FINAL Meeting Notes
Lewis River License Implementation
Terrestrial Coordination Committee (TCC) Meeting
March 20, 2006
Longview, WA

TCC Participants Present: (11)

Brock Applegate, WDFW
Eric Holman, WDFW
Mike Iyall, Cowlitz Indian Tribe
LouEllyn Jones, USFW
Diana MacDonald, Cowlitz PUD
Kimberly McCune, PacifiCorp
Colleen McShane, EDAW, Inc.
Bob Nelson, Rocky Mountain Elk Foundation
Kirk Naylor, PacifiCorp
Todd Olson, PacifiCorp
Mitch Wainwright, US Forest Service

Calendar:

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>April 13, 2006</td>
<td>ACC Meeting</td>
<td>Merwin Hydro</td>
</tr>
<tr>
<td>April 17, 2006</td>
<td>TCC Meeting</td>
<td>Lacey, WA</td>
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Assignments from March 20 Meeting:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>Naylor: Modify the Lewis River Wildlife Management Lands maps and present back to the TCC for review and approval.</td>
<td>Complete - 4/28/06</td>
</tr>
<tr>
<td>Wainwright: Email the USFW definitions of the spotted owl suitable habitat to the TCC.</td>
<td>Complete – 3/24/06</td>
</tr>
<tr>
<td>McShane: Add “Old-Growth” definition to 3.1.3 Old-Growth Habitat on WHMP Lands (page 15) of the WHMP S&amp;G document.</td>
<td>Complete – 4/28/06</td>
</tr>
<tr>
<td>Naylor: Provide detailed maps for TCC discussion regarding conservation easements.</td>
<td>Complete – 4/28/06</td>
</tr>
<tr>
<td>McShane: Modify Table 3-8 to include size classes for each cover-type.</td>
<td>Complete – 4/28/0663</td>
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Assignments from February 10th Meeting:

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>McCune: Modify March TCC meeting to March 20, 2006 and reserve Cowlitz PUD conference room, if possible.</td>
<td>Complete – 2/13/06</td>
</tr>
</tbody>
</table>

Parking lot items from February 10th Meeting:

<table>
<thead>
<tr>
<th>Task Description</th>
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<tbody>
<tr>
<td>Exhibit B – Settlement Agreement Maps (exclusion vs. secondary)</td>
</tr>
<tr>
<td>Jones: Further discussion regarding Monitoring (species vs. habitat)</td>
</tr>
<tr>
<td>PacifiCorp WHMP Budget (annual)</td>
</tr>
<tr>
<td>Conservation Agreement – what is wanted?</td>
</tr>
</tbody>
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Parking lot items from January 9th Meeting:

<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
</tr>
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<tbody>
<tr>
<td>Footnote: Mass wasting</td>
<td></td>
</tr>
<tr>
<td>Naylor: Section 4.2.4 – Further mapping activity and check effects of new objective for raptors</td>
<td>Pending</td>
</tr>
<tr>
<td>Spotted owl – Modifications needed to Section 4.2.4 Objectives h &amp; i</td>
<td>Complete – 1/11/06</td>
</tr>
<tr>
<td>Applegate: Guidelines for Tree Harvest Activities, TCC Approval</td>
<td></td>
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</tbody>
</table>

Opening, Review of Agenda, Finalize Meeting Notes

Colleen McShane (EDAW) called the meeting to order at 9:15am. McShane reviewed the Agenda with the TCC and informed them that there will be some adjustments due to the substantive edits received on the WHMP Goals & Objectives document (see Attachments 1 and 2). McShane requested the TCC if they have any changes to the Draft 2/10/06 Meeting Notes. Kimberly McCune (PacifiCorp) asked Kirk Naylor (PacifiCorp) if two assignments from 1/9/06 were complete. Naylor advised that both were complete.

The meeting notes were approved at 9:25am with the addition of the dates below:

<table>
<thead>
<tr>
<th>Assignments from January 9th Meeting:</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applegate: Provide PHS Spotted Owl circles to Kirk Naylor</td>
<td>Complete – 3/20/06</td>
</tr>
<tr>
<td>Naylor &amp; McShane: Fix all acreages including those in Section 1.3</td>
<td>Complete – 3/20/06</td>
</tr>
</tbody>
</table>

McShane communicated that the Agenda will be modified as follows:

The Land Acquisition and Conservation Easement discussions will be moved to the end of the Agenda and will be discussed if time permits.

Todd Olson (PacifiCorp) informed the TCC that the MidAmerican Energy Holdings Company acquisition is expected to be complete on 3/22/06; however, PacifiCorp’s name will remain unchanged but referenced as a subsidiary of MidAmerican.

