

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

Date & Time: **Wednesday, October 14, 2015
9:00 a.m. –12:00 p.m.**

Place: **Cowlitz PUD
961 12th Avenue (John Searing Auditorium)
Longview, WA**

Contacts: **Kirk Naylor: (503) 813-6619; cell (503) 866-8750**

Time	Discussion Item
9:00 a.m.	Welcome <ul style="list-style-type: none"> ➤ Review Agenda & 9/9/15 Meeting Notes ➤ Comment & accept Agenda & 9/9/15 Meeting Notes
9:15 a.m.	Cowlitz PUD Turtle Dove Communication Site <ul style="list-style-type: none"> ➤ Review site plan, narrative and drawings; DECISION REQUESTED
10:30 a.m.	Break
10:45 a.m.	Northern goshawk survey needs at Speelyai Hatchery and McKee Meadows
11:15 a.m.	McKee meadow tree removal separately or to combine with 2016 timber harvest
11:45 a.m.	<ul style="list-style-type: none"> ➤ Next Meeting's Agenda ➤ Public Comment Opportunity Note: all meeting notes and the meeting schedule can be located at: http://www.pacificorp.com/es/hydro/hl/lr.html#
12:00 p.m.	Adjourn

Join by Phone
+1 (503) 813-5252 [Portland, Ore.]
+1 (855) 499-5252 [Toll Free]

Conference ID: 35490138

FINAL Meeting Notes
Lewis River License Implementation
Terrestrial Coordination Committee (TCC) Meeting
October 14, 2015
Merwin Hydro Control Center & Field Tour
Ariel, WA

TCC Participants Present: (10)

Ray Crosswell, RMEF
 Bill Richardson, RMEF
 Kirk Naylor, PacifiCorp
 Kendel Emmerson, PacifiCorp
 Kim McCune, PacifiCorp (via conference)
 Diana Gritten-MacDonald, Cowlitz PUD (via conference)
 Nathan Reynolds, Cowlitz Indian Tribe
 Erik White, Cowlitz Indian Tribe
 Peggy Miller, WDFW (via conference)
 Eric Holman, WDFW

Calendar:

November 10, 2015	TCC Meeting	Merwin Hydro Control Center
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Assignments from October 14, 2015	Status
Emmerson: Complete Northern Goshawk memo to described WHMP criteria for triggering survey and to what extent an area needs to be surveyed.	December 9, 2015

Assignments from September 9, 2015	Status
Naylor: Review the cover/forage ratio to address the topic of harvesting the hillside in Unit 3 specific to the meadow enhancement plan.	Complete – 10/14/15
Emmerson: Nathan Reynolds (Cowlitz Indian Tribe) indicated he would like a copy of the McKee Meadow cultural survey.	Pending
Cowlitz PUD – <i>Turtle Dove Communication Site</i> : Define area of impact on a map that includes project footprint and beam path and associated clearing needs.	Project withdrawn – 10/7/15
Cowlitz PUD – <i>Turtle Dove Communication Site</i> : Provide azimuth and widths of the beam path.	Project withdrawn – 10/7/15

Parking Lot Item	Status
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.	TBD

Review of Agenda and Finalize Meeting Notes

Kirk Naylor (PacifiCorp) called the meeting to order at 9:10am. Naylor reviewed the agenda and asked the TCC if there were any changes/additions. No additional changes/additions were requested.

Naylor reviewed the September 9, 2015 meeting notes and assignments. The meeting notes were approved at 9:20 a.m. with housekeeping changes only.

November TCC Meeting

McCune informed the TCC that she modified the November meeting date to accommodate the holiday so the placeholder is Tuesday, November 10, 2015. The TCC will advise if they have any topics to discuss or if they wish to cancel the November TCC meeting.

In addition, McCune also scheduled the 2016 TCC meetings on the second Wednesday of each month. The TCC finds this schedule acceptable but of course if they can choose to make adjustments, if needed.

