FINAL Meeting Notes
Lewis River License Implementation
Terrestrial Coordination Committee (TCC) Meeting
June 14, 2006
Ariel, WA

TCC Participants Present: (10)

Brock Applegate, WDFW
Joe Hiss, USFWS
Eric Holman, WDFW
LouEllyn Jones, USFWS
Diana MacDonald, Cowlitz PUD
Kimberly McCune, PacifiCorp Energy
Colleen McShane, EDAW, Inc. (via teleconference 3:00pm – 5:00pm)
Bob Nelson, Rocky Mountain Elk Foundation
Kirk Naylor, PacifiCorp Energy
Todd Olson, PacifiCorp Energy

Calendar:

June 23, 2006	ACC Meeting – Cle Elum Hatchery site visit	Cle Elum, WA
July 12, 2006	TCC Meeting	Merwin Hydro
July 13, 2006	ACC Meeting	Merwin Hydro

Assignments from June 14th Meeting:	
Naylor: Add the additional owl circle West of the Yale to the map, and revise lands west of Swift Creek and within the 2-mile buffer. Present the revised version to the TCC for review (specifically Township 7N, Range 5E, Sections 20, 29 & 30).	**Complete – 6/22/06**
Naylor: Email revised version of Consideration for Tree Harvest Activities document to TCC for review and approval.	**Complete – 6/16/06**
McCune: Scan and email the Objective k documents to the TCC for review.	**Complete – 6/15/06**
McCune: Request citations for documents from Mitch Wainwright (USDA Forest Service) and email to Colleen McShane (EDAW).	**Complete – 6/15/06**

Assignments from May 30th Meeting:	
McCune: Mail final Conservation Easement 4/28/06 Meeting Notes to Eric Holman.	**Complete – 5/31/06**
McCune: Distribute modified Lewis River Wildlife Management Lands maps to TCC for review and approval.	**Complete – 6/14/06**
McShane: Add WDFW requested objectives (h – k), with suggested edits in raptor section of WHMP S&G document for TCC review and approval.	**Complete – 6/4/06**
McShane: Add objective in WHMP S&G document, Public Access section which addresses the topic of number nineteen in WDFW's Considerations for Tree Harvest Activities - Maintain permanent, big game concealment	**Complete – 6/4/06**

zone buffers along public roads.	
McShane: Add text at the end of the WHMP S&G document to include the Considerations for Tree Harvest Activities.	**Complete – 6/4/06**
Naylor: Make changes to Considerations for Tree Harvest Activities document (Attachment B) and submit to TCC for review and approval.	**Complete – 6/16/06**
Hiss: Revise draft PacifiCorp Energy lands and proposed owl management areas map to include Cowlitz PUD for the administrative record.	**Complete – 6/14/06**

Parking lot items from February 10th Meeting:	
Exhibit B – Settlement Agreement Maps (exclusion vs. secondary)	**Complete – changes were made per TCC 4/28/06**
PacifiCorp WHMP Budget (annual)	
Conservation Agreement – what is wanted?	**Ongoing – 4/28/06**

Parking lot items from January 9th Meeting:	
Footnote: Mass wasting	
Naylor: Section 4.2.4 – Further mapping activity and check effects of new objective for raptors	**Pending BiOp**
Spotted owl – Modifications needed to Section 4.2.4 Objectives h & i	**Complete – 1/11/06**
Applegate: Guidelines for Tree Harvest Activities, TCC Approval	**Complete – 5/30/06**

The TCC meeting first consisted of a site visit to Devil's Backbone from 9:30am – 2:30pm, courtesy of the Cowlitz PUD and Meridian Environmental, Inc, consultant to the PUD. Attached as an addendum to these meeting notes is the Site Visit Agenda and related maps.

Opening, Review of Agenda, Finalize Meeting Notes

Kirk Naylor (PacifiCorp Energy) called the meeting to order at 2:45pm. Naylor reviewed the Agenda with the TCC and asked if there were any additions or changes to the Agenda. The TCC did not have requested changes.

Naylor asked the TCC if they have any changes to the Draft 5/30/06 Meeting Notes. LouEllyn Jones (USFWS) requested the removal of the following parking lot item from the meeting notes:

Parking lot items from February 10th Meeting:	
Jones: Further discussion regarding Monitoring (species vs. habitat)	

The TCC 5/30/06 Meeting Notes were approved at 2:50pm with the above-requested changes.

