

FINAL Meeting Notes
Lewis River License Implementation
Aquatic Coordination Committee (ACC) Meeting
January 10, 2008
Ariel, WA

ACC Participants Present (17)

Jim Byrne, WDFW
 Clifford Cassese, Yakama Nation
 Bernadette Graham Hudson, LCFRB
 Diana Gritten-MacDonald, Cowlitz PUD
 Adam Haspiel, USDA Forest Service
 George Lee, Yakama Nation
 Erik Lesko, PacifiCorp Energy
 Jim Malinowski, Fish First (9:00am – 12:30pm)
 Kimberly McCune, PacifiCorp Energy
 Bryan Nordland (via teleconference)
 Todd Olson, PacifiCorp Energy
 Diana Perez, USDA Forest Service
 Nathan Reynolds, Cowlitz Indian Tribe (9:00am – 12:30pm)
 Frank Shrier, PacifiCorp Energy
 Steve Vigg, WDFW (via teleconference 9:50am – 12:30pm)
 Shannon Wills, Cowlitz Indian Tribe
 Julie Grobelny, WDFW

Calendar:

February 13, 2008	TCC Meeting	Merwin Hydro
February 14, 2008	ACC Meeting	Merwin Hydro

Assignments from January 10th Meeting:	Status:
McCune: Notify the ACC when the Draft SMP is available for viewing.	Complete – 1/10/08
Lesko: Add paragraph to the Habitat Preparation Plan to address the following: should sufficient numbers of Spring Chinook adult return in 2008, some may be used for the HPP with approval from Yakama Nation	Pending

Assignments from December 13th Meeting:	Status:
Olson: Obtain available ocean recruit data, currently managed by WDFW, prior to the January 2008 ACC meeting to identify where coded wire tags were found.	Complete – 1/9/08
McCune: Provide copies of the Quagga Mussels CD to ACC attendees and return original to Diana Perez, USDA Forest Service.	Complete 12/18/07 – CD is copyright protected so contact to purchase was provided.

Opening, Review of Agenda and Meeting Notes

Frank Shrier (PacifiCorp Energy) called the meeting to order at 9:10 a.m. Shrier requested a round-table introduction and reviewed the agenda for the day.

In addition, Shrier requested comments and/or changes to the ACC Draft 12/13/07 meeting notes. The ACC agreed to remove the assignment indicated below and capture the information in the Study Updates section of the ACC meeting notes each month.

Assignments from June 14, 2007 Meeting:	Status:
Shrier: Review the Acclimation Pond Plan and send revision to the technical committee for final review and approval. The goal for completion is July 2007.	Pending Engineering Review – Plan delayed until Jan. 08

The meeting notes were approved with the above-referenced change at 9:20 a.m.

Relicensing Schedule Update

Shrier informed the ACC attendees that the FERC is working on the Lewis River license; no time frame has been provided, however, PacifiCorp is roughly estimating April, 2008.

Lewis River Aquatic Fund Proposal Presentations

PacifiCorp offered the opportunity to aquatic fund proponents to provide a more detailed presentation of their proposals. All projects referenced below were selected by the ACC to submit full proposals. For additional detail, each PowerPoint presentation can be located on the Lewis River website at the following link:

<http://www.pacificorp.com/Article/Article78699.html>

Erik Lesko, PacifiCorp Energy – Panamaker Creek Road Closure and Culvert Removal

Lesko informed the ACC attendees that the proposal was developed by Kirk Naylor, PacifiCorp Energy Sr. Wildlife Biologist. The PowerPoint included a USGS map illustrating the location of Panamaker Creek, topography of the creek, boundary line of the Cougar Panamaker conservation easement, logging roads and the tributaries with culverts on them. The proposed project includes approximately one mile of a logging road that parallels the Panamaker drainage area which affects Cougar Creek. Panamaker Creek supports cutthroat, rainbow and some kokanee spawning. The creek flows into Cougar Creek, which contains key bull trout, kokanee and cutthroat habitat. Lesko communicated that some vegetation is growing on the logging road which helps deter vehicular traffic and provides some stability to the road. However, erosion from the culverts and periodic clogging of the culverts is creating excessive erosion and sediment input into Panamaker Creek.

Lesko informed the ACC attendees that the project includes the removal of nine culverts and abandonment of one mile of road, which PacifiCorp owns. The benefits include a reduction of sediment input and erosion, a reduction in vehicular (ATV) access and

restoration of natural function. Native grasses and trees will be planted and the existing gate will remain even though the road will be closed.

The budget for this project is \$25,000.

Bernadette Graham Hudson (LCFRB) asked about if the log jam in Panamaker still exists. Shrier said that PacifiCorp removed an old log bridge a few years ago which had a log jam on it. It is not known for sure whether the log jam still exists. There are several log jams in Cougar Creek.

Adam Haspiel, USDA Forest Service (FS) – Muddy River Riparian Brushing & Thinning

Haspiel informed the ACC attendees that the goal of project is to enhance growth and vigor of conifers and dominant hardwoods in the Muddy River floodplain and riparian areas to provide shading to cool summer water temperatures in the river, and to provide a long term source of large woody material. Lahar flows in 1980 stripped floodplains and riparian areas of vegetation. Stands of alder and brush have colonized these areas. A few conifers have established themselves but they are sparsely scattered in the alder or brush stands. A few areas near Muddy River Picnic site were planted with conifers, and have since developed into thick, overstocked stands. The end result is areas that are overstocked with conifers resulting in unhealthy stands of saplings and small trees.

Jim Malinowski (Fish First) expressed that he would like to know how many years it would take for a natural process to achieve the same result. Jim Bryne (WDFW) would like to know how stable the area was before the 1980 Mt. St. Helens event.

Haspiel expressed that the project treatments would include cutting alder and brush around existing conifers to reduce competition for sunlight, nutrients, and water. Stands near the Muddy River Picnic site would be thinned of smaller conifers reducing competition for sunlight, nutrients and water for dominant conifers and planting of alder or brush thickets with no natural conifers; conifers would be planted after clearing an area of brush to promote growth.

Photographs were provided for viewing illustrating an unhealthy stand of trees, a dense stand of unhealthy conifer & alders, thinned stand of conifer & alders, thinned sapling unit, The USDA Forest Service will contract out to complete the thinning for a budget of \$75,000 from the aquatic funds.

Adam Haspiel, USDA Forest Service (FS) – Muddy River Riparian/Floodplain Improvement

Haspiel informed the ACC attendees that the goal of this project is to remove invasive non-native plants from immediate riparian areas and gravels bars to promote native tree growth, and establish large wood on floodplain areas. The large wood would act as nurse logs to promoting seedling growth by preventing deer and elk browse, retaining water and nutrients, and to provide shade. Lahar flows in 1980 stripped floodplains and riparian areas of vegetation. Over time as areas were naturally re-vegetated, non-native invasive species also established colonies. Some of the more persistent species are Scotch Broom

and Canadian thistle. As a result of non-native colonization riparian ecosystem function has been lost in heavily colonized areas. An example is Scotch Broom becoming so dominant it prohibits native trees from establishing themselves.

