

**Lewis River Hydroelectric Projects  
Terrestrial Coordination Committee (TCC)  
Meeting Agenda**

**Date & Time:** Wednesday, June 8, 2016  
9:00 a.m. – 3:30 p.m.

**Place:** Merwin Hydro Control Center  
105 Merwin Village Court  
Ariel, WA 98603

**Contacts:** Kendel Emmerson (503) 813-6040

Time	Discussion Item
9:00 a.m.	Welcome <ul style="list-style-type: none"> <li>➤ Review Agenda &amp; 4/13/16 Meeting Notes</li> <li>➤ Comment &amp; accept Agenda &amp; 4/13/16 Meeting Notes</li> </ul>
9:15 a.m.	Study/Work Updates <ul style="list-style-type: none"> <li>○ Kings Landing WHMP lands encroachment proposal (CONFIDENTIAL)</li> <li>○ Yale Dam Larch Mt. Salamander</li> <li>○ WDFW 10.3.3 Funds Status</li> <li>○ Cresap Bay opening</li> </ul>
10:30 a.m.	<ul style="list-style-type: none"> <li>➤ Next Meeting's Agenda</li> <li>➤ Public Comment Opportunity</li> </ul> Note: all meeting notes and the meeting schedule can be located at: <a href="http://www.pacificorp.com/es/hydro.html">http://www.pacificorp.com/es/hydro.html</a>
10:45 a.m.	Safety <sup>1</sup> orientation for tour
11:00 a.m.	Depart for tour and plan to return to HCC by 3:00 p.m. <ul style="list-style-type: none"> <li>○ Unit 35 Timber Harvest Area</li> <li>○ Unit 19 Road Layout, time permitting</li> </ul>
<b>3:00 – 3:30 p.m.</b>	<b><i>Return to HCC and Adjourn</i></b>

<sup>1</sup> Please bring rain gear and sturdy walking shoes for hiking in the forest. PacifiCorp will have 2 vehicles for transportation of up to 4 additional passengers.

**Please bring your lunch**

**FINAL Meeting Notes**  
**Lewis River License Implementation**  
**Terrestrial Coordination Committee (TCC) Meeting**  
**June 8, 2016**  
**Merwin Hydro Control Center & Field Tour**  
**Ariel, WA**

**TCC Participants Present: (9)**

Ray Crosswell, RMEF  
 Bill Richardson, RMEF  
 Kendel Emmerson, PacifiCorp  
 Kim McCune, PacifiCorp  
 Peggy Miller, WDFW  
 Eric Holman, WDFW  
 Erik White, Cowlitz Indian Tribe  
 Nathan Reynolds, Cowlitz Indian Tribe

**Guest**

Joe Berry, Chilton Logging

**Calendar:**

July 13, 2016	TCC Meeting	Conference Call
August 10, 2016	TCC Meeting	TBD

<b>Assignments from June 8, 2016</b>	<b>Status</b>
None	

<b>Assignments from March 9, 2016</b>	<b>Status</b>
McCune: Add the Fisher CCAA conservation measures in in 2016 WHMP Annual Report and in year 17 re-write (incorporate into Best Management Practices).	
WDFW: In regards to 10.3.3 Matching Funds Eagle Island Project the TCC would like a 1-2-page progress report of project status with photos after the grant term expires (12-31-2017).	<b>Pending</b>

Kendel Emmerson (PacifiCorp) called the meeting to order at 9:05am. Emmerson reviewed the agenda and asked the TCC if there were any changes/additions. No agenda additions were requested.

Emmerson reviewed the April 13, 2016 meeting notes and assignments. The meeting notes were approved at 9:20 a.m. with one change. The TCC agreed that the following parking lot item no longer applies and should be removed:

<b>Parking Lot Item</b>	<b>Status</b>
Naylor: Review the SA/WHMP budget(s) as well as determine status and opportunity for coordination with John Cook (NCASI) and Lisa Shipley (Washington State University) doing the black-tail study and report back to the TCC.	<b>TBD</b>

## Kings Landing WHMP lands Encroachment Proposal

Confidential and proprietary and not for public viewing.

### WDFW 10.3.3 Funds Status

Kim McCune (PacifiCorp) informed the TCC that PacifiCorp is ready to fund the Eagle Island proposal as soon as WDFW is able to invoice and accept funds.

