday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
7/29	Friday	Clean and/or Inspect Weir	Kick off debris, confirm integrity

Date	Day of Week	General Description	*Action*
7/30	Saturday		
7/31	Sunday		
8/1	Monday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/2	Tuesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/3	Wednesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/4	Thursday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/5	Friday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/6	Saturday		
8/7	Sunday		
8/8	Monday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/9	Tuesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/10	Wednesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/11	Thursday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/12	Friday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/13	Saturday		
8/14	Sunday		
8/15	Monday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/16	Tuesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/17	Wednesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/18	Thursday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/19	Friday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/20	Saturday		
8/21	Sunday		
8/22	Monday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/23	Tuesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/24	Wednesday	Clean and/or Inspect Weir	Kick off debris, confirm integrity
8/25	Thursday	Inspect River for Adults behind Weir	Snorkel below weir and potentially in lower river.
8/26	Friday	Clean and/or Inspect Weir	Kick off debris, confirm integrity

Date	Day of Week	General Description	*Action*
8/27	Saturday		
8/28	Sunday		
8/29	Monday	Start operation of White Salmon Ponds	Open water supply, Clean debris in area of outfall, confirm steps are ok, finger weirs in place, etc.
8/30	Tuesday	Fish potentially moving into White Salmon/Transporting small numbers upstream of Condit Dam	Check Ponds for fish, work up fish, transport upstream to outplant locations
8/31	Wednesday	Fish potentially moving into White Salmon/Transporting small numbers upstream of Condit Dam	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/1	Thursday	Fish potentially moving into White Salmon/Transporting small numbers upstream of Condit Dam	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/2	Friday	Fish potentially moving into White Salmon/Transporting small numbers upstream of Condit Dam	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/3	Saturday	Pond Check	Move fish into secure holding area for Transport later.
9/4	Sunday	Pond Check	Move fish into secure holding area for Transport later.
9/5	Monday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/6	Tuesday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/7	Wednesday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/8	Thursday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/9	Friday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/10	Saturday	Pond Check	Move fish into secure holding area for Transport later.
9/11	Sunday	Pond Check	Move fish into secure holding area for Transport later.
9/12	Monday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.

Date	Day of Week	General Description	*Action*
9/13	Tuesday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/14	Wednesday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/15	Thursday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/16	Friday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/17	Saturday	Pond Check	Move fish into secure holding area for Transport later.
9/18	Sunday	Pond Check	Move fish into secure holding area for Transport later.
9/19	Monday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/20	Tuesday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/21	Wednesday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/22	Thursday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/23	Friday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/24	Saturday	Pond Check	Move fish into secure holding area for Transport later.
9/25	Sunday	Pond Check	Move fish into secure holding area for Transport later.
9/26	Monday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/27	Tuesday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations

Date	Day of Week	General Description	*Action*
9/28	Wednesday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
9/29	Thursday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
9/30	Friday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
10/1	Saturday	Pond Check	Move fish into secure holding area for Transport later.
10/2	Sunday	Pond Check	Move fish into secure holding area for Transport later.
10/3	Monday	Fish in lower river. Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
10/4	Tuesday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
10/5	Wednesday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
10/6	Thursday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
10/7	Friday	Transport captures of adults in Ponds	Check Ponds for fish, work up fish, transport upstream to outplant locations
10/8	Saturday	Pond Check	Move fish into secure holding area for Transport later.
10/9	Sunday	Pond Check	Move fish into secure holding area for Transport later.
10/10	Monday	Boat seining and Pond Captures of adults. Transporting adults upstream	Operation of boats. Fast pursuit seining at RM 0.6 to 1.0. Transporting fish from both seining and pond capture.
10/11	Tuesday	Disassemble Weir/Remove Pond structures/Reduced Spill from Condit for weir removal.	Move weir panels, remove steps, remove finger weirs, prep area for dam removal and flooding.