The project treatments include eradication of invasive plants, which would be pulled from the ground and bagged for removal or piled for burning. Planting of native trees and protected in areas where invasives were removed, and nurse logs would be placed near seedlings. This is a multi year project because a seed bank exists in the soil.

Photographs were provided of a weed wrench removing Scotch Broom and an example of a nurse log.

The USDA Forest Service is requesting \$48,000 from the aquatic funds.

Malinowski requested that the USFS add adequate protection as needed to protect the vegetation from Beavers.

Haspiel expressed that the USFS could combine this project with the brushing and thinning projects and save NEPA, monitoring and administrative costs of approximately \$25,000. Also, this project has similar components to it as the thinning project and additional savings of \$5,000 to \$10,000 in contract costs could be expected by having this contract awarded with the other one.

The ACC requested Haspiel combine Muddy River Riparian Brushing & Thinning and Muddy River Riparian/Floodplain Improvement when the final proposal is submitted for ACC review.

Adam Haspiel, USDA Forest Service (FS) – Clear Creek Road Decommission (2575200)

Haspiel informed the ACC that the goal of this project is to decommission a road by removing culverts, stabilizing erosional areas, and eliminating access. Removing culverts will reduce risk of culvert failure and sediment delivery to Clear Creek. Haspiel communicated that the original proposal was to decommission road 2575200, however, a timber sale unit is proposed in the future using the 2575200 road. The timber sale will be able to pay for the decommissioning of the 2575200 road when it is completed.

The 2575000 road is in equally bad condition and is in the same road system and the same drainage as the 2575200 road. Haspiel proposes to decommission the lower portion of road 2575000 as it will complement the closure of the 2575200 road, resulting in a more thorough closure of roads in the Clear Creek Drainage.

Haspiel expressed that the Gifford Pinchot National Forest would like to address the problem of the risk of sediment delivery from the failure of a 3 foot blocked culvert at milepost 2.7 along Forest Road 2575 (Figure 1). Two other 4 foot culverts crossing small streams also pose the risk of sediment delivery due to potential culvert blockages and consequential failures. In addition, the Gifford Pinchot Roads analysis recommends that this road too should be decommissioned due to discontinued access needs. The Roads Analysis rated the section from milepost 1.9-3.9 as High Aquatic Risk due to greater than

2.5 stream crossings per mile of road and 25% of the road within riparian reserves. The Gifford Pinchot Maintenance Plan designates this road as a Level II road which results in maintenance only when resource concerns are identified.

The expected results include eliminating the risk of sediment delivery from the failure of the blocked culvert to one tributary crossing and reduce the risk of similar sediment delivery of two other culvert failures from this unmaintained road. In addition, the quantity of potential sediment directly delivered to live streams could be estimated as the amount of road fill to be removed at the three stream/culvert crossings. The total quantity of sediment that would be removed from the three stream crossing is approximately 5500 cubic yards.

The project treatments include removal of four culverts, stabilizing erosional areas, re-vegetate disturbed area and eliminate vehicle access.

The USDA Forest Service is requesting \$30,000 from the aquatic funds.

Nathan Reynolds (Cowlitz Indian Tribe) indicated that cultural resource surveys are needed to confirm cultural significance prior to the decommissioning project. Haspiel communicated that the US Forest Service will use matched funding to conduct the cultural survey(s) needed.

Adam Haspiel, USDA Forest Service (FS) – East Fork Lewis River Instream Structures Steelhead

Haspiel informed the ACC attendees that the goal of this East Fork Lewis River project is to create spawning areas for steelhead by building gravel holding cross-vanes with large boulders and using large woody debris for cover in pools created by cross-vanes.

Haspiel expressed that Forest Service lands on the East Fork Lewis River are some of the most important areas for steelhead in the Lewis River Basin. There is a shortage of spawning gravel and large woody debris structures in the Upper East Fork Lewis due to roads, past stream cleanout activities, and flood events. Increasing numbers of steelhead in the East Fork will ultimately benefit steelhead in the hydroelectric project area.

Haspiel provided a map of the project area, photographs and illustration of typical cross-vanes and examples of large woody debris.

The USDA Forest Service is requesting \$60,000 from the aquatic funds.

Nathan Reynolds, Cowlitz Indian Tribe - Two Forks Off-Channel habitat Reconnection

Reynolds informed the ACC attendees that the Two Forks project has been withdrawn.

Nathan Reynolds, Cowlitz Indian Tribe - Mud Creek Enhancement

Reynolds informed the ACC attendees that Mud Creek is the lowest tributary in the mainstem Lewis River; it's a distributary of Mud Lake and very low gradient. Reynolds

provided a brief geologic history of Mud Lake/Mud Creek, the recent impact to Mud Lake/Mud Creek system due to significant and continuous water quality violations by Circle C Rock Products, the consequences of the impact and the recent updates to include “Circle C is spending a lot of money to totally redesign their sediment control system with the goal being zero discharge...100% infiltration”.

Reynolds provided photographs of Mud Creek illustrating the present turbidity and water quality. Given redesign of the Circle C system; there are likely no new future sediment inputs to the system. He also indicated that sediments in the lake appear to be settling out and lake water quality appears to be improving. However, sediments in the ~0.5 mile Mud Creek channel, which is subject to tidal effects, have reactivated with winter rains, and are being discharged to the Lewis.

Reynolds pointed out that although Mud Creek was not included in North Fork Lewis River Habitat Assessment (LCFRB 2004), Section 3.3.1 *System Weaknesses* states: *At the time of this assessment forest covered only 14 percent of the current floodplain and less than 5 percent of the historic generalized floodplain for the lower 15.5 miles of the NF Lewis River. The lower 15.5 miles of the NF Lewis River was associated with a constrained floodplain, reduced to only 12 percent of its historic area. There has been a severe loss of side channel habitat throughout the lower 15.5 mi of the river.*

Reynolds also reviewed Section 3.3.3, *Protection/Restoration Opportunities*, which states that the future restoration of hydromodified habitats in the lower North Fork Lewis River basin to include more focus on preserving natural channel margins and areas with existing functional floodplain habitats. Wood placement is occurring in the tributary reaches and should be encouraged at [low gradient] sites where the structures have a good likelihood of remaining during storm events. This same section also states that preservation/restoration of floodplain habitats in this area is given a relatively high priority due to the scarcity of functional habitat throughout the first 7.3 miles of Lewis River mainstem channel.

The conclusions presented by Reynolds include that Mud Creek should not be evaluated like a headwater spawning tributary – it is low gradient floodplain, that functions like off-channel habitat/rearing refuge, especially during winter flows and represents one of the only connected remnant tidal slough habitats in the floodplain, which is currently experiencing impacts from high sediment levels.

Reynolds proposes the install of 25-30 rootwads/large woody debris in the lower section of the Mud Creek. The placement of large woody debris in a soft-bottom stream bed will increase scour, and help incise a channel through the sediments. In addition, because of the potential for flood and tidal influence to relocate large woody debris, pieces will be anchored to quick-drive wood pilings.

The Cowlitz Indian Tribe is requesting \$50,000 from the aquatic funds.