WHMP S&G Document Discussion (March 2006 document)

Brock Applegate (WDFW) pointed out to the TCC that a variation exists in the current version of the maps provided by PacifiCorp from the maps that PacifiCorp handed out in the secondary wildlife use habitat committee. Naylor explained that the new version of secondary maps is correct. He said that the map change is a housekeeping issue only, as the previous version did not accurately reflect the true size of Merwin Park. The new map included the addition of the strip of land between the Merwin Park and Marble Creek because this area has an existing trail that will be modified for ADA accessibility under the SA. PacifiCorp offered the new map during the previous meeting to identify that this area should be reflected as a secondary wildlife habitat area because of the trail. WDFW disagreed with this change because there are other trails on WHMP lands that weren’t identified and therefore this shouldn’t be an exception. WDFW did not see a conflict between habitat management and trail maintenance, with most of the management focused on hazard tree removal near the trail much like the management practiced for roadside
buffers and screening. There was general discussion regarding minimizing impacts on wildlife, secondary vs. primary lands and working with the recreation planners to help minimize wildlife impacts of new trails.

Mike Iyall (Cowlitz Indian Tribe) pointed out that the TCC agreed to adjust the WHMP Standards & Guidelines process as we go, if the TCC sees a shortfall we can make an adjustment. He further said that the role of the TCC as fund managers is we can choose what to spend funds. We don’t want to be held to more mandates than available funds. The TCC has the option and responsibility to adjust the WHMP Standards & Guidelines document until it works. Iyall also said that in the presence of creation of new trials we can make adjustments to what is appropriate.

Applegate requested that the topic of lands covered by the WHMPs (see page 3) be tabled for now.

McShane communicated to the TCC that the appropriate time to discuss this topic is when the recreation trails are developed. She suggested that the boundary for Merwin Park should be similar to those for other recreation sites, which generally are drawn to include the developed areas and exclude the trail.

Applegate’s concern is if certain lands drop out of the designated wildlife lands, there should be something that replaces it.

Olson noted that the subject trail of concern was different from other trails, it will be upgraded to account for ADA access and so it will be paved.

LouEllyn Jones (WDFW) indicated that she concurs that trails should be designated as primary lands. Mitch Wainwright said that other than safety issues, which may require removal of snags or trees affected by root rot, there is no reason why areas with trails cannot be managed primarily for wildlife.

The TCC agreed that the trail will come out of secondary wildlife use status and the map will be developed to include picnic areas. Naylor will modify the Lewis River Wildlife Management Lands maps and present back to the TCC for review and approval.

**WHMP S&G Document Discussion**

**1.4 Summary of Existing Wildlife Management Efforts**

Modify the first paragraph to read as follows:

*The Yale, Project License did not include any provisions for wildlife management when it was issued in 1951. The original Swift No. 2 and Swift No. 1 licenses both included articles addressing wildlife. The Licensees complied with the terms of those articles through a series of Memorandums of Agreement with the Washington Department of Game and Washington Department of Fisheries in the early 1960s. As a condition of relicensing the Merwin Project in*
1983, PacifiCorp agreed to protect and enhance wildlife habitat on 5,600 acres (2,266 ha) of land around Lake Merwin and in the Saddle Dam Farm near Yale Lake. This area is known as the Merwin Wildlife Habitat Management Area (MWHMA) and is managed under the Merwin Wildlife Habitat Standard Operating Procedures (SOP). The management plan for the MWHMA was developed by the WDFW (then known as the Washington Department of Game) in 1982 and has been implemented by PacifiCorp since 1984. After an initial 5-year development period, PacifiCorp prepared the SOP to guide annual management activities in the MWHMA. The initial SOP was prepared in 1990 and updated in 1998 in cooperation with the WDFW (PacifiCorp 1990 and 1998).

2.3.3 Annual Plans

The TCC reviewed and discussed additional language provided by Applegate. The TCC approved the addition as written

Modify the entire paragraph to read as follows:

Implementation of the WHMPs will be accomplished by Annual Plans, which will be developed by the Licensees in conjunction with and incorporated into the Annual Report and approved by the rest of the TCC. The Annual Plan will include a detailed budget estimate for activities planned for the upcoming year. As provided by SA Section 14.2.6, the Annual Plan will be submitted, and associated meeting held, prior to implementing any projects for that year. During this time, the TCC should update the Annual Plans to reflect any new federal and state listed species, species of concern, and sensitive species including plants and should address any management activities in that species’ habitat that could necessitate surveys. The TCC should concentrate on areas with suitable habitat and areas with management activity.

3.1.4 Old-growth Habitat Goals and Objectives

Modify Objective e to read as follows:

Within areas to be thinned to develop old-growth characteristics (see Objectives c and d), leave LWD in sizes that reflect the trees in the stand and/or import wood from other locations.

3.2.4 Wetland Habitat Goals and Objectives

Applegate requested the addition of the following text to Objective e, “and recreational”. The TCC did not approve the addition. Objective e shall remain unchanged.

