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# Lewis River Hydroelectric Projects

*FERC Project Nos. 935, 2071, 2111, 2213*



## Wildlife Habitat Management Plan

### 2012 Annual Plan

*Annual Plan for Operations Phase 2012*



April 2012

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## **ACRONYMS & ABBREVIATIONS**

To enhance readability, the use of acronyms and abbreviations has been minimized in this document. However for longer terms that are frequently used throughout the document, as well as certain units of measurement, the following acronyms and abbreviations have been used.

ac	acre
ATV	all-terrain vehicle
dbh	diameter at breast height
FERC	Federal Energy Regulatory Commission
ft	foot
GIS	Geographic Information System
ha	hectare
km	kilometer
m	meter
ROW	Right-of-way
TCC	Terrestrial Coordination Committee
THA	timber harvest area
TPA	Tree per acre
WDNR	Washington Department of Natural Resources
WHMP	Wildlife Habitat Management Plan



## 1.0 Introduction

This Annual Plan fulfills PacifiCorp's obligations for the license's Article 403 and Settlement Agreement 10.8.3 (Federal Energy Regulatory Commission [FERC] 2008a, FERC 2008b, FERC 2008c, PacifiCorp et al. 2004). 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, 2012) (PacifiCorp 2008). 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 provides a Gantt chart that lists each of the WHMP's habitat management and plan-wide goals inspections and management actions that are scheduled to occur in 2012. This chart is to be used as a baseline for scheduling inspections and management actions, which are discussed in further detail in the subsequent sections. The 2012 tasks that are described in this plan are identified in the chart as scheduled.

## 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) (PacifiCorp et al. 2004). As of December 31, 2011 PacifiCorp has 11,105 ac (4,498 ha) of WHMP lands owned in fee simple and has 16 ac (6.5 ha) of Interests in Lands. The 2012 WHMP budget as of January 1, 2012 dollars will be \$360,611.00 plus the \$6,433.32 from the remaining 2011 WHMP budget, \$26,659.99 from interest earned between 2008 and 2011, and \$2,000 for a property encroachment payment for a total of \$395,964.09. Appendix B provides the overall 2012 budget as well as the budgets for administration, management areas, and plan-wide goals. To accurately reflect costs, the 2012 budget is based on cost expended in 2011 and differs from original estimates in the WHMP (PacifiCorp 2008).

## 3.0 Land Acquisition

In accordance with the Settlement Agreement 10.1, 10.2, and 10.3, PacifiCorp has established the Yale Land Acquisition and Habitat Protection Fund, the Swift No. 1 and Swift No. 2 Land Acquisition and Habitat Protection Fund, and the Lewis River Land Acquisition and Habitat Protection Fund, which are referred to as the Yale, Swift, and the Lewis River funds respectively. Article 403 in the Yale and Swift 1 licenses require that the annual plan describe how the funds are to be used and the lands proposed to be acquired under these funds.

The Yale Fund was fully expended as of December 31, 2010 for the 2010 land acquisitions. No further contributions are scheduled. The purchases were accomplished with additional funding supplied from the Lewis River Fund with the Terrestrial Coordination Committee (TCC) approval.

The Swift Fund is currently \$4,713,631.67 as of December 31, 2011. The TCC, with support from the Rocky Mountain Elk Foundation, continues to work towards a major acquisition north of Swift Reservoir. Due diligence including an appraisal and Phase I Environmental Site Assessment were completed for the property in 2011 and a purchase is anticipated in 2012.

The Lewis River Fund had contributions of \$1,645,398.12 in 2010 that were committed to the Yale land purchase (Saddle Mountain) to make up for the shortfall of the Yale Funds. The Lewis River Fund was to be funded by six months following the fourth year of the FERC licenses for Yale and Swift No. 1 Projects, or by December 26, 2012. PacifiCorp agreed with TCC approval to fund the amount of the shortfall for the Yale purchase using the Lewis River Fund prior to the actual time the dollars were to be committed. The next addition to this fund is scheduled for December 2014.

## **4.0 Administration**

### **4.1 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 fourth year of the implementation phase, it is anticipated that the TCC meetings may be reduced to every other month or quarterly. TCC meetings for 2012 are currently scheduled for monthly but may occur on an as-needed-basis.

### **4.2 Annual Report**

An Annual Report describing the terrestrial protection, mitigation, and enhancement measures that occurred on WHMP lands during 2011 was submitted to the TCC for the 30-day review on March 7, 2012.

### **4.3 Annual Plan**

TCC members were provided a draft of this report on March 7, 2012 to review and provide comments within 30 days or by April 6, 2012. These comments were either incorporated into this report or if not, an explanation has been provided and included in Appendix C. In accordance with the Settlement Agreement 14.2.6, this report was submitted to the FERC on April 15, 2012.

### **4.4 Restoration Plans**

No lands were identified as significantly damaged by anthropogenic processes in 2011; therefore no restoration plan is required in 2012.

## 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. Due to the difficulty in differentiating between the costs for each survey, the funds budgeted for the osprey and bald eagle nest survey include the cost of the old-growth aerial survey.

### 5.2 Management Actions

Old-growth connectivity evaluations will begin in 2012. This work is dependent upon the vegetation cover type updates that will continue in 2012. To date, most of the larger and more significant management units vegetation cover type updates have been completed and the Old-growth Initial Evaluation is finalized. The old-growth connectivity evaluations will begin for Management Units 1 through 16, which are the units surrounding Merwin Reservoir.

The Old-Growth Initial Evaluation Report concluded that the following management actions should occur to enhance the old-growth habitat:

- Old-Growth Stand 21-1 will have two snags greater than 30 in. (76 cm) in diameter at breast height (dbh) created near the shoreline to meet the old-growth criteria and to promote both wood duck (*Aix sponsa*) and pileated woodpecker (*Dryocopus pileatus*) nesting.
- Old-Growth Stands 6-1, 7-1, and 23-1 will have English holly (*Ilex aquifolium*) removed by cutting the tree down, leaving it where it falls, and then spraying the stump with herbicide to prevent resprouting.

## 6.0 Wetland Habitat Management

### 6.1 Inspections

The initial evaluations began in 2011 and will continue in 2012. The remaining wetlands in Management Units 17 through 33 will be evaluated in 2012 and the remaining units (1 through 16) will be completed in 2013. The annual inspections will be completed with the initial evaluations. No 2011 wetland management actions require a post-treatment inspection in 2012.

### 6.2 Management Actions

Management actions scheduled to occur in 2012 include the stop log removal/replacement for bullfrog (*Rana catesbeiana*) management and high winter flows, continue to monitor the Pumphouse Pond dike, and review the Washington Department of Natural Resources Heritage Database.

## 7.0 Riparian Habitat Management

### 7.1 Inspections

Riparian Mixed Forest Stand Evaluations that began in 2010 will be completed in 2012. There are seven stands remaining to be evaluated that total the majority of the acres (130.97 ac [53 ha] of the 181 ac [73 ha]).

### 7.2 Management Actions

The riparian habitat management actions that are expected to occur in 2012 include:

- Establishing buffers as necessary around the 2012 timber harvest activities
- Developing water type modifications as necessary for 2012 and 2013 forestry activities
- Implementing pre-commercial thinning in older (>15 years) timber harvest areas that overlap the WHMP riparian buffers

The 2012 proposed timber harvests in Management Units 6, 15, and 25 require either a 200-ft (60-m) shoreline buffer, a 300-foot (91-m) stream buffer (or height of two site potential trees), or a 100-foot (31-m) stream buffer. In addition, the Timber Harvest Area (THA) proposed in Management Unit 25 has a wetland that will be buffered by 150-feet (46-m). PacifiCorp is proposing forest harvest management to occur within stream buffers in Management Units 15 (0.6 ac [0.2 ha]) and 25 (2.8 ac [1.1 ha]) (Appendix D) with TCC approval.

Some of the proposed harvests are within the WHMP designated riparian buffers. This is largely because these areas are comprised of mature red alders (*Alnus rubra*) and are adjacent to roads that either are open to the public or are used regularly by operation staff. The proposed harvest will remove the red alder to reduce the potential for windthrow hazard near the road. Relocating the road was not an option without affecting other resources, including other buffers. Replanting the buffers with conifer will develop more effective and permanent screens to management areas.

THAs that will be pre-commercially thinned and are within the designated riparian buffer will have the buffers marked prior to conducting the work. These THAs are identified in Table 4 and total approximately 241.0 acres (97.5 ha) of riparian buffer. Half of these THAs or 78% of the total acres where this work will occur are in Management Unit 33, which is the recently acquired industrial timberland. Most of these THAs exceed 400 trees per acre, limiting the management opportunities to meet the preferred habitat conditions for species identified as associated with riparian habitat in the WHMP:

- Black-capped chickadee (*Poecile atricapilla*)

- Mink (*Mustela vison*)
- Pileated woodpecker (*Dryocopus pileatus*)
- Yellow warbler (*Dendroica petechia*)

The WHMP does not specify objectives for management of riparian buffers that are within existing THA boundary. However, it is expected that increasing the tree spacing and retaining hardwoods where feasible will improve the overall diversity by enhancing both shrub and larger conifer development.

## **8.0 Shrubland Habitat Management**

### **8.1 Inspections**

The draft report detailing the findings and recommendations from the 2009 initial inspections was completed in 2011 but was delayed until the recommended shrubland vegetation cover type revisions could be compared to the 2011 updates to vegetation cover type for consistency. This is expected to be completed early in 2012.

### **8.2 Management Actions**

No management actions are scheduled for 2012.



## 9.0 Farmland, Idle Areas, and Meadows Habitat Management

### 9.1 Inspections

The annual spring inspections and fall inspections will be conducted at each of the actively managed farmland, idle fields, and meadows. The findings from the 2010 initial evaluation will be documented in a report in 2012. The annual spring and fall inspections will occur as scheduled in the WHMP in 2012.

### 9.2 Management Actions

Regularly scheduled annual management actions will occur in 2012 and will include:

- Annual spring mowing will occur at the Saddle Dam farmland fields and Leach Field Meadow, which is currently being restored. The meadow was sprayed in 2011 to reduce the scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus armeniacus*), encroaching seedling trees, and other invasive plant species. This area will be mowed this spring to reduce the recently treated invasive shrub species, as well as snowberry (*Symphoricarpos albus*) patches within the meadow.
- Saddle Dam farm fields 1, 2, and 5 will be treated for Canada thistle (*Cirsium arvense*) and bull thistle (*C. vulgare*) this year. If possible, the area will be treated in the spring when the rosettes are available and prior to rapid grass growth in later spring.
- Hamm Meadow 4 and 5 Himalayan blackberry and snowberry were mowed in 2011. The new growth will be sprayed in the spring; the area will be mowed again in fall 2012 to reduce thatch, and followed-up with grass seeding.
- The shrub plantings in the Saddle Dam Farm hedgerows will have the exclosures removed and be pruned to reduce the English hawthorns (*Crataegus monogyna*) and to release the adjacent crab apples (*Malus* spp.). Adjacent conifers will be pruned as needed to increase light to the shrubs.
- Swift warehouse Himalayan blackberry and Scotch broom were mowed in 2011. The new Himalayan blackberry growth and Canada thistle, common burdock (*Arctium minus*), and evening nightshade (*Solanum dulcamara*) will be sprayed in the spring; the area will be mowed again in fall to reduce the thatch, and followed-up with grass seed.
- Buncombe Hollow Meadow is a small 1.0 ac (0.4 ha) meadow near Buncombe Hollow Orchard that will be expanded and restored. As part of the proposed Management Unit 15 timber harvests some of the red alder trees that have grown within the meadow will be removed. The area will be mowed, fertilized, and top seeded, if needed, in the fall.

- Annual fall mowing at:
  - Saddle Dam farmland fields
  - Upper and Lower Hanley-Curry
  - Speelyai
  - Bridge
  - Upper and Lower McKee
  - Upper and Lower Winter Creek
  - Rhododendron
  - Swift Warehouse
  - Reese
  - Buncombe Hollow
  - Hamm 1, 2, 3, 4, and 5
- Soil testing will be conducted at:
  - Leach Field
  - Buncombe Hollow
  - Hamm 4 and 5
  - Upper and Lower Hanley-Curry
  - Reese
  - Upper and Lower Winter Creek
  - Management Unit 26
  - Rhododendron
  - Swift Warehouse
  - Saddle Dam farmland fields 3, 4, and 5.
- Annual fall fertilizing will be conducted at:
  - Saddle Dam farmland fields
  - Upper and Lower Hanley-Curry
  - Speelyai
  - Buncombe Hollow
  - Bridge
  - Upper and Lower McKee
  - Upper and Lower Winter Creek
  - Rhododendron
  - Swift Warehouse
  - Reese Meadow
  - Hamm meadows 1, 2, 3, 4, and 5

## 10.0 Orchard Management

### 10.1 Inspections

Annual winter and summer inspections will occur in 2012 at:

- Buncombe Hollow
- Speelyai Bay
- Saddle Dam #1
- Saddle Dam #3
- Saddle Dam Road

### 10.2 Management Actions

Dormant pruning is expected to occur at:

- Buncombe Hollow
- Speelyai Bay

The January 2012 snow storm caused a considerable amount of damage to the Buncombe Hollow Orchard. The large walnut tree (*Juglans* spp.) in the west end came down and destroyed 2 or 3 orchard trees. Also several exclosures were destroyed or damaged in the storm. The tree will be bucked up and piled within the orchard, and the exclosures will be replaced or repaired. Additional work will include the scheduled pruning and replacement of six trees that have died or were destroyed in the storm. The orchard will be mowed in the fall to reduce shrubs and encourage big game forage.

Speelyai Bay orchard is in fairly good condition. The trees will be pruned as scheduled and two exclosures will be removed from trees that have grown to twice the height of the exclosure. Four trees will be planted to replace trees that died in recent years.

If funds allow, the Upper Winter Creek meadow has two mature pear trees that have not been pruned in several years. These trees will be pruned this year to increase light to the larger branches and reduce the overall height.

## 11.0 Transmission Line Right-of-Way Habitat Management

### 11.1 Inspections

The annual inspection and initial evaluation report, which was not completed in 2011, will be completed in 2012. It is expected that post-treatment inspections will be required at sites that have hazard tree, invasive plant species, or transmission line structure work.

### 11.2 Management Actions

Transmission Line Right-of-Way (ROW) management actions that are scheduled to occur in 2012 are the annual mowing at Speelyai Bay, Woodland Park West, and Wilkinson ROW forage areas.

Invasive Plant Species Control will occur at:

- Cougar Line 4/1 to 6/1 for Scotch Broom
- Lake Line 4/11-6/11 for Scotch Broom
- Speelyai Line 2/4-4/4 for butterfly bush (*Buddleja davidii*) and Himalayan blackberry
- Speelyai Line 2/7-3/7 for Scotch Broom
- Speelyai Line 1/14-8/14 for Himalayan blackberry
- Speelyai Line 6/17-7/18 for Scotch Broom
- Speelyai Line 4/18-7/18 for Scotch Broom

Shrubs will be pruned to reduce the height and remove potential transmission line hazards in the following areas:

- Lake Line 4/11-6/11
- Lake Line 4/10-5/10
- Speelyai 1/18-3/18 prune the visual screen to reduce the height.

## 12.0 Unique Area/Habitat Management

### 12.1 Inspections

The annual inspections for oak stands 1-12, 5-1, 5-2, 6-45, and 6-52 will occur in 2012 and no other inspections actions are expected to occur.

### 12.2 Management Actions

Due to budget and time constraints, none of the oak site management actions planned in 2011 were completed. Therefore, the higher priority work needs from 2009 and 2010 inspections will also be completed in 2012, as well as the management actions determined in the 2011 inspections:

- Oak Stand 5-1: Remove the crown competition by removing two Douglas-firs (*Pseudotsuga menziesii*).
- Oak Stand 5-2: Remove the crown competition by removing, pruning or topping 13 Douglas-firs and one bigleaf maple (*Acer macrophyllum*).
- Oak Stand 6-22a: Treat the Scotch broom within the oak stand and pull Douglas-fir seedlings.
- Oak Site 6-22b: Treat the Scotch broom within the oak stand and pull all Douglas-fir seedlings that are in or within 15 ft (5 m) of the oak stand.
- Oak Stand 6-23a: Remove the crown competition by pruning one Douglas-fir, topping one Douglas-fir, and removing two adjacent Douglas-firs.
- Oak Stand 6-26a: Pull all Douglas-fir seedlings that are in or within 15 ft (5 m) of the oak stand.
- Oak Stand 6-26b: Pull all Douglas-fir seedlings that are in or within 15 ft (5 m) of the oak stand.
- Oak Stand 6-45: Pull all conifer seedlings. Remove the crown competition by removing, pruning or topping two Douglas-firs and three bigleaf maple.

## 13.0 Forestland Habitat Management

### 13.1 Inspections

The annual spring and fall THA inspections (i.e., reforestation inspections) will occur in 2012.

### 13.2 Management Actions

#### 13.2.1 2012 Proposed Forestland Practices

Approximately 85.4 acres (34.6 ha) are proposed for even-age (clear-cut) forest management in Management Units 6, 15 and 25 (Appendix D). An additional 8.0 acres (3.2 ha) are proposed for commercial thinning in a 27 year-old conifer stand and approximately 142.0 acres (57.5 ha) in Management Unit 10 that was acquired in 2010 (Saddle Mountain). These are described separately below. The pre-harvest evaluation forms located in Appendix D provide additional information on existing stand conditions and maps.

#### Management Unit 6:

A total of three separate harvest sites are proposed for forest management. The first two sites are separated by a 150-foot (45.7-m) riparian buffer but will be managed the same through clear-cutting mature conifer while retaining patches of conifer distributed throughout the respective 12.9 acre (5.2 ha) and 23.0 acre (9.3 ha) harvests. These patches of reserve trees will include the 8 trees per acre required for structural diversity and future snags. The two areas have been commercially thinned in prior years (1993, 1997, and 1998) in order to enhance understory development of shrubs and grasses. Although prior management provided short term understory enhancement, longer term shrub establishment was largely unsuccessful because within about 10 years the over-story canopy closed. These harvests will provide needed early seral habitat and better distribution of forage within Management Unit 6.

The third proposed harvest area in Management Unit 6 is being developed primarily in upland deciduous forest adjacent to Speelyai Park recreation area. The purpose of the forest management is to remove approximately 14.0 acres (5.7 ha) of over-mature alder (*Alnus rubra*) that lean heavily over the parking areas, entrance road and user facilities representing safety hazards. The management will retain conifer and shrubs (where possible) and reestablish a mixed conifer forest with a lower canopy cover to encourage shrub development. The intended management should result in a diverse mixture of trees and shrubs that will provide a safer and permanent buffer around the park with long term early seral habitat (shrubs) as a key component.

#### Management Unit 15:

Approximately 18.2 acres (7.4 ha) of over-mature red alder are proposed for harvest and an additional 8.0 acres (3.2 ha) of 27 year-old conifer are proposed to be commercially thinned. No harvests have occurred in this Management Unit for 12 years and forage habitat is declining with an existing cover/forage ratio of approximately 70:30. Adjacent to the proposed THA is a 1984 plantation of Douglas-fir that was planted in a very high density (700 trees/acre). Although numerous pre-commercial thin entries have been made, a commercial thin is now possible to open the canopy cover and develop an understory as none currently exists.

#### Management Unit 10:

Approximately 142.0 acres (57.5 ha) of the Saddle Mountain property purchased in 2010 is proposed for commercial thinning to reduce the overstocked, even aged 37 year-old conifer stands. Current tree density is approximately 400 trees/acre (TPA). The management intent is to encourage understory development of early seral vegetation and to improve forest health and stand longevity. Thinning will also encourage better root growth which will provide for a more wind-firm and healthier tree. Thinning is proposed at a spacing of 14 to 18 feet (4.3 to 5.5 m) or 130 to 220 TPA. The tighter spacing would be in stands with consistently smaller diameters.

#### Management Unit 25:

Management emphasis in this management unit is to enhance northern spotted owl (*Strix occidentalis*) habitat by harvesting the hardwoods and replanting with conifer to accelerate succession to old-growth habitat. The management unit is entirely within the 2.0-mile (3.2-km) buffer of the Siouxon Spotted Owl Special Emphasis Area. Forestland management is therefore guided by Objective I of the Raptor Site Management Chapter in the WHMP, which is to provide high-quality spotted owl nesting habitat. This is the only manageable stand in all of Management Unit 25 in which to develop northern spotted owl habitat. The harvest will be comprised of clear-cutting hardwoods, retaining all larger diameter Douglas-firs and some bigleaf maple (*Acer macrophyllum*) for diversity. The area is near Swift Dam and was formerly part of the operator housing facilities and includes old housing infrastructure (roads, cistern etc.). The houses were removed in the 1990's and partially graded and seeded as a meadow. The two proposed timber harvest areas are on the north and south sides of the meadow and are approximately 6.7 ac (2.7 ha) and 9.8 ac (4.0 ha). Elk are frequently in the area due to the wetlands and meadow. The temporary forage these harvest areas will provide will increase what is of limited extent in the area.

#### 13.2.2 2013 Forestland Harvest Planning

Forest harvest planning (initial surveys, mapping vegetation cover types and checking streams) for THAs proposed in 2013 will occur in 2012. Forest management is proposed in Management Units 4 (29.7 acres [12.0 ha]), 20 (46.0 acres [18.6 ha]), and 27 (56.0 acres [22.7 ha]) (Appendix E). These management units are proposed for management based on the current cover:forage ratios exceeding 60% cover, older and declining alder stands, and commercial thinning needs in previously managed stands. The distribution of forage can be improved in these units through either thinning or clear-cut harvests.

### 13.2.3 First Precut Survey

The first precut survey forms for the 2012 timber harvest areas are in Appendix D. The first precut surveys for the 2013 harvest will be completed prior to the end of fall 2012.

### 13.2.4 Harvest Area Traverse and Geographic Information System Update

The 2012 THAs will be updated in the geographic information system (GIS) database following TCC approval of the proposed plans and the completion of the timber harvests. The 2013 proposed timber harvest activities will be further reviewed, traversed, and entered into the GIS database to develop maps for review with the TCC.

### 13.2.5 Second Precut Survey

The second precut survey for the 2012 timber harvests will be completed in the spring or early summer of 2012 following TCC review of the sites. Appendix D maps show the timber harvest areas delineated boundaries, roads, and sensitive species/habitat, such as riparian, shoreline, and wetland buffers.

### 13.2.6 Terrestrial Coordination Committee

The TCC on site meetings to review the proposed 2012 timber harvest areas has been scheduled for March 15 and 16, 2012. The TCC will receive regular updates and coordination throughout 2012 regarding forestland activities.

### 13.2.7 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 WHMP best management practices, contract conditions, State Forest Practices Act, and industry standards.

### 13.2.8 Regeneration Practices

Regeneration practices include management actions that promote tree regeneration following timber harvests and maintaining or establishing big game forage and cover. The 2012 timber harvest areas will be site prepped for forage seeding and tree planting by piling residual slash and site-prepping soils with a tractor-mounted brush blade. The roughly 60 acres (24 ha) in Management Unit 33 that were proposed for broadcast burning in 2011 will be reevaluated this year for burning or scarified and replanted with a portion left for natural regeneration of shrubs. Some areas within the proposed broadcast burn required fire trails within the riparian buffers. These fire trails will be planted with conifer to reestablish the WHMP buffer distances and will be managed at lower tree densities to encourage natural shrub regeneration.

## **Planting and Maintenance**

The 2012 planting and seedling maintenance activities will include planting the 2011 timber harvest areas (Management Units 28 and 33) and installing seedling protection in areas that have high seedling browse from big game. Vexar<sup>®</sup> tubes will be used on western red cedar (*Thuja plicata*) and western hemlock (*Tsuga heterophylla*) seedlings in areas where there is significant seedling loss or damage due to big game browse. Plantskydd<sup>®</sup>, a cost effective and



environmentally safe animal repellent, will also be sprayed on young seedlings to prevent further browse damage. The active ingredient is dried blood (porcine and/or bovine) and it contains no synthetic additives, is non-toxic, and is not harmful to animals, plants or the environment. Tubes that have been removed from the seedlings will be replaced. All timber harvest areas that require seedling maintenance or planting in 2012 are listed in Table 1 and locations are mapped in Appendix F.

**Table 1. 2012 seedling maintenance**

Timber Harvest Area	Acres (hectares)	Action <sup>1</sup>
010443CC	13.2 (5.3)	Re-tube THPL
030447CC	24.6 (10.0)	Re-tube THPL
030678CC	7.9 (3.2)	Re-tube THPL
050771CC	2.3 (0.9)	Re-tube THPL
010837CC	13.3 (5.4)	Re-tube THPL
101126CC	18.3 (7.4)	Re-tube THPL
101127CC	12.0 (4.9)	Re-tube THPL
051239CC	7.7 (3.1)	Re-tube THPL
091703CC	22.5 (9.1)	Re-tube THPL
091704CC	14.4 (5.8)	Re-tube THPL
091705CC	4.7 (1.9)	Re-tube THPL
101801CC	27.5 (11.1)	Tube THPL
952008CC	12.6 (5.1)	Spray Plantskydd
082603CC	8.2 (3.3)	Re-tube THPL; Spray Plantskydd® on THPL, TSHE and PSME
082604CC	11.9 (4.8)	Re-tube THPL; Spray Plantskydd® on THPL, TSHE and PSME
082605CC	10.2 (4.1)	Re-tube THPL; Spray Plantskydd® on THPL, TSHE and PSME
112801CC	21.0 (8.5)	Plant 500 PIST
093310CC	43.2 (17.5)	Plant 13,000 ABPR
113313CC	24.0 (9.7)	Plant 9,000 ABPR
113314CC	1.9 (.8)	Plant 570 ABPR
113315CC	15.0 (6.1)	Plant 3,000 PSME, 1,500 PIST
<b>Total</b>	<b>316.4 (128.0)</b>	<b>22,570 ABPR, 3,000 PSME, 2,000 PIST</b>

<sup>1</sup> ABPR = Noble fir, PSME= Douglas-fir, THPL = western red cedar, TSHE=western hemlock, PIST = white pine

### Vegetation Control

New tree seedlings compete for moisture with grasses and legumes that are seeded as forage on the entire THA. To reduce this moisture competition, the existing grasses are killed by using a pre-emergent herbicide, such as Sulfometuron (Oust®) or Surflan with glyphosate, which is sprayed in an 18-in (45-cm) radius around all seedlings. Surflan is a selective pre-emergence herbicide for control of annual grasses and many broadleaf weeds. It is used along with glyphosate (to kill existing grasses) instead of Oust® on western red-cedar because Oust® was noted to negatively affect cedar. All timber harvest areas that require treatment in 2012 are listed in Table 2 and locations are identified in Appendix F.

**Table 2. 2012 Timber Harvest Areas to be treated with Sulfometuron**

<b>Timber Harvest Area</b>	<b>Total Acres (hectares)</b>
050770 CC	24.9 (10.1)
050771 CC	2.3 (0.9)
101126 CC	18.3 (7.4)
101127 CC	12.0 (4.9)
091703 CC	22.5 (9.1)
091704 CC	14.4 (5.8)
091705 CC	11.3 (4.6)
101801 CC	27.5 (11.1)
952008 CC	12.6 (5.1)
082603 CC	8.2 (3.3)
082604 CC	11.9 (4.8)
082605 CC	10.2 (4.1)
112801 CC	21.0 (8.5)
113313 CC	24.0 (9.7)
113314 CC	1.9 (.8)
113315 CC	15.0 (6.1)
<b>Total Acres</b>	<b>238.0 (96.3)</b>

**Invasive Plant 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 2012 are listed in Table 3 below (acres are THA acres and do not necessarily represent the total acres treated) and locations are identified in Appendix G.

**Table 3. 2012 Timber Harvest Area vegetation control treatments**

THA	ACRES (ha)	Target Species (Classification)
050333 CC	1.0 (.4)	Spray PTAQ (nc)
930440 CC	1.0 (.4)	Spray RUAR (C)
020524 CC	7.1 (2.9)	Spray PTAQ (nc)
050527 CC	16.3 (6.6)	Spray PTAQ (nc)
040528 CC	5.1 (2.1)	Spray PTAQ (nc)
010676 CT	35.2 (14.2)	Spray CYSC (B)
030677 CC	16.6 (6.7)	Spray PTAQ (nc), RUAR (C)
030678 CC	7.9 (3.2)	Spray PTAQ (nc), RUAR (C)
030679 CC	7.4 (3.0)	Spray PTAQ (nc), ALRU (nc)
030680 CC	5.8 (2.3)	Spray PTAQ (nc), CYSC (B)
030681 CC	0.6 (.2)	Spray PTAQ (nc)
030682 CC	8.5 (3.4)	Spray PTAQ (nc), CYSC (B)
890931 CC	21.8 (8.8)	Spray CYSC (B)
920932 CC	13.8 (5.6)	Spray PHAR (C)
020936 CC	10.3 (4.2)	Spray PTAQ (nc)
861103 CC	28.3 (11.5)	Spray RUAR (C)
911231 CC	4.0 (1.6)	Spray RUAR (C), PHAR (C)
021236 CC	18.4 (7.4)	Spray PHAR (C)
041237 CC	13.9 (5.6)	Spray RUAR (C), PTAQ (nc), PHAR (C)
001541 CC	4.6 (1.9)	Spray PTAQ (nc)
001542 CC	4.4 (1.8)	Spray PTAQ (nc)
001543 CC	5.8 (2.3)	Spray PTAQ (nc)
001544 CC	4.7 (1.9)	Spray PTAQ (nc)
001545 CC	1.2 (.5)	Spray PTAQ (nc)
921633 CC	3.3 (1.3)	Spray RUAR (C), MAOR (nc)
991702 CC	37.2 (15.1)	Spray PTAQ (nc)
091703 CC	22.5 (9.1)	Spray PTAQ (nc), ALRU (nc)
091704 CC	14.4 (5.8)	Spray PTAQ (nc), ALRU (nc), CYSC (B)
091705 CC	11.3 (4.6)	Spray PTAQ (nc), ALRU (nc)
021706 CC	12.0 (4.9)	Spray PTAQ (nc), RUAR (C)
<b>TOTAL</b>	<b>344.4 (139.3)</b>	

<sup>1</sup>ALRU= Red Alder, CYSC = scotch broom, PHAR = Reed Canarygrass , PTAQ = bracken fern, RUAR = Himalayan blackberry, MAOR = Wild cucumber

<sup>2</sup>Noxious 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 are required to maintain big game forage. All 2012 pre-commercial thinning or pruning is listed in Table 4 and locations are identified in Appendix F.