Reynolds communicated that the project budget could be reduced if large woody debris is donated by PacifiCorp, Cowlitz PUD and/or US Forest Service thus removing the need to purchase the wood.

Malinowski urged the Cowlitz Tribe to also approach the land owner, Ridian Morgan, for the use of root wads from his property. He also expressed that enhancement of habitat in that area would be of benefit to chum salmon.

Haspiel asked what the intended benefit to fish is. Reynolds indicated that flushing sediment out of Mud Creek will off-channel habitat in the lower Lewis River.

<Break 11:20am>

<Reconvene 11:30am>

Lewis River Baseline Monitoring Discussion

Bryne opened the discussion with two questions 1) Why are we (ACC) here? And 2) What is motivating us? Bryne communicated that the ACC's job is to restore anadromous fish to the upper river, make it a successful reintroduction and to do the right thing as best we can. Since the Settlement Agreement (SA) signed three years ago some ACC participants see a new need such as we need to know where fish populations are now before we reintroduce in order to measure changes.

Bryne also expressed that, although not specifically identified in the SA, determining the baseline could easily be incorporated into section 9.7 of the SA (see below), so a mechanism does exist. The baseline could be an additional objective (#21) to the existing list in PacifiCorp's Draft Monitoring & Evaluation Plan.

9.7 Resident Fish Assessment. PacifiCorp shall include in the M&E Plan elements to monitor the following with respect to resident fish: (1) the interaction between reintroduced anadromous salmonids and resident fish species; and (2) kokanee spawner population size in Yale Lake in the fall of each year. The results of such monitoring may inform adaptive management of the operation of the passage facilities but shall not require any physical changes to fish passage facilities or Project operations.

Bryne expressed that there is precedent in this basin. When adult coho were released for habitat improvement, discussions occurred as to should we (WDFW) monitor movements. WDFW assumed that coho would not go into Rush and Pine creek, bull trout waters. When we electroshocked we were surprised to find coho juveniles. We were wrong.

Bryne strongly communicated that we can't afford to be surprised again. If coho is successfully re-established, but we lose whitefish or sucker populations he does not consider this a success.

In the absence of LouEllyn Jones (USFWS) Bryne would like to defer the remainder of this conversation to the next ACC meeting on February 14, 2008 so we can obtain input from her as a representative of USFWS.

Shannon Wills (Cowlitz Indian Tribe) communicated that according to the Cowlitz Tribe Chairman and Janne Kaje, a former consultant to the Tribe, baseline monitoring is a critical component. The Tribe is concerned about the watershed health as a whole.

Diana Perez (USDA Forest Service) suggested we identify/establish clear questions as to what we are trying to get to by establishing baseline monitoring, i.e., How are the resident fish impacted by the reintroduction efforts? Positive or Negative?

Clifford Casseseka expressed that the other species, such as the sucker, need to be considered as their function is vital to the spawning activity, they co-exist.

General discussion took place regarding the lack of attention to resident fish, the resident fish population, and the merits of adding baseline monitoring as an additional objective to the Monitoring & Evaluation Plan.

Shrier said that, if this effort were to move forward, he envisioned the baseline effort as a cooperative project involving resources from State and Federal agencies and other ACC Participants. Shrier suggested all those who comment on the M&E Plan to add these suggestions to their comments which are due on or before January 18, 2008.

<Lunch 12:20pm>

<Reconvene 12:35pm>

Shoreline Management Plan (Plan) Update

Olson informed the ACC attendees that the Initial Working Draft of the Plan has been completed which includes the three classifications discussed at the 12/12/07 meeting:

- Resource Management
- Integrated Use
- Project Works

The Initial Working Draft Shoreline Management Plan – January 2008 and revised shoreline classification maps can be located on the Lewis River website at: <http://www.pacificorp.com/Article/Article76278.html>. Kimberly McCune (PacifiCorp Energy) will notify the ACC when the Draft SMP is available for viewing.

Olson informed the ACC that the Swift map illustrating the North side of Swift reservoir contains edits to reflect information from Skamania County County's new zoning. The North side of Swift is now considered integrated use. In addition, the South side of Swift is now considered resource management. Maps of Yale and Merwin did not change.

Olson informed the ACC attendees that changes were also incorporated based on comments received from agencies, i.e. Riprap will be changed to biotechnical solution. Best management practices, vegetation approval and pruning are also addressed as the FERC wants this level of control on all shoreline lands.

Olson communicated to the ACC attendees that Curt Leigh (WDFW) expressed at the TCC meeting that the Plan should be clear when addressing those areas on the Swift North shoreline that have steep slopes, allowable uses will not be permitted. It is important to remove any misunderstanding relating to dock approval when clearly a dock will not be approved due to topography along certain areas of the Swift North shoreline. As such, Leigh further expressed that the North shoreline blue integrated section

illustrated on the Swift draft shoreline classification map is too steep and should be identified as resource management lands.

Olson also expressed that Eric Holman (WDFW) would like further clarification in the allowable uses relating to where riprap is permitted vs. where biotechnique is a preferred method. Holman clearly expressed that he does not want to allow riprap in any area and we should refer to exclusively biotechnical solutions.

Olson informed the ACC attendees that PacifiCorp has mailed the public meeting invite (**Attachment A**) to 365 residents in the Lewis River area, an ad will be in the February issue of three local newspapers and 400 notices will be included in the Woodland Chamber of Commerce February newsletter. The public meeting will take place on **Wednesday, February 6, 2008** at the Lewis River Golf Course.

PacifiCorp and Kleinschmidt Energy & Water Resource Consultants are soliciting public input to the Initial Working Draft SMP at the February 6th meeting. Following consideration of comments, a Public Review Draft SMP will be sent out for a formal public 30-day review period prior to submittal to the FERC.

Olson expressed that Table 5.1, Allowed Uses by Shoreline Classification (**Attachment B**) and Best Management Practices listed in the Plan were created to encourage the use of native vegetation for a natural shoreline.

Discussion took place if float planes are allowed on the reservoir; homeland security is a concern.

George Lee (Yakama Nation) requested PacifiCorp provide a copy of the Draft Shoreline Management Plan 30-day review document to Yakama Nation's Fish & Wildlife Chair – Fidelia Andy, when available.

Other Topics

Assignments from December 13th Meeting:	Status:
Olson: Obtain available ocean recruit data, currently managed by WDFW, prior to the January 2008 ACC meeting to identify where coded wire tags were found.	Complete – 1/9/08

Olson reviewed a handout titled, "*Percent Return and/or Disposition of Salmonids Originating from the Lewis River Information for the Lewis River ACC, dated January 9, 2008*" (**Attachment C**) as a follow up to the above-referenced ACC assignment. PacifiCorp collected this data from WDFW, NMFS and the RMIS website which is managed by PSMFC. This document is intended as a tool to summarize available information/data and put in one place for review and reference.

Olson invited the ACC attendees to submit questions or comments to PacifiCorp; who will in turn submit to Jim Bryne (WDFW) for the appropriate response.

Malinowski communicated that in regard to ocean recruit data collection methods he would like to begin calculating ocean recruits now as a way to test the methodology.