### Larch Mountain Salamander (LMS) Update – Relocation Effort

Emmerson provided a PowerPoint ([Attachment A](#)) informing the TCC that it was necessary for PacifiCorp to complete a project that required the construction of an access road to install critical dam monitoring equipment on the face of the dam within the confirmed known LMS habitat.

## TYPICAL HABITAT

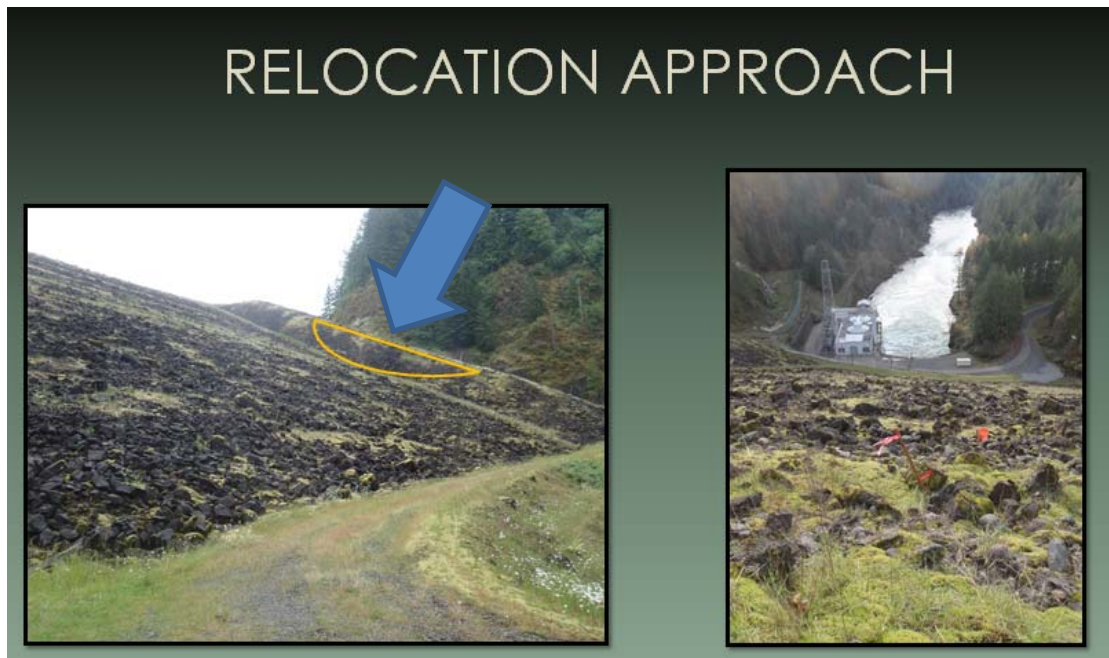
- Steep talus
- Moist substrate cover



## PROJECT LOCATION



The approach of the 2015 survey efforts was to detect and collect LMS within a specified area of habitat and move all animals encountered to the designated relocation area as shown below.



## RESULTS OF FIELD EFFORT

- Visit 1 (11/20/15)
  - 37 PLLA (3.4/hr)
  - 10 PLVE
- Visit 2 (12/3/15)
  - 27 PLLA (7.2/hr)
  - 6 PLVE
- Visit 3 (12/18/15)
  - 1 PLLA (0.3/hr)
  - 3 PLVE



The image shows a list of survey results for three visits. To the right of the list is a photograph of a reddish-brown salamander (LMS) on a green surface, likely a leaf or a piece of paper.

As a follow-up to the construction, PacifiCorp offered to conduct additional surveys April 5, 2016 and May 19, 2016 to detect if LMS had recolonized the disturbed talus areas. The first survey in 2016 resulted in locating three (3) additional LMS that were found at the edge of the disturbed area and the second survey five (5) LMS were found up to the edge of the road bed.

Project approach offered an opportunity for more in-depth study of relocation effectiveness, but seems to have provided a successful outcome for this project and for the LMS.



Survey efforts are now complete. Also important to note that during the May 19, 2016 survey a female with eggs was detected, which is very late in LMS egg-laying season.

