**FINAL Meeting Notes**  
**Lewis River License Implementation**  
**Terrestrial Coordination Committee (TCC) Meeting**  
**August 12, 2008**  
**Woodland, WA**

**TCC Participants Present:** (13)

- Ray Croswell, RMEF (9:00am - 10:15am)
- Kendel Emmerson, PacifiCorp Energy
- David Geroux, WDFW
- Eric Holman, WDFW
- Kimberly McCune, PacifiCorp Energy
- Todd Olson, PacifiCorp Energy
- Kirk Naylor, PacifiCorp Energy
- Diana Gritten-MacDonald, Cowlitz PUD
- LouEllyn Jones, USFWS
- Bob Nelson, RMEF
- Lindsy Wright, USFWS Summer Intern
- Eileen McLanahan, Meridian Environmental (via teleconference 11:00am – 12:45pm)
- Jeff Boyce, Meridian Environmental (via teleconference 11:00am – 12:45pm)

**Calendar:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept. 10, 2008</td>
<td>TCC Meeting</td>
<td>Lacey, WA</td>
</tr>
<tr>
<td>Sept. 11, 2008</td>
<td>ACC Meeting</td>
<td>Merwin Hydro Facility</td>
</tr>
</tbody>
</table>

**Assignments from August 13 Meeting:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Naylor:</strong> Arrange a site visit of The Nature Conservancy property and Unit 26 forest management activities for TCC representatives in September 2008.</td>
<td>Complete – 8/29/08</td>
</tr>
<tr>
<td><strong>Geroux:</strong> Review the revised X.3 Old-Growth Habitat Management Areas text with Curt Leigh at WDFW and will advise if approved.</td>
<td>Complete – 9/5/08</td>
</tr>
<tr>
<td><strong>Gritten-MacDonald:</strong> Email the Cowlitz PUD WHMP budget to the TCC for their individual review.</td>
<td>Complete – 8/13/08</td>
</tr>
</tbody>
</table>

**Assignments from July 9th Meeting:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Emmerson:</strong> The TCC would like further clarification from Curt Leigh (WDFW) regarding the addition of the following language to X.2.2.C in the Old Growth WHMP Chapter, “<strong>In accordance with the Forest Practices Act</strong>”.</td>
<td>Complete – 8/13/08 (clarification provided by David Geroux)</td>
</tr>
<tr>
<td><strong>Emmerson:</strong> Submit the revised Section X.3 of the Old Growth WHMP Chapter at the August TCC meeting for review and approval.</td>
<td>Complete – 7/17/08</td>
</tr>
</tbody>
</table>

**Assignments from June 11th Meeting:**

<table>
<thead>
<tr>
<th>Task</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Naylor:</strong> Seek the approval of TNC prior to visiting the real estate site of interest.</td>
<td>Complete – 8/13/08</td>
</tr>
</tbody>
</table>
McCune: Schedule a combined ACC/TCC meeting to discuss land updates with only those participants who have signed a confidentiality agreement.

| Complete – scheduled for 7/10/08 |

McCune: Email the accipiter survey details to the TCC to include dates, times, etc.

| Complete – 6/12/08 |

**Assignments from January 9th Meeting:**

| Status |

Naylor/Emmerson: Incorporate the following into the Forest Management chapter: WHMP lands that are within the SOSEA should have greater spotted owl protection then what is provided in Forest Practices Act and timber management actions should increase or improve spotted owl habitat in the SOSEA.

**Assignments from September 12, 2007 Meeting:**

| In process |

Naylor/Emmerson: Incorporate the following text into the Forest Management chapter of the WHMP, “Prior to any harvest, the areas will be evaluated (ground truth) to determine whether or not the area qualifies as NSO habitat.”

**Parking lot items from June 11, 2008 Meeting:**

| Status |

Review and discussion of occupancy and productivity of Wood Duck Nest Box and Kestrel Nest Box Program. Should this program be discontinued?

**Parking lot items from February 10, 2006 Meeting:**

| Ongoing – 4/28/06 |

PacifiCorp Wildlife Habitat Management Plan (WHMP) Budget (annual)
Conservation Agreement – what is wanted?