Shrier responded by saying it was not appropriate to do that now since there was not a natural production component and would not be until reintroduction occurred. Malinowski also expressed concern regarding the validity/accuracy of the data that exists and if this is the data that we have to work with then how do we think we will be able to make reasonable estimates of ocean recruits in the future.

Bryne expressed that he was unsure of the definition of “ocean recruit”. Shrier read the following directly from the Lewis River Settlement Agreement:

SA 8.1 For purposes of this Agreement, “Ocean Recruits” shall mean total escapement (fish that naturally spawned above Merwin and hatchery fish) plus harvest (including ocean, Columbia River, and Lewis River harvest).

Shrier suggested that PacifiCorp invite a representative from Mobrand Jones & Stokes along with Ron Roler (who writes the Missing Production Report for Region 5) to the next ACC meeting on February 14, 2008 to have a discussion about Malinowski’s concerns.

Study Updates

Shrier and Lesko provided the following study updates, unless noted otherwise:

Yale Entrainment – Plan was submitted to USFWS on 12/26/07 for final written approval of the plan prior to submittal to the FERC.

Swift Constructed Channel Concept Design and Swift Upper Release Design – No changes since the last ACC meeting. Given the delay in license issuance construction will likely take place in 2009.

Hatchery Upgrades, (Erik Lesko) –

Pond 15 – 90% design complete; need engineer buyoff from WDFW. Construction is planned for January 2009.

Speelyai Burrows Pond – Construction planned for January 2009.

Ponds 13, 14 & 16 – Engineers working on design.

Hatchery and Supplementation Plan (H&S) – Lewis River Type S Coho HGMP; comment period complete. James Dixon will submit to NOAA for review and approval. NOAA fisheries have finalized drafts of the Late winter steelhead program and the spring Chinook program. The remaining HGMPs, the type N Coho and the segregated winter and summer steelhead HGMPs, should be updated by the end of January 2008. The agency will then send these HGMPs out for public review before approving for general distribution.

Acclimation Pond Plan – On hold until engineering is on board to provide assistance with design concepts.

Habitat Preparation Plan (Erik Lesko) – Developing a plan this March or April 2008. George Lee (Yakama Nation) stated that, should sufficient numbers of Spring Chinook return to the Lewis River, some may be used for the HPP with approval from Yakama

Nation. The 2008 HPP will include spring chinook as a potential species dependent on Yakama Nation approval.

Merwin Trap – NHC has constructed a physical model for engineering review. The Engineering Subgroup will review runs at the physical modeling lab in Seattle, WA on January 30, 2008. Results of the tests will be recorded.

Swift Downstream (Todd Olson) – Continue to progress with design relating to guidance nets and barrier nets.

Merwin Tailrace (Todd Olson) – Completion of 30% design is expected by the end of January 2008 which will be made available to the ACC for review.

Merwin Adult Trap Efficiency (ATE) Discussion

Shrier informed the ACC attendees that some disagreement exists in regards to where we are at with the ATE. Bryan Nordlund (NMFS) was in attendance for this discussion, however, it is critical that Michelle Day (NMFS) and Curt Leigh (WDFW) also participate in the discussion. The ACC agreed to postpone the ATE discussion until the next ACC meeting on February 14, 2008.

Agenda items for February 14, 2008

- Lewis River Baseline Monitoring Discussion (cont'd)
 - Monitoring & Evaluation Plan
- Aquatic Funding Proposals Update
- Merwin Adult Trap Efficiency (ATE) Discussion
- Shoreline Management Planning Update
- Study/Work Product Updates
- Relicensing Update

Public Comment Opportunity

No public comment was provided.

Next Scheduled Meetings

February 14, 2008	March 13, 2008
Merwin Hydro Facility	Merwin Hydro Facility
Ariel, WA	Ariel, WA
9:00am – 3:00pm	9:00am – 3:00pm

Meeting Adjourned at 1:40pm

Handouts

- Final Agenda
- Draft ACC Meeting Notes 12/13/07
- **Attachment A** - Lewis River Public Meeting Invite – Shoreline Management Plan, dated January 7, 2008

- **Attachment B** - Table 5.1, Allowed Uses by Shoreline Classification
- **Attachment C** - Percent Return and/or Disposition of Salmonids Originating from the Lewis River Information for the Lewis River ACC, dated January 9, 2008

January 7, 2008

Subject: Lewis River Public Meeting – Shoreline Management Plan

PacifiCorp Energy invites you to the second public meeting as part of our effort to develop a comprehensive Shoreline Management Plan (SMP). The SMP will document how the company will manage the multiple resources and uses of the shorelines along the Lewis River Hydroelectric Project reservoirs in a manner that is consistent with license requirements and project purposes, and addresses the needs of the public.

As owner and operator of the hydroelectric projects that form Merwin, Yale, and Swift reservoirs, PacifiCorp Energy is committed to developing a forward looking SMP, encompassing the spirit and objectives of the Lewis River Settlement Agreement. The SMP will serve as a tool to assist in effectively analyzing appropriate shoreline uses within the Project boundaries, as well as provide a supportable and defensible means for shoreline management and permitting decisions.

At the meeting, Kleinschmidt Associates will present the draft shoreline management classifications that include Resource Management, Integrated Use, and Project Works. They will also present draft allowable uses for each of the shoreline classifications. Time will be available to provide verbal input on these draft determinations and other work products.

To view the draft Shoreline Management Plan, draft shoreline classification maps and related allowable uses, Federal Energy Regulatory Commission project boundary maps, PowerPoint presentations, revised SMP Schedule, and the Lewis River Settlement Agreement please visit us at:

<http://www.pacifiCorp.com/Article/Article76278.html>

Everyone is welcome. Please feel free to contact me at the number listed below.

Place: Lewis River Golf Course - Clubhouse
3209 Lewis River Road
Woodland, WA

Date: February 6, 2008

Time: 7:00pm – 9:00pm

Contact: David Moore, PacifiCorp (503) 813-6945

Thank you for your interest in the above matter, we look forward to your participation.

Sincerely,

<David Moore>

David Moore
Environmental Analyst

Table 5.1 Allowed Uses by Shoreline Classification

	Integrated Use	Resource Management	Project Operations
Uses and Facilities			
Multi-boat slips	YES	Only as administered/ approved by PacifiCorp and its authorized agents ¹	NO
Single Family docks ²	YES	NO	NO
Retaining walls ³	YES	NO	As needed for project operations
Erosion control measures	YES	Only natural or bio control measures allowed	As needed for project operations
Public boat ramps	YES	Only as administered/ approved by PacifiCorp and its authorized agents	
Marine trestles, railways, trams & lifts	YES	NO	As needed for project operations
Moorings	YES	YES	As needed for project operations
Dredging ⁴	YES	NO	As needed for project operation
Log booms	YES	YES	As needed for project operations
Municipal/agricultural water withdrawal & discharges	YES	Only as administered/ approved by PacifiCorp and its authorized agents	NO
Private/residential water withdrawal	YES	YES	NO
Water elevation gaging stations	YES	YES	YES
Vegetation removal ⁵	YES	Only as administered/ approved by PacifiCorp and its authorized agents	As needed for project operations
Vegetation plantings ⁵	YES		As needed for project operations
Stairways & walkways	YES	Only allowed at designated dispersed sites	As needed for project operations
Foot pathways	YES	YES	
Public recreation sites	YES	Only as administered/ approved by PacifiCorp and its authorized agents	
Private recreation facilities	YES	NO	NO
Private beaches/common areas	YES	NO	NO
Fish/wildlife support activities & devices	YES	YES	YES
≤ 50% In kind repair or replacement of Existing use within existing footprint	Yes if structure has existing permit		

¹ Authorized agents include parties to the Settlement Agreement

² Single family docks are allowed if location is not conducive to a multi-user facility to service all residents of a particular area

³ Retaining walls are not the preferred method of erosion control or bank stabilization. PacifiCorp will only authorize these types of structures when no other measures are feasible

⁴ All dredging activities must be reviewed and approved by FERC

⁵ While PacifiCorp does not regulate the removal or planting of vegetation in Integrated Use classification, other county and state regulatory agencies may. Anyone one considering these activities should verify the proposed action is allowable under state law.