Northern Goshawk Survey needs at Speelyai Hatchery and McKee Meadows

Speelyai Hatchery

Kendel Emmerson (PacifiCorp) provided a table from May 2014 that was used to determine goshawk habitat potential for the Unit 35 timber harvest. The table had to include 3 new criteria: minimum opening size, applicable WHMP vegetation cover types, and habitat thresholds. Most of this information was derived from the WDFW PHS document, Reynolds et al. 1992, and a study in the Olympic Peninsula by Finn et al. 2002. This document is provided in **Attachment A**, Northern Goshawk Home Range Habitat Characteristics in the Western Washington Breeding Home Range – Speelyai Hatchery, dated October 12, 2015.

The TCC also requested the addition of a column to the habitat characteristics evaluation called, Habitat Analysis, to assist the TCC with determining if a proposed action has an effect to goshawks and if so to what extent does the area need to be surveyed.

Emmerson also expressed that in order to capture TCC decisions such as this for historical reference she will write a memorandum outlining the details of the action and the TCCs decision. The TCC agreed that a memorandum is a good format.

Northern Goshawk Survey needs at Speelyai Hatchery and McKee Meadows

McKee Meadows

Emmerson provided a detailed review of habitat in a table similar to the Speelyai Hatchery. The proposed harvest area in addition to the trees in the meadow area is 4.23 acres. This document is provided in **Attachment B**, Northern Goshawk Home Range Habitat Characteristics in the Western Washington Breeding Home Range – McKee Meadows, dated October 12, 2015.

Emmerson proposed that this area receive a 1–year intensive Goshawk survey; with a potential harvest ending in August/ 2016. The meadow restoration would occur in the fall.

TCC should finalize how to proceed with Goshawk surveys for both Speelyai Hatchery and McKee Meadows by December 2015 TCC meeting after reviewing the memo.

Should McKee Meadow tree removal be separate or combined with 2016 timber harvest

Naylor informed the TCC that the harvest area is made up primarily of all alder (some bigleaf maple), very dense shrubs and on a moist south slope.

The largest challenge is getting the small timber harvests at Speelyai and McKee along with the other forestry plans completed within the roughly 6-7 weeks we have to operate before the rainy season begins. Emmerson will investigate if goshawk surveys can be completed by June 2016.

If we cut trees we should begin before August 1, 2016; there will be stump removal but we are not trucking them way off; we will start plowing immediately after logging and equipment are removed from the meadows.

Following a safety briefing, the TCC proceeded with a tour of Unit 3 shrub lands to review current shrubland management practices of big game passages and riparian tree removal area along the transmission line.



Figure 1. Shrubland 3-2a in big game passage area



Figure 2. View from Speelyai Line Tower 4/16 facing west to the area where trees were removed adjacent to Day Creek.

Other:

Cowlitz PUD Turtle Dove Communication Site

Diana Gritten-MacDonald (Cowlitz PUD) informed the TCC that a mitigation plan was written as requested by the TCC, however, the Cowlitz PUD engineers rejected that plan and chose to withdraw the proposal.

Swift Schoolhouse – white pines

Reynolds communicated that some of the young white pines at Swift schoolhouse property look great while others are red and dead due to drought loss.

<1:00 p.m. meeting adjourned>

Agenda items for November 10, 2015

- Review October 14, 2015 Meeting Notes
- Goshawk memo (could be deferred)

Next Scheduled Meetings

November 10, 2015
Merwin HCC – Ariel, WA

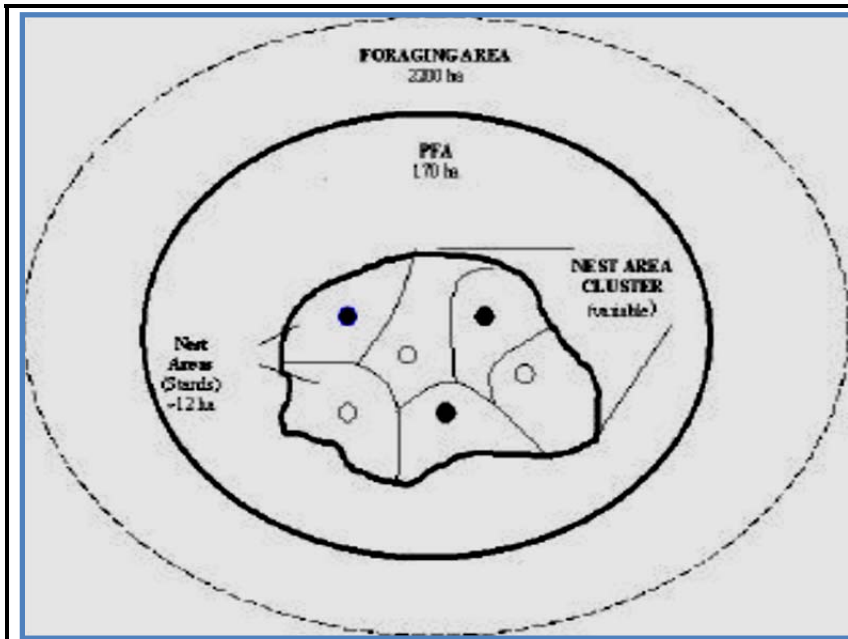
Attachments:

