Lewis River Wildlife Habitat Management Plan

FERC Project Nos. 935, 2071, and 2111

2015 Annual Plan

Annual Plan for Operations Phase 2015

PACIFICORP ENERGY
A DIVISION OF PACIFICORP

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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
cm	centimeters
FERC	Federal Energy Regulatory Commission
ft.	foot or feet
GIS	Geographic Information System
ha	hectare
IP	International Paper
km	kilometer
m	meter
RMAP	Road Maintenance and Abandonment Program
ROW	Right-of-way
TCC	Terrestrial Coordination Committee
THA	timber harvest area
TPA	Tree per acre
VES	Visual Encounter Surveys
WDFW	Washington Department of Fish and Wildlife
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, 2015) (PacifiCorp 2008a). 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 2015. 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.

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, 2013 PacifiCorp has 13,134 acres (ac) of WHMP lands owned in fee simple and has 16 acres of Interests in Lands. The 2015 WHMP budget as of January 1, 2015 dollars will be $468,817.68 which includes the cost per acres, $4,310.29 from the remaining 2014 WHMP budget, interest, and $5,771.29 additional dollars from a budget correction from 2014. Appendix B provides the overall 2015 budget as well as the budgets for administration, management areas, and plan-wide goals. To accurately reflect costs, the 2015 budget is based on costs expended in 2014, which may differ 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 (Settlement Agreement 10.1) 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 (Settlement Agreement 10.2) is currently $1,950,455.35 as of December 31, 2014 following interest and deposits of $625,173.63 in December 2014. There are no pending acquisitions from this fund in 2015, although the TCC, with support from the Rocky Mountain Elk Foundation, continue to seek land acquisition opportunities.

The Lewis River Fund (Settlement Agreement 10.3) had contributions of $1,009,307.61 in 2014. There are no pending acquisitions from this fund in 2015, although the TCC, with support from the Rocky Mountain Elk Foundation, continue to seek land acquisition opportunities.

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 is entering into the seventh year of the implementation phase, the TCC meetings for 2015 are currently scheduled for monthly but may occur on an as-needed-basis and as decided by the TCC.

4.2 Annual Report

An Annual Report describing the terrestrial protection, mitigation, and enhancement measures that occurred on WHMP lands during 2014 was submitted to the TCC for the 30-day review on February 6, 2015.

4.3 Annual Plan

TCC members were provided a draft of this report on February 6, 2015 to review and provide comments within 30 days or by March 11 2015. 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 no later than 30 days, or by April 15, 2015, after the close of the TCC's comment period.

4.4 Restoration Plans

No lands were identified as significantly damaged by anthropogenic processes in 2014; therefore no restoration plan is required in 2015.

5.0 Old-growth Habitat Management

5.1 Inspections

Old-growth aerial surveys will be conducted concurrently with the osprey (*Pandion haliaetus*) and bald eagle (*Haliaeetus leucocephalus*) nest aerial surveys (Section 15.1). 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

The old-growth connectivity data layer has created and is included into PacifiCorp's database. This data layer will be reviewed for 2015 and future habitat management decision to insure the areas are maintained as priority mature stands and, where feasible, implement management actions (e.g. snag development, large down wood, thinning) that would promote old-growth habitat is the areas.

6.0 Wetland Habitat Management

6.1 Inspections

The annual inspection will be completed. No 2014 wetland management actions require a post-treatment inspection in 2015.

6.2 Management Actions

Management actions scheduled to occur in 2015 include the stop log removal/replacement for bullfrog (*Rana catesbeiana*) management and high winter flows, and to review the Washington Department of Natural Resources (WDNR) Heritage Database. In addition, a bullfrog monitoring and management will continue this year. This year the program will include Visual

Encounter Surveys (VES) surveys at Frasier Creek wetlands (Frasier Pond, Cedar Grove, Chestnut, Road Pond, Banker's Pond, Cross Road Pond, Borrow Area, and Pumphouse Pond) (Muths 2011). The objectives will be to learn more about the population and development of bullfrog larval in these ponds to insure that draining the wetlands is not selecting for a rapidly developing genotype (Adams and Pearl 2007).

Percent cover of shrubs in palustrine forested wetlands is to be increased by 5% by license year 17 or 2025. This will require planting several hundred shrubs and decreasing canopy cover, where feasible, to increase sunlight and promote shrub cover. It would be preferred to implement a plan in stages spread the costs over several annual budgets and to provide time for the shrub canopy to mature. A plan will be develop this year for all WHMP palustrine forested wetlands shrub enhancement.

Figure 1: Amphibian habitat in Road Pond

7.0 Riparian Habitat Management

7.1 Inspections

No inspections are required for Riparian Habitat.

7.2 Management Actions

The riparian habitat management actions that are expected to occur in 2015 include:

- Establishing buffers as necessary around the 2015 timber harvest activities,
- Developing water type modifications as necessary for 2015 and 2016 forestry activities, at least 3 water type modifications are expected
- Implementing pre-commercial thinning in older (>15 years) timber harvest areas that overlap the WHMP riparian buffers,

8.0 Shrubland Habitat Management

8.1 Inspections

Shrubland 14-4a and 5-8d will be inspected between April 15 and October 31. Post-treatment inspection will look at the wildlife passages in 4-6b and 4-d.

8.2 Management Actions

Shrubland 3-2a openings that were created by creating snags have excessive amounts of Canada thistle (*Cirsium arvense*) and Himalayan blackberry (*Rubus armeniacus*) that will be treated in 2015. Other management actions will be based on inspections but may include heavy pruning, shade control, or vegetation control**.**

A review of the effectiveness of shrubland management actions will be conducted this year and a report summarizing the results will be submitted to the TCC.

9.0 Farmland, Idle Areas, and Meadows Habitat Management

9.1 Inspections

This will be the 5-year spring inspection which will include all farmland, idle fields, and meadows (actively and passively managed) to be inspected between April 15 and May 31. Most of the actively managed fields will be surveyed for Savannah Sparrow (*Passerculus sandwichensis)* between April 15 and May 31 to determine occupancy and gain more insight on nest phenology. Fields will be surveyed using the Area Search method described in Handbook of Field Methods for Monitoring Landbirds (Ralph et al. 1993). The fall inspection will occur at all actively managed meadows and farmlands between October 1 and October 15.

9.2 Management Actions

Regularly scheduled annual management actions will occur in 2015 and will include:

- Annual spring mowing will occur at the Saddle Dam farmland fields and Hamm Meadows 1, 2, and 3 to reduce the thatch.
- Many of the fields need invasive plant species control, but it is unlikely that all the work can be completed with the short spray window and available budget. Therefore I have listed the meadows and fields that should be treated by priority:
    - Upper and Lower Hanley Curry meadows will be treated for Canada thistle, bull thistle (*Cirsium vulgare*), stinging nettle (*Urtica dioica*), and field bindweed (*Convolvulus arvensis*).
    - Upper and Lower McKee meadows will be treated for Canada thistle and stinging nettle.
    - Swift Creek Meadows 1 and 2 that were developed by slashing young trees out of an old (2005) plantation will be inspected for shrub species composition and have bracken fern sprayed where it is dense and over-topping desired forage species.
    - Hamm Meadow 1 will be treated for Himalayan blackberry, common periwinkle (*Vinca minor*), and field bindweed.
    - Hamm Meadow 2 will be treated for Canada thistle and Himalayan Blackberry
    - Hamm Meadow 4 and 5 should have any new Himalayan blackberry (*Rubus armeniacus*) and snowberry (*Symphoricarpos albus)* shoots treated in the spring.
    - Saddle Dam Fields 1 and 2 treat the Canada thistle and bull thistle.
    - Buncombe Hollow Meadow will be evaluated to determine the need to treat noxious weeds, which in 2014 included snowberry, curly dock (*Rumex crispus*), and thistles.
    - Leach Field Meadow should be treated again in 2015 for bracken fern, Oxeye daisy (*Leucanthemum vulgare),* and Scotch broom (*Cytisus scoparius*).
    - Upper Winter Creek should be treated for Canada thistle, stinging nettle, and common dandelion (*Taraxacum officinale*).