**Table 4. 2012 Pre-commercial thinning treatments**

<b>Timber Harvest Area</b>	<b>Acres (hectares)</b>	<b>Slash PCT</b>	<b>Hack &amp; Squirt PCT</b>	<b>THA includes Riparian Buffer</b>
900225 CC	7.3 (3.0)		X	No
900227 CC	5.2 (2.1)		X	No
050332 CC	10.7 (4.3)	X		No
880660 CC	2.0 (0.8)	X		Yes
880661 CC	1.0 (0.4)	X		Yes
970767 CC	4.7 (1.9)	X		Yes
000769 CC	10.6 (4.3)	X		Yes
980836 CC	9.5 (3.8)	X		Yes
021236 CC	18.4 (7.4)	X		Yes
051238 CC	25.1 (10.2)	X		Yes
051239 CC	7.7 (3.1)	X		No
921632 CC	4.4 (1.8)		X	Yes
752001 CC	22.4 (9.1)		X	Yes
043301 CC	59.0 (23.9)	X		Yes
043302 CC	4.7 (1.9)	X		Yes
043303 CC	6.3 (2.5)	X		Yes
043304 CC	1.0 (0.4)	X		Yes
063305 CC	21.0 (8.5)	X		Yes
063306 CC	39.9 (16.1)	X		Yes
063307 CC	50.3 (20.4)	X		Yes
063308 CC	2.6 (1.1)	X		Yes
063309 CC	3.2 (1.3)	X		Yes
<b>Total Acres</b>	<b>317.0 (128.3)</b>			

## **14.0 Invasive Plant Species Management**

### **14.1 Prevention**

In 2012 it will be assumed that three sites will require a pre-ground disturbance evaluation and ten sites will be identified as significant invasive plant species infestation.

### **14.2 Detection**

The Washington State and County noxious weed lists will be updated as they become available.

### **14.3 Treatment**

Several areas have been identified for invasive plant species treatment and are discussed in their corresponding habitat management sections (i.e., Forestland Management, Farmland, Idle Areas, and Meadows Management, and Transmission Line Right-of-Way Management). It is assumed that an additional 100 ac (32 ha) of upland habitat and 5 ac (8 ha) within the ordinary high water mark will have invasive plant species treated in 2012. This would include unidentified infestations that need immediate treatment or areas that do not directly fall under a habitat management area, such as roads, recreation sites, and secondary management areas.

### **14.4 Monitoring**

Most of the areas that were treated for invasive plant species will be monitored during other annually scheduled WHMP inspections. For example: The scotch broom sprayed at Saddle Dam Farm can be evaluated for success during the Spring Farm Inspection or roads and THAs will be evaluated during the spring timber harvest area inspection. However areas that are not regularly inspected and/or inspections occur too late in the season to effectively monitor will be evaluated in 2012. The table below lists the areas that will be monitored in 2012.

**Table 5. 2012 Invasive plant species control monitoring sites**

<b>Area</b>	<b>Target Species (Classification)<sup>1,2</sup></b>	<b>Ac (ha) Treated</b>	<b>Control Method</b>
Cresap Campground	GELU (A)	0.3 (0.12)	Chemical
Speelyai Road and Day Use Area	GELU (A)	0.2 (0.08)	Chemical
Speelyai Park	ALPE (A), HIPO (B)	0.2 (0.08)	Hand Pulled
Cougar Quarry	POCU (B), BUDA (B)	0.5 (0.2)	Chemical
Merwin Boat Ramp	IMGL (B)	0.2 (0.08)	Hand Pull
	<b>Total Acres</b>	<b>1.4 (0.57)</b>	

<sup>1</sup> ALPE= garlic mustard, BUDA = Butterfly bush, GELU = shiny geranium, HIPO= Mouseear hawkweed, PCUC = Japanese knotweed,

<sup>2</sup> Noxious 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 (*Accipiter gentilis*) will be conducted for the first season in Management Units 4, 20 and 27 and for a second season in Management Units 6, 15, and 25. The aerial bald eagle and the osprey nest surveys will occur in 2012.

### 15.2 Habitat Enhancement

Raptor habitat quality assessments will be completed as part of the 2012 Mature Stand Connectivity Evaluation (Section 5.2) and the critical raptor nesting habitat areas and habitat enhancement areas will be identified for Merwin Management Units 1-16.

### 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 annual road closure and trail inspections will be completed per the WHMP.

### 16.2 Management Actions

It is anticipated that at least three sites will require unauthorized motorized vehicle access to be controlled in 2012. Additional sites for gating or blocking roads will be selected based on the annual survey that was conducted in 2011 or as needed and will be dependent on available resources (e.g. budget), severity of trespass, and feasibility. PacifiCorp will work closely with WDFW law enforcement regarding all-terrain vehicle (ATV) activity and unauthorized access.

PacifiCorp will continue to implement road and culvert maintenance projects under the Washington Department of Natural Resources (WDNR) Road Maintenance and Abandonment Plan (RMAP). Although these projects are not funded by WHMP dollars, they benefit WHMP lands by controlling access and improving overall habitat. All road and culvert repair will be conducted in accordance to all Federal, state, and county regulations. This is to include, but not limited to:

- Washington Department of Fish and Wildlife Hydraulic Permit Application,
- WDNR Forest Practices Act permitting guidelines,
- Army Corp of Engineers 404 permit, and/or
- County Shoreline or Critical Areas/Habitat permits as necessary.

PacifiCorp biologists are coordinating with the recreation manager on the International Paper (IP) road assessment as a potential trail as required in the Settlement Agreement. Due to the remoteness and continued ATV use in the IP road area, this area is regularly monitored by the WDFW law enforcement officer. The gate on the south end of the IP road (Road 1150) was removed by vandals in 2011, so this area will be reassessed for a more effective closure to motorized vehicles in 2012.



## 17.0 Monitoring

No specific monitoring tasks outside WHMP implementation are defined for 2012. A small budget (\$3,000.00) has been reserved should the TCC identify specific monitoring.

## 18.0 References

- Federal Energy Regularly Commission. 2008a. PacifiCorp Merwin Hydroelectric License FERC Project No. P-935. June 26, 2008.
- Federal Energy Regularly Commission. 2008b. PacifiCorp Yale Hydroelectric License FERC Project No. P-2071. June 26, 2008.
- Federal Energy Regularly Commission. 2008c. PacifiCorp Swift No. 1 Hydroelectric License FERC Project No. P-2111. June 26, 2008.
- PacifiCorp, Public Utility District No. 1 of Cowlitz County, National Marine Fisheries Service, National Park Service, Bureau of Land Management, U.S. Fish and Wildlife Service, USDA Forest Service, Confederated Tribes and Bands of the Yakama Nation, Washington Department of Fish and Wildlife, Washington Interagency Committee for Outdoor Recreation, Cowlitz County, Cowlitz-Skamania Fire District No. 7, North Country Emergency Medical Service, City of Woodland, Woodland Chamber of Commerce, Lewis River Community Council, Lewis River Citizens At-Large, American Rivers, Fish First, Rocky Mountain Elk Foundation, Trout Unlimited, Native Fish Society and Cowlitz Indian Tribe. 2004. Settlement Agreement Concerning the Relicensing of the Lewis River Hydroelectric Projects, FERC Project Nos. 935, 2071, 2111, and 2213, Cowlitz, Clark, and Skamania Counties, Washington. November 30, 2004.
- PacifiCorp. 2008. Lewis River Wildlife Habitat Management Plan Volume I through IV. Portland, Oregon. December 2008.

**APPENDIX A**  
**2012 WILDLIFE HABITAT MANAGEMENT PLAN BASELINE SCHEDULE**

## Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12
1	<b>Administration</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>												
2	Terrestrial Coordination Committee	Sun 1/1/12	Sun 12/30/12												
3	<b>2011 Annual Report</b>	<b>Mon 3/5/12</b>	<b>Sun 5/13/12</b>												
4	TCC 30-day Review	Mon 3/5/12	Tue 4/3/12												
5	FERC 30-day Review	Sun 4/15/12	Sun 5/13/12												
6	<b>2012 Annual Plan</b>	<b>Wed 2/1/12</b>	<b>Wed 4/4/12</b>												
7	TCC 30-day Review	Wed 2/1/12	Sat 3/3/12												
8	FERC 30-day Review	Mon 3/5/12	Wed 4/4/12												
9	<b>Restoration Plans</b>	Sun 1/1/12	Mon 12/31/12												
10	<b>Old-Growth Habitat</b>	<b>Sun 1/1/12</b>	<b>Thu 2/28/13</b>												
11	<b>Inspections</b>	<b>Sun 1/1/12</b>	<b>Sun 12/30/12</b>												
12	Initial Evaluations	Sun 4/15/12	Sun 7/15/12												
13	Aerial Surveys	Sun 1/1/12	Sun 12/30/12												
14	Ground Surveys	Sun 1/1/12	Sun 12/30/12												
15	<b>Development</b>	<b>Sun 1/1/12</b>	<b>Thu 2/28/13</b>												
16	Snag Development	Sat 9/1/12	Thu 2/28/13												
17	Thinning	Sat 9/1/12	Thu 2/28/13												
18	Large Woody Debris	Sat 9/1/12	Thu 2/28/13												
19	Remove English Holly	Sun 1/1/12	Mon 12/31/12												
20	<b>Connectivity</b>	<b>Sun 4/15/12</b>	<b>Sun 7/15/12</b>												
21	Mature Stand Connectivity Evaluations	Sun 4/15/12	Sun 7/15/12												
22	<b>Wetland Habitat</b>	<b>Sun 1/1/12</b>	<b>Wed 12/31/12</b>												
23	<b>Inspections</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>												
24	Initial Evaluation	Tue 4/10/12	Sat 6/30/12												
25	Initial Evaluation Final Report	Sun 1/1/12	Mon 12/31/12												
26	Annual Inspection	Tue 4/10/12	Sat 6/30/12												
27	Annual Inspection with unmanaged wetlands	Tue 4/10/12	Sat 6/30/12												
28	Post-Treatment Inspection	Sun 1/1/12	Sun 12/30/12												
29	<b>Water Control</b>	<b>Sun 1/1/12</b>	<b>Sun 12/30/12</b>												

Baseline Scheduled Completed

### Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Month												
				Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12	
30	Diversion Draw Down	Sun 1/1/12	Sun 12/30/12	[Baseline]												
31	Winter Flow Stop Log Removal	Mon 10/15/12	Wed 10/31/12													[Completed]
32	Winter Flow Stop Log Replacement	Wed 2/15/12	Tue 2/28/12		[Completed]											
33	Dike Maintenance	Sun 1/1/12	Sun 12/30/12	[Baseline]												
34	<b>Vegetation Management</b>	<b>Sun 1/1/12</b>	<b>Sun 12/30/12</b>	[Baseline]												
35	Surrounding Wetland Vegetation	Sun 1/1/12	Sun 12/30/12	[Baseline]												
36	<b>Yellow Warbler and Mink Habitat Enhancement</b>	<b>Fri 1/31/25</b>	<b>Wed 12/31/25</b>	[Baseline]												
37	Shrub Planting	Sat 2/1/25	Tue 4/1/25													
38	Tree Topping or Pruning to Enhance Existing Shrubs	Fri 1/31/25	Wed 12/31/25													
39	<b>Waterfowl and Bat Habitat Enhancement</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
40	Loafing Logs	Mon 1/2/12	Mon 12/31/12	[Baseline]												
41	Snag Creation	Sun 1/1/12	Mon 12/31/12	[Baseline]												
42	Aquatic Vegetation Control	Sun 7/15/12	Fri 11/30/12									[Baseline]				
43	<b>Bullfrog Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
44	Implement Bullfrog Management Methods	Sun 1/1/12	Mon 12/31/12	[Baseline]												
45	Remove Stoplogs	Wed 8/15/12	Sat 9/15/12									[Completed]				
46	Replace Stoplogs	Mon 10/15/12	Tue 10/30/12												[Completed]	
47	<b>Great Blue Heron Colony Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
48	Review WDNR Heritage Database	Sat 12/1/12	Mon 12/31/12													[Completed]
49	Great Blue Heron Colony Site Management Report	Sun 1/1/12	Sun 12/30/12	[Baseline]												
50	<b>Riparian Habitat</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
51	<b>Inspection</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
52	Riparian Mixed Forest Stand Evaluation	Sun 1/1/12	Mon 12/31/12	[Completed]												
53	Other Inspection	Sun 1/1/12	Mon 12/31/12	[Baseline]												
54	<b>Establish Buffers</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
55	Establish Buffers	Sun 1/1/12	Mon 12/31/12	[Completed]												
56	Water Type Modification	Sun 1/1/12	Mon 12/31/12	[Completed]												
57	<b>Snag Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]												
58	Snag Development Schedule	Sun 1/1/12	Mon 12/31/12	[Baseline]												

Baseline [Blue bar] Scheduled [Red hatched bar] Completed [Grey arrow]

## Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Month											
				Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12
59	Snag Removal	Sun 1/1/12	Mon 12/31/12	[Baseline]											
60	<b>Restoration</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]											
61	Riparian Area Damage Identification	Sun 1/1/12	Mon 12/31/12	[Baseline]											
62	Riparian Area Restoration	Sun 1/1/12	Mon 12/31/12	[Baseline]											
63	<b>Shrubland Management</b>	<b>Sun 1/1/12</b>	<b>Fri 3/1/13</b>	[Baseline]											
64	<b>Inspections</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]											
65	Initial Inspection	Sun 4/15/12	Wed 10/31/12	[Baseline]											
66	Initial Evaluation Final Report	Sun 1/1/12	Mon 12/31/12	[Completed]											
67	Post-treatment Inspections	Fri 6/1/12	Fri 8/31/12	[Baseline]											
68	Periodic Inspection	Sun 4/15/12	Wed 10/31/12	[Baseline]											
69	<b>Shade Control</b>	<b>Sun 1/1/12</b>	<b>Fri 3/1/13</b>	[Baseline]											
70	Falling a Tree	Thu 11/1/12	Fri 3/1/13	[Baseline]											
71	Topping Trees	Thu 11/1/12	Fri 3/1/13	[Baseline]											
72	Herbicide Injection	Sun 1/1/12	Mon 12/31/12	[Baseline]											
73	<b>Other Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Baseline]											
74	Heavy Pruning Circle	Sat 9/1/12	Mon 12/31/12	[Baseline]											
75	Vegetation Control - Clear Competing Brush	Sun 1/1/12	Mon 12/31/12	[Baseline]											
76	Revise Management Actions	Sun 1/1/12	Mon 12/31/12	[Baseline]											
77	<b>Farmland/Idle Field/Meadow</b>	<b>Sun 1/1/12</b>	<b>Fri 5/31/13</b>	[Baseline]											
78	<b>Inspections</b>	<b>Sun 1/1/12</b>	<b>Fri 5/31/13</b>	[Baseline]											
79	Initial Inspection	Sun 4/15/12	Sun 9/30/12	[Baseline]											
80	Initial Inspections Final Report	Sun 1/1/12	Mon 12/31/12	[Completed]											
81	Annual Spring Inspection	Sun 4/15/12	Thu 5/31/12	[Completed]											
82	5-year Passively Managed Area Inspection	Mon 4/15/13	Fri 5/31/13	[Completed]											
83	Annual Fall Inspection	Mon 10/1/12	Mon 10/15/12	[Completed]											
84	<b>Mowing</b>	<b>Tue 5/1/12</b>	<b>Fri 8/31/12</b>	[Baseline]											
85	Spring Mowing/Hay Harvest	Tue 5/1/12	Fri 6/15/12	[Completed]											
86	Fall Mowing/Hay Harvest	Wed 8/15/12	Fri 8/31/12	[Completed]											
87	<b>Soil Testing</b>	<b>Wed 8/1/12</b>	<b>Fri 8/31/12</b>	[Completed]											

Baseline [Blue Bar] Scheduled [Red Hatched Bar] Completed [Grey Arrow]

## Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12
88	<b>Fertilization and Lime</b>	<b>Wed 2/1/12</b>	<b>Fri 11/30/12</b>												
89	Fall Fertilization	Sat 9/1/12	Mon 10/15/12									█	█	█	█
90	Spring Fertilization	Wed 2/1/12	Thu 3/15/12		█	█	█								
91	Lime Application	Thu 3/1/12	Fri 11/30/12			█	█	█	█	█	█	█	█	█	█
92	<b>Field Restoration</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>												
93	Soil Testing (season prior)	Wed 8/1/12	Fri 8/31/12								█	█	█		
94	Soil Testing (Prior to tillage)	Wed 2/1/12	Tue 2/28/12		█	█									
95	Lime Application	Sat 9/1/12	Wed 10/31/12									█	█	█	█
96	Herbicide Application Treatment	Thu 3/1/12	Sun 4/15/12			█	█	█							
97	Cultivation	Tue 3/6/12	Sun 4/15/12			█	█	█							
98	Fertilization	Tue 3/6/12	Mon 4/30/12			█	█	█							
99	Seeding/Planting	Tue 3/6/12	Tue 5/1/12			█	█	█							
100	Invasive Plant Control	Sun 1/1/12	Mon 12/31/12	█	█	█	█	█	█	█	█	█	█	█	█
101	Top Seeding	Sun 4/1/12	Tue 5/15/12				█	█	█						
102	<b>Access/Disturbance Reduction</b>	<b>Sun 1/1/12</b>	<b>Sun 12/30/12</b>												
103	Fertilizing Vegetation Screen	Sat 9/1/12	Mon 10/15/12									█	█	█	█
104	Planting	Wed 2/1/12	Fri 3/30/12		█	█	█								
105	Supplemental watering	Sun 7/15/12	Mon 10/15/12								█	█	█	█	█
106	Animal Damage Control	Sun 1/1/12	Sun 12/30/12	█	█	█	█	█	█	█	█	█	█	█	█
107	<b>Orchards</b>	<b>Sun 1/1/12</b>	<b>Mon 3/31/14</b>												
108	<b>Inspection</b>	<b>Sun 1/1/12</b>	<b>Mon 3/31/14</b>												
109	Winter	Sun 1/1/12	Wed 2/15/12	█	█	█	█	█							
110	Summer	Sun 7/1/12	Sat 9/15/12								█	█	█	█	█
111	5-year Inspection	Mon 7/1/13	Sat 8/31/13												
112	<b>Pruning</b>	<b>Wed 2/15/12</b>	<b>Tue 7/31/12</b>												
113	Dormant	Wed 2/15/12	Sat 3/31/12			█	█	█							
114	Summer	Tue 5/1/12	Tue 7/31/12					█	█	█	█				
115	<b>Vegetation Control</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>												
116	Shade Tree Control	Thu 8/16/12	Mon 12/31/12									█	█	█	█

Baseline █ Scheduled █ Completed █

## Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Month													
				Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12		
117	Invasive Plant Species Control	Sun 1/1/12	Mon 12/31/12	[Solid Blue Bar]													
118	Mowing	Thu 8/16/12	Fri 8/31/12									[Red Hatched Bar]					
119	<b>New Plantings</b>	<b>Wed 2/1/12</b>	<b>Mon 3/31/14</b>														
120	Replacement Plantings	Wed 2/1/12	Sat 3/31/12		[Red Hatched Bar]												
121	New Plantings Inspections	Sun 7/1/12	Sat 9/15/12									[Red Hatched Bar]					
122	Orchard Expansion Planting	Sat 2/1/14	Mon 3/31/14														
123	<b>Big Game Forage</b>	<b>Sun 4/1/12</b>	<b>Wed 10/31/12</b>														
124	Soil Testing	Wed 8/1/12	Fri 8/31/12									[Solid Blue Bar]					
125	Fertilizing	Sat 9/1/12	Mon 10/15/12										[Solid Blue Bar]				
126	Grass Seeding (Spring)	Sun 4/1/12	Tue 5/15/12				[Solid Blue Bar]										
127	Grass Seeding (Fall)	Sat 9/15/12	Wed 10/31/12											[Solid Blue Bar]			
128	<b>Other Management</b>	<b>Sun 1/1/12</b>	<b>Sun 12/30/12</b>	[Solid Blue Bar]													
129	Orchard Tree Fertilizing	Sun 4/1/12	Thu 5/31/12				[Solid Blue Bar]										
130	Pest Control	Sun 1/1/12	Sun 12/30/12	[Solid Blue Bar]													
131	Animal Damage Control	Sun 1/1/12	Sun 12/30/12	[Red Hatched Bar]													
132	Supplemental Water	Sun 7/15/12	Sun 9/30/12									[Red Hatched Bar]					
133	<b>Transmission Line Rights-of-Way</b>	<b>Sun 1/1/12</b>	<b>Wed 10/15/14</b>														
134	<b>Inspections</b>	<b>Sun 1/1/12</b>	<b>Wed 10/15/14</b>														
135	Initial Evaluations with Photo Documentation	Sat 9/1/12	Mon 10/15/12										[Solid Blue Bar]				
136	Initial Inspections Final Report	Mon 1/2/12	Mon 12/31/12	[Red Hatched Bar]													
137	Revise Transmission Line Right-of-Way Habitat Management Chapter	Tue 1/1/13	Tue 12/31/13														
138	Annual Inspection	Sat 9/1/12	Mon 10/15/12										[Red Hatched Bar]				
139	Annual Inspection with Photo Documentation	Mon 9/1/14	Wed 10/15/14														
140	Post hazard tree and invasive plant species management inspection	Sun 1/1/12	Mon 12/31/12	[Red Hatched Bar]													
141	<b>Shrub Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Solid Blue Bar]													
142	Shrub Management	Sun 1/1/12	Mon 12/31/12	[Solid Blue Bar]													
143	Plantings	Wed 2/1/12	Sat 3/31/12		[Solid Blue Bar]												
144	<b>Invasive Plant Species Control</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Solid Blue Bar]													

Baseline [Solid Blue Bar] Scheduled [Red Hatched Bar] Completed [Grey Arrow]



### Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Month											
				Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12
145	Invasive Plant Species Control	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
146	Aquatic Area Management	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
147	<b>Big Game Forage Enhancement</b>	<b>Wed 8/1/12</b>	<b>Mon 10/15/12</b>	[Empty]											
148	Soil Testing	Wed 8/1/12	Fri 8/31/12	[Blue bar in Aug]											
149	Annual Mowing	Sat 9/1/12	Mon 10/15/12	[Red hatched bar in Sep]											
150	Fertilizing	Sat 9/1/12	Mon 10/15/12	[Red hatched bar in Sep]											
151	<b>Access/Disturbance Reductions</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Empty]											
152	Access/Disturbance Reduction	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
153	Closing Open Roads	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
154	<b>Unique Area /Habitat Management</b>	<b>Fri 1/1/10</b>	<b>Mon 12/31/12</b>	[Empty]											
155	<b>Inspections</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Empty]											
156	Annual Oak Stands	Sat 9/15/12	Mon 10/15/12	[Red hatched bar in Sep]											
157	Additional Oak Stands	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
158	Other Unique Areas/Habitats	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
159	<b>Oak Stand Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Empty]											
160	Topping a Competing Tree and Hand Piling Debris	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
161	Falling a competing Tree and Hand Piling Debris	Mon 10/15/12	Mon 12/31/12	[Red hatched bar in Oct-Dec]											
162	Invasive Plant Species Control	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
163	<b>Cave Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Empty]											
164	Develop Management Strategy	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
165	<b>Unique Area Record Management</b>	<b>Fri 1/1/10</b>	<b>Mon 12/31/12</b>	[Empty]											
166	Create Unique Area Database	Fri 1/1/10	Fri 12/31/10	[Empty]											
167	Update Unique Area Database	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
168	<b>Ethnobotanically Significant Plant Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Empty]											
169	Develop Management Strategy	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
170	<b>Forestland Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>	[Empty]											
171	<b>Inspections</b>	<b>Tue 5/1/12</b>	<b>Mon 12/31/12</b>	[Red hatched bar in May]											
172	Spring Timber Harvest Area Survey	Tue 5/1/12	Sat 6/30/12	[Red hatched bar in May]											
173	Fall Timber Harvest Survey	Thu 11/1/12	Mon 12/31/12	[Red hatched bar in Nov-Dec]											

Baseline [Blue bar] Scheduled [Red hatched bar] Completed [Grey arrow]

## Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12
174	<b>Management Actions</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>												
175	Harvest Planning	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
176	Harvest Scheduling	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
177	First Precut Survey	Sat 9/1/12	Mon 12/31/12									[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]
178	Timber Harvest Area Traverse and GIS Update	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
179	Second Precut Survey	Sun 1/1/12	Mon 12/31/12	[Red hatched bar]											
180	TCC On-Site Meeting	Sun 4/1/12	Thu 5/31/12				[Red hatched bar]	[Red hatched bar]							
181	Timber Harvest Area Logging Inspections	Sun 7/1/12	Sun 9/30/12								[Red hatched bar]	[Red hatched bar]	[Red hatched bar]		
182	Snag Development	Sun 7/15/12	Mon 12/31/12								[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]
183	<b>Regeneration Practices</b>	<b>Sun 4/1/12</b>	<b>Thu 11/15/12</b>												
184	Site Preparation	Sun 7/1/12	Sun 9/30/12								[Red hatched bar]	[Red hatched bar]	[Red hatched bar]		
185	Purchase Forage Mix	Wed 8/1/12	Fri 8/31/12									[Red hatched bar]	[Red hatched bar]		
186	Forage Seeding	Sat 9/15/12	Sun 9/30/12										[Red hatched bar]		
187	Invasive Species; Oust	Sun 4/1/12	Tue 5/15/12				[Red hatched bar]	[Red hatched bar]							
188	Invasive Species (e.g. blackberry, ect.)	Sun 4/1/12	Thu 11/15/12				[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]
189	Precommercial thinning	Sun 1/1/12	Sun 12/30/12	[Red hatched bar]											
190	<b>Invasive Plant Species Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>												
191	Pre-Ground Disturbance Evaluation	Tue 5/1/12	Thu 8/30/12					[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]		
192	Post-Ground Disturbance Evaluation	Tue 5/1/12	Thu 8/30/12					[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]		
193	Detection	Sun 1/1/12	Mon 12/31/12	[Blue bar]											
194	Update State and County Noxious Weed Lists	Sun 1/1/12	Sat 3/31/12	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]							
195	<b>Control Treatments</b>	<b>Tue 5/1/12</b>	<b>Fri 8/31/12</b>												
196	<b>Control Treatments</b>	<b>Tue 5/1/12</b>	<b>Fri 8/31/12</b>												
197	Policeman's helmet at Merwin Boat Launch	Fri 6/1/12	Fri 8/31/12							[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]		
198	Speelyai Day Use	Tue 5/1/12	Thu 5/31/12					[Blue bar]	[Blue bar]						
199	Cresap Camp Ground	Tue 5/1/12	Thu 5/31/12					[Blue bar]	[Blue bar]						
200	Cougar Quarry	Tue 5/1/12	Fri 8/31/12					[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]	[Blue bar]		
201	Control Treatments within the Ordinary High Water Mark	Wed 8/1/12	Mon 10/15/12									[Red hatched bar]	[Red hatched bar]	[Red hatched bar]	[Red hatched bar]
202	<b>Monitoring</b>	<b>Tue 5/1/12</b>	<b>Fri 11/30/12</b>												

Baseline [Blue bar] Scheduled [Red hatched bar] Completed [Grey arrow]

### Appendix A: 2012 Lewis River Wildlife Habitat Management Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date	Month													
				Jan '12	Feb '12	Mar '12	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12		
203	Monitoring	Tue 5/1/12	Fri 11/30/12														
204	Speelyai Bay Day Use	Tue 5/1/12	Thu 5/31/12														
205	Cresap Bay Campground	Tue 5/1/12	Thu 5/31/12														
206	<b>Raptor Site Management</b>	<b>Fri 1/1/10</b>	<b>Mon 7/15/13</b>														
207	<b>Northern Goshawk Survey</b>	<b>Thu 3/15/12</b>	<b>Fri 8/31/12</b>														
208	Dawn Acoustical Survey	Thu 3/15/12	Mon 4/30/12														
209	Intensive Search Survey	Wed 6/20/12	Fri 8/31/12														
210	Broadcast Acoustical Survey	Fri 6/1/12	Wed 8/15/12														
211	Northern Spotted Owl Surveys	Thu 3/1/12	Thu 8/30/12														
212	Peregrine Falcon Monitoring	Sun 4/15/12	Sat 6/30/12														
213	<b>Bald Eagle and Osprey Monitoring</b>	<b>Sat 4/7/12</b>	<b>Sun 3/31/13</b>														
214	Bald Eagle Nest Occupancy Monitoring	Sat 4/7/12	Wed 4/25/12														
215	Osprey Nest Occupancy and Bald Eagle Nest Productivity	Sun 6/10/12	Mon 6/25/12														
216	Known Communal Roost Monitoring	Thu 11/15/12	Sun 3/31/13														
217	Potential Communal Roost Monitoring	Sat 12/1/12	Thu 2/28/13														
218	<b>Habitat Management</b>	<b>Fri 1/1/10</b>	<b>Mon 7/15/13</b>														
219	Mature and Old-growth Raptor Habitat Evaluations	Mon 4/15/13	Mon 7/15/13														
220	Develop a Schedule for Implementing Habitat Enhancement Actions in Old-growth and Mature Stands	Sun 1/1/12	Mon 12/31/12														
221	Complete Bald Eagle Management Plan	Fri 1/1/10	Fri 12/31/10														
222	Revised Bald Eagle Management Plan	Sun 1/1/12	Mon 12/31/12														
223	Review and Update Industry Standards for Avian Protection from Power Lines	Sat 12/1/12	Mon 12/31/12														
224	<b>Public Access Management</b>	<b>Sun 1/1/12</b>	<b>Mon 12/31/12</b>														
225	<b>Inspections</b>	<b>Tue 5/1/12</b>	<b>Fri 11/30/12</b>														
226	Initial Road Evaluation	Tue 5/1/12	Mon 10/15/12														
227	Initial Road Evaluation on Newly Acquired Lands	Tue 5/1/12	Mon 10/15/12														
228	Road Closure Inspection	Thu 11/1/12	Fri 11/30/12														
229	Initial Trail Evaluation	Tue 5/1/12	Mon 10/15/12														