Objective f is approved with modifications and will read as follows:

Protect heron rookeries from disturbance and structure removal. Prepare colony-site management plans for any rookeries as identified in the future, as described in the PHS Management Recommendations for great blue herons (Quinn and Milner 2003).
3.3.1 Riparian Habitat - Background Information

Modify the second paragraph to read as follows:

The terms riparian habitat, riparian area, riparian ecosystem, and riparian corridor are typically used interchangeably in the literature and are used to refer to the functionally distinct area adjacent to streams (Knutson and Naef 1997) and lakes. Riparian habitat starts at the ordinary high water line of a stream or river and includes that portion of the adjacent terrestrial landscape that influences the aquatic habitat by providing shade, nutrients, woody material, insects, or habitat for riparian-associated species (Knutson and Naef 1997). Riparian habitat also encompasses floodplains and channel migration zones because these areas influence and are influenced by high water events. Riparian areas can include wetlands as well as upland plant communities that directly influence streams. Other relevant riparian concepts include:

- Riparian vegetation, which refers specifically to plant communities that are adapted to wet conditions, as distinct from uplands, and that occur immediately adjacent to aquatic systems (Knutson and Naef 1997).
- Riparian buffer and riparian zone, which refer to administrative or management areas associated with riparian habitat (Knutson and Naef 1997).

3.3.3 Riparian Habitat on the WHMP Lands

Modify the first paragraph to read as follows:

Riparian cover types in the Project area were mapped during relicensing and were defined based on the dominant vegetation community and proximity to the Lewis River or tributary streams. The Project area includes deciduous forest, mixed deciduous-conifer forest, shrub, and grassland riparian types. Approximately 397 acres (161 ha) of riparian cover types were mapped in the Project area, with riparian deciduous stands representing more than half of this amount. The amount of riparian habitat associated with each of PacifiCorp's Projects ranges from 94 acres (38 ha) at Swift No. 1 to 188 acres (76 ha) at Merwin, with 115 acres at Yale. There are about 35 acres (14 ha) of riparian habitat associated with the Swift No. 2 Project. The reservoir shorelines, for the most part, were not mapped as riparian communities as much of this area had more typically upland characteristics and vegetation. Although riparian habitats are not specifically covered in the Merwin SOP, management activities in these areas that involve timber harvest are guided by Washington State Forest Practices that includes protection of riparian vegetation, dependent upon stream size.

Add the following language to the last paragraph:

The concept of riparian buffers is often applied to the protection of streams from the effects of nearby upland activities. As such riparian buffers may include just enough area to buffer, deflect, or attenuate impact on fish and other stream-dwelling species (Knutson and Naef 1997). For this WHMP, however, riparian buffers are more broadly defined to protect stream-dwelling
wildlife and to accommodate the needs of other wildlife species that use riparian areas for cover, feeding, breeding, moving, and resting (Knutson and Naef 1997).

3.3.4 Riparian Habitat Goals and Objectives

Modify Objective a to read as follows:

Identify and establish buffers to protect, maintain, and enhance riparian habitat structure and functions, using the following guidelines as a minimum when planning forest management activities: (1) 300 ft (90 m) or the height of 2 site potential trees, whichever is greater, for perennial fish-bearing streams that potentially support bull trout (Salvelinus confluentus) or anadromous fish; (2) 300 ft (90 m) for perennial fish-bearing streams that support residential fish species only; (3) 150 ft (45 m) for perennial non-fish bearing streams; and (4) 100 ft (30 m) for intermittent streams. Buffer widths are measured horizontally from the ordinary high water mark or the outer margin of the channel migration zone and are applied to both sides of the stream. Buffers will be larger for streams showing evidence of mass wasting or erosion, as per Table 3-5. Reduced buffer widths and other management activities would only be allowed for the purpose of meeting specific wildlife habitat objectives.

3.6.4 Orchard Habitat Goals and Objectives

Modify the Goal to read as follows:

Maintain existing orchard habitat, and expand, where appropriate, to provide healthy fruit trees to benefit wildlife and to provide forage for elk.

Modify Objective c to read as follows:

Maintain elk forage in orchards, including mowing (at TCC selected orchards) in the understory outside the nesting season.

3.7.3 ROW Habitats on WHMP Lands

Modify the first paragraph to read as follows:

The WHMP lands include about 216 acres (87 ha) of ROW on PacifiCorp land along the Speelyai, Cougar, and Swift No. 2 to BPA TAP transmission lines, and a portion of the Lake line above the Merwin powerhouse. These ROWs are associated with the Merwin, Swift No. 1 and Yale projects and encompass shrubland, orchard, grassland, wetland, and riparian habitats. There are about 3.6 acres (1.4 ha) of ROW in the Swift No. 2 project boundary.

3.7.4 ROW Habitat Goals and Objectives

Continue to manage existing deer and elk foraging areas, where appropriate, on ROW in the MWHMA. Identify and manage other suitable areas within PacifiCorp’s transmission line ROWs to provide “enhanced forage” for elk and deer. Enhanced forage is defined as a mix of
grasses and forbs that are considered preferred forage species by elk and deer that the Licensees will seed, mow, and/or fertilize. Suitable areas should be identified within 5 years of WHMP implementation, with management activities to follow.

Break <10:45am>
Reconvene <11:00am>

WHMP S&G Document Discussion (cont’d)

3.9.3 Forestland on WHMP Lands

Modify the first paragraph to read as follows:

Exclusive of old-growth, approximately 87 percent of lands within the WHMP currently support upland forests. Of the 9,282 forested acres on WHMP lands, 52 percent are conifer, 20 percent are upland deciduous, and 28 percent are mixed conifer-deciduous (Table 3-8). Forestlands, as defined for the WHMPs, exclude old-growth conifer stands; forest stands within the Cougar/Panamaker Creek, Swift Creek Arm, and Devil’s Backbone Conservation Covenant areas for bull trout; and designated forested buffers for wetlands, streams, shoreline, and roads. Some mature conifer stands may be categorized as forestland if not identified for protection under Old-growth Objective d (see Section 3.1.4) or under Raptor Management Objective h. Thus, not all of the 9,281 acres of forest on WHMP lands will be managed as forestlands.