**Review of Agenda and Finalize Meeting Notes**

Kirk Naylor (PacifiCorp Energy) called the meeting to order at 9:00am. Naylor conducted a review of the agenda for the day and requested if the TCC had any additions to the agenda. No changes were requested.

Naylor reviewed the TCC Draft July 9, 2008 meeting notes and assignments with the TCC attendees and asked for any comments and/or additional changes. No changes were requested.

The meeting notes were approved at 9:05 a.m.

**Review and Discussion of Land Interests**

Naylor provided photos and a map of The Nature Conservancy (TNC) land for TCC review and comment (Attachment A). Naylor reviewed vegetation types, alder stands, old road in the SE of the TNC property, grazing areas, elk beds, topography looking south, erosive soils, the moss cave and exclusion fencing, lava flow area and tree blow down. The property is unique by itself due to the existing bat cave but there is also heavy elk use. Naylor will arrange a potential site visit for TCC representatives in September 2008.
Naylor also provided an update of other interests in certain lands, however, this discussion is considered confidential and proprietary and not for public viewing.

<Break 10:15am>
<Reconvene 10:30am>

**Discussion of Old-growth based on WDFW comments regarding the addition to X.2.2.C in the Old Growth WHMP Chapter**

In response to an assignment from the July TCC meeting Kendel Emmerson (PacifiCorp Energy) requested further clarification from David Geroux (WDFW) regarding the addition of the following language to X.2.2.C in the Old Growth WHMP Chapter, “*In accordance with the Forest Practices Act*”. Geroux indicated that upon review of X.2.2.C, he has no objections to removing this text.

**Review of Revised Section X.3 of the Old Growth Chapter**

Geroux will review the handout provided by Emmerson *(Attachment B)* with Curt Leigh at WDFW and will advise if approved by WDFW.

**Introduce New WHMP Chapters**

- **Invasive Plant Species Management**
  [http://www.pacificorp.com/Article/Article79878.html](http://www.pacificorp.com/Article/Article79878.html)

  Emmerson reviewed the Draft Invasive Plant Species Chapter to include the definition of noxious weeds in accordance with the Washington State Noxious Weed Control Board, the invasive plant species list (appendix X-1), management area, prevention detection, treatment, and monitoring.

  **TCC comments are due on or before Friday, September 5, 2008.**

- **Riparian Habitat Management**
  [http://www.pacificorp.com/Article/Article79878.html](http://www.pacificorp.com/Article/Article79878.html)

  Emmerson reviewed the Draft Riparian Habitat Management Chapter to include the definition of riparian habitat to be the riparian buffer and to include shoreline buffers. Emmerson discussed the goal and objectives, inspections, establishing buffers, snag management, restoration, schedule and effort.

  **Comments are due on or before Friday, September 12, 2008.**

Naylor informed the TCC attendees that 75% - 80% of the WHMP chapters are complete. PacifiCorp’s goal is to submit the draft WHMP in its entirety to the TCC for final review on or before October 2008.
Cowlitz PUD Wildlife Habitat Management Plan (WHMP) Comments

Diana Gritten-MacDonald (Cowlitz PUD) and consultants, Eileen McLanahan and Jeff Boyce (Meridian Environmental) presented an overview of the Cowlitz PUD Draft WHMP, which can be viewed on the Lewis River website at: http://www.pacificorp.com/Article/Article79878.html. They began with a discussion of written comments received from WDFW on August 6, 2008 (Attachment C). Gritten-MacDonald provided an on-screen spreadsheet model of the draft 50-year WHMP budget to illustrate how proposed changes in the suite of enhancement measures affect the budget over the life of the license.

McLanahan addressed WDFW’s first comment (Attachment C) regarding seeding and planting, explaining that most of the Devil’s Backbone is too dense to plant. She agreed that the area cover typed as “sparsely vegetated” should be evaluated for opportunities to improve forage, and proposed to add a new paragraph to Section 4.2 of the WHMP to discuss assessment of forage or shrub plantings in the Conservation Covenant lands, because they are not specifically addressed in the current text. WDFW was referring to forage enhancement opportunities in the Devil’s Backbone Unit, but would not be opposed to enhancement activities in Conservation Covenant lands as well. Enhancing forage in the Devil’s Backbone unit is the focus of this comment, as it provides the most opportunity to enhance habitat for existing elk populations.