### **Cresap Bay Day Use Opening**

Emmerson informed the TCC that although the repair of a water leak in the Speelyai Day Use Recreation Area access road took longer than expected due to an unforeseen delay in a plumbing permit. PacifiCorp appreciates the TCCs patience and approval to open Cresap Bay Day Use area during the water line repair at Speelyai.

After Emmerson conducted a safety orientation the TCC departed to view Unit 35 timber harvest area.

### **Unit 35 Timber Harvest Area (see [Attachment B](#))**

In 2015 PacifiCorp completed a timber harvest and a new road to connect existing roads including the following:

- 55.5 acres of thinning/clear cut (final acres 4.96 acre shrubland, .65 acre meadow, and 46.6 acre of harvest area)
- Total harvest was a mix of commercial thin to 20% CC to provide adequate light to maximize forage potential, overstory removal in shrubland and meadow area, and less dense thinning in riparian buffers.
- Retention trees met 8 TPA, but difficult to select because stand lacks diversity. A mix of species and size classes were selected with preference to promote and protect existing shrubs.
- Planted with 200 TPA (180 Douglas fir, 80 Noble fir) plus 1000 western red cedar and 1.5 lbs of western hemlock seeded at eastern edge.
- Unit 35 C:F ratio pre-harvest 100:0 and post-harvest 92:08
- Forage seeding last fall with 1100 lbs (20lbs/acre) 40 % grasses (perennial ryegrass and orchard grass) and 60% forbs (white clover 25%, Birdsfoot trefoil 15%, and small burnett 20%). Forage seeding effort was repeated in May 2016.
- Meadow was seeded, stumps were retained, and area was not replanted.
- Slash was brought to the road bed and burned to reduce damage to soils and prevent damage to remaining trees.
- Unexpected and severe blow down this winter. Possible causes are shallow soils, poor root structure and unique wind event? How to prevent in the future:
  - Lighter thinning
  - 5 acres patch cuts



**Post logging, commercially thinned stand.**



**New road (yellow arrow center) built through harvest area in Unit 35.**

The road was completed as planned but the surface won't be rocked until 2016. Logging slash was piled in the road right-of-way in 2015 to reduce slash, intended for burning, from being too close to retention trees. This will also leave less heavily burned soils within the managed stand.

Joe Berry (Chilton Logging) provided the following data in a meeting handout:

**Unit 35 - 2015 Timer Harvest Data (40 years old)**

	<b>Trees Per Acre (TBA)</b>	<b>Avg diameter for each species (DBH in inches)</b>	<b>VOL; Thousand Board Feet (MBF)</b>
Doug Fir	151	12.4	8
Silver Fir	67	13.5	4
Nobile Fir	26	13.0	2
Western Hemlock	6	14.2	.4
<b>TOTALS</b>	<b>250</b>	<b>13.3</b>	<b>14.4</b>

Prior to harvest the stand average 346 TPA if you included trees less than 10 years old (Most SF and some DF)

Approximately 2,000 board feet left per acre. 180' – 200' buffer at property line; root wads used to discourage encroachment and east boundary was seed with western hemlock.

Total volume removed was 12 MBF/AC.

**Unit 19 Road Layout**

Emmerson provided a map below evidencing the four separate harvest areas. Management Unit 19 is a total of 163.4 acres and is located south and east of the town of Cougar. The intent is to remove the deciduous component only and replant those areas with conifer to develop the necessary NSO habitat. The sites are a mix of timber types including Upland Mixed, Mid Successional, and Upland Deciduous. No forest management other than plantation maintenance on three pole timber stands has occurred since 1986.

Emmerson and Berry also reviewed the proposed new road (see yellow dotted line in legend) with the TCC to include where the landing area(s) and gate is located. This plan differs from the Annual plan, but it improved because will not require an additional access point to WHMP lands and minimize truck traffic use on roads shared with the public.

In addition, Berry pointed out a root rot area within the harvest (see yellow arrow near road 1910) that is ideal for creating a small (approx. 1 acre) opening.

