

LEWIS RIVER WILDLIFE HABITAT MANAGEMENT PLAN
ANNUAL PLAN OPERATION PHASE 2009

Federal Energy Regulatory Commission
Project Nos. 935, 2071, and 2111



825 NE Multnomah, Suite 1500
Portland, Oregon 97232



April 1, 2009

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1.0 Introduction

This Annual Plan is to fulfill PacifiCorp's obligations for the license's Article 403 and Settlement Agreement 10.8.3. The objective of this plan is to detail the terrestrial protection, mitigation, and enhancement measures that are planned to be implemented on Lewis River Wildlife Habitat Management Plan (WHMP) lands in the following operational year (i.e., January 1 to December 31, 2009). This plan also provides details on available WHMP funding, outlines proposed costs, and demonstrates consistency with the Lewis River WHMP goals and objectives, and state and Federal regulations.

Appendix A is a Gantt chart that provides the timing from each of the WHMP's habitat management and plan-wide goals schedule and estimated effort tables. This chart is to be used as a baseline for scheduling inspections and management actions. Inspections and management that are scheduled to occur in 2009 are listed in the subsequent sections and identified on the Gantt chart.

This plan has been prepared in consultation with the Terrestrial Coordination Committee (TCC). TCC members were provided this report on February 23, 2009 to review and provide comments within 30 days or on March 23, 2009. If these comments were not incorporated into the report then an explanation has been provided and included in Appendix B.

2.0 Wildlife Habitat Management Plan Funding

Settlement Agreement 10.8.2.1 describes the annual funding for PacifiCorp lands managed under the WHMP as \$27 (in 2003 dollars, Adjusted for Inflation) per acre owned in fee simple and \$13.50 (in 2003 dollars, Adjusted for Inflation) per acre for other Interests in Land (e.g. conservation easements). As of December 31, 2008 PacifiCorp has 10,058 acres of WHMP lands owned in fee simple and has no Interests in Lands. The 2009 WHMP budget in 2009 dollars will be \$313,398.68 (\$272,295 in 2003 dollars). Appendix C provides the overall 2009 budget, as well as, the budgets for administration, management areas, and plan-wide goals.

3.0 Land Acquisition

In accordance with the Settlement Agreement 10.1, 10.2, and 10.3, PacifiCorp has established the Yale Fund and will establish the Swift No. 1 Fund in 2009. The TCC will continue to identify and assess land acquisition opportunities within the vicinity of Yale Project and within 5 miles (8 km) of the Swift project boundary in 2009. As of January 1, 2009 the Yale Land Fund has available \$3,203,742.47. The Swift No. 1 Fund will have \$3,222,000 contributed and available on March 26, 2009. The Lewis Fund will not have a contribution or be available until December 26, 2012.

4.0 Administration

4.1 WHMP Section 3.1 Terrestrial Coordination Committee

Settlement Agreement Section 14.2.5 requires that the TCC meet at least annually and during the development of the WHMP the TCC met at least monthly. Since the WHMP has been completed and is entering into the implementation phase, it's anticipated that the TCC meetings may be reduced to every other month or quarterly. For 2009 monthly TCC meetings have been scheduled through the first quarter.

4.2 WHMP Section 3.3 Annual Report

An Annual Report describing the terrestrial protection, mitigation, and enhancement measures that occurred on WHMP lands during 2008 was submitted to the TCC for the 30-day review on **[Insert Date (Anticipated Date March 16, 2009)]**.

4.3 WHMP Section 3.4 Annual Plan

The 2009 Annual Plan was submitted to the TCC for 30-day review on February 23, 2009. The TCC comments were addressed and the final copy of the 2009 Annual Plan was submitted to Federal Energy Regulatory Commission on **[Insert Date (Scheduled date March 27, 2009)]**. The 2010 Annual Plan will be submitted to the TCC for 30-day review by January 29, 2010 and the final copy of the 2009 Annual Plan should be submitted to Federal Energy Regulatory Commission by March 10, 2010.

5.0 Old-growth Habitat Management

5.1 Inspections

Old-growth aerial surveys will be conducted concurrently with the aerial osprey (*Pandion haliaetus*) and bald eagle (*Haliaeetus leucocephalus*) nest surveys. It is too difficult to differentiate the cost of old-growth aerial survey hours from the aerial osprey and bald eagle nest survey; therefore the funds budgeted for the osprey and bald eagle nest survey will also cover the cost of the old-growth aerial survey. Ground surveys are not expected to occur in 2009. Initial evaluations are scheduled to occur in license years 2 and 3 (calendar years 2010 and 2011).

5.2 Management Actions

No management actions (i.e., development or connectivity) are expected to occur in 2009.

6.0 Wetland Habitat Management

6.1 Inspections

Annual inspections are the only inspections scheduled to occur in 2009. The initial evaluations are scheduled to occur in license years 3 and 4 (calendar years 2011 and 2012). Post-treatment inspections occur 1 year following the implementation of a management action, therefore no post-treatment inspections will be required in year 1 of the WHMP implementation.

6.2 Management Actions

The only management actions scheduled to occur in 2009 is the stop log removal/replacement for bullfrog management and high winter flows, and the review of the Washington Department of Natural Resources Heritage Database. No other management actions are expected to occur in 2009.

7.0 Riparian Habitat Management

7.1 Inspections

There are no inspections scheduled for 2009. Riparian Mixed Forest Stand Evaluations are scheduled to occur in license year 2 and 3 (calendar year 2010 and 2011).

7.2 Management Actions

The only riparian habitat management actions that may occur in 2009 are establishing buffers and/or water type modification. A 200-foot (60-m) shoreline buffer and a 150-foot (45-m) stream buffer have been identified for the 2009 timber harvest activities. It is expected that errors in the Washington Department of Natural Resource hydrography data layer (water typing) will be identified on WHMP lands and will need to be corrected.

8.0 Shrubland Habitat Management

8.1 Inspections

The initial evaluations are scheduled to be completed in 2009 and the report will be completed in 2010.

8.2 Management Actions

No management actions are scheduled for 2009.

9.0 Farmland, Idle Areas, and Meadows Habitat Management

9.1 Inspections

The annual spring and fall inspections will occur in 2009. The initial evaluations are scheduled to occur in license year 3 (calendar year 2011).

9.2 Management Actions

Regularly scheduled annual management actions will occur in 2009. This will include soil testing for Bridge Meadow, Speelyai Meadow, and Saddle Dam farmland fields 1 and 2. Saddle Dam farmland fields, Upper Hanley-Curry, Lower Hanley-Curry, Speelyai, Bridge, Upper McKee, and Lower McKee Meadows will be mowed and fertilized. The Unit 26 meadow that was restored in 2007 and the 1-acre forage area that was cleared to develop permanent forage within Timber Harvest Area (THA) 082605 will be evaluated to determine if additional fertilizing, mowing, or invasive plant species control is needed to permanently establish the forage. As part of the proposed 2009 forestland management activities, road access will be developed to the unnamed meadow in Unit 17 to allow future and routine management at the meadow. The best approach for improving forage and managing the meadow will be discussed at the TCC on-site meeting to review proposed forestland management actions (see Section 13.2).

10.0 Orchard Management

10.1 Inspections

Annual winter and summer inspections will occur in 2009 at Buncombe Hollow, Saddle Dam #1, Saddle Dam #3, and Saddle Dam Road orchards.

10.2 Management Actions

Dormant pruning is expected to occur at Saddle Dam #1, Saddle Dam #3, and Saddle Dam Road orchards. Buncombe Hollow orchard was pruned in recent years, therefore it is unlikely that trees will require pruning in 2009. Buncombe Hollow Orchard will be mowed to promote forage and reduce invasive plant species. Annual maintenance typically requires replacement plantings and/or enclosure repair.

11.0 Transmission Line Right-of-Way Habitat Management

11.1 Inspections

The initial evaluations will be completed in 2009, which will be in place of the annual inspections.

11.2 Management Actions

Annual mowing for Speelyai Bay, Woodland Park West, and Wilkinson ROW forage areas is the only WHMP management action that will occur in 2009. Vegetation management conducted along the ROW in 2008 sprayed several shrubs in the Speelyai line ROW with herbicide. Some of these shrubs may still have viable stems that can produce basal sprouting for big game forage and may eventually produce a normal size shrub if the upper dead limbs are removed. Speelyai Transmission line ROW 5/14-6/14, 1/15-5/15, 4/16-5/16, 1/17-5/17 will be evaluated in the spring to determine which shrubs still have viable stems. If a shrub is determined to be viable then the dead limbs will be pruned.

This work will be done in addition to the WHMP funds.

12.0 Unique Area / Habitat Management

12.1 Inspections

The annual inspections for oak stands 1-12, 5-1, 5-2, 6-45, 6-52 will occur in 2009 and no other management actions are expected to occur.

12.2 Management Actions

Creating the Unique Area databases is the only management actions expected to occur in 2009.

13.0 Forestland Habitat Management

13.1 Inspections

The annual spring and fall Timber Harvest Area inspections (i.e., reforestation inspections) will occur in 2009.

13.2 Management Actions

2009 Proposed Forestland Practices

Approximately 28.1 acres (14.5 ha) are proposed for clearcutting and 5.7 acres (2.3 ha) for commercial thinning in 2009 in Unit 17. Additionally, 2.3 acres of permanent meadow are proposed to be developed in an area currently vegetation typed as upland deciduous. The Timber Harvest Areas are comprised of 3 areas that are 11.3 ac (4.6 ha), 18.0 ac (7.3 ha), and 4.1 ac (1.7 ha) in size (Appendix D). Appendix D provides information on sensitive species and habitat impacts, maps of the proposed 2009 timber harvest areas, and Wildlife/Forestry Evaluation Forms from the first pre-cut survey.

Approximately 1.47 miles (2.37 km) of new road will be constructed in association with these Timber Harvest Areas. The road will provide access into approximately 300 acres (121.0 ha) of the unit and to the unnamed meadow near Winter Creek Wetlands for future management. The original road, which is currently unimproved and inaccessible to vehicles is the Saddle Dam – Speelyai Canal Equestrian Trail and is within the shoreline buffer in several areas. The new access will be an improved road and will be outside of all riparian, shoreline, and wetland buffers. This area has considerable unauthorized motorized vehicle trespass and improved access will allow the area to be effectively patrolled.

Currently, Management Unit 17 has a cover:forage ratio of 37:63 and approximately 13% or 60.7 acres (24.6 ha) is in permanent forage (i.e., shrublands and meadow). The unit lacks improved forage and most of the existing forage is comprised of shrublands (55.9 acres [22.6 ha]). The initial shrubland inspection (see Section 8.1) is scheduled to be completed this spring and it is expected that these shrublands will be reduced in size or re-vegetation cover typed. The forage quality for the unit is relatively low because of the two seedling/sapling conifer stands (approximately 64 ac [26 ha]) in the western portion of the unit. These stands were purchased during relicensing and logged by the previous land owner in 1999 who did not apply a forage seed mix. Although these areas have been managed by PacifiCorp through pre-commercial thinning, there is a lack of quality forage and the canopy cover is rapidly closing in. The upland deciduous areas proposed for timber harvest do not have a well developed understory and provide limited forage and cover (hiding or thermal).

The intent of the timber harvest areas is to improve overall forage quality/quantity and distribution for big game and benefit other wildlife. The cover:forage ratio will change marginally (depending on initial shrubland inspection results) based on less than 9 acres (27%) conifer forest harvested and most of that being thinned. The timber harvest areas will improve big game habitat in the short term by improving forage quality and quantity with grass and legume forage seeding in the harvest areas and in the long term by growing a well developed understory and conifers to provide cover. Permanent forage would be enhanced at the unnamed meadow by removing encroaching conifers and increasing the size by approximately 1.5 acres (3.7 ha) by expanding into an area dominated by sword fern (*Polystichum munitum*). Overall the

management unit is deficient in snags and large woody debris; therefore snags will be created as part of the timber harvest at approximately 1 tree for every acre harvested.

2010 Forestland Harvest Planning

Approximately 36.1 acres (14.6 ha) are proposed for clearcutting in Management Unit 11 in an area within the Spotted Owl Special Emphasis Area (SOSEA) buffer. Management emphasis in this unit is spotted owl habitat and specifically to develop 50% of the WHMP lands within the SOSEA buffer as high quality nesting habitat. Currently this management unit has only 15% high quality nesting habitat which is comprised of 59.4 acres (24.0 ha) of mature conifer forest and no old-growth acres. The proposed harvests will improve forest diversity by removing alder dominated stands and replanting with mixed conifer species (Appendix E). Alternatively, the upland mixed stands (67.6 acres [27.4 ha]) could be examined for enhancing spotted owl habitat. Initial planning during the 2009 first precut surveys in will determine the best forestland management alternatives for these sites. Existing roads will be used for access. Additional forestland management had been planned for an area within the SOSEA but the January 2009 storm eliminated access at this time.

Management Unit 18 currently lacks access for habitat management and a road is proposed for development in 2010 (Appendix E) that would be used in 2011 for forestland management. This road location is preliminary but would also provide improved year-round access to the transmission ROW to address invasive species, enhance ROW forage and address storm damage from 2009.

First Precut Survey

The first precut survey forms for the 2009 THA's are in Appendix D. The first precut surveys for the 2010 harvest will be completed prior to the end of fall.

Harvest Area Traverse and Geographic Information System Update

The 2009 Timber Harvest Area will be traversed and the geographic information system database updated following the completion of the timber harvest. The 2010 proposed timber harvest activities will be traversed and entered into the geographic information system database to develop maps for review with the TCC.

Second Precut Survey

The second precut survey for the 2009 timber harvests will be completed in spring. Appendix D maps show the timber harvest areas delineated boundaries, roads, and sensitive species/habitat, such as riparian, shoreline, and wetland buffers, sharp-shinned hawk (*Accipiter striatus*) nest, northern spotted owl (*Strix occidentalis*) suitable habitat, and vegetation cover types within the proposed harvest area.

Terrestrial Coordination Committee

The TCC on site meeting to review the proposed 2009 timber harvest areas will be scheduled between April 1 and May 31. The unnamed meadow in Unit 17 will be evaluated at this meeting to evaluate the proposed road access, conifer removal, expansion, and future management. Also the proposed 2009 THA that includes an area that is vegetation cover typed as shrubland will be discussed. This area was identified during the THA precut survey and did not appear to meet the shrubland criteria. The THA boundary was tentatively placed within the shrubland until the initial shrubland inspection (see Section 8.1) determines if the area is appropriately vegetation cover typed.

Timber Harvest Area Inspections

A biologist and/or forester will conduct weekly inspections during the logging operations to ensure that the operations are compliant with best management practices, contract conditions, State Forest Practices Act, and industry standards.

Regeneration Practices

Regeneration practices include management actions that promote tree regeneration following timber harvests and maintain big game forage and cover. These practices include site preparation for regeneration, which includes piling residual slash and tractor scarification in the 2009 timber harvest areas to prep the area for forage seeding. The 2009 timber harvest areas will be forage seeded with the clearcut mix by September 30.

Planting and Maintenance:

The 2009 planting and seedling maintenance activities will include planting the 2008 Timber Harvest Areas and inter-planting or Vexar[®] tubing areas with high seedling mortality due to big game browsing or other mortality. All timber harvest areas that require seedling maintenance in 2009 as listed in Table 13.2.1 and locations are mapped in Appendix F:

Table 13.2.1 2009 Seedling Maintenance (planting, Vexar[®] tube, inter-planting)

Timber Harvest Area	Acres (hectares)	Action
082603 CC	8.2 (3.3)	Plant Timber Harvest Area with 800 THPL seedlings, 300 TSHE and 1360 PSME. Tube THPL.
082604 CC	11.9 (4.8)	Plant Timber Harvest Area with 1000 THPL seedlings, 400 TSHE and 2170 PSME. Tube THPL
082605 CC	9.2 (3.7)	Plant Timber Harvest Area with 400 THPL seedlings and 2400 PSME; 1.0 acre of unit is to be managed as a meadow. Tube THPL.
991702 CC	1.0 (0.4)	Interplant Timber Harvest Area with 300 PSME seedlings on 1 acre that had CYSC removed in 2008.
860637 CC	4.8 (9.3)	Interplant Timber Harvest Area with 300 THPL seedlings due to moderate root-rot mortality in THA. Tube THPL.
952008 CC	13.4 (5.4)	Interplant THA with 600 PIPO due to high mortality on lower bench.

Table 13.2.1 2009 Seedling Maintenance (planting, Vexar® tube, inter-planting) (continued)

Timber Harvest Area	Acres (hectares)	Action
010443 CC	13.0 (5.3)	Re-tube THPL
030447 CC	24.6 (10.0)	Re-tube THPL
030678 CC	7.9 (3.2)	Re-tube THPL, PIPO
050771 CC	2.3 (0.9)	Re-tube THPL, PIPO
010837 CC	13.3 (5.3)	Re-tube THPL
041237 CC	13.8 (5.6)	Re-tube THPL, PSME
051238 CC	25.1 (10.2)	Re-tube THPL
051239 CC	7.8 (3.2)	Re-tube THPL
Total Acres	48.5 ac (19.6 ha) of planting 107.8 ac(43.6 ha) of re-tube	

Invasive Plant Control:

Sulfometuron (Oust®) is sprayed in a radius around seedlings as necessary to reduce competition from the grasses. It typically is applied, during the first 1 to 2 years after planting and as needed for interplantings. All timber harvest areas that require Sulfometuron treatment in 2009 are listed in Table 13.2.2 below and locations are identified in Appendix F:

Table 33.2.2 2009 Timber Harvest Areas to be treated with Sulfometuron

Timber Harvest Area	Total Acres (hectares)
911231	4.0 (1.6)
050771	2.3 (0.9)
050770	24.9 (10.1)
041237	0.5 (0.2)
Total Acres	31.7 (12.8)

Vegetation Control

Invasive plant species and competing vegetation are controlled as necessary to promote big game forage, maintain access, and to reduce seedling competition. Treatments may include both chemical and manual methods. All timber harvest areas that will have vegetation control in 2009 are listed in Table 13.2.3 below and locations are identified in Appendix G:

Table 13.2.3 2009 Timber Harvest Areas Vegetation Control Treatments		
Timber Harvest Area	Total of Treated Acres (hectares)	Target Species (Classification)^{1,2}
840107	1.0 (0.4)	Lt. RUAR (C) in West portion
990229	5.0 (2.0)	RUAR (C), Lt. CYSC (B)
020231	1.5 (0.6)	Lt. ALRU (nc), CYSC (B)
020232	4.0 (1.6)	RUAR (C), south & east edge
020233	2.0 (0.8)	ALRU (nc), RUAR (C), PHAR (C)
980329	1.0 (0.4)	RUAR(C)
980330	3.0 (1.2)	RUAR(C)
050332	7.0 (2.8)	ALRU(nc)
050333	0.5 (0.2)	Lt. RUAR(C), ALRU(nc)
870415	4.0 (1.6)	Lt. MAOR (nc), RUAR(C)
900437	2.0 (0.8)	RUAR(C) near steam
900438	4.0 (1.6)	Lt. MAOR (nc), PHAR (C), RUAR(C)
010443	6.0 (2.4)	RUAR(C)
010444	1.0 (0.4)	Lt. RUAR(C)
010445	3.0 (1.2)	RUAR(C)
020446	0.7 (0.3)	CYSC (B)
030447	6.0 (2.4)	Lt. CYSC (B), RUAR (C)
820511	4.0(1.6)	ALRU (nc), RUAR (C) along road
860520	5.0 (2.0)	RUAR (C), ALRU (nc)
040528	2.0 (0.8)	ALRU (nc)
830633	3.0 (1.2)	RUAR (C)
860637	1.0 (0.4)	RUAR (C)
890662	3.0 (1.2)	RUAR(C)
890663	2.0 (0.8)	RUAR (C)
910664	5.0 (2.0)	RUAR (C)
960668	1.0(0.4)	RUAR (C)
970671	5.0(2.0)	RUAR (C)
980673	1.0(0.4)	RUAR (C)
030682	2.0 (0.8)	CYSC (B)
840718	1.0 (0.4)	RUAR(C)
840772	2.0 (0.8)	RUAR(C)
890745	4.0 (1.6)	Lt. RUAR(C) , CYSC (B)

Table 13.2.3 2009 Timber Harvest Areas Vegetation Control Treatments (continued)		
Timber Harvest Area	Total of Treated Acres (hectares)	Target Species (Classification)^{1,2}
950759	1.0 (0.4)	RUAR (C)
950760	3.0 (1.2)	RUAR (C), CYSC (B)
950762	3.0 (1.2)	RUAR(C)
950763	1.0(0.4)	RUAR (C)
970767	2.0(0.8)	CYSC (B), RUAR (C), PTAQ (nc)
000768	4.0 (1.6)	RUAR (C), PTAQ (nc)
000769	6.0 (2.4)	PTAQ (nc)
880834	2.0 (0.8)	RUAR(C)
010837	3.0 (1.2)	RUAR(C)
840907	4.0 (1.6)	Heavy CYSC (B)
861103	3.0 (1.2)	RUAR (C)
901117	3.0 (1.2)	RUAR (C)
991122	5.5 (2.2)	Lt. RUAR(C) , Heavy PTAQ (nc)
991123	0.9 (0.4)	Lt. RUAR (C), Heavy PTAQ (nc)
011124	8.6 (3.5)	Lt. RUAR(C) , Heavy PTAQ (nc)
011125	13.0 (5.3)	Lt. RUAR (C), Heavy PTAQ (nc), ILAQ (nc)
911230	1.0 (0.4)	RUSP (nc) around seedlings
911231	2.0 (0.8)	RUAR (C)
971234	4.0 (1.6)	RUAR(C) , PTAQ (nc)
971235	3.0 (1.2)	Lt. RUAR (C)
021236	4.0(1.6)	RUSP (nc) around seedlings
041237	5.0 (2.0)	RUAR(C)
051238	3.0 (1.2)	RUAR (C)
841523	4.0 (1.6)	RUAR(C)
871514	2.0 (0.8)	RUAR (C) , MAOR (nc) along rd 1510
951537	9.0 (3.6)	Lt. RUAR (C) , Heavy PTAQ (nc)
951538	3.0 (1.2)	RUAR (C), PTAQ (nc)
001541	2.0 (0.8)	RUAR (C), PTAQ (nc)
001542	2.0 (0.8)	RUAR (C), ALRU (nc)
001543	4.0 (1.6)	Lt. RUAR (C), mod PTAQ (nc)
001544	4.7 (1.9)	Heavy PTAQ (nc), RUAR (C), ALRU (nc)
001545	1.2 (0.5)	Heavy PTAQ (nc), RUAR(C) , ALRU(nc)
851615	6.0 (2.4)	Heavy RUAR (C) along creek, West and south edge

Timber Harvest Area	Total of Treated Acres (hectares)	Target Species (Classification)^{1,2}
851616	2.0 (0.8)	RUAR(C), MAOR (nc)
921631	4.0 (1.6)	RUAR (C)
921633	2.0 (0.8)	RUAR(C) , MAOR (nc)
991701	10.0 (4.0)	CYSC (B), RUAR(C)
991702	20.0 (8.1)	CYSC (B), PTAQ (nc)
861901	2.0 (0.8)	Lt. RUAR (C)
861902	2.0 (0.8)	RUAR (C)
861903	2.0(0.8)	Lt. RUAR (C)
932003	20.0 (8.1)	PSME (nc) (heavy. natural reproduction)
952007	4.0 (1.6)	Lt. RUAR (C)
002009	1.0 (0.4)	RUAR (C)
932303	3.0(1.2)	RUAR(C)
Total Acres		287.6 (120)

¹ ALRU =red alder, CYSC = scotch broom, ILAQ = English Holly, MAOR = wild cucumber, PHAR = Reed Canary Grass , PSME = Douglas-fir , PTAQ = bracken fern, RUAR = Himalayan blackberry, RUSP = salmonberry

²Noxious Weed Classification = (A) = Class A, (B) = Class B, (Bd) = Class B designated region 8, (C) = Class C, (nc) = not classified

Pre-commercial Thinning:

Pre-commercial thinning and/or pruning are conducted on timber harvest areas that are generally less than 5.0 -7.0 feet (1.5 - 2.1 m) in height and it is required to maintain big game forage. All 2009 pre-commercial thinning or pruning is listed in Table 13.2.4 and locations are identified in Appendix F:

Table 13.2.4 2009 Pre-Commercial Thinning Treatments Areas

Timber Harvest Area	Acres (hectares)	Slash PCT	Hack & Squirt PCT	Prune
900225 CC	7.3 (3.0)		X	
900227 CC	5.2 (2.1)		X	
020523 CC	22.6 (9.1)	X		
020524 CC	7.1 (2.9)	X		
860639 CC	1.0 (0.4)		X	
880660 CC	2.0 (0.8)		X	
880661 CC	1.0 (0.4)		X	
890662 CC	14.9 (6.0)		X	
890663 CC	7.5 (3.0)		X	
910664 CC	13.7 (5.5)			X
960668 CC	6.1 (2.5)		X (Pockets)	X
970671 CC	19.2 (7.8)			X
980674 CC	8.7 (3.5)			X
950760 CC	8.8 (3.6)	X		
880834 CC	7.4 (3.0)		X, ALRU	
840907 CC	10.2 (4.1)		X	

Timber Harvest Area	Acres (hectares)	Slash PCT	Hack & Squirt PCT	Prune
890931 CC	21.8 (8.8)		X	
920932 CC	13.8 (5.6)		X	
920933 CC	14.4 (5.8)		X	
861103 CC	22.9 (9.3)		X	
901117 CC	15.0 (6.1)		X	
911231 CC	4.0 (1.6)			X
911232 CC	0.8 (0.3)	ALRU		
841523 CC	15.9 (6.4)		X	
891535 CC	22.5 (9.1)		X	
871510 CC	2.1 (0.8)	X		
891536 CC	1.5 (0.6)	X		
951539 CC	11.5 (4.7)	ALRU		
001541 CC	4.6 (1.9)	X		
001542 CC	4.4 (1.8)	X		
001543 CC	5.8 (2.3)	X		
001544 CC	4.7 (1.9)	X		
851630 CC	63.1 (25.5)		X, ALRU	
921632 CC	4.4 (1.8)		X, ALRU	
921633 CC	3.4 (1.4)		ALRU	
991702 CC	37.0 (15.0)			X
861902 CC	8.4 (3.4)		X, ALRU	
861903 CC	7.2 (2.9)		ALRU	
752001 CC	22.5 (9.1)		X	
952004 CC	15.6 (6.3)		X, ALRU near creek	
952005 CC	4.7 (1.9)		X, ALRU	
952006 CC	11.7 (4.7)		X, ALRU	
932303 CC	10.8(4.4)	ALRU	X	
Total Acres	497.2 (201.2)			

14.0 Invasive Plant Species Management

14.1 Prevention

In 2009 it will be assumed that 25 sites will require a pre-ground evaluation and 25 sites will be identified as significant invasive plant species infestation. There will be no monitoring required in 2009.

14.2 Detection

The Washington State and Cowlitz County noxious weed lists have been updated and are provided in Appendix H. Skamania County uses the Washington State list as their county list. To date Clark has not completed their 2009 noxious weed list, this information has been requested and will be incorporated into invasive plant species management when available.

14.3 Treatment

It is assumed that of the WHMP lands 100 acres of upland habitat and 10 acres within the ordinary high water will have invasive plant species treated in 2009. The table below list areas that have already been identified for invasive plant treatment in 2009. It is anticipated that additional areas will be identified or areas treated in 2008 may require follow up treatments.