- October 14, 2015 Meeting Agenda
- **Attachment A** - Northern Goshawk Home Range Habitat Characteristics in the Western Washington Breeding Home Range – *Speelyai Hatchery*, dated October 12, 2015
- **Attachment B** – Northern Goshawk Home Range Habitat Characteristics in the Western Washington Breeding Home Range – *McKee Meadows*, dated October 12, 2015

Northern Goshawk Home Range Habitat Characteristics in the Western Washington					
Habitat Features	Breeding Home Range				Proposed Harvest Area
	Nest Area	Nest Area Cluster (NAC)	Post-Fledgling Family Area (PFA)	Foraging Area	Speelyai Hatchery
Description	Boundaries are defined by movement and behavior of the adults and newly fledged young and the locations of prey plucking posts surrounding the nest tree. ¹	Includes all stands that contain active and alternate nest sites ¹	Contains the NAC and is an area of concentrated use by adult females and developing juveniles after fledgling and prior to natal dispersal.	Home range during the breeding season	Upland Mixed Stand
Area Size	12 ha (29.64 acres) in size ^{1,3}	Estimated 72 ha (177.8 acres) include at least 3 active nest sites and 3 replacement nest areas per home range. All nest areas are within 0.5 miles of active nest site	420 ac in addition to and centered on active and alternate nest areas and include as much mature and old forests as possible.	Foraging area= 5998 acres= 5,400 ac+ 420 (PFA) ac+ 178 (NAC) ac= 6,032ac	Proposed harvest area 1.74 acres
Tree Species	Often in Douglas-fir, with western hemlock used to a lesser extent. Nests in deciduous trees are uncommon. Deciduous trees used for nesting were generally found in the sub-canopy and isolated in coniferous forest stands comprised of less than 2% deciduous species. ¹		Varies	Varies	Meets Criteria Stand is primarily Douglas-fir
Average dbh*	Average nest tree size in the Pacific Northwest is >53 cm (21 in) dbh (range: 25-172 cm [10-68 in]). ¹	Average dominant and co dominate trees are 17-19 in. dbh and >89 ft. in height ¹	70% of the trees are >21 in dbh	Minimum 10-14 in QMD	?
Density (TPA)	195 trees/acres ¹		Dense Forests	25 trees/acre= 20 in dbh.	?
Average Stand Age*	Mature to old forest habitat. Stand characteristics begin at year 50 in western Washington. Prefer to manage areas to greater than 70 years. ¹		PFA should include as much mature and old forests as possible and should be <10% seedling or sapling ¹	> 30 years of age and mix of 20% mid-successional, 20% mature, and 20% old-growth with a preferred of 60% in mature to old-growth	Stand is >30 years of age
Structure*	Typically live trees, large (2-3 ft. diameter) bulky stick nest built close to bole of the tree and in the lower third of the canopy. ¹	More snags and down wood then surrounding areas.	Abundant number of snags and down logs	>3 snags > 18 in dbh/acre , > 5 logs >12 in. diameter >7 ft. in length/acre ¹	Meets structure criteria for foraging habitat
Canopy closure	>50% ¹	60-65% ¹	>70% ¹	>60% ¹	> 60% Canopy Cover
Canopy structure	2 or more canopy layers, gaps with abundance of large diameter crown, and shade tolerant trees ¹	1-3 layers with poor developed understory vegetation ¹	No Information	Adequate space for flying 31 snags/acre=5 in. dbh ¹	Meets NAC criteria