Modify the first sentence of the fourth paragraph on pg 11 to read as follows:

The intent of the objectives is to guide the development of the WHMPs to address the habitat requirements of all the evaluation species included in the HEP and other species.

Modify Table 3-8 to include size classes for each cover-type:

4.2.1 Raptor Site Management - Background Information

Modify the first paragraph to read as follows:

Raptors, or birds of prey, include eagles, hawks, falcons, kites, and owls. As top predators, raptors are frequently considered emblematic of ecosystem function. A number of raptor species are federally or state listed as threatened or endangered, while others are considered at risk because of habitat loss, toxic chemicals, or reduced prey. The Migratory Bird Treaty Act (MBTA) protects all raptors and their active nests; the Bald and Golden Eagle Protection Act provides additional federal protection to bald eagles and golden eagles (Aquila chrysaetos).

Modify the last sentence of the second paragraph to read as follows:

The bald eagle has been proposed for delisting and may not be protected under the ESA over the life of the licenses; protection of this species would, however, be expected to continue under the Bald and Golden Eagle Protection Act, MBTA, state regulations, and under this WHMP.
Modify the following language in the third paragraph (pg. 49) as submitted by Applegate:

*However, no removal of existing spotted owl nesting, roosting and foraging (NRF) habitat is expected under this WHMP.*

McShane to check on the exact wording of the LOPs (limits of operating periods and clarify text.

**4.2.4 Raptor Site Management Goals and Objectives**

Modify Objective g to read as follows:

*In accordance with USDI-FWS standards, limit WHMP activities that may generate noise-related disturbance near spotted owl nest sites.*

McShane will add a location where we can find these standards by referencing LOPs in Section 4.2.1 or adding additional text to the objective.

**4.3.1 Public Access Management – Background Information**

Modify last sentence in last paragraph to read as follows:

*Roads closed to vehicular traffic can result in less disturbance to big game, and in fact are sometimes used for foraging, bedding, and travel (Witmer et al. 1985).*

**4.3.4 Public Access Management Goal and Objectives**

Modify Objective f to read as follows:

*Provide information to recreation planners regarding wildlife and habitat when siting new or expanding existing developed recreation facilities and protect wildlife from major disturbances from recreation, especially federal and state listed species.*

*Consider buffers for wetlands and riparian habitats and ways to minimize potential disturbances to wildlife especially TES species.*

Lunch <11:45am>
Reconvene <12:30pm>

**WHMP S&G Document Discussion - Spotted Owl Biological Opinion Issues (see Attachment 1)**

LouEllyn Jones (USFWS) communicated to the TCC that they are hoping to do an informal Consultation for spotted owl. She included what needs to be done to reach a “may affect, not likely to adversely affect” determination and is further outlined in an email and Memorandum to the TCC, dated 3/15/06 (see Attachment 1).
Naylor asked Jones if USFWS is asking PacifiCorp to clearly define suitable owl habitat when USFWS has not been able to do so. Jones suggested using the Gifford Pinchot National Forest’s definition.

Mitch Wainwright (USFS) indicated that they have defined two different types of habitat---nesting/roosting/foraging (NRF) and dispersal.

There was general discussion regarding what is considered suitable habitat within the USFWS memorandum. Suitable habitat definitions should be within the WHMP Standards & Guidelines document and should consider DNR, and Forest Service definitions.

Jones suggested that USFWS could ask FERC for an extension of time and submit a cover letter outlining the reasons for the request.

Olson suggested the TCC proceed with the WHMP Standards & Guidelines document and PacifiCorp will suggest language for spotted owl concerns and present to the formed subgroup and USFWS for review and approval.

Diana Gritten-MacDonald (Cowlitz PUD) communicated that it is her opinion there is a technical piece and a serious legal piece that required further discussion.

McShane suggested we could add a short biological assessment as part of the WHMP Standards & Guidelines document.

Wainwright will email the USFW definitions of the spotted owl suitable habitat to the TCC.

The TCC agreed that a meeting of a spotted owl subgroup would be the most productive method to achieve the goal, and to include Joe Hiss from USFWS.

The subgroup will include:

- Kirk Naylor (PacifiCorp)
- LouEllyn Jones (USFWS)
- Brock Applegate (WDFW)
- Eric Holman, tentative (WDFW)
- Mitch Wainwright (USFS)
- Diana Gritten-MacDonald (Cowlitz PUD)
- Joe Hiss (USFWS)

The invitees may choose to invite additional subject matter experts.

The subgroup agreed that the following dates are open for a meeting at the Merwin Hydro Facility from approximately 9:00am – 3:00pm:

April 5, 17 & 18th, 2006
3.1.3 Old-Growth Habitat on WHMP Lands

McShane will add “Old-Growth” definition to 3.1.3 Old-Growth Habitat on WHMP Lands (page 15) of the WHMP S&G document.