Table 14.2.1 2009 Invasive Plant Species Control

Area	Total of Treated Acres (hectares)	Target Species (Classification) ^{1,2}	Control Method
Banker's Pond/Frasier Creek	0.5 (0.2)	CLVI (C)	Chemical
Upper Hanley-Curry Meadow	0.5 (0.2)	CENI (Bd [except Clark County])	Chemical
Speelyai Meadow	0.5 (0.2)	CIAR (C), CIVU (C)	Chemical
Lower Hanley-curry	5.0 (2.0)	CIAR (C), CIVU (C), ARMI (nc)	Chemical
Woodland Park East 3/14 – 4/14	0.5 (0.2)	RUAR (C)	Chemical
Woodland Park East 7/14-8/14	0.5 (0.2)	RUAR (C)	Chemical
Woodland Park East 2/15-4/15	0.5 (0.2)	RUAR (C)	Chemical
Wilkinson 5/15	0.5 (0.2)	RUAR (C)	Chemical
Saddle Dam Farm and Idle Areas	15 (6.1)	CYSC (B)	Chemical
Unit 26 meadow	1.0 (0.4)	CYSC (B), broad leafs	Chemical
Total Acres	24.5 (10.5)		

¹ ARMI = Common burdock, CENI = Black Knapweed, CIAR = Canada thistle, CIVU = Bull thistle, CLVI = Traveler's joy, CYSC = scotch broom, RUAR = Himalayan blackberry

²Noxious Weed Classification = (A) = Class A, (B) = Class B, (Bd) = Class B designated region 8, (C) = Class C, (nc) = not classified

15.0 Raptor Site Management

15.1 Monitoring

Broadcast acoustical surveys for northern goshawks will be conducted for the second season in Unit 17. During these surveys the sharp-shinned hawk nest in the northwest corner of Unit 17 will be evaluated for occupancy. If this nest is not occupied, than it assumed that any new nests that are within 1500 ft (450 m) will be located during the broadcast acoustical surveys. Broadcast acoustical surveys will also be conducted in the rest of Unit 17 and proposed areas of forestland management in Management Units 11 and 18.

Both of the bald eagle and the osprey nest aerial surveys will occur in 2009.

15.2 Habitat Enhancement

The bald eagle management plan and schedule for implementing habitat enhancement actions in old-growth and mature stands are scheduled to be completed in license years 2 and 3 (calendar years 2010 and 2011). The old-growth and mature stands raptor habitat quality assessment time will be accounted for in the old-growth initial evaluations that are scheduled to occur in license years 2 and 3 (calendar years 2010 and 2011). The Bald Eagle Management Plans will be developed for all nests within 0.5 miles (0.8 km) and all roost sites within 0.25 miles (0.4 km) of WHMP lands in license years 2 and 3 (calendar years 2010 and 2011).

15.3 Best Management Practices

Best management practices for general raptors, northern spotted owls, and bald eagles will be implemented per the WHMP.

16.0 Public Access Management

16.1 Inspections

The road closure inspections and initial trail evaluations will occur in 2009. The initial road evaluation is scheduled to occur in license year 3 (calendar year 2011).

16.2 Management Actions

An inventory of the dispersed shoreline recreation sites will be conducted in the spring of 2009 by biologists from Mason, Bruce, and Girard consulting firm. Dispersed shoreline recreation site impacts and management strategies for minimizing impacts (e.g. closure, buffers, or seasonal restrictions) will be determined using this inventory, as well as provide the baseline information for site creep. Site pioneering and creep monitoring cannot begin until this is completed (i.e., license year 2 [calendar year 2010]).

Although PacifiCorp has made great efforts in controlling unauthorized motorized vehicle access it is anticipated that additional efforts will be required in 2009 for at least 3 sites. The sites are to be determined throughout the year and will be dependant on available resources (e.g. other work scheduled for the same area), severity of trespass, and feasibility.

PacifiCorp will continue to implement road and culvert maintenance projects under the Washington Department of Natural Resources Road Maintenance and Abandonment Plan. Although these projects are not funded by WHMP funding, they may benefit WHMP lands in controlling access and improving overall habitat. Due to the January 2009 storm events, many culverts were affected resulting in plugged culverts, landslides and road wash-outs. At the time

of this plan, these sites are still being assessed or have repairs underway. Because snow and ice still continue to prevent access, a complete list of road and culvert repairs is not possible. Road and culvert repair will be conducting accordance to Washington Department of Fish and Wildlife Hydraulic Permit Application, Washington Department of Natural Resources Forest Practices Act permitting guidelines, and other necessary permits.

Due to other license and settlement agreements for fisheries and recreation and potential storm damage repair, it is assumed that at least one major road construction project may occur on WHMP lands in 2009. Money has been budgeted for PacifiCorp biologist to determine measures to minimize wildlife impacts on WHMP lands and ensure compliance with state and federal regulations.

17.0 Monitoring

No monitoring inspections or management actions will occur in 2009.

Appendix A: 2009 Wildlife Habitat Management Plan Baseline Schedule

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
1	Administration	Thu 1/1/09	Fri 4/30/10																
2	Terrestrial Coordination Committee	Thu 1/1/09	Thu 12/31/09																
3	2008 Annual Report	Mon 3/2/09	Thu 4/30/09																
4	TCC 30-day Review	Mon 3/2/09	Tue 3/31/09																
5	FERC 30-day Review	Wed 4/1/09	Thu 4/30/09																
6	2009 Annual Report	Mon 3/1/10	Fri 4/30/10																
7	TCC 30-day Review	Mon 3/1/10	Tue 3/30/10																
8	FERC 30-day Review	Thu 4/1/10	Fri 4/30/10																
9	2009 Annual Plan	Fri 1/30/09	Tue 3/31/09																
10	TCC 30-day Review	Fri 1/30/09	Mon 3/2/09																
11	FERC 30-day Review	Mon 3/2/09	Tue 3/31/09																
12	2010 Annual Plan	Fri 1/29/10	Tue 3/30/10																
13	TCC 30-day Review	Fri 1/29/10	Mon 3/1/10																
14	FERC 30-day Review	Mon 3/1/10	Tue 3/30/10																
15	Old-Growth Habitat	Thu 1/1/09	Sun 2/28/10																
16	Inspections	Thu 1/1/09	Thu 12/31/09																
17	Initial Evaluation	Wed 4/15/09	Wed 7/15/09																
18	Aerial Surveys	Thu 1/1/09	Thu 12/31/09																
19	Ground Surveys	Thu 1/1/09	Thu 12/31/09																
20	Development	Tue 9/1/09	Sun 2/28/10																
21	Snag Development	Tue 9/1/09	Sun 2/28/10																
22	Thinning	Tue 9/1/09	Sun 2/28/10																

Baseline Scheduled

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
23	Large Woody Debris	Tue 9/1/09	Sun 2/28/10																
24	Connectivity	Wed 4/15/09	Wed 7/15/09																
25	Mature Stand Connectivity Evaluations	Wed 4/15/09	Wed 7/15/09																
26	Wetland Habitat	Thu 1/1/09	Sun 6/29/14																
27	Inspections	Thu 1/1/09	Sun 6/29/14																
28	Initial Evaluation	Fri 4/10/09	Tue 6/30/09																
29	Initial Evaluation Final Report	Thu 1/1/09	Thu 12/31/09																
30	Annual Inspection	Fri 4/10/09	Tue 6/30/09																
31	Annual Inspection with unmanaged wetlands	Thu 4/10/14	Sun 6/29/14																
32	Post-Treatment Inspection	Thu 1/1/09	Thu 12/31/09																
33	Water Control	Thu 1/1/09	Thu 12/31/09																
34	Diversion Draw Down	Thu 1/1/09	Thu 12/31/09																
35	Winter Flow Stop Log Removal	Thu 10/15/09	Sat 10/31/09																
36	Winter Flow Stop Log Replacement	Sun 2/15/09	Sat 2/28/09																
37	Dike Maintenance	Thu 1/1/09	Thu 12/31/09																
38	Vegetation Management	Thu 1/1/09	Thu 12/31/09																
39	Surrounding Wetland Vegetation	Thu 1/1/09	Thu 12/31/09																
40	Yellow Warbler and Mink Habitat Enhancement	Thu 1/1/09	Thu 12/31/09																
41	Shrub Enhancement	Thu 1/1/09	Thu 12/31/09																
42	Shrub Planting	Sun 2/1/09	Sun 3/15/09																
43	Waterfowl and Bat Habitat Enhancement	Thu 1/1/09	Thu 12/31/09																
44	Loafing Logs	Thu 1/1/09	Thu 12/31/09																

Baseline  Scheduled 

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
45	Snag Creation	Thu 1/1/09	Thu 12/31/09	[Baseline]															
46	Aquatic Vegetation Control	Thu 7/16/09	Mon 11/30/09																
47	Bullfrog Management	Thu 1/1/09	Thu 12/31/09	[Baseline]															
48	Implement Bullfrog Management Methods	Thu 1/1/09	Thu 12/31/09	[Baseline]															
49	Remove Stoplogs	Sat 8/15/09	Wed 9/30/09																
50	Replace Stoplogs	Thu 10/15/09	Sat 10/31/09																
51	Great Blue Heron Colony Management	Thu 1/1/09	Thu 12/31/09	[Baseline]															
52	Review WDNR Heritage Database	Tue 12/1/09	Thu 12/31/09																
53	Great Blue Heron Colony Site Management Report	Thu 1/1/09	Thu 12/31/09	[Baseline]															
54	Riparian Habitat	Thu 1/1/09	Thu 12/31/09	[Baseline]															
55	Inspection	Thu 1/1/09	Thu 12/31/09	[Baseline]															
56	Riparian Mixed Forest Stand Evaluation	Thu 1/1/09	Thu 12/31/09	[Baseline]															
57	Other Inspection	Thu 1/1/09	Thu 12/31/09	[Baseline]															
58	Establish Buffers	Thu 1/1/09	Thu 12/31/09	[Scheduled]															
59	Water Type Modification	Thu 1/1/09	Thu 12/31/09	[Scheduled]															
60	Snag Development Schedule	Thu 1/1/09	Thu 12/31/09	[Baseline]															
61	Snag Removal	Thu 1/1/09	Thu 12/31/09	[Baseline]															
62	Riparian Area Restoration	Thu 1/1/09	Thu 12/31/09	[Baseline]															
63	Shrubland Management	Thu 1/1/09	Mon 3/1/10	[Baseline]															
64	Inspections	Thu 1/1/09	Thu 12/31/09	[Baseline]															
65	Initial Inspection	Wed 4/15/09	Sat 10/31/09																
66	Initial Evaluation Final Report	Thu 1/1/09	Thu 12/31/09	[Baseline]															

Baseline [Blue Box] Scheduled [Red Hatched Box]

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
67	15-year Inspection	Wed 4/15/09	Sat 10/31/09																
68	Post-treatment Inspections	Mon 6/1/09	Mon 8/31/09																
69	Shade Control	Thu 1/1/09	Mon 3/1/10																
70	Topping Trees	Sun 11/1/09	Mon 3/1/10																
71	Falling a Tree	Sun 11/1/09	Mon 3/1/10																
72	Herbicide Injection	Thu 1/1/09	Thu 12/31/09																
73	Other Management	Thu 1/1/09	Thu 12/31/09																
74	Heavy Pruning Circle	Tue 9/1/09	Thu 12/31/09																
75	Vegetation Control - Clear Competing Brush	Thu 1/1/09	Thu 12/31/09																
76	Revise Management Actions	Thu 1/1/09	Thu 12/31/09																
77	Farmland/Idle Field/Meadow	Thu 1/1/09	Thu 12/31/09																
78	Inspections	Thu 1/1/09	Thu 12/31/09																
79	Initial Inspections	Wed 4/15/09	Wed 9/30/09																
80	Initial Inspections Final Report	Thu 1/1/09	Thu 12/31/09																
81	Annual Spring Inspections	Wed 4/15/09	Sun 5/31/09																
82	5-year Passively Managed Area Inspections	Wed 4/15/09	Sun 5/31/09																
83	Annual Fall Inspection	Thu 10/1/09	Thu 10/15/09																
84	Mowing	Fri 5/15/09	Mon 8/31/09																
85	Spring Mowing/Hay Harvest	Fri 5/15/09	Mon 6/15/09																
86	Fall Mowing/Hay Harvest	Sun 8/16/09	Mon 8/31/09																
87	Soil Testing	Sat 8/1/09	Mon 8/31/09																
88	Fertilization and Lime	Sat 1/31/09	Mon 11/30/09																

Baseline  Scheduled 

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
				89	Fall Fertilization	Tue 9/1/09	Thu 10/15/09									█			
90	Spring Fertilization	Sat 1/31/09	Sun 3/15/09		█														
91	Lime Application	Sun 3/1/09	Mon 11/30/09			█	█	█	█	█	█	█	█	█	█				
92	Field Restoration	Thu 1/1/09	Thu 12/31/09																
93	Soil Testing (season prior)	Sat 8/1/09	Mon 8/31/09								█								
94	Soil Testing (Prior to tillage)	Sun 2/1/09	Sat 2/28/09		█														
95	Lime Application	Tue 9/1/09	Sat 10/31/09									█	█	█					
96	Herbicide Application Treatment	Sun 3/1/09	Wed 4/15/09			█	█												
97	Cultivation	Fri 3/6/09	Thu 4/30/09			█	█	█											
98	Fertilization	Fri 3/6/09	Thu 4/30/09			█	█	█											
99	Seeding/Planting	Fri 3/6/09	Fri 5/1/09			█	█	█											
100	Invasive Plant Control	Thu 1/1/09	Thu 12/31/09	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
101	Top Seeding	Wed 4/1/09	Fri 5/15/09				█	█											
102	Access/Disturbance Reduction	Thu 1/1/09	Thu 12/31/09																
103	Fertilizing Vegetation Screen	Tue 9/1/09	Thu 10/15/09									█	█						
104	Planting	Sun 2/1/09	Tue 3/31/09		█	█	█												
105	Supplemental watering	Wed 7/15/09	Thu 10/15/09								█	█	█	█					
106	Animal Damage Control	Thu 1/1/09	Thu 12/31/09	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
107	Orchards	Thu 1/1/09	Thu 12/31/09																
108	Inspection	Thu 1/1/09	Thu 12/31/09																
109	Winter	Thu 1/1/09	Sun 2/15/09	█	█	█	█	█											
110	Summer	Wed 7/1/09	Mon 8/31/09								█	█	█	█					

Baseline  Scheduled 

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
111	Optional	Thu 1/1/09	Thu 12/31/09	[Baseline]															
112	5-year Inspection	Wed 7/1/09	Mon 8/31/09																
113	Pruning	Sun 2/15/09	Fri 7/31/09																
114	Dormant	Sun 2/15/09	Tue 3/31/09		[Scheduled]														
115	Summer	Fri 5/1/09	Fri 7/31/09																
116	Vegetation Control	Thu 1/1/09	Thu 12/31/09	[Baseline]															
117	Shade Tree Control	Sun 8/16/09	Thu 12/31/09																
118	Invasive Plant Species Control	Thu 1/1/09	Thu 12/31/09	[Baseline]															
119	Mowing	Sun 8/16/09	Mon 8/31/09																
120	New Plantings	Sun 2/1/09	Tue 9/15/09																
121	Replacement Plantings	Sun 2/1/09	Tue 3/31/09		[Scheduled]														
122	New Plantings Inspections	Wed 7/1/09	Tue 9/15/09																
123	Orchard Expansion Planting	Sun 2/1/09	Tue 3/31/09																
124	Big Game Forage	Wed 4/1/09	Sat 10/31/09																
125	Soil Testing	Sat 8/1/09	Mon 8/31/09																
126	Fertilizing	Tue 9/1/09	Thu 10/15/09																
127	Grass Seeding (Spring)	Wed 4/1/09	Fri 5/15/09																
128	Grass Seeding (Fall)	Tue 9/15/09	Sat 10/31/09																
129	Other Management	Thu 1/1/09	Thu 12/31/09	[Baseline]															
130	Orchard Tree Fertilizing	Wed 4/1/09	Sun 5/31/09																
131	Pest Control	Thu 1/1/09	Thu 12/31/09	[Baseline]															
132	Animal Damage Control	Thu 1/1/09	Thu 12/31/09	[Baseline]															










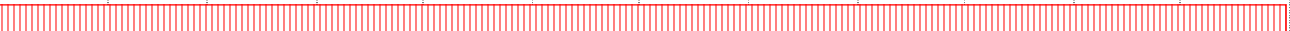


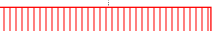
Baseline [Blue Box] Scheduled [Red Hatched Box]

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
133	Supplemental Water	Wed 7/15/09	Wed 9/30/09																
134	Transmission Line Rights-of-Way	Thu 1/1/09	Wed 10/15/14																
135	Inspections	Thu 1/1/09	Wed 10/15/14																
136	Initial Evaluations with Photo Documentation	Tue 9/15/09	Sat 10/31/09																
137	Initial Inspections Final Report	Thu 1/1/09	Thu 12/31/09																
138	Revise Transmission Line Right-of-Way Habitat Management Chapter	Thu 1/1/09	Thu 12/31/09																
139	Annual Inspection	Tue 9/1/09	Thu 10/15/09																
140	Annual Inspection with Photo Documentation	Mon 9/1/14	Wed 10/15/14																
141	Post hazard tree and invasive plant species management inspection	Thu 1/1/09	Thu 12/31/09																
142	Shrub Management	Thu 1/1/09	Thu 12/31/09																
143	Shrub Management	Thu 1/1/09	Thu 12/31/09																
144	Plantings	Sun 2/1/09	Tue 3/31/09																
145	Vegetation Management	Thu 1/1/09	Thu 12/31/09																
146	Invasive Plant Species Control	Thu 1/1/09	Thu 12/31/09																
147	Invasive Plant Species Control	Thu 1/1/09	Thu 12/31/09																
148	Aquatic Area Management	Thu 1/1/09	Thu 12/31/09																
149	Aquatic Area Management	Thu 1/1/09	Thu 12/31/09																
150	Big Game Forage Enhancement	Sat 8/1/09	Thu 10/15/09																
151	Soil Testing	Sat 8/1/09	Mon 8/31/09																
152	Annual Mowing	Tue 9/1/09	Thu 10/15/09																
153	Fertilizing	Tue 9/1/09	Thu 10/15/09																

Baseline  Scheduled 

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
				154	Access/Disturbance Reductions	Thu 1/1/09	Thu 12/31/09												
155	Access/Disturbance Reduction	Thu 1/1/09	Thu 12/31/09																
156	Closing Open Roads	Thu 1/1/09	Thu 12/31/09																
157	Unique Area /Habitat Management	Thu 1/1/09	Thu 12/31/09																
158	Inspections	Thu 1/1/09	Thu 12/31/09																
159	Annual Oak Stands	Tue 9/15/09	Thu 10/15/09																
160	Additional Oak Stands	Thu 1/1/09	Thu 12/31/09																
161	Other Unique Areas/Habitats	Thu 1/1/09	Thu 12/31/09																
162	Oak Stand Management	Thu 1/1/09	Thu 12/31/09																
163	Topping a Competing Tree and Hand Piling Debris	Thu 1/1/09	Thu 12/31/09																
164	Falling a competing Tree and Hand Piling Debris	Thu 1/1/09	Thu 12/31/09																
165	Invasive Plant Species Control	Thu 1/1/09	Thu 12/31/09																
166	Cave Management	Thu 1/1/09	Thu 12/31/09																
167	Develop Management Strategy	Thu 1/1/09	Thu 12/31/09																
168	Unique Area Record Management	Thu 1/1/09	Thu 12/31/09																
169	Create Unique Area Database	Thu 1/1/09	Thu 12/31/09																
170	Update Unique Area Database	Thu 1/1/09	Thu 12/31/09																
171	Ethnobotanically Significant Plant Management	Thu 1/1/09	Thu 12/31/09																
172	Develop Management Strategy	Thu 1/1/09	Thu 12/31/09																
173	Forestland Management	Thu 1/1/09	Thu 12/31/09																
174	Inspections	Fri 5/1/09	Thu 12/31/09																
175	Spring Timber Harvest Area Survey	Fri 5/1/09	Tue 6/30/09																

Baseline  Scheduled 

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
176	Fall Timber Harvest Survey	Sun 11/1/09	Thu 12/31/09																
177	Management Actions	Thu 1/1/09	Thu 12/31/09																
178	Harvest Planning	Thu 1/1/09	Thu 12/31/09																
179	Harvest Scheduling	Thu 1/1/09	Thu 12/31/09																
180	First Precut Survey	Tue 9/1/09	Thu 12/31/09																
181	Timber Harvest Area Traverse and GIS Update	Thu 1/1/09	Thu 12/31/09																
182	Second Precut Survey	Thu 1/1/09	Thu 12/31/09																
183	TCC On-Site Meeting	Wed 4/1/09	Sun 5/31/09																
184	Timber Harvest Area Logging Inspections	Wed 7/1/09	Wed 9/30/09																
185	Snag Development	Wed 7/15/09	Thu 12/31/09																
186	Regeneration Practices	Thu 1/1/09	Thu 12/31/09																
187	Site Preparation	Wed 7/1/09	Wed 9/30/09																
188	Purchase Forage Mix	Sat 8/1/09	Mon 8/31/09																
189	Forage Seeding	Tue 9/15/09	Wed 9/30/09																
190	Invasive Species; Oust	Wed 4/1/09	Fri 5/15/09																
191	Invasive Species (e.g. blackberry, ect.)	Wed 4/1/09	Sun 11/15/09																
192	Precommercial thinning	Thu 1/1/09	Thu 12/31/09																
193	Invasive Plant Species Management	Thu 1/1/09	Thu 12/31/09																
194	Pre-Ground Disturbance Evaluation	Fri 5/1/09	Sun 8/30/09																
195	Post-Ground Disturbance Evaluation	Fri 5/1/09	Sun 8/30/09																
196	Detection	Thu 1/1/09	Thu 12/31/09																
197	Update State and County Noxious Weed Lists	Thu 1/1/09	Tue 3/31/09																

Baseline  Scheduled 

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PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
198	Control Treatments	Thu 1/1/09	Thu 12/31/09	[Red hatched bar]															
199	Control Treatments within the Ordinary High Water Mark	Sat 8/15/09	Thu 10/15/09									[Red hatched bar]							
200	Monitoring	Fri 5/1/09	Mon 11/30/09					[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]			
201	Raptor Site Management	Thu 1/1/09	Wed 3/31/10																
202	Northern Goshawk Survey	Sun 3/15/09	Mon 8/31/09																
203	Dawn Acoustical Survey	Sun 3/15/09	Thu 4/30/09			[Blue bar]													
204	Intensive Search Survey	Sat 6/20/09	Mon 8/31/09						[Blue bar]	[Blue bar]	[Blue bar]								
205	Broadcast Acoustical Survey	Mon 6/1/09	Sat 8/15/09						[Red hatched bar]	[Red hatched bar]	[Red hatched bar]								
206	Northern Spotted Owl Surveys	Sun 3/1/09	Mon 8/31/09		[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]				
207	Peregrine Falcon Monitoring	Wed 4/15/09	Tue 6/30/09				[Blue bar]	[Blue bar]	[Blue bar]										
208	Bald Eagle and Osprey Monitoring	Tue 4/7/09	Wed 3/31/10																
209	Bald Eagle Nest Occupancy Monitoring	Tue 4/7/09	Sat 4/25/09				[Red hatched bar]												
210	Osprey Nest Occupancy and Bald Eagle Nest Productivity	Wed 6/10/09	Thu 6/25/09						[Red hatched bar]										
211	Known Communal Roost Monitoring	Sun 11/15/09	Wed 3/31/10											[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
212	Potential Communal Roost Monitoring	Tue 12/1/09	Sun 2/28/10												[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
213	Habitat Management	Thu 1/1/09	Thu 12/31/09																
214	Mature and Old-growth Raptor Habitat Evaluations	Wed 4/15/09	Wed 7/15/09				[Blue bar]	[Blue bar]	[Blue bar]										
215	Develop a Schedule for Implementing Habitat Enhancement Actions in Old-growth and Mature Stands	Thu 1/1/09	Thu 12/31/09	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
216	Complete Bald Eagle Management Plan	Thu 1/1/09	Thu 12/31/09	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
217	Revised Bald Eagle Management Plan	Thu 1/1/09	Thu 12/31/09	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]

Baseline [Blue bar] Scheduled [Red hatched bar]

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10
218	Review and Update Industry Standards for Avian Protection from Power Lines	Tue 12/1/09	Thu 12/31/09												█				
219	Public Access Management	Thu 1/1/09	Thu 12/31/09																
220	Inspections	Fri 5/1/09	Mon 11/30/09																
221	Initial Road Evaluation	Fri 5/1/09	Thu 10/15/09																
222	Initial Road Evaluation on Newly Acquired Lands	Fri 5/1/09	Thu 10/15/09																
223	Road Closure Inspection	Sun 11/1/09	Mon 11/30/09																
224	Initial Trail Evaluation	Fri 5/1/09	Thu 10/15/09																
225	Trail Inspections	Sun 11/1/09	Mon 11/30/09																
226	Management Actions	Thu 1/1/09	Thu 12/31/09																
227	Initial Evaluations of Dispersed Shoreline Campsites	Thu 1/1/09	Thu 12/31/09																
228	Site Pioneering Monitoring	Tue 9/1/09	Thu 12/31/09												█				
229	Site Creep Evaluation	Thu 1/1/09	Thu 12/31/09																
230	Controlling Unauthorized Motorized Vehicle Use	Thu 1/1/09	Thu 12/31/09																
231	Visual Screen	Thu 1/1/09	Thu 12/31/09																
232	Road Construction	Thu 1/1/09	Thu 12/31/09																
233	Monitoring	Thu 1/1/09	Tue 9/30/25																
234	Inspections	Thu 7/1/10	Tue 9/30/25																
235	Year 17 HEP	Tue 7/1/25	Tue 9/30/25																
236	Newly Acquired Lands	Thu 7/1/10	Thu 9/30/10																
237	Management Actions	Thu 1/1/09	Thu 12/31/09																
238	Modify the Goal and Objectives	Thu 1/1/09	Thu 12/31/09																

Baseline  Scheduled 

**Appendix A: 2009 Lewis River Wildlife Habitat Management Plan Baseline Schedule
PacifiCorp Energy - Hydro Resources**

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '09	Feb '09	Mar '09	Apr '09	May '09	Jun '09	Jul '09	Aug '09	Sep '09	Oct '09	Nov '09	Dec '09	Jan '10	Feb '10	Mar '10	Apr '10	
				239	Revise the WHMP	Thu 1/1/09	Thu 12/31/09													



Baseline  Scheduled 

Appendix B: Terrestrial Coordination Committee 2009 Annual Plan Consultation Record



State of Washington
Department of Fish and Wildlife

Mailing Address: 600 Capitol Way N, Olympia WA 98501-1091, (360) 902-2200, TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia WA

March 20th 2009

Mr. Kirk Naylor
Environmental Supervisor
PacifiCorp Energy
825 NE Multnomah, Suite 1500
Portland, Oregon 97232

RE: WDFW comments on PacifiCorp's 2009 Lewis River Annual Plan

The Washington State Department of Fish and Wildlife (WDFW) appreciates the opportunity to review PacifiCorp's 2009 Annual Plan for management of their mitigation lands under the FERC License Nos. 935, 2071, and 2111. WDFW reviewed your plan independently and during the Terrestrial Coordination Committee (TCC) meeting on March 11th, 2009. The purpose of this letter is to express comments and questions regarding the plan.

WDFW appreciates the efforts by PacifiCorp to incorporate our past suggestions and recommendations for management. The annual removal of stop logs in the wetlands to control bullfrog (*Rana catesbeiana*) populations and bolster the presence of native amphibians, Accipiter acoustical surveys, and efforts to improve waterfowl habitat. WDFW looks forward to continued joint efforts with PacifiCorp in future years to enhance habitat in the Lewis River Basin. The comments below are structured by the sections of the Annual Plan.