Naylor asked the TCC if they have any changes to the Draft 5/30/06 Conservation Easement Meeting Notes. The discussion on the Conservation Easement meeting notes is confidential and proprietary and not for public viewing. The TCC approved the Conservation Easement Meeting Notes without any changes at 3:00pm.

Northern Spotted Owl (NSO) Management Circles Discussion

Naylor reviewed the NSO map with the TCC attendees. He identified the Spotted Owl Special Emphasis Area (SOSEA), the 2-mile buffer to the SOSEA, and PacifiCorp Energy and Cowlitz PUD lands within the owl circles. Naylor informed the TCC that the map he is presenting is a larger version of the map provided by Joe Hiss (USFWS).

Naylor also reviewed PacifiCorp Energy land parcels inside the SOSEA. PacifiCorp Energy owns approximately 640 acres inside the SOSEA; however, the Swift dam is also included in the SOSEA acreage calculation. There was discussion and acknowledgement by some TCC members of the DNR lands identified as SOSEA on the north side of Swift Dam and reservoir.

The TCC agreed that there is an additional spotted owl circle on the west side of Yale that encompasses Utility lands. In addition, the TCC acknowledged how NSO habitat areas may or may not affect land acquisition decisions.

Naylor will add the additional owl circle west of the Yale to the map, and adjust the 2-mile SOSEA buffer on lands west of Swift Creek. The revised version will be presented to the TCC for review.

WHMP Standards & Guidelines Document Discussion

4.2 RAPTOR SITE MANAGEMENT – SPOTTED OWL

Modify the first and second bullets on page 51 to read as follows:

- *For SOSEAs, critical spotted owl habitat is defined as the area "within a median home range circle that is that is centered within the SOSEA or on adjacent federal lands" (WAC 222-16-080; see Exhibit F). For SOSEAs in the Cascades, a total of 2,605 acres (1,054 ha) of suitable habitat within 1.8 miles (2.9 km) of a status 1-3 Management Circle, including all suitable habitat within 0.7 mile (1.1 km) of the center, is assumed to necessary to maintain the viability of the owls associated with the circle (WAC 222-10-041; see Exhibit F). There is, however, an exemption for small parcels of private timberlands within SOSEAs: Forest practices proposed on lands owned or controlled by a landowner whose forest land ownership within the SOSEA is less than or equal to 500 acres and where the forest practice is not within 0.7 mile (1.1 km) of a northern spotted owl site center shall not be considered to be on lands designated as critical habitat (state) for northern spotted owls (WAC 222-16-080; see Exhibit F).*

- *Outside SOSEAs, critical spotted owl habitat is defined as "the 70 acres (28 ha) of the highest quality habitat surrounding a northern spotted owl site center located outside a SOSEA. The highest quality suitable habitat shall be determined by the DNR in cooperation with the WDFW. Consideration shall be given to habitat quality, proximity to the activity center and contiguity" (WAC-222-16-080; see Exhibit F). Outside SOSEAs, at least 70 acres (28 ha) of the highest quality habitat around the site center are to be maintained during the nesting season (March 1-August 31) (Pierce et al. 2005, DNR 1997) (WAC 222-10-041 [see Exhibit F]).*

Modify all bullets on pages 52 & 53 to read as follows:

- *A canopy closure of 60 percent or more and a layered, multi-species canopy where 50 percent or more of the canopy closure is provided by large overstory trees (typically, there should be at least 75 trees/acre >= 20 in. dbh, or at least 35 trees/acre >= 30 in. dbh [185 trees/ha >51 cm dbh or 86 trees/ha >=76 cm dbh]);*

- *>= 3 snags or trees/acre >= 20 in. dbh and 16 ft tall (7 snags or trees/ha >=51 cm dbh and 5 m tall) and with various deformities such as large cavities, broken tops, dwarf mistletoe infections, and other indications of decadence; and*

- *>= 2 fallen trees/acre >= 20 in. dbh (5 fallen trees/ha >= 51 cm dbh) and other woody debris on the ground.*

Sub-mature habitat provides all the characteristics need for spotted owls for roosting, foraging, and dispersing and is defined as (WAC 222-16-085; see Exhibit F):