The TCC approved the March 2006 version of the WHMP Standards & Guidelines document with all changes with the exception of the spotted owl issues, which will be discussed at a later date by the subgroup in April 2006.

Break <1:30pm>
Reconvene <1:40pm>

Land Acquisition Discussion

Land acquisition discussions are confidential and proprietary and not for public viewing.

Conservation Easement Discussion

The discussion on Conservation Easement opportunities is confidential and proprietary and not for public viewing.

Certain conservation easement criteria was discussed and included:

- No or limited development?
- Buffers (larger along streams)?
- Roads network?
- Snags/large trees – purchase to leave?
- Mineral Rights?
- Vegetative Mgmt -Seeding?
- Time span for easements?
- House/facilities on site?

Next Meeting’s Agenda

- Finalize WHMP Standards and Guidelines document (Spotted Owl portion)
- Conservation Easement Discussion
- Review and approve draft 3/20/06 meeting notes

Meeting adjourned at 3:00 pm

Next Scheduled Meetings

April 17, 2006
USFWS
510 Desmond Drive, SE, Rm. 261
Lacey, WA  98503
(360) 753-5822

May 10, 2006
Location TBD
Handouts
1. Final Meeting Agenda
2. Lewis River WHMP Standards & Guidelines Document/March 2006 version
3. Draft meeting notes from 2/10/06
4. Cowlitz PUD Corrected Acreages for Swift No. 2
5. WDFW: Cover letter regarding comments on Lewis River WHMP Standards & Guidelines Document 3/15/06 and edited document
6. USFWS: Language for NLTTAA Memo dated 3/15/06 and Appendix 1
Attachment 1
USFWS has been in the process of doing the Section 7 consultation for the relicensing of the Lewis River Hydroelectric Projects. Part of that process has been to look at the Standards and Guidelines document to make sure that, based on what the WHMP says, we can concur with a "not likely to adversely affect" determination for northern spotted owls. Reviewing the WHMP standards and guidelines using that filter has revealed that the language is not clear enough in places for us to concur with that determination. I know the intent of the WHMP is to manage utility lands to benefit a broad range of fish and wildlife.

I am attaching a memo developed by Joe Hiss, who is doing the Section 7 consultation, recommending some language changes that would clarify the effect of WHMP management on northern spotted owls. I'd like to have Colleen look at this and propose language changes for northern spotted owls that the TCC could discuss at our next meeting. I am also attaching a matrix to help in determining minimum distances to avoid harassing spotted owls when planning harvest activities in nesting season. I wasn't sure if you had that, and Joe's memo refers to it.

Thanks.

(See attached file: Language for NLTA.doc) (See attached file: Appendix_1_table_from_Oly_BO_Sep_30_2004.doc)

Lou Ellyn Jones
U.S. Fish and Wildlife Service
510 Desmond Drive
Lacey, WA 98503

telephone: 360-753-5822
fax: 360-753-9008
MEMO

Date: March 15, 2006

To: Lewis Hydro file

From: Joe Hiss

Subject: Spotted owls in consultation No. 3

What do we need to get to NLAA? Here is what I propose:

The minimum that PacifiCorp will have to do to avoid an adverse effect is to manage all its holdings in the Action Area to have an insignificant effect to the species. To do this they must: 1) avoid removal of suitable habitat, 2) maintain a sufficient amount of dispersal habitat, and 3) avoid harassment to nesting pairs and unsurveyed suitable habitat in the breeding season.

- To avoid removal of suitable spotted owl habitat, PacifiCorp will have to clearly define suitable habitat, at least in terms of minimum canopy closure and minimum mean diameter, and preferably also in terms of snag density and down wood coverage, if such data are available. In particular, they must determine whether all, some, or none of their “sub-mature” stands are suitable. They may enter a suitable stand but must leave it suitable after harvest.

- To maintain a sufficient amount of dispersal habitat, PacifiCorp must manage all its holdings in the Action Area to maintain 50 percent of the forested land in each quarter-township, in combination with all other landholders, to support timber stands with at least a mean diameter of 11 inches and 40 percent canopy closure.

- To avoid harassment to nesting pairs and unsurveyed suitable habitat in the breeding season, PacifiCorp must implement the same Limited Operating Period used by the Gifford Pinchot National Forest for actions within the harassment distance to suitable habitat, if a case can be made that spotted owls may be present and could be harassed. Since no suitable habitat would be removed, the limitation applies only to the Early Breeding Season, from March 1 through June 30. Harassment distance will depend on the nature of the proposed activity and may change over time as spotted owl behavior becomes better understood.