**The TCC agreed to the proposed harvest as detailed within these TCC meeting notes and in the 2016 WHMP Annual Plan. The TCC also agreed to the proposed road and creating an opening to replace the area of root rot as explained by PacifiCorp and Chilton Logging and illustrated in the map below.**





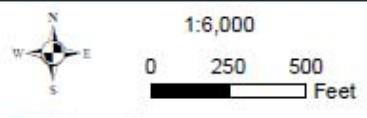
**WHMP - Unit 19**

2016 Proposed Harvest Areas

Imagery: ESRI, July 2010

- Proposed Harvest
- Landing
- Gate
- Existing Road
- Proposed Road

- Section
- Contour (20')
- Stream
- Stream/Shore Buffer
- PacifiCorp Land



06/06/2016 gladept@pacifiCorp.com  
 U:\Projects\Hydro\Lewis\Harvest\Unit 19\Unit 19 Aerial Map.mxd





**Marked trees identifying portion of new access road and 1986 plantation proposed for thinning.**



**This is example of standing road on the current 1910 road**



**Other**

Emmerson informed the TCC that PacifiCorp has posted its wildlife biologist position and will be interviewing two (2) candidates June 23, 2016. PacifiCorp hopes to introduce its new wildlife biologist at the August TCC meeting.

Emmerson also informed the TCC that PacifiCorp has received certain landowner concern about its timber harvest and spraying activities. Emmerson has provided Lewis River website hyperlinks to these landowners for their review of PacifiCorp’s forest management practices. In addition, Emmerson and PacifiCorp’s forestry contractor is meeting with another property owner to address concerns over the McKee Meadow 2016 forestry and spraying activity.

*<3:00 p.m. meeting adjourned>*

**Agenda items for July 13, 2016**

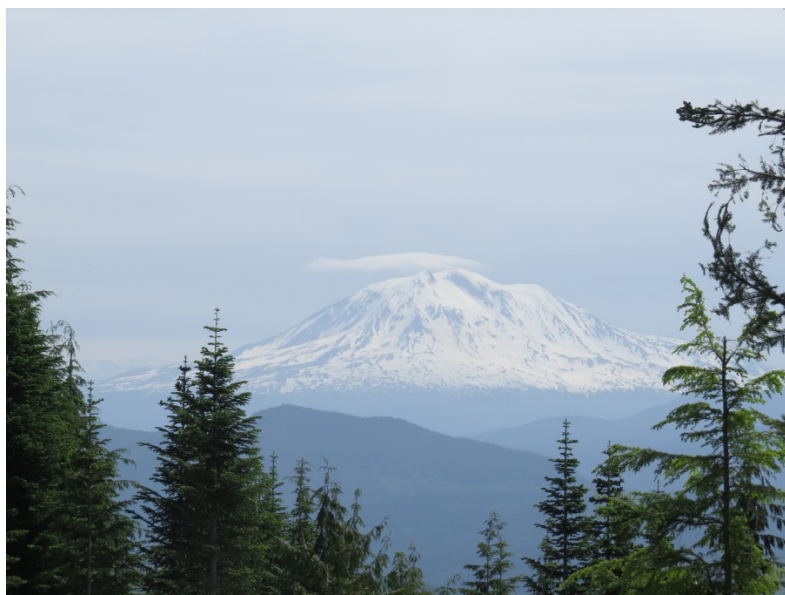
- Review June 8, 2016 Meeting Notes
- RMEF Update - CONFIDENTIAL
- Hyman shoreline permit discussion

**Next Scheduled Meeting**

July 13, 2016
Conference Call

**Attachments:**

- June 8, 2016 Meeting Agenda
- Attachment A – Larch Mountain Salamander Relocation Effort PowerPoint
- Attachment B – WHMP Unit 35 Forestry and Vegetation Type Adjustments