- *Forest communities that are conifer-dominated or conifer-hardwood (>= 30 percent confer);*
- *Canopy closures that is >= 70 percent;*
- *Tree density between 115 and 280 trees/acre >= 4 in. dbh (284-691/ha >= 10 cm) with dominant and co-dominant trees >=85 ft (26 m) tall,* ***or*** *dominants/codominants >= 85 ft high (26 m) with >= 2 layers and 25-50 percent intermediate trees*
- *>= 3 snags or cavity trees/acre >=20 in. dbh and 16 ft high (7.4/ha, 50 cm dbh and 5 m high).*

Young forest marginal habitat provides some of the characteristics needed by spotted owls for roosting, foraging and dispersal and is defined as having the following attributes (WAC 222-16-085; see Exhibit F):

- *Forest communities that are conifer dominated or conifer-hardwood (>= 30 percent conifer);*

- *Canopy closure that is >= 70 percent;*

- *Tree density between 115 and 280 trees/acre >= 4 in. dbh (284-691/ha >= 10 cm) with dominant and co-dominant trees >=85 ft (26 m) tall,* ***or*** *dominants/codominants >= 85 ft (26 m) high with >= 2 layers and 25-50 percent intermediate trees;*

- *>= 2 snags or cavity trees/acres >=20 in. dbh and 16 ft high (7.4/ha, 50 cm dbh)* ***or*** *>= 10 percent of the ground covered with wood >=4 in. (10 cm) diameter with 25-60 percent shrub cover.*

4.2.4 Raptor Site Management Goal and Objectives

Modify Objectives h, i & j to read as follows:

Objective h: Manage WHMP lands that are > 2 miles (3.2 km) from the Siouxon SOSEA <u>and</u> within Spotted Owl Management Circles (Status 1-3) to maintain at least 50 percent submature habitat or better, as defined by WAC 22-16-085, within the Licensees' ownership in each management circle. In addition, all conifer trees > 21 in. dbh within Spotted Owl Management Circles will be retained unless otherwise determined by the TCC.

Objective i: Over the life of the licenses, manage at least 50 percent of WHMP lands within a 2-mile (3.2 km) buffer outside of the Siouxon SOSEA and directly contiguous with land inside the SOSEA to provide/develop high quality nesting spotted owl habitat, as defined by WAC 222-10-085. Includes WHMP lands in: Township 7 North, Range 5 East, Sections 20, 29, and 30 and Township 6 North, Range 4 East, Sections 21, 28, 31, 32, 33; applies only to WHMP lands in Sections 31 and 32 that are south of the Lewis River.

Objective j: Manage WHMP lands within the SOSEA under Forest Practices, especially WAC 222-16-080 and 222-10-041.

Objective k Discussion

Brock Applegate (WDFW) specifically requested additional time for review of the documents mentioned in Objective k. The TCC agreed that the following objective k shall remain in draft form for the next 7-days pending review of the two (2) referenced documents in the suggested text below:

Objective k: *Manage standing live and dead trees along designated trails through WHMP lands to maintain safety based on USDA-FS Long-Range Planning for Developed Sites in the Pacific Northwest: The Context of Hazard Tree Management (Harvey and Hessburg 1992) and Field Guide for Danger Tree Identification and Response (Toupin and Barger 2005). Leave all trees and snags cut for safety reasons as down wood in the forest adjacent to the trail. Leave any large down wood cleared from the trail in the adjacent forest stand.*

Kimberly McCune (PacifiCorp Energy) will scan and email the documents to the TCC for review. In addition, McCune will obtain the citations from Mitch Wainwright (USDA Forest Service) and email to Colleen McShane (EDAW).

4.3.4 Public Access Management Goal and Objectives

The TCC approved the new Objective g as follows:

Objective g: Where needed and feasible, develop and/or maintain buffers along roads open to public vehicles to conceal big game and other wildlife using adjacent habitats.