Section 6.0 Wetlands

In section 6.2, it states that the only management planed for wetland areas is the removal and replacement of stop logs. WDFW would like to see an assessment of invasive species at these sensitive sites and associated buffers, and control measures considered during the current management year. Early detection and control of invasive species has heightened importance in these sensitive areas, particularly in wetlands that are adjacent to areas of disturbance. During the TCC meeting on March 11th, PacifiCorp stated that during the annual inspection an inventory of invasives observed at wetland sites would take place. Control measures will be implemented as necessary.

Section 9.0 Farmland, Idle Areas, and Meadows Habitat Management

Appendix C, Farmland, Idle Areas, Meadow Budget shows the cost for haying the Saddle Dam farm. Are the proceeds from this sale a part of that budget, or are they not included

within the disbursement of funds? PacifiCorp stated at the TCC meeting that there are no funds garnered from the management of the farmlands for hay. This adequately addressed the concern for WDFW.

Section 13.2 Proposed Forestland Practices

WDFW has some concerns about the proposed access road adjacent to the Saddle Dam area. The plan currently calls for a new 1.47 mile timber access road to be connected with the existing equestrian trail. It is unclear if the existing trail will be improved and expanded in this phase of the project for use by maintenance and timber harvest vehicular traffic, as well as horseback users. In any case, the security of the elk that utilize the area for forage is of primary concern. Increased vehicular traffic of any kind has the capability of stressing elk and would be counterproductive to the goals of the forage fields at the Saddle Dam Farm (Chapter 8, Section 12.2.1, Lewis River Habitat Management Plan (LRHMP), PacifiCorp, 2009).


WDFW feels that the current plan to use the existing equestrian trail as an avenue to access harvest areas should be expanded. From the maps of proposed harvest areas in Unit 17 provided by PacifiCorp, WDFW believes it reasonable to improve and then utilize the trail from the 1710 road for vehicles and equipment to reach most of the proposed areas. A spur road, such as in the current plan, could be created to access the southernmost proposed unit. This would reduce or eliminate the impact of nearly 1.5 miles of new road creation in the unit and would avoid the need to cut in sensitive habitats, such as mature forest stands. PacifiCorp stated that they would be willing to look at additional options for road placement and would approach the TCC at a future date with different options and costs. In addition, an on the ground inspection of the area is planned at during the field visit on April 7th and 8th.

If it is deemed that a new road must be created, placing the new access road in areas that are in cover would help to avoid disturbance to this important elk forage area. WDFW would like to have proposed placement of the new portion of the road mapped (an approximate sketch would be appropriate) and shown to the TCC for review, or to have the group conduct a site visit to see the on the ground impact of the road. These options will allow the group to make properly informed decisions when reviewing the options for management in these areas.

2010 Forestland Harvest Planning

This section describes a proposed total of 31.7 acres for clearcuts. There is mention that the majority of trees to be removed are Red Alder (*Alnus rubra*), but it is unclear if any forest sections currently classified as mature are slated for harvest. Improving habitat, particularly for Northern Spotted Owls (*Strix occidentalis*), is an important task within the LRHMP and WDFW supports those goals and objectives. PacifiCorp stated at the March 11th meeting that they believed these areas to be incorrectly cover typed. It was agreed that the TCC would be informed of the new cover typing prior to harvest. Clarification of the planned harvest after additional cover typing is completed will address this concern.

WDFW looks forward to continued efforts between PacifiCorp and our Agency in enhancing, improving, and protecting habitat within the Lewis River Watershed. If you have any questions or comments regarding this letter, please feel free to contact me using the information provided below.

A handwritten signature in blue ink, appearing to read "D. Geroux". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

David Geroux
Washington State Department of Fish and Wildlife
David.Geroux@dfw.wa.gov
(360) 902 2539

DRAFT Meeting Notes
Lewis River License Implementation
Terrestrial Coordination Committee (TCC) Meeting
March 11, 2009
Ariel, WA

TCC Participants Present: (10)

Kendel Emmerson, PacifiCorp Energy
 David Geroux, WDFW
 Diana Gritten-MacDonald, Cowlitz PUD
 Eric Holman, WDFW
 LouEllyn Jones, USFWS (via conference call)
 Kimberly McCune, PacifiCorp Energy
 Kirk Naylor, PacifiCorp Energy
 Bob Nelson, RMEF
 Nathan Reynolds, Cowlitz Indian Tribe (via conference call)
 Bill Richardson, RMEF

Calendar:

April 8, 2009	TCC Meeting	Merwin Hydro Facility
April 9, 2009	ACC Meeting	Merwin Hydro Facility

Assignments from March 11, 2009 Meeting:	Status
Naylor: Email maps to Jones, Leigh and Reynolds depicting a new parcel of interest for potential purchase.	Complete – 3/16/09
McCune: Submit an electronic version of the <i>Lewis River WHMP Annual Progress Report Operation Phase 2008</i> to the TCC following by hard copies for the 30-day review and comment period.	Complete – 3/19/09

Assignments from February 11, 2009 Meeting:	Status
Moore: Email an invitation to the TCC to participate in field work specific to the dispersed site monitoring methodology during approximately late March 2009.	Complete – 3/11/09 (tentative date is 4/7/09)

Assignments from January 14, 2009 Meeting:	Status
McCune: Distribute Columbia Land Trust media release to the TCC.	Complete – 1/14/09
McCune: Provide Cherie Kearney, Columbia Land Trust contact information to David Geroux, WDFW.	Complete – 1/14/09
Naylor/Emmerson: Provide pictures of the high flow damage at the February TCC meeting.	Complete – 2/11/09
Moore: Add the time of year and species in the survey protocol section of the Lewis River Dispersed Campsites Program - Dispersed Site Monitoring Methodology document and mention the size of the drift wood potential and the number of pieces.	

Parking lot items from February 10, 2006 Meeting:	Status
PacifiCorp Wildlife Habitat Management Plan (WHMP) Budget (annual)	Complete – 3/11/09
Conservation Agreement – what is wanted?	Ongoing – 4/28/06

Review of Agenda and Finalize Meeting Notes

Kirk Naylor (PacifiCorp Energy) called the meeting to order at 9:05am. Naylor asked if the TCC attendees had any other additions to the agenda. Diana Gritten-MacDonald (Cowlitz PUD) requested the addition of a quick comment about SA 1.2 Limitations language.

David Geroux (WDFW) informed the TCC that due to budget cuts his position with WDFW has been eliminated due to significant decrease in the budget shortfall. Curt Leigh will have involvement with the TCC yet likely limited involvement as Leigh will be taking on added responsibilities due to the budget shortfall. Geroux may be in attendance at the April TCC meeting but no likely thereafter. Geroux will continue to keep the TCC informed as adjustments are made at WDFW in the weeks to come.

Eric Holman (WDFW) does not anticipate change with his position at this time; however it's early in the process.

Nathan Reynolds (Cowlitz Indian Tribe) joined

Naylor reviewed the TCC Draft February 11, 2009 meeting notes and asked for any comments and/or additional changes. The TCC meeting notes were approved without changes 9:15am.

License Update

Olson informed the TCC that the Federal Regulatory Energy Commission (FERC) is reviewing the Wildlife Habitat Management Plan (WHMP); however no word has been received from the FERC yet as to when to expect approval.

Settlement Agreement SA 1.2 - Limitations

Gritten-MacDonald read the Lewis River Settlement Agreement provision (indicated below) specific to the implementation of the Cowlitz PUD WHMP:

1.2 Limitations. This Agreement establishes no principle or precedent with respect to projects or matters not covered by this Agreement, or with regard to any Party's participation in any other pending or future licensing proceeding. Further, no Party to this Agreement shall be deemed to have approved, accepted, agreed to, or otherwise consented to any operation, management, valuation, or other principle underlying any of the matters covered by this Agreement, except as expressly provided in this Agreement. Without affecting the enforceability of this Agreement, by entering into this Agreement, no Party shall be deemed to have made any admission or waived any contention of fact or law that it did make or could have made in the Relicensing Proceeding. This Agreement shall not be offered as evidence or cited as precedent except in a proceeding to establish the existence of or to enforce or implement this Agreement including filing this

Agreement with the Commission under 18 C.F.R. § 385.602. This Section 1.2 shall survive any termination of this Agreement.

Lands update

Naylor provided updates of interest in certain lands, however, this discussion is considered confidential and proprietary and not for public viewing. Detailed discussion took place regarding one specific parcel of land the TCC may be interested in pursuing further. Naylor will email the maps to Curt Leigh (WDFW), LouEllyn Jones (USFWS) and Nathan Reynolds (Cowlitz Indian Tribe) which depicts the specific location of that certain parcel.

In response to the TCC's inquiry about the status of the PacifiCorp/Columbia Land Trust agreement concerning interests in certain lands, Kimberly McCune (PacifiCorp Energy) informed all those in attendance that the agreement has been signed by both parties. In addition, she informed the TCC attendees that in accordance with *SA 10.2.1 - Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund*, PacifiCorp will satisfy the funding requirements on March 26, 2009.

Buncombe Hollow Road Repair Update

Naylor informed the TCC attendees that he met with Clark County Public Works Department (County) and the road is officially closed. Debris has been cleared at the west end; a portion of the road is drivable but potentially unstable. The County is not addressing culvert maintenance/repair at this time; however the County will be stabilizing the road slide areas as soon as final engineering plans are complete. The County will also be discussing timing of road repairs with the WDFW in regards to the eagle nest in the vicinity. PacifiCorp will assist with vegetation selection and placement. Anticipate that work would not be completed any earlier than the end of August.

<Break 10:20am>

<Reconvene 10:30am>

PacifiCorp Wildlife Habitat Management Plan (WHMP) Annual Plan Operation Phase 2009 Discussion

Naylor informed the TCC attendees that PacifiCorp's WHMP 2009 Annual Plan was provided electronically on February 24, 2009 and hard copies were mailed to those who requested one. Comments are due from the TCC on or before March 24, 2009.

Kendel Emmerson (PacifiCorp Energy) began the review of the WHMP Annual Plan and requested any comments and/or edits to **Section 1.0 – Introduction**. McCune indicated that the dates referenced in the third paragraph should be changed to February 24, 2009 and March 24, 2009.

No comments/edits in Sections 2 through 12.

Section 13.0 – Forestland Habitat Management, Geroux requested clarification on which unit was harvested in 2008. Naylor confirmed that the harvest took place in Unit 26. Geroux also inquired if there is opportunity to harvest in other units to minimize harvesting in Unit 17. Naylor

said that there is virtually no elk forage currently available in Unit 17. Discussion also took place regarding a name for the unnamed meadow. Emmerson said that it will likely be named Winter Creek meadow following the completion of initial meadow inspections.

General discussion took place regarding Appendix D and the proposed road alignment in Unit 17 and meadow expansion. A suggestion was made to consider building the proposed road along the same alignments of the existing 1740 road and the equestrian trail to avoid removing mature conifer forest habitat. The equestrian trail was used for the road alignment where possible, but the existing road along the Speelyai Canal (road 1710) has a highly eroded edge and is too undercut to support log trucks. There are several areas in Unit 17 that need vegetation cover type corrections and will be updated as part of the proposed harvest, but overall the proposed road alignment removes very few trees. The proposed road is almost entirely within Mid-successional conifer forest – not mature forest. The proposed road alignment, timber harvest areas, and meadows will be evaluated with TCC following the next meeting.

No comments/edits in Sections 14 through 17.

Eric Holman (WDFW) inquired about the status of PacifiCorp's WHMP 2008 Annual Report. Emmerson informed the TCC attendees that the Lewis River WHMP Annual Progress Report Operation Phase 2008 is complete and will be included with the ACC/TCC 2008 Annual Report as Appendix C, which will likely be available for the 30-day review and comment period in late March. WDFW requested a hard copy of the WHMP 2008 Annual Report now, if possible. McCune will submit an electronic version to the TCC followed by hard copies next week for the 30-day review and comment period separately from the ACC/TCC 2008 Annual Report.

Trespass Issues

Naylor provided two maps illustrating encroachment and trespass issues PacifiCorp is experiencing with private land owners. One trespass issue involves a certain property owner who cut down mature alders on PacifiCorp property. Naylor and PacifiCorp's property department have had discussions with the property owner and there is an insurance settlement. Naylor proposed restoring the area by removing the stumps deposited onto PacifiCorp land and replanting with shade tolerant trees. PacifiCorp will follow all the same criteria as the WHMP when they re-vegetate the disturbed area. All costs of reclamation will not involve WHMP funds.

Naylor informed the TCC attendees that the Unit 4 Encroachment includes the discovery of a new satellite dish, stacked firewood, cleared understory, fiberglass boats and considerable debris on PacifiCorp lands. PacifiCorp has sent letters to the property owner informing them of the encroachment. In addition, surveyors have reposted the line. Property owner has not been cooperative.

New Topics/Issues

A site visit has been tentatively scheduled with the TCC to view dispersed sites on Tuesday, April 7, 2009.

Next Meeting's Agenda

- Review of 3/11/09 Meeting Notes
- TCC 2009 Meeting Schedule Revisions
- PacifiCorp WHMP 2009 Annual Plan Review & Discussion
- License Update
- Lands Update
- Site Visit to Unit 17

Public Comment Opportunity

No public comment was provided.

Next Scheduled Meetings

April 8, 2009	May 13, 2009
Merwin Hydro Control Center	Merwin Hydro Control Center
Ariel, WA	Ariel, WA
9:00am – 3:00pm	9:00am – 3:00pm

Meeting adjourned at 11:40am

Handouts

1. Agenda
2. Draft meeting notes from 2/11/09

Appendix C: 2009 Budget

Overall 2009 Budget

**License Year 1
Calendar Year 2009**

Administration	Cost	\$11,000.00
	Percent of Budget	3.51%
	Labor Hours	140
	Percent of Labor	4.14%
Old-Growth	Cost	\$0.00
	Percent of Budget	0.00%
	Labor Hours	0
	Percent of Labor	0.00%
Wetlands	Cost	\$8,400.00
	Percent of Budget	2.68%
	Labor Hours	112
	Percent of Labor	3.31%
Riparian	Cost	\$3,450.00
	Percent of Budget	1.10%
	Labor Hours	10
	Percent of Labor	0.30%
Shrubland	Cost	\$6,000.00
	Percent of Budget	0.00%
	Labor Hours	80
	Percent of Labor	2.36%
Farmland, Meadow, Idle Areas	Cost	\$40,800.00
	Percent of Budget	13.02%
	Labor Hours	436
	Percent of Labor	12.88%
Orchard	Cost	\$9,925.00
	Percent of Budget	3.17%
	Labor Hours	125
	Percent of Labor	3.69%
Transmission Line Right-of-Way	Cost	\$11,550.00
	Percent of Budget	3.69%
	Labor Hours	154
	Percent of Labor	4.55%
Unique Area	Cost	\$1,800.00
	Percent of Budget	0.57%
	Labor Hours	24
	Percent of Labor	0.71%
Forestland	Cost	\$174,020.00
	Percent of Budget	55.53%
	Labor Hours	1994
	Percent of Labor	58.91%
Invasive Plant Species	Cost	\$18,025.00
	Percent of Budget	5.75%
	Labor Hours	107
	Percent of Labor	3.16%
Raptor	Cost	\$14,125.00
	Percent of Budget	4.51%
	Labor Hours	95
	Percent of Labor	2.81%
Public Access Management	Cost	\$14,300.00
	Percent of Budget	4.56%
	Labor Hours	108
	Percent of Labor	3.19%
Monitoring	Cost	\$0.00
	Percent of Budget	0.00%
	Labor Hours	0
	Percent of Labor	0.00%
Total Cost		\$313,395.00
Total Percent of Budget Spent		98.08%
Total Labor Hours		3385
Remaining Funds from Previous Year		\$0.00
Annual WHMP Budget	WHMP Acres ¹	10,085
	Cost Per Acre ²	\$31.08
	Sum Total	\$313,398.43
	Additional HEP Funding	\$0.00
Total Budget (Annual + Remaining)		\$313,398.43
Total Budget Remaining (Budget- Cost)		\$3.43

¹ WHMP acres is from the Lewis River Wildlife Habitat Management Plan Standards & Guidelines Document (July 2006).

² Cost per acre is determined on the \$27 per acre stated in Section 10.8.2.1 of the Settlement Agreement and adjusted for inflation at 2008 using the following inflation calculator http://www.bls.gov/data/inflation_calculator.htm

Administration Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Annual Report	Annually	70 hours	70	\$5,250.00
Annual Plan	Optional	70 hours	70	\$5,250.00
Labor rate per hour				\$75.00
Total Labor			140	\$10,500.00
Materials				
Annual Report and Plan Reproduction				\$500.00
Other				\$0.00
Total Materials				\$500.00
Total Labor and Materials				\$11,000.00

Old-Growth Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluation	Within 5 years of WHMP Implementation	140 hours	0	\$0.00
Aerial Surveys	Annually	0 hours	0	\$0.00
Ground Surveys	Optional	4 hours per inspection	0	\$0.00
Snag Development	Optional	4 hours per tree	0	\$0.00
Thinning	Optional	Unknown	0	\$0.00
Large Woody Debris Placement	Optional	Unknown	0	\$0.00
Mature Stand Connectivity	Within 5 years of WHMP Implementation	225 hours	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			0	\$0.00
Materials				
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$0.00

Wetland Budget

**License Year 1
Calendar Year 2009**

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluation	Within 5 years of WHMP Implementation	180 hours	0	\$0.00
Initial Evaluation Final Report	Within 5 years of WHMP Implementation	80 hours	0	\$0.00
Annual Inspection	Annually	80 hours	80	\$6,000.00
Annual Inspection with unmanaged wetlands	Every 5 years	140 hours	0	\$0.00
Post-Treatment Inspection	Optional	4 hours per inspection	0	\$0.00
Diversion Draw Down	Optional	3 hours per draw down	0	\$0.00
Remove 1 to 2 stop logs for high winter flows	Annually	16 hours	16	\$1,200.00
Replace 1 to 2 stop logs for high winter flows	Annually	16 hours	16	\$1,200.00
Dike Maintenance	Optional	Unknown	0	\$0.00
Surrounding wetland vegetation	Optional	4 hour per site	0	\$0.00
Tree topping or pruning to enhance existing shrubs	Target Year 17	3 hours per tree	0	\$0.00
Shrub Planting	Target Year 17	1 hour per planting	0	\$0.00
Loafing log	Within 5 years of completing the initial evaluation	3 hours per tree	0	\$0.00
Snag Creation	Within 5 years of completing the initial evaluation	3 hours per tree	0	\$0.00
Aquatic Vegetation Control	Optional	0.5 hour per acre	0	\$0.00
Implement Bullfrog Management Methods Identified in the Initial Evaluation	Within 5 years of completing the initial evaluation	40 hours	0	\$0.00
Remove Stoplogs	Annually	16 hours	16	\$1,200.00
Replace Stoplogs	Annually	16 hours	16	\$1,200.00
Review WDNR Heritage Database	Annually	2 hours	2	\$150.00
Great Blue Heron Colony Site Management Report	Optional	15 hours	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			112	\$8,400.00
Materials				
Shrub Planting \$50 per planting				\$0.00
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$8,400.00

Riparian Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Riparian Mixed Forest Stand Evaluations	Within 5 years of receiving the license	200 hours	0	\$0.00
Other Inspections	Optional	4 hours per site	0	\$0.00
Establish Buffers	Optional	1 hour per 100 ft (30 m) of stream	10	\$750.00
Water Type Modification form	Optional	4 hours per form	0	\$2,700.00
Snag Development Schedule	Within 1 year of completing the Riparian Mixed Forest Stand	50 hours	0	\$0.00
Snag Removal	Optional	3 hours per 1-20 in (50 cm) diameter at breast height Douglas-fir	0	\$0.00
Riparian Area Restoration	Within 5 years of identifying a damaged riparian area	To be determined	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			10	\$3,450.00
Materials				
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$3,450.00

Shrublands

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluation	Within 4 years of WHMP Implementation	80 hours	80	\$6,000.00
Initial Evaluation Final Report	Within 1 year of completing the initial evaluation	30 hours	0	\$0.00
15-year Evaluation	annually	50 hours	0	\$0.00
Success of Action	Annually	15 hours	0	\$0.00
Topping a Tree and Hand Piling Debris	Optional	4 hour per tree	0	\$0.00
Falling a tree and hand piling debris	Optional	3 hour per tree	0	\$0.00
Herbicide Injection	Optional	1.5 hours per tree	0	\$0.00
Heavy Pruning Circle	Optional	5.5 hours per planting circle	0	\$0.00
Vegetation Control - Clear Competing Brush	Optional	1.75 hour per 10 foot radius of vegetation	0	\$0.00
Revised Management Actions	Within 8 years of WHMP Implementation	100 hours	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			80	\$6,000.00
Materials				
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$6,000.00

Farmland, Idle Areas, Meadow Budget

License Year I
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Inspection	Within 4 years of WHMP Implementation	60 hours	0	\$0.00
Initial Inspection Final Report	Within 1 year of completing the initial	60 hours	0	\$0.00
Annual Spring Inspections	Annually	40 hours	40	\$3,000.00
5-year Passively Managed Area Inspections	Every 5 years	80 hours	0	\$0.00
Annual Fall Inspection	Annually	40 hours	40	\$3,000.00
Spring Mowing/ Hay Harvest	Annually	2 hours per acre	56	\$4,200.00
Fall Mowing/ Hay Harvest	Annually	2 hours per acre	140	\$10,500.00
Soil Test	Annually	2 hours per site	20	\$1,500.00
Fall Fertilization	Annually	2 hours per acre	140	\$10,500.00
Spring Fertilization	Optional	2 hours per acre	0	\$0.00
Lime Application	Optional	2 hours per acre	0	\$0.00
Soil Test (Field Restoration)	Optional	2 hours per site	0	\$0.00
Lime Application (Field Restoration)	Optional	2 hours per acre	0	\$0.00
Herbicide Application Treatment	Optional	2 hours per acre	0	\$0.00
Cultivation	Optional	4 hours per acre	0	\$0.00
Fertilization	Optional	2 hours per acre	0	\$0.00
Seeding/planting	Optional	2 hours per acre	0	\$0.00
Invasive Plant Control	Optional	2 hours per acre	0	\$0.00
Top Seeding	Optional	4 hours per acre	0	\$0.00
Fertilizing Vegetation Screening	Optional	2 hours per screen	0	\$0.00
Planting	Optional	4 hours per planting	0	\$0.00
Supplemental Watering	Optional	1 hour per enclosure	0	\$0.00
Animal Damage Control	Optional	1 hour per enclosure	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			436	\$32,700.00
Materials				
Soil Testing (Assume \$40 per test with 10 test per year)				\$400.00
Fertilizer (Assume \$100 per acre in materials)				\$7,000.00
Fertilizer Unit 17 Meadow (\$100 per acre for field restoration)				\$250.00
Lime Application Unit 17 Meadow (Assume \$100 per acre)				\$250.00
Herbicide for Field Restoration (\$30 per acre treated)				\$0.00
Grass Seed for Unit 17 meadow (Assume \$4 per pound)				\$200.00
Exclosures for new plantings (\$200 per enclosure)				\$0.00
New plantings (\$25 per seedling)				\$0.00
Other				\$0.00
Total Materials				\$8,100.00
Total Labor and Materials				\$40,800.00

Orchard Budget

Calendar Year 2009

License Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Winter Inspection	Annually	16 hours	16	\$1,200.00
Summer Inspection	Annually	16 hours	16	\$1,200.00
Optional Inspection	Optional	8 hours	0	\$0.00
5-year Inspection	Within 5 years of WHMP Implementation	40 hours	0	\$0.00
Dormant Pruning	Optional	1 hour per tree	60	\$4,500.00
Summer Pruning	Optional	1 hour per tree	0	\$0.00
Shade Tree Control	Optional	2 hours per planting	0	\$0.00
Invasive Plant Species Control	Optional	2 hours per acre	0	\$0.00
Mowing	Annually	2 hours per acre	25	\$1,875.00
Replacement Plantings	Optional	2 hours per planting	4	\$300.00
New Plantings Inspection	Optional	2 hours per planting	4	\$300.00
Orchard Expansion Plantings	2014	4 hours per planting	0	\$0.00
Soil Testing	Optional	2 hours per orchard	0	\$0.00
Fertilizing	Optional	2 hours per acre	0	\$0.00
Grass Seeding	Optional	2 hours per acre	0	\$0.00
Orchard Tree Fertilizing	Optional	1 hour per tree	0	\$0.00
Pest Control	Optional	1 hour per tree	0	\$0.00
Animal Damage Control	Optional	1 hour per tree	0	\$0.00
Supplemental Watering	Optional	1 hour per tree	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			125	\$9,375.00
Materials				
Exclosures (\$200 per exclosure)				\$500.00
New seedlings (\$25 per tree)				\$50.00
Fertilizer (Assume \$100 per acre in materials)				\$0.00
Grass Seed (Assume \$4 per pound)				\$0.00
Other				\$0.00
Total Materials				\$550.00
Total Labor and Materials				\$9,925.00

Transmission Line Right-of-Way Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluations with Photo Documentation	Within 5 years of WHMP Implementation	130 hours	130	\$9,750.00
Initial Inspections Final Report	Within 1 year of completing the initial evaluation	40 hours	0	\$0.00
Revise Transmission Line Rights-of-Way Habitat Management Chapter	Within 5 years of WHMP Implementation	20 hours	0	\$0.00
Annual Inspections	Annually	50 hours	0	\$0.00
Annual Inspections with Photo Documentation	Every 5 years beginning with initial inspection year	100 hours	0	\$0.00
Post hazard tree and invasive species management inspection	Within 2 months of a management actions being completed	2 hours per site	0	\$0.00
Shrub Management	Optional	4 hours	0	\$0.00
Plantings	Optional	4 hours per planting	0	\$0.00
Vegetation Management	Optional	2 hours per tree	0	\$0.00
Invasive Plant Species Control	Optional	4 hours per acre	0	\$0.00
Aquatic Area Management	Optional	Unknown	0	\$0.00
Soil Testing	Every 2 years	2 hours per site	0	\$0.00
Annual Mowing	Annual	2 hours per acre	24	\$1,800.00
Fertilization	Optional	2 hours per acre	0	\$0.00
Access/Disturbance Reduction	Optional	2 hours per site	0	\$0.00
Closing Open Roads	Within 5 years of WHMP Implementation	4 hours per site	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			154	\$11,550.00
Materials				
Soil Testing (Assume \$40 per test with 6 test per year)				\$0.00
Fertilizer (Assume \$100 per acre in materials)				\$0.00
Exclosures (\$200 per exclosure)				\$0.00
Plantings (\$50 per planting)				\$0.00
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$11,550.00

Unique Areas Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Annual Oak Stand	Annual	16 hours	16	\$1,200.00
Additional Oak Stands	Optional	4 hours per area	0	\$0.00
Other Unique Areas	Optional	4 hours per area	0	\$0.00
Topping a Competing Tree and Hand Piling Debris	Optional	2 men x 1.5 hour per 1 20-in dbh Douglas- fir tree 1 hour for reporting	0	\$0.00
Falling a Competing Tree and Hand Piling Debris	Optional	2 men x 1 hour per 1- 20 in dbh Douglas-fir tree 1 hour for reporting	0	\$0.00
Invasive Plant Species Control	Optional	1 hour per acre	0	\$0.00
Develop Cave Management Strategy	Optional	10 hours	0	\$0.00
Create a Unique Area Database	Within 1 year of Implementation	8 hours	8	\$600.00
Update Unique Area Database	Optional	2 hours	0	\$0.00
Develop Ethnobotanically Significant Plant Management Strategy	Optional	10 hours	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			24	\$1,800.00
Materials				
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$1,800.00