  - Unit 11 meadow needs extensive noxious weed management for at least 3 years to control Canada thistle, bull thistle, St. Johnswort *(Hypericum perforatum)*, reed canarygrass *(Phalaris arundinacea)*, and oxeye daisy. This is a passively managed meadow so the work will need to be completed in spring before the grasses become too tall. The elk use in this area is significant, so if this field is restored to its full potential it could provide excellent forage.
- 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:
  - Bridge
  - Buncombe Hollow
  - Hamm 1, 2, and 3
  - Upper and Lower McKee
  - Rhododendron
  - Speelyai
  - Saddle Dam farmland fields 1 and 2
- Annual fall fertilizing will be based on soil testing and 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
- A screen will be planted along the northern border of the Leach field meadow to screen the meadow from the adjacent homes to prevent all-terrain vehicle (ATV) trespass.

Figure 2: Swift Creek Meadow 2 dense bracken fern that will be treated in 2015

10.0 Orchard Management

10.1 Inspections

Annual winter inspections will occur in 2015 at:

- Buncombe Hollow
- Speelyai Orchard

Annual summer inspections will occur in 2015 at:

- Buncombe Hollow
- Speelyai Orchard
- Saddle Dam #1
- Saddle Dam #3
- Saddle Dam Road
- Yale Dam

10.2 Management Actions

Dormant pruning is scheduled to occur at:

- Buncombe Hollow

- Speelyai Orchard

Buncombe Hollow, Lower Hanley-Curry, and Speelyai orchards will be mowed in August to maintain big game forage.

New plantings will occur at Speelyai to replace the 3 trees that were removed for the septic drain field and 5 trees will be planted at Buncombe Hollow to replace trees that have died.

11.0 Transmission Line Right-of-Way Habitat Management

11.1 Inspections

The annual inspection will be completed in 2015. Speelyai line is expected to need post-treatment inspections at the sites that have hazard tree removal.

The transmission line standards for reliability require utilities to maintain an active transmission Right-of-Way (ROW) width for 230kV H frame lines (i.e., Speelyai and Cougar lines) be maintained at 62.5 feet (ft.) from the center line or 125 ft. width (PacifiCorp 2012). Although the transmission ROWs are largely compliant with this clearing limit, a 2013 inspection of the Speelyai ROW identified several trees to be within this clearance limit. This work began in fall of 2014, but budget constraints forced the work to stop after completing only 3 miles of line. This work will resume in 2015 and PacifiCorp biologists will continue to work closely with Vegetation Management Service to insure that the tree removal will be in accordance with the WHMP standards.

11.2 Management Actions

Transmission Line Right-of-Way management actions that are scheduled to occur in 2015 include annual mowing at Speelyai 1/11-3/11, Woodland Park West (Speelyai 8/14-9/14), and Wilkinson (Speelyai 5/15-7/15) ROW forage areas. An additional ROW forage area will be created by mowing and fertilizing at Lake 3/10-4/10.

Noxious weed control treatments will occur at the following spans:

- Cougar Line 1/1-5/1 treat the target noxious weeds: Scotch broom and Himalayan blackberry. If feasible and effective also treat common cat's ear (*Hypochaeris radicata*), bracken fern, common St. Johnswort, and jewelweed (*Impatiens noli-tangere*).
- Cougar Line 1/3-5/3 treat the bracken fern. If feasible and effective, also treat common St. Johnswort, common cat's ear, and tansy ragwort.

- Lake Line 3/10-4/10 reed canary grass, bracken fern, Scotch broom, common St. Johnswort, and Canada thistle
- Speelyai 1/14-8/14 treat the target noxious weeds of bracken fern, Scotch broom, Himalayan blackberry, and pull Douglas-fir seedlings. If feasible and effective, also treat Canada thistle, Queen Anne's lace (*Daucus carota*), and common St. Johnswort. All Himalayan blackberry in the drainage between 3/14 and 4/14 should be treated.
- Speelyai 2/15-4/15 treat the targeted noxious weeds of bracken fern, Canada thistle, Himalayan blackberry, and Queen Anne's lace.
- Speelyai forage area (Speelyai 1/11-3/11) treat for bracken fern, common cat's ears, and common snowberry.

The visual screen at Woodland Park Road (Speelyai ROW 8/14 to 9/14) was replanted in 2013 with lower growing shrubs. These plantings will be monitored this year to insure that they are successful.

Following the Speelyai Line vegetation work being completed each visual screen will be evaluated to determine what, if any, replanting can occur to reestablish a visual screen that at maturity would remain within the clearing limits.

Figure 3: The visual screen removed from Woodland Park Road

Figure 4: Speelyai 3/14-4/14 trees removed and snags created where feasible.

12.0 Unique Area / Habitat Management

12.1 Inspections

The annual inspections will occur at oak stands 1-12, 5-1, 5-2, 6-23, 6-45, and 6-52. In addition, Oak Stand6-26a will be inspected in May to determine the species of grass that is growing within the oak site. In the fall 2014, it appeared to be common velvet grass (*Holcus lanatus*), which is a non-native grass that outcompetes preferred plants species.

12.2 Management Actions

The following actions are scheduled to occur for Unique Areas in 2015:

- Oregon white oaks (*Quercus garryana*) will be planted at a 3:1 ratio for every oak tree removed as part of the ROW clearing scheduled for 2015.
- Remove common velvet grass from 6-26a, if detected.
- Treat the Scotch broom in 6-22a and 6-22b, where accessible,
- Pruned the Douglas-fir trees in the southeast corner of the Oak Site 6-22a
- Oak 6-26b needs several larger shrub species pruned to reduce competition.

13.0 Forestland Habitat Management

13.1 Inspections

The annual spring and fall timber harvest area (THA) inspections (i.e., reforestation inspections) will occur in 2015.

13.2 Management Actions

Forestland management in 2015 includes developing new areas of both permanent and transitional forage for big game and maintaining areas of previous forest management to provide diverse cover and forage for a variety of wildlife in stands ranging from 1 – 40 years of age.

13.2.1 2015 Proposed Forestland Practices

Approximately 34.0 acres (13.8 hectares [ha]) are proposed for even-age (clear-cut) forest management in Management Units 5 and 17. Management Unit 35 has an additional 87.5 acres (35.4 ha) that was previously planned for 2014 for commercial thinning but was deferred to 2015 because of difficulties in scheduling contractors. These areas are described separately below. Maps and wildlife-forestry survey sheets of the proposed areas are located in Appendix D.

Management Unit 17

In 2013 the TCC was shown an area in Management Unit 17 near Speelyai Canal where trees had become a hazard to adjacent homes and a PacifiCorp access road due to advanced decay in the alder. The area was not harvested as planned in 2014 so it will be added to the 2015 plan. The area encompasses approximately 9.0 acres (3.6 ha). PacifiCorp conducted goshawk surveys in this area in 2013 and 2014 without receiving any response calls. PacifiCorp will conduct another survey in 2015 prior to any harvest. The proposal is to remove all hardwoods or other hazard trees while retaining conifer and shrubs as much as practical and replant the area with conifer in 2015. The area is entirely within a riparian buffer for Speelyai Canal despite the presence of a road between the proposed harvest area and the canal. This will establish a permanent conifer buffer along the canal. An approved Class III alternate plan was received from DNR in 2015.