Next Meeting's Agenda

- Land acquisition update
- Evaluation of shrublands
- Merwin Plan review and site visit

Meeting adjourned at 4:45 pm

Next Scheduled Meetings

July 12, 2006
Merwin Hydro Facility
Ariel, WA

Handouts
1. Final Meeting Agenda
2. Draft meeting notes from 5/30/06
3. Draft Conservation Easement meeting notes from 5/30/06 (CONFIDENTIAL)
4. NSO Territory Buffer & SOSEA, as provided by PacifiCorp Energy
5. Objective k: Email to Joe Hiss, dated 6/12/06
6. Lewis River Wildlife Management Land Maps, as provided by PacifiCorp Energy

Swift No. 2
Wildlife Habitat Management Plan
Site Visit
Devil's Backbone & Project Works

Wednesday, June 14, 2006

Materials for Pre-Field Review and On-Site Discussion

This packet of information includes several items that will be useful in preparing for the field trip to the Swift No. 2 Devil's Backbone and Project Works management units on June 14th. It will also be important to have this information with you in the field.

Item 1. Itinerary
Note that the trip is scheduled to begin in the morning and end in the afternoon: remember to bring lunch.

Item 2. Draft Management Unit Maps
These two maps (*DevilsBBParcel3.pdf* and *ProjectWorks2.pdf*) provide an overview of Devil's Backbone and Project Works management units.

Item 3. Draft Site Management Worksheet template
The template shows how the Site Management Worksheets (Item 4) fit into the process of developing and implementing the Wildlife Habitat Management Plan (WHMP). The template shows how the worksheets can be used to:

- compile and present existing information about each site;
- identify management opportunities and constraints;
- link management activities to the baseline HEP and Year 17 HEP;
- link management activities to the goals and objectives outlined in the Standards & Guidelines Document (SGD); and
- plan, track, and report management activities through the license period.

Item 4. Site Management Worksheets
The Site Management Worksheets will become part of the WHMP. During the site visit, we will use these worksheets to focus our observations and discussions of habitat management at each of the four stops we will make in the Devil's Backbone MU.

You will note that the Management Strategies blocks on the four worksheets are blank.. We would like you to write in the management strategies that you believe would be most effective at each site, given the framework of the SGD, the Settlement Agreement, and the Conservation Easement.

Swift No. 2
Wildlife Habitat Management Plan
Site Visit
Devil's Backbone
&
Project Works

Wednesday, June 14, 2006
Itinerary

***** BRING A LUNCH *****

* Bring maps, worksheets, clipboard *

9:00 am:	Meet at Merwin Introductions and site visit overview
9:45 am:	Leave Merwin
10:15 am:	Arrive Devil's Backbone Management Unit Park at the corner of USFS Rd. 90 and the 7902 Rd.
	Stop 1: Riparian Deciduous Forest (DBMU-10).
	If the gate is unlocked, drive to the following sites (4x4 not necessary, but the road is overgrown and may be hard on your vehicle's paint). If the gate is locked, we will walk.
	Stop 2: Palustrine Emergent Marsh (DBMU-11)
	Stop 3: Pole Conifer, medium density (DBMU-2)
	Stop 4: Pole Conifer, high density (DBMU-2)
2:00 pm:	Leave Devil's Backbone Management Unit
2:10 pm	Arrive Project Works Management Unit
2:40 pm	Leave Project Works Management Unit
3:00 pm:	Arrive Merwin

Site Management Worksheet: Draft Template

Site ID	Devil's Backbone Management Unit (DBMU) or Project Works Management Unit (PWMU) with alpha-numeric code for each site, corresponding to cover type maps
Acres	
Cover type	Generally from TER-1, but may be modified/updated based on ground-truthing.
Site Review Type	Source and date of information (e.g., HEP, Aerial Photo Interp, Walk-through, Quick Plots)
SGD Management Goal	From current SGD document
SGD Management Objectives	From current SGD document
HEP Evaluation Species and Baseline HSIs	From TER-2 for applicable models
Analysis Species	From TER-3
Site Description	General attributes (slope; overstory, understory, groundcover; tree canopy closure; average and range of tree diameters; spacing; snag abundance; LWD abundance) unique habitat features; evidence of wildlife use; evidence of human use.
Site Constraints	Any constraints that would limit management activities (e.g., steep slopes, wet soils, location within Conservation Easement boundary).
Access	Nearest roads (or lack there of), gates, notes on condition
Management Strategies	To be developed based on SGD Management Goals and Objectives and HSIs, together with site-specific opportunities for habitat protection and enhancement.
Resource Trade-offs	To be identified and evaluated if recommended management strategies are likely to benefit some species, while reducing habitat quality or quantity for others.