There are some things Pacificorp can do for spotted owl conservation, beyond the minimum criteria for NLAA. They may: 1) Conduct all owl surveys to protocol; 2) Based on these, identify Category 4 spotted owl sites and manage the surrounding stands to retain forest structure and avoid disturbance; 3) Retain all individual mature and old growth trees; 4) Manage some or all of their stands that are capable of becoming suitable, and in particular of becoming nesting habitat, in order to achieve that condition; and 5) maintain longer harassment distances when possible.
Harassment distances for Murrelets and Spotted Owls

<table>
<thead>
<tr>
<th>Activity</th>
<th>Combined injury threshold distances: murrelet / spotted owl</th>
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<tbody>
<tr>
<td>a blast, a large helicopter, a large airplane</td>
<td>1 mile* / 1 mile*</td>
</tr>
<tr>
<td>a small helicopter or a single-engine airplane</td>
<td>120 yards / 120 yards</td>
</tr>
<tr>
<td>an impact pile driver, a jackhammer, or a rock drill</td>
<td>60 yards / 60 yards</td>
</tr>
<tr>
<td>chainsaws (firewood cutting, hazard trees, pre-commercial thinning, and commercial thinning)</td>
<td>45 yards / 65 yards</td>
</tr>
<tr>
<td>heavy equipment</td>
<td>35 yards / 35 yards</td>
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* Site-, equipment-, and method-specific information can be used to shorten or lengthen the 1-mile distance for these activities.
Attachment 2
March 15, 2006

Ms. Kimberly McCune
PacifiCorp
825 Northeast Multnomah, Suite 1500
Portland Oregon 97217

SUBJECT: Comments on Lewis River Wildlife Habitat Management Plan Standards & Guidelines Document

Dear Ms. McCune:

The Washington Department of Fish and Wildlife (WDFW) appreciates the opportunity to collaborate with PacifiCorp (PC), Public Utility District No.1 of Cowlitz County, Washington (PUD) (collectively known as the Licensees), and the rest of the Terrestrial Coordination Committee (TCC) in the developing, and the implementation of the Wildlife Habitat Management Plan (WHMP) on the wildlife mitigation and appropriate project lands.

According to the Lewis River Hydroelectric Projects Settlement Agreement (SA), The “Overall objective of the Parties [listed in the SA] in reaching the Settlement Agreement was to include measures to protect and enhance fish, wildlife, and other ecological resources affected by the Lewis River Projects [Projects] while providing for other beneficial uses, including hydroelectric generation, flood management, and recreation,” (PacifiCorp et al. 2004). The SA directs the Licensees to create and develop with the consultation of the TCC, a WHMP. The WHMP will “…benefit a broad range of fish, wildlife, and native plant species, including, but not limited to, large and small game, amphibians, bats, forest raptors, neo-tropical birds, and culturally significant plants,” (PacifiCorp et al. 2004).

PC has verbally agreed to incorporate a few measures into their WHMP that will help wildlife on their project lands. First, PC has decided to include actions in their WHMP that will follow the Migratory Bird Treaty Act. WDFW recommends the following criteria to help minimize the impacts to migratory birds, their young, and their nests:

The Licensees should conduct all management activities on wildlife lands outside of the January 1- August 15 breeding season unless timing interferes with other wildlife objectives and a qualified ornithologist conducts surveys and identifies nesting and breeding territories with the appropriate buffers. If the Licensees conduct management activities during the breeding season (January 1- August 15), a qualified ornithologist should survey the project area and the vicinity to mark (with GPS points, not physically) nests and breeding territories...
so that the associated nesting and breeding structures can remain intact. We suggest the Licensees should consult with the TCC if none of these options proves viable for the project.

WDFW recommends that these seasonal restrictions only apply when management activities may remove nest structures including trees, shrubs, grass, forbs, and any other nesting structures of migratory birds. We suggest that this recommendation should not replace Objective g under the raptor management goal or eliminate buffers for other avian species that may require buffers from management activities.

The Licensees also made additional verbal agreements throughout the consultation process with the TCC and indicated their desire to incorporate them within the WHMP instead of within the Standards and Guidelines Document. They also agreed to:

- Retain all snags, stumps, large woody debris (LWD), and trees with pileated woodpecker foraging excavation, nesting, and roosting holes, (Lewis and Azerrad, 2004).

- Erect signs showing ownership at obvious property boundaries that the public can readily access or in problem areas with trespassing issues.

- Enforce road closures and trespassing violations with known ordinances and laws.

- Avoid management activities in or around nesting and brooding areas for harlequin ducks and other nesting birds or conduct activity outside of breeding and nesting season (April 1- September 15), (Lewis and Kraege 1999).

- Maintain shade retention over seeps, stream corridors, riparian areas, and wet rock outcrops. Conduct surveys for torrent salamanders in riparian areas with planned management activities that will remove or reduce shade retention while using the most scientifically effective survey methods and protocols for presence/absence surveys, (Nordstrom 1997).

- Minimize sedimentation and new road building through or near riparian areas, seeps, talus, and unstable areas (Nordstrom and Milner 1997).