Geroux had specific questions regarding what happens after patch cuts are complete, i.e., whether they could be planted to provide forage. If Cowlitz PUD is going to do patch cuts, they should do so in such a way that is appreciatively beneficial.

McLanahan expressed that the patch cut areas would be really small; and the intent is to fall trees, open up spots and get some varying ages of trees growing; the patch cut is not intended to create forage, per se. Currently the area is single age; single story canopy. In addition, McLanahan indicated that over time the patch cuts will encourage late successional forest characteristics. The WHMP is designed as a long term plan that would benefit a variety of species (such as those identified in the old-growth goals and objectives), rather than a short term plan which benefits to a single species. The goal is to benefit a broader range of species. Long term planning should consist of planning over the life of the license, as that is what WHMP’s are meant to address. The scope of time referred to hear is well beyond 50 years.

WDFW would like to see a separate paragraph in Section 4.2 which addresses their concerns regarding patch cuts/thinning.

In regards to weed control, Geroux would like Cowlitz PUD, at a minimum, to conduct annual weed monitoring.

McLanahan agreed with Geroux’s comment on the importance of early detection, and explained that the WHMP would focus on high priority areas (i.e., sites where there is a high risk of weed introduction or spread) early on, and then reduce the frequency over the remaining license period. Geroux continued to express concern for the current lack of scheduled monitoring and control of invasive species and encouraged Cowlitz PUD to offer strategies to address this issue in the new iteration of the WHMP.
Gritten-MacDonald demonstrated that annual monitoring could be conducted, but will present budget challenges and would require shifting of funds, for example from i.e. administrative/management costs, 10% contingency funds, or other measures, etc. The group discussed the difference between base management costs and management of additional measures, as shown in the budget spreadsheet.

Geroux expressed that WDFW does not think the 10% contingency fund is a good use of mitigation funds. He is concerned that Cowlitz PUD may not manage the land in a way acceptable to the TCC.

Gritten-MacDonald explained that the 10% contingency fund was intended to cover potential cost overruns. Unspent contingency funds would be returned to the WHMP budget, not reserved in a separate fund. *The current budget proposal does not reflect the monies returning to the management fund from the 10% contingency.*

McLanahan added that the costs shown in the budget spreadsheet included in the draft WHMP are estimates that will be refined for the final WHMP and further refined in each Annual Plan. She also added that the costs shown are not all-inclusive; for example, the cost estimate for weed control covers labor, but not supplies and equipment.

Gritten-MacDonald commented that the base administrative/management costs shown in the spreadsheet were minimal, and allow for only about 2 weeks of time per year for Cowlitz PUD to manage the overall WHMP. Gritten-MacDonald will email the budget spreadsheet to the TCC for their individual review, so that they can work with it to see how different measures affect the budget through the license period.

Members of the TCC held a lengthy discussion about the various costs involved with thinning, and whether it could be accomplished without upgrading the road. The group discussed whether the value of thinning would outweigh the costs — given that under the Settlement Agreement, revenues from thinning are not returned to the WHMP budget. Several members of the TCC indicated that other considerations should include leaving the logs on the ground after thinning, investigating alternatives to thinning, thinning a larger area in a single entry, timing the thinning to coincide with PacifiCorp’s silvicultural activities, and not thinning. *WDFW maintains that this topic needs to be further discussed at future TCC meetings before this part of the plan can be approved. This includes addressing the issue of what how timber funds are to be used and who pays for costs associated with the harvest.*

The group advised that the text of the WHMP should describe thinning (and patch cuts) as tools in a toolbox, rather than proposed actions.