Implementation

Year	Initial Recommendations	Estimated Cost	Implemented Actions	Actual Cost
1	e.g., conduct snag and LWD inventory; identify weed infestations		Snag and LWD inventory completed; re-assessment scheduled for Year 10	
2				
3				
4				
5				
10	e.g., conduct snag inventory; identify weed infestations		Create 2 snags/acre	
17				

Stop 1: Site Management Worksheet

Site ID	DBMU-10
Acres	3.1 acres
Cover type	Riparian Deciduous Forest
Site Review Type	Visual walk-through 9/1/05
SGD Management Goal	**Riparian**: Protect, maintain, and/or enhance riparian areas to include a diversity of native plant species and vegetation structures to benefit wildlife species that use riparian habitats.
SGD Management Objectives	**Riparian-a**: Identify and establish buffers. **Riparian d**: Protect existing large snags. **Riparian-e**: As part of implementation of WHMP, identify riparian sites damaged by anthropogenic processes and prepare restoration plans within 5 yrs., if feasible.
HEP Evaluation Species and Baseline HSIs	Pileated woodpecker: 0.32 Black-capped chickadee: 0.19 Yellow warbler. 0.65 Mink: Not run in Riparian Deciduous Elk: 0.43 in Unit S-1
Analysis Species	Cascade torrent salamander, papillose tail-dropper
Site Description	Red Alder overstory, sparse mid-story shrub and understory forb component, bisected by an unnamed stream. Western Hemlock/Coolwort Foamflower PA, with several old, large-diameter hemlock stumps, but no snags and little LWD.
Site Constraints	Possible seasonal flooding
Access	Good: bordered by USFS 90 Rd on the south.; USFS 1700 Rd. on the east
Management Strategies	
Resource Trade-offs	

Implementation

Year	Initial Recommendations	Estimated Cost	Implemented Actions	Actual Cost

Stop 2: Site Management Worksheet

Site ID	DBMU-11
Acres	6.0 acres
Cover type	Palustrine Emergent Marsh
Review Type	Visual walk-through 9/1/05
SGD Management Goal	**Wetland**: Protect, maintain, and/or enhance wetlands to provide a diversity of habitat types for native amphibians, waterfowl, and other wildlife species.
SGD Management Objectives	**Wetland-e**: Identify and establish buffers to maintain and protect wetland habitat and functions.
HEP Evaluation Species and Baseline HSIs	Pond-breeding amphibians: No open water Mink: No open water Yellow warbler: 0.65
Analysis Species	Beaver, great blue heron (rookeries), wood duck.
Site Description	Sedge and grass wetland with sparse amounts of snowberry and vine maple shrub. Deciduous forest along edge of wetland transitions to Pole Conifer. Several small-diameter standing snags and small-diameter woody debris. Shrubs show signs of heavy browsing.
Site Constraints	None
Access	Good. USFS 90 Rd. to 7092 Rd. (gated) to 7092A Rd.
Management Strategies	
Resource Trade-offs	

Implementation

Year	Initial Recommendations	Estimated Cost	Implemented Actions	Actual Cost

Stop 3: Site Management Worksheet

Site ID	DBMU-2 (medium stand density area)
Acres	104.5
Cover type	Pole Conifer
Review Type	Visual walk-through and 5 stand density quick plots 9/1/05
SGD Management Goals	**Old-growth**: Promote the development, maintenance, and connectivity of old-growth coniferous forest and/or associated habitat components for wildlife species that use old-growth habitat.
SGD Management Objectives	**Old growth-d:** Within 5 years of WHMP implementation, identify and evaluate specific ***mature*** conifer stands or other areas that could improve habitat connectivity between old-growth stands or increase number or size of old-growth patches, and develop a schedule to manage/protect these areas as appropriate. **Forestland-c**: At the MU level, promote habitat diversity by increasing or maintaining minor native tree species composition.
HEP Evaluation Species and Baseline HSIs	**Old-growth**: Pileated woodpecker: 0.89 in Old-growth Elk: 0.43 in Unit S-1 **Forestland**: Pileated woodpecker: 0.18 in Pole Conifer Elk: 0.43 in Unit S-1 Black-capped chickadee : 0.43 in Pole Conifer Savannah sparrow: not run in Pole Conifer
Analysis Species	**Old-growth**: Northern flying squirrel, marten, Larch Mountain salamander, northern spotted owl, bald eagle **Forestland**: Northern flying squirrel, northern spotted owl
Site Description	Flat site dominated by Douglas-fir and western hemlock from 8 to 18 in. dbh, with a quadratic mean diameter of 11.6 in. Stand age = 35 yrs.; crown closure = 100%; canopy height = 80 ft., trees per acre = 266. Few small-diameter snags, no large diameter snags, moderate LDW. Variable understory; dominated by Oregon grape and swordfern. Patchy herbaceous cover includes oxalis, inside-out-flower, bedstraw, vanilla-leaf.
Site Constraints	None
Access	Good: USFS 90 Rd. to 7092Rd (gated); 7092A Rd. crosses through stand.
Management Strategies	
Resource Trade-offs	