Forestland Budget

License Year I
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Spring Timber Harvest Area Survey	Annually	40 hours	20	\$1,500.00
Fall Timber Harvest Area Survey	Annually	140 hours	140	\$10,500.00
Harvest Planning	Optional	40 hours	40	\$3,000.00
Harvest Scheduling	Optional	8 hours	8	\$600.00
First Precut Survey	Optional	1 hour per acre	36	\$2,700.00
Timber Harvest Area Traverse and GIS Update	Optional	24 hours	24	\$1,800.00
Second Precut Survey	Optional	2.5 hours per acre	75	\$5,625.00
Terrestrial Coordination Committee On-Site Meeting	Optional	16 hours	0	\$0.00
Timber Harvest Area Logging Inspections	Optional	60 hours	60	\$4,500.00
Snag Development	Optional	2 hours per tree	60	\$4,500.00
Site Preparation	Optional	12 hours per 10 acres plus 10 hours	54	\$4,050.00
Forage Seeding	Optional	24 hours	24	\$1,800.00
Invasive Plant Species - grasses	Optional	0.5 hour per acre	16	\$1,200.00
Invasive Plant Species - competing vegetation	Optional	2.8 hours per acre	816	\$61,200.00
Pre-commercial thinning	Optional	1.25 hour per acre	621	\$46,575.00
Labor rate per hour				\$75.00
Total Labor			1994	\$149,550.00
Materials				
Forage seed mix				\$1,200.00
Chemicals (\$50.00 per acre)				\$16,000.00
Cedar (2200 trees x 0.40), Pine (600 trees x 0.3) and Hemlock (700 x 0.3 trees)				\$1,270.00
Vexar Tubes and stakes				\$6,000.00
Total Materials				\$24,470.00
Total Labor and Materials				\$174,020.00

Invasive Plant Species Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Pre-Ground Disturbance Evaluation	Optional	1.0 hour per site	25	\$1,875.00
Post-Ground Disturbance Evaluation	Optional	1.0 hour per site	0	\$0.00
Detection	Optional	0.5 hour per site	25	\$1,875.00
Update State and County Noxious Weed lists	Annual	2 hours per year	2	\$150.00
Control Treatments	Optional	0.5 hour per acre	50	\$3,750.00
Control treatments within the ordinary high water mark	Optional	0.5 hour per acre	5	\$375.00
Monitoring	Optional	0.5 hour per site	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			107	\$8,025.00
Materials				
Chemicals				\$10,000.00
Other				\$0.00
Total Materials				\$10,000.00
Total Labor and Materials				\$18,025.00

Raptor Budget

License Year 1
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Dawn Acoustical Survey for Northern Goshawk	Optional	5 hours per survey station (18 ac [7 ha])	0	\$0.00
Intensive Search Survey for Northern Goshawk	Optional	20 hours per 25 ac (10 ha)	0	\$0.00
Broadcast Acoustical Survey for Northern Goshawk	Optional	8 hours per 494 ac (200 ha)	45	\$3,375.00
Northern Spotted Owl Surveys	Optional	4 hours per 10 survey stations	0	\$0.00
Peregrine Falcon Monitoring Protocol	Optional	15 hours per potential nest site	0	\$0.00
Aerial Survey for Bald Eagle Nest Occupancy	Annually	24 hours	24	\$1,800.00
Aerial Survey for Osprey Nest Occupancy and Bald Eagle Nest Productivity	Annually	24 hours labor	24	\$1,800.00
Known Communal Roost Monitoring	Optional	5 hours per survey per observer	0	\$0.00
Potential Communal Roost Monitoring	Optional	6 hours per survey per observer	0	\$0.00
Evaluate Mature and Old-growth Stands for Raptor Habitat Quality and Potential Enhancement	Within 5 years of WHMP Implementation	2 hours per ac (0.4 ha) time is accounted for in Old-growth	0	\$0.00
Develop a Schedule for Implementing Habitat Enhancement Actions in Old-growth Stands and Mature Stands	Within 1 year of Completing Mature and Old-growth Stands Evaluations	20 hours	0	\$0.00
Complete Bald Eagle Management Plan	Within 3 years of WHMP Implementation	80 hours	0	\$0.00
Revise Bald Eagle Management Plan to include new nest and roost sites	As Needed Within 1 Year of Discovery	10 hours	0	\$0.00
Review and Update Industry Standards for Avian Protection from Power lines	Annually	2 hours	2	\$150.00
Labor rate per hour				\$75.00
Total Labor			95	\$7,125.00
Materials				
Helicopter flight \$3500 per flight 2 flights per year				\$7,000.00
Other				\$0.00
Total Materials				\$7,000.00
Total Labor and Materials				\$14,125.00

Public Access Budget

License Year 2009
Calendar Year 2009

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Road Evaluation	Within 5 years of Wildlife Habitat Management Plan Implementation	2.0 hour per mile of road	0	\$0.00
Initial Road Evaluation on Newly Acquired Lands	Within 1 year of acquiring lands	2.0 hour per mile of road	0	\$0.00
Road Closure Inspection	Annually	60 hours	60	\$4,500.00
Initial Trail Evaluation	Within 5 years of Wildlife Habitat Management Plan Implementation	16	16	\$1,200.00
Trail Inspection	Annually	12	0	\$0.00
Initial evaluations of Dispersed Shoreline Campsites	Within 1 year of receiving a new license	50 hours	0	\$0.00
Site Pioneering Monitoring	Annually	10 hours	0	\$0.00
Site Creep Evaluation	Every 4 years	40 hours	0	\$0.00
Controlling unauthorized motorized vehicle use	Optional	8 hours per site	24	\$1,800.00
Visual Screen	Optional	4 hours per site	0	\$0.00
Road Construction	Optional	8 hours per site	8	\$600.00
Labor rate per hour				\$75.00
Total Labor			108	\$8,100.00
Materials				
Exclosures (\$200 per exclosure)				\$0.00
Plantings (\$50 per planting)				\$0.00
Signs (\$300 per 100 vinyl purchase every 3 years)				\$0.00
Heavy Equipment Rate (\$200 per hour)				\$3,200.00
Road Barriers (blocks, rocks, etc)				\$3,000.00
Other				\$0.00
Total Materials				\$6,200.00
Total Labor and Materials				\$14,300.00

Monitoring Budget

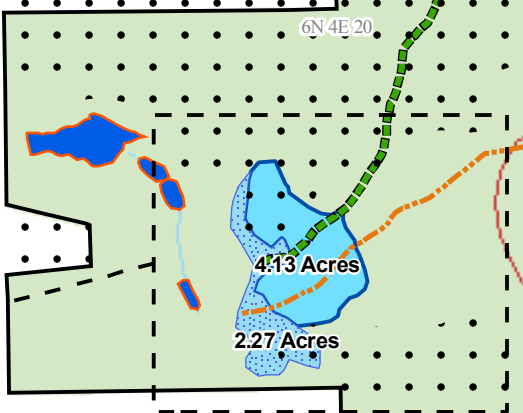
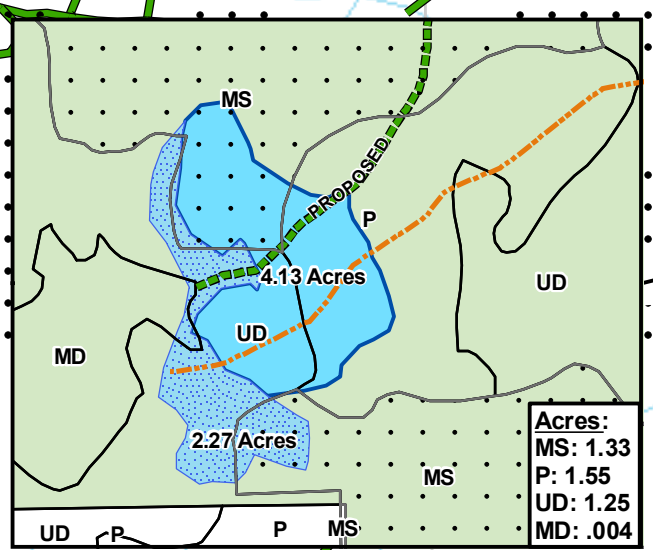
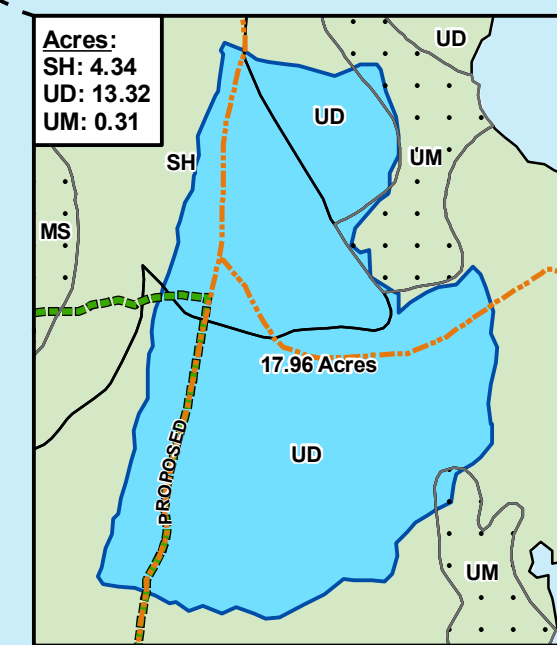
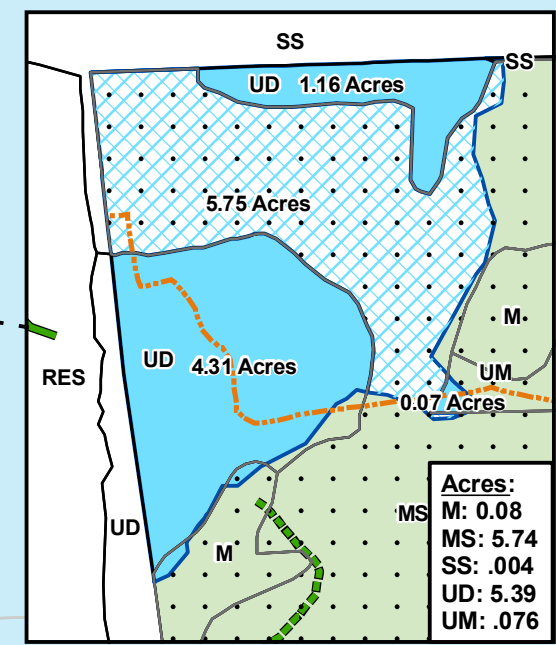
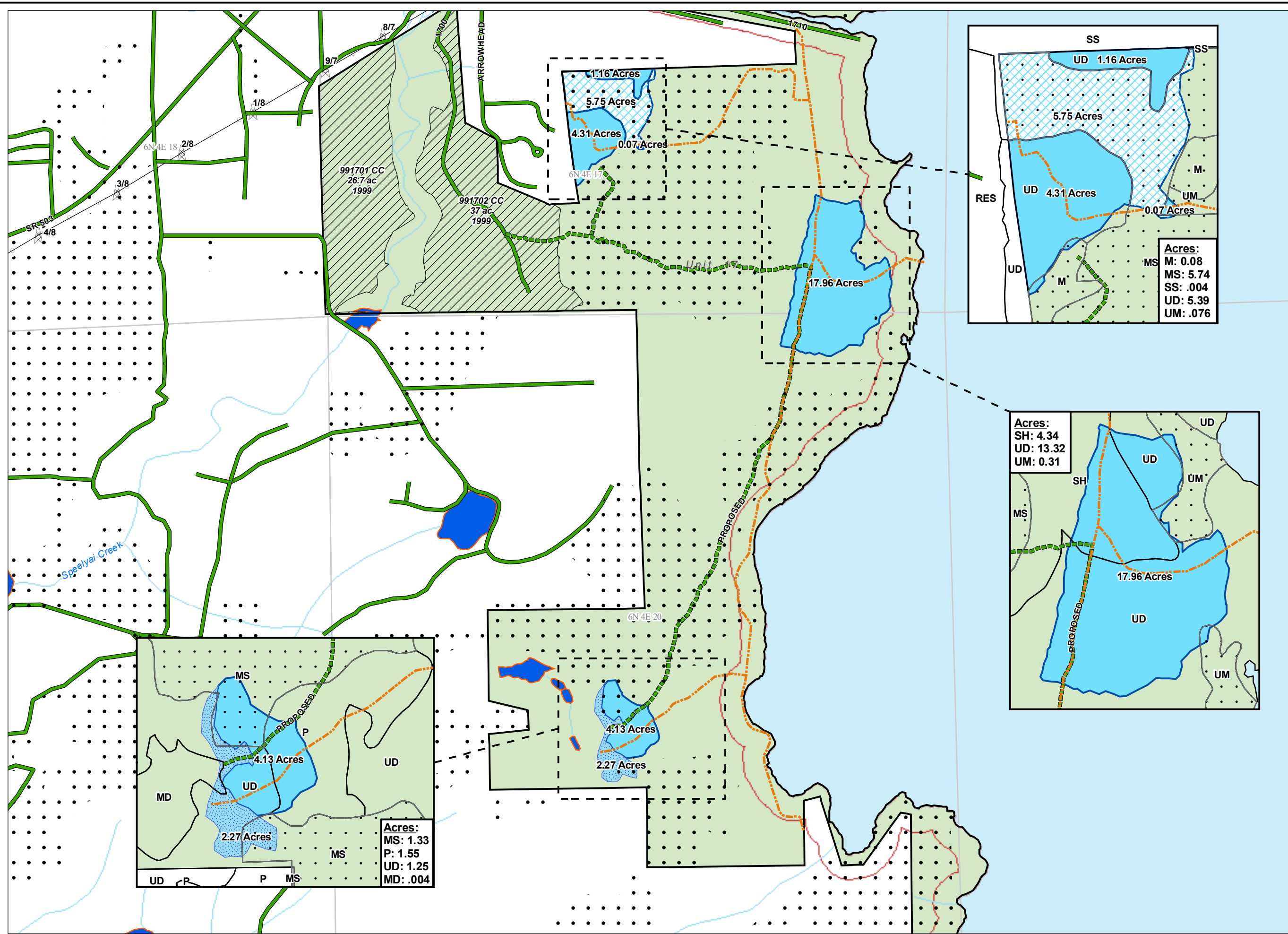
License Year 1
Calendar Year 2009

Management Action	Frequency	Estimated Effort	Hours	Cost
Year 17 Habitat Evaluation Procedure	Target Year 17	estimated 4 hours per plot plus a total 100 hours for analysis	0	\$0.00
Newly Acquired Lands	Estimated to be completed by year 6	estimated 4 hours per plot plus a total 25 hours for analysis	0	\$0.00
Modify the Goal and Objectives	Optional	10 hours	0	\$0.00
Revise the Wildlife Habitat Management Plan	Optional	10 hours	0	\$0.00
Labor rate per hour				\$75.00
Total Labor			0	\$0.00
Materials				
Other				\$0.00
Total Materials				\$0.00
Total Labor and Materials				\$0.00

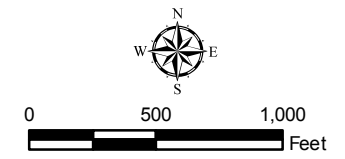
**Appendix D: 2009 Proposed Timber Harvest Areas Map, Wildlife/Forestry
Evaluation Forms, and Sensitive Species/Habitat Assessment**

Lewis River

Unit 17 Proposed 2009 Timber Harvests



- Legend**
- Proposed 2009 Harvest**
- Clear Cut
 - Commercial Thin
 - Proposed Meadow
- Existing Harvest Area**
- Clear Cut
 - Commercial Thin
- NSO Suitable Habitat
- Vegetation Cover Type**
- Management Unit
 - PacifiCorp Ownership
- PacifiCorp Transmission Pole
 - PacifiCorp Transmission Line
- Section**
- Wetlands
 - Water Body
 - Shoreline Buffer
 - Stream
- Roads**
- Existing Roads
 - Proposed Road
 - Equestrian Trail



Data Management/
Geographic Information Systems
gisdept@pacifiCorp.com

Data are projected in UTM Zone 10, NAD83, meters.

PacifiCorp GIS collects data from a variety of government and private sources. This map is not to be released nor put into any location that is accessible electronically or otherwise available to market affiliates. PacifiCorp makes no warranty as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. For complete validation, the source organization should be contacted or source documents consulted to verify the findings of this product.

2009 Proposed Timber Harvest Areas and Sensitive Species/Habitat Assessment

Proposed Timber Harvest Area and Vegetation Cover Types

Timber Harvest Area Identification ¹	Vegetation Cover Types within Timber Harvest Areas					Total Ac (ha)
	Upland Deciduous Ac (ha)	Mid-successional Ac (ha)	Shrubland Ac (ha)	Pole Conifer Ac (ha)	Upland Mix Ac (ha)	
091701	5.4 (2.2)	5.7 (2.3)	0.0 (0.0)	0.0 (0.0)	0.1 (0.04)	11.2 (4.6)
091702	13.3 (5.4)	0.0 (0.0)	4.3 (1.7)	0.0 (0.0)	0.3 (0.1)	17.9 (7.2)
091703	1.3 (0.5)	1.3 (0.5)	0.0 (0.0)	1.6 (0.6)	0.0 (0.0)	4.2 (1.7)

¹ Tentative identification numbers

Unit 17 Vegetation Cover Types and Cover:Forage Ratio

Cover vs. Forage	Vegetation Cover Types	Unit 17	
		Current ac (ha)	After Harvest ac (ha)
Cover	Old-growth Conifer	0.0 (0.0)	0.0 (0.0)
	Mature Conifer	9.2 (3.7)	9.2 (3.7)
	Mid-Successional Conifer	140.4 (56.8)	133.4 (54.0)
	Mid-Successional Conifer -thinned	0.0 (0.0)	0.0 (0.0)
	Upland Mixed (thermal cover site specific)	34.0 (13.8)	33.6 (13.6)
	Upland Mixed -thinned (thermal cover site specific)	0.0(0.0)	0.0(0.0)
	Young Upland Mixed (thermal cover site specific)	0.0 (0.0)	0.0(0.0)
	Pole Conifer	8.6 (3.5)	7.0 (2.8)
	Lodgepole Pine	0.0(0.0)	0.0 (0.0)
	Riparian Mixed	0.0 (0.0)	0.0 (0.0)
Forage	Young Upland Deciduous	0.0 (0.0)	0.0 (0.0)
	Pole Conifer - thinned	0.0 (0.0)	0.0(0.0)
	Riparian Deciduous Shrub	0.0 (0.0)	0.0 (0.0)
	Riparian Deciduous	22.4 (9.1)	22.4 (9.1)
	Upland Deciduous	126.1 (51.0)	104.2 (42.2)
	Oak Woodland	0.0(0.0)	0.0 (0.0)
	Transmission Line ROW	1.2 (0.5)	1.2 (0.5)
	Recreational	0.0(0.0)	0.0(0.0)
	Dry Meadow/Grassland	4.8 (1.9)	7.1 (2.9)
	Shrubland ¹	55.9 (22.6)	51.6 (20.9)
	Orchard	0.0 (0.0)	0.0 (0.0)
	Agriculture	0.0 (0.0)	0.0(0.0)
	Seedling/Sapling Conifer	0.4 (0.2)	0.4 (0.2)
	New Clearcut	63.7 (25.8)	97.1 (40.2)
Wetland (Palustrine Wetland Cover Types)	1.6 (0.7)	1.6 (0.7)	
Neither	Riverine Unconsolidated Shore	0.0 (0.0)	0.0 (0.0)
	Sparsely vegetated; Disturbed; Developed	0.0 (0.0)	0.0 (0.0)
	Residential	3.7 (1.5)	3.7 (1.5)
	Rock Outcropping and Talus	0.0 (0.0)	0.0 (0.0)
Total Acres (ha)		472.0 (191.0)	472.0 (191.0)
Cover:Forage Ratio²		37:63	32:68

¹ Shrubland acres are pending the initial inspection – actual shrubland acres won't be harvested.

²The cover:forage ratio will adjust pending the shrubland inspections

Riparian, Shoreline, and Wetland Areas

Unit 17 has very few wetlands or streams and as a result the proposed timber harvest and roads are able to remain outside of the designated buffers for wetlands, shorelines, and streams.

Raptor Site Management

Bald Eagle

The proposed timber harvest areas are greater than 1.0 mile (1.6 km) from any known bald eagle nest or communal roosts.

Northern Spotted Owl

Limited Operating Period:

The proposed timber harvest areas will remove roosting and foraging habitat for spotted owls (i.e., upland mixed and mid-successional vegetation cover types). As a result the timber harvest will be subject to the early season limited operating period of March 1 to June 30.

Suitable and Dispersal Habitat:

Unit 17 is not within any spotted owl management areas (i.e., Objective h, i, or j lands) and the proposed timber harvest areas are greater than 2 miles (3.2 km) from known spotted owl activity centers. However, suitable and dispersal habitat for spotted owls will be removed as part of the proposed timber harvests. The table on the following page demonstrates compliance with the Biological Opinion and compares current acres of suitable and dispersal habitat for spotted owls to the remaining acres following timber harvest for both Unit 17 and the overall WHMP lands.

Other Raptors

The only known raptor nest within 0.5 miles (0.8 km) of the proposed timber harvest areas is a sharp-shinned hawk nest. The nest is located [REDACTED]. If the nest site is occupied in 2009, then THA 091701 would not be implemented. However, the other proposed THAs and roads are outside of the habitat and disturbance thresholds (i.e. greater than 660 ft (201 m) from the nest site) and will not be restricted to the limiting operating period (April 15 through August 31). If the nest site is unoccupied, then the proposed 091701 THA would occur and would include clearcutting the upland deciduous stands adjacent to the nest site, and thinning the mid-successional stand surrounding the nest site while maintaining the nest tree. The nest tree was identified during the second protocol survey (August 12) and initial layout of the THA was completed after the first survey (June 17 – June 26) had not initiated any response. Final timber harvest area plan will be determined following the 2009 broadcast surveys.

Northern Spotted Owl Suitable and Dispersal Habitat ¹

Vegetation Cover Type	Habitat Type	Unit 17		WHMP Lands	
		Current Acres (ha)	After Harvest Acres (ha)	Current Acres (ha)	After Harvest Acres (ha)
Old-growth Conifer	Nesting, Roosting Foraging, Dispersal	0.0 (0.0)	0.0 (0.0)	166.5 (67.4)	166.5 (67.4)
Mature Conifer	Nesting, Roosting Foraging, Dispersal	9.2 (3.7)	9.2 (3.7)	712.7 (288.4)	712.7 (288.4)
Mid-Successional Conifer	Roosting, Foraging, Dispersal	140.4 (56.8)	133.4 (54.0)	2101.5 (850.4)	2094.5 (848.0)
Upland Mixed	Roosting, Foraging, Dispersal	34.0 (13.8)	33.6 (13.6)	2255.9 (912.9)	2255.5 (912.8)
Riparian Mixed	Roosting, Foraging, Dispersal	0.0 (0.0)	0.0 (0.0)	202.3 (81.9)	202.3 (81.9)
Total Suitable Habitat (Nesting +Roosting + Foraging)		183.6 (74.3)	176.2 (71.3)	5438.9 (2201.1)	5431.5 (2198.1)
Pole Conifer	Dispersal	8.6 (3.5)	7.0 (2.8)	896.2 (362.7)	894.6 (362.0)
Total Dispersal Habitat (Suitable Habitat + Pole Conifer)		192.2 (77.8)	183.2 (74.1)	6335.1 (2564.8)	6326.1 (2560.1)
Young Upland Mixed	Non-habitat	0.0 (0.0)	0.0 (0.0)	254.1 (102.8)	254.1 (102.8)
Upland Deciduous	Non-habitat	126.1 (51.0)	104.2 (42.2)	1602.1 (648.3)	1580.2 (639.5)
Young Upland Deciduous	Non-habitat	0.0 (0.0)	0.0 (0.0)	70.8 (28.7)	70.8 (28.7)
Lodgepole Pine	Non-habitat	0.0 (0.0)	0.0 (0.0)	73.0 (28.7)	73.0 (28.7)
Riparian Deciduous	Non-habitat	22.4 (9.1)	22.4 (9.1)	185.1 (74.9)	185.1 (74.9)
Seedling/Sapling Conifer	Non-habitat	0.4 (0.2)	0.4 (0.2)	389.7 (157.7)	389.7 (157.7)
New Clearcut	Non-habitat	63.7 (25.8)	97.1 (40.2)	617.3 (249.8)	650.7 (263.3)
Forestland Non-Habitat		212.6 (86.0)	224.1 (90.7)	3192.1 (1292)	3203.6 (1296.5)
Total Extent of Forestland Habitat (Dispersal + Non-habitat)				9527.2 (3856.7)	9529.7 (3856.7)
Percent of Dispersal Habitat on WHMP lands ((Total Dispersal Habitat/ Total Forestland Habitat) *100)				66.5%	66.4%

¹Habitat acres were determined using Vegetation Cover Type data on February 20, 2009.

Wildlife/Forestry Evaluation Form

Management Unit No.: 17 A Date: 12-05-08

Observers: Naylor - Taylor

Stand Description: **Proposed Timber Harvest Area 'A': Approximately 5.4 acres of Upland Deciduous (red alder) clear-cut with scattered larger DF (< 5/acre) retained. Approximately 5.7 acres of MS proposed as Commercial Thin. Acres are based on mapped polygons – MS stand appears smaller in area on ground and will have approximately 6 1/20 acre cruise plots established to define the stand – lots of smaller diameter trees indicate it is likely a pole stand rather than MS. Understory comprised of very few shrubs (hazel and vine maple) and dominant ground cover is sword fern with occasional tall Oregon grape. No forage for deer/elk. Not hiding cover. LWD and snags largely absent. Stand is adjacent private homes off Arrowhead road.**

Invasive Plant Species: Holly (3 plants noted)

Unique Habitat Features: Scattered large diameter (> 36-40 in.) DF

Proposed Management : **Establish hiding cover adjacent to private property line. Improve big game forage component of MU through forest management and establish drivable access to allow enforcement of area off-road vehicle abuse. CC alder, and thin DF (MS stand) but treat as one THA. Leave trees in thin would be greater than 15" – thin should be based on crown spacing. Retain large diameter DF. Add LWD if feasible. Harvest will provide improved forage in the short term and development of understory. Long term goal is to develop conifer cover along property boundary (residences) to provide better security cover for future habitat improvements within interior of Management Unit. Replant with DF & WRC.**

Wildlife Observations: Accipiter nest noted in 2008. No elk or deer pellet groups observed. Winter wren, WB Nuthatch

NSO Habitat: Not suitable (alder) and no large diameter snags. Nearest NSO management area is N approximately 2.25 miles. Management Unit 17

has no OG habitat and only 9.2 acres Mature habitat (< 2% of Unit). Snags and DF >20" should be retained. Two adjacent mature stands (1.3 and 3.2 acres) do not provide connectivity to other OG or mature stands.

Attach a copy of an aerial photo, map, or schematic of the proposed THA; include roads, disturbances, and/or unique features.

Wildlife/Forestry Evaluation Form

Management Unit No.: 17 B **Date:** 12-05-08

Observers: Naylor - Taylor

Stand Description: Proposed THA 'B' (091702): Approximately 18 acres of Upland Deciduous forest type. Scattered large dbh DF and ACMA throughout stand provide good wildlife leave trees. Old road/equestrian trail forms western boundary (lots of trespass ATV traffic) and a trail heads east through proposed THA to Yale (ATV use). Western boundary also borders shrubland – the harvest boundary overlaps shrubland (4.4 acres) based on GIS – but the average diameter of all tree species in the “shrubland” area was 18.7” based on 5 random 1/20th acre plots in the 4 acres. The Stand classifies more as a mixed conifer (96 trees / acre) of PSME, ALRU, TSHE. The shrub portion does have some dense vine maple and hazel. Some Cascara noted. 75% of THA is UD with upland mixed being the remainder.

Invasive Plant Species: None noted in unit – some scotch broom along shoreline outside THA should be treated when access developed.