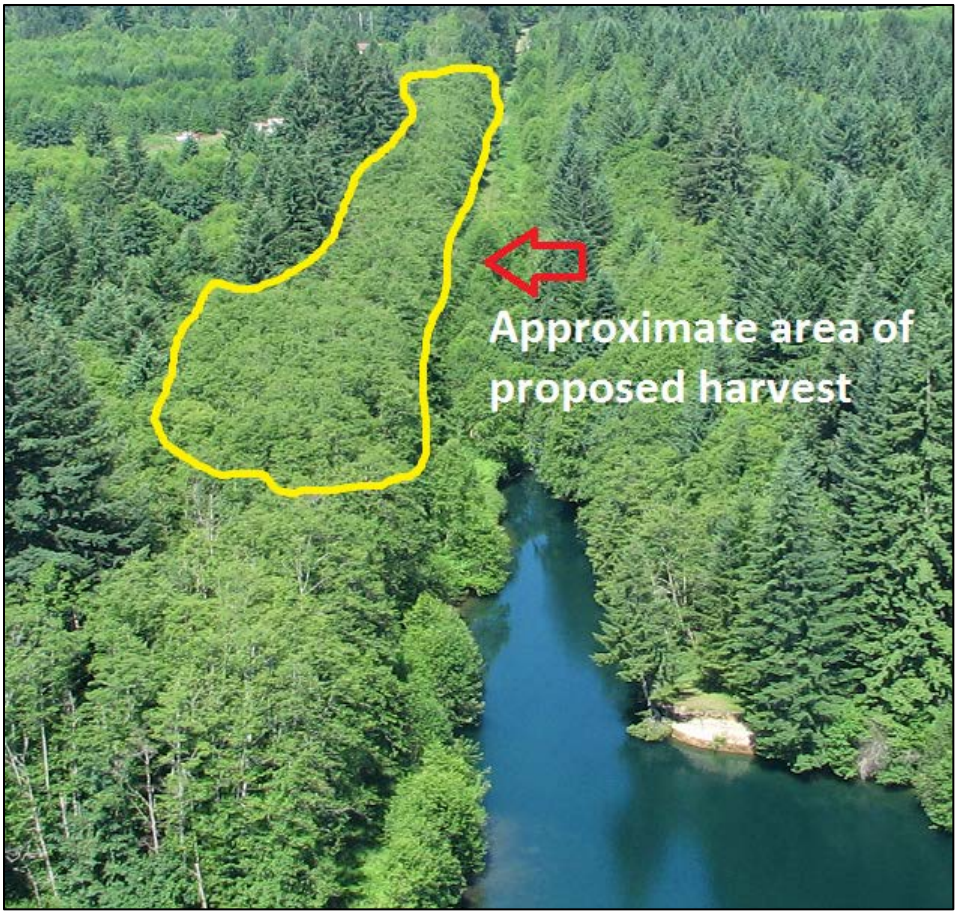

Figure 5: Aerial view of proposed alder harvest near Speelyai Canal.

Management Unit 5

Approximately 20.00 acres (8.1 ha) of Management Unit 5 has been proposed for even aged harvest (Appendix D) to maintain forage in an area favored by elk over the past 25 years. Additionally, an adjacent 29 year-old stand is proposed for a commercial thin. The commercial thin will be on approximately 20 acres (8.1 ha) of a 1986 harvest area to provide better tree spacing (release for larger trees) and temporary forage. The current tree density is approximately 203 tree per acre (TPA) with little understory shrub or forage species. The average tree diameter at breast height is 12.9 inches (32.8 cm).Thinning is proposed at a spacing of approximately 14 feet (4.3 meter [m]) or 110 to 130 TPA (site dependent) to encourage understory development of early seral vegetation and to improve forest health and stand longevity. Some clearing will have to be done to reestablish landings to sort and load the harvested trees.

Management Unit 5 is 360.5 acres (145.9 ha) with a current cover to forage (C:F) ratio of 73:26. The WHMP recommended a ratio near 60:40 as a minimum (+/- 5%) to provide both big game forage and to account for the presence of a spotted owl circle that overlaps part of the management unit. The last harvest in the management unit was in 2004 and the C:F ratio at the time the WHMP was developed was 56:44. Pre-commercial thinning of existing clear-cuts will only provide a limited amount of enhanced forage in the next few years and the proposed harvest will augment the forage for an additional 12-15 years. No permanent forage meadows

were created in previous entries but permanent forage is provided on a combined 8.4 acres (3.4 ha) of shrubland, oak woodland and transmission ROW. Managing a minimum of 5% of the manageable acres as permanent forage would require approximately 9.9 acres (4.0 ha). Developing the additional permanent forage on up to 2.0 acres (0.8 ha) will be a goal of this entry.

Management Unit 35
PacifiCorp had proposed a harvest in Unit 35 in 2014 but it was deferred to 2015. This management unit is comprised of approximately 791 acres (320.1 ha) of 37 to 45 year-old timber stands. Access roads were completely over-grown with alder but have been re-opened with new culverts and gate closures over the past two years. In 2015 PacifiCorp is proposing an extension of 0.39 miles (0.6 kilometer [km]) of new road to connect existing roads (previously reviewed with the TCC in 2014). The road would be part of a planned timber harvest and allow access to an existing rock pit in Management Unit 35. The middle-aged timber is approximately 55% Douglas-fir and the rest is mixed conifer that offers an opportunity to both thin and develop small clear-cuts where there are currently few open forage areas. The existing C:F ratio is 100:0 despite having good shrub development in the understory in portions of the management unit. Elevations range from 3000 feet (914.4 m) to 3250 feet (990.6 m) on a relatively gently south aspect. An area of approximately 55.5 acres (22.5 ha) of thinning has been defined in the northeast portion of the management unit. The stand age is all less than 37 years-old so the area is not considered suitable goshawk habitat. This was reviewed and approved by the TCC in 2014.

Management Unit 10
One of the permanent meadows developed in Management Unit 10 last year will be reassessed in 2015 for follow-up stump removal, grading and re-seeding. Because this meadow was a stand-alone timber harvest, there was a limited area for slash management. The number of stumps and the amount of slash piles that were burned in the new 3.3 acre meadow may limit the potential of this site from producing the desired forage. With additional tractor work, grading and soil amendments, this meadow may be improved.

13.2.2 2015 Forestland Planning

Forestland planning in 2015 will include continuing pre-cut surveys for both 2015 proposed forest plan areas, continuing plans for road and forage management in Management Units 34 and 35 and developing forest plans for 2016 and beyond. The TCC will be shown plans for forest management proposed in Management Unit 5 as well as planning for commercial thins if conducted in 2015.

PacifiCorp continues to update the Geographic Information System (GIS) and corresponding spreadsheets depicting vegetation cover types and tracking C:F ratios by management unit to comply with established WHMP plans and to develop plans for newly acquired properties. Eleven management units are currently being prioritized for further planning based on their C:F ratios (Table 1).

Table 1: Management unit priorities based on Cover and Forage

Management Unit	Total Acres	C:F Ratio	C:F Ratio Objective based on WHMP	Meets 5% permanent forage (Y/N)	Priority[1] based on C:F Ratio
1	131.2	74:26	50:50	Y	1
5	360.5	73:27	60:40	N	1
7	526.5	72:28	50:50	N	1
8	278.8	82:18	55:45	Y	1
14	123.9	77:26	TBD[2]	Y	2
16	386.7	85:15	70:30	Y	2
20	938.7	93:07	60:40	Y	2
19	163.5	66:34	60:40	N	1[3]
27	255.2	88:12	TBD[2]	N	2
34	676.2	99:01	TBD[2]	N	1
35	799.0	100:0	TBD[2]	N	1

1: Priority is relatively based on 1 = 1-3 years; 2 = 3-5 year planning.
2: TBD: To be determined; C:F objective wasn't assigned in WHMP or represent new lands
3: Root-rot area and permanent forage are drivers for management.

PacifiCorp will continue to examine commercial thinning as a tool to further develop stand structure and understory composition in plantations that were planted in the 1980's. Unfortunately, the dynamics of the timber industry have changed significantly in the past 10 years such that logging operators are difficult to find for harvesting small diameter timber that also requires significant moves between small (less than 30 acre) harvest areas. Commercial thinning should be conducted when trees are dormant or the bark will be damaged when harvesting adjacent trees. Winter logging will be proposed in areas where well drained soils will limit compaction and there are no conflicts with bald eagle winter roosts.

13.2.3 First Precut Survey

The first precut survey forms for the 2015 timber harvest areas are in Appendix D. First pre-cut surveys will also be conducted for 2016 THA's in Units 7 and 19.

13.2.4 Harvest Area Traverse and Geographic Information System Update

The 2015 THAs will be updated in the GIS database following TCC approval of the proposed plans and the completion of the timber harvests. Field work will be completed for the vegetation cover types and stream surveys in Management Unit 5 and will be entered into the GIS database.

13.2.5 Second Precut Survey

The second precut survey for the 2015 timber harvests will be completed in the early summer of 2015 following TCC review of the sites. Appendix D maps show the 2015 timber harvest areas delineated boundaries, roads, riparian and wetland buffers, and the proximity of any northern spotted owl (*Strix occidentalis*) management circles. These surveys will ensure that compliance is maintained with resource plans.