Baseline Scheduled Completed



**APPENDIX B**  
**2012 BUDGET**

## Overall 2012 Budget

License Year 4  
Calendar Year 2012  
Annual WHMP Budget

Total Available Funds		
<b>Fee Simple Lands</b>	Acres	11,105
	Cost Per Acre	\$32.47
	SubTotal	\$360,611.00
<b>Interests in Lands</b>	Acres	16
	Cost Per Acre	\$16.24
	SubTotal	\$259.78
<b>Other Additional Funds</b>	Remaining Funds from 2011	\$33,093.31
	Additional HEP Funding	\$0.00
	Property Encroachment Payment*	\$2,000.00
	SubTotal	\$35,093.31
<b>Total</b>		<b>\$395,964.09</b>

Budget				
WHMP Management Area or Plan-Wide Goal		2011 Budget		Proposed 2012
		Proposed	Actual	
<b>Administration</b>	Cost	\$30,500.00	\$30,670.98	\$30,500.00
	Percent of Budget	7.70%	7.75%	7.70%
<b>Old-Growth</b>	Cost	\$6,000.00	\$12,958.98	\$11,250.00
	Percent of Budget	1.52%	3.27%	2.84%
<b>Wetlands</b>	Cost	\$9,150.00	\$12,393.67	\$15,075.00
	Percent of Budget	2.31%	3.13%	3.81%
<b>Riparian</b>	Cost	\$13,725.00	\$2,021.68	\$13,725.00
	Percent of Budget	3.47%	0.51%	3.47%
<b>Shrubland</b>	Cost	\$3,750.00	\$3,461.11	\$2,250.00
	Percent of Budget	0.95%	0.87%	0.57%
<b>Farmland, Meadow, Idle Areas</b>	Cost	\$53,765.00	\$49,538.59	\$50,010.00
	Percent of Budget	13.58%	12.51%	12.63%
<b>Orchard</b>	Cost	\$7,725.00	\$14,230.41	\$14,150.00
	Percent of Budget	1.95%	3.59%	3.57%
<b>Transmission Line Right-of-Way</b>	Cost	\$18,150.00	\$19,718.94	\$24,150.00
	Percent of Budget	4.58%	4.98%	6.10%
<b>Unique Area/Habitat</b>	Cost	\$6,750.00	\$1,687.90	\$9,900.00
	Percent of Budget	1.70%	0.43%	2.50%
<b>Forestland</b>	Cost	\$136,745.21	\$135,341.07	\$150,400.00
	Percent of Budget	34.53%	34.18%	37.98%
<b>Invasive Plant Species</b>	Cost	\$13,475.00	\$8,258.89	\$18,475.00
	Percent of Budget	3.40%	2.09%	4.67%
<b>Raptor</b>	Cost	\$33,850.00	\$37,693.78	\$41,900.00
	Percent of Budget	8.55%	9.52%	10.58%
<b>Public Access Management</b>	Cost	\$10,025.00	\$12,200.89	\$11,150.00
	Percent of Budget	2.53%	3.08%	2.82%
<b>Monitoring</b>	Cost	\$3,000.00	\$0.00	\$3,000.00
	Percent of Budget	0.76%	0.00%	0.76%
<b>Total Cost</b>		<b>\$346,610.21</b>	<b>\$340,176.89</b>	<b>\$395,935.00</b>
<b>Total Percent of Budget Spent</b>		<b>87.54%</b>	<b>85.91%</b>	<b>99.99%</b>
<b>Remaining Funds</b>		<b>\$49,353.88</b>	<b>\$55,787.20</b>	<b>\$29.09</b>

## Administration Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	WHMP Estimated Hours	Budgeted Hours	Cost
Annual Report	Annually	70 hours	200	\$15,000.00
Annual Plan	Optional	70 hours	200	\$15,000.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>400</b>	<b>\$30,000.00</b>
<b>Materials</b>				
Annual Report and Plan Reproduction				\$500.00
Other				\$0.00
<b>Total Materials</b>				<b>\$500.00</b>
<b>Total Labor and Materials</b>				<b>\$30,500.00</b>

## Old-Growth Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	WHMP Estimated Hours	Budgeted Hours	Cost
Initial Evaluation	Within 5 years of WHMP Implementation	140 hours	150	\$11,250.00
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	
<b>Total Labor</b>			<b>150</b>	<b>\$11,250.00</b>
<b>Materials</b>				
Other			\$0.00	
<b>Total Materials</b>			<b>\$0.00</b>	
<b>Total Labor and Materials</b>			<b>\$11,250.00</b>	



## Wetland Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluation	Within 5 years of WHMP Implementation	180 hours	125	\$9,375.00
Initial Evaluation Final Report	Within 5 years of WHMP Implementation	80 hours	0	\$0.00
Annual Inspection	Annually	80 hours	60	\$4,500.00
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	8	\$600.00
Replace 1 to 2 stop logs for high winter flows	Annually	16 hours	8	\$600.00
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	\$500.00
Replace Stoplogs	Annually	16 hours	16	\$500.00
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
<b>Total Labor</b>			<b>201</b>	<b>\$15,075.00</b>
<b>Materials</b>				
Shrub Planting \$50 per planting				\$75.00
Other				\$0.00
<b>Total Materials</b>				<b>\$0.00</b>
<b>Total Labor and Materials</b>				<b>\$15,075.00</b>

## Riparian Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Riparian Mixed Forest Stand Evaluations	Within 5 years of receiving the license	200 hours	125	\$9,375.00
Other Inspections	Optional	4 hours per site	0	\$0.00
Establish Buffers	Optional	1 hour per 100 ft (30 m) of stream	40	\$3,000.00
Water Type Modification form	Optional	18 hours per form	18	\$1,350.00
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
<b>Total Labor</b>			<b>183</b>	<b>\$13,725.00</b>
<b>Materials</b>				
Other				\$0.00
<b>Total Materials</b>				<b>\$0.00</b>
<b>Total Labor and Materials</b>				<b>\$13,725.00</b>

## Shrubland Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluation	Within 4 years of WHMP Implementation	80 hours	0	\$0.00
Initial Evaluation Final Report	Within 1 year of completing the initial evaluation	30 hours	30	\$2,250.00
Periodic Inspection	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
<b>Total Labor</b>			<b>30</b>	<b>\$2,250.00</b>
<b>Materials</b>				
Other				\$0.00
<b>Total Materials</b>				<b>\$0.00</b>
<b>Total Labor and Materials</b>				<b>\$2,250.00</b>

## Farmland, Idle Fields, and Meadows Budget

License Year 4  
Calendar Year 2012

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	60	\$4,500.00
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	60	\$4,500.00
Fall Mowing/ Hay Harvest	Annually	2 hours per acre	130	\$9,750.00
Soil Test	Annually	2 hours per site	25	\$1,875.00
Fall Fertilization	Annually	2 hours per acre	90	\$6,750.00
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	50	\$3,750.00
Top Seeding	Optional	4 hours per acre	30	\$2,250.00
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	4	\$300.00
Animal Damage Control	Optional	1 hour per enclosure	53	\$3,975.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>582</b>	<b>\$43,650.00</b>
<b>Materials</b>				
Soil Testing (Assume \$40 per test with 10 test per year)				\$560.00
Fertilizer (Assume \$100 per acre in materials)				\$5,500.00
Herbicide for Field Restoration (\$30 per acre treated)				\$200.00
Grass Seed				\$100.00
Exclosures for new plantings (\$100 per enclosure)				\$0.00
New plantings (\$10 per seedling)				\$0.00
Other				\$0.00
<b>Total Materials</b>				<b>\$6,360.00</b>
<b>Total Labor and Materials</b>				<b>\$50,010.00</b>

## Orchard Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Winter Inspection	Annually	16 hours	16	\$1,200.00
Summer Inspection	Annually	16 hours	20	\$1,500.00
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	83	\$6,225.00
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	8	\$600.00
Replacement Plantings	Optional	2 hours per planting	30	\$2,250.00
New Plantings Inspection	Optional	2 hours per planting	0	\$0.00
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	10	\$750.00
Supplemental Watering	Optional	1 hour per tree	3	\$225.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>170</b>	<b>\$12,750.00</b>
<b>Materials</b>				
Exclosures (\$100 per exclosure)				\$1,100.00
New seedlings (\$30 per tree)				\$300.00
Fertilizer (Assume \$100 per acre in materials)				\$0.00
Grass Seed (Assume \$4 per pound)				\$0.00
Other				\$0.00
<b>Total Materials</b>				<b>\$1,400.00</b>
<b>Total Labor and Materials</b>				<b>\$14,150.00</b>

## Transmission Line Right-of-Way Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluations with Photo Documentation	Within 5 years of WHMP Implementation	130 hours	0	\$0.00
Initial Inspections Final Report	Within 1 year of completing the initial evaluation	40 hours	60	\$4,500.00
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	80	\$6,000.00
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	10	\$750.00
Shrub Management	Optional	4 hours	40	\$3,000.00
Plantings	Optional	4 hours per planting	0	\$0.00
Vegetation Management	Optional	2 hours per tree	24	\$1,800.00
Invasive Plant Species Control	Optional	4 hours per acre	80	\$6,000.00
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	12	\$900.00
Fertilization	Optional	2 hours per acre	12	\$900.00
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	
<b>Total Labor</b>			<b>318</b>	<b>\$23,850.00</b>
<b>Materials</b>				
Soil Testing (Assume \$40 per test)			\$0.00	
Fertilizer (Assume \$100 per acre in materials)			\$300.00	
Exclosures (\$200 per exclosure)			\$0.00	
Plantings (\$50 per planting)			\$0.00	
Ecology blocks/boulders			\$0.00	
<b>Total Materials</b>			<b>\$300.00</b>	
<b>Total Labor and Materials</b>			<b>\$24,150.00</b>	

## Unique Area/ Habitat Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Annual Oak Stand	Annual	16 hours	30	\$2,250.00
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	40	\$3,000.00
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	40	\$3,000.00
Invasive Plant Species Control	Optional	1 hour per acre	20	\$1,500.00
Develop Cave Management Strategy	Optional	10 hours	0	\$0.00
Create a Unique Area Database	Within 1 year of Implementation	8 hours	0	\$0.00
Update Unique Area Database	Optional	2 hours	2	\$150.00
Develop Ethnobotanically Significant Plant Management Strategy	Optional	10 hours	0	\$0.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>132</b>	<b>\$9,900.00</b>
<b>Materials</b>				
Other				\$0.00
<b>Total Materials</b>				<b>\$0.00</b>
<b>Total Labor and Materials</b>				<b>\$9,900.00</b>

## Forestland Budget

**License Year 4  
Calendar Year 2012**

Management Actions	Frequency	Estimated Effort	Hours	Cost
Spring Timber Harvest Area Survey	Annually	40 hours	40	\$3,000.00
Fall Timber Harvest Area Survey	Annually	140 hours	140	\$10,500.00
Harvest Planning	Optional	80 hours	70	\$5,250.00
Harvest Scheduling	Optional	8 hours	8	\$600.00
First Precut Survey	Optional	1 hour per acre	30	\$2,250.00
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	16	\$1,200.00
Timber Harvest Area Logging Inspections	Optional	80 hours	75	\$5,625.00
Snag Development	Optional	2 hours per tree	0	\$0.00
Site Preparation	Optional	12 hours per 10 acres plus 10 hours	70	\$15,000.00
Forage Seeding	Optional	36 hours	36	\$2,700.00
Invasive Plant Species - grasses	Optional	0.5 hour per acre	70	\$5,250.00
Invasive Plant Species - competing vegetation	Optional	2.8 hours per acre	400	\$30,000.00
Pre-commercial thinning	Optional	1.25 hour per acre	300	\$22,500.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>1354</b>	<b>\$111,300.00</b>
<b>Materials</b>				
Forage seed mix				\$1,200.00
Chemicals (\$50.00 per acre)				\$13,600.00
Seedlings				\$1,300.00
Seedling Protection (vexar tubes, stakes, garlic sticks etc)				\$3,000.00
Other				\$0.00
<b>Total Materials</b>				<b>\$19,100.00</b>
<b>Additional 2012 Cost</b>				
Habitat restoration to the newly aquired Saddle Mt and Swift Creek properties to plant seedlings, grass seed, prescribed fire, invasive plant species control, and/or public access control.				\$20,000.00
<b>Total Labor and Materials</b>				<b>\$150,400.00</b>



## Invasive Plant Species Budget

License Year 4  
Calendar Year 2012

Management Actions	Frequency	Estimated Effort	Hours	Cost
Pre-Ground Disturbance Evaluation	Optional	5.0 hours per site	15	\$1,125.00
Post-Ground Disturbance Evaluation	Optional	2.0 hours per site	20	\$1,500.00
Detection	Optional	0.5 hour per site	0	\$0.00
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	2.0 hours per acre	10	\$750.00
Monitoring	Optional	0.5 hour per site	16	\$1,200.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>113</b>	<b>\$8,475.00</b>
<b>Materials</b>				
Chemicals				\$10,000.00
Other				
<b>Total Materials</b>				<b>\$10,000.00</b>
<b>Total Labor and Materials</b>				<b>\$18,475.00</b>

## Raptor Budget

License Year 4  
Calendar Year 2012

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 acres (200 ha)	350	\$26,250.00
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	20	\$1,500.00
Aerial Survey for Osprey Nest Occupancy and Bald Eagle Nest Productivity	Annually	24 hours labor	20	\$1,500.00
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	20	\$1,500.00
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
<b>Total Labor</b>			<b>412</b>	<b>\$30,900.00</b>
<b>Materials</b>				
Helicopter flight \$5,500 per flight 2 flights per year				\$11,000.00
Other				\$0.00
<b>Total Materials</b>				<b>\$11,000.00</b>
<b>Total Labor and Materials</b>				<b>\$41,900.00</b>

## Public Access Budget

License Year 4  
Calendar Year 2012

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	6	\$450.00
Road Closure Inspection	Annually	60 hours	40	\$3,000.00
Initial Trail Evaluation	Within 5 years of Wildlife Habitat Management Plan Implementation	16 hours	0	\$0.00
Trail Inspection	Annually	12 hours	12	\$900.00
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	10	\$750.00
Site Creep Evaluation	Every 4 years	40 hours	0	\$0.00
Controlling unauthorized motorized vehicle use	Optional	5 hours per site	30	\$2,250.00
Visual Screen	Optional	4 hours per site	0	\$0.00
Road Construction	Optional	8 hours per site	0	\$0.00
Labor rate per hour				\$75.00
<b>Total Labor</b>			<b>98</b>	<b>\$7,350.00</b>
<b>Materials</b>				
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)				\$1,900.00
Road Barriers (blocks, rocks, etc)				\$1,900.00
Other				\$0.00
<b>Total Materials</b>				<b>\$3,800.00</b>
<b>Total Labor and Materials</b>				<b>\$11,150.00</b>

## Monitoring Budget

License Year 4  
Calendar Year 2012

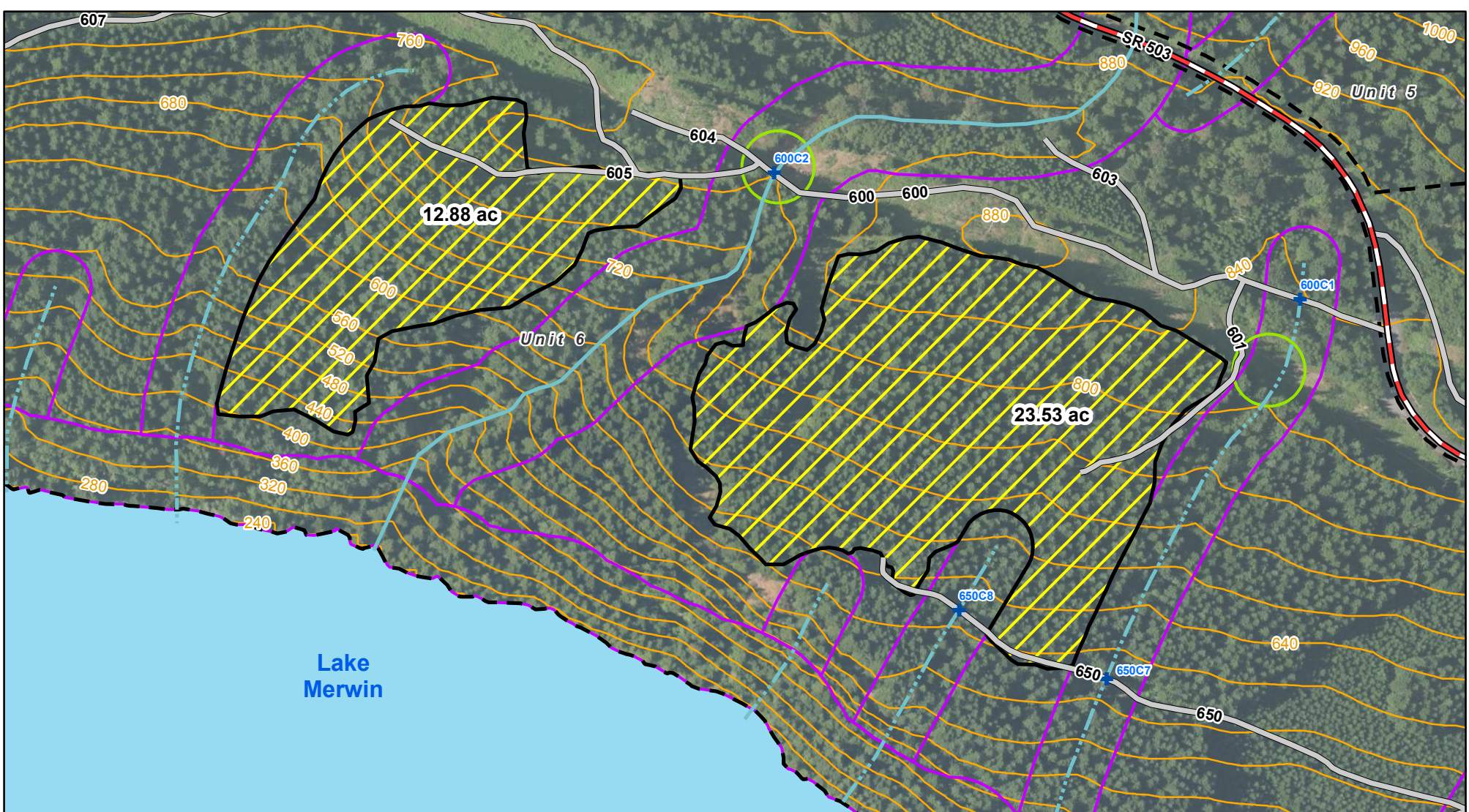
Management Action	Frequency	Estimated Effort	Hours	Cost
Year 17 Habitat Evaluation Procedure	Target Year 17	estimated 4 hours per plot plus a total 100 hours for analysis	0	\$0.00
Newly Acquired Lands	Estimated to be completed by year 6	estimated 4 hours per plot plus a total 25 hours for analysis	40	\$3,000.00
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
<b>Total Labor</b>			<b>40</b>	<b>\$3,000.00</b>
<b>Materials</b>				
Other				\$0.00
<b>Total Materials</b>				<b>\$0.00</b>
<b>Total Labor and Materials</b>				<b>\$3,000.00</b>

**APPENDIX C**  
**TERRESTRIAL COORDINATION COMMITTEE 2012 ANNUAL PLAN CONSULTATION**  
**RECORD**



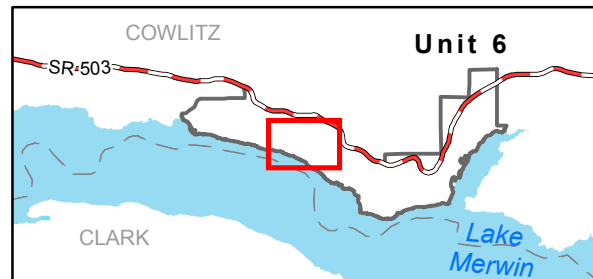
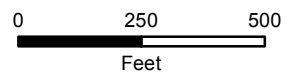
**APPENDIX D**  
2012 PROPOSED TIMBER HARVEST AREA MAPS AND FIRST PRE-CUT SURVEY FORMS





**Unit 6**

2012 Proposed Harvest Areas



Legend			
●	Ditch Culvert	—	Contour (40 feet)
+	Stream Culvert	▨	CLEAR CUT
—	Highway	▩	COMMERCIAL THIN
—	Road	▭	Stream Buffer
---	Abandoned Road	▭	Wetland Buffer
---	Fish Stream	▭	Water Body
---	Non-fish Perennial	▭	Management Unit
---	Non-fish Seasonal		
---	Other Stream		

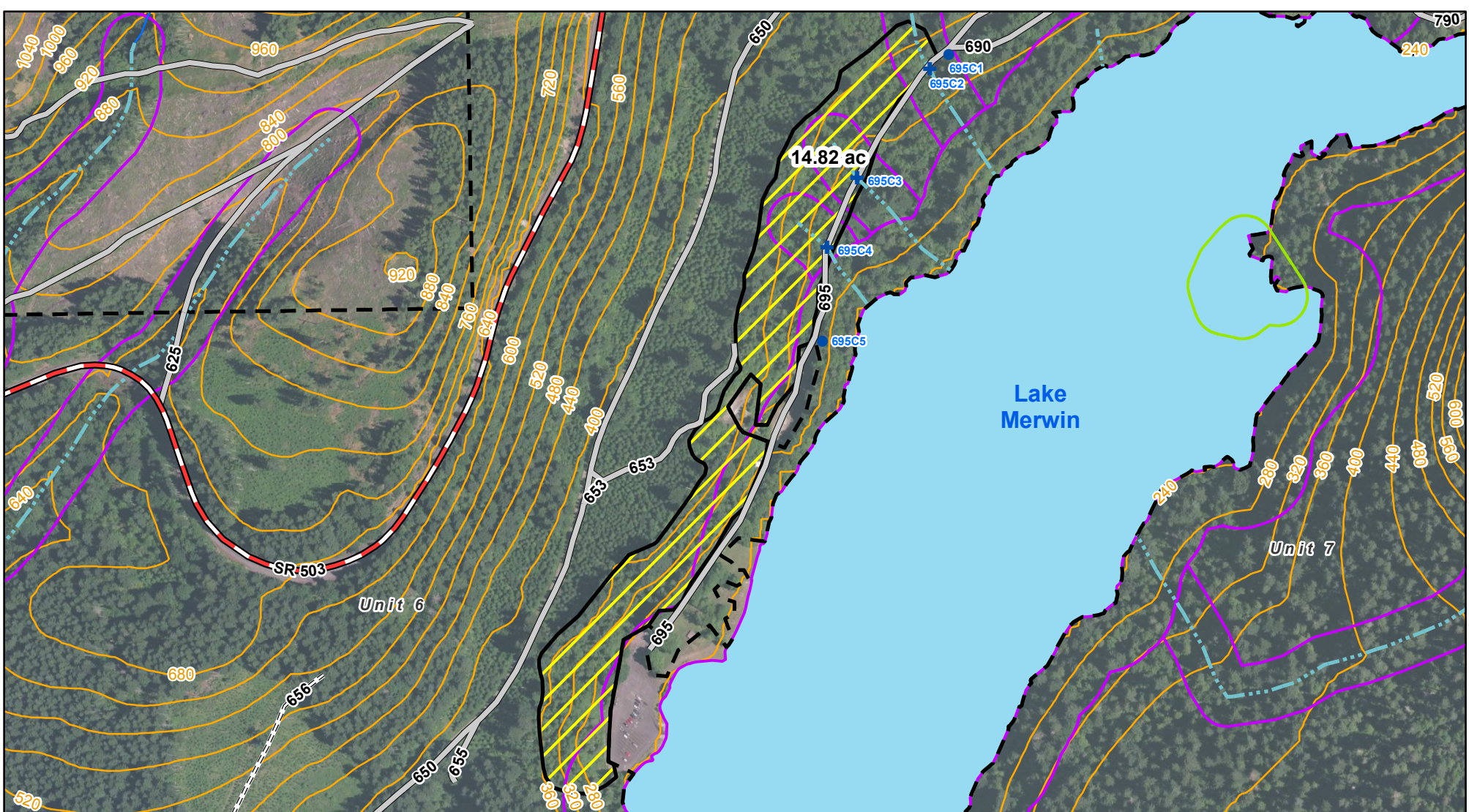


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Data are projected in UTM Zone 10, NAD83, meters.