Several members of the TCC identified concerns about filing a plan with FERC that includes specific costs and schedules for implementation of actions. *The TCC attendees agreed that the Excel budget spreadsheet and Tables 4.2.1 and 4.3.1 will be removed from the Cowlitz PUD WHMP.*

Geroux would like to see Section 4.3.3 expanded to include considering other viable options regarding identifying and establishing wetland buffers.
Gritten-MacDonald handed out a 2007 photograph of the wetland in the Project Works Management Unit that was created during project reconstruction and asked the TCC what specifically they would like Cowlitz PUD to do regarding buffers. She explained that the soils in many places were the original engineered canal lining that had been highly disturbed during canal reconstruction and that planting success had been low, despite fertilizing and irrigating in some areas. *Geroux understood that there are challenges with any mitigation, but was certain that with the assistance of the members of the TCC alternate strategies can be found.*

McLanahan added that alders are colonizing the site and over time should help to build soils. She indicated that her primary concern would be to control weeds during this process.

Geroux expressed concern about any potential impacts to raptors or other sensitive species near the Swift Canal which may have been disturbed by past construction activities and future activity.

Gritten-MacDonald explained that there were no bald eagle nests in the vicinity of the powerhouse when the project failed in 2002 and that in the ensuing years while there was significant heavy construction, eagles hung around the area and built a nest. *Geroux stated that “incidental observations” were inconclusive, at best. After inquiring to the success of the nesting pair that Gritten-MacDonald spoke of, the TCC was told that no young were fledged from that nest that year. Geroux maintained that this might be proof that the eagles were impacted by the disturbance.*

Meridian Environmental consultants will add text in Section 4.3.7 that says, “Cowlitz PUD will prepare a Bald Eagle Management Plan if any bald eagle nests are found on Cowlitz PUD property”.

Gritten-MacDonald also handed out the Cowlitz PUD Vegetation Mix and Canal Plan Revegetation Plan implemented as part of project reconstruction (Attachment D).

**License Issuance Update**

Olson informed the TCC attendees that PacifiCorp, Cowlitz PUD, National Marine Fisheries (NMFS), Clark County and WDFW all filed a request for rehearing and clarification on certain license articles. All parties are waiting for the Federal Energy Regulatory Commissions (FERC) response. This does not affect the present FERC submittal time commitments. The Utilities called at the FERC’s request to schedule a meeting this Fall with the FERC in Washington, DC to talk over license points. Utilities will also present a PowerPoint which illustrates to the FERC how the Utilities will complete all the required tasks over the life of the license.

**Next Meeting’s Agenda**

- Review of 9/10/08 Meeting Notes
- License Issuance Update
- Cowlitz PUD WHMP
- WHMP Chapter Review
Other Topics

Naylor informed the TCC attendees that Unit 26 logging began in July 2008; 99% of trees are down and removed. In addition, Naylor invited the TCC to participate in a site visit on August 14, 2008 to view the last of the clean up required, if they are interested. Eric Holman (WDFW) agreed to a site visit with Naylor.

Public Comment Opportunity
No public comment was provided.

Meeting adjourned at 1:00 p.m.

Next Scheduled Meetings

<table>
<thead>
<tr>
<th>September 10, 2008</th>
<th>October 8, 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>USFWS</td>
<td>Merwin Hydro Facility</td>
</tr>
<tr>
<td>Lacey, WA</td>
<td>Ariel, WA</td>
</tr>
<tr>
<td>9:00am – 3:00pm</td>
<td>9:00am – 3:00pm</td>
</tr>
</tbody>
</table>

Handouts
1. Agenda
2. Draft meeting notes from 7/9/08
3. Attachment A – The Nature Conservancy land photos and map
4. Attachment B - Revised X.3 Old-Growth Habitat Management Areas
5. Attachment C – WDFW Comments on Cowlitz PUD WHMP for Swift 2 Mitigation/Compensation, dated August 6, 2008
6. Attachment D - Cowlitz PUD Vegetation Mix and Canal Plan Revegetation Plan
X.3 OLD-GROWTH HABITAT MANAGEMENT AREAS

Appendix X-1 and the Table X.3.1 identify the existing old-growth stands that will be managed under the Lewis River Wildlife Habitat Management Program. The existing old-growth stands are the areas that were vegetation cover typed as old-growth during relicensing and are greater than 1.0 acre (0.4 hectare) in size. The old-growth vegetation cover type is defined as conifer stands with an average tree diameter breast height that is greater than 26 in (66 cm), a multi-layered canopy with occasional small openings, greater than 4.0 snags/ac (9.9 snags/ha) that are greater than 20 in (50 cm) diameter breast height, and greater horizontal and vertical canopy structure than is generally found in mature conifer stands (PacifiCorp and Public Utility District No. 1 of Cowlitz County 2004a).