13.2.6 Terrestrial Coordination Committee

The TCC on site meetings to review the proposed 2015 timber harvest areas has been tentatively scheduled during May or June 2015. The TCC will receive regular updates and coordination throughout 2015 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 2015 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. Tree planting, Vegetation control and pre-commercial thin practices are described in the following sections.

Planting and Maintenance:

The 2015 planting and seedling maintenance activities will include planting the 2014 timber harvest areas (Management Unit 10) and planting portions of Management Unit 4 that was logged in 2013 but had slash piles burned in 2014. Additional tree seedlings will be inter-planted in the riparian area west of THA 130448 where alder dominate the riparian buffer. A few hardwood trees were harvested from the buffer in 2013 with the intent to establish conifer for the future. Plantskydd®, a cost effective and environmentally safe animal repellent, will also be sprayed on young seedlings to prevent further browse damage as necessary. All timber harvest areas that require seedling maintenance or planting in 2015 are listed in Table 2 and 3 and locations are mapped in Appendix E.

Table 2: 2015 Tree Planting

Harvest Area	Acres	Action
130448 CC	1.0	Plant areas that were burned in 2014 (1.0 ac) Plant 180 PSME[1] and 60 TSHE[1]
130448 riparian area	< 1.0	Interplant 200 TSHE[1] in riparian buffer to west of THA[2]
130449 CC	0.1	Plant 30 PSME in burn pile areas
130450 CC	0.1	Plant 15 PSME and 15 TSHE in burn pile areas
141007 CC	23.2	Plant 300 TPA[2]; 6960 PSME
141008 CC	8.6	Plant 300 TPA; 2580 PSME
141009 CC	21.2	Plant 300 TPA; 6360 PSME
Total Acres	**54.0**	**16,125 DF; 275 TSHE**

[1] PSME= Douglas-fir, TSHE = western hemlock,
2 TPA = Trees Per Acre
3 Plantable acres are less than the Timber Harvest Area due to meadows, shrub islands etc.

Vegetation Control:
To reduce moisture competition between tree seedlings and the grass forage mix, the existing grasses are killed by using a pre-emergent herbicide, such as Sulfometuron (Oust®) or Surflan (for western red cedar) with glyphosate, which is sprayed in an 18-in (45-cm) radius around all seedlings. All timber harvest areas that require treatment in 2015 are listed in Table 3 and locations are identified in Appendix E. Spring surveys will likely determine other THA's that require additional vegetation control so this will likely change.

Table 3: 2015 seedling maintenance for moisture control (pre-emergent spraying).

Timber Harvest Area	Total Acres	Action
130448 CC[1]	15.5	Spray OUST®
130449 CC	1.8	Spray OUST®
130450 CC	14.3	Spray OUST®
132010 CC	27.3	Spray OUST®
141007 CC	21.6	Spray OUST®
141008 CC	8.4	Spray OUST®
141009 CC	21.2	Spray OUST®
113320 CC	14.2	Spray OUST®
TOTAL	**97.0 ACRES**	

1. CC = clear-cut.
2. ® = Registered trademark name

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. The list for area and target species in 2015 includes a priority listing from 1 to 4 (1 being the highest priority). Because budgets can always be a limiting factor due to the large amount of vegetation control treatments, priorities have been assigned to ensure those treatments that are most critical are managed first. Priorities 3 and 4 could wait until the following year usually because they are limited in extent and wouldn't compromise program objectives. However the actual acres listed are those of the THA and not necessarily the amount of area to be treated (usually much less). The effort in 2015 includes almost 600 acres where competing vegetation is interfering with objectives of forage or tree growth. All timber harvest areas that will have vegetation control in 2015 are listed in Table 4 and locations are identified in Appendix F.

Another species first identified on PacifiCorp WHMP lands in 2012 is common pokeweed (*Phytolacca americana*). While pokeweed is rarely considered a noxious weed, it can cause harm in certain situations. Pokeweed has been observed in three separate areas of Management Unit 6 and in Unit 17 (treated in 2012 and 2014). Plants can produce anywhere from a few thousand seeds to over 48,000 seeds per plant and seeds can remain viable in the soil for over 40 years. Birds eat the fruits without much harm and are usually the means for seed dispersal along fence rows, under utility lines and wooded areas. All parts of the plant contain saponins, oxalates, and phytolacine (an alkaloid). However, the roots and seeds contain the highest

concentrations of these toxins. Depending on the quantity of plant consumed, livestock may exhibit mild to severe colic and diarrhea. PacifiCorp has chosen to treat this plant when it is encountered and THA's in Management Units 9 and 11 are scheduled in 2015.

Table 4: 2015 Timber Harvest Area vegetation control treatments

THA	ACRES	Target Species[1] (spray priority)
020110 CC	10.0	Spray RUAR (P1), CYSC (P1)
020233 CC	2.8	Spray RUAR (P4)
980330 CC	7.1	Spray RUAR (P4)
980331 CC	13.1	Spray RUAR (P2)
050333 CC	1.0	Spray PTAQ (P2)
050334 CT	5.9	Spray RUAR (P2)
020446 CC	0.7	Spray RUAR (P4), CYSC (P4)
030447 CC	24.6	Spray PTAQ (P1), RUAR (P3)
130450 CC	13.3	Spray BUDA (P1)
020524 CC	7.1	Spray PTAQ (P2)
040527 CC	16.3	Spray PTAQ (P3), RUAR (P3) and CYSC (P4)
040528 CC	5.1	Spray PTAQ (P3), CYSC on Bald to west (P1)
860636 CC	0.8	Spray RUAR (P4)
970671 CC	19.2	Spray RUAR (P4)
980673 CC	4.9	Spray RUAR (P4), PHAR (P4), CYSC (P4)
030678 CC	7.8	Spray RUAR (P4); CL (2)
030679 CC	7.4	Spray PTAQ (P2)
030680 CC	5.8	Spray PTAQ (P2)
030681 CC	0.6	Spray PTAQ (P2)
030682 CC	8.5	Spray CYSC (P1), RUAR (P1), PHAR (P3)
120686 CC	4.1	Spray RUAR (P1), Pendulum THPL (P1)
000768 CC	8.0	Spray RUAR (P4)
000769 CC	10.6	Spray RUAR (P2)
050770 CC	24.9	Spray RUAR (P2)
050771 CC	2.3	Spray RUAR (P1)
990934 CC	14.5	Spray CYSC (P2)
990935 CC	10.9	Spray RUAR (P2), PHAM (P2)
020936 CC	10.3	Spray RUAR (P1)
991122 CC	7.0	Spray RUAR (P1), PHAM (P1)
991123 CC	1.0	Spray RUAR (P3)
001124 CC	7.9	Spray RUAR (P3)
001125 CC	12.4	Spray RUAR (P1)
101126 CC	18.3	Spray RUAR (P1), ALRU (P1), PHAM (P1)
101127 CC	11.7	Spray RUAR (P1), ALRU (P1), PHAM (P1)

Table 4: 2015 Timber Harvest Area vegetation control treatments (continued)

THA	ACRES	Target Species[1] (spray priority)
021236 CC	18.4	Spray RUAR (P1)
041237 CC	13.9	Spray PTAQ (P2)
051239 CC	7.7	Spray RUAR (P2)
841523 CC	21.8	Spray RUAR (P3)
951537 CC	17.2	Spray RUAR (P4), Clematis (P3)
001541 CC	4.6	Spray RUAR (P3), CYSC (P3), PTAQ (P2)
001542 CC	4.4	Spray RUAR (P3)
001543 CC	5.8	Spray RUAR (P2)
001544 CC	4.7	Spray RUAR (P3)
121547 CC	17.3	Spray PTAQ or RUSP near DF (P2), ALRU (P1)
031706 CC	12.0	Spray RUAR (P1), CYSC (P2)
031707 CC	1.1	Spray RUAR (P2)
091703 CC	22.5	Spray PTAQ (P2)
912002 CC	10.4	Spray RUAR (P4)
952007 CC	16.4	Spray CYSC (P2), RUAR (P3)
952008 CC	12.6	Spray CYSC (P1)
043301 CC	69.9	Spray PTAQ (P2)
043306 CC	6.2	Spray PTAQ (P1)
063308 CC	23.5	Spray PTAQ (P1)
TOTAL	**583.0**	

[1] CYSC (B[2]) = scotch broom; PTAQ (nc) = bracken fern; RUAR (c) = Himalayan blackberry: RUSP (nc) = Salmonberry;
[2]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 is 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 2015 pre-commercial thinning or pruning is listed in Table 5 and locations are identified in Appendix E.