Unique Habitat Features: Large dbh ACMA and PSME. Relatively flat with gentle slope to south. Great opportunities for wildlife leave trees and maintaining some shrub clumps (vine maple & hazel) in THA.

Proposed Management : Clear-cut hardwoods (tractor log) – retain large diameter ACMA and PSME per guidelines. Propose several clumps of shrub retention. Scarify and replant with PSME and THPL. Harvest will provide elk and deer forage where no grass legume forage exists. Develop snags and LWD because very little exists. Existing road/trail would be graveled – consider trail alternatives for equestrian use.

Wildlife Observations: Deer pellets (few). See notes from broadcast survey. Varied thrush, winter wren.

NSO Habitat: THA does not contain suitable habitat

Attach a copy of an aerial photo, map, or schematic of the proposed THA; include roads, disturbances, and/or unique features.

Wildlife/Forestry Evaluation Form

Management Unit No.: 17 C (091703) **Date:** 12-05-08

Observers: Naylor and Taylor

Stand Description: Approximately 4 acres of UD and pole stand. Pole stand is a biological desert. Limited number of trees per acre within stand but larger dbh PSME on edge and some within proposed THA. Understory is entirely sword fern – no shrub development. Low stand diversity. GIS indicates MS stand on north end – average diameter of trees 22 inches (PSME) 11-34 dbh range. Perhaps 150 trees per acre in stocked areas – other areas unstocked.

Invasive Plant Species: Scotch broom to west in meadow area.

Unique Habitat Features: Very flat area – some large dbh PSME. No LWD – few snags (some safety issues with snags). Very low diversity.

Proposed Management : Clearcut and establish forage with PSME restocking. Develop LWD and snags where possible. The immediate stand to the west is proposed for meadow expansion. Maintain the few shrubs available between harvest and meadow expansion site with leave trees on that edge as well. Area needs forage enhancements with adjacent elk use and LWD – snag development in an area with little diversity. Re-establish PSME with some intermixing of THPL or TSHE.

Wildlife Observations: Elk use in meadow to west – some pellet groups in adjacent stand. I didn't hear or see a bird in here today! Very quiet.

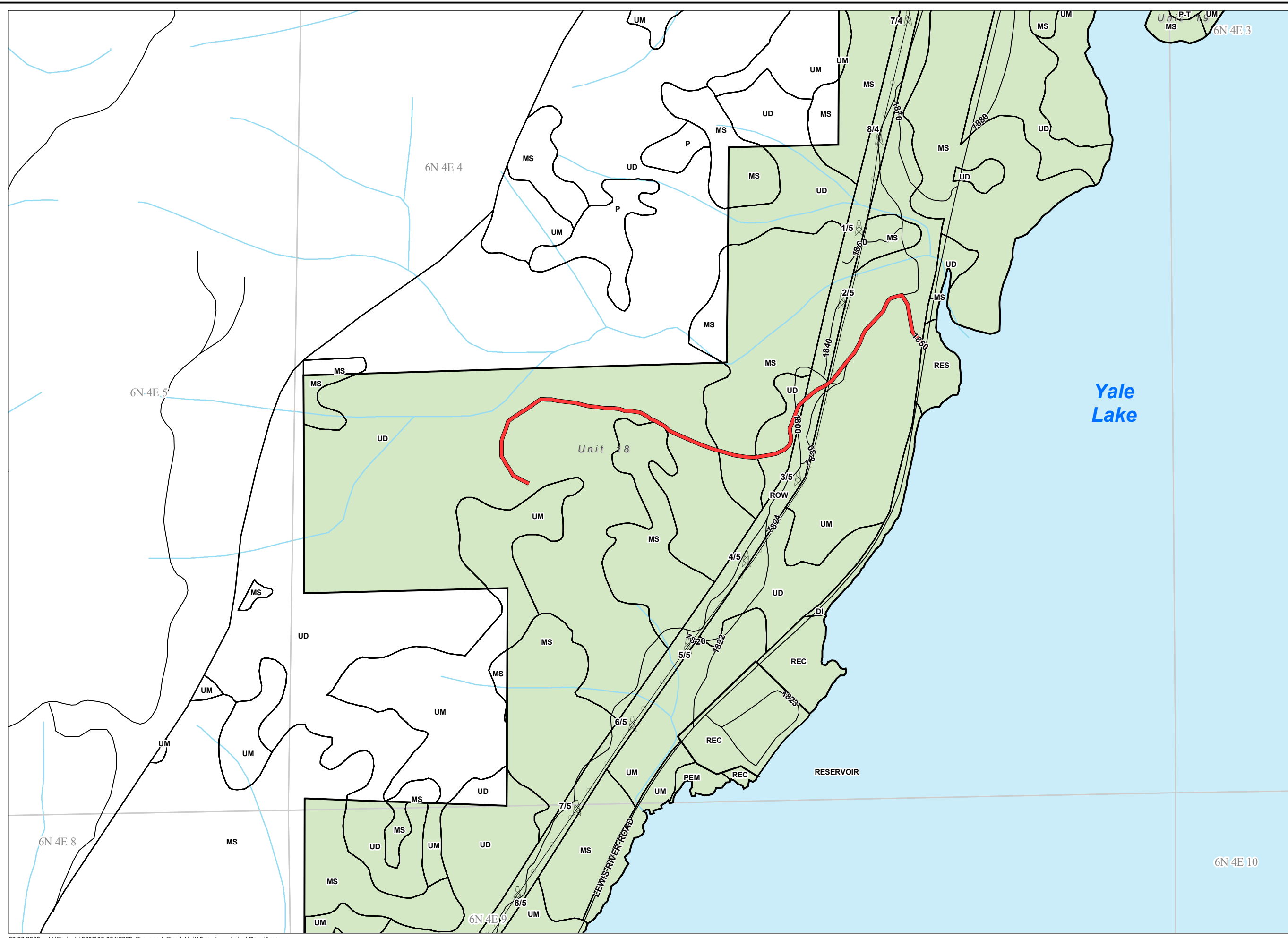
NSO Habitat: MS stand to north is suitable (by definition) but there is limited amount of LWD or snags. No connectivity to OG stands.

Attach a copy of an aerial photo, map, or schematic of the proposed THA; include roads, disturbances, and/or unique features.

Appendix E: 2010 Proposed Timber Harvest Areas Map

Lewis River

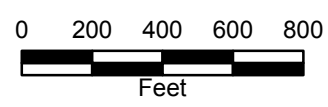
2010 Proposed Road



Legend

- Proposed Road .72 Miles
- Existing Roads
- Vegetation Cover Type
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- Harvest Area
- Section
- PacifiCorp Ownership
- Water Body
- Streams

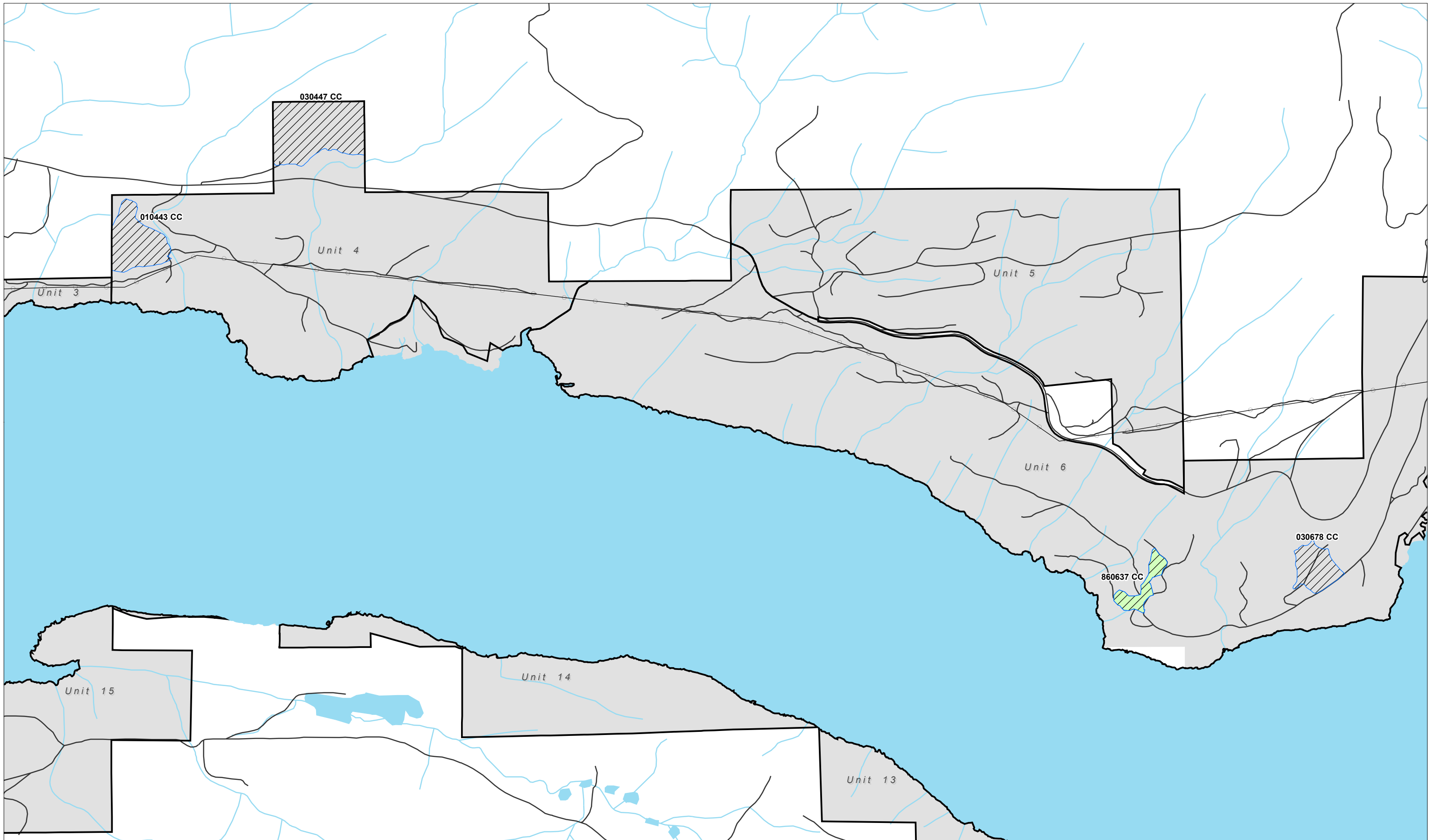
Yale Lake



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Appendix F: 2009 Regeneration Practices Maps



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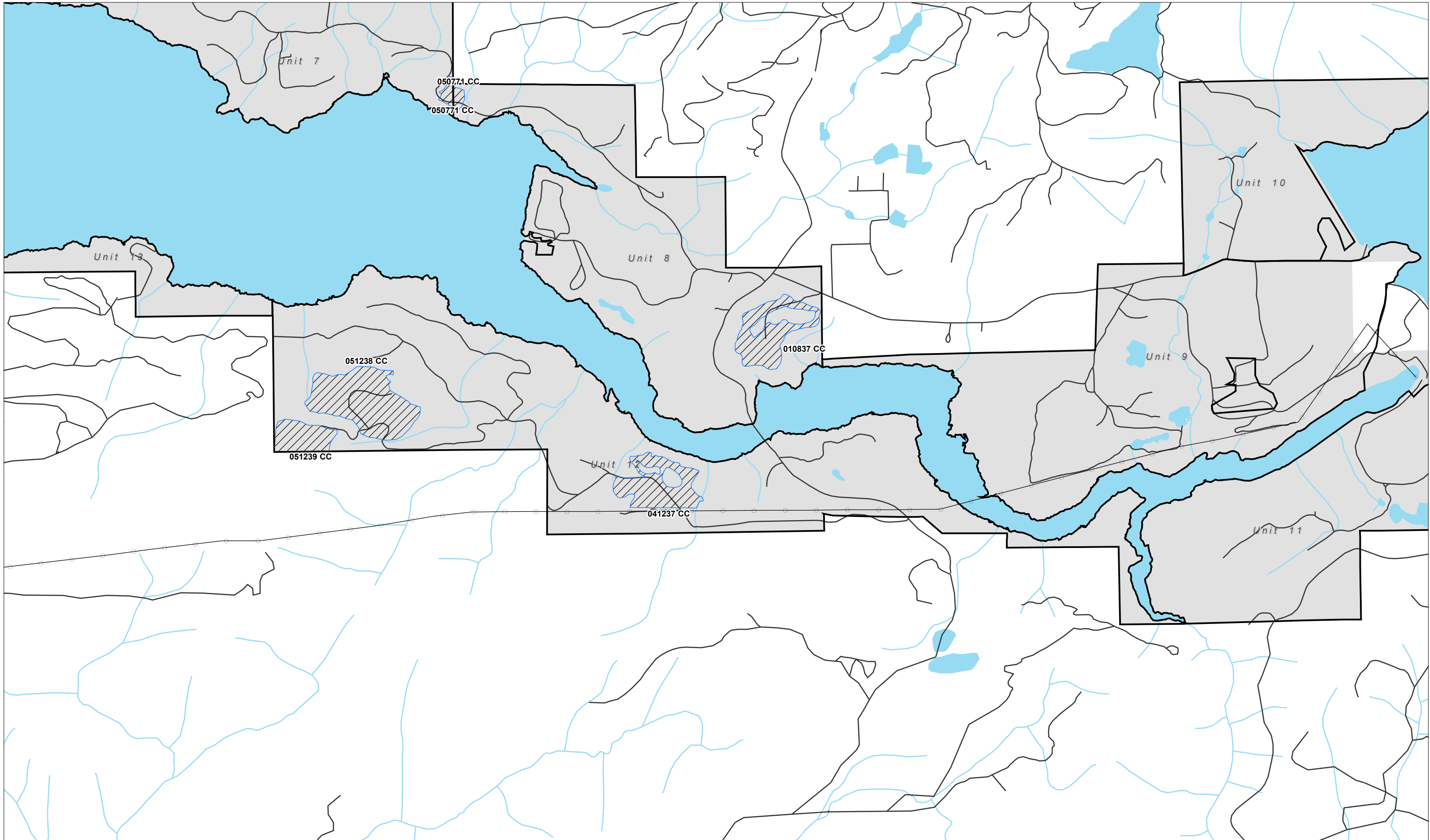
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0 0.25 0.5
 Miles

Legend		
Road	Plant Seedlings	PacifiCorp Ownership
Stream	Interplant Seedlings	Timber Management Unit
PacifiCorp Transmission Line	Seedling Protection	

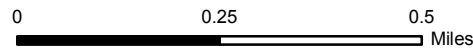
Wildlife Habitat Management Program
 2009 Regeneration Practices
 Sheet 1 of 5



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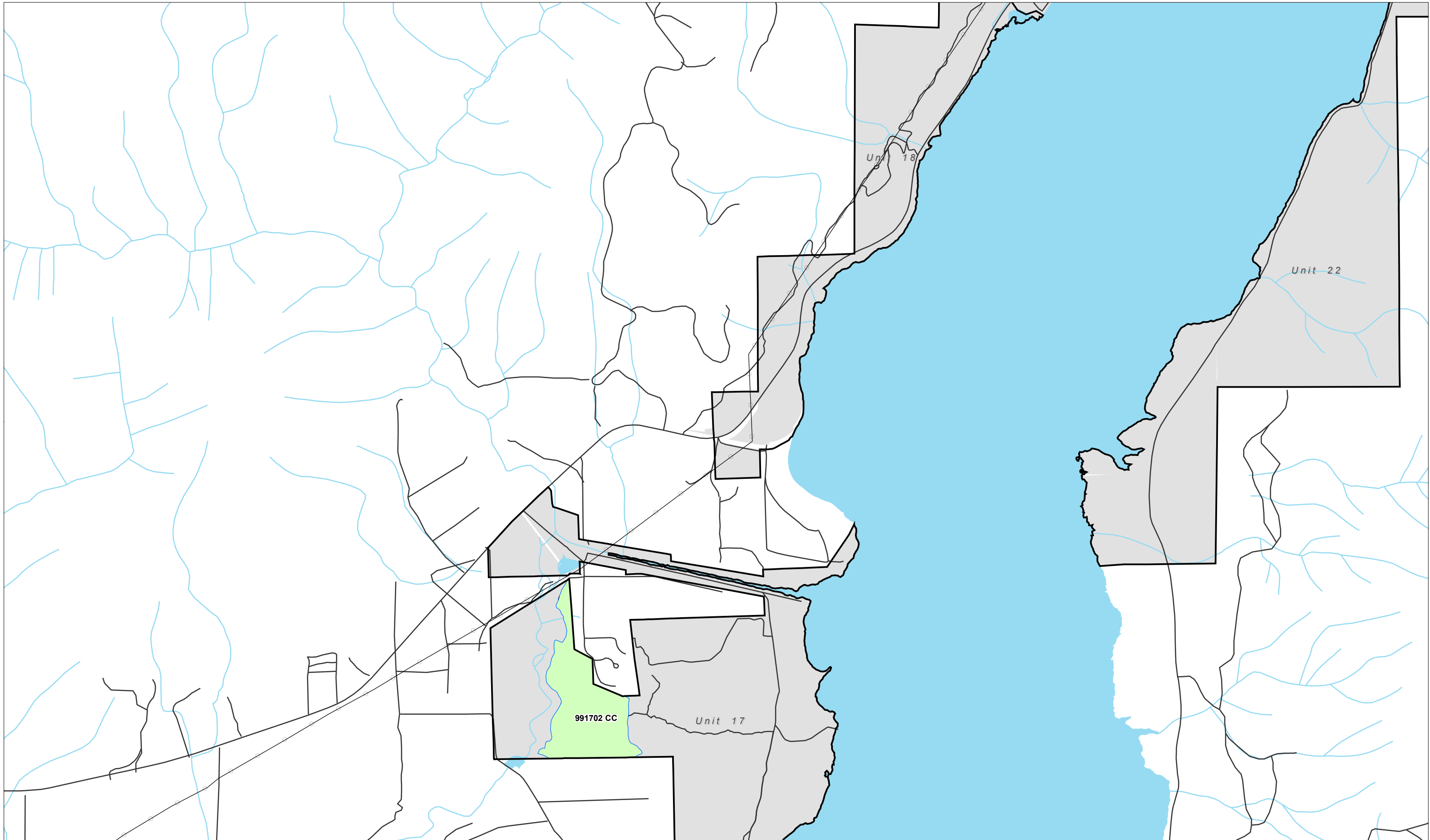


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Legend		
Road	Plant Seedlings	PacifiCorp Ownership
Stream	Interplant Seedlings	Timber Management Unit
PacifiCorp Transmission Line	Seedling Protection	

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 Sheet 2 of 5



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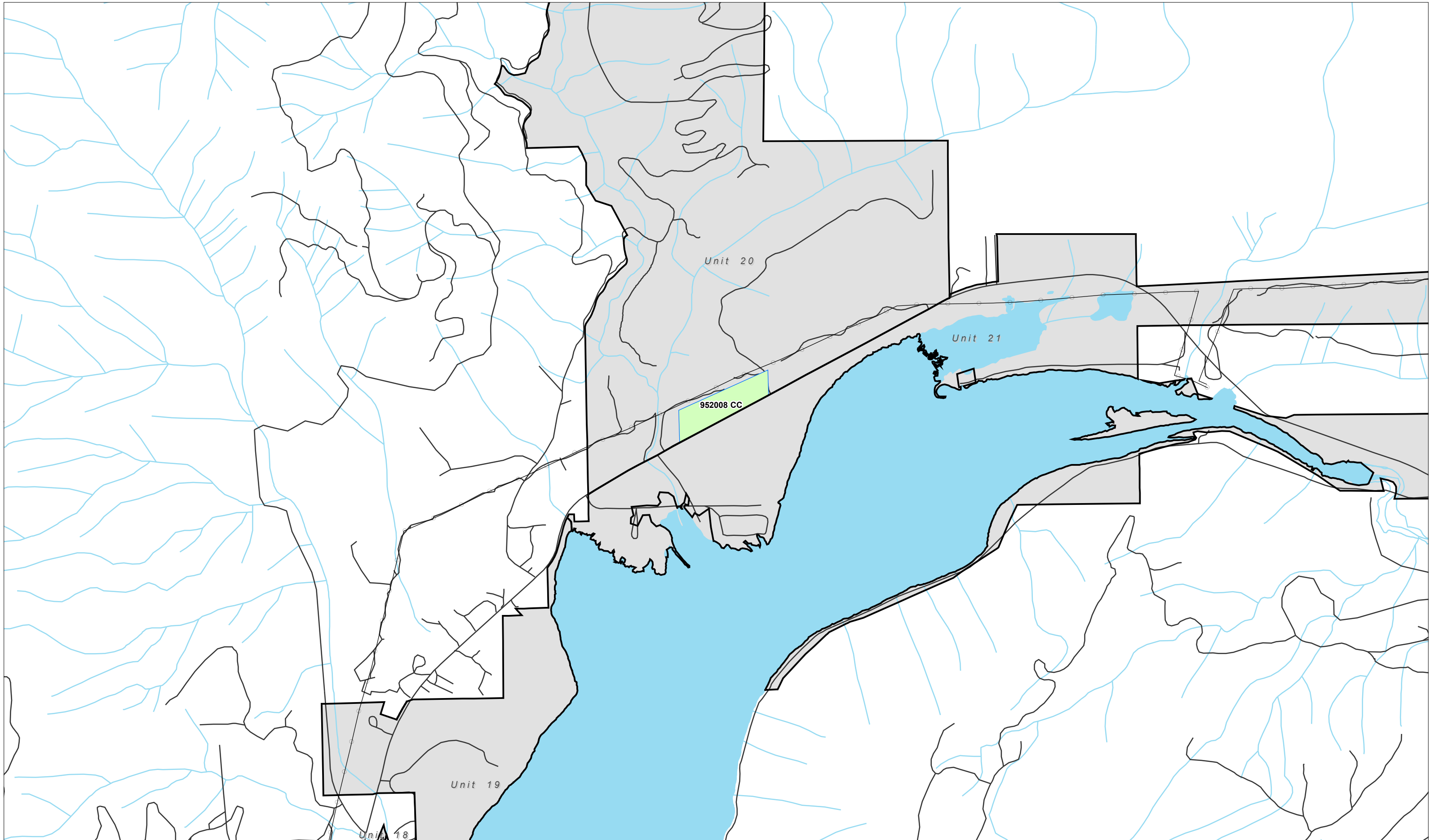


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Legend		
Road	Plant Seedlings	PacifiCorp Ownership
Stream	Interplant Seedlings	Timber Management Unit
PacifiCorp Transmission Line	Seedling Protection	

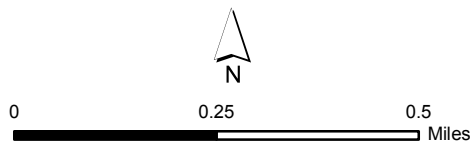
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 2009 Regeneration Practices
 Sheet 3 of 5



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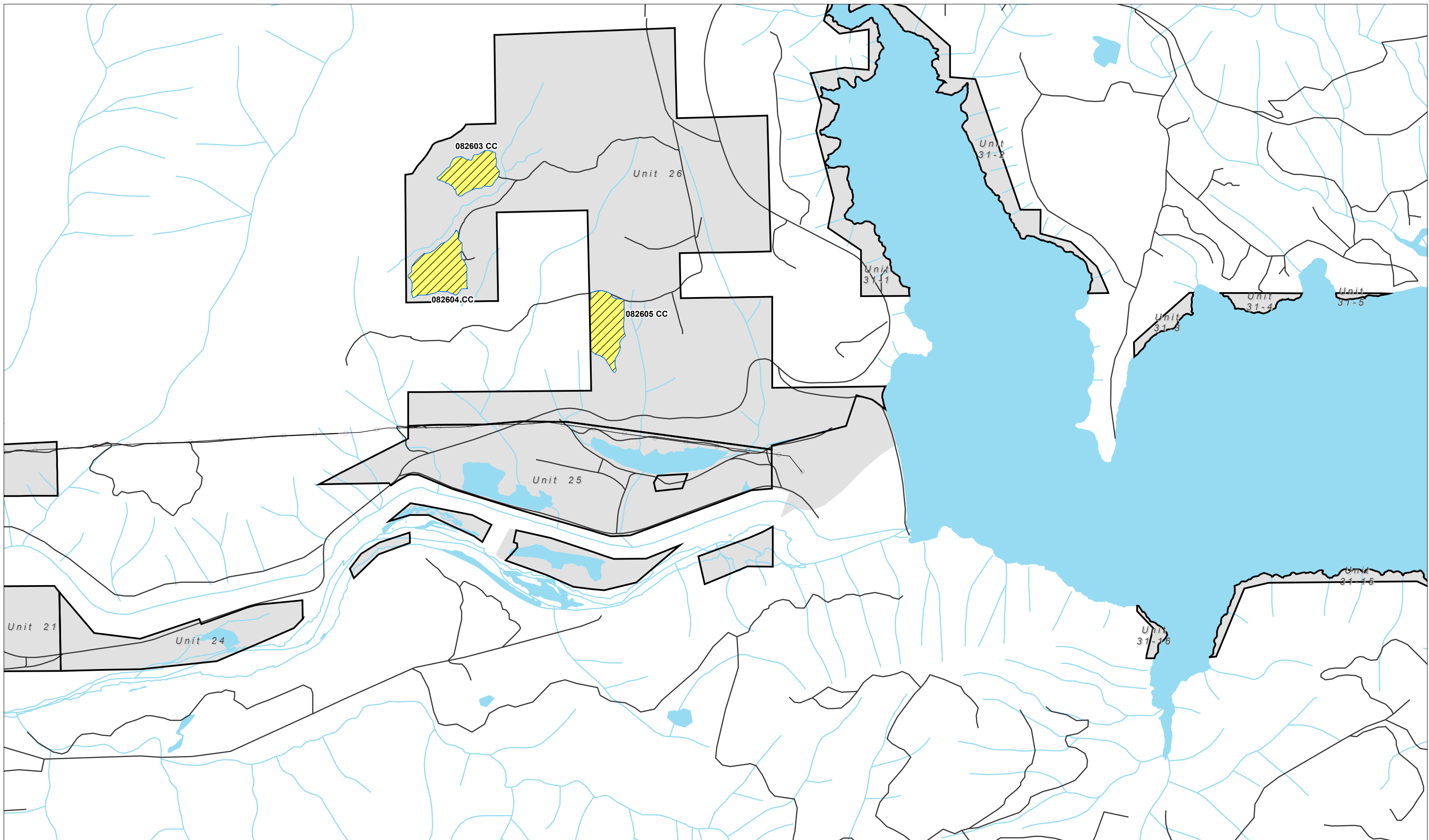


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Legend		
— Road	Plant Seedlings	PacifiCorp Ownership
— Stream	Interplant Seedlings	Timber Management Unit
— PacifiCorp Transmission Line	Seedling Protection	