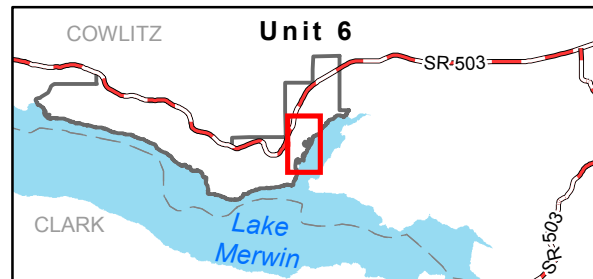
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**Unit 6  
Speelyai**  
2012 Proposed  
Harvest Areas

0 250 500  
Feet



**Legend**

Ditch Culvert	Contour (40 feet)
Stream Culvert	CLEAR CUT
Highway	COMMERCIAL THIN
Road	Stream Buffer
Abandoned Road	Wetland Buffer
Fish Stream	Water Body
Non-fish Perennial	Management Unit
Non-fish Seasonal	
Other Stream	

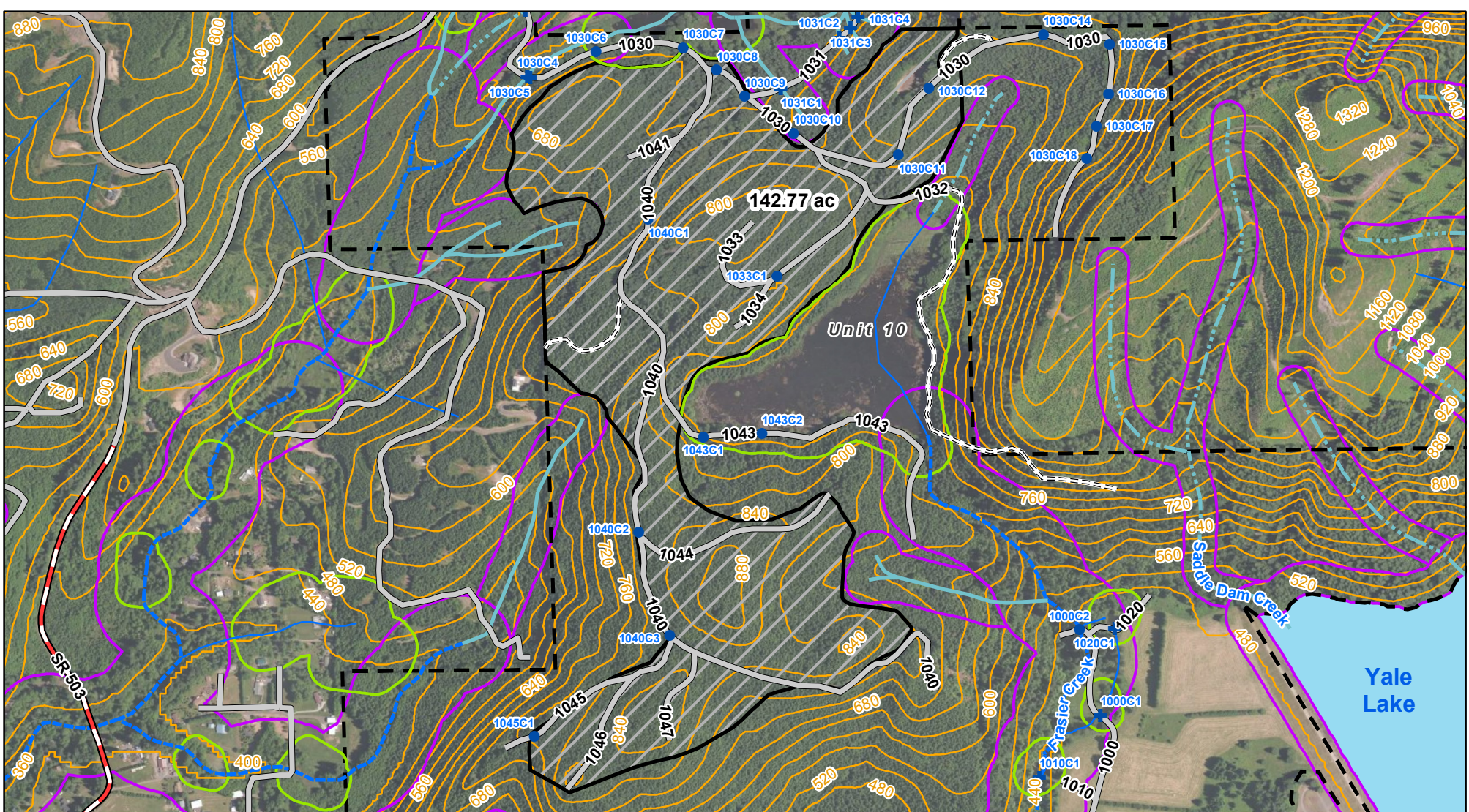
**PACIFICORP ENERGY**  
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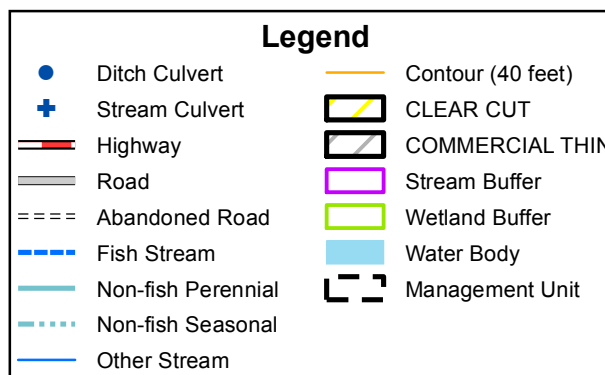
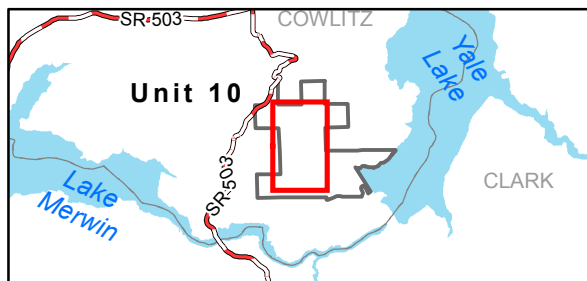


### Unit 10

2012 Proposed Harvest Areas



0 250 500  
Feet

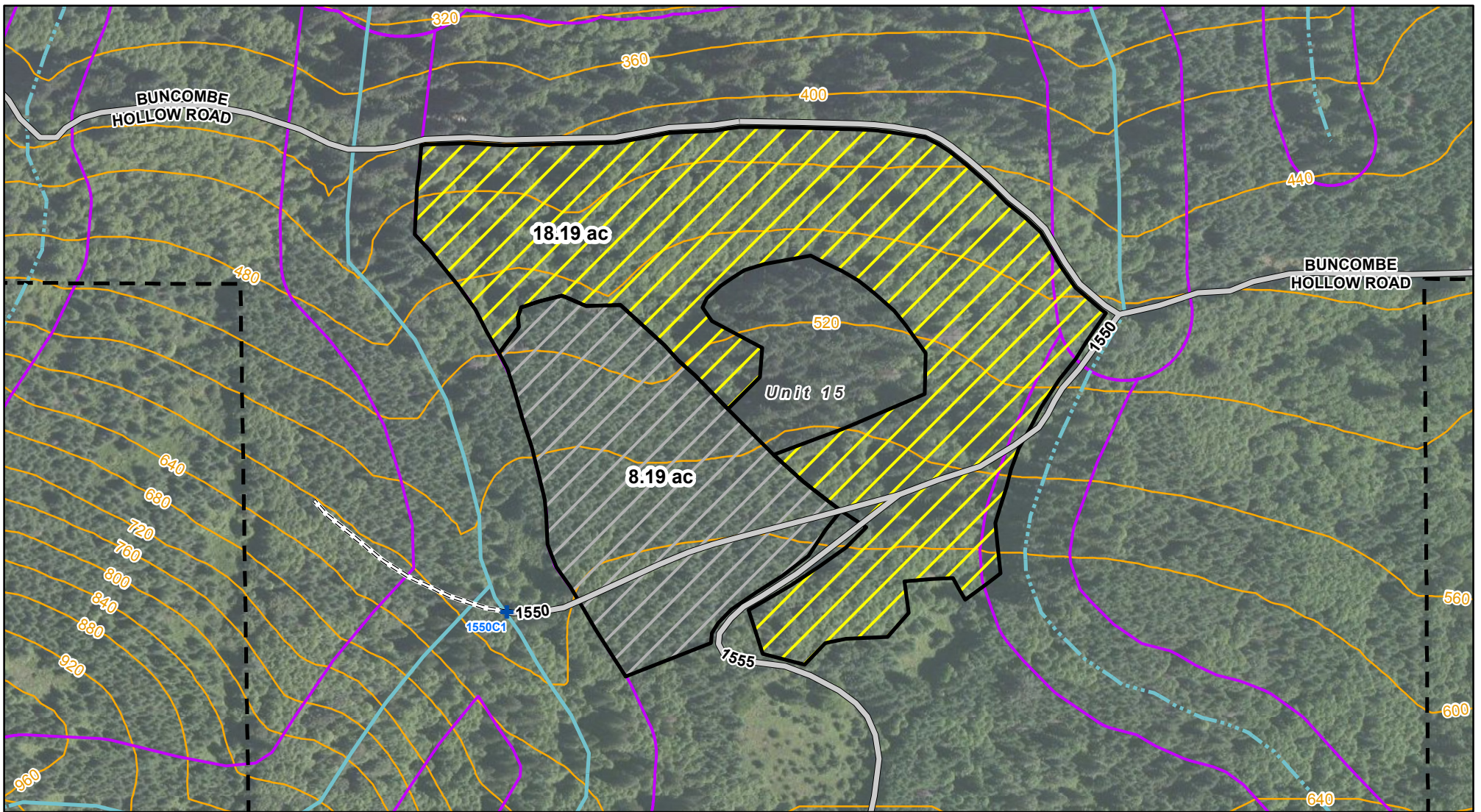


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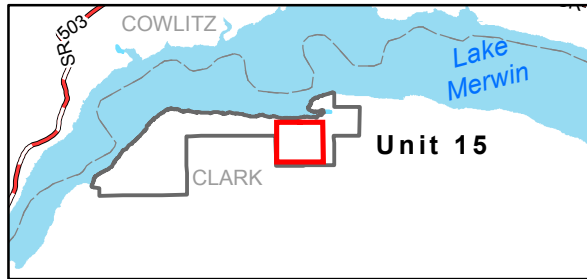
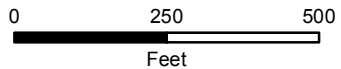
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### Unit 15

2012 Proposed Harvest Areas



Legend	
	Ditch Culvert
	Stream Culvert
	Highway
	Road
	Abandoned Road
	Fish Stream
	Non-fish Perennial
	Non-fish Seasonal
	Other Stream
	Contour (40 feet)
	CLEAR CUT
	COMMERCIAL THIN
	Stream Buffer
	Wetland Buffer
	Water Body
	Management Unit

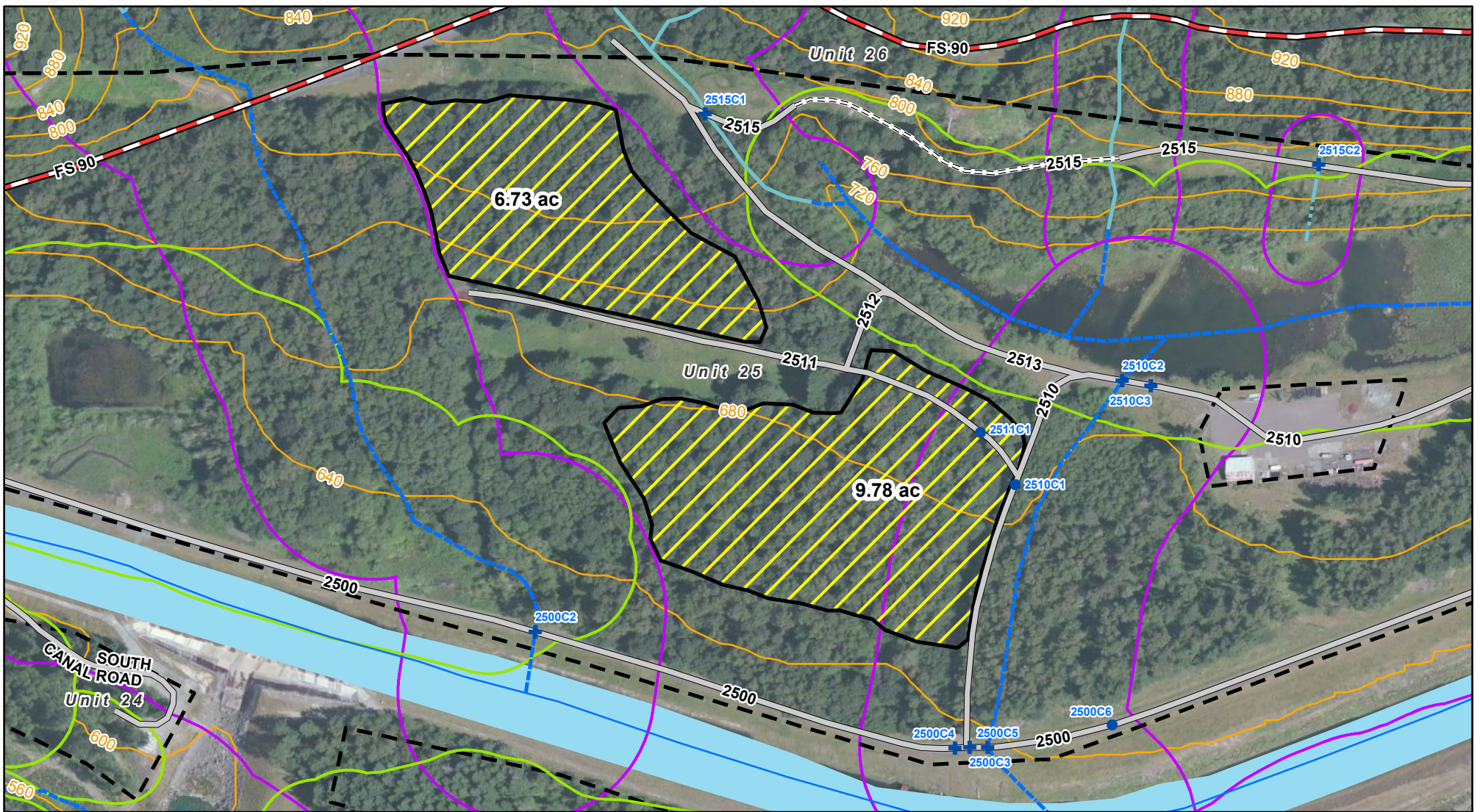


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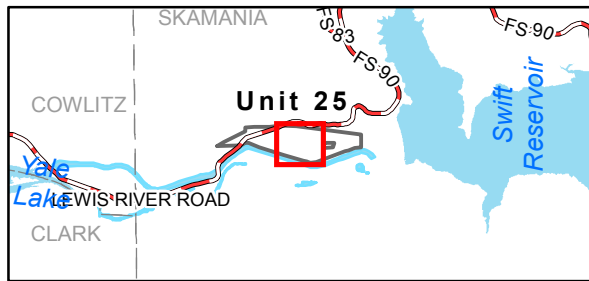
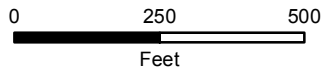
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### Unit 25

2012 Proposed Harvest Areas



Legend			
●	Ditch Culvert	—	Contour (40 feet)
+	Stream Culvert	▨	CLEAR CUT
—	Highway	▩	COMMERCIAL THIN
—	Road	▭	Stream Buffer
---	Abandoned Road	▭	Wetland Buffer
---	Fish Stream	▭	Water Body
---	Non-fish Perennial	▭	Management Unit
---	Non-fish Seasonal		
---	Other Stream		

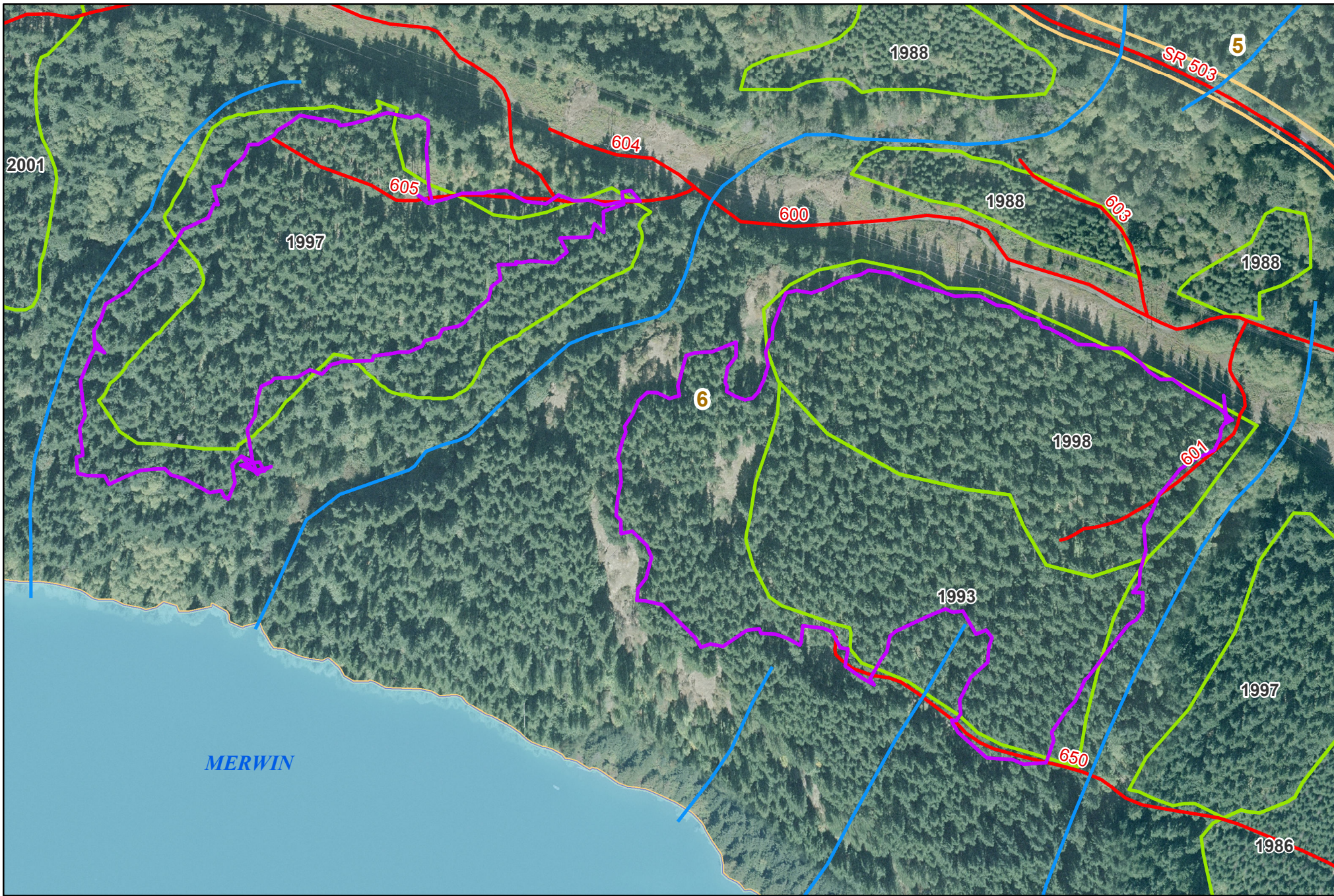


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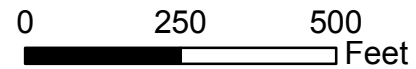
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**Lewis River  
Proposed Harvest Areas  
2012 - Unit 6**

- Stream
- Unit 6 Traverse
- Road
- Past Harvest (Year)
- Management Unit Outline





## Wildlife/Forestry Evaluation Form

**Management Unit No.:** Unit 6      **Date:** 11-15-2011  
**Observers:** Naylor

**Stand Description:** Two separate Douglas-fir stands that have received separate commercial thinning in 1988, 1994, 1997 and 1998. All previous entries were conducted to reduce over-story crown closure to allow more light to penetrate understory and enhance understory grasses and shrubs. First entries removed approximately 20-30% of tree crown density but this failed to develop significant understory diversity. Original understories were predominately salal which still persists and has increased since last ground disturbance. There are scattered shrubs (vine maple, hazel and oceanspray) that aren't vigorous due to closure of overstory canopy again. Stands have grown from mid-successional conifer to mature stands based on average dbh. Few available snags or LWD within stands. Salal is still dominant in the understory. The last forest harvest was in 2003 and the succession of most managed stands in this Management Unit has progressed rapidly even with pre-commercial thinning of young stands such that the current C:F ratio is approximately 72:24.

**Management Unit Objectives from WHMP:** Management Unit 6 was proposed to achieve a balanced mix of cover (hiding and thermal) and forage for meeting big game objectives while maintaining at least 50% sub-mature habitat or better in the extreme western portion of the management unit for NSO's. This harvest is meant to increase the amount of available forage to big game as the conifer stands have begun to close and reduce overall forage throughout the unit (currently only about 25% of the unit provides quality forage).

**Invasive Species:** Occasional Scot's broom.

**Unique Habitat Features:** Adjacent oak-rock outcrops and oaks. Opening adjacent conifer stands to oaks will improve light around oak site edges.

**Proposed Management :** Proposed management is for enhancing big game forage through rotational timber harvest of previously commercially thinned conifer stands. Harvest will retain minimum 8-trees/acre as groups to develop more open forage between islands of conifer. Retention areas will be selected with the most developed shrubs in understory. Grass-legume seed mix per

WHMP will initially provide forage until more diverse stand develops. Develop snags and LWD component.

---

**Wildlife Observations:** Elk and deer regularly observed foraging within transmission ROW. Game trails within stand. Goshawk surveys did not detect raptors. Observations of deer and elk over the past 20+ years have been surprisingly low but not a good indicator of overall big game use. Elk are abundantly observed north of this Unit in Management Area 5. Osprey nesting has declined in the area over the years despite numerous potential nesting sites. A lack of decaying LWD or snags in this management area may improve diversity for wildlife habitat.

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**NSO Habitat:** Stand is classified mature-thinned due to average dbh being 21-26” and is therefore suitable NSO nesting habitat. Because of the previous commercial thins, these stands are even-aged and lack LWD and snags. There is no adjacent state or federal land that would provide connectivity to additional primary habitat.

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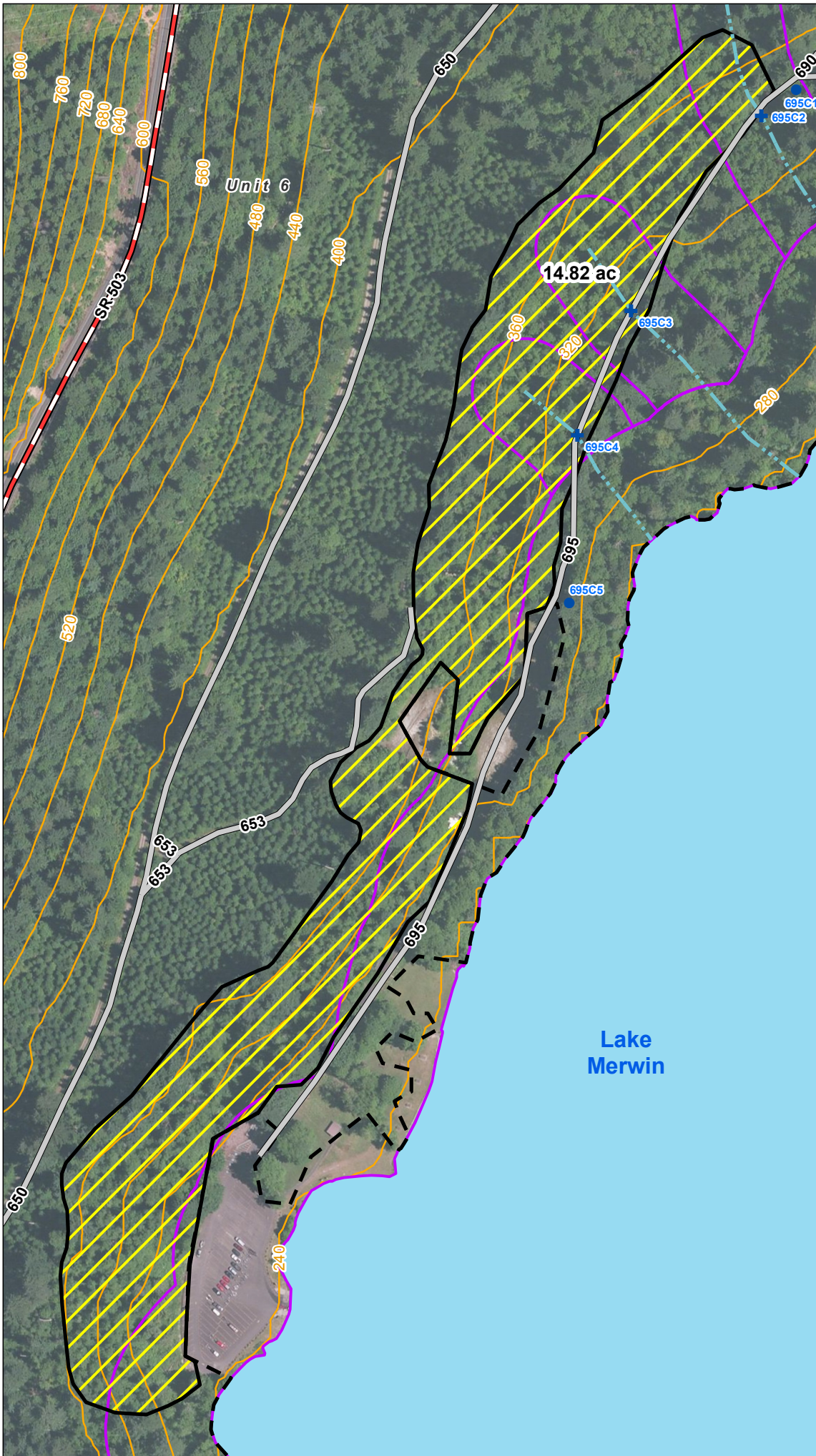
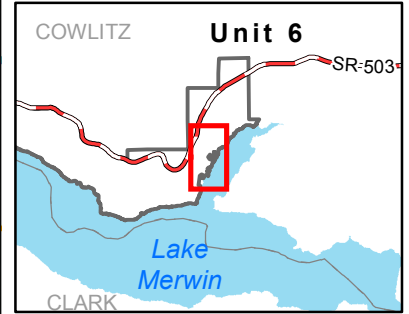
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**Attach a copy of an aerial photo, map, or schematic of the proposed THA; include roads, disturbances, and/or unique features.**

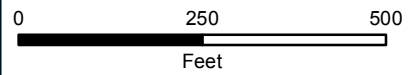
# Unit 6 Speelyai

2012 Proposed  
Harvest Areas



**Legend**

- Ditch Culvert
- + Stream Culvert
- ▬ Highway
- ▬ Road
- - - - Abandoned Road
- - - - Fish Stream
- - - - Non-fish Perennial
- - - - Non-fish Seasonal
- - - - Other Stream
- Contour (40 feet)
- ▨ CLEAR CUT
- ▨ COMMERCIAL THIN
- ▭ Stream Buffer
- ▭ Wetland Buffer
- ▭ Water Body
- ▭ Management Unit



**GIS Support Services**  
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gisdept@PacifiCorp.com

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## Wildlife/Forestry Evaluation Form

**Management Unit No.:** Unit 6 (Speelyai Park)      **Date:** 10-15-2011  
**Observers:** Naylor

**Stand Description:**

1. Over-mature and declining red alder. A few scatter red cedar and big leaf maple on edge of Speelyai Day Use Parking Area in over-story. Predominately a salmonberry understory with devils club. Cedar and maple are mature (large diameter > 24"). Adjacent and behind the red alder stand (beyond crest of hill) is a 1997 plantation of DF.
2. Alder have been a hazard over the past several years to recreation users and vehicles in the parking area. Alder have been removed as necessary around restroom structure, adjacent parking area and adjacent to care-taker site.
3. Mature alder alongside entrance road all lean hard towards the road.

---

**Invasive Plant Species:** Occasional Scot's broom. Two Class A noxious weeds, shiny geranium (*Geranium lucidum*) and garlic mustard (*Alliaria petiolata*), were located on PacifiCorp property along Speelyai Road and Speelyai Parking area in 2010 and subsequently treated. Follow-up inspections in 2011 treated additional plants.

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**Unique Habitat Features:** Springs on hillside – very wet in winter and spring. Spring water is ditched around parking area.

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**Proposed Management :** Proposed management is based on safety to recreational users while enhancing understory (shrub) species. Clear-cut alder; retain all large diameter cedar and other conifer as available and safe. TCC looked at site in June 2011 because harvest is technically in WHMP boundary but is actually to be harvested to remove hazards to public. Propose to remove alder and retain as much shrub and conifer diversity as possible. A conifer mix will be planted in place of the alders with a dense screen immediately adjacent the parking lot (likely western red cedar) and the remaining hillside should be planted at a wider spacing interval to encourage more shrub establishment. Grass seed mix will also be used on the disturbed soils. Park will need to be closed for up to 10 days.

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**Wildlife Observations:** Some big-game trails in area. Goshawk surveys did not detect raptors.

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**NSO** Non-habitat

**Habitat:** \_\_\_\_\_

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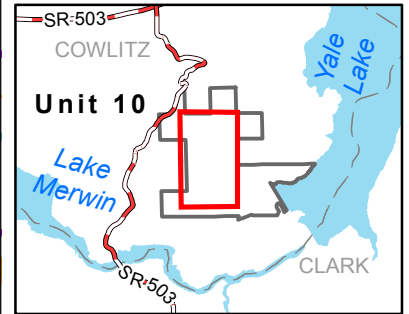
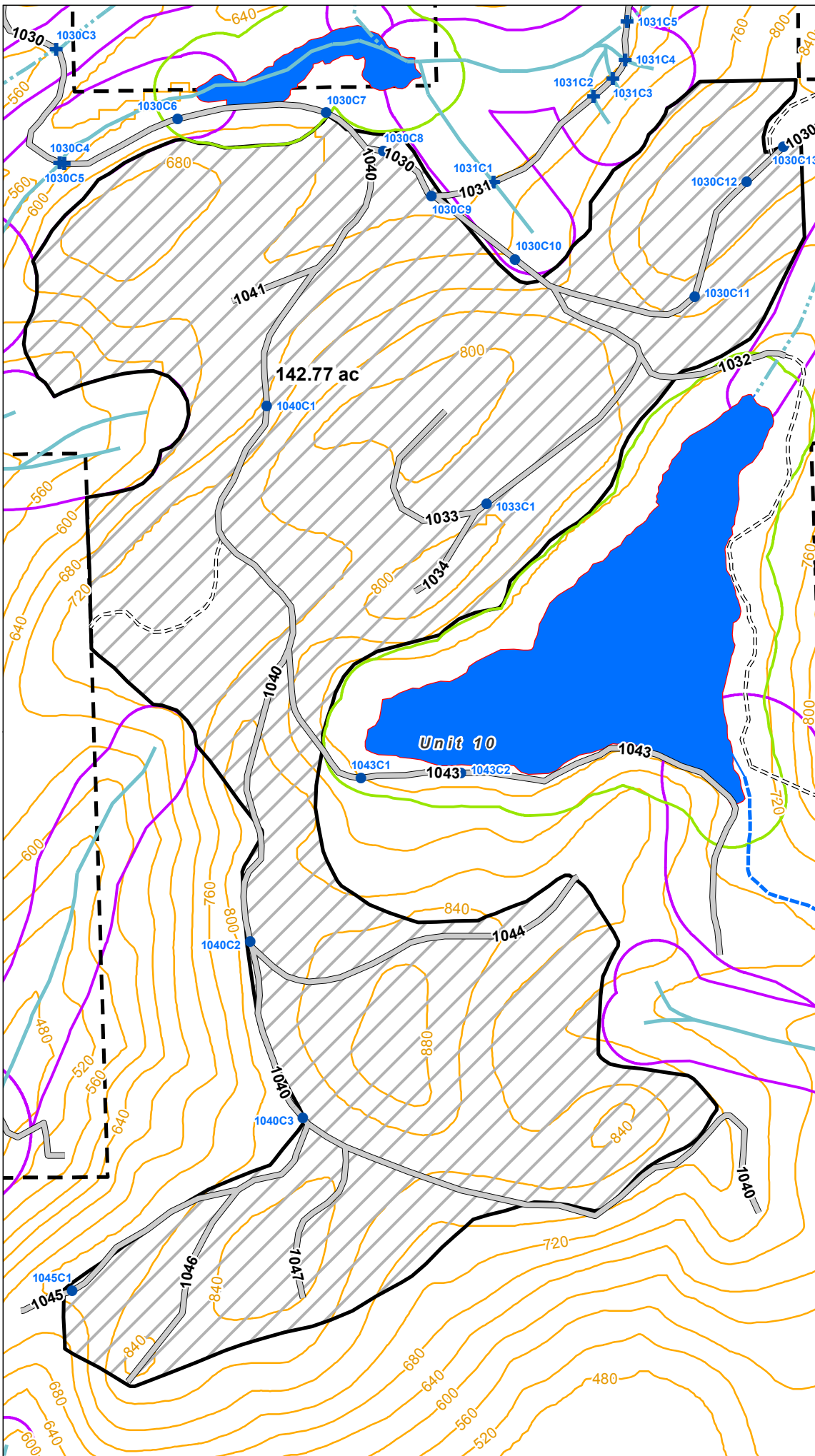
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**Attach a copy of an aerial photo, map, or schematic of the proposed THA; include roads, disturbances, and/or unique features.**

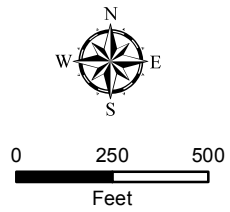
# Unit 10

## 2012 Proposed Harvest Areas



**Legend**

- Ditch Culvert
- ⊕ Stream Culvert
- ▬ Highway
- ▬ Road
- - - Abandoned Road
- ▬ Fish Stream
- ▬ Non-fish Perennial
- ▬ Non-fish Seasonal
- ▬ Other Stream
- ▬ Contour (40 feet)
- ▭ CLEAR CUT
- ▭ COMMERCIAL THIN
- ▭ Stream Buffer
- ▭ Wetland Buffer
- ▭ Wetland
- ▭ Water Body
- ▭ Management Unit