Table 5: 2014 Pre-commercial Thinning and pruning treatments

Timber Harvest Area	Acres	Slash PCT	Hack & Squirt PCT	Pruning	THA includes Riparian Buffer
020110 CC	10.0			X	Yes
050332 CC	10.7			X	No
030447 CC	24.6			X	No
030677 CC	16.6			X	No
030679 CC	7.4			X	Yes
030680 CC	5.8			X	Yes
030681 CC	0.6			X	Yes

Table 5: 2014 Pre-commercial Thinning and pruning treatments (continued)

Timber Harvest Area	Acres	Slash PCT	Hack & Squirt PCT	Pruning	THA includes Riparian Buffer
021236 CC	18.4			X	No
041237 CC	13.9			X	Yes
091704 CC	14.4	X			Yes
752001 CC	21.3		X		No
082603 CC	8.2	X			No
082604 CC	11.9	X			No
082605 CC	9.1	X			No
053801 CC	29.6	X			No
053802 CC	48.6	X			No
Total Acres	**251.1**	**121.8**	**21.3**	**108.0**	

Figure 6: Elk grazing on WHMP lands. (Photo courtesy of Ray Croswell).

14.0 Invasive Plant Species Management

14.1 Prevention

In 2015 it will be assumed that there are no sites that will require a pre-ground disturbance evaluation.

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, Unique Areas, and Transmission Line Right-of-Way Management). It is assumed that an additional 25.0 ac of upland habitat and 5.0 ac within the ordinary high water mark will have invasive plant species treated in 2015. 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 and treated in 2015.

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: Himalayan blackberry sprayed at Hamm Meadows 4 and 5 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 2015. The table below lists the areas that will be monitored in 2015.

Table 6: 2015 Invasive Plant Species Control Monitoring Sites

Area	Target Species (Classification)[1,2]	Area Treated	Control Method
Cresap Campground	GELU (B)	0.3 ac	Chemical
Speelyai Road and Day Use Area	GELU (B), ALPE (2)	0.2 ac	Chemical
Buncombe Hollow Orchard	VIMI2 (monitor)	200 ft^2	Chemical
Road 300	VIMI2 (monitor)	200 ft^2	Chemical
Merwin Boat Ramp	IMGL (B)	0.2 ac	Chemical
Beaver Bay Wetland	IRPS (C)	0.2ac	Chemical/Hand Pull

[1] GELU = shiny geranium, IMGL= Policeman's helmet, VIMI2= common periwinkle
[2] 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 second season in Management Units 5 and for the third time in Unit 17 Speelyai Canal area. The proposed timber harvest areas for 2016 will be in Management Units 7 and 19 and will have the first season broadcast acoustical surveys conducted in 2015.

The aerial bald eagle and the osprey nest surveys will occur in 2015.

15.2 Habitat Enhancement

The Bald Eagle Management Plan will be revised to include new nest and territories for 2015.

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 2015. Additional sites for gating or blocking roads will be selected based on the annual surveys or as needed and will be dependent on available resources (e.g. budget), severity of trespass, and feasibility. There are no new gates needed for any of the 2015 forest management activities.

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, reducing sediment delivery to streams 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 will continue to coordinate with the recreation manager on the International Paper (IP) road assessment and trail development as required in the Settlement Agreement. Due to the remoteness and continued all-terrain vehicle (ATV) use in the IP road area, this area is regularly monitored by the Washington Department of Fish and Wildlife law enforcement officer.

The Site Creep Evaluation is too occur every 4 years and was scheduled to occur in 2014. Because PacifiCorp was without a recreation manager for most of 2014 the evaluation did not occur. It is scheduled and budget to occur in 2015 and will meet the criteria described in Final Recreation Resource Management Plan (PacifiCorp 2008b) and the meet the monitoring standards provided in Appendix G.

17.0 Monitoring

PacifiCorp will continue to monitor exclosures established in 2014 in Management Units 25, 28 and 33 to examine forage seeding and natural shrub regeneration in the absence of herbivory. PacifiCorp will conduct long term monitoring of the forage by checking the exclosures 2 times per year over the next 9 years. Monitoring will determine preferred forage species so that adjustments can be made in future projects and to determine effects of scarification techniques on the re-establishment of native shrubs. Without exclosures, the herbivory effects are so intense and widespread it is difficult to determine if a species is unsuccessful due to preferred selection or site conditions. Monitoring will simply be an ocular inspection and record of observed plants both within and outside exclosures as well as noting forage use.

In 2014, PacifiCorp conducted vegetation cover surveys on select streams to determine the Habitat Suitability Index (HSI) value for minks in riparian habitats. This was completed by determining the percent canopy cover of trees and shrubs within 100 m [328 ft.] of the stream's edge on 9 randomly selected streams. This field work effort was more than expected and required the entire 2014 budget to complete. In 2015 this data will be evaluated and the procedures and results will be documented.

18.0 References

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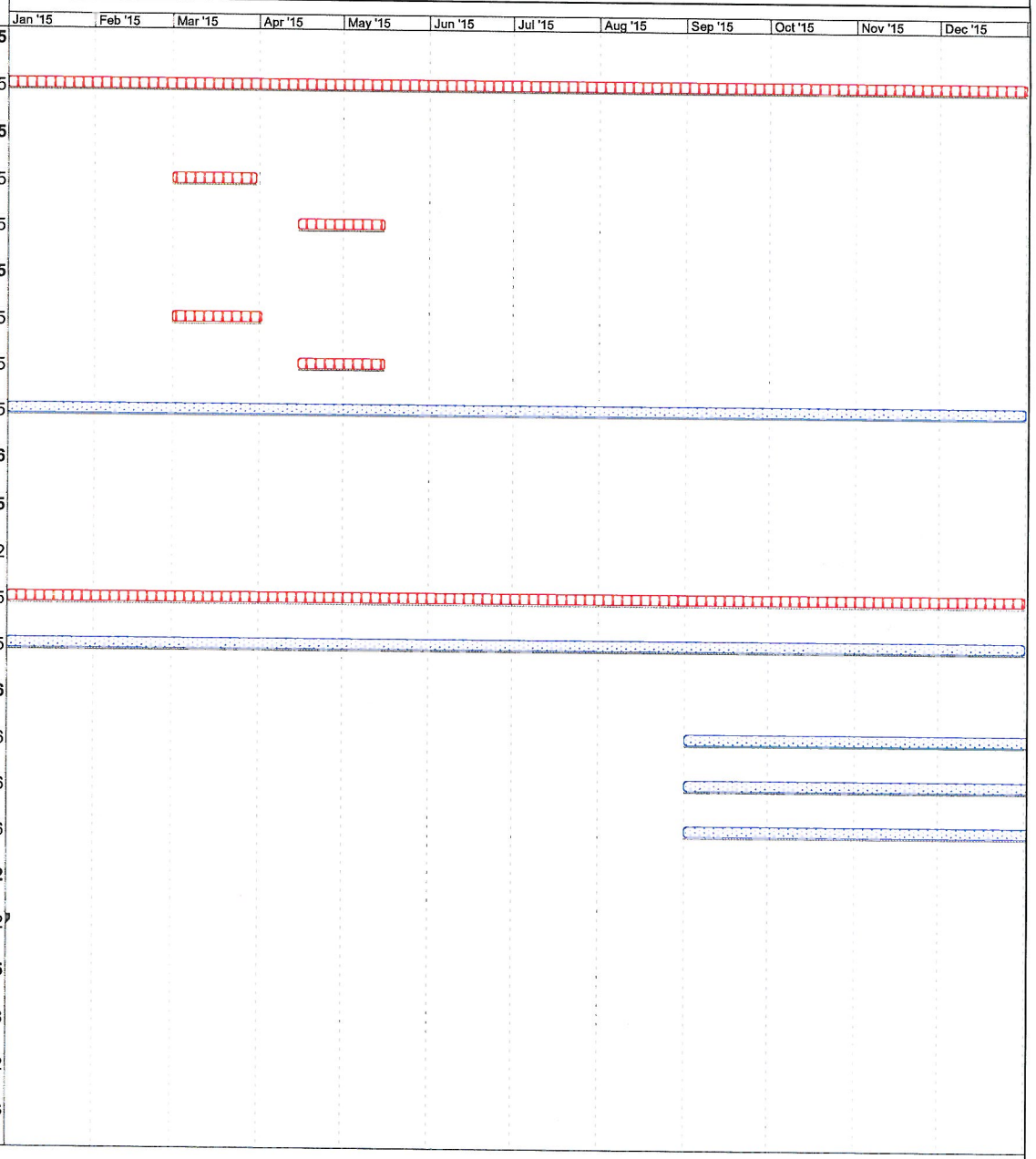
APPENDIX A
2015 WILDLIFE HABITAT MANAGEMENT PLAN BASELINE SCHEDULE