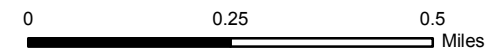
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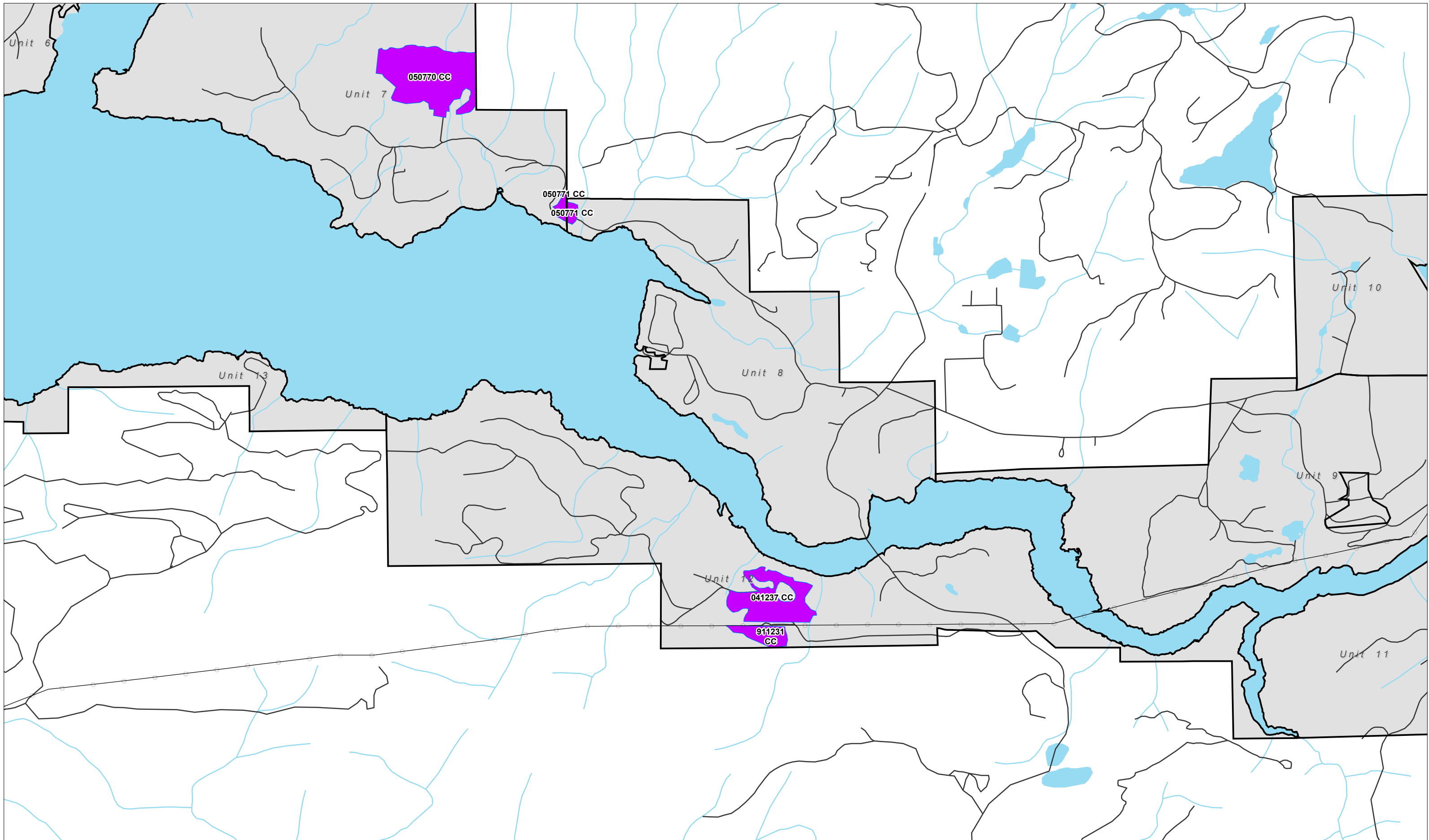
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Legend

— Road	Plant Seedlings	PacifiCorp Ownership
— Stream	Interplant Seedlings	Timber Management Unit
— PacifiCorp Transmission Line	Seedling Protection	

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 Sheet 5 of 5



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 Miles

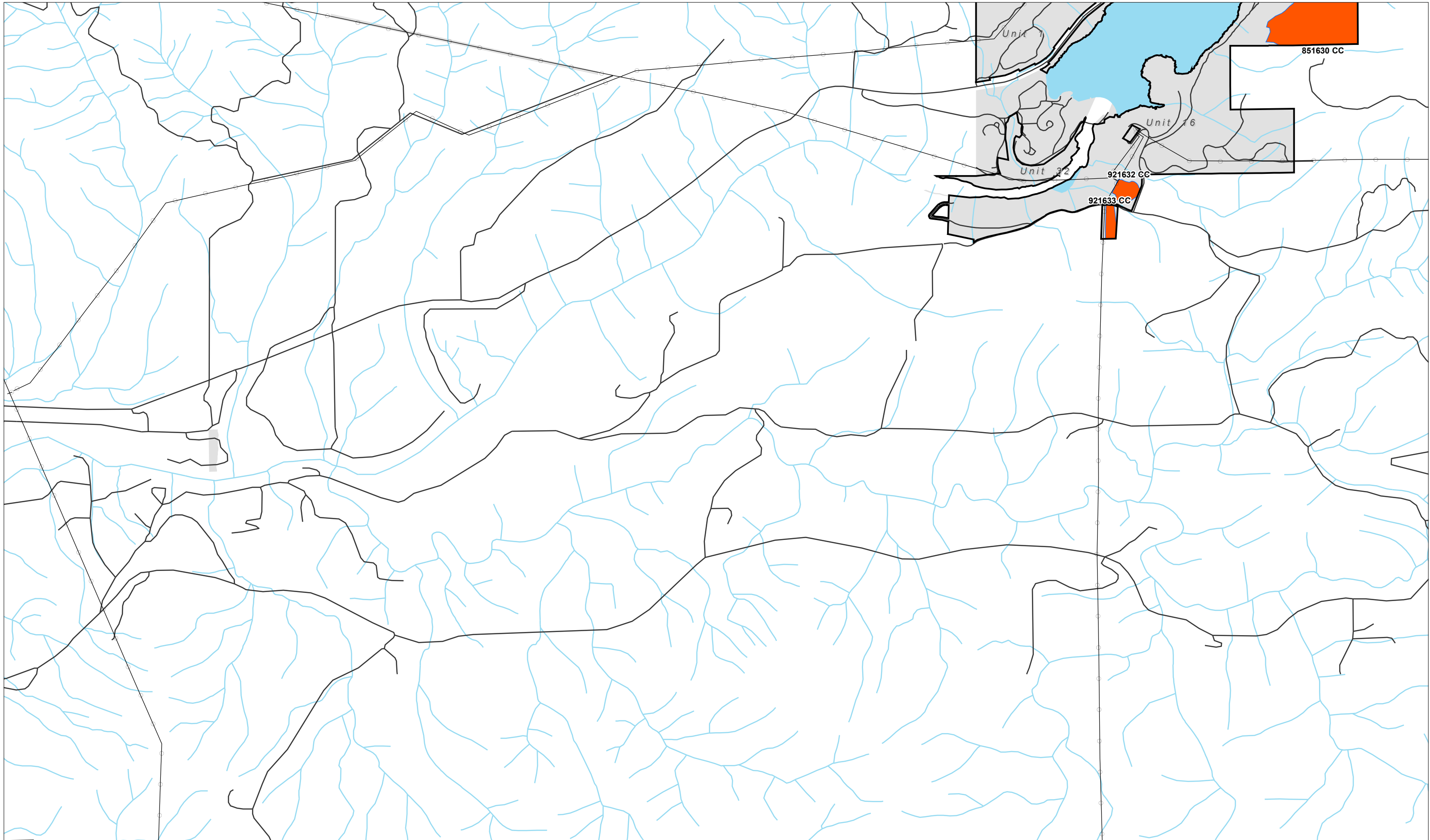
Legend

- Road
- Stream
- PacifiCorp Transmission Line
- Sulfometuron Treatment
- PacifiCorp Ownership
- Timber Management Unit

Wildlife Habitat Management Program

2009 Regeneration Practices

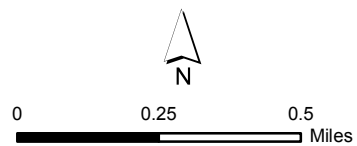
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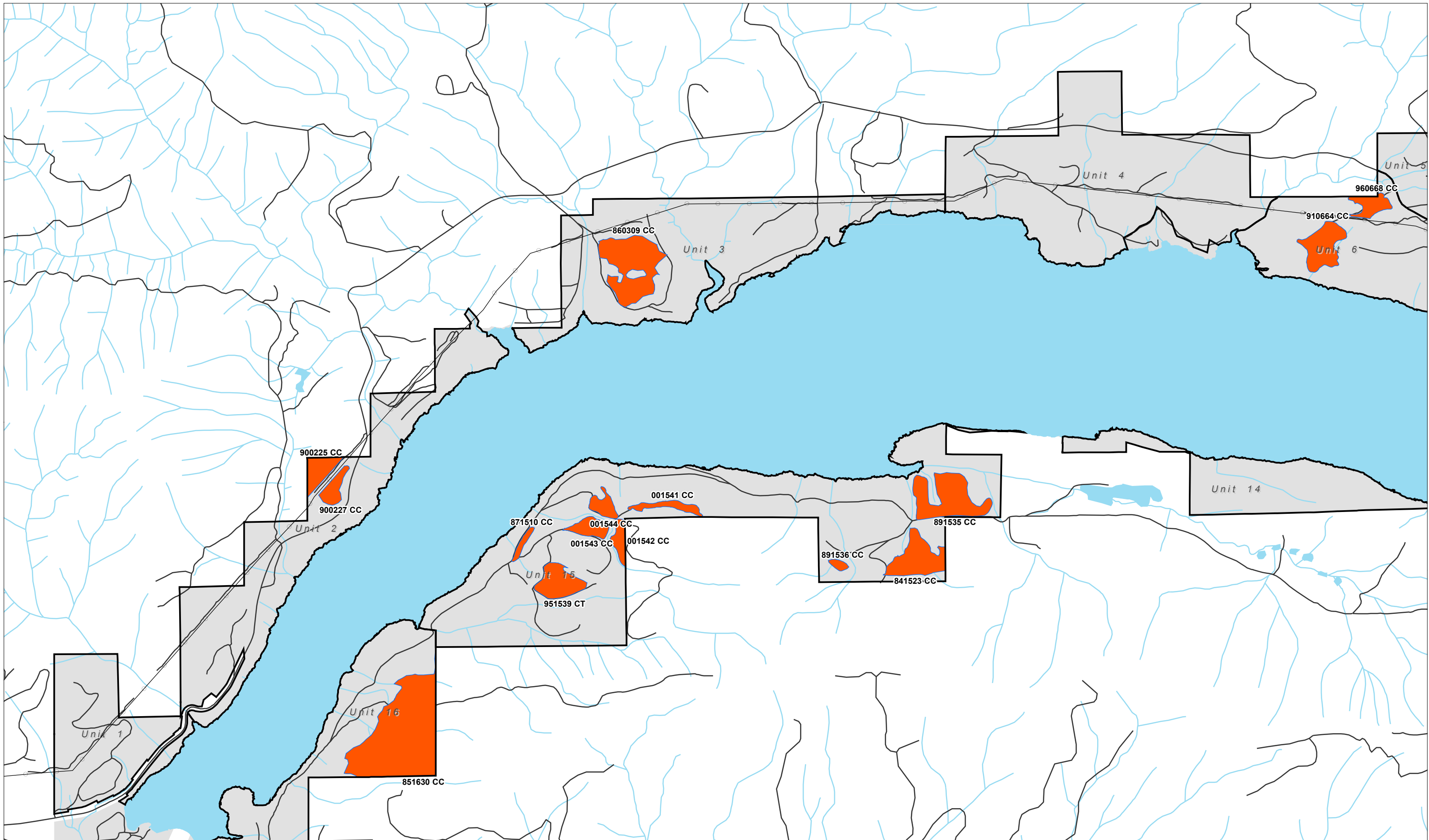


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Legend	
Road	Pre-Commercial Thin Treatment Area
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

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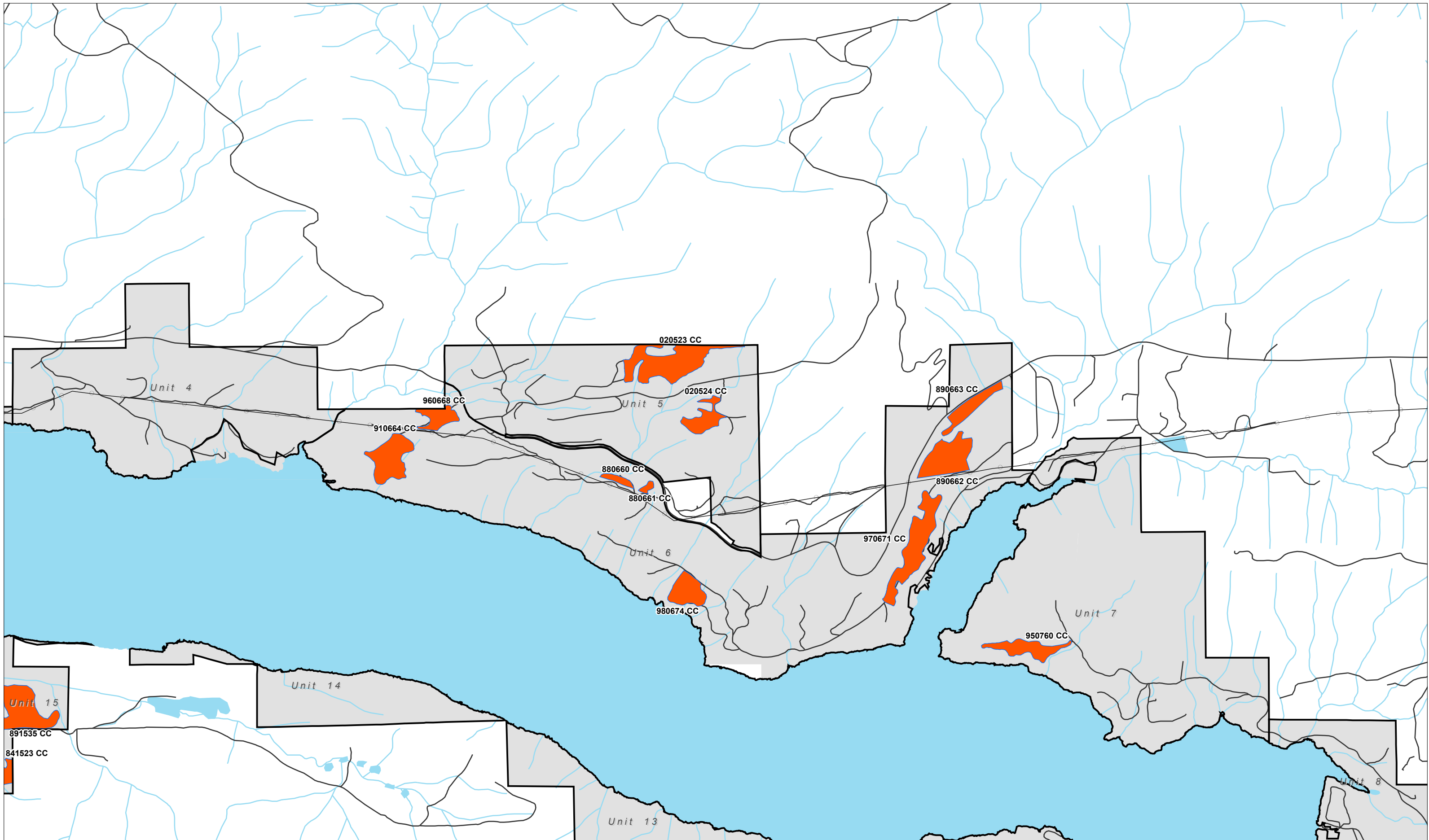
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 Miles

Legend	
Road	Pre-Commercial Thinning Treatment Area
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

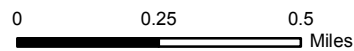
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 2009 Vegetation Control Treatments
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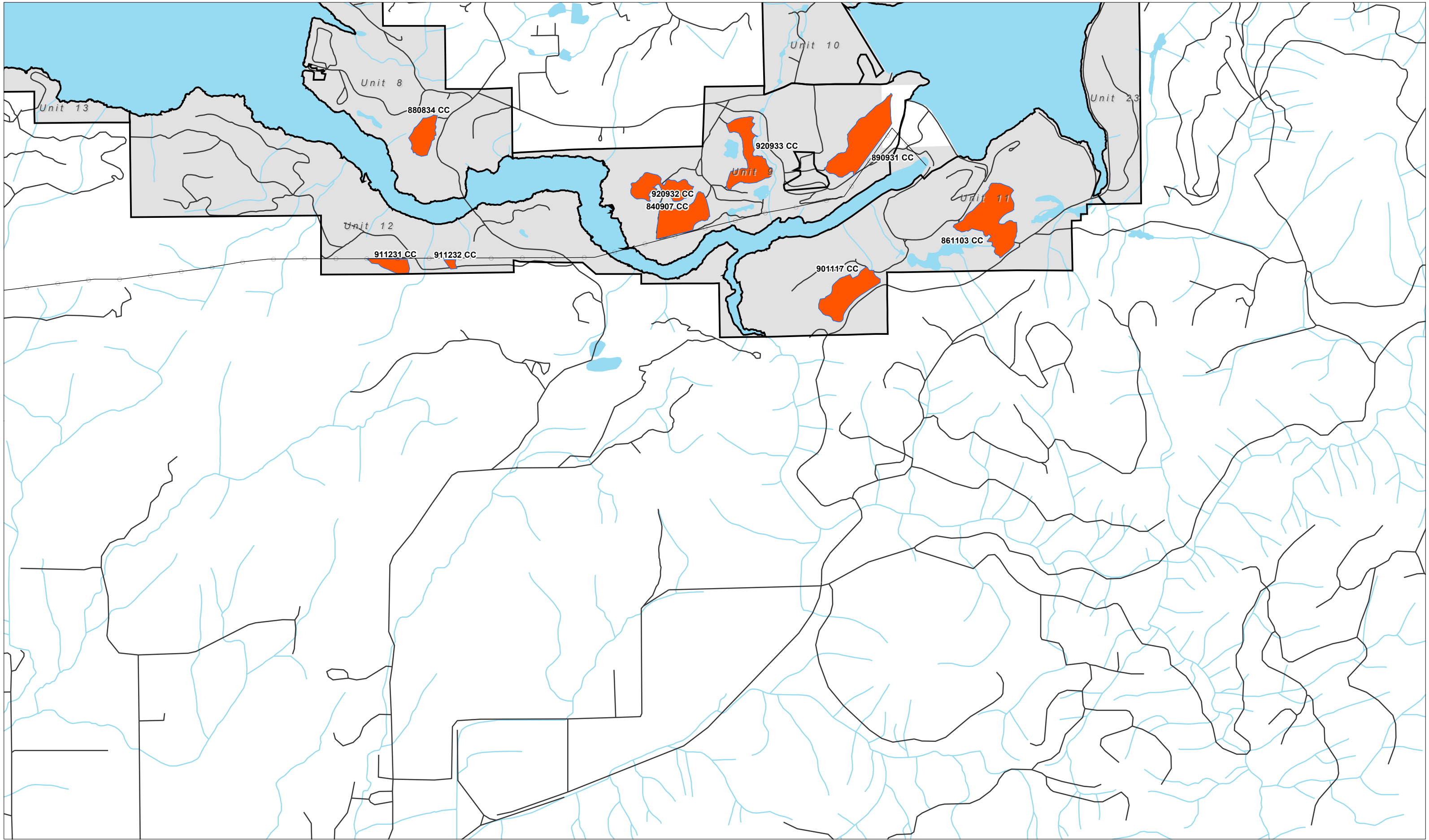


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Legend	
Road	Pre-Commercial Thinning Treatment Area
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

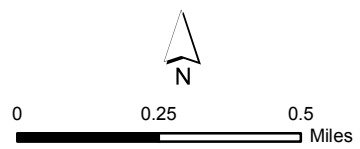
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 2009 Vegetation Control Treatments
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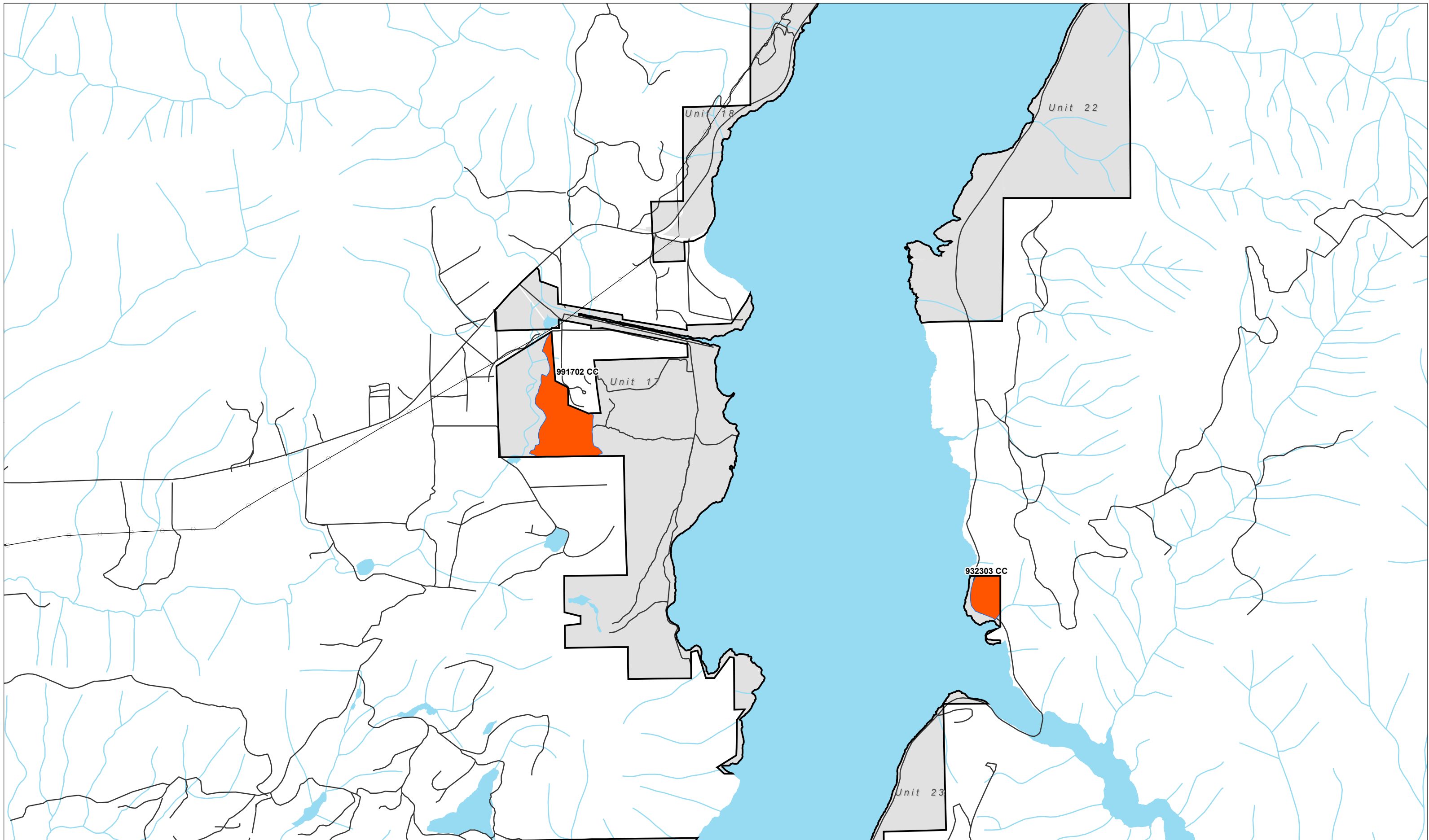
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Legend

- Road
- Stream
- PacifiCorp Transmission Line
- Pre-Commercial Thin Treatment Area
- PacifiCorp Ownership
- Timber Management Unit

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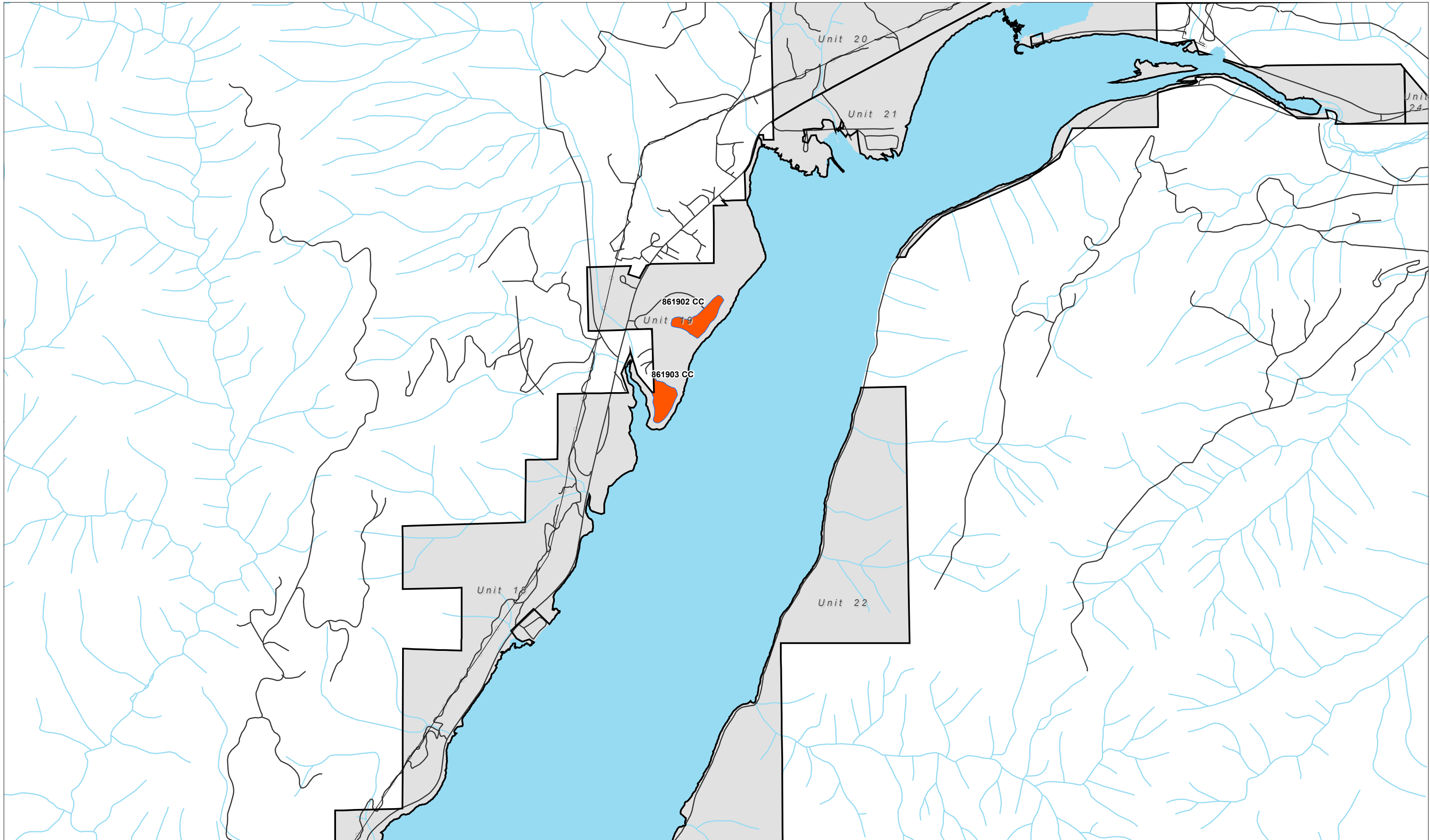
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 Miles

Legend	
— Road	Pre-Commercial Thin Treatment Area
— Stream	PacifiCorp Ownership
— PacifiCorp Transmission Line	Timber Management Unit