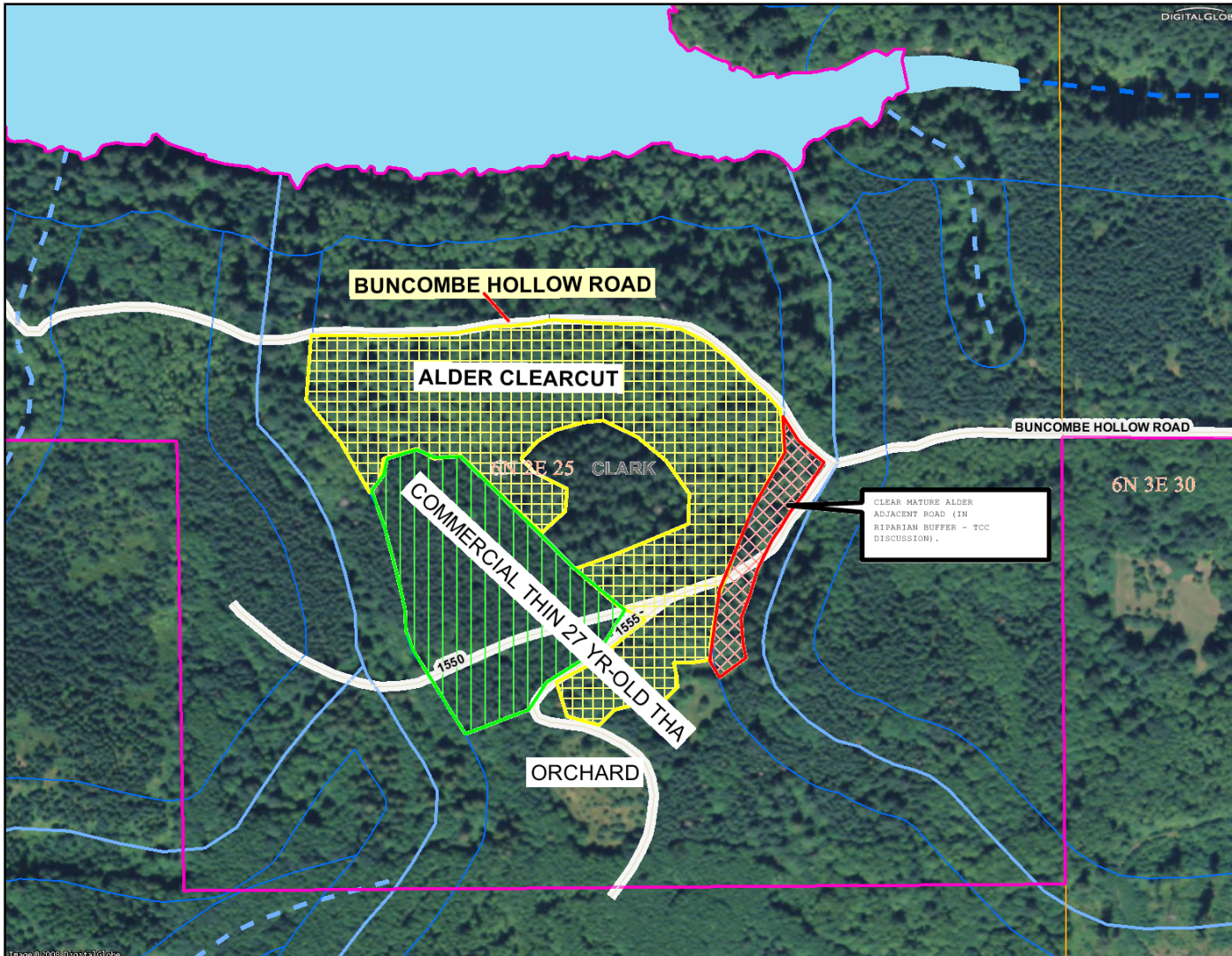
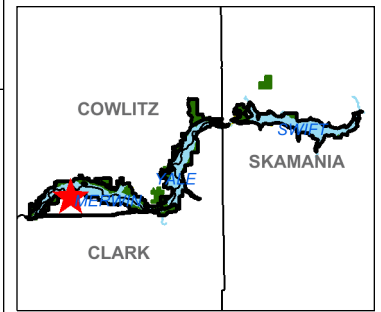
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**GIS Support Services**  
Solutions Group  
gisdept@pacificcorp.com

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02/15/2012  
gisdept@pacificcorp.com  
U:\Projects\2011\11-334\ Proposed Harvests Maps, Portrait.mxd



### Legend

- Generation Facilities**
  - Hydro
  - Geothermal
  - Thermal
  - Wind
  - Biomass
- Surveyed Corner**
  - Surveyed Section Corner
  - Surveyed Property Corner
- PacifiCorp Transmission Pole**
- Road**
- PacifiCorp Transmission Line**
- County**
- PacifiCorp Ownership**
- Section**
- Stream Buffer**
- Stream**
  - Fish Stream
  - Non-Fish Perennial
  - Non-Fish Seasonal
  - Other

Scale: 1:6,084



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Notes: RETAIN ALL CONIFER IN CLEARCUT BOUNDRY.

## Wildlife/Forestry Evaluation Form

**Management Unit No.:** Unit 15      **Date:** 10-7-2011

**Observers:** Naylor

**Stand Description:**

1. Over-mature and declining red alder; a few scatter Douglas-fir in over-story. Predominately a salmonberry understory with devils club, elderberry, and deer fern. DF are mature (large diameter > 24") that provide good vertical structure. Some Stage 1-2 large diameter snags that can be retained on edges of stand.
2. Adjacent the red alder stand is a 1984 plantation of DF that was planted in a very high density (700 TPA). Although numerous PCT entries have been made, a commercial thin may be possible to open the stand up and develop an understory (None currently exists).

**Invasive Plant Species:** Holly (few). Occasional Scot's broom. Adjacent harvest area (THA 841546) has been managed extensively to eliminate invasive plants.

**Unique Habitat Features:** None within the management area, but nearby is the Buncombe Hollow orchard site and a small meadow that was developed in 1984. Past snags that were developed in the late 1980's and 90's. Meadow has had extensive snowberry shrubs mowed in the past. Harvest area of alder will surround an area of old-growth diameter DF

**Proposed Management :** Clear-cut alder, retain all large diameter DF. Commercial-thin of 1984 plantation to release understory if log markets for small diameter (12") wood is available. Request TCC look at alder along road that are within stream buffer – propose to remove alder adjacent road even though they are within buffer to a Ns stream.

**Wildlife Observations:** Game trails, elk and deer sign.

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**NSO**        **None**  
**Habitat:** \_\_\_\_\_

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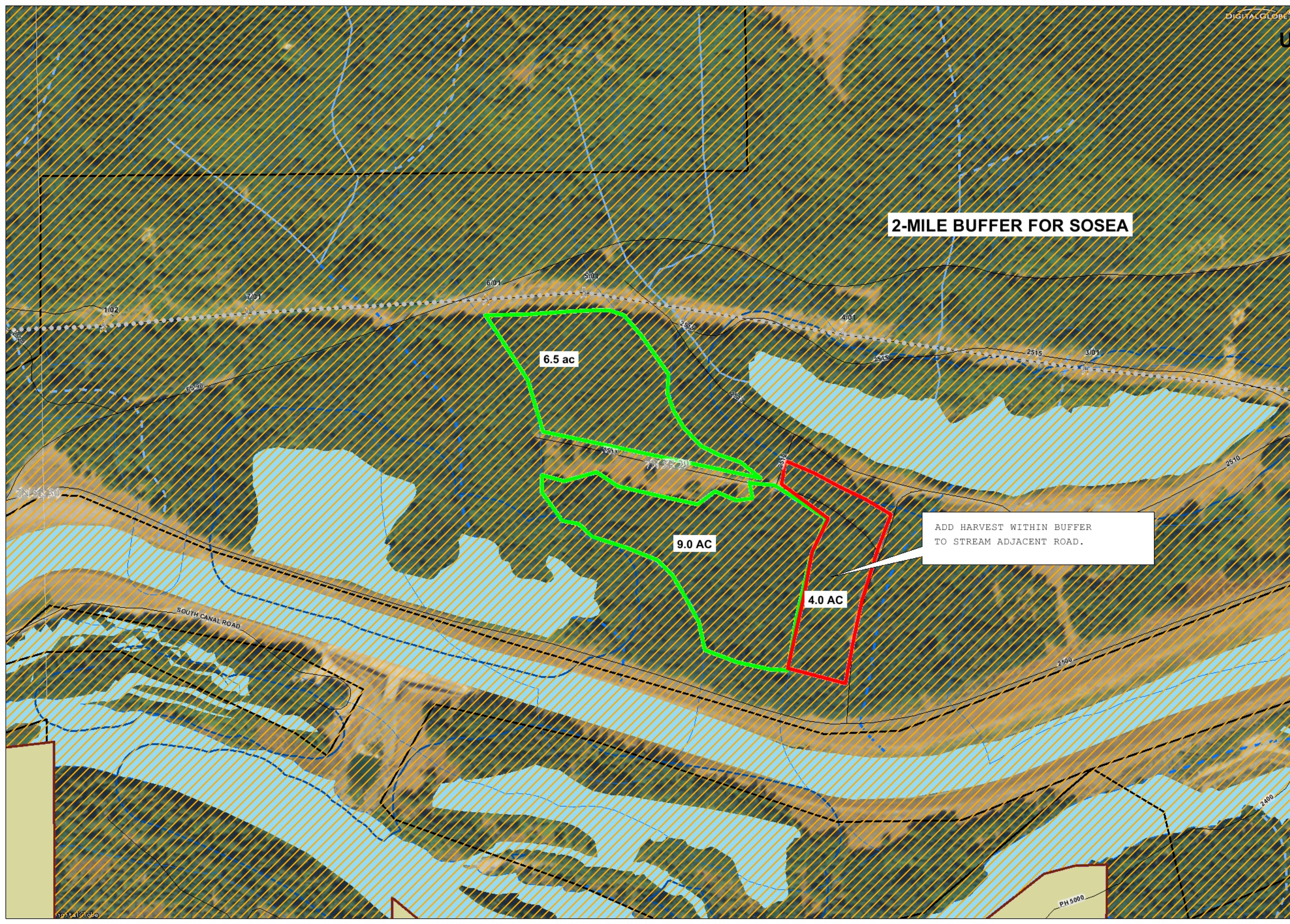
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**Attach a copy of an aerial photo, map, or schematic of the proposed THA; include roads, disturbances, and/or unique features.**



# UNIT 25 HARVEST



**2-MILE BUFFER FOR SOSEA**

**6.5 ac**

**9.0 ac**

**4.0 ac**

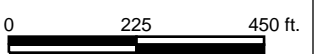
ADD HARVEST WITHIN BUFFER  
TO STREAM ADJACENT ROAD.

### Legend

- Generation Facilities**
  - Hydro
  - Geothermal
  - Thermal
  - Wind
  - Biomass
- Surveyed Corner**
  - Surveyed Section Corner
  - Surveyed Property Corner
  - Other Surveyed Corner
- Wetland (Point)**
- PacifiCorp Transmission Pole**
- Road**
- PacifiCorp Transmission Line**
- Siouxon SOSEA 2 Mile Buffer**
- Siouxon SOSEA**
- FERC Boundary**
- Section**
- Wetland Buffer**
- Stream Buffer**
- Wetland (Polygon)**
- Stream**
  - Fish Stream
  - Non-Fish Perennial
  - Non-Fish Seasonal
  - Other

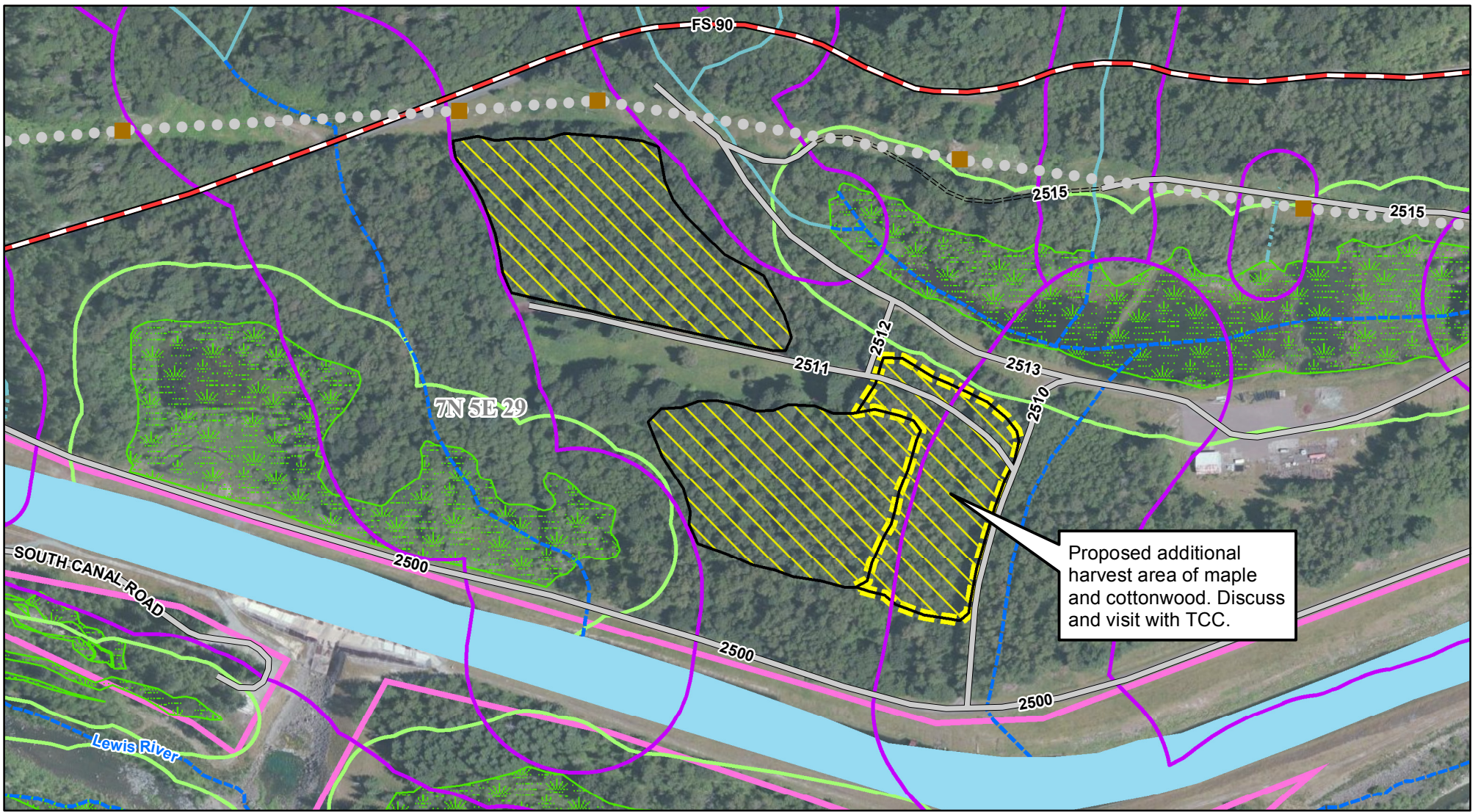


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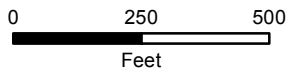
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### Unit 25

#### 2011 Proposed Harvest Areas



Legend			
	Highway		PacifiCorp Ownership
	Road		Proposed Harvest
	Abandoned Road		Additional Area
	Fish Stream		Stream Buffer
	Non-fish Perennial		Wetland Buffer
	Non-fish Seasonal		Wetland
	Other Stream		Water Body



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 gisdept@pacificorp.com

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**Wildlife/Forestry Evaluation Form**

**Management Unit No.:** Unit 25      **Date:** 11-15-2011  
**Observers:** Naylor

**Stand Description:**      Over-mature and declining red alder with BL Maple and Cottonwood. A few scatter red cedar or DF.  
Area previously disturbed from location of Swift Village housing for operators at Swift Dam. Understory has limited shrubs, mostly bare ground or sword fern. Lots of elk use in area due to no hunting access being allowed because of proximity to operations use at Swift Warehouse. Meadow (developed at old housing site) and wetlands.

**Invasive Plant Species:** Occasional Scotch broom.

**Unique Habitat Features:**      Meadow that was developed on location where houses were located was developed in late 1980's. Nearby wetlands. The tree stand however is

**Proposed Management :**      Proposed management is clear-cut alder; retain all large diameter cedar and other conifer as available and safe. Long term management is for NSO suitable nesting habitat due to location of Management Unit 25 being within Siouxon SOSEA. A conifer mix will be planted in place of the alders. Retain some shrub buffer and conifer adjacent meadow. Propose to TCC to cut within buffer to stream (ditch) on east side of entrance road.

**Wildlife Observations:**      Significant elk use in area year-round. Goshawk surveys did not detect raptors.

**NSO Habitat:**      Non-habitat but area is to be managed to become suitable nesting habitat.

**APPENDIX E**  
**2013 PROPOSED TIMBER HARVEST AREAS MAP**

DNR LANDS

2013 Forestry Evaluation Areas

6.7 ac CC

13 ac CC

1999 Shelterwood

Old Growth Conifer

1988 CC

CLARK

6N 2E 34

6N 2E 28

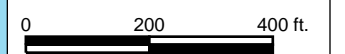
6N 2E 33

Legend

- Generation Facilities**
  - Hydro
  - Geothermal
  - Thermal
  - Wind
  - Biomass
- Surveyed Corner**
  - Surveyed Section Corner
  - Surveyed Property Corner
  - PacifiCorp Transmission Pole
- Road**
  - Road
  - PacifiCorp Transmission Line
- County**
  - PacifiCorp Ownership
  - Section
  - Stream Buffer
  - Stream
  - Fish Stream
  - Non-Fish Perennial
  - Non-Fish Seasonal
  - Other
  - Orchard
  - Old Growth
  - Public Ownership
- BLM**
- USFS**
- WA DNR**

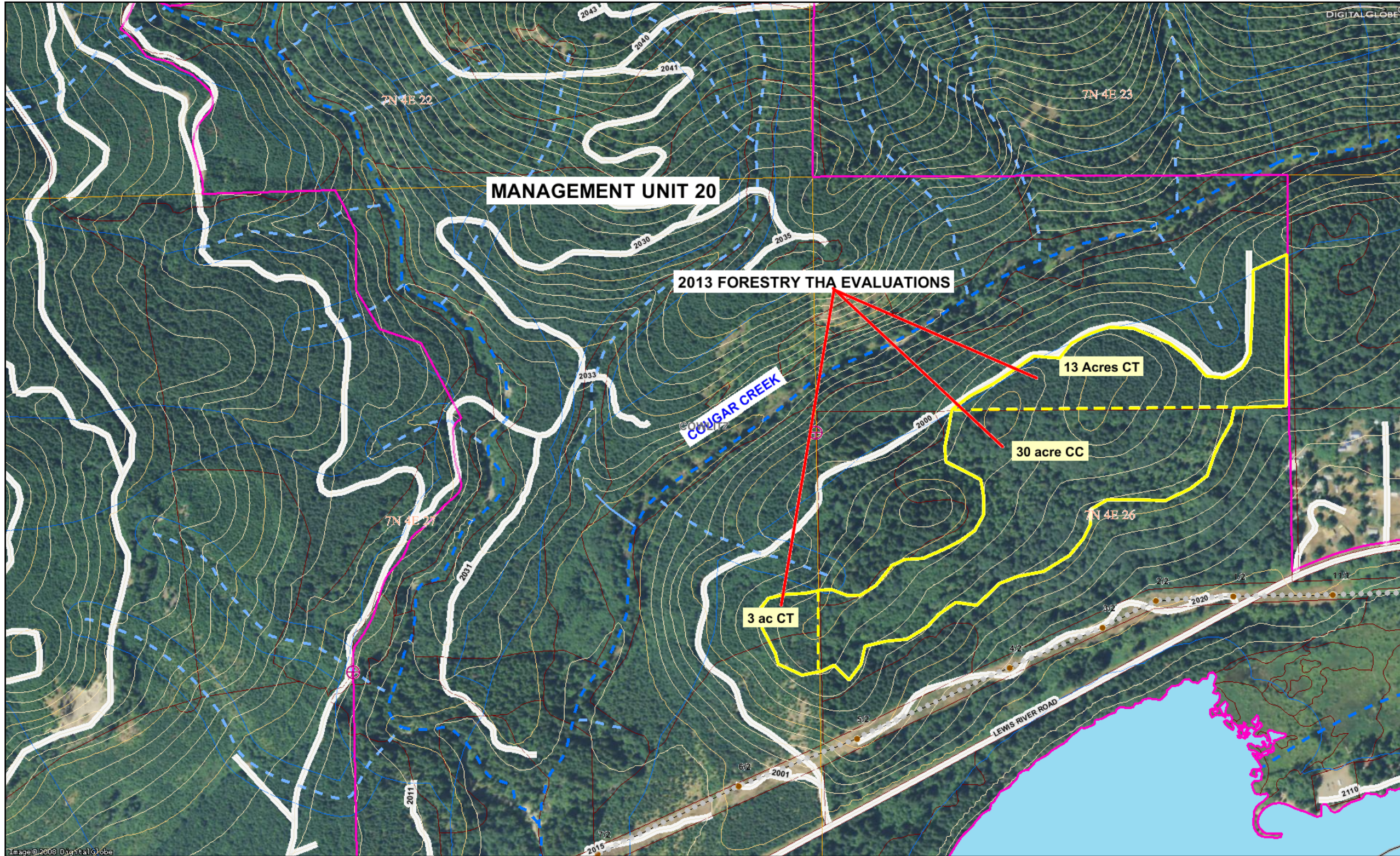
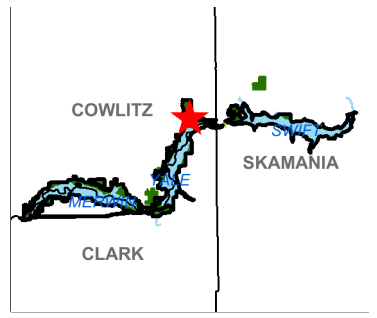


1:3,732



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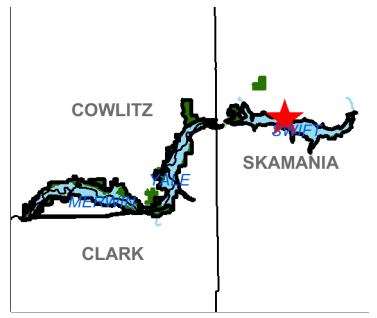
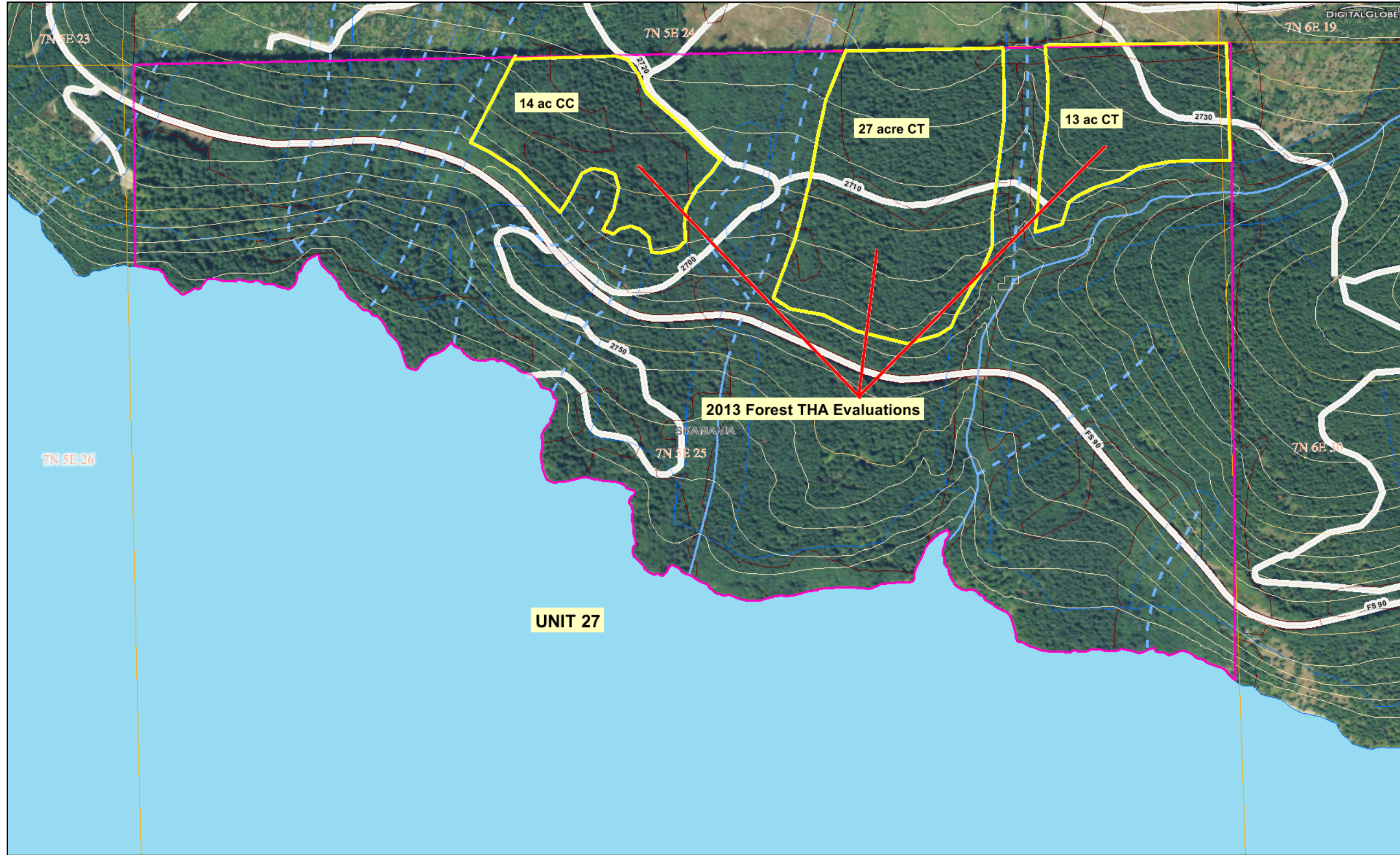
**Legend**

- Generation Facilities**
  - Hydro
  - Geothermal
  - Thermal
  - Wind
  - Biomass
- Surveyed Corner**
  - Surveyed Section Corner
  - Surveyed Property Corner
- PacifiCorp Transmission Pole**
- Road**
- PacifiCorp Transmission Line**
- County**
- PacifiCorp Ownership**
- Section**
- Stream Buffer**
- Stream**
  - Fish Stream
  - Non-Fish Perennial
  - Non-Fish Seasonal
  - Other
- Orchard**
- Vegetation Cover**
- Public Ownership**
  - BLM
  - USFS
  - WA DNR



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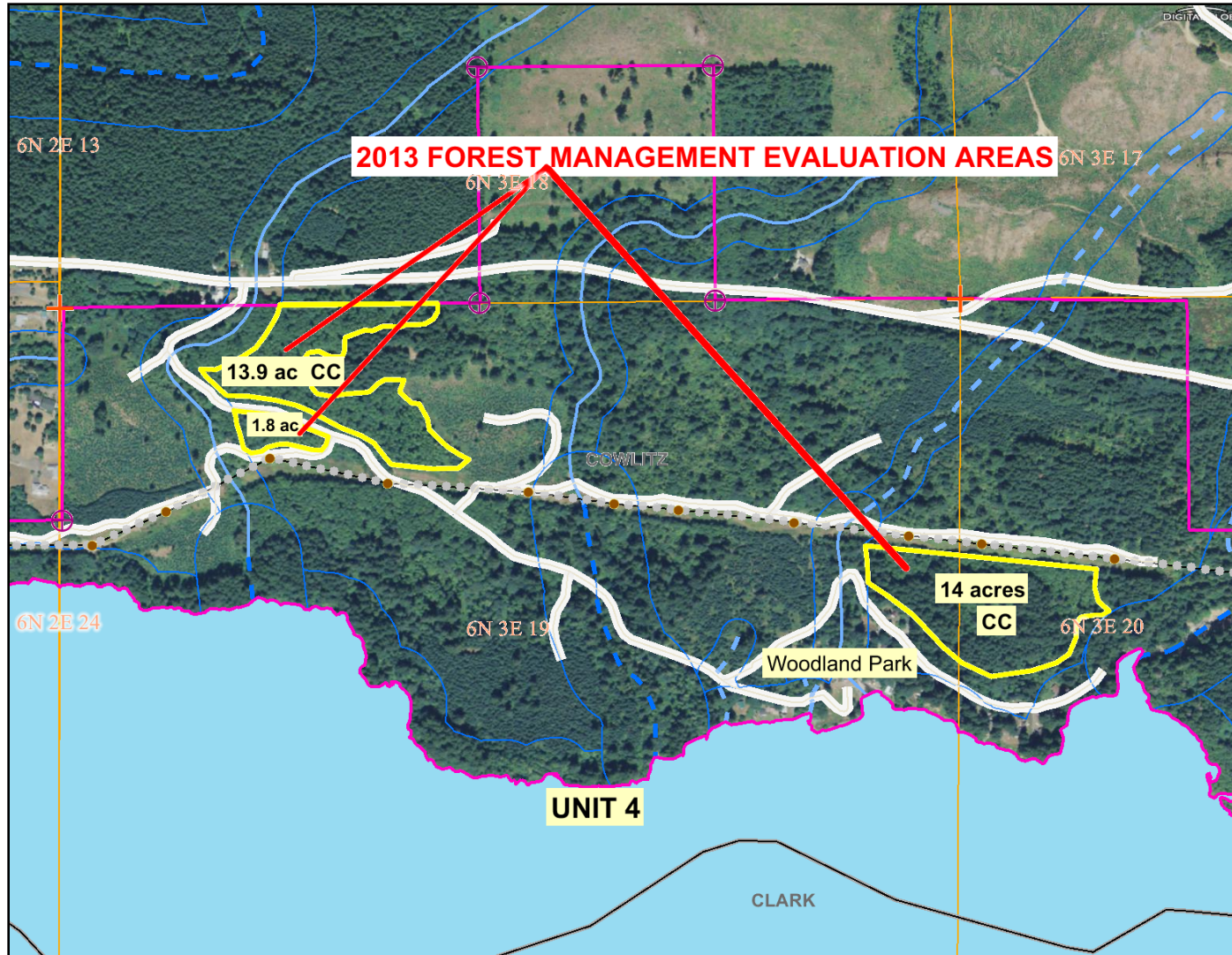
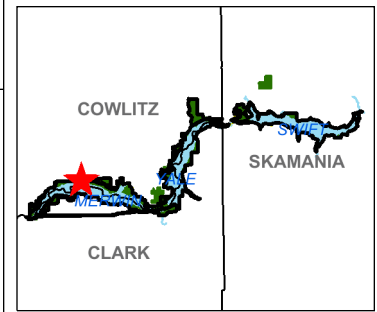
**Legend**

- Generation Facilities**
  - Hydro
  - Geothermal
  - Thermal
  - Wind
  - Biomass
- Surveyed Corner**
  - Surveyed Section Corner
  - Surveyed Property Corner
- PacifiCorp Transmission Pole**
- Road**
- PacifiCorp Transmission Line**
- County**
- PacifiCorp Ownership**
- Section**
- Stream Buffer**
- Stream**
  - Fish Stream
  - Non-Fish Perennial
  - Non-Fish Seasonal
  - Other
- Orchard**
- Old Growth**
- Vegetation Cover**
- Public Ownership**
  - BLM
  - USFS
  - WA DNR



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### Legend

- Generation Facilities**
  - Hydro
  - Geothermal
  - Thermal
  - Wind
  - Biomass
- Surveyed Corner**
  - Surveyed Section Corner
  - Surveyed Property Corner
- PacifiCorp Transmission Pole**
- Road**
- PacifiCorp Transmission Line**
- County**
- PacifiCorp Ownership**
- Section**
- Stream Buffer**
- Stream**
  - Fish Stream
  - Non-Fish Perennial
  - Non-Fish Seasonal
  - Other

Scale: 1:11,463

0 1100 2200 3300 ft.