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

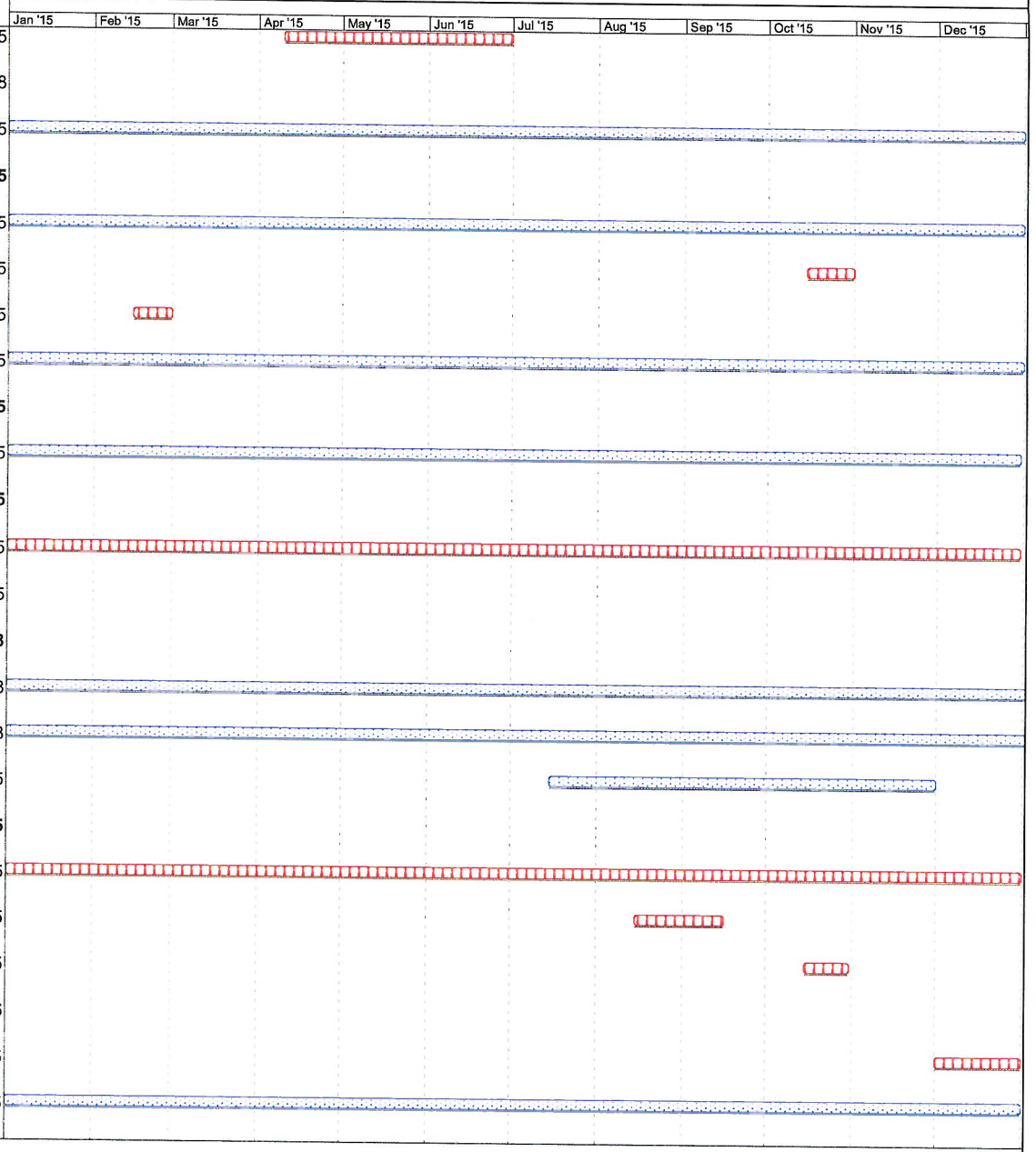
ID	Task Name	WHMP Start Date	WHMP Finish Date
1	**Administration**	**Thu 1/1/15**	**Thu 12/31/15**
2	Terrestrial Coordination Committee	Thu 1/1/15	Thu 12/31/15
3	**2014 Annual Report**	**Sun 3/1/15**	**Fri 5/15/15**
4	TCC 30-day Review	Sun 3/1/15	Mon 3/30/15
5	FERC 30-day Review	Wed 4/15/15	Fri 5/15/15
6	**2015 Annual Plan**	**Sun 3/1/15**	**Fri 5/15/15**
7	TCC 30-day Review	Sun 3/1/15	Wed 4/1/15
8	FERC 30-day Review	Wed 4/15/15	Fri 5/15/15
9	**Restoration Plans**	Thu 1/1/15	Thu 12/31/15
10	**Old-Growth Habitat**	**Sun 4/15/12**	**Sun 2/28/16**
11	**Inspections**	**Sun 4/15/12**	**Thu 12/31/15**
12	Initial Evaluations	Sun 4/15/12	Sun 7/15/12
13	Aerial Surveys	Thu 1/1/15	Thu 12/31/15
14	Ground Surveys	Thu 1/1/15	Thu 12/31/15
15	**Development**	**Tue 9/1/15**	**Sun 2/28/16**
16	Snag Development	Tue 9/1/15	Sun 2/28/16
17	Thinning	Tue 9/1/15	Sun 2/28/16
18	Large Woody Debris	Tue 9/1/15	Sun 2/28/16
19	**Connectivity**	**Sun 4/15/12**	**Sun 7/15/12**
20	Mature Stand Connectivity Evaluations	Sun 4/15/12	Sun 7/15/12
21	**Wetland Habitat**	**Tue 4/10/12**	**Wed 12/31/25**
22	**Inspections**	**Tue 4/10/12**	**Sat 6/30/18**
23	Initial Evaluation	Tue 4/10/12	Sat 6/30/12
24	Initial Evaluation Final Report	Tue 1/1/13	Tue 12/31/13