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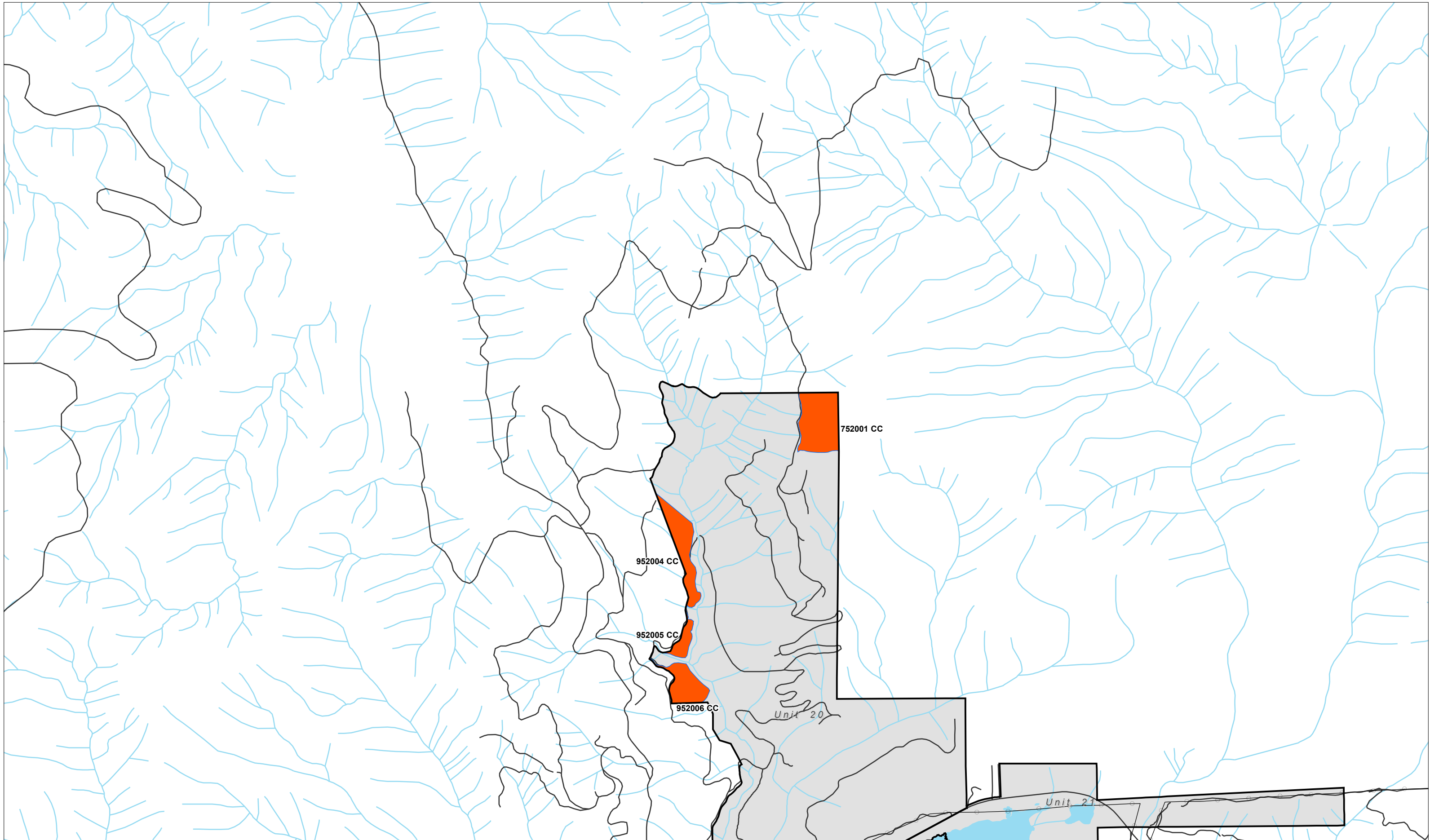
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Miles

Legend	
— Road	Pre-Commercial Thin Treatment Area
— Stream	PacificCorp Ownership
— PacifiCorp Transmission Line	Timber Management Unit

Wildlife Habitat Management Program

2009 Vegetation Control Treatments

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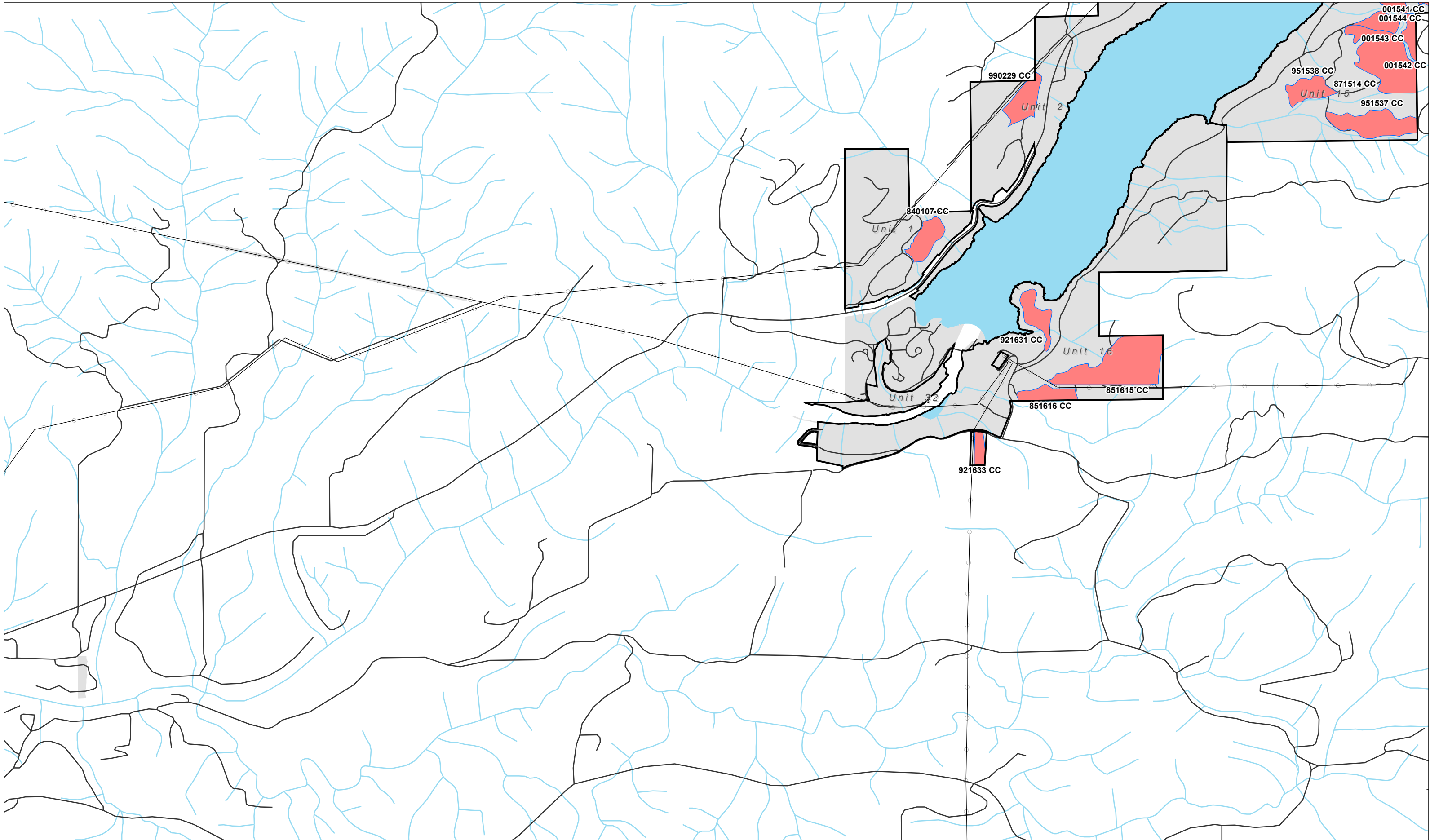
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 Miles

Legend

- Road
- Stream
- PacifiCorp Transmission Line
- Pre-Commercial Thin Treatment Area
- PacifiCorp Ownership
- Timber Management Unit

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Appendix G: 2009 Vegetation Control Map



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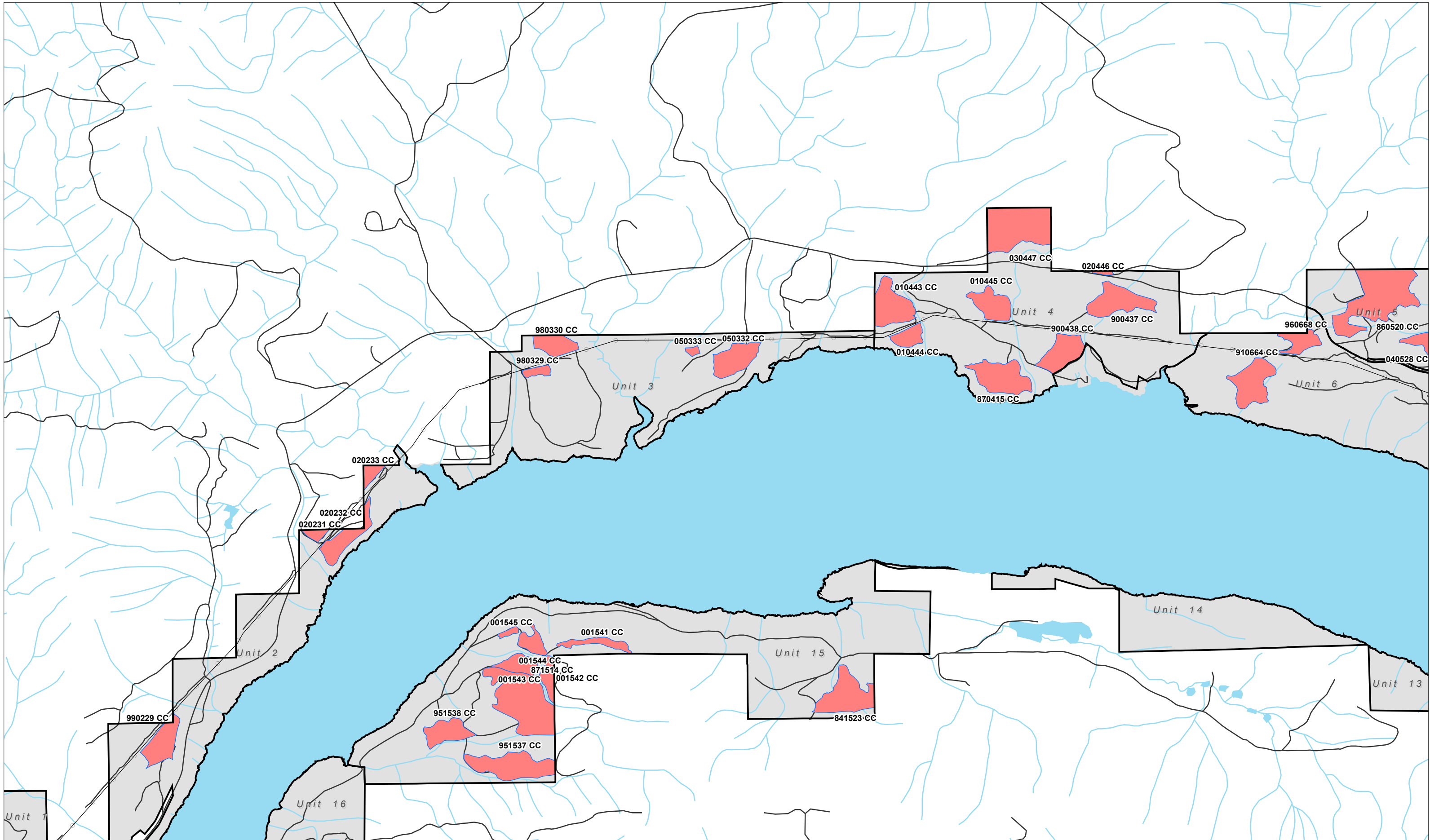


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 Miles

Legend

Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

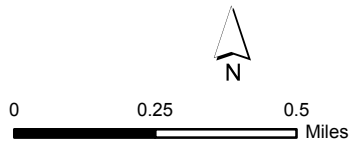
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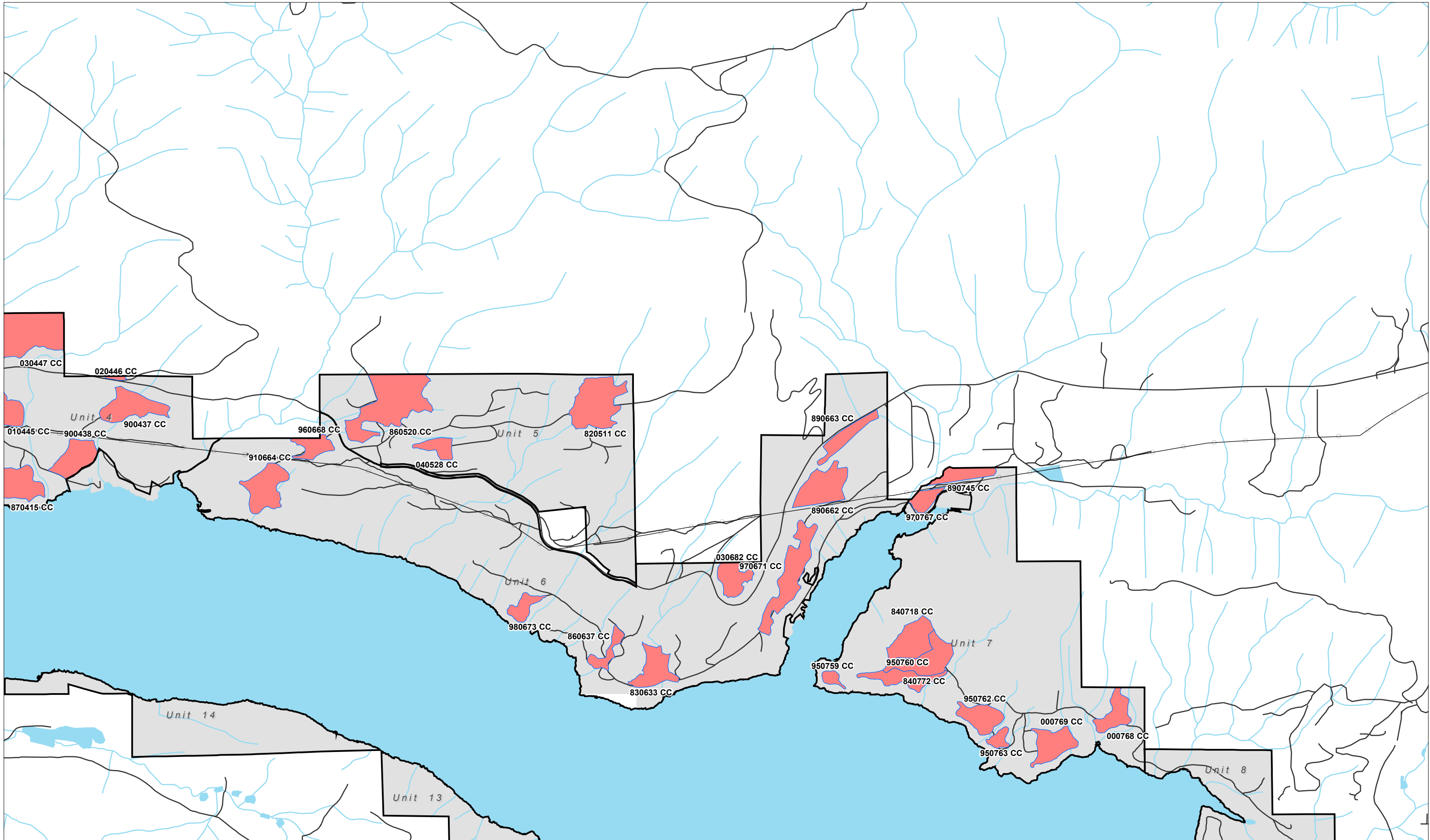


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Legend	
Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

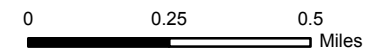
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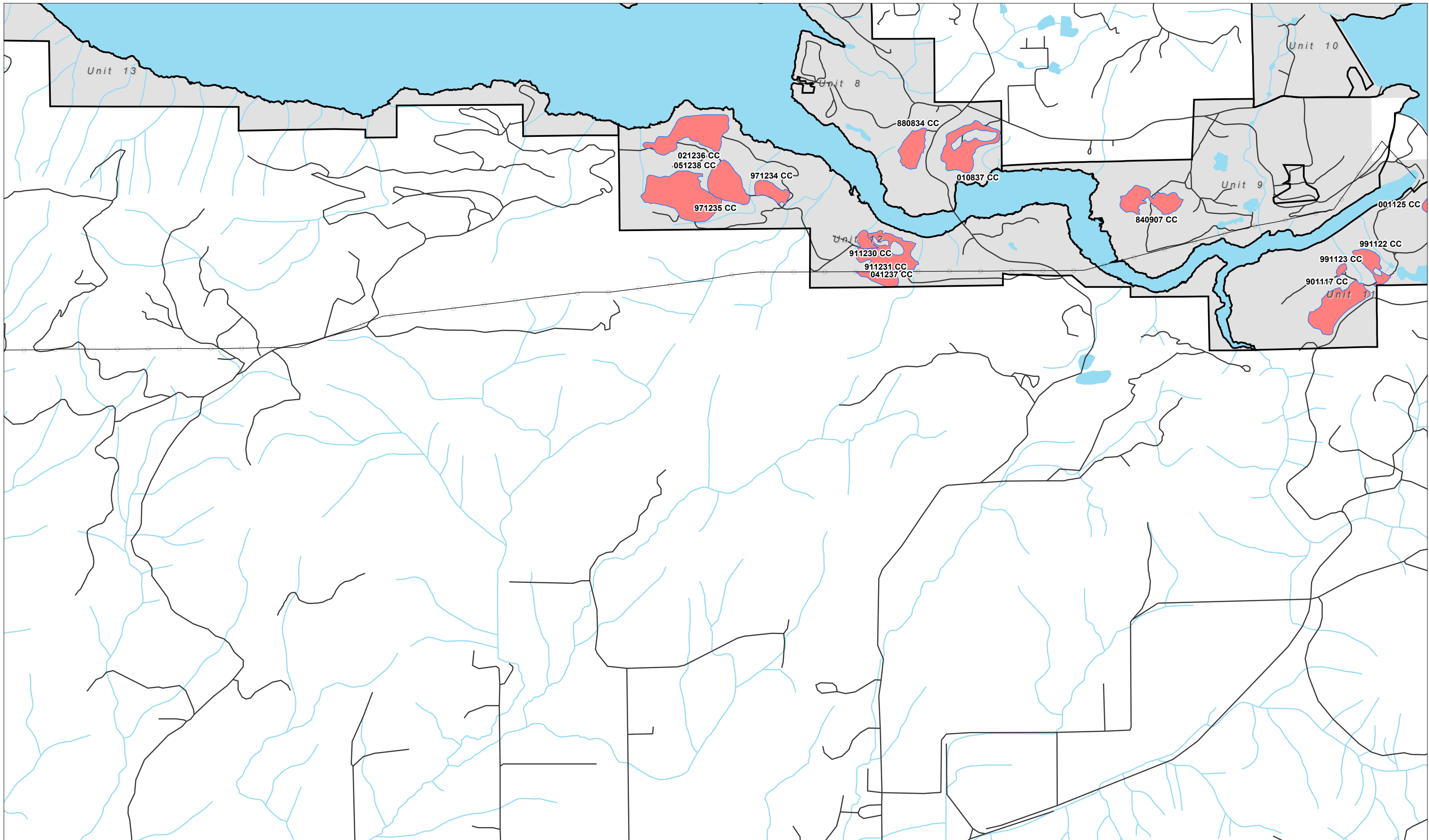
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Legend

Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

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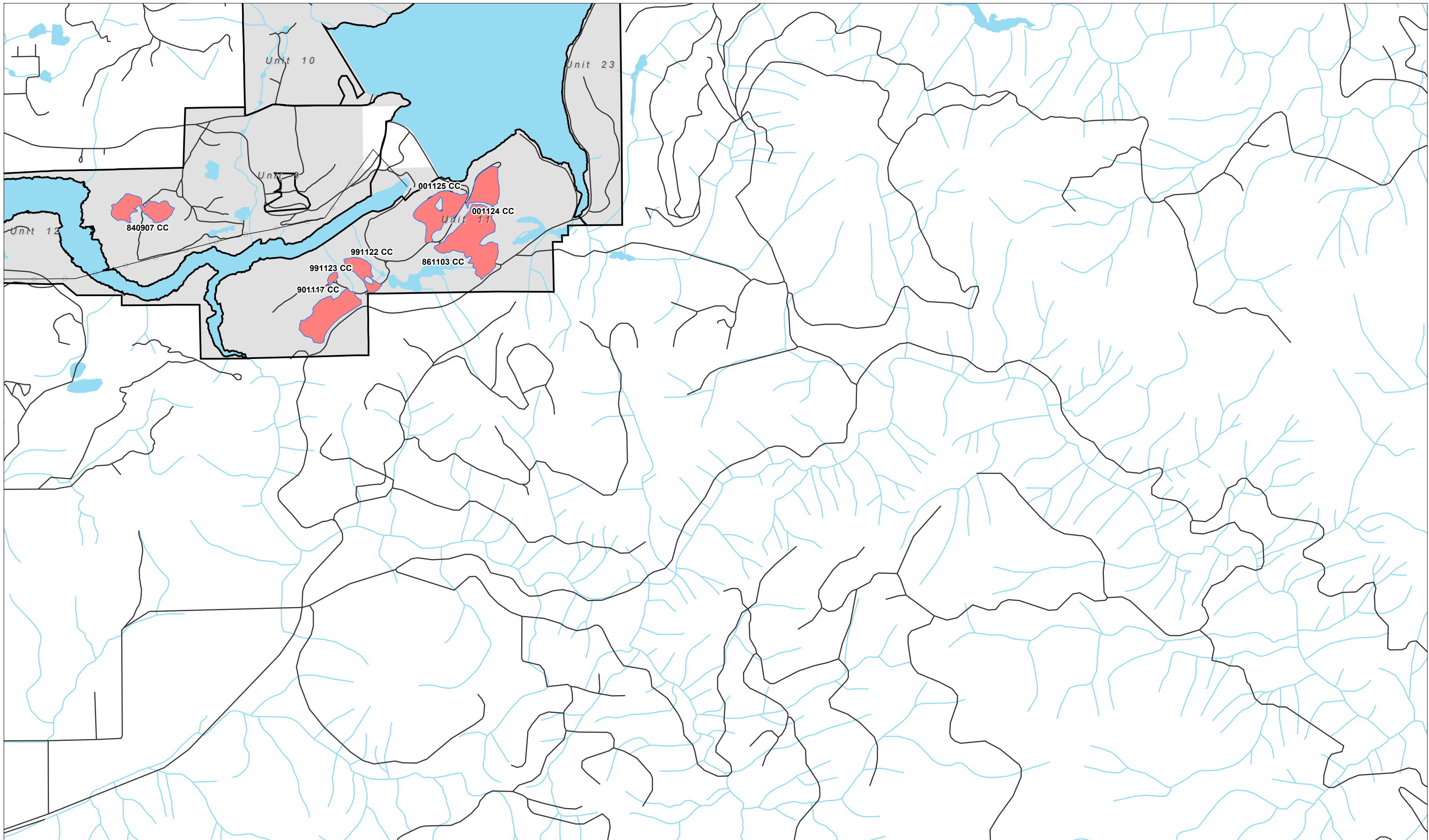


0 0.25 0.5
 Miles

Legend

Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

Wildlife Habitat Management Program
 2009 Vegetation Control Treatments
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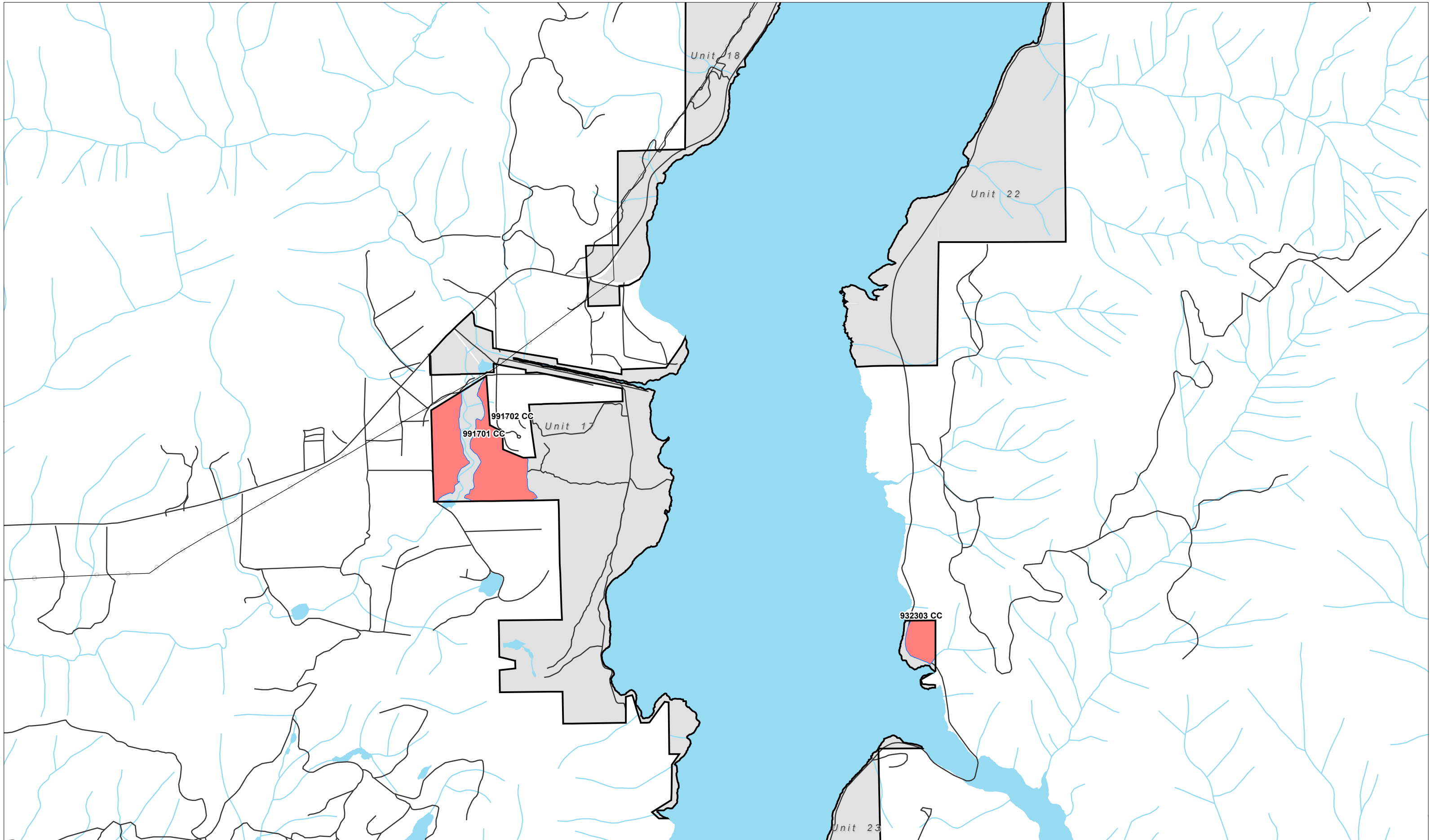
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0 0.25 0.5
 Miles