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










**APPENDIX F**  
2012 REGENERATION PRACTICES MAPS

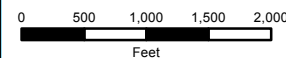
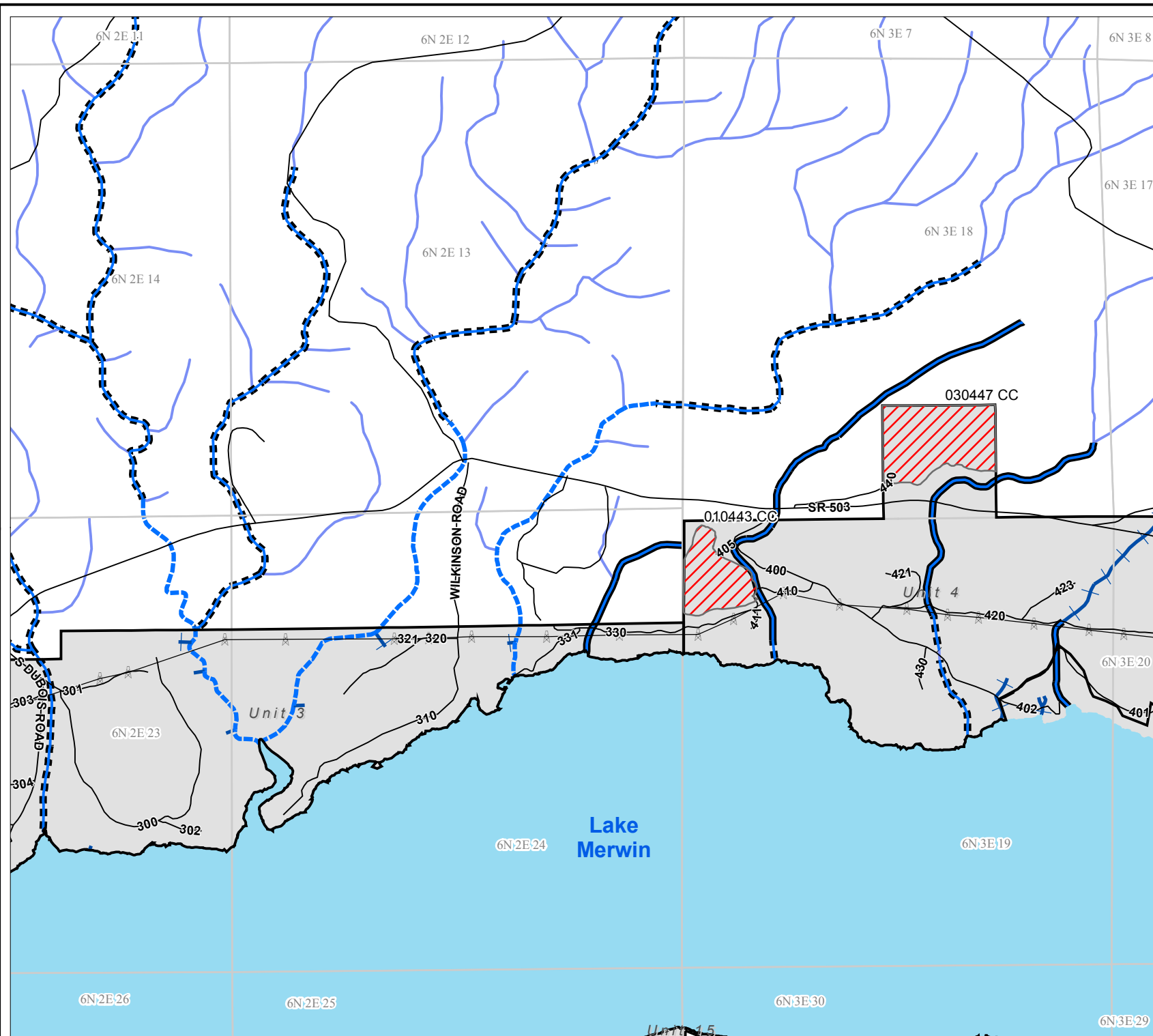
# Lewis River Wildlife Habitat Management Plan

## 2012 Forestland Regeneration Maps

Sheet Page 1 of 12

### Legend

-  Oust Treatment
-  Seedling Protection
-  Plant
-  Oust, Plant
-  Oust, Seedling
-  PacifiCorp Transmission Pole
-  PacifiCorp Transmission Line
-  Management Unit
-  PacifiCorp Ownership
- Stream**
-  Fish
-  Anadromous Fish
-  Non-fish Perennial
-  Non-fish Seasonal
-  Other
-  Road
-  Water Body
-  Wetlands



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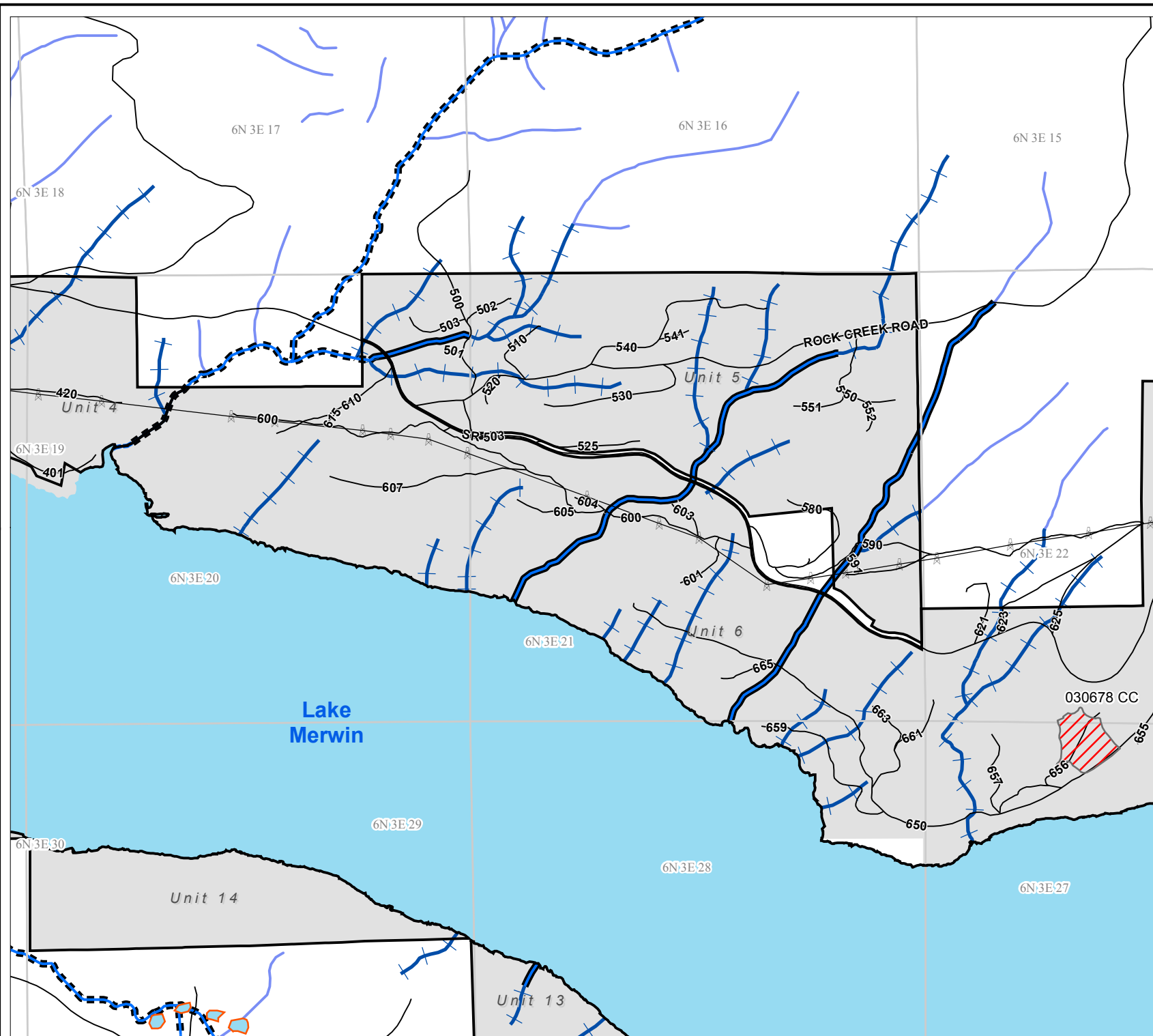
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# Lewis River Wildlife Habitat Management Plan

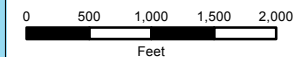
## 2012 Forestland Regeneration Maps

Sheet Page 2 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
- Non-fish Seasonal
- Other
- Road
- Water Body
- Wetlands



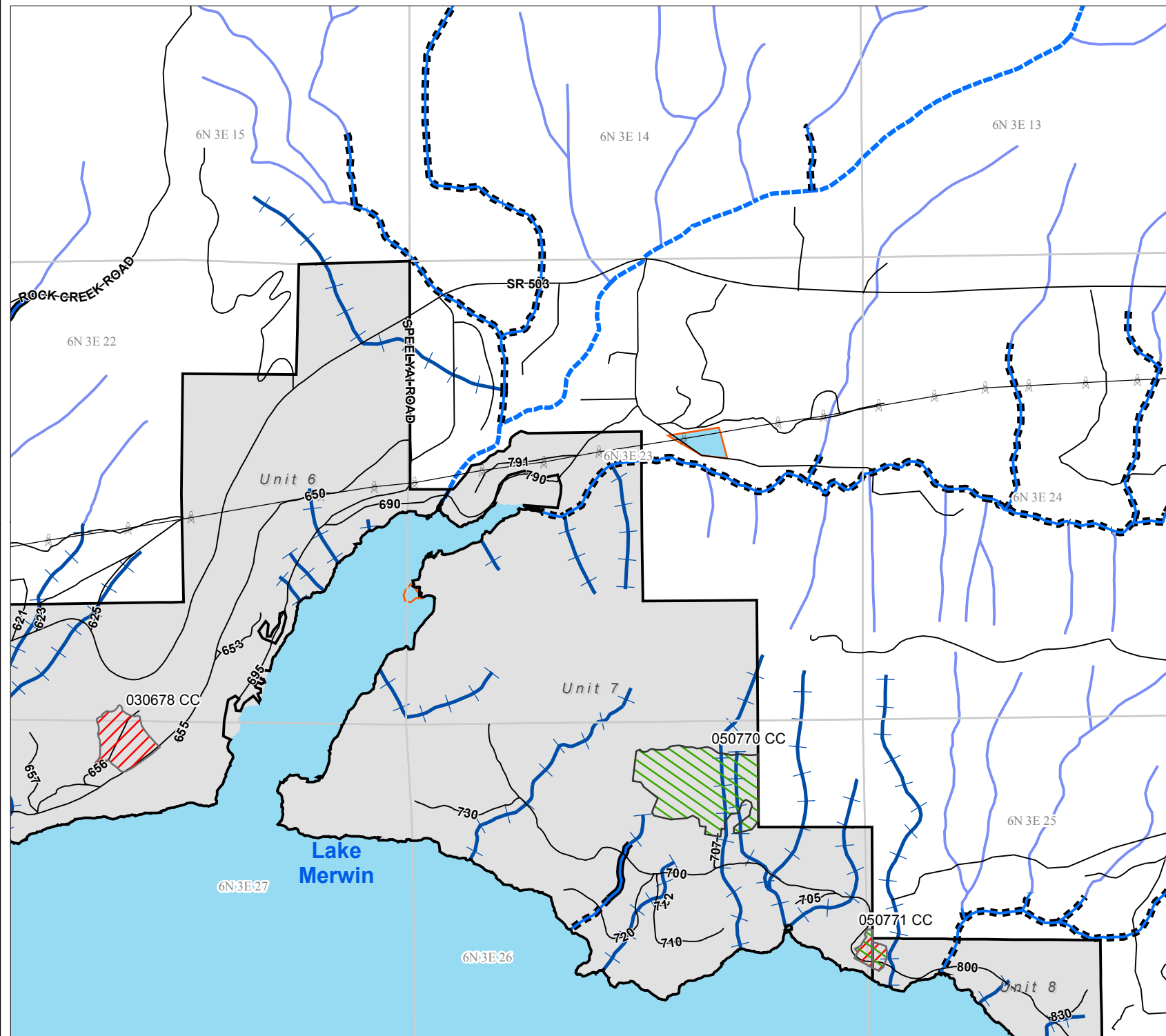
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# Lewis River Wildlife Habitat Management Plan

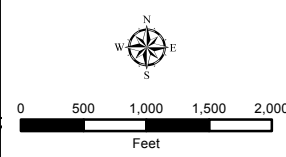
## 2012 Forestland Regeneration Maps

Sheet Page 3 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
- Non-fish Seasonal
- Other
- Road
- Water Body
- Wetlands



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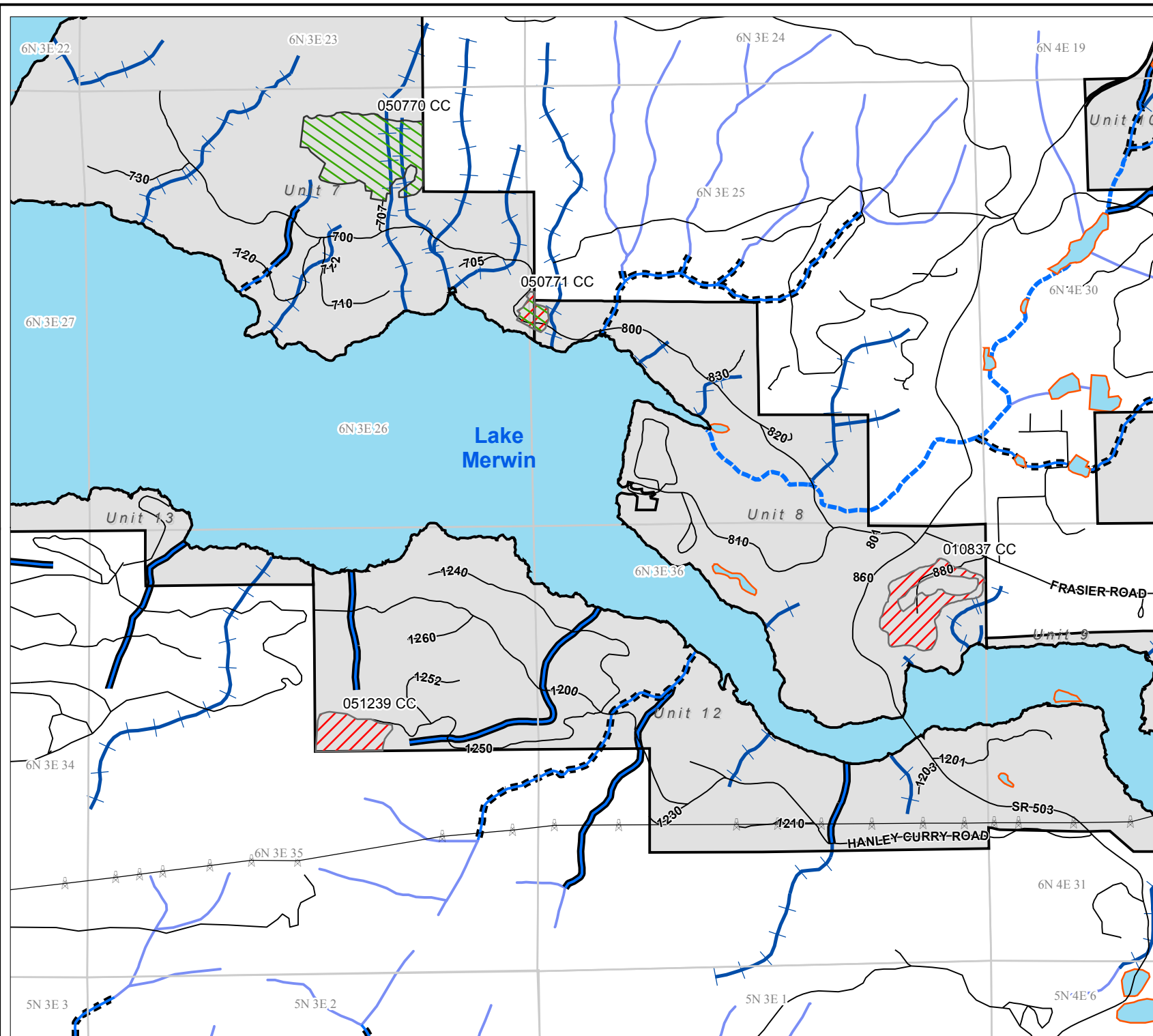
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Solutions Group  
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# Lewis River Wildlife Habitat Management Plan

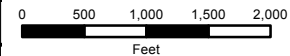
## 2012 Forestland Regeneration Maps

Sheet Page 4 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
- Non-fish Seasonal
- Other
- Road
- Water Body
- Wetlands



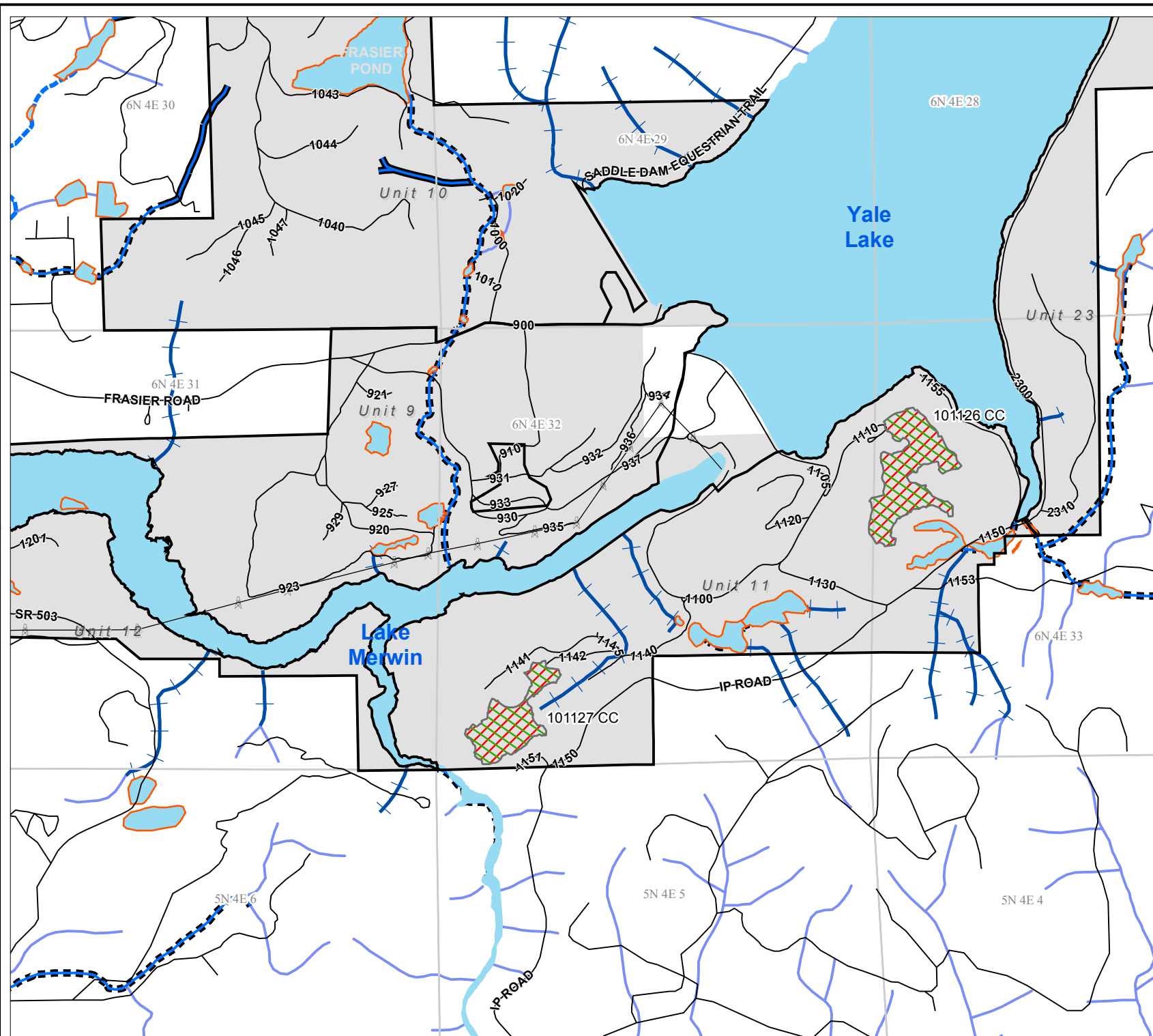
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# Lewis River Wildlife Habitat Management Plan

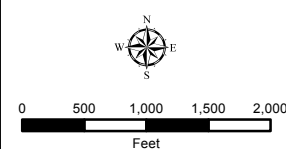
## 2012 Forestland Regeneration Maps

Sheet Page 5 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
- Non-fish Seasonal
- Other
- Road
- Water Body
- Wetlands



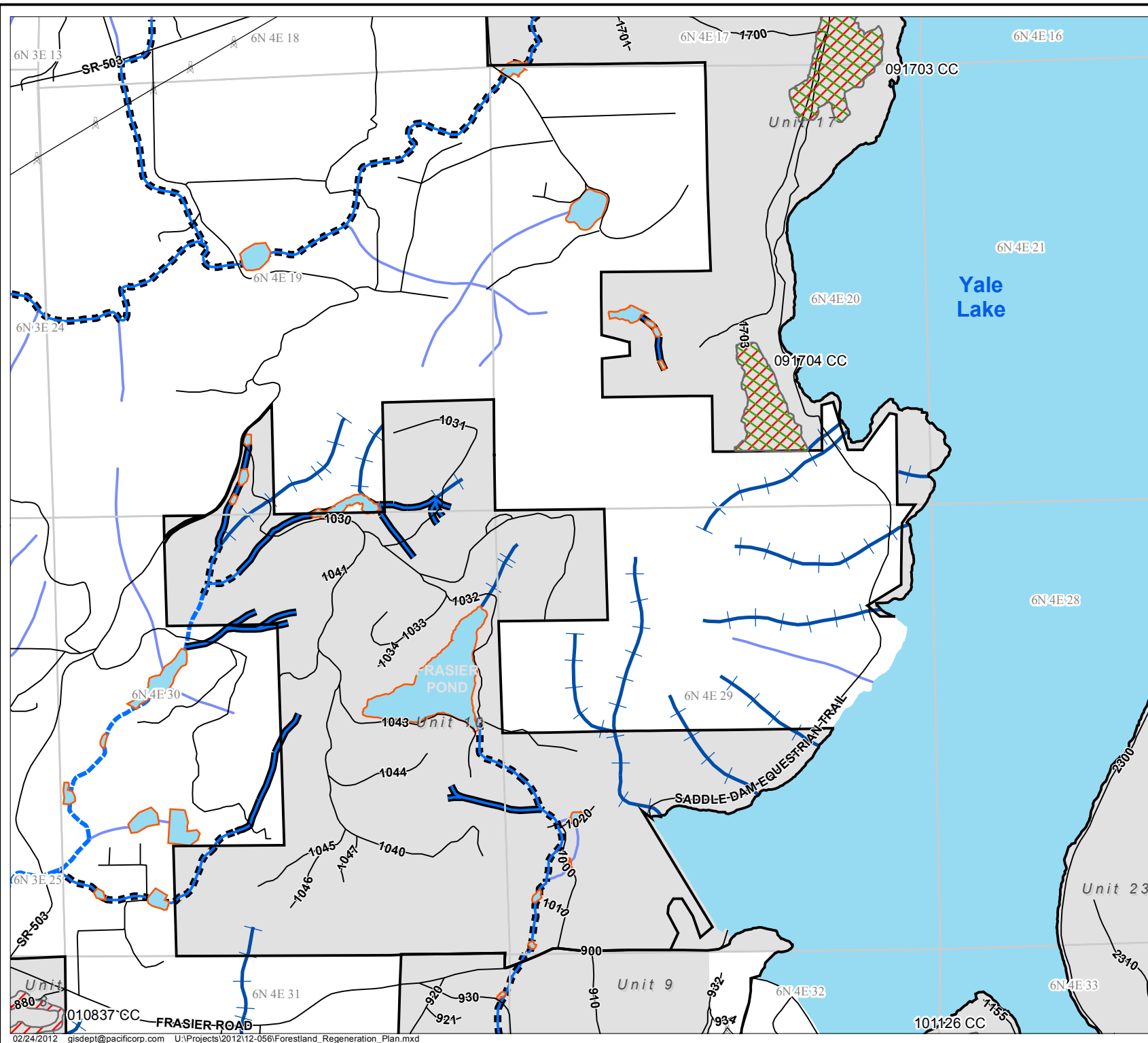
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# Lewis River Wildlife Habitat Management Plan

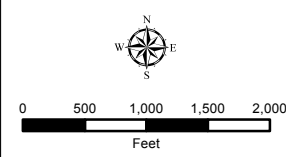
## 2012 Forestland Regeneration Maps

Sheet Page 6 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
- Non-fish Seasonal
- Other
- Road
- Water Body
- Wetlands