We received and reviewed Lewis River Wildlife Habitat Management Plan Standards and Guidelines Document. WDFW thinks that the Standards and Guidelines Document almost meets the obligations designated in the SA. To completely fulfill the desired intentions of the SA, the Licensees should consider implementing these recommendations by the WDFW. In accordance with Section 10(j) of the Federal Power Act, 16 U.S.C § 803 (j), please note the following comments to “adequately and equitably protect, mitigate damages to, and enhance, fish and wildlife” affected by the Projects.
Generally, WDFW would prefer improvements in the areas of forest management, protecting wildlife from recreational activities, and using protocol surveys. In an effort to further improve benefits for fish and wildlife on your mitigation lands, the WDFW recommends the following:

1) **Forest Management**: WDFW would like to make additional comments relating to generating elk forage. WDFW agrees that some lands should remain in intensive, harvest rotation, forest management but we would like PC to consider alternative methods to promote elk forage and still promote diversity and create habitat for other species that depend on structure. Permanent elk forage plots would encourage better enhanced forage, better habitat for other species in the cover areas, and most importantly, less need for road construction because of less rotation. “Road construction results in habitat loss and fragmentation,” (EDAW 2006). “Roads also decrease habitat quality and act as barriers for most wildlife…” (Forman et al. 2003). With our restrictions on wildlife management money, harvest rotation forest management with excessive road construction may prove, out of our budget. WDFW suggests that this alternative may better suit some areas with less of a already existing road system.

By using permanent elk forage plots, the permanent “cover areas” would allow patches with bigger trees, more natural snags, more LWD, and dispersal habitat for those species that need this type of structure. “In general, do not compromise management for snags and course woody by forest management. Conduct actions for snags and course woody debris in all management areas, with timber harvest planned to accomplish snag and course woody debris objectives,” (PacifiCorp et al. 2004). The permanent cover areas would contain more wildlife habitat that causes some safety hazards for harvest rotation forestry. Permanent elk forage management would increase hollow trees; western red-cedar; and decaying live, defective, cull trees including those showing signs of decay, such as top rot, broken tops, fungal conks, dead branch stubs, or other defects. Wildlife find these defective, diseased, damaged, and decaying trees, excellent habitat and we would find more of these type of trees in areas with permanent cover areas. WDFW thinks that the establishment of additional permanent elk forage plots would better meet the Snags and Coarse Woody Debris Management Objective in Schedule 10.8 of the SA (PacifiCorp et al. 2004), by providing some different habitat structure in the permanent cover areas with older trees.

In addition, WDFW recommends the use of our “Guidelines for Tree Harvest Activities” for all harvest activity in all goals (Attachment A).

2) **Access Management**: Although the TCC had conversations on the topic, WDFW thinks the standards and guidelines document should include protections of federal and state listed and other sensitive species from recreational activities, particularly the protection of eagle and osprey nests on the reservoirs. Tacoma Power on their Nisqually Hydroprojects has achieved similar protections with boating restrictions in environmentally sensitive areas. The Joint Explanatory Statement, SA, PacifiCorp et al. (2004) states that PC should develop recreational opportunities “while protecting the Lewis River Basin’s natural resources.” This “Access management may include gating roads, controlling disturbance of sensitive areas (e.g. nest sites, cultural resources), temporal restrictions (e.g. Saddle Dam farm) and requirements related to implementation of state and federal law,” (PacifiCorp et al. 2004). WDFW recommends that PC
develop a plan to protect bald eagle and osprey nests on the reservoirs with the use of buoys and manage recreation on project lands to avoid disturbance to sensitive species, but especially federal and state listed ones. Please compare trails and roads on project lands with environmentally sensitive areas and manage recreation to minimize impacts through seasonal restrictions, temporary closures, or by whatever appropriate actions.

To incorporate our concerns within the Standards and Guidelines Document, we recommend that the Public Access Management Goal, **Objective f**, should contain additional language:

> Provide information to recreation planners regarding wildlife and habitat when siting new or expanding existing developed recreation facilities and **protect wildlife from major disturbances from recreation, especially federal and state listed species**.

3) All surveying and monitoring should follow best science, protocol surveys generally accepted by most government agencies and approved by the TCC, preferably through the Annual Plan process.

Thank you for the opportunity to provide these comments. We hope that you find our comments useful and beneficial in managing and promoting wildlife on your project lands. WDFW appreciates the past tours of some of the wildlife mitigation lands and their associated projects and participation in the TCC. We look forward to working with PC and the PUD on future actions with this project. Please feel free to contact me at (360) 902-2615 with any questions and/or comments concerning this project.

Sincerely,

Brock A. Applegate  
Fish and Wildlife Biologist

Enclosure (Appendix A, Guidelines for Tree Harvest Activities)

cc/enc: Sam Kolb, WDFW  
Curt Leigh, WDFW  
Eric Holman, WDFW
SPECIFIC COMMENTS REGARDING THE WHMP STANDARD AND GUIDELINES DOCUMENT:

1.4 **Summary of Existing Wildlife Management Efforts:** Although WDFW acknowledges that the original licenses included articles that addressed wildlife, the Licensees did not conduct any management actions for wildlife species on the Swift No. 1 and No. 2 Project lands.

2.3.3 **Annual Plans:** During this time, WDFW recommends that the TCC update the Annual Plans to reflect any new federal and state listed species, species of concern, and sensitive species, including plants. The Licensees should address any management activities in that species’ habitat or the vicinity of the habitat. Some suggested actions might include surveys.