Legend	
Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

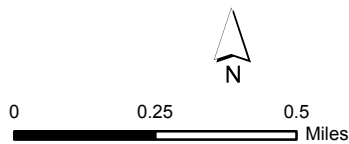
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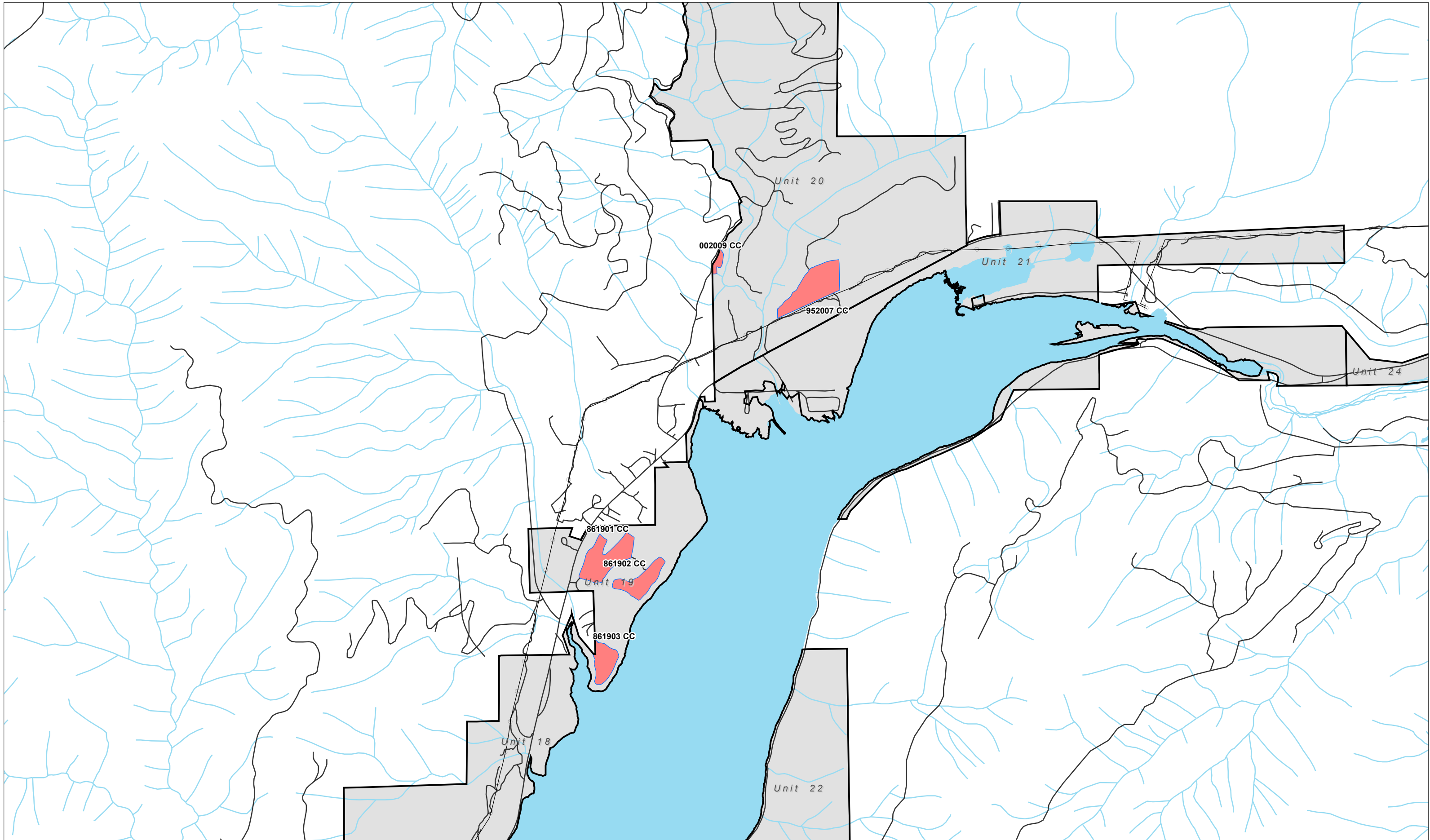


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Legend	
Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

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0 0.25 0.5
 Miles

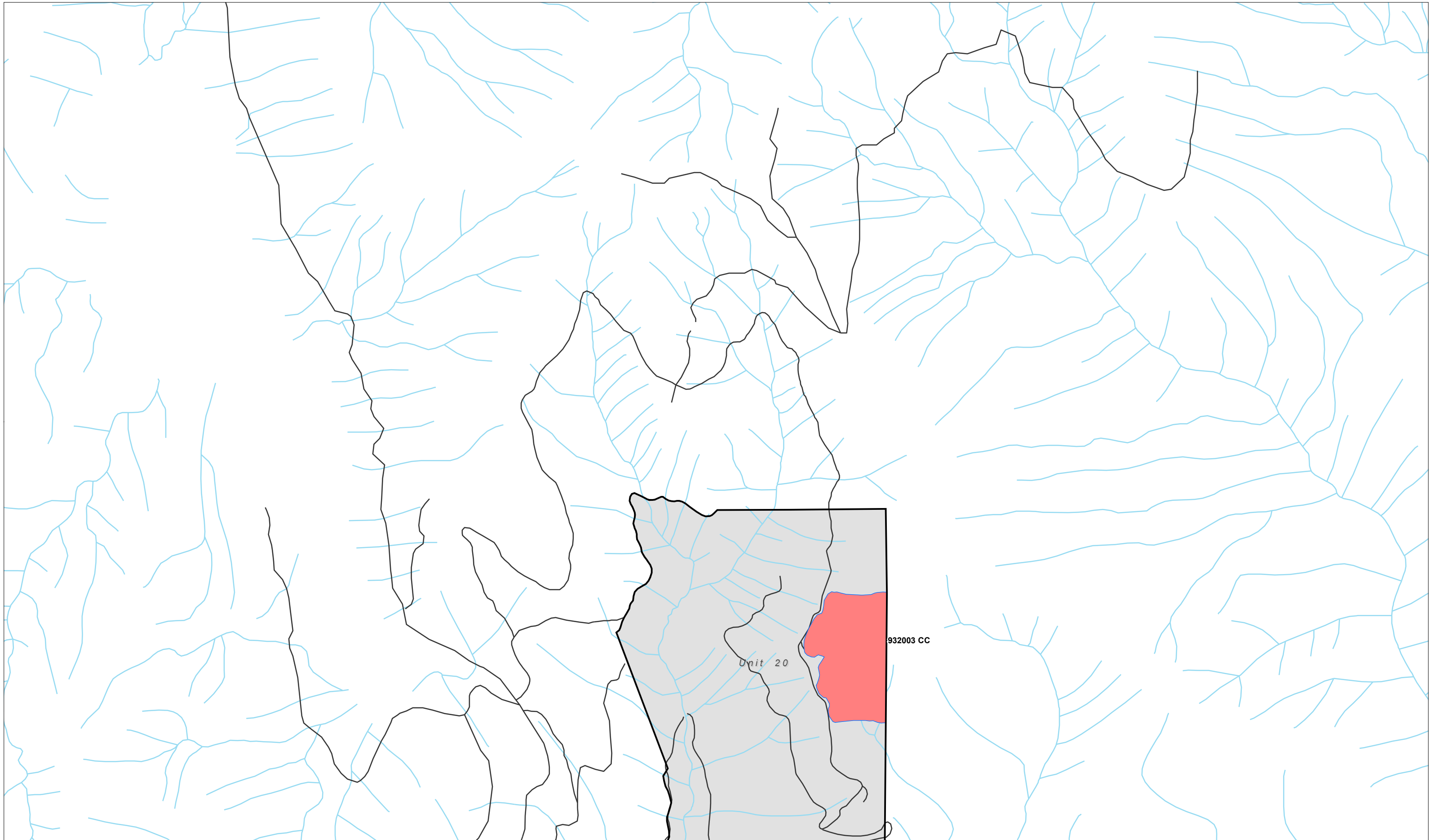
Legend

- Road
- Stream
- PacifiCorp Transmission Line
- Vegetation Control Treatments
- PacifiCorp Ownership
- Timber Management Unit

Wildlife Habitat Management Program

2009 Vegetation Control Treatments

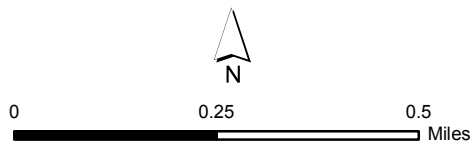
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Legend	
Road	Vegetation Control Treatments
Stream	PacifiCorp Ownership
PacifiCorp Transmission Line	Timber Management Unit

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 Sheet 8 of 8

Appendix H: Updated 2009 Washington State and County Noxious Weed list

Class A Weeds: Non-native species whose distribution in Washington is still limited. Preventing new infestations and eradicating existing infestations are the highest priority. Eradication of all Class A plants is required by law.

Class B Weeds: Non-native species presently limited to portions of the State. Species are designated for control in regions where they are not yet widespread. Preventing new infestations in these areas is a high priority. In regions where a Class B species is already abundant, control is decided at the local level, with containment as the primary goal. Please contact your County Noxious Weed Control Coordinator to learn which species are designated in your area.

Class C Weeds: Noxious weeds which are already widespread in WA or are of special interest to the state's agricultural industry. The Class C status allows counties to enforce control if locally desired. Other counties may choose to provide education or technical consultation.

**Class A Weeds
Eradication is required**

buffalobur	<i>Solanum rostratum</i>
common crupina	<i>Crupina vulgaris</i>
cordgrass, common	<i>Spartina anglica</i>
cordgrass, dense flower	<i>Spartina densiflora</i>
cordgrass, salt meadow	<i>Spartina patens</i>
■ cordgrass, smooth	<i>Spartina alterniflora</i>
dyers woad	<i>Isatis tinctoria</i>
eggleaf spurge	<i>Euphorbia oblongata</i>
● false brome	<i>Brachypodium sylvaticum</i>
floating primrose-willow	<i>Ludwigia peploides</i>
● flowering rush	<i>Butomus umbellatus</i>
garlic mustard	<i>Alliaria petiolata</i>
giant hogweed	<i>Heraclium mantegazzianum</i>
goatsrue	<i>Galega officinalis</i>
hawkweed, European	<i>Hieracium sabaudum</i>
hawkweed, yellow devil	<i>Hieracium floribundum</i>
hydrilla	<i>Hydrilla verticillata</i>
johnsongrass	<i>Sorghum halepense</i>
knapweed, bighead	<i>Centaurea macrocephala</i>
knapweed, Vochin	<i>Centaurea nigrescens</i>
kudzu	<i>Pueraria montana</i> var. <i>lobata</i>

meadow clary	<i>Salvia pratensis</i>
purple starthistle	<i>Centaurea calcitrapa</i>
reed sweetgrass	<i>Glyceria maxima</i>
ricefield bulrush	<i>Schoenoplectus mucronatus</i>
sage, clary	<i>Salvia sclarea</i>
sage, Mediterranean	<i>Salvia aethiopis</i>
● shiny geranium	<i>Geranium lucidum</i>
silverleaf nightshade	<i>Solanum elaeagnifolium</i>
Spanish broom	<i>Spartium junceum</i>
spurge flax	<i>Thymelaea passerina</i>
Syrian bean-caper	<i>Zygophyllum fabago</i>
Texas blueweed	<i>Helianthus ciliaris</i>
thistle, Italian	<i>Carduus pycnocephalus</i>
thistle, milk	<i>Silybum marianum</i>
thistle, slenderflower	<i>Carduus tenuiflorus</i>
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>
velvetleaf	<i>Abutilon theophrasti</i>
wild four o'clock	<i>Mirabilis nyctaginea</i>

Class B Weeds

Austrian fieldcress	<i>Rorippa austriaca</i>
blackgrass	<i>Alopecurus myosuroides</i>
blueweed	<i>Echium vulgare</i>
Brazilian elodea	<i>Egeria densa</i>
bugloss, annual	<i>Anchusa arvensis</i>
bugloss, common	<i>Anchusa officinalis</i>
butterfly bush	<i>Buddleja davidii</i>
camelthorn	<i>Alhagi maurorum</i>
common catsear	<i>Hypochaeris radicata</i>
common fennel	<i>Foeniculum vulgare</i>
common reed	<i>Phragmites australis</i>
(nonnative genotypes)	
dalmatian toadflax	<i>Linaria dalmatica</i> ssp. <i>dalmatica</i>
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
fanwort	<i>Cabomba caroliniana</i>
gorse	<i>Ulex europaeus</i>
grass-leaved arrowhead	<i>Sagittaria graminea</i>
hawkweed oxtongue	<i>Picris hieracioides</i>
hawkweed, mouseear	<i>Hieracium pilosella</i>
hawkweed, orange	<i>Hieracium aurantiacum</i>
hawkweed, polar	<i>Hieracium atratum</i>
hawkweed, queen-devil	<i>Hieracium glomeratum</i>
hawkweed, smooth	<i>Hieracium laevigatum</i>
hawkweed, yellow	<i>Hieracium caespitosum</i>

herb-Robert	<i>Geranium robertianum</i>
hoary alyssum	<i>Berteroa incana</i>
houndstongue	<i>Cynoglossum officinale</i>
indigobush	<i>Amorpha fruticosa</i>
knapweed, black	<i>Centaurea nigra</i>
knapweed, brown	<i>Centaurea jacea</i>
knapweed, diffuse	<i>Centaurea diffusa</i>
knapweed, meadow	<i>Centaurea jacea x nigra</i>
knapweed, Russian	<i>Acroptilon repens</i>
knapweed, spotted	<i>Centaurea stoebe</i>
knotweed, Bohemian	<i>Polygonum bohemicum</i>
knotweed, giant	<i>Polygonum sachalinense</i>
knotweed, Himalayan	<i>Polygonum polystachyum</i>
knotweed, Japanese	<i>Polygonum cuspidatum</i>
kochia	<i>Kochia scoparia</i>
lawnweed	<i>Soliva sessilis</i>
lepyrodiclis	<i>Lepydiclis holosteoides</i>
longspine sandbur	<i>Cenchrus longispinus</i>
loosestrife, garden	<i>Lysimachia vulgaris</i>
loosestrife, purple	<i>Lythrum salicaria</i>
loosestrife, wand	<i>Lythrum virgatum</i>
oxeye daisy	<i>Leucanthemum vulgare</i>
parrotfeather	<i>Myriophyllum aquaticum</i>
perennial pepperweed	<i>Lepidium latifolium</i>
perennial sowthistle	<i>Sonchus arvensis</i> ssp. <i>arvensis</i>
policeman's helmet	<i>Impatiens glandulifera</i>
poison-hemlock	<i>Conium maculatum</i>
puncturevine	<i>Tribulus terrestris</i>
rush skeletonweed	<i>Chondrilla juncea</i>
saltcedar	<i>Tamarix ramosissima</i>
scotch broom	<i>Cytisus scoparius</i>
spurge laurel	<i>Daphne laureola</i>
spurge, leafy	<i>Euphorbia esula</i>
spurge, myrtle	<i>Euphorbia myrsinites</i>
sulfur cinquefoil	<i>Potentilla recta</i>
swainsonpea	<i>Sphaerophysa salsula</i>
tansy ragwort	<i>Senecio jacobaea</i>
thistle, musk	<i>Carduus nutans</i>
thistle, plumeless	<i>Carduus acanthoides</i>
thistle, Scotch	<i>Onopordum acanthium</i>
water primrose	<i>Ludwigia hexapetala</i>
white bryony	<i>Bryonia alba</i>
wild carrot	<i>Daucus carota</i>
wild chervil	<i>Anthriscus sylvestris</i>

yellow floating heart	<i>Nymphoides peltata</i>
yellow nutsedge	<i>Cyperus esculentus</i>
yellow starthistle	<i>Centaurea solstitialis</i>

Class C Weeds

absinth wormwood	<i>Artemisia absinthium</i>
babysbreath	<i>Gypsophila paniculata</i>
black henbane	<i>Hyoscyamus niger</i>
cereal rye	<i>Secale cereale</i>
common groundsel	<i>Senecio vulgaris</i>
common St. Johnswort	<i>Hypericum perforatum</i>
common tansy	<i>Tanacetum vulgare</i>
curly-leaf pondweed	<i>Potamogeton crispus</i>
English ivy - four cultivars only	<i>Hedera helix</i> 'Baltica', 'Pittsburgh', and 'Star'; <i>H. hibernica</i> 'Hibernica'
● evergreen blackberry	<i>Rubus laciniatus</i>
field bindweed	<i>Convolvulus arvensis</i>
fragrant water lily	<i>Nymphaea odorata</i>
hairy whitetop	<i>Cardaria pubescens</i>
hairy willow-herb	<i>Epilobium hirsutum</i>
hawkweed, common	<i>Hieracium lachenalii</i>
hawkweeds, nonnative and invasive species not listed elsewhere	<i>Hieracium</i> spp.
● Himalayan blackberry	<i>Rubus armeniacus</i>
hoary cress	<i>Cardaria draba</i>
jointed goatgrass	<i>Aegilops cylindrica</i>
old man's beard	<i>Clematis vitalba</i>
reed canarygrass	<i>Phalaris arundinacea</i>
scentless mayweed	<i>Matricaria perforata</i>
smoothseed alfalfa	<i>Cuscuta approximata</i>
dodder	
spikeweed	<i>Hemizonia pungens</i>
spiny cocklebur	<i>Xanthium spinosum</i>
thistle, bull	<i>Cirsium vulgare</i>
thistle, Canada	<i>Cirsium arvense</i>
white cockle	<i>Silene latifolia</i> ssp. <i>alba</i>
yellow archangel	<i>Lamium galeobdolon</i>
yellow flag iris	<i>Iris pseudacorus</i>
yellow toadflax	<i>Linaria vulgaris</i>

- New additions to the 2009 Noxious Weed List
- Change in Noxious Weed Class

Noxious Weeds are non-native plants introduced to Washington State that can be highly destructive, competitive, and difficult to control. These plants invade our croplands, rangeland, forests, parks, rivers, lakes, wetlands, and estuaries causing both ecological and economical damage that affects us all. Noxious weeds can:

- Lower crop yields
- Reduce forage quality
- Destroy plant and animal habitat
- Displace native plants
- Reduce recreational opportunities (e.g., fishing, hunting, swimming and hiking)
- Clog waterways
- Decrease land values
- Increase erosion and wildfire risk
- And some are toxic to humans and livestock

To help protect the State's resources and economy, the Washington State Noxious Weed Control Board adopts a State Noxious Weed List each year (WAC 16-750). This list classifies weeds into three major classes – A, B, and C – based on the stage of invasion of each species and the seriousness of the threat they pose to Washington State. This classification system is designed to:

- Prevent small infestations from expanding by eradicating them when they are first detected
- Restrict already established weed populations to regions of the state where they occur and prevent their movement to un-infested areas
- Allow flexibility of weed control at the local level for weeds that are already widespread.

To learn more about noxious weeds and noxious weed control in Washington State, please contact:

WA State Noxious Weed Control Board

P.O. Box 42560
Olympia, WA 98504-2560
(360)-725-5764

Email: noxiousweeds@agr.wa.gov

Website: <http://www.nwcb.wa.gov>

Or

WA State Department of Agriculture

21 North First Avenue #103
Yakima, WA 98902
(509) 225-2604

Or

**Your local County
Noxious Weed Control Board**

**Please help protect Washington's
economy and environment
from noxious weeds!**

2009 Washington State Noxious Weed List



Shiny geranium, *Geranium lucidum*,
a new Class A noxious weed

Figure from *Deutschlands Flora in
Abbildungen* at <http://www.biolib> by
Johann Georg Sturm in 1796.
Image taken from Wikimedia Commons

Noxious weeds are non-native and highly invasive plants introduced to Cowlitz County through human actions. Because of their aggressive growth and lack of natural enemies in the county, these species can be highly destructive, competitive or difficult to control. These exotic species can reduce crop yields, displace native plants, destroy animal habitats, damage recreational opportunities, clog waterways, increase soil erosion and fire danger, lower land values and poison humans and livestock.

Because weeds affect everyone, a State Noxious Weed Law was written to benefit the public by coordinating, and when necessary, enforcing weed control in the State. The landowner (whether it is private, state or county lands) is the steward, and under the law, **17.10 RCW**, is responsible for controlling noxious weeds.

To help protect the county's resources, the Cowlitz County Noxious Weed Board adopts a County Noxious Weed List each year. This list categorizes weeds into three major classes — A, B and C — according to the seriousness of the threat they pose to the county.

INTEGRATED PEST MANAGEMENT:

Mechanical: Cutting and destroying flower heads – you may have to cut several times to prevent seed production. Always bag and destroy all plant material (include all roots).

Herbicides and Biological: Please contact your local weed control authority prior to using herbicide or biological material.

Cultural: Pasture management, control graving; replant disturbed soil areas; and practice competitive planting procedures.

**To learn more about noxious weeds and
weed Control
In Washington Contact:**

**Cowlitz County
Noxious Weed Control Board**
207 Fourth Ave. North
Kelso, WA 98626
(360) 577-3030

<http://www.co.cowlitz.wa.us/noxiousweeds/>

**Washington State
Noxious Weed Control Board**
1111 Washington Street
Olympia, WA 98504-2560
(360) 902-2053 Executive Secretary
ahalpern@agr.wa.gov
(360) 725-5764 Executive Assistant
corr@arg.wa.gov

**Washington State
Department of Agriculture**
1111 Washington Street
Olympia, WA 98504-2560
(360) 902-1853 State knotweed coordinator
(360) 225-2604 Pest Biologist II

**WSU Extension,
Cowlitz County**
1946 Third Avenue
Longview, WA 98632
(360) 577-3014

**Help us Protect
Our Properties
From Noxious Weeds!**

2009

Cowlitz County Noxious Weed List



butterfly bush
Buddleja davidii

Illustration by Chris Shields
© 2009 The Royal Society for the Protection of Birds

Class A Weeds are non-native species with a limited distribution in Cowlitz County. Preventing new infestations and eradicating existing infestations is the highest priority. Eradication of all Class A plants is required by law.

<u>Common Name</u>	<u>Scientific Name</u>
bean-caper, Syrian	<i>Zygophyllum fabago</i>
blueweed, Texas	<i>Helianthus ciliaris</i>
☐brome, false	<i>Brachypodium sylvaticum</i>
broom, Spanish	<i>Spartium junceum</i>
buffalobur	<i>Solanum rostratum</i>
clary, meadow	<i>Salvia pratensis</i>
●cordgrass, smooth	<i>Spartina alterniflora</i>
cordgrass, salt meadow	<i>Spartina patens</i>
cordgrass, densflower	<i>Spartina densiflora</i>
cordgrass, common	<i>Spartina anglica</i>
crupina, common	<i>Crupina vulgaris</i>
flax, spurge	<i>Thymelaea passerina</i>
four o'clock, wild	<i>Mirabilis nyctaginea</i>
☐geranium, shiny	<i>Geranium lucidum</i>
goatsrue	<i>Galega officinalis</i>
hawkweed, European	<i>Hieracium sabaudum</i>
hawkweed, yellow devil	<i>Hieracium floribundum</i>
hogweed, giant	<i>Heracleum mantegazzianum</i>
hydrilla	<i>Hydrilla verticillata</i>
johnsongrass	<i>Sorghum halepense</i>
knapweed, bighead	<i>Centaurea macrocephala</i>
knapweed, Vochine	<i>Centaurea nigrescens</i>
kudzu	<i>Pueraria Montana var. lobata</i>
mustard, garlic	<i>Alliaria petiolata</i>
nightshade, silverleaf	<i>Solanum elaeagnifolium</i>
primrose-willow, floating	<i>Ludwigia peploides</i>
ricefield bulrush	<i>Schoenoplectus mucronatus</i>
☐rush, flowering	<i>Butomus umbellatus</i>
sage, clary	<i>Salvia sclarea</i>
sage, Mediterranean	<i>Salvia aethiopsis</i>
spurge, eggleaf	<i>Euphorbia oblongata</i>
starthistle, purple	<i>Centaurea calcitrapa</i>
sweetgrass, reed	<i>Glyceria maxima</i>
thistle, Italian	<i>Carduus pycnocephalus</i>
thistle, milk	<i>Silybum marianum</i>
thistle, slenderflower	<i>Carduus tenuiflorus</i>
variable-leaf milfoil	<i>Myriophyllum heterophyllum</i>

velvetleaf
woad, dyers

Abutilon theophrasti
Isatis tinctoria

Class B Weeds are non-native species presently limited to portions of the state. Class B species are **designated** for control in regions where they are not yet widespread. Preventing infestations in these areas is a high priority. In regions where a Class B species is already abundant, control is decided at the county level, with containment as the primary goal.

<u>Common Name</u>	<u>Scientific Name</u>
Alyssum, hoary	<i>Berteroa incana</i>
blackgrass	<i>Alopecurus myosuroides</i>
blueweed	<i>Echium vulgare</i>
bryony, white	<i>Bryonia alba</i>
bugloss, annual	<i>Anchusa arvensis</i>
bugloss, common	<i>Anchusa officinalis</i>
bush, Butterfly	<i>Buddleja davidii</i>
camelthorn	<i>Alhagi maurorum</i>
chervil, wild	<i>Anthriscus sylvestris</i>
cinquefoil, sulfur	<i>Potentilla recta</i>
common fennel	<i>Foeniculum vulgare</i>
fanwort	<i>Cabomba caroliniana</i>
fieldcress, Austrian	<i>Rorippa austriaca</i>
floating heart, yellow	<i>Nymphoides peltata</i>
gorse	<i>Ulex europaeus</i>
grass-leaved arrowhead	<i>Sagittaria graminea</i>
hawkweed, mouseear	<i>Hieracium pilosella</i>
hawkweed, queendevil	<i>Hieracium glomeratum</i>
hawkweed, polar	<i>Hieracium atratum</i>
hawkweed, smooth	<i>Hieracium laevigatum</i>
hawkweed, yellow	<i>Hieracium caespitosum</i>
hedgearsley	<i>Torilis arvensis</i>
helmet, policemen's	<i>Impatiens glandulifera</i>
hemlock, poison	<i>Conium maculatum</i>
indigobush	<i>Amorpha fruticosa</i>
knapweed, black	<i>Centaurea nigra</i>
knapweed, brown	<i>Centaurea jacea</i>
knapweed, diffuse	<i>Centaurea diffusa</i>
knapweed, meadow	<i>Centaurea jacea x nigra</i>
knapweed, Russian	<i>Acroptilon repens</i>
knapweed, spotted	<i>Centaurea biebersteinii</i>
knotweed, Japanese	<i>Polygonum cuspidatum</i>

kochia
lawnweed
Lepyroclis
loosestrife, garden
loosestrife, purple
loosestrife, wand
nutsedge, yellow
oxtongue, hawkweed
pepperweed, perennial
primrose, water
ragwort, tansy
saltcedar
sandbur, longspine
skeletonweed, rush
sowthistle, perennial
spurge, laurel
spurge, leafy
starthistle, yellow
swainsonpea
thistle, musk
thistle, plumeless
thistle, Scotch
toadflax, Dalmatian
watermilfoil, Eurasian

Kochia scoparia
Soliva sessilis
Lepyroclis holosteoideis
Lysimachia vulgaris
Lythrum salicaria
Lythrum virgatum
Cyperus esculentus
Picris hieracioides
Lepidium latifolium
Ludwigia hexapetala
Senecio jacobaea
Tamarix ramosissima
Cenchrus longispinus
Chondrilla juncea
Sonchus arvensis ssp. *arvensis*
Daphne laureola
Euphorbia esula
Centaurea solstitialis
Sphaerophysa salsula
Carduus nutans
Carduus acanthoides
Onopordum acanthium
Linaria dalmatica ssp. *almatica*
Myriophyllum spicatum

Class C Weeds are non-native weeds found in Washington. Many of these species are widespread in the state. Long-term programs of suppression and control are a local option, depending upon local threats and the feasibility of control in local areas. See Washington State Noxious Weed List for a more extensive Class C list.

<u>Common Name</u>	<u>Scientific Name</u>
Archangel, yellow	<i>Lamium galeobdolon</i>
☐blackberry, evergreen	<i>Rubus laciniatus</i>
☐blackberry, Himalayan	<i>Rubus armeniacus</i>
hawkweeds, non-native	<i>Hieracium spp.</i>
Iris, yellow flag	<i>Iris pseudacorus</i>
St. Johnswort, Common	<i>Hypericum perforatum</i>
tansy, Common	<i>Tanacetum vulgare</i>
thistle, bull	<i>Cirsium vulgare</i>
thistle, Canada	<i>Cirsium arvense</i>
toadflax, yellow	<i>Linaria vulgaris</i>