<table>
<thead>
<tr>
<th>Table X.3.1 Lewis River Wildlife Habitat Management Program old-growth stands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old-Growth Stand Identification Number</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>6-1</td>
</tr>
<tr>
<td>6-2</td>
</tr>
<tr>
<td>7-1</td>
</tr>
<tr>
<td>20-1</td>
</tr>
<tr>
<td>21-1</td>
</tr>
<tr>
<td>22-1</td>
</tr>
<tr>
<td>23-1</td>
</tr>
<tr>
<td>28-1</td>
</tr>
<tr>
<td>28-2</td>
</tr>
<tr>
<td>28-3</td>
</tr>
<tr>
<td>31-1</td>
</tr>
<tr>
<td>31-2A</td>
</tr>
<tr>
<td>31-2B</td>
</tr>
<tr>
<td>31-3</td>
</tr>
<tr>
<td>31-4</td>
</tr>
<tr>
<td>31-5</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Under the Merwin Wildlife Habitat Management Program PacifiCorp managed 17 old-growth sites ranging from 8 to 223 acres (3 to 90 hectares) in size and totaling 926 acres (375 hectares) (PacifiCorp 1998). Most of these acres did not meet old-growth habitat criteria, but were managed as old-growth because they possess some habitat...
characteristics (e.g. large diameter trees greater than 20 in [50 cm] diameter breast height) and were thought to have the potential to develop into old-growth habitat with proper management (PacifiCorp 1998). In addition, during development of the Merwin Forest Management Plan, areas that were determined to be unacceptable for ground disturbing management activities (steep slope or erosive soils inappropriate for managing elk cover/forage ratios) were sometimes added to the old-growth category if they had predominately larger diameter conifer. This included many of the steep slopes along the shorelines that are protected under the shoreline buffer in the new management objectives. Only 56 acres (23 hectares) of the Merwin Wildlife Habitat Management Program lands were vegetation cover typed as actual old-growth and will continue to be managed as “existing” old-growth stands. The remaining acres were vegetation cover typed as other conifer forest cover types that included mature, upland mixed, and mid-successional forests. Although these acres will not continue to be managed as old-growth habitat, many of these acres will be protected as riparian and shoreline buffers, mature conifer forest habitat, or as old-growth connectivity habitat. Therefore the perceived reduction in old-growth habitat acres between past and current plans is not reflective of an actual loss in this habitat type.

The Habitat Evaluation Procedures will be repeated in year 17, which will require the vegetation cover typing to be repeated. During this time some of the conifer forest types that have matured into old-growth habitat will cover typed as old-growth and will be included in old-growth management.
August 6, 2008

Ms. Diana MacDonald
Public Utility District No. 1 of Cowlitz County
P.O. Box 3007
Longview, WA 98632-0307

RE: Comments on Cowlitz PUD WHMP for Swift 2 Mitigation/Compensation

The Washington Department of Fish and Wildlife (WDFW) appreciates the opportunity to comment on the Wildlife Habitat Management Plans (WHMP) that Cowlitz PUD submitted on July 7, 2008 as a part of the relicensing requirements for the Swift 2 Hydroelectric dam. WDFW looks forward to working with Cowlitz County in further refining the WHMP and in assisting with implementation of that plan.

After reviewing the WHMP, WDFW has some comments and requests clarification on some of the sections. They are addressed by section in the following letter. Our goal is to expand upon the working relationship we have with Cowlitz PUD and to assist in the protection and enhancement of the resources associated with the Lewis River Basin.

Devil’s Backbone Management Unit – WDFW considers the Devil’s Backbone MU an important mitigation area that has opportunities for enhancement. The current management plan has no specific plans for direct management. The inclusion of forage enhancement activities that include seeding and shrub plantings would improve the habitat value of this area for a variety of species, including elk and all of the avian species listed in the HEP assessment. Specifically, forage enhancement activities would improve areas that have an edge effect or low vegetative cover such as the areas listed in Table 2.1-1 as meadow, pole conifer, seedling sapling, and sparsely vegetated. WDFW is eager to offer expertise and input on the development of a plan for the Devil’s Backbone Management Unit.