3.1.4 **Old-growth Habitat Goals and Objectives, Objective e:** A TCC member has crossed out the recommended sizes for LWD as advised by Management Recommendations for Washington Priority Habitats for Snags, WDFW (1995). This goal represents a target, not a requirement. We recommend restoring the size targets to the LWD in this Old-Growth Objective that may have some forestry management activity. As stated in the SA, PacifiCorp et al. (2004), “In general, do not compromise management for snags and course woody debris in all management areas, with timber harvest planned to accomplish snag and course woody debris objectives.” The TCC has already discussed the LWD size goals, and the Licensees should try to meet this goal as close as possible. The Licensees should have all timber from elk forage creation and LWD from the reservoirs to meet this goal. “Specifically, any surplus LWD will be made available to the TCC to be placed on lands administered under the WHMP’s in order to enhance the terrestrial habitat structure,” (PacifiCorp et al. 2004). We recommend that the size suggestion for LWD be restored to its original numbers unless better scientific literature can show that size reduction in LWD will benefit wildlife.

3.7.4 **ROW Habitat Goals and Objectives, Objective b:** WDFW recommends that the TCC defines “enhanced” elk forage as preferred forage that the Licensees will seed, mow, and/or fertilize. We do not think the current definition completely defines the actions necessary to achieve “enhanced” elk forage.

4.2.4 **Raptor Site Management Goal and Objectives g, h, and i:** Site 4 Spotted Owl Management Circle still have areas with spotted owl detections. The Licensees should use protocol surveys in all old growth and mature forest to guarantee no presence of spotted owls, if management action will occur in or around these patches of habitat. In addition, the Licensees should follow the “40% habitat rule” within Site 4 Spotted Owl Management Circles. The Spotted Owl Management Circle should have 40% of the circle in nesting, roosting, and foraging (NRF) habitat or no more habitat extraction should occur. To simplify the process, we recommend the Licensees just retain all mature and old-growth category forest to guarantee future NRF and dispersal habitat.
Literature Cited


Attachment A – Guidelines for Tree Harvest Activities

1) Clump and Group Snags (and/or green retention trees) where appropriate (SA Schedule 10.8.2.2, PacifiCorp et al. 2004).

2) Emphasize retention of hollow trees and western red cedar snags (SA Schedule 10.8.2.2, PacifiCorp et al. 2004).

3) Do not replace natural snag creation and retention with artificial snag creation (WDFW 1995 and Lewis and Azerrad 2004).

4) “In snag-deficient areas, where recommended snag densities do not occur, retain the greatest number of largest diameter snags possible and concentrate on large live-tree retention…” (WDFW 1995).

5) Prioritize retention of snags with >40% bark cover (WDFW 1995).

6) “If specific snags cannot be retained for safety reasons, pursue topping them to an acceptable height rather than removing them,” (WDFW 1995). Try buffering with green retention trees if possible.

7) To the extent possible, retain decaying live, defective, and cull trees including those showing signs of decay such as top rot, broken tops, fungal conks, dead branch stubs, or other defects as possible (Lewis and Azerrad 2004 and Lewis et al. 2004). Buffer with green retention trees if necessary.

8) Avoid dragging logs or operating heavy machinery across talus and protect talus with a buffer. (Nordstrom and Milner 1997¹ and Nordstrom and Milner 1997²).

9) Retain trees, snags, and stumps with existing pileated nest cavities and foraging excavations. (Lewis and Azerrad 2004) (Already agreed to by PacifiCorp) Buffer with green retention trees if necessary.

10) Restrict timber Harvest Areas to less than 30 ac (PacifiCorp 1998, WHMP introduction to Forestlands, EDAW 2006).

11) Seed with a grass-legume seed mix to provide forage for grazing elk. Seeding also reduces the potential for erosion and controls the establishment of weeds and other undesirable species, (PacifiCorp 1998, WHMP introduction to Forestlands, EDAW 2006).

12) No harvesting of old-growth stands, cottonwoods, and cedar (PacifiCorp et al. 2004).

13) Apply herbicide only for spot spraying of noxious weeds or other undesirable plants.
14) Leave a mix of hard and soft snags. Buffer with green retention trees if necessary.

15) Retain as many naturally formed stumps as possible.

16) Use leave trees to buffer desirable snags and large trees, when possible.

17) Retain and/or develop snags, down wood, and green recruitment trees in a distribution that provides for diversity and species requiring large dead trees for nesting, foraging and/or roosting (PacifiCorp 1998, WHMP introduction to Forestlands, EDAW 2006).

18) Prune and thin young stands to increase shrub and herb layers in the understory (PacifiCorp 1998, WHMP introduction to Forestlands, EDAW 2006).


20) Protect vegetation and hiding cover along areas of least topographic resistance for deer and elk movement such as saddles and gaps, bands around ridges, seeps, and springs, (Thomas 1979).

21) Disperse harvest areas by retaining hiding cover adjacent to all newly created harvest areas.

22) Use an excavator instead of a bulldozer, if creating new roads for forest management is necessary, (Dodge 2006).

23) Eliminate road ditches, funnel water off the roadway onto the forest floor, and disconnect the road network from water channels and streams, when possible, (Dodge 2006).

**Literature Cited**