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












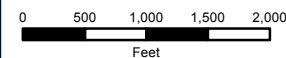
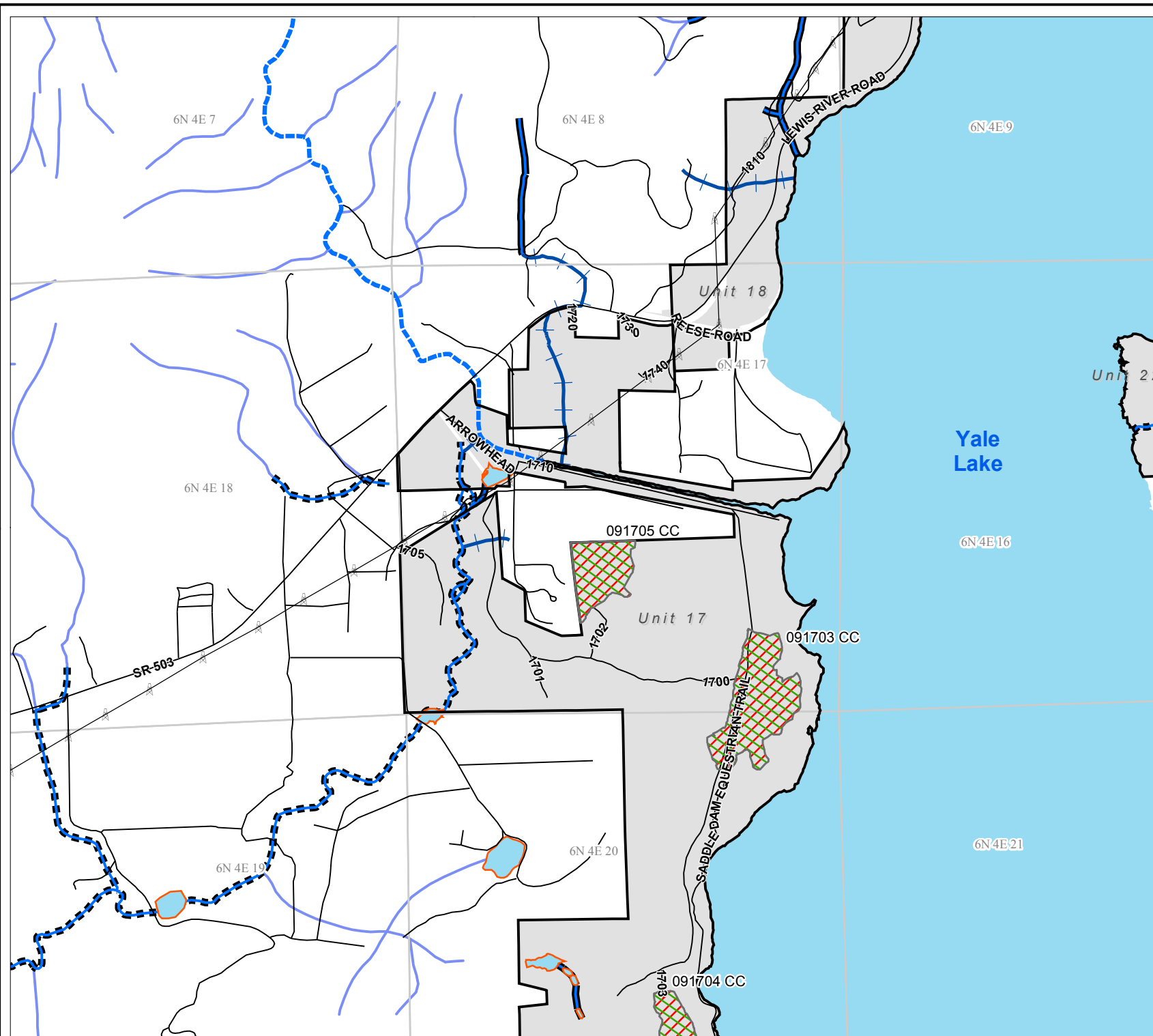
# Lewis River Wildlife Habitat Management Plan

## 2012 Forestland Regeneration Maps

Sheet Page 7 of 12

### Legend

-  Oust Treatment
-  Seedling Protection
-  Plant
-  Oust, Plant
-  Oust, Seedling
-  PacifiCorp Transmission Pole
-  PacifiCorp Transmission Line
-  Management Unit
-  PacifiCorp Ownership
- Stream**
-  Fish
-  Anadromous Fish
-  Non-fish Perennial
-  Non-fish Seasonal
-  Other
-  Road
-  Water Body
-  Wetlands



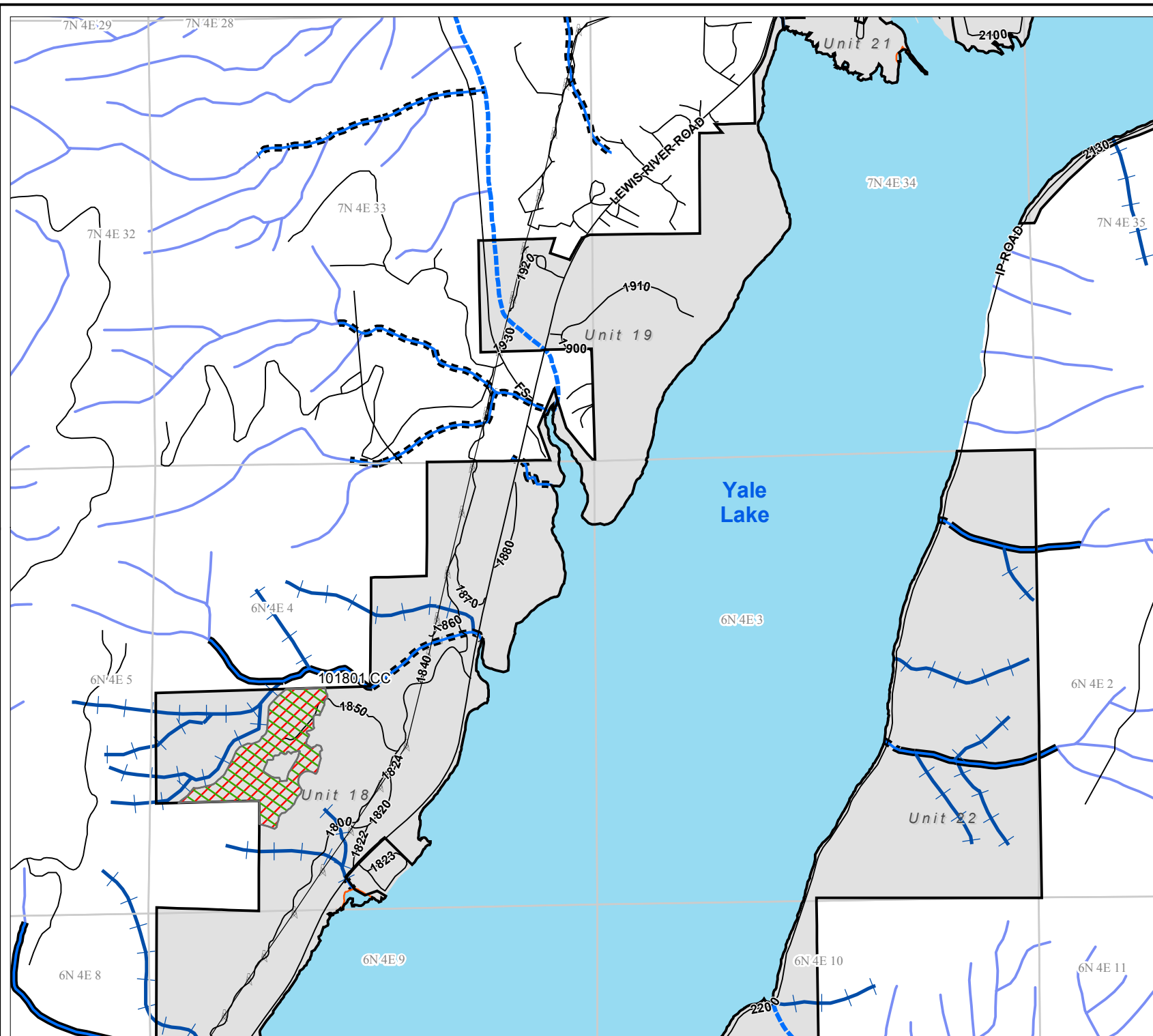
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# Lewis River Wildlife Habitat Management Plan

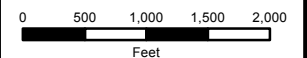
## 2012 Forestland Regeneration Maps

Sheet Page 8 of 12



### Legend

- Oust Treatment
- Seedling Protection
- Plant
- Oust, Plant
- Oust, Seedling
- PacifiCorp Transmission Pole
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- Stream**
- Fish
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- Road
- Water Body
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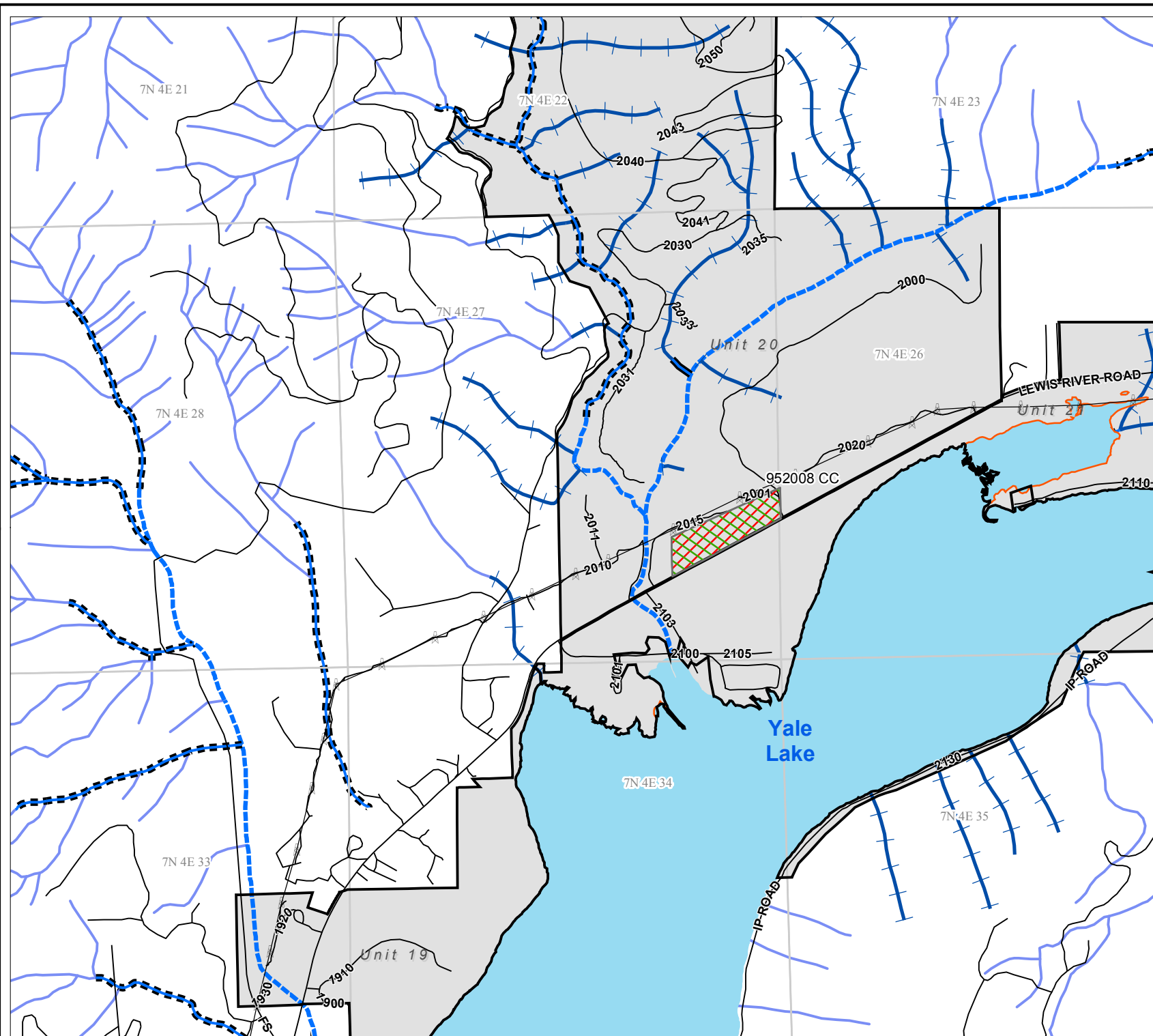
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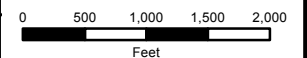
## 2012 Forestland Regeneration Maps

Sheet Page 9 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
- Non-fish Seasonal
- Other
- Road
- Water Body
- Wetlands



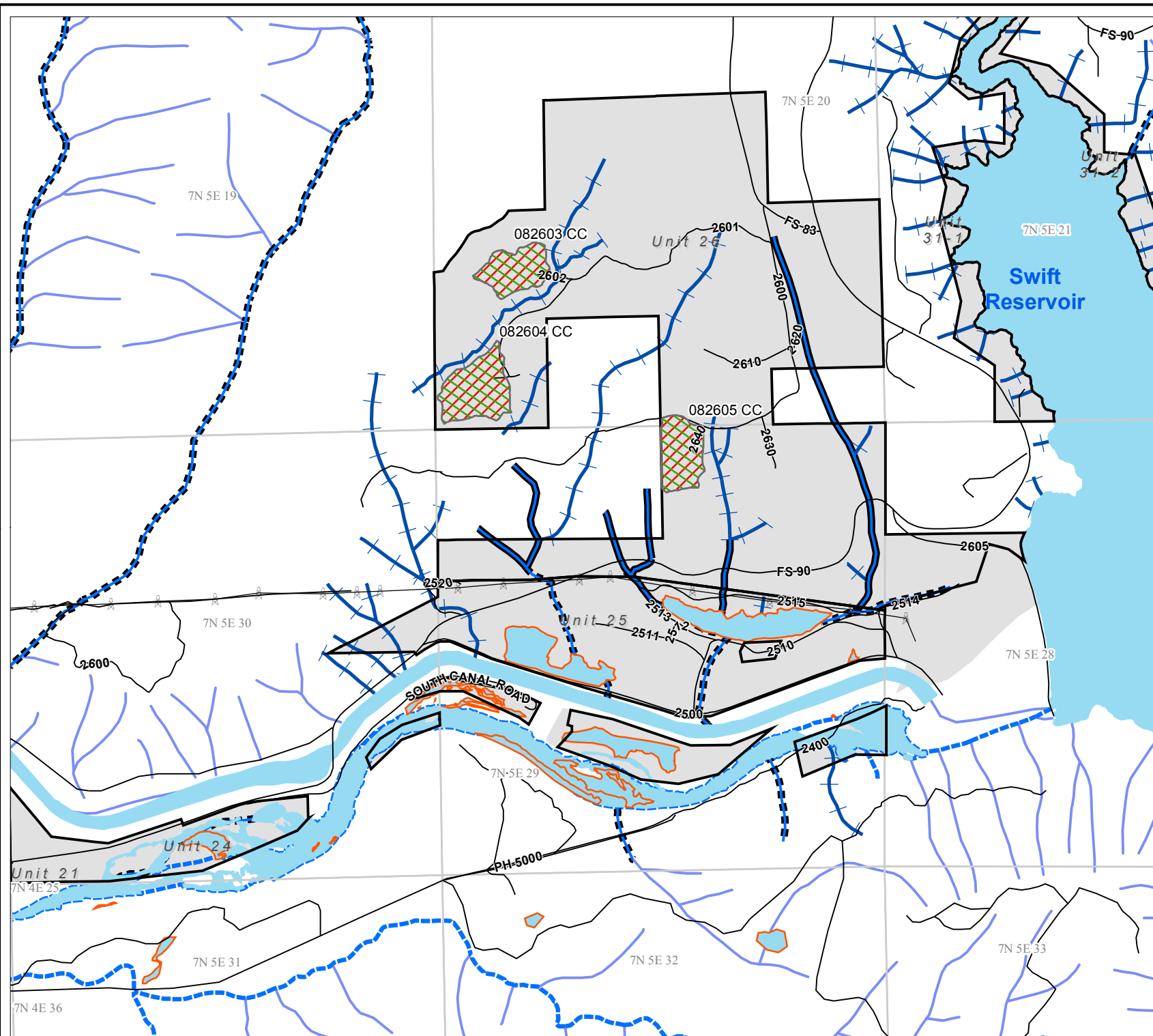
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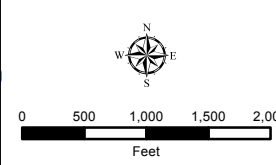
## 2012 Forestland Regeneration Maps

Sheet Page 10 of 12



### Legend

- Oust Treatment
- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Stream**
- Fish
- Anadromous Fish
- Non-fish Perennial
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- Other
- Road
- Water Body
- Wetlands



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










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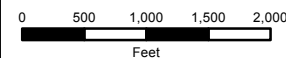
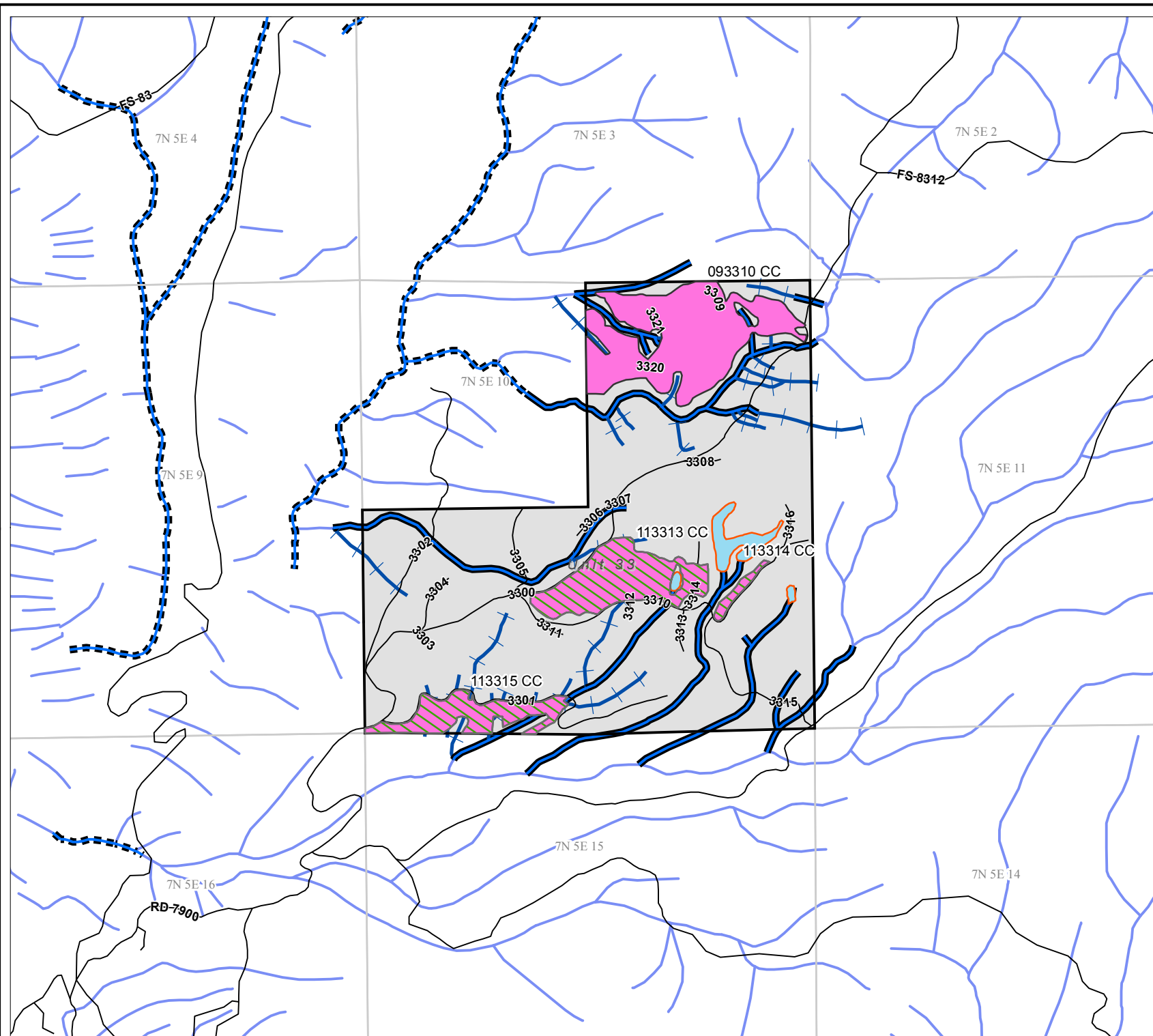
# Lewis River Wildlife Habitat Management Plan

## 2012 Forestland Regeneration Maps

Sheet Page 11 of 12

### Legend

-  Oust Treatment
-  Seedling Protection
-  Plant
-  Oust, Plant
-  Oust, Seedling
-  PacifiCorp Transmission Pole
-  PacifiCorp Transmission Line
-  Management Unit
-  PacifiCorp Ownership
- Stream**
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-  Non-fish Perennial
-  Non-fish Seasonal
-  Other
-  Road
-  Water Body
-  Wetlands



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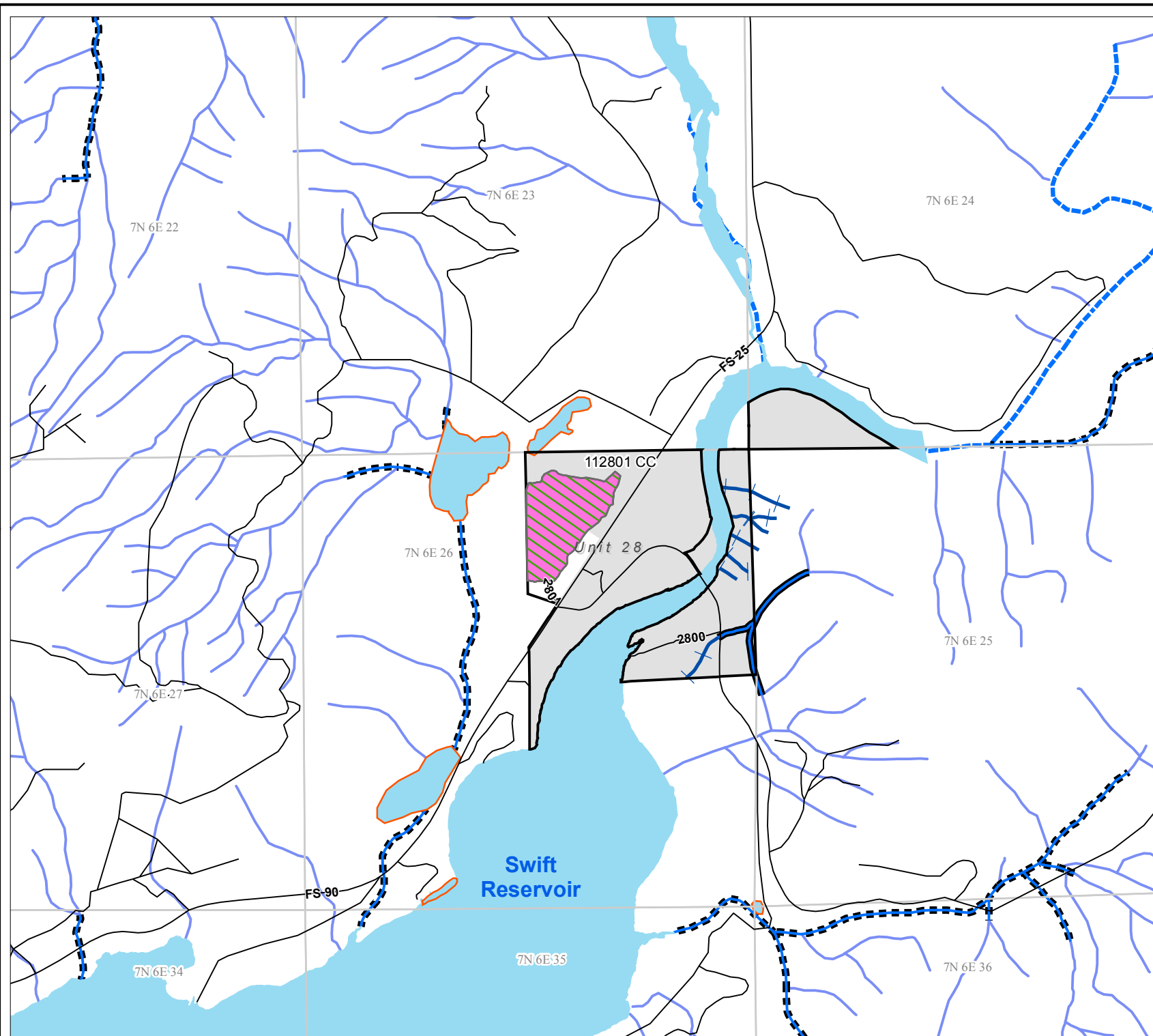
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# Lewis River Wildlife Habitat Management Plan

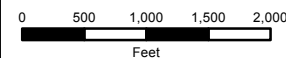
## 2012 Forestland Regeneration Maps

Sheet Page 12 of 12



### Legend

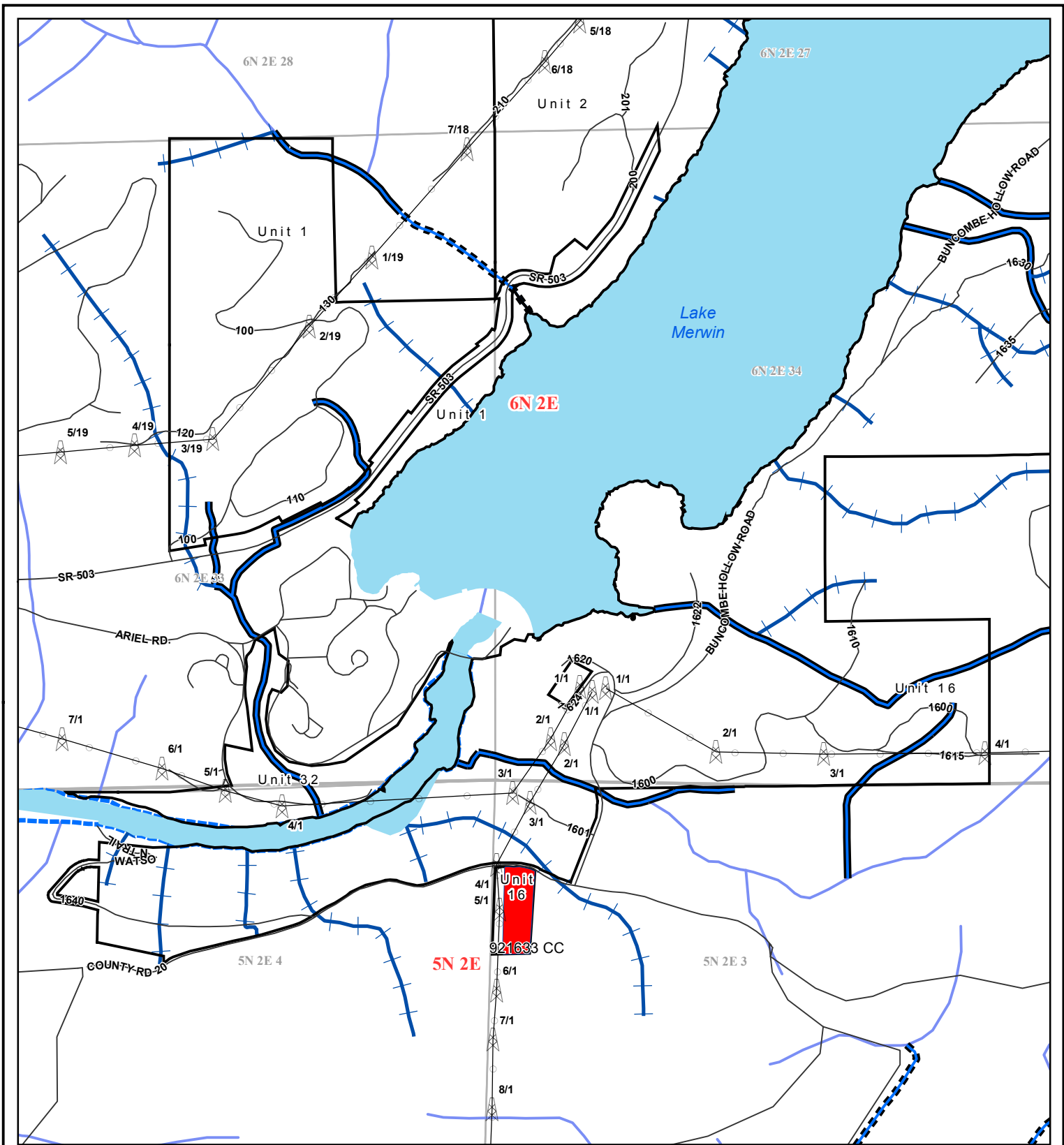
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- Seeding Protection
- Plant
- Oust, Plant
- Oust, Seeding
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
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- Road
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**APPENDIX G**  
2012 VEGETATION CONTROL MAP



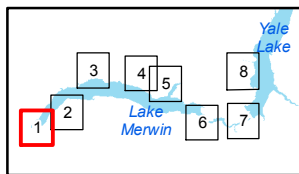
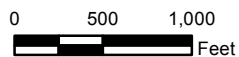
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Lewis River

Sheet 1 of 8

Wildlife Habitat Management Plan

2012 Invasive Plant Species Control Maps



**Legend**

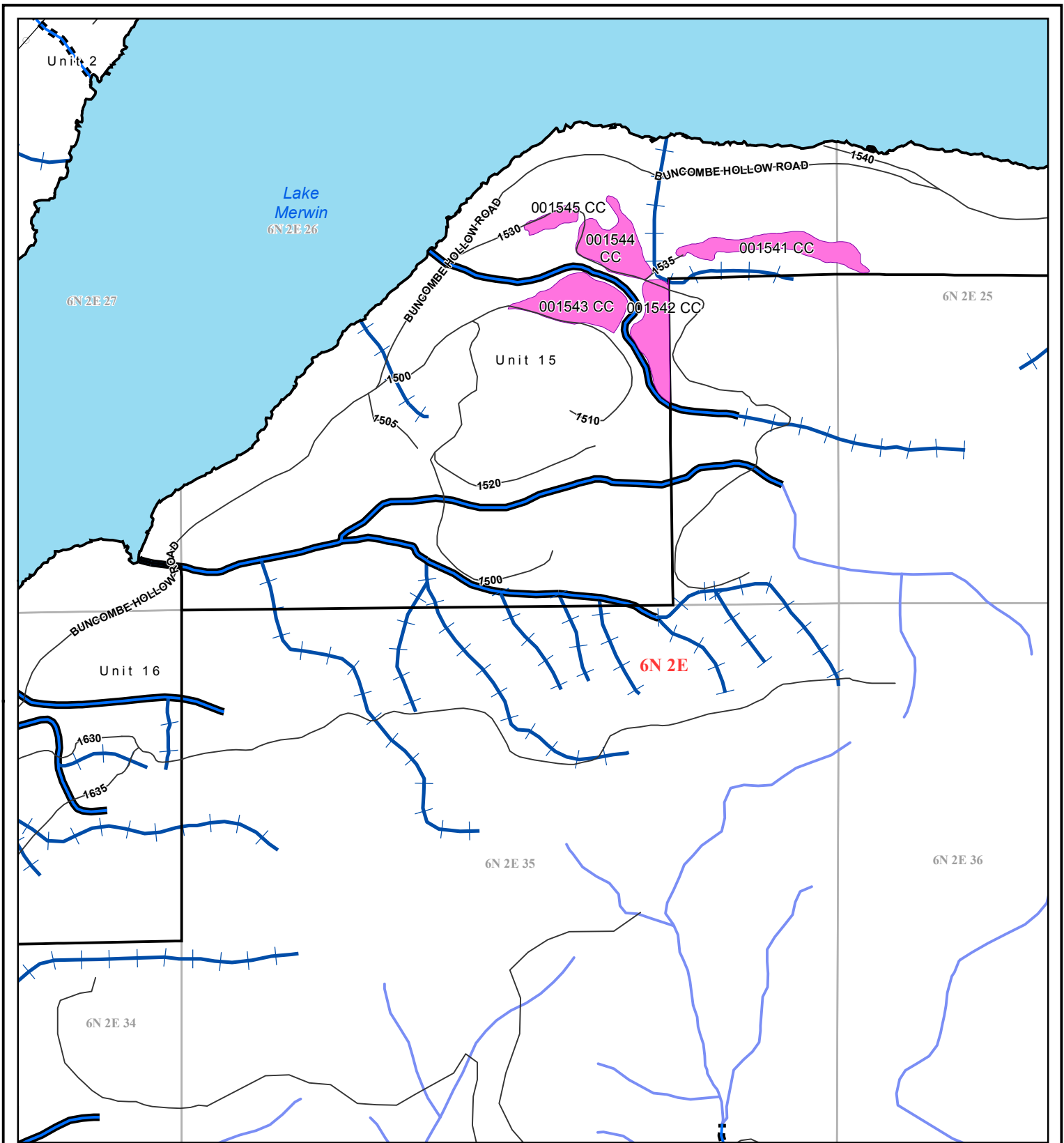
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	Class B		Anadromous Fish
	Class C		Non-fish Perennial
	Not Classified		Non-fish Seasonal
	Management Unit		Other
	Transmission Pole		Water Body
	Transmission Line		Township/Range
	Road		Section