Implementation

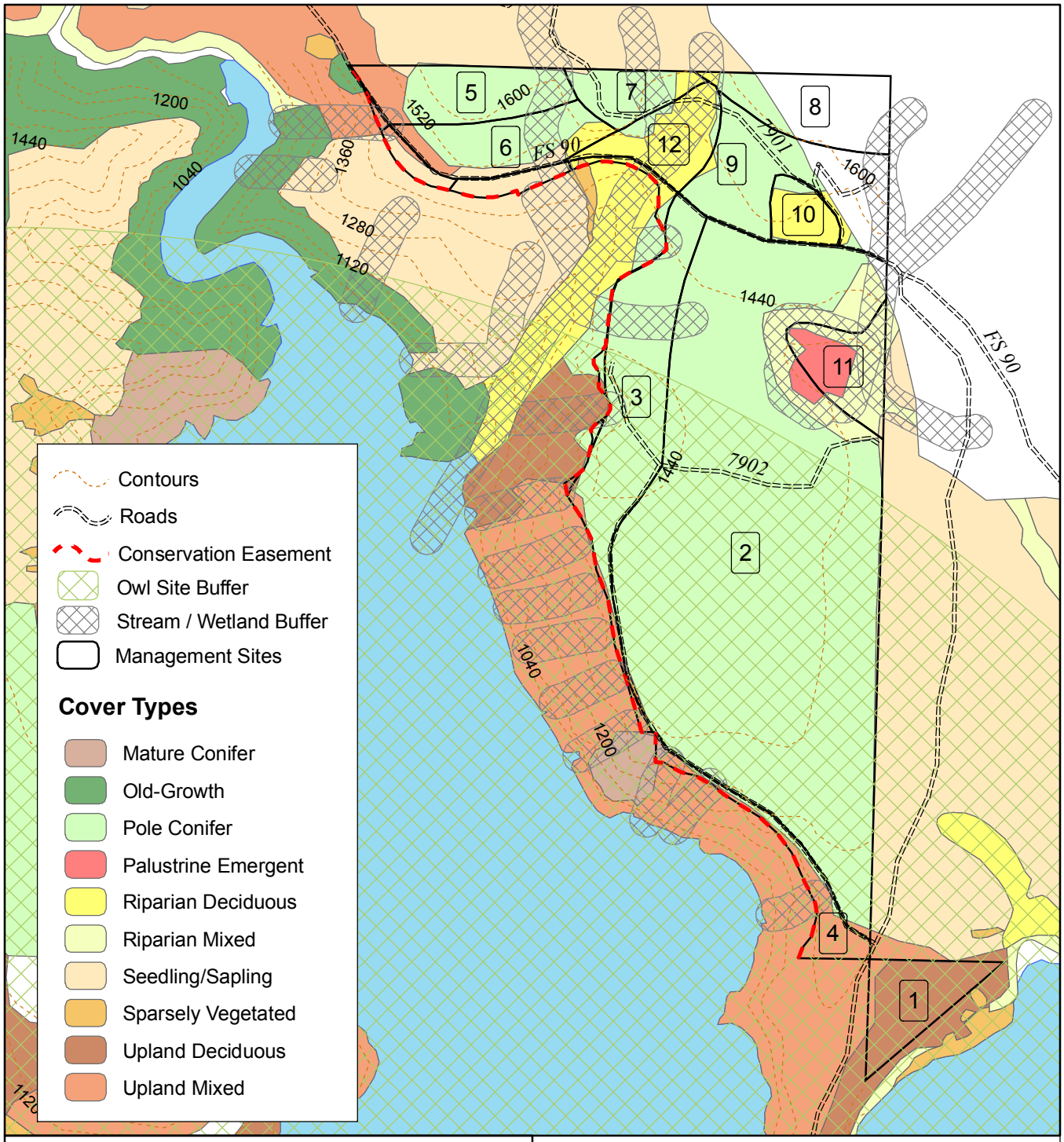
Year	Initial Recommendations	Estimated Cost	Implemented Actions	Actual Cost