**Mt. Adams because it is where the Lewis River begins**

# LARCH MOUNTAIN SALAMANDER RELOCATION EFFORT

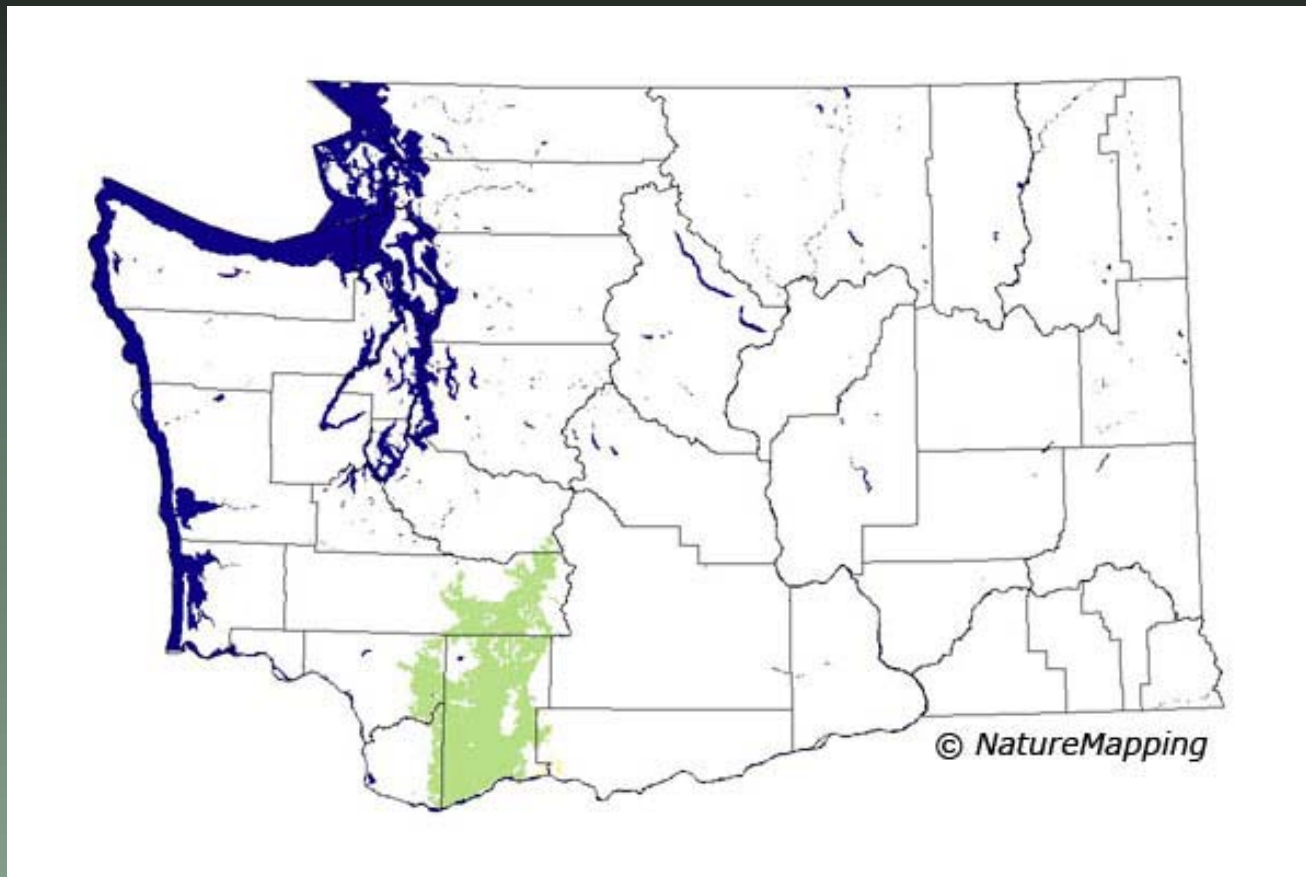
W. Wente (MB&G), B. Horton (PacifiCorp),  
K. Emmerson (PacifiCorp)



*Plethodon larselli*



# LMS RANGE MAP AND STATUS



Dvornich *et al.* 1997, WA GAP Analysis

# TYPICAL HABITAT

- Steep talus
- Moist substrate cover





# PROJECT LOCATION



Problem: How can PacifiCorp reduce impacts to LMS?





# AVOIDANCE AND MINIMIZATION

- Modify Project Design and Timing
- Coordinate with Contractors
- Devise and Complete Relocation Plan





# RELOCATION APPROACH



# RESULTS OF FIELD EFFORT

Visit 1 (11/20/15)

- 37 PLLA (3.4/hr)
- 10 PLVE

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- 1 PLLA (0.3/hr)
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# CONCLUSIONS



- Effective collaborative process with project engineer
- Indication of successful removal
- Indication of large population on dam
- No measure of success of relocation



# WHMP Unit 35 Forestry and Vegetation Type Adjustments

- Ditch Culvert
- + Stream Culvert
- Road
- Fish Stream
- Non-fish Perennial
- Non-fish Seasonal
- Other Stream
- Vegetation Cover
- Harvest
- Section
- Stream Buffer
- Original Stream
- Contour (20')