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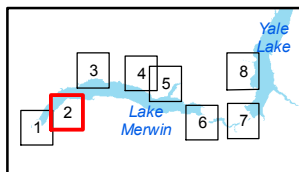
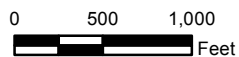
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Lewis River

Sheet 2 of 8

Wildlife Habitat Management Plan

2012 Invasive Plant Species Control Maps



Legend

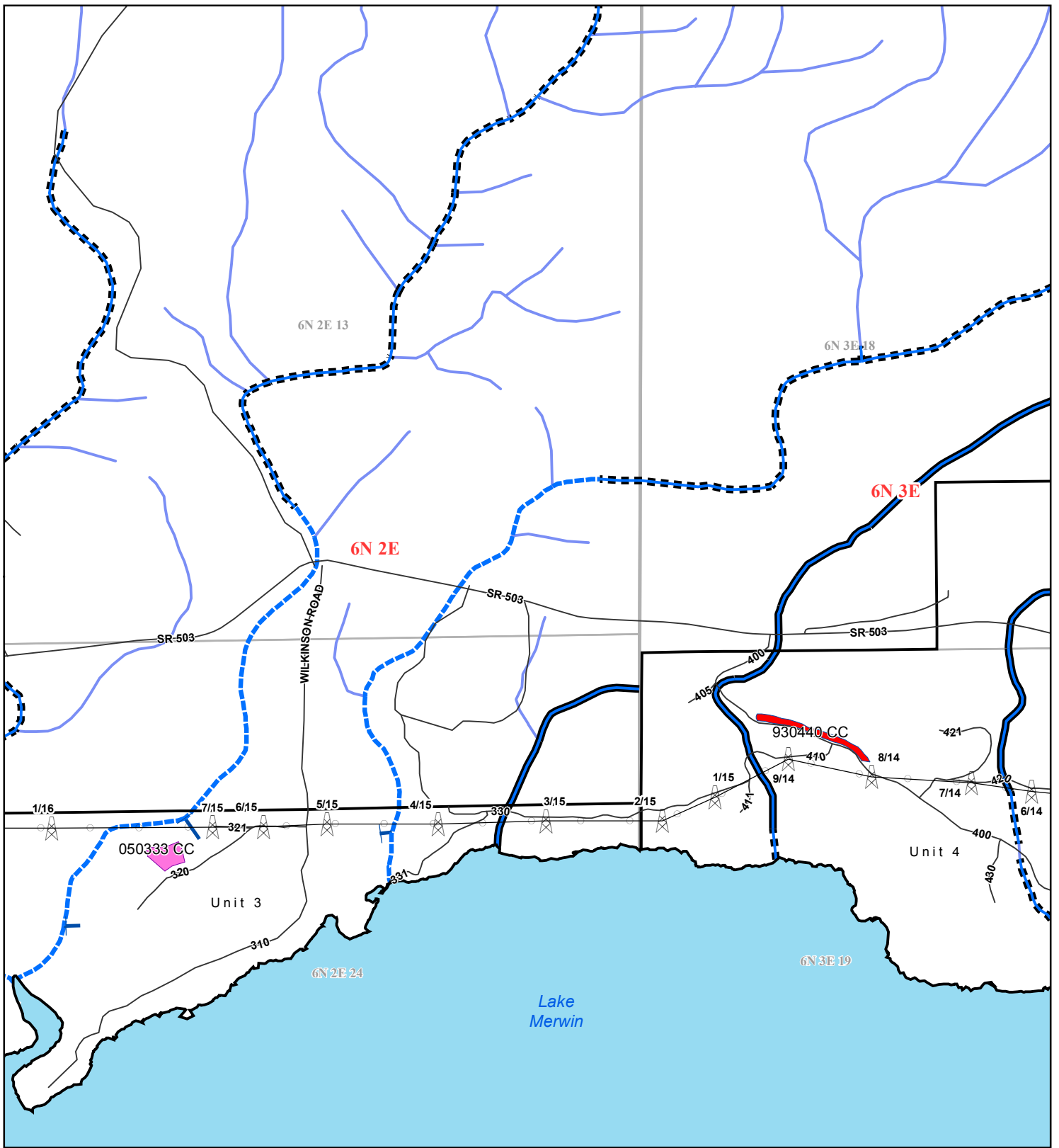
Class A	Fish
Class B	Anadromous Fish
Class C	Non-fish Perennial
Not Classified	Non-fish Seasonal
Management Unit	Other
Transmission Pole	Water Body
Transmission Line	Township/Range
Road	Section



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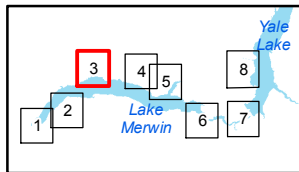
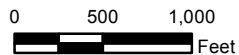
02/24/2012 U:\Projects\2012\12-058\InvasivePlantSpeciesPlan.mxd

Lewis River

Sheet 3 of 8

Wildlife Habitat Management Plan

2012 Invasive Plant Species Control Maps



**Legend**

- |                   |                    |
|-------------------|--------------------|
| Class A           | Fish               |
| Class B           | Anadromous Fish    |
| Class C           | Non-fish Perennial |
| Not Classified    | Non-fish Seasonal  |
| Management Unit   | Other              |
| Transmission Pole | Water Body         |
| Transmission Line | Township/Range     |
| Road              | Section            |

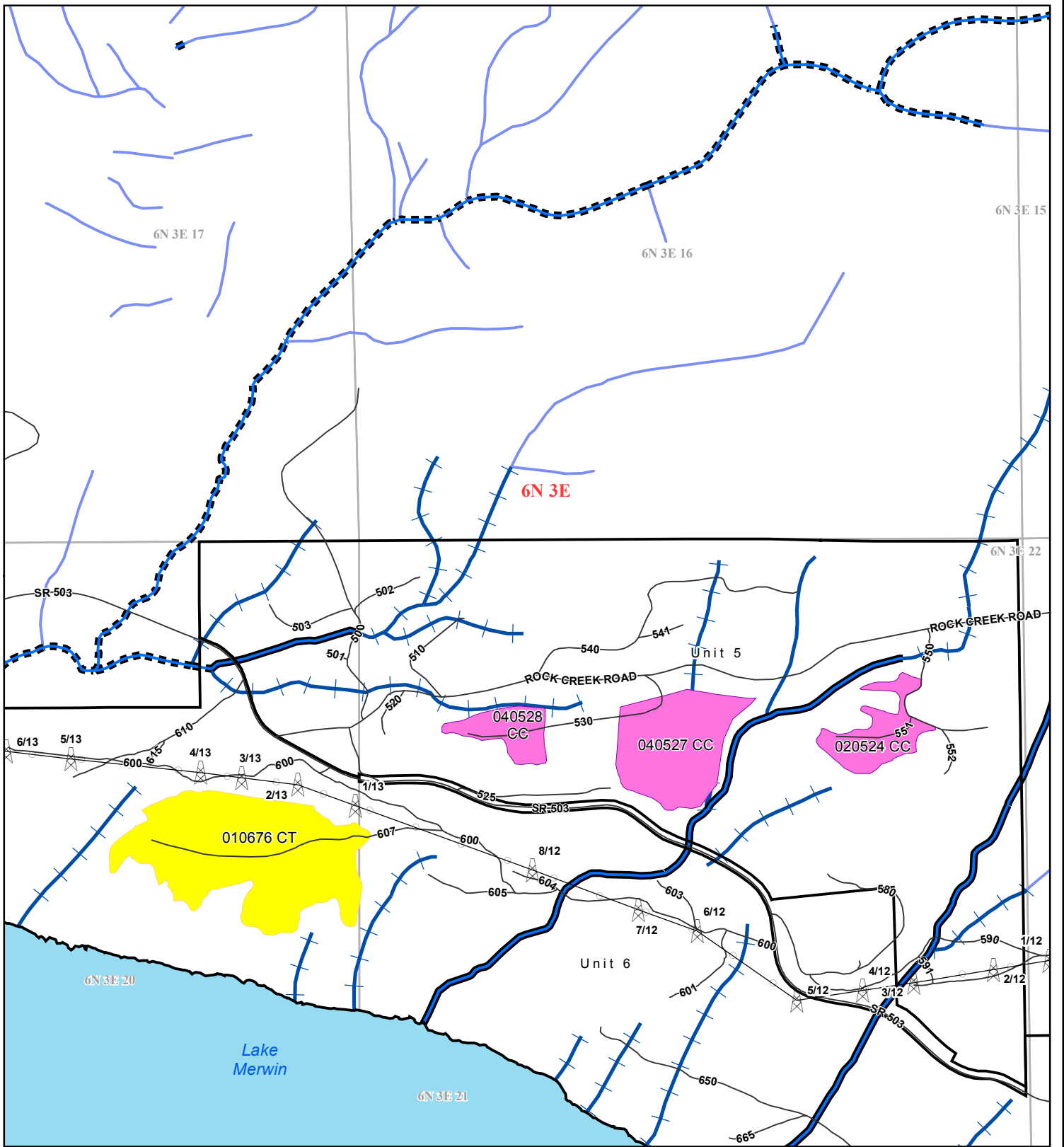


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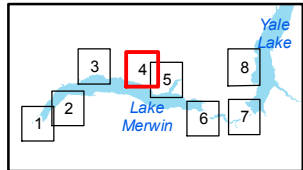
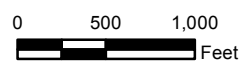
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Lewis River

Sheet 4 of 8

Wildlife Habitat Management Plan

2012 Invasive Plant Species Control Maps



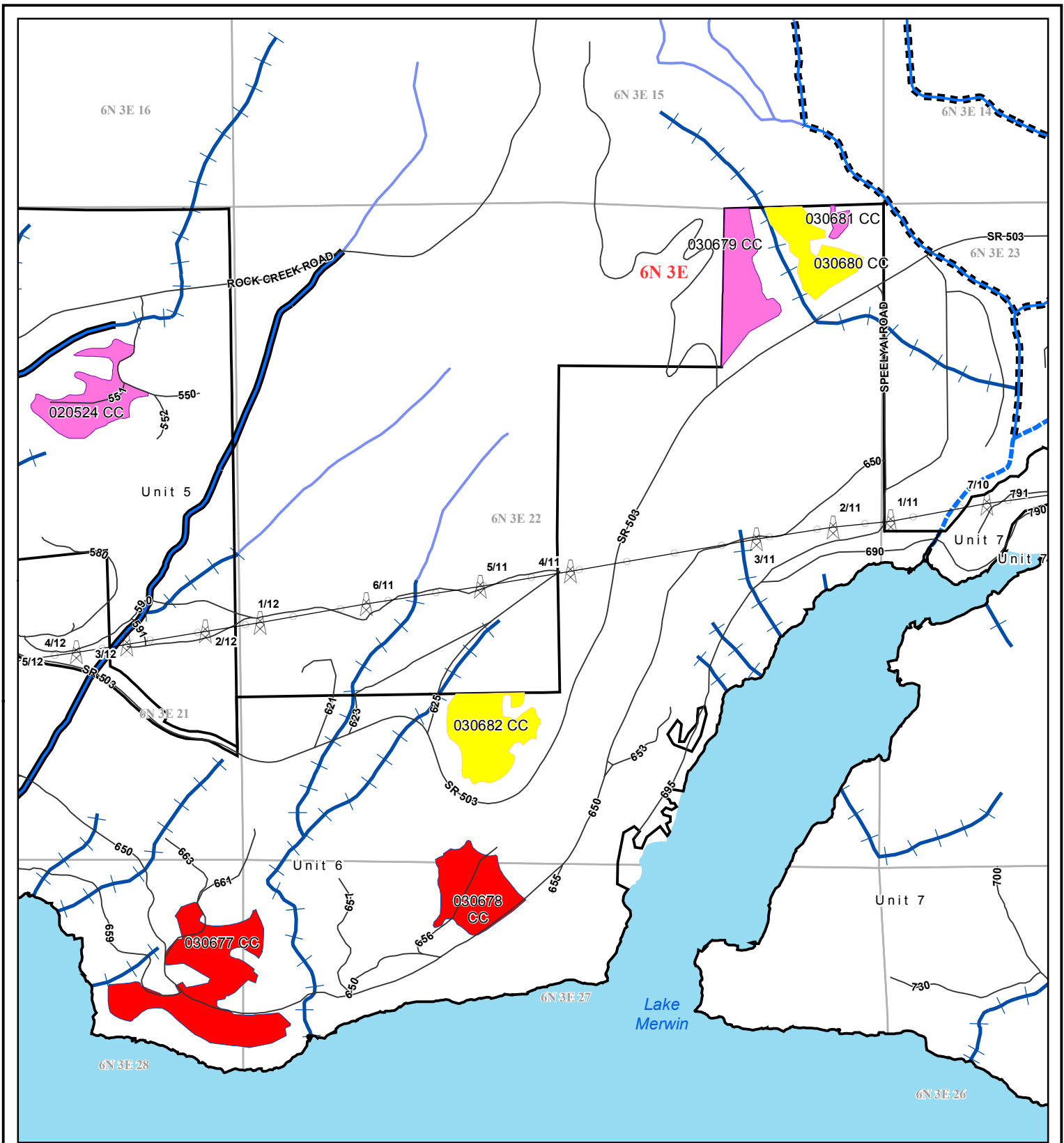
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<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span> Class B	Anadromous Fish
<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span> Class C	Non-fish Perennial
<span style="display:inline-block; width:15px; height:15px; background-color:magenta;"></span> Not Classified	Non-fish Seasonal
Management Unit	Other
Transmission Pole	Water Body
Transmission Line	Township/Range
Road	Section



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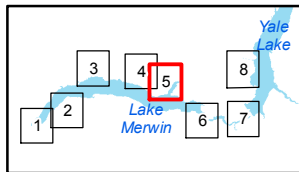
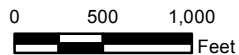
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Lewis River

Sheet 5 of 8

Wildlife Habitat Management Plan

2012 Invasive Plant Species Control Maps



**Legend**

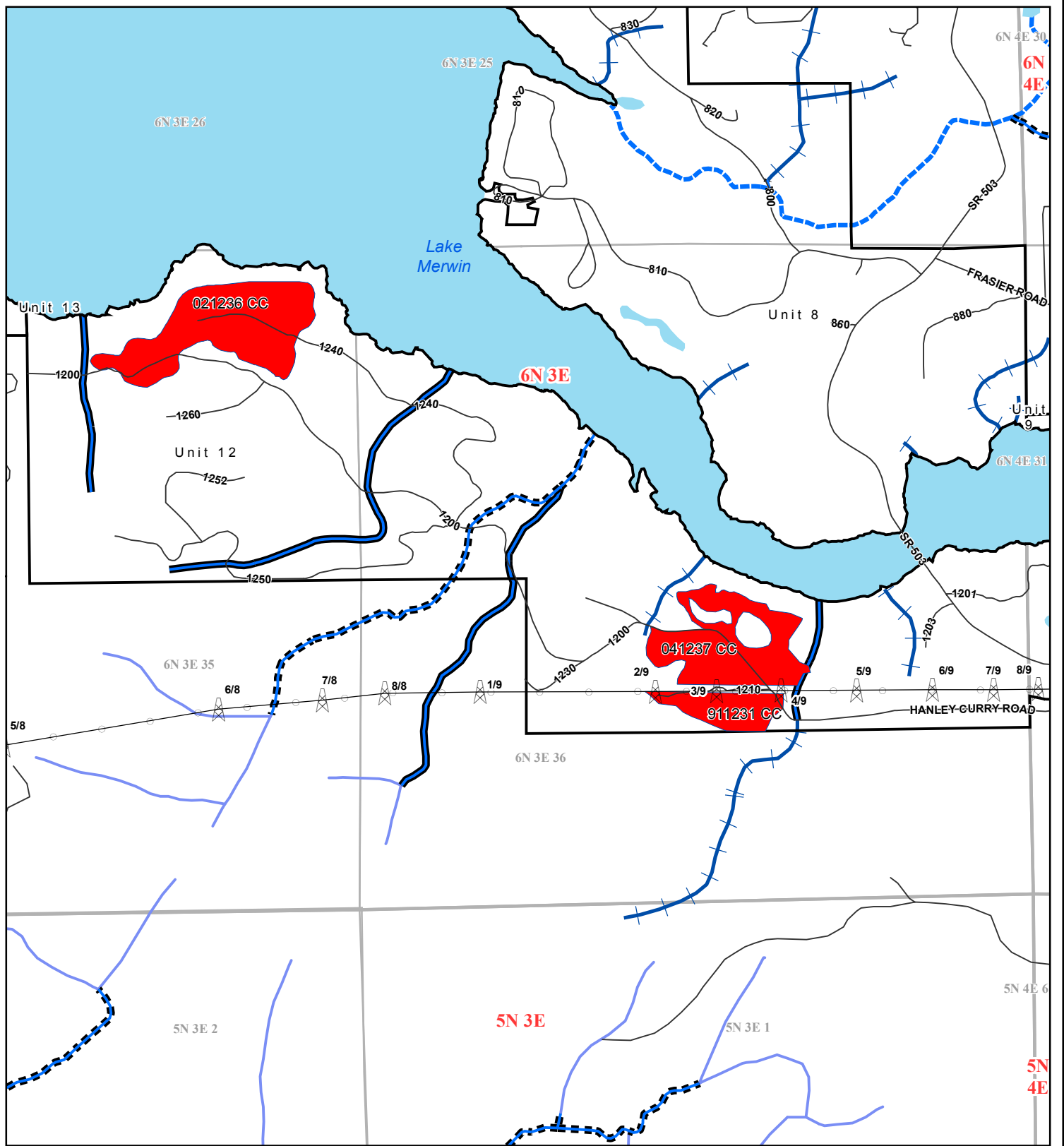
Class A	Fish
Class B	Anadromous Fish
Class C	Non-fish Perennial
Not Classified	Non-fish Seasonal
Management Unit	Other
Transmission Pole	Water Body
Transmission Line	Township/Range
Road	Section

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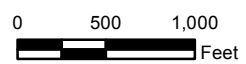
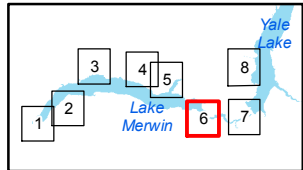


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Lewis River

Sheet 6 of 8

Wildlife Habitat Management Plan  
2012 Invasive Plant Species Control Maps



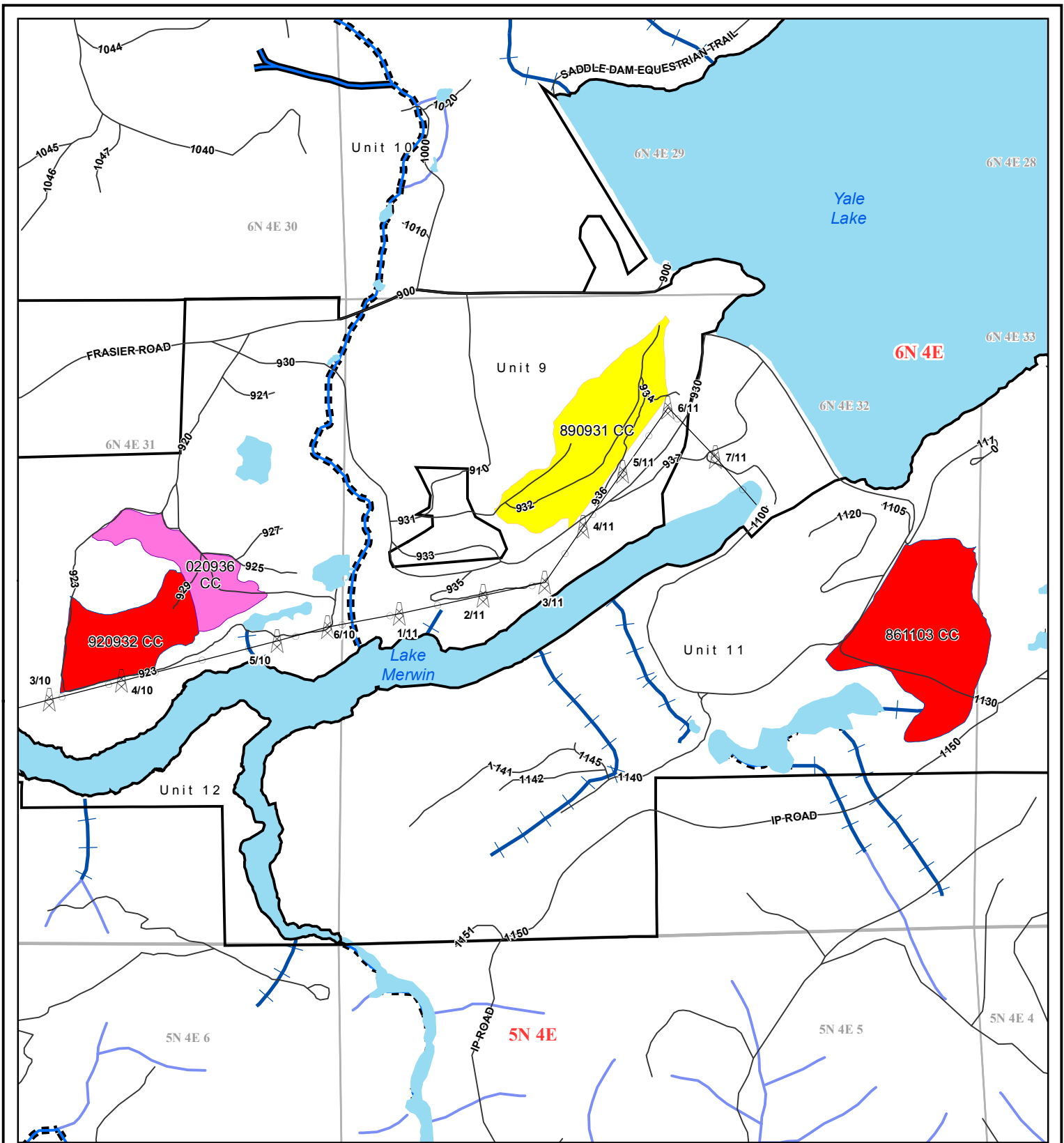
Legend	
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<span style="display:inline-block; width:15px; height:15px; background-color:orange;"></span> Class B	Anadromous Fish
<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span> Class C	Non-fish Perennial
<span style="display:inline-block; width:15px; height:15px; background-color:purple;"></span> Not Classified	Non-fish Seasonal
Management Unit	Water Body
Transmission Pole	Township/Range
Transmission Line	Section
Road	



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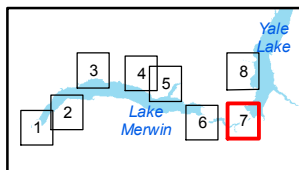
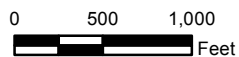
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Lewis River

Sheet 7 of 8

Wildlife Habitat Management Plan

2012 Invasive Plant Species Control Maps



**Legend**

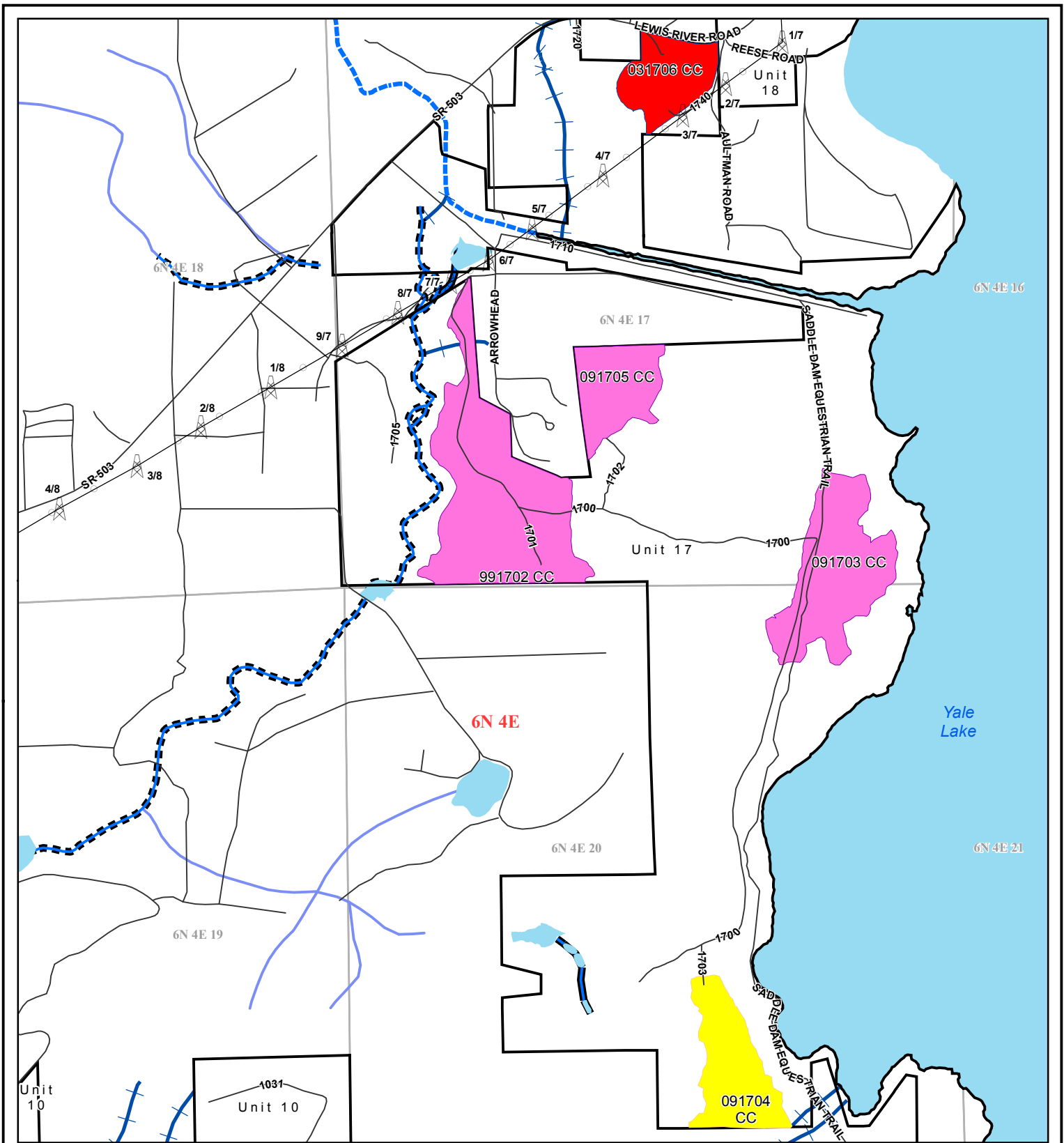
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Class B	Anadromous Fish
Class C	Non-fish Perennial
Not Classified	Non-fish Seasonal
Management Unit	Other
Transmission Pole	Water Body
Transmission Line	Township/Range
Road	Section

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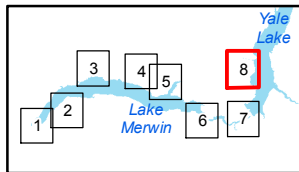
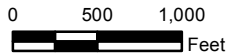
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Lewis River

Sheet 8 of 8

Wildlife Habitat  
Management Plan

2012 Invasive Plant  
Species Control Maps



**Legend**

<span style="display:inline-block; width:15px; height:15px; background-color:yellow;"></span> Class A	Fish
<span style="display:inline-block; width:15px; height:15px; background-color:orange;"></span> Class B	Anadromous Fish
<span style="display:inline-block; width:15px; height:15px; background-color:red;"></span> Class C	Non-fish Perennial
<span style="display:inline-block; width:15px; height:15px; background-color:purple;"></span> Not Classified	Non-fish Seasonal
Management Unit	Other
Transmission Pole	Water Body
Transmission Line	Township/Range
Road	Section

**PACIFICORP ENERGY**  
A DIVISION OF PACIFICORP

Data Management/  
Geographic Information Systems  
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Data is projected in UTM Zone 10, NAD83, meters.

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