**Percent Return and/or Disposition of Salmonids Originating from the Lewis River
Information for the Lewis River ACC**

**PacifiCorp Energy
January 9, 2008**

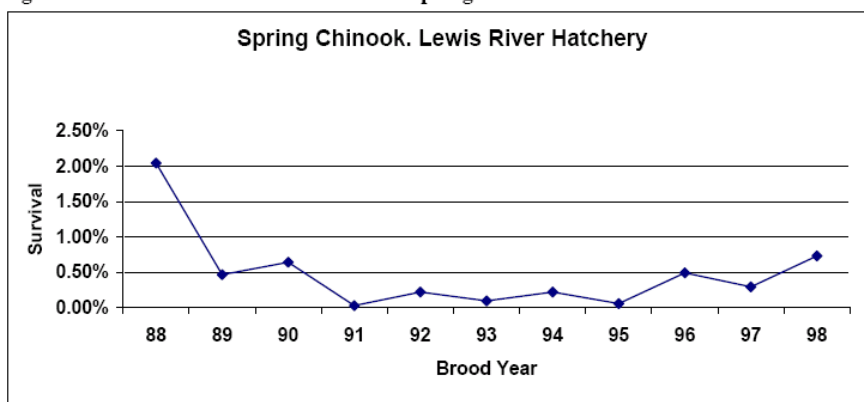
Hatchery Spring Chinook, Type-N, and Type-S Coho

The following information concerning the disposition of Lewis River hatchery Spring Chinook, Type-S and Type-N Coho was taken from a document prepared by Ron Roler of the Washington Department of Fish and Wildlife (WDFW) titled *Annual Coded-Wire Tag Program, Washington, Missing Production Groups, Annual Report for 2004*, May 2007. The data is acquired from coded-wire tag (CWT) fish that are released annually for these three production groups. CWT data is managed by Pacific States Marine Fisheries Commission and stored in the database Regional Mark Information System (RMIS).

Lewis River Hatchery

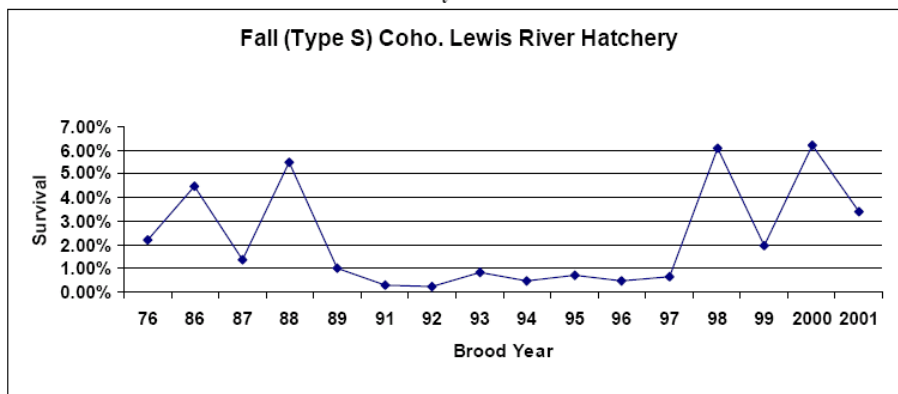
Spring Chinook- The Lewis River Hatchery rears and releases spring chinook. Most tag groups represent fish released as yearlings in March. Survival rates of spring chinook have a mean of 0.48% (Appendix B) and range from 0.03% to 2.04. The survival of the 1998 brood was above average at .73% (Figure 19). Terminal sport fisheries accounted for 20.37% for combined brood years 1993 to 1998. Hatchery escapement was highest at 43.32% (Table 9).

Figure 19. Survival Rates for Lewis River Spring Chinook.



Type S Coho- The Lewis River Hatchery rears and releases Type S coho as yearlings in April and May. Survival rates by brood year range from a low of 0.26% in 1992 to a high of 6.22% for the 2000 brood. The survival of the 2001 brood was above average (Figure 20). Mean survival for broods 1976 to 2001 is 2.26% (Appendix B). For brood years 1999 through 2001 tag recoveries attributable to hatchery escapement were the most common at 84.24% and the Washington coastal fishery accounted for 6.27% of the tag recoveries (Table 9).

Table 20. Survival Rates for Lewis River Early Coho.



Type-N Coho- Survivals of Type-N coho released from Lewis River Hatchery range from .20% up to 8.33%. The survival of the 2001 brood was above average at 4.04% (Figure 21). Mean survival for brood years 1972 to 2001 is 2.60% (Appendix B). Hatchery escapement and the Columbia River commercial fisheries accounted for highest tag recoveries for the 1999 thru 2001 brood years (Table 9).

Figure 21. Survival Rates for Lewis River Late Coho.

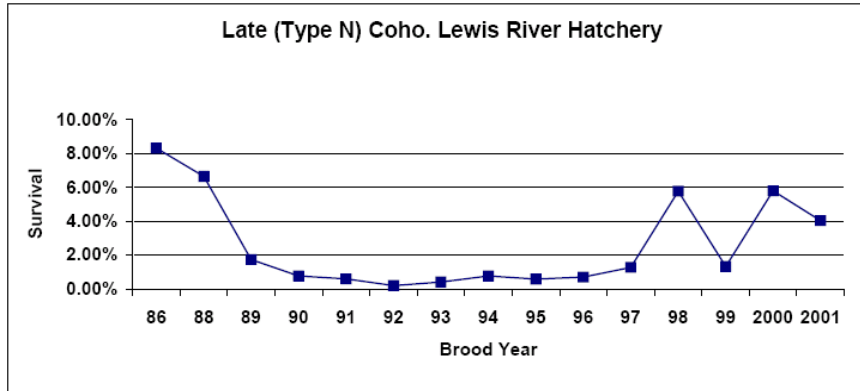


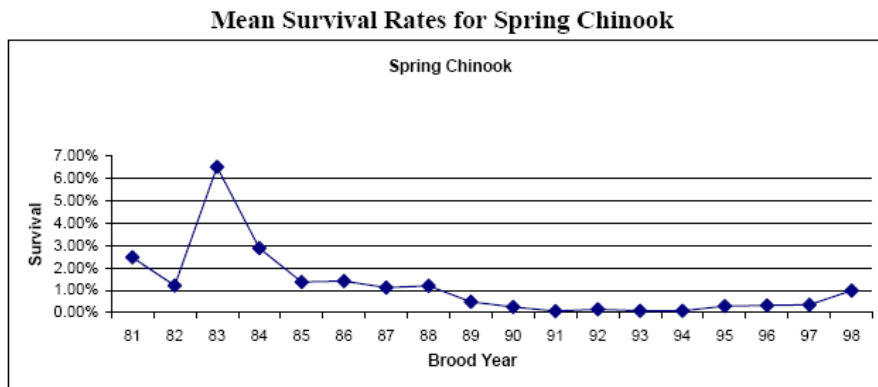
Table 9. Recovery Dispositions of Lewis River Hatchery Salmonids.