Section 3.2.2, Objective B – Insert after “bald eagles”: “if found on Cowlitz MU lands”.

Table 4.1-1

Weed Control – In the current schedule, it lists “Monitoring” and “Evaluate weed conditions” as two separate activities. WDFW believes that this information could be captured at the same time as other monitoring activities and would save the expense of revisiting a site. WDFW would also like to see the monitoring described in Section 3.2.1, Objectives A through D conducted on an annual basis. The importance of annual updates on site conditions and the ability to properly respond to and control invasive species is a cornerstone of mitigation. The National Invasive Species Council noted in their 2001 management plan:
Early detection of incipient invasions and quick coordinated responses are needed to eradicate or contain invasive species before they become too widespread and control becomes technically and financially impossible.

The importance of early detection and control are particularly important with this specific management plan, as a large infestation could easily outpace the availability of funds on an annual basis. This is addressed in the requirements set forth in the Settlement Agreement (SA), which states in Schedule 10.8, Section 2.11 (Noxious and Invasive Weed Species Prevention and Control):

Prevent or minimize the establishment and spread of noxious and invasive weed species on Licensee-owned and/or controlled lands and to control known noxious and invasive weed species on said lands to meet State and local objectives and requirements. Inventory and monitoring are key aspects for a successful integrated weed management program on these lands.

WDFW believes that annual monitoring and control of invasive species will be a more effective long-term strategy to control invasive species and enhance habitat for native plants and animals on Cowlitz WHMP lands. This will meet the intent of the SA as listed under Section 10.8 and Schedule 10.8

**HEP Evaluation, Year 17** - The Table lists an expense for the year 17 HEP evaluation, but the SA states in Section 10.8.4:

“The Licensee shall update and repeat the HEP as provided in this section (10.8.4), and the costs of such actions shall be in addition to the funding provided under section 10.8.2”.

Cowlitz PUD is responsible for the cost of the HEP out of pocket and cannot use SA funds to pay for it. This charge needs to be removed from the table.

**10% Contingency** - There is a sizeable positive balance listed in the “Balance End of Year” for all years except year 1, so the establishment of this fund is somewhat unclear. If 10% of the annual funds are being placed into a contingency, why does it not grow by $1644/year or show up in the “Previous Year Balance + Interest + Current Year Income” (column 4) section? If we are going to establish this fund, it should be growing each year and gaining interest on its own. What happens to the money placed in this fund if it is not spent?

**Total Annual Funds Expended** – The table shows that current budgeting spends only 34% of total annual funds (including the 5 $35,000 thinning projects) for on the ground management over the fifty-year life of the license. Over the life of the license there are $861,933 (with interest) made available for mitigation/compensation. Of that total, $295,902 (34%) is put toward “Total Additional Measures”, $433,452 (50.2% of total budget) for “Base WHMP Management” and “Management of Additional Measures”, $82,200 (9.5% of total budget) into the “Contingency Fund”, and just under $55,000 (~ 6%; total does not include charge for HEP) not being spent for the life of the license. WDFW would like to see a larger proportion of the annual funds used for on the ground management and enhancement of mitigation/compensation...
lands. Placing more emphasis on weed monitoring and control in all management units, as well as exploring forage enhancement projects in the Devil’s Backbone unit could achieve this.

**Administrative costs** – WDFW requests clarification as to what charges are included in “Administrative costs”, and what the difference is between the costs listed in the following sections: on page 29, paragraph 3 of the document which states:

Basic administrative costs associated with the WHMP are anticipated to total approximately $5,580 per year (in 2008 dollars). This estimate covers Cowlitz PUD’s general oversight, accounting, preparation of the Annual Report and Annual Plan, and the Annual Meeting with the TCC.

In addition, on paragraph 4 of the same page it states:

Most activities will have associated administrative costs, including general oversight, accounting, and maintenance of the project GIS database and maps. These are anticipated to range from approximately $700 to $2,000 (in 2008 dollars) per measure, depending on the complexity of the measure.