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

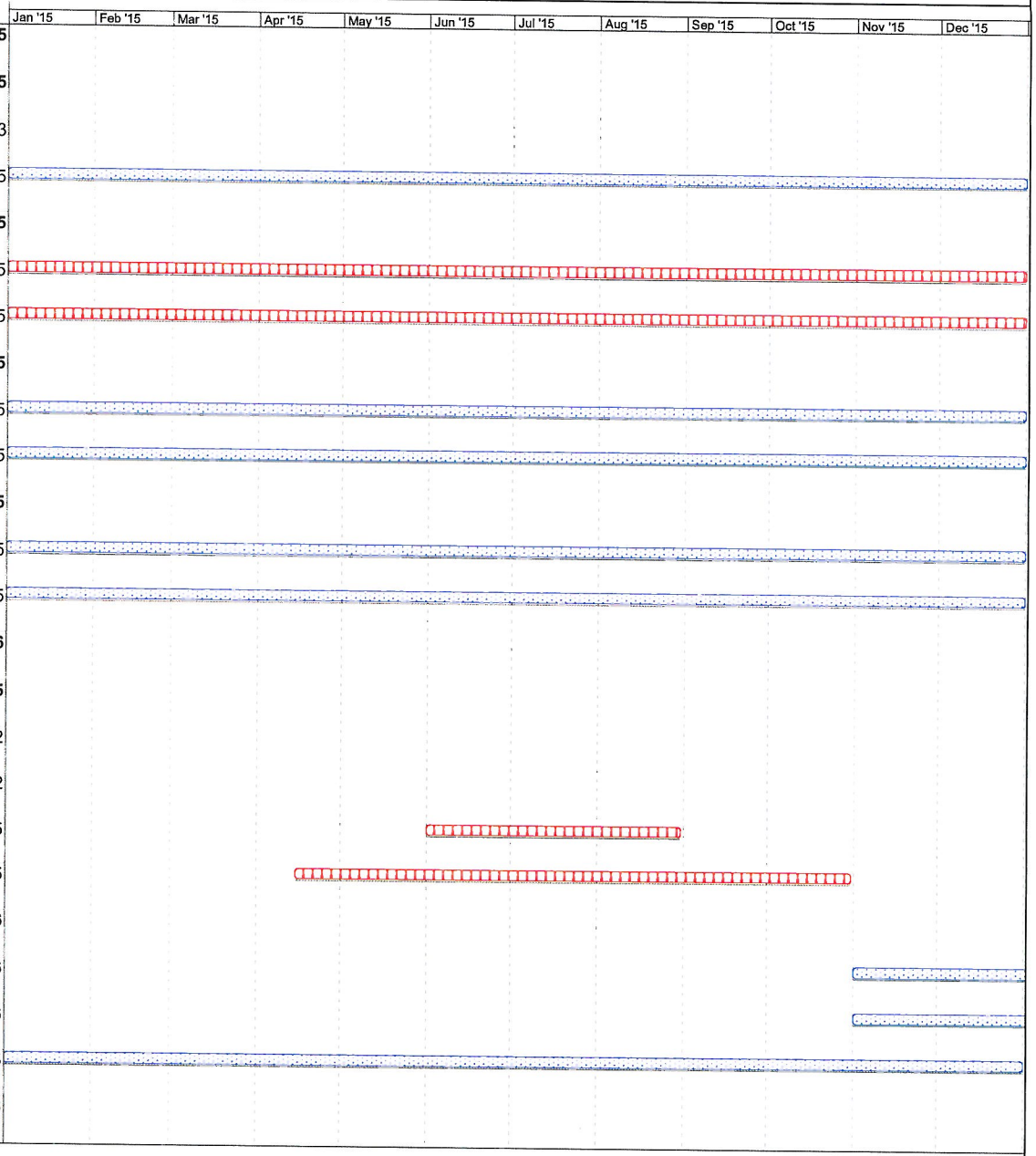
ID	Task Name	WHMP Start Date	WHMP Finish Date
25	Annual Inspection	Fri 4/10/15	Tue 6/30/15
26	Annual Inspection with unmanaged wetlands	Tue 4/10/18	Sat 6/30/18
27	Post-Treatment Inspection	Thu 1/1/15	Thu 12/31/15
28	**Water Control**	**Thu 1/1/15**	**Thu 12/31/15**
29	Diversion Draw Down	Thu 1/1/15	Thu 12/31/15
30	Winter Flow Stop Log Removal	Thu 10/15/15	Sat 10/31/15
31	Winter Flow Stop Log Replacement	Sun 2/15/15	Sat 2/28/15
32	Dike Maintenance	Thu 1/1/15	Thu 12/31/15
33	**Vegetation Management**	**Thu 1/1/15**	**Thu 12/31/15**
34	Surrounding Wetland Vegetation	Thu 1/1/15	Thu 12/31/15
35	**Yellow Warbler and Mink Habitat Enhancement**	**Thu 1/1/15**	**Wed 12/31/25**
36	Shrub Planting	Thu 1/1/15	Thu 12/31/15
37	Tree Topping or Pruning to Enhance Existing Shrubs	Fri 1/31/25	Wed 12/31/25
38	**Waterfowl and Bat Habitat Enhancement**	**Thu 1/1/15**	**Mon 12/31/18**
39	Snag Creation	Thu 1/1/15	Mon 12/31/18
40	Loafing Logs	Thu 1/1/15	Mon 12/31/18
41	Aquatic Vegetation Control	Wed 7/15/15	Mon 11/30/15
42	**Bullfrog Management**	**Thu 1/1/15**	**Thu 12/31/15**
43	Implement Bullfrog Management Methods	Thu 1/1/15	Thu 12/31/15
44	Remove Stoplogs	Sat 8/15/15	Tue 9/15/15
45	Replace Stoplogs	Thu 10/15/15	Fri 10/30/15
46	**Great Blue Heron Colony Management**	**Thu 1/1/15**	**Thu 12/31/15**
47	Review WDNR Heritage Database	Tue 12/1/15	Thu 12/31/15
48	Great Blue Heron Colony Site Management Report	Thu 1/1/15	Thu 12/31/15



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

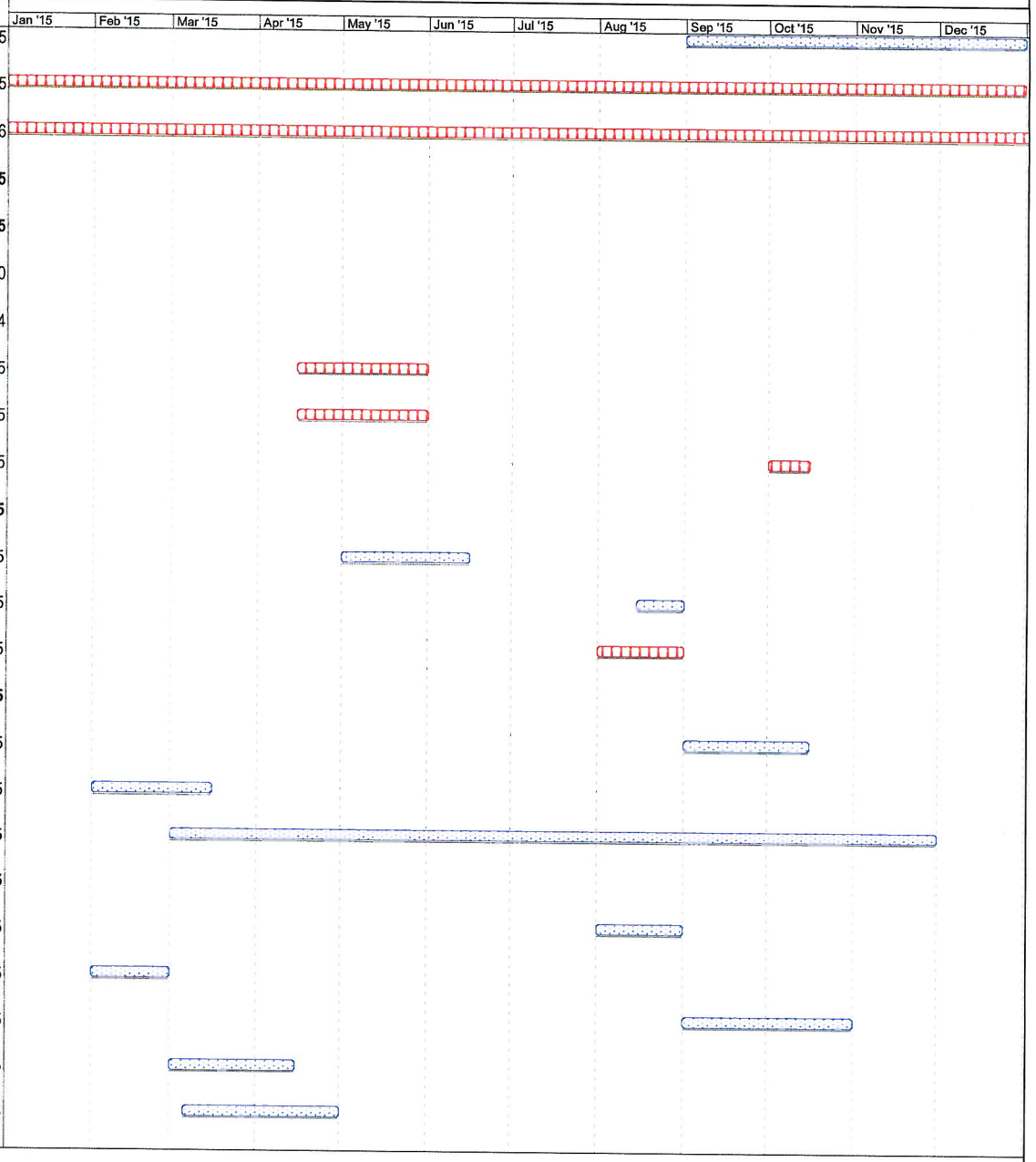
ID	Task Name	WHMP Start Date	WHMP Finish Date
49	**Riparian Habitat**	**Tue 1/1/13**	**Thu 12/31/15**
50	**Inspection**	**Tue 1/1/13**	**Thu 12/31/15**
51	Riparian Mixed Forest Stand Evaluation	Tue 1/1/13	Tue 12/31/13
52	Other Inspection	Thu 1/1/15	Thu 12/31/15
53	**Establish Buffers**	**Thu 1/1/15**	**Thu 12/31/15**
54	Water Type Modification	Thu 1/1/15	Thu 12/31/15
55	Establish Buffers	Thu 1/1/15	Thu 12/31/15
56	**Snag Management**	**Thu 1/1/15**	**Thu 12/31/15**
57	Snag Development Schedule	Thu 1/1/15	Thu 12/31/15
58	Snag Removal	Thu 1/1/15	Thu 12/31/15
59	**Restoration**	**Thu 1/1/15**	**Thu 12/31/15**
60	Riparian Area Damage Indentification	Thu 1/1/15	Thu 12/31/15
61	Riparian Area Restoration	Thu 1/1/15	Thu 12/31/15
62	**Shrubland Management**	**Sun 1/1/12**	**Sat 12/31/16**
63	**Inspections**	**Sun 1/1/12**	**Sat 10/31/15**
64	Initial Inspection	Sun 4/15/12	Wed 10/31/12
65	Initial Evaluation Final Report	Sun 1/1/12	Mon 12/31/12
66	Post-treatment Inspections	Mon 6/1/15	Mon 8/31/15
67	Periodic Inspection	Wed 4/15/15	Sat 10/31/15
68	**Shade Control**	**Thu 1/1/15**	**Tue 3/1/16**
69	Falling a Tree	Sun 11/1/15	Tue 3/1/16
70	Topping Trees	Sun 11/1/15	Tue 3/1/16
71	Herbicide Injection	Thu 1/1/15	Thu 12/31/15
72	**Other Management**	**Thu 1/1/15**	**Sat 12/31/16**