Lewis River Hatchery	Type S Coho BY 1999-2001		Type N Coho BY 1999-2001		Spring Chinook BY 1993-1998	
	Tag Rec	Percent	Tag Rec	Percent	Tag Rec	Percent
Alaska	2	0.01%	1	0.01%	293	5.46%
Canada	0	0.00%	120	0.72%	158	2.95%
Oregon	1013	5.88%	1244	7.45%	180	3.36%
California	3	0.02%	0	0.00%	0	0.00%
Wa. Coastal Sport	1080	6.27%	1906	11.42%	56	1.04%
Columbia Estuary Sport	309	1.79%	90	0.54%	3	0.06%
Lower Columbia Sport	23	0.13%	14	0.08%	110	2.05%
Terminal Sport	0	0.00%	0	0.00%	1092	20.37%
WA Commercial/Treaty Coastal	11	0.06%	162	0.97%	102	1.90%
Columbia Commercial/Treaty	273	1.58%	4561	27.32%	309	5.76%
Hatchery Escapement	14520	84.24%	8597	51.49%	2323	43.32%
Spawning Ground Escapement	3	0.02%	2	0.01%	736	13.73%
Total Tags Recovered	17,237		16,697		5,362	

Survival comparison of Spring Chinook from Washington hatcheries.

Spring Chinook, Brood years 1971-1998											
Brood Year	Cowlitz	N. Toutle	Fallert	Lewis	Kalama	Klickitat	Tucannon	Ringold	Chiwawa	Methow	Yearly Ave
1971	3.03%				1.75%						
1972	0.68%							0.03%			
1973						0.09%					
1974	2.36%				0.55%						
1975	6.35%					0.63%		1.62%			
1976	6.58%					0.28%					3.43%
1977	7.31%					0.67%		2.95%			3.64%
1978											
1979											
1980	0.80%										0.80%
1981	2.48%										2.48%
1982	1.21%										1.21%
1983	6.53%										6.53%
1984	2.89%										2.89%
1985	2.28%						0.47%				1.38%
1986	2.61%						0.22%				1.41%
1987	2.09%						0.15%				1.12%
1988				2.04%			0.35%				1.20%
1989	1.14%		0.36%	0.46%		0.29%	0.26%	0.41%	0.43%		0.48%
1990	0.37%		0.47%	0.64%		0.08%	0.03%	0.18%	0.04%		0.26%
1991	0.13%	0.06%	0.05%	0.03%		0.19%	0.04%	0.03%	0.06%		0.07%
1992	0.20%		0.05%	0.22%		0.29%	0.10%	0.20%	0.03%	0.08%	0.15%
1993	0.06%	0.04%	0.11%	0.10%		0.09%	0.11%	0.08%	0.05%	0.05%	0.08%
1994	0.11%		0.06%	0.22%		0.01%	0.03%	0.08%	0.07%	0.03%	0.08%
1995	0.14%	0.06%	0.23%	0.06%	0.93%	0.04%	0.30%	0.07%		0.85%	0.30%
1996	0.37%	0.31%	0.39%	0.49%		0.16%	0.29%	0.13%	0.52%	0.22%	0.32%
1997	0.06%	0.08%	0.21%	0.29%	0.59%	0.03%	0.84%	0.19%	0.99%	0.28%	0.36%
1998	1.92%		0.52%	0.73%	2.20%	0.70%	0.84%	0.00%	1.52%	0.51%	0.99%
Mean	2.15%	0.11%	0.24%	0.48%	1.20%	0.25%	0.29%	0.46%	0.41%	0.29%	

Combined survival rate of Washington hatchery Spring Chinook.



Survival comparison of Type-S Coho from Washington hatcheries.

Early Coho (Type S), Brood years 1971-2001

Brood Year	Grays River	Elochoman	N. Toutle	Fallert	Lewis	Washougal	Yearly Ave
1971							
1972		0.53%	2.59%				1.56%
1973							
1974	0.03%	1.72%				0.35%	0.70%
1975	2.26%						2.26%
1976	2.53%				2.22%		2.37%
1977	1.37%		4.20%				2.79%
1978	0.38%		1.31%				0.85%
1979	2.20%					4.11%	3.15%
1980	0.76%						0.76%
1981	2.30%					2.12%	2.21%
1982	0.48%						0.48%
1983	2.54%					4.06%	3.30%
1984	0.51%					1.35%	0.93%
1985	3.14%						3.14%
1986			5.12%		4.49%		4.80%
1987			3.61%		1.38%		2.49%
1988	3.67%	3.45%	5.18%	5.92%	5.52%		4.75%
1989	0.13%	0.20%	0.55%	0.25%	1.02%		0.43%
1990	0.03%	0.48%	1.44%	0.94%			0.72%
1991	0.04%	0.03%	0.22%	0.26%	0.32%		0.17%
1992	0.03%	0.16%	0.08%	0.46%	0.26%		0.20%
1993	0.57%	0.06%	0.13%	0.31%	0.85%		0.39%
1994	0.50%	0.01%	0.42%	0.43%	0.49%		0.37%
1995		0.08%	1.83%	1.01%	0.74%		0.91%
1996	0.22%	0.44%	0.37%	0.34%	0.50%		0.37%
1997	1.98%	0.30%	0.82%	0.28%	0.66%		0.81%
1998	4.57%	3.46%	3.39%	3.29%	6.12%	1.00%	3.64%
1999	0.63%	1.28%	2.03%	1.68%	1.98%		1.52%
2000	0.55%	1.26%	2.80%	1.33%	6.22%		2.43%
2001	0.92%	0.41%	3.30%	0.36%	3.44%		1.68%
Mean	1.29%	0.87%	2.07%	1.20%	2.26%	2.16%	

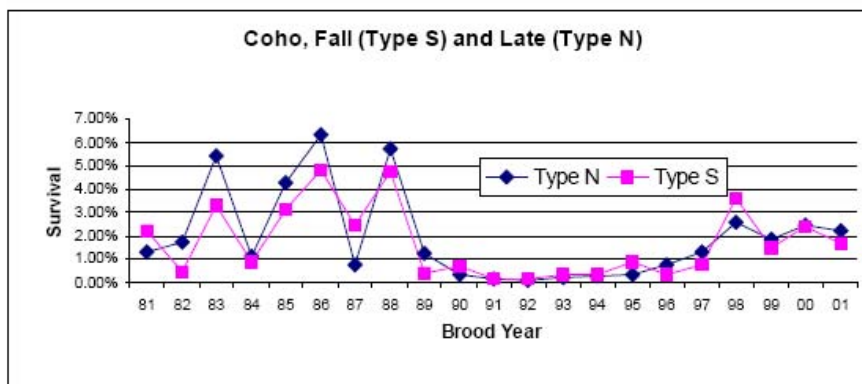
Survival of Type-N Coho from Washington hatcheries.