Both of these paragraphs list “administrative costs” as well as “general oversight and accounting” as annual expenses. There appear to be two separate expenses for the same service. The current wording of the WHMP is not clear as to where this money goes and how these services fit into mitigation/compensation.

**Section 4.2.3 Paragraph 3** – Remove the end of the last sentence that says “and as the budget allows”.

**4.3.3 Identify and Establish Wetland Buffers** – Wetlands and their buffers serve a variety of functions as well as improving water quality. The EPA states that wetlands:

“provide many benefits to society -- such as fish and wildlife habitats, natural water quality improvement, flood storage, shoreline erosion protection, opportunities for recreation and aesthetic appreciation, and natural products for our use at little or no cost. Protecting wetlands can, in turn, protect our health and safety by reducing flood damage and preserving water quality” and are “a source of substantial biodiversity in supporting numerous species from all of the major groups of organisms – from microbes to mammals.”

Wetlands and their associated buffers offer forage and habitat to a broad range of species. WDFW recommends activities to enhance these areas (i.e. weed management, seeding emergent areas with native, FAC tolerant, herbaceous species, wetland tolerant shrub plantings, etc.) be a part of this WHMP.

**4.3.7 Manage Raptor Sites** – What specific studies have been conducted to show that the eagles nesting near the Swift Canal were not disturbed by the activities and will not be in the future? WDFW is concerned about any potential impacts to raptors or other sensitive species.
Table 4.3.1 – Several of the sites listed on this table have “allow for natural succession” as a management activity and state that these areas “may improve over time” (all DBMU management units, PMWU-REV, PMWU-PUB, and PMWU-FOR). WDFW feels that a more specific plan is necessary for these management units. This could be accomplished with a plan to monitor and aid successional patterns with selective thinning or plantings. WDFW also suggests having a contingency plan in place to address management options if the sites do not develop as intended by purely natural succession.

5.2.2 Wetland management activities – Add “Emergent habitat/vegetation enhancement activities, such as seeding” to list.

WDFW looks forward to further discussing this draft management plan with Cowlitz PUD and the rest of the TCC at future meetings. The enhancement and protection of a variety of habitats on Cowlitz MU lands is a shared goal that WDFW looks forward to assisting throughout the life of the license. Thank you for your continued cooperation and consideration with the creation of these management plans.

David Geroux
Department of Fish and Wildlife
Habitat, Major Projects Division
Habitat Biologist
References


United States Environmental Protection Agency. 2007. Watershed Academy, Wetland Values and Functions Module (http://www.epa.gov/watertrain/wetlands/ )
Wetland Mix - 14.4 acres x 25#
25% Meadow Barley
25% Slender Hairgrass
15% Western Marshgrass
07% Tufted Hairgrass
05% Blue-jointed Reedgrass
05% Red Fescue
05% Rocky Mountain Iris
05% Slough Sedge
03% American Slough Grass
03% Creeping Spike Rush
02% Mules Ear

Roadside Seeding - 3.3 acres x 80#/ac
30% Blue Wild Rye 98/83
35% Red Fescue 98/80
25% Meadow Barley 98/90
10% ARG 98/90

Woodland Slope - 12 acres x 20#/Acre plus 20 pounds ReGreen and 7# Durar Hard Fescue and
7# Mountain Brome:
29% Choke Cherry
20% Ocean Spray
15% Cliff Rose
11% Nootka Rose
10% Mahogany Shrub
05% Service Berry
05% Oregon Grape
05% Blue Elderberry

Forage Mix - 34.1 acres x 25#/ac
35% PRG
05% Mountain Brome
10% Orchardgrass
30% Delar Small Burnett
20% Birdsfoot Trefoil
NOTES:
1. CANAL EMBANKMENT OUTWARD SLOPES TO BE COVERED WITH ROCK SLOPE PROTECTION.
2. SEE SPECIFICATION 2270 EROSION AND SEDIMENT CONTROL FOR DETAILS OF REVEGETATION TREATMENTS.

LEGEND:
- FORAGE REVEGETATION
- WETLAND REVEGETATION
- WOODLAND SLOPE
- ROADSIDE RESTORATION

REVEGETATION PLAN
SCALE 1" = 300'