Northern Goshawk Home Range in Western of the Cascades (Desimone and Hays 2004)

Habitat Features	Nest Area (Site)	Nest Area Cluster (NAC)	Post-Fledgling Family Area (PFA)	Foraging Area	Proposed harvest area
Nest tree spacing	Average 1759 ft. and pluck post typically within 100 ft. of nest tree ¹	No Information	No Information	No Information	Not Applicable
Minimum opening size	<ul style="list-style-type: none"> • <u>East of the Cascades</u> an increase of 1% (Or 0.28 acres) in early successional habitat can decrease occupancy by 10%¹. • No more than 2.94 acres within 300m (984 feet) of nest² • No M or OG habitat harvested 		Recommends regeneration cuts up to 2 acres in mixed forest stands. Less than 200 feet in width and retain 3-5 mature trees with interlocking crowns ³	Recommends regeneration cuts up to 4 acres in mixed forest stands. Less than 200 feet in width and retain 6 mature trees with interlocking crowns ³	Harvest is less than 2 acres
Applicable WHMP VCT	Primarily M and OG. MS, MS-t, UM, UM-t, RM, RM-t if habitat features are met. UD is included based on WDFW comment ⁴	M, OG, MS, MS-t, UM, UM-t, RM, RM-t	M, OG, MS, MS-t, UM, UM-t, RM, RM-t	M, OG, MS, MS-t, UM, UM-t, RM, RM-t	UM
Habitat threshold	Comprised of 67% (or 19.85 acres) of late seral (M or OG) ²		<ul style="list-style-type: none"> • No more than 10% (or 42 acres) in SS1 • 72% (or 302 acres) in Mature coniferous forests and (10 % of the trees >21 in dbh)¹ 	Retain at least 60% (or 3,240 acres) of foraging habitat in mid-aged (20% or 1080 acres), mature (20% or 1080 acres), and old (20% or 1080 acres) forest successional classes ¹	<ul style="list-style-type: none"> • The NAC has 8.89% OG or M habitat • The PFA total area will remain below 10% early seral habitat post-harvest • PFA does not make habitat threshold for mature coniferous habitat currently at 10.18%. • Does not make habitat threshold for foraging area pre-harvest



Species Status: Federal Species of Concern and State Candidate Species. Priority Species Criterion 1. State-Listed and Candidate Species: State-listed species are native fish and wildlife species legally designated as Endangered (WAC 232-12-014), Threatened (WAC 232-12-011), or Sensitive (WAC 232-12-011). State Candidate species are fish and wildlife species that will be reviewed by the department (POL-M-6001) for possible listing as Endangered, Threatened, or Sensitive according to the process and criteria defined in WAC-232-12-297.

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³Reynolds, Richard T.; Graham, Russell T.; Reiser, M. Hildegard; and others. 1992. Management recommendations for the northern goshawk in the southwestern United States. Gen. Tech. Rep. RM-217, Ft. Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Forest and Range Experiment Station. 90 p.















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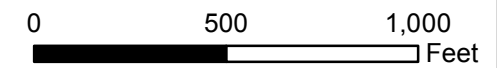
*These Habitat Features are priority indicators for northern goshawk habitat on WHMP lands.