Late Coho (Type N), Brood years 1971-2001

Brood Year	Elochoman	Cowlitz	Kalama	Lewis	Washougal	Klickitat	Yearly Ave
1971							
1972	1.54%	3.36%				3.21%	
1973							
1974	1.18%				0.99%	0.56%	
1975						2.70%	
1976						1.39%	
1977					3.47%	2.50%	
1978					5.37%		
1979					4.53%		
1980		2.07%			0.99%		1.53%
1981		2.08%			0.57%		1.33%
1982		1.39%			2.05%		1.72%
1983	3.90%	5.50%	6.97%				5.46%
1984	0.66%	2.21%	1.15%			0.56%	1.15%
1985	4.62%	3.62%	6.74%			2.21%	4.30%
1986		4.30%		8.33%			6.31%
1987		0.79%					0.79%
1988	8.04%	4.59%	8.83%	6.65%	4.59%	1.69%	5.73%
1989	0.30%	1.18%	0.68%	1.74%	3.25%	0.55%	1.28%
1990	0.35%	0.65%	0.17%	0.77%	0.17%	0.13%	0.37%
1991	0.01%	0.17%	0.11%	0.59%	0.13%	0.13%	0.19%
1992	0.01%	0.24%	0.08%	0.20%		0.10%	0.13%
1993	0.04%	0.41%	0.19%	0.41%	0.11%		0.23%
1994	0.02%	0.44%	0.07%	0.77%	0.41%	0.07%	0.30%
1995	0.36%		0.28%	0.58%	0.50%	0.01%	0.35%
1996	1.42%		0.83%	0.71%	0.88%	0.01%	0.77%
1997	2.47%	1.25%	1.44%	1.28%	1.54%	0.06%	1.34%
1998	2.40%	3.42%	0.57%	5.77%	2.92%	0.48%	2.59%
1999	1.21%	2.09%	2.47%	1.32%	3.01%	1.05%	1.86%
2000		2.17%	2.81%	5.80%	0.43%	1.26%	2.49%
2001	0.51%	2.98%	3.20%	4.04%	0.89%	1.72%	2.22%
Mean	1.61%	2.14%	2.15%	2.60%	1.84%	1.02%	

Combined survival rates of Washington hatchery Coho.

Mean Survival Rates for Coho



Disposition by brood year of Lewis River CWT Spring Chinook, Type-S, and Type-N Coho.

Lewis	Brood Year		Brood Year		Brood Year	
Spring Chinook	1998		1997		1996	
Disposition of Recovery	Tag Rec	Expanded	Tag Rec	Expanded	Tag Rec	Expanded
Alaska	119	367	113	117	9	71
Canada	66	204	74	76	2	16
Oregon	59	182	116	120	0	0
California	0	0	0	0	0	0
Wa. Coastal Sport	30	93	25	26	0	0
Columbia Estuary Sport	0	0	0	0	0	0
Lower Columbia Sport	25	77	51	53	34	269
Terminal Sport	334	1,031	410	423	279	2,210
WA Commercial/Treaty Coastal	73	225	29	30	0	0
Columbia Commercial/Treaty	25	77	271	280	9	71
Hatchery Escapement	1052	3,246	762	786	197	1,560
Spawning Ground Escapement	358	1,105	269	278	60	475

Lewis	Brood Year		Brood Year		Brood Year	
Spring Chinook	1995		1994		1993	
Disposition of Recovery	Tag Rec	Expanded	Tag Rec	Expanded	Tag Rec	Expanded
Alaska	3	19	28	245	21	192
Canada	0	0	9	79	7	64
Oregon	0	0	0	0	5	46
California	0	0	0	0	0	0
Wa. Coastal Sport	0	0	0	0	0	0
Columbia Estuary Sport	0	0	0	0	3	27
Lower Columbia Sport	0	0	0	0	0	0
Terminal Sport	21	136	36	315	12	110
WA Commercial/Treaty Coastal	0	0	0	0	0	0
Columbia Commercial/Treaty	3	19	1	9	0	0
Hatchery Escapement	51	330	172	1,506	89	815
Spawning Ground Escapement	8	52	41	359	0	0

Lewis	Brood Year		Brood Year		Brood Year	
Type S Coho	2001		2000		1999	
Disposition of Recovery	Tag Rec	Expanded	Tag Rec	Expanded	Tag Rec	Expanded
Alaska	1	6	0	0	0	0
Canada	0	0	0	0	0	0
Oregon	369	2,262	589	3,488	55	337
California	3	18	0	0	0	0
Wa. Coastal Sport	361	2,213	654	3,873	65	399
Columbia Estuary Sport	111	680	182	1,078	16	98
Lower Columbia Sport	0	0	9	53	14	86
Terminal Sport	0	0	0	0	0	0
WA Commercial/Treaty Coastal	9	55	2	12	0	0
Columbia Commercial/Treaty	13	80	113	669	147	902
Hatchery Escapement	4248	26,042	7633	45,202	2,639	16,190
Spawning Ground Escapement	0	0	1	6	2	12

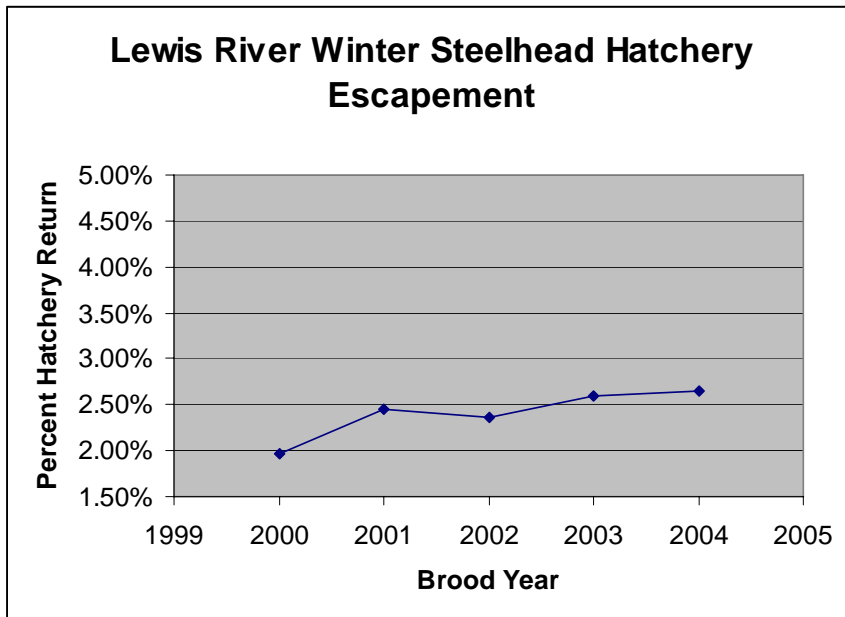
Lewis Type N Coho Disposition of Recovery	Brood Year 2001		Brood Year 2000		Brood Year 1999	
	Tag Rec	Expanded	Tag Rec	Expanded	Tag Rec	Expanded
Alaska	1	6	0	0	0	0
Canada	18	102	102	593	0	0
Oregon	547	3,091	604	3,512	93	496
California	0	0	0	0	0	0
Wa. Coastal Sport	873	4,933	868	5,047	165	880
Columbia Estuary Sport	40	226	45	262	5	27
Lower Columbia Sport	7	40	7	41	0	0
Terminal Sport	0	0	0	0	0	0
WA Commercial/Treaty Coastal	100	565	60	349	2	11
Columbia Commercial/Treaty	1720	9,718	2401	13,960	440	2,346
Hatchery Escapement	2704	15,278	4445	25,843	1,448	7,722
Spawning Ground Escapement	0	0	2	12	0	0