Stop 4: Site Management Worksheet

Site ID	DBMU-B (high stand density area)
Acres	104.5
Cover type	Pole Conifer
Review Type	Visual walk-through and 5 stand density quick plots 9/1/05
SGD Management Goals	**Old-growth**: Promote the development, maintenance, and connectivity of old-growth coniferous forest and/or associated habitat components for wildlife species that use old-growth habitat.
SGD Management Objectives	**Old growth-d:** Within 5 years of WHMP implementation, identify and evaluate specific ***mature*** conifer stands or other areas that could improve habitat connectivity between old-growth stands or increase number or size of old-growth patches, and develop a schedule to manage/protect these areas as appropriate. **Forestland-c**: At the MU level, promote habitat diversity by increasing or maintaining minor native tree species composition.
HEP Evaluation Species and Baseline HSIs	**Old-growth**: Pileated woodpecker: 0.89 **Forestland**: Pileated woodpecker: 0.18 in Pole Conifer Elk: 0.43 in Unit S-1 Black-capped chickadee : 0.43 in Pole Conifer) Savannah sparrow: not run in Pole Conifer
Analysis Species	**Old-growth**: Northern flying squirrel, marten, Larch Mountain salamander, northern spotted owl, bald eagle **Forestland**: Northern flying squirrel, northern spotted owl
Site Description	Flat site dominated by Douglas-fir and western hemlock from 8 to 18 in. dbh, with a quadratic mean diameter of 11.6 in. Stand age = 35 yrs.; crown closure = 100%; canopy height = 80 ft., trees per acre = 266. Few small-diameter snags, no large diameter snags, moderate LDW. Variable understory; dominated by Oregon grape and swordfern, with salal, red huckleberry, vine maple and hazel also present. Patchy herbaceous cover includes oxalis, inside-out-flower, bedstraw, vanilla-leaf.
Site Constraints	None.
Access	Good: USFS 90 Rd., 7092 Rd (gated); 7092A crosses through stand.
Management Strategies	
Resource Trade-offs	

Implementation

Year	Initial Recommendations	Estimated Cost	Implemented Actions	Actual Cost



Meridian Environmental, Inc.

COWLITZ COUNTY PUD
"CUSTOMER-OWNED for CUSTOMER BENEFIT"

N

Geographic data are compiled from a variety of Federal, State, County, City, and Private sources and may not meet national map accuracy standards.

Cowlitz County PUD Swift No. 2 Hydroelectric Project
FERC No. 2213

Devil's Backbone Management Unit

0 330 660 1,320 1,980 2,640 Feet

1 inch equals 900 feet

C:\04GISData\ProjectData\CowlitzPUD\MapProjects\FieldTrip\DevilsBBParcel3.mxd

Published Date 6 / 1 / 2006

Owl Site Buffer
Stream / Wetland Buffer

Revegetated Areas
- Grass / Forb Mix
- Erosion Control Mix
- Wetland Swale Mix
- Woodland Slope Mix

Cover Types
- Developed
- Lodgepole Pine
- Lacustrine Uncon. Bottom
- Mid-Successional Conifer
- Riparian Deciduous
- T-Line Right-of-Way
- Upland Deciduous
- Upland Mixed

Meridian Environmental, Inc.

N

COWLITZ COUNTY PUD
"CUSTOMER-OWNED for CUSTOMER BENEFIT"

Geographic data are compiled from a variety of Federal, State, County, City and Private sources and may not meet national map accuracy standards.

Cowlitz County PUD Swift No. 2 Hydroelectric Project
FERC No. 2213

Project Works Management Unit

1 inch equals 1,100 feet

0 0.125 0.25 0.5 0.75 1 Miles

C:\04GISData\ProjectData\CowlitzPUD\MapProjects\FieldTrip\ProjectWorks2.MXD

Published Date: 6 / 1 / 2006