Speelyai Hatchery Vegetation Cover

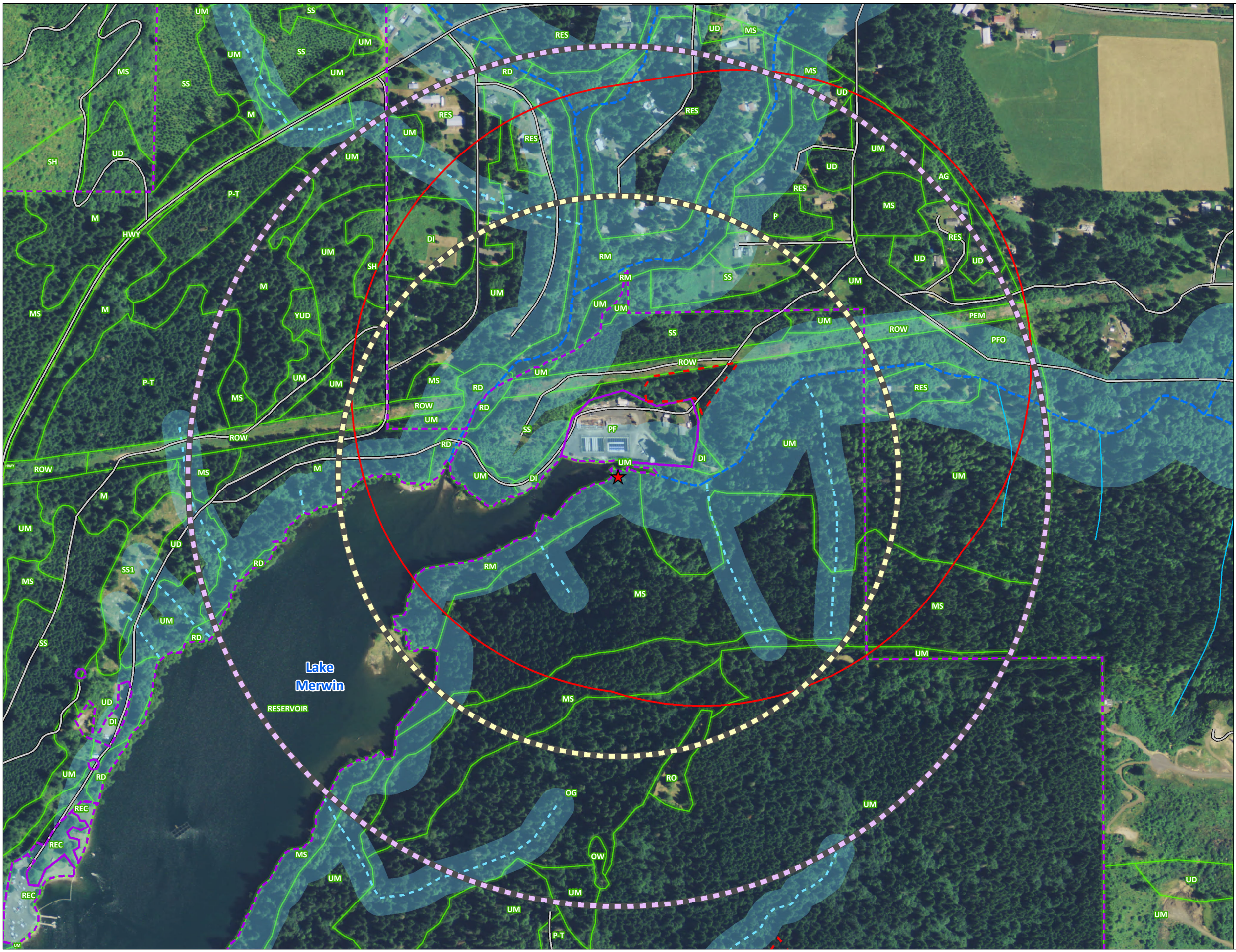
Unit 7

Proposed Harvest Area
1.74 acres

-  Proposed Nest Site
-  NAC - 1570.6 ft
-  PFA - 2413 ft
-  FA - 9146 ft
-  Proposed Harvest
-  500m Harvest Buffer
-  Road
-  WHMP Land
-  Vegetation Cover
-  Fish Stream
-  Non-fish Perennial
-  Non-fish Seasonal
-  Other Stream
-  Stream Buffer