Hatchery Winter Steelhead

Brood year and year released numbers along with corresponding number of fish trapped at the Lewis River for the last five years. Assuming majority of adults trapped are two salt fish along with one year of freshwater rearing at hatchery.

Smolt Releases by Brood Year		Corresponding Adult Returns	
2000	104,110	2003	2047
2001	102,633	2004	2525
2002	102,370	2005	2425
2003	102,154	2006	2650
2004	102,969	2007	2721

Following graph taken from corresponding brood and release years of Winter Steelhead from Lewis River hatcheries.



Hatchery Winter Steelhead release and escapement numbers per Eric Kinne, WDFW Lewis River Hatchery Complex Manager.

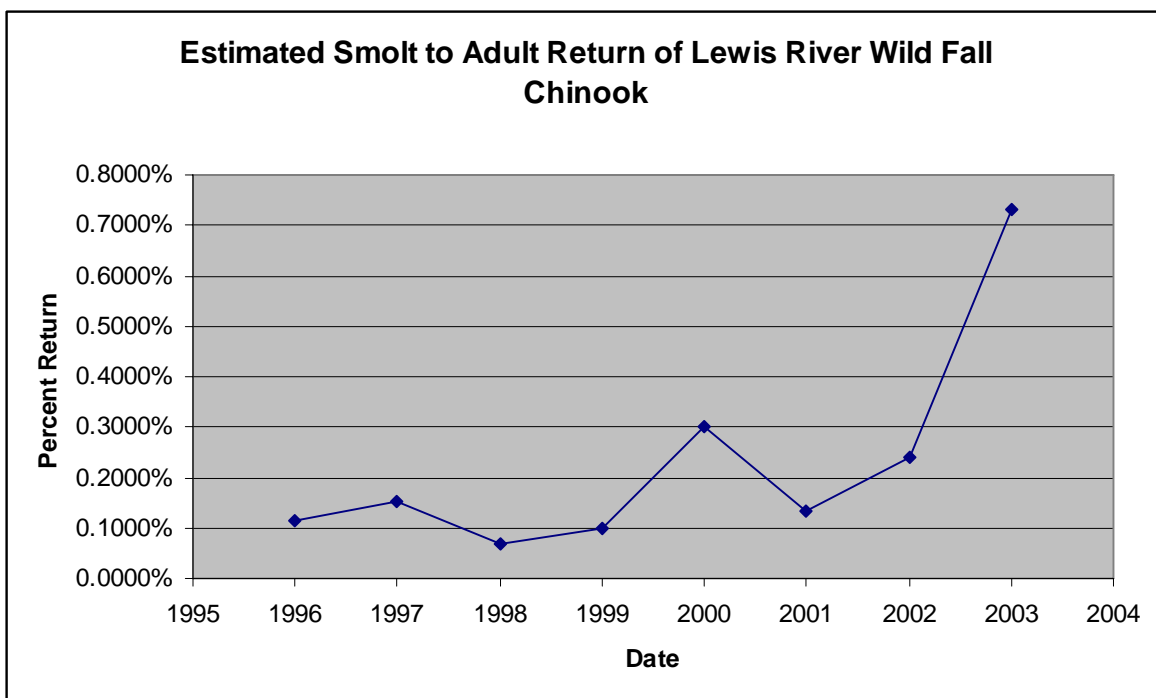
Wild Fall Chinook

The following tables and graphs present information concerning Wild Tule and Bright Lewis River Fall Chinook. Escapement numbers were obtained from WDFW Biologist Shane Hawkins and CWT fish disposition from RMIS.

Disposition of CWT Lewis River Fall Chinook.

									Total	%	%
Brood	Alaska	BC	Wash	ORE	Col Com	Col Sport	ESC other	ESC	Recov.	Survival	Alaska
1997	27	14	5	3	12	7	17	172	257	0.53%	10.5%
1997	14	29	6	0	2		2	56	109	0.20%	12.8%
1998	18	15	10	19	16	2	5	98	183	0.64%	9.8%
1998	14	15	2	3	5	9	0	42	90	0.33%	15.6%
1998	9	4	6	5	16	8	2	37	87	0.33%	10.3%
1998	24	12	4	0	8	0	3	76	127	0.73%	18.9%
1999	63	63	9	7	25	26	0	189	382	0.81%	16.5%
1999	114	98	28	28	23	22	13	302	628	1.21%	18.2%
2000	4	28	2	0	14	0	0	78	126	0.44%	3.2%
2000	9	29	6	3	26	1	8	100	182	0.54%	4.9%
2001	9	40	4	0	17	2	0	54	126	0.26%	7.1%
2001	71	62	6	2	22	18	0	165	346	0.68%	20.5%

Estimate of juvenile production and adult escapement taken from mark/recapture and CWT activities performed on the Lewis River.



Appendix E. Explanation of categories.

Disposition of recovery columns in the tables provide information on tag recoveries and percent of tag recovery by disposition.

Alaska- Includes all recoveries in Alaskan fisheries, freshwater or ocean.

Canada- Includes all recoveries in Canadian fisheries, freshwater or ocean.

Oregon- Includes all recoveries in Oregon fisheries, freshwater or ocean.

California- Includes all recoveries in California fisheries, freshwater or ocean.

Wa. Coastal Sport- Includes recoveries from the sport fishery off the coast of Washington.

Columbia Estuary Sport- Includes recoveries from the "bouy 10" fishery at the mouth of the Columbia River.

Lower Columbia Sport- Includes recoveries from the lower Columbia main-stem sport fisheries.

Terminal Sport- Includes recoveries from freshwater sport fishing in Washington that does not fall under the Lower Columbia Sport category.

WA Commercial/Treaty Coastal- Includes recoveries from commercial or treaty fisheries occurring off the coast of Washington.

Columbia Commercial/Treaty- Includes recoveries from Columbia River commercial or treaty fisheries.

Hatchery Escapement- Includes all hatchery related recoveries.

Spawning Ground Escapement- Includes all recoveries from spawning grounds.