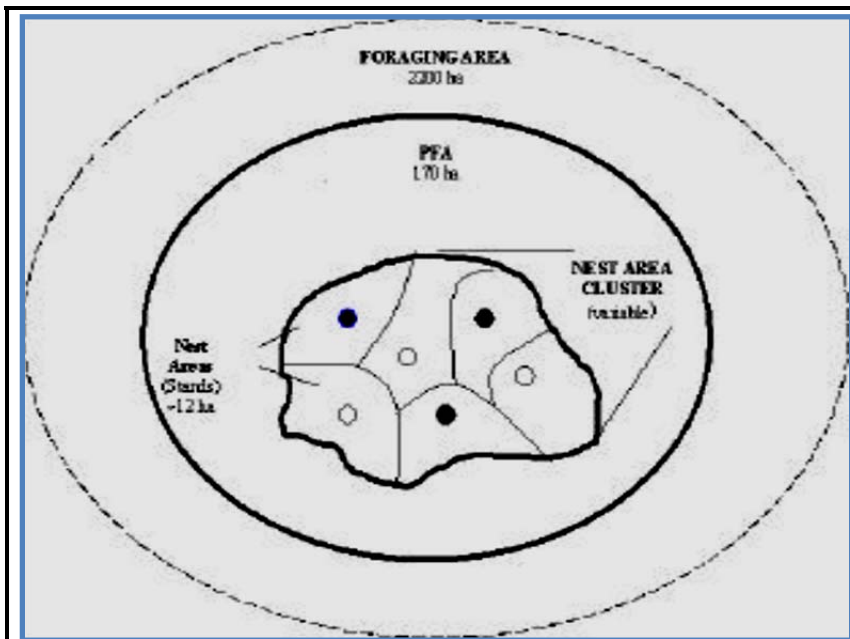


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Area Size	12 ha (29.64 acres) in size ^{1,3}	Estimated 72 ha (177.8 acres) include at least 3 active nest sites and 3 replacement nest areas per home range. All nest areas are within 0.5 miles of active nest site ^{1,3}	420 ac in addition to and centered on active and alternate nest areas and include as much mature and old forests as possible.	Foraging area= 5998 acres= 5,400 ac+ 420 (PFA) ac+ 178 (NAC) ac= 6,032ac	Proposed harvest area 4.23 acres
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Average dbh*	Average nest tree size in the Pacific Northwest is >53 cm (21 in) dbh (range: 25-172 cm [10-68 in]) ¹ .	Average dominant and co dominate trees are 17-19 in. dbh and >89 ft. in height ¹	70% of the trees are >21 in dbh	Minimum 10-14 in QMD	?
Density (TPA)	195 trees/acres ¹		Dense Forests	25 trees/acre= 20 in dbh.	?
Average Stand Age*	Mature to old forest habitat. Stand characteristics begin at year 50 in western Washington. Prefer to manage areas to greater than 70 years. ¹		PFA should include as much mature and old forests as possible and should be <10% seedling or sapling ¹	> 30 years of age and mix of 20% mid-successional, 20% mature, and 20% old-growth with a preferred of 60% in mature to old-growth	Stand is >30 years of age
Structure*	Typically live trees, large (2-3 ft. diameter) bulky stick nest built close to bole of the tree and in the lower third of the canopy. ¹	More snags and down wood then surrounding areas.	Abundant number of snags and down logs	>3 snags > 18 in dbh/acre , > 5 logs >12 in. diameter >7 ft. in length/acre ¹	May meet structure requirements
Canopy closure	>50% ¹	60-65% ¹	>70% ¹	>60% ¹	> 60% Canopy Cover
Canopy structure	2 or more canopy layers, gaps with abundance of large diameter crown, and shade tolerant trees ¹	1-3 layers with poor developed understory vegetation ¹	No Information	Adequate space for flying 31 snags/acre=5 in. dbh ¹	Multiple layer canopy, but understory may be too brushy to support foraging goshawks.

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Applicable WHMP VCT	Primarily M and OG. MS, MS-t, UM, UM-t, RM, RM-t if habitat features are met. RD and UD is included based on WDFW comment ⁴	M, OG, MS, MS-t, UM, UM-t, RM, RM-t	M, OG, MS, MS-t, UM, UM-t, RM, RM-t	M, OG, MS, MS-t, UM, UM-t, RM, RM-t	UM
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*These Habitat Features are priority indicators for northern goshawk habitat on WHMP lands.

Goshawk Proposed Nest Area Veg Cover

Unit 3

-  Proposed Nest Site
-  NAC
-  PFA
-  FA
-  Proposed Harvest
-  Road
-  WHMP Land
-  Vegetation Cover
-  Fish Stream
-  Non-fish Perennial
-  Non-fish Seasonal
-  Other Stream
-  Stream Buffer