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

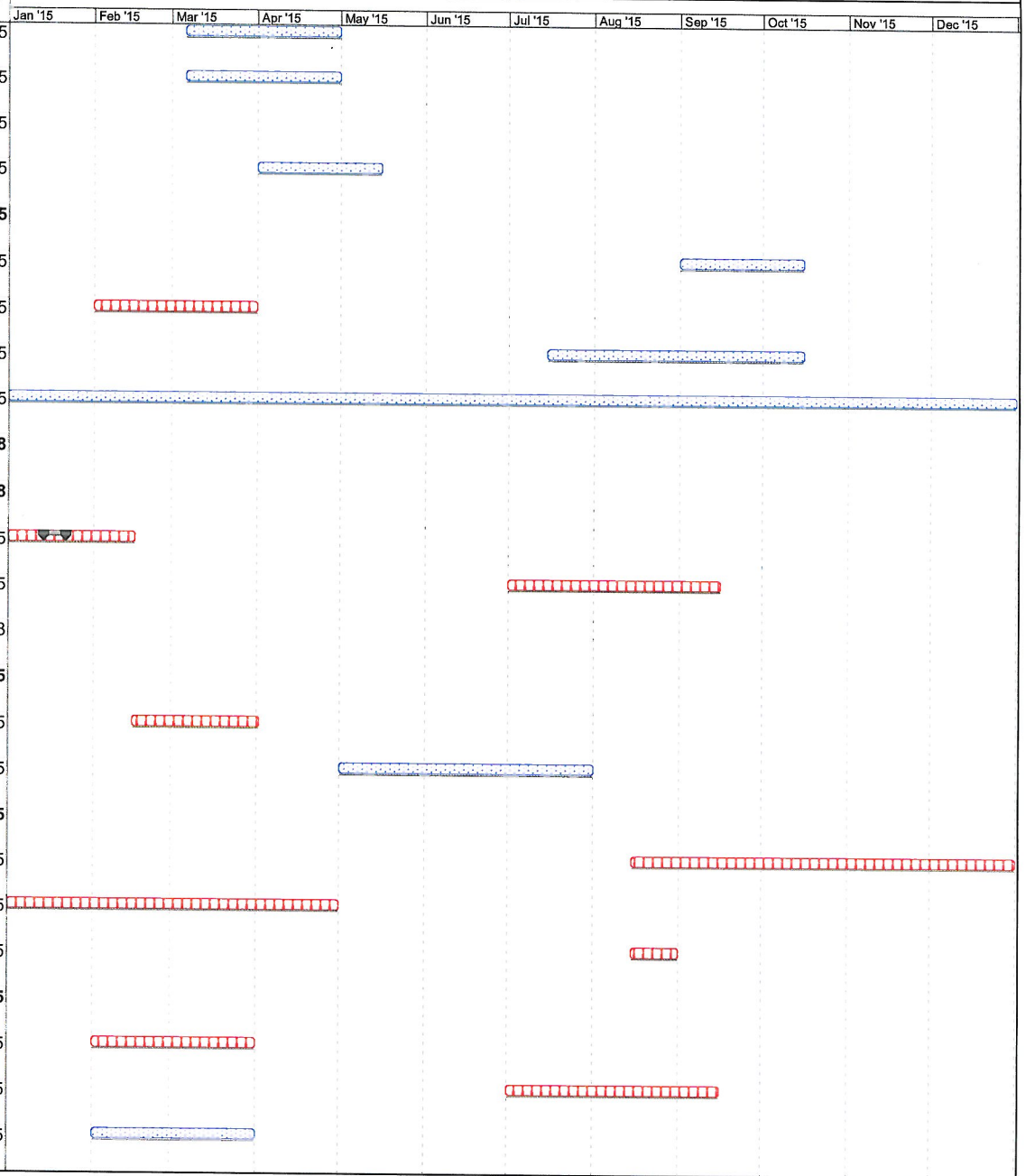
ID	Task Name	WHMP Start Date	WHMP Finish Date
73	Heavy Pruning Circle	Tue 9/1/15	Thu 12/31/15
74	Vegetation Control - Clear Competing Brush	Thu 1/1/15	Thu 12/31/15
75	Revise Management Actions	Thu 1/1/15	Sat 12/31/16
76	**Farmland/Idle Field/Meadow**	**Thu 4/15/10**	**Thu 12/31/15**
77	**Inspections**	**Thu 4/15/10**	**Thu 10/15/15**
78	Initial Inspection	Thu 4/15/10	Thu 4/15/10
79	Initial Inspections Final Report	Wed 1/1/14	Wed 12/31/14
80	Annual Spring Inspection	Wed 4/15/15	Sun 5/31/15
81	5-year Passively Managed Area Inspection	Wed 4/15/15	Sun 5/31/15
82	Annual Fall Inspection	Thu 10/1/15	Thu 10/15/15
83	**Mowing**	**Fri 5/1/15**	**Mon 8/31/15**
84	Spring Mowing/Hay Harvest	Fri 5/1/15	Mon 6/15/15
85	Fall Mowing/Hay Harvest	Sat 8/15/15	Mon 8/31/15
86	Soil Testing	Sat 8/1/15	Mon 8/31/15
87	**Fertilization and Lime**	**Sun 2/1/15**	**Mon 11/30/15**
88	Fall Fertilization	Tue 9/1/15	Thu 10/15/15
89	Spring Fertilization	Sun 2/1/15	Sun 3/15/15
90	Lime Application	Sun 3/1/15	Mon 11/30/15
91	**Field Restoration**	**Sun 2/1/15**	**Sat 10/31/15**
92	Soil Testing (season prior)	Sat 8/1/15	Mon 8/31/15
93	Soil Testing (Prior to tillage)	Sun 2/1/15	Sat 2/28/15
94	Lime Application	Tue 9/1/15	Sat 10/31/15
95	Herbicide Application Treatment	Sun 3/1/15	Wed 4/15/15
96	Cultivation	Fri 3/6/15	Thu 4/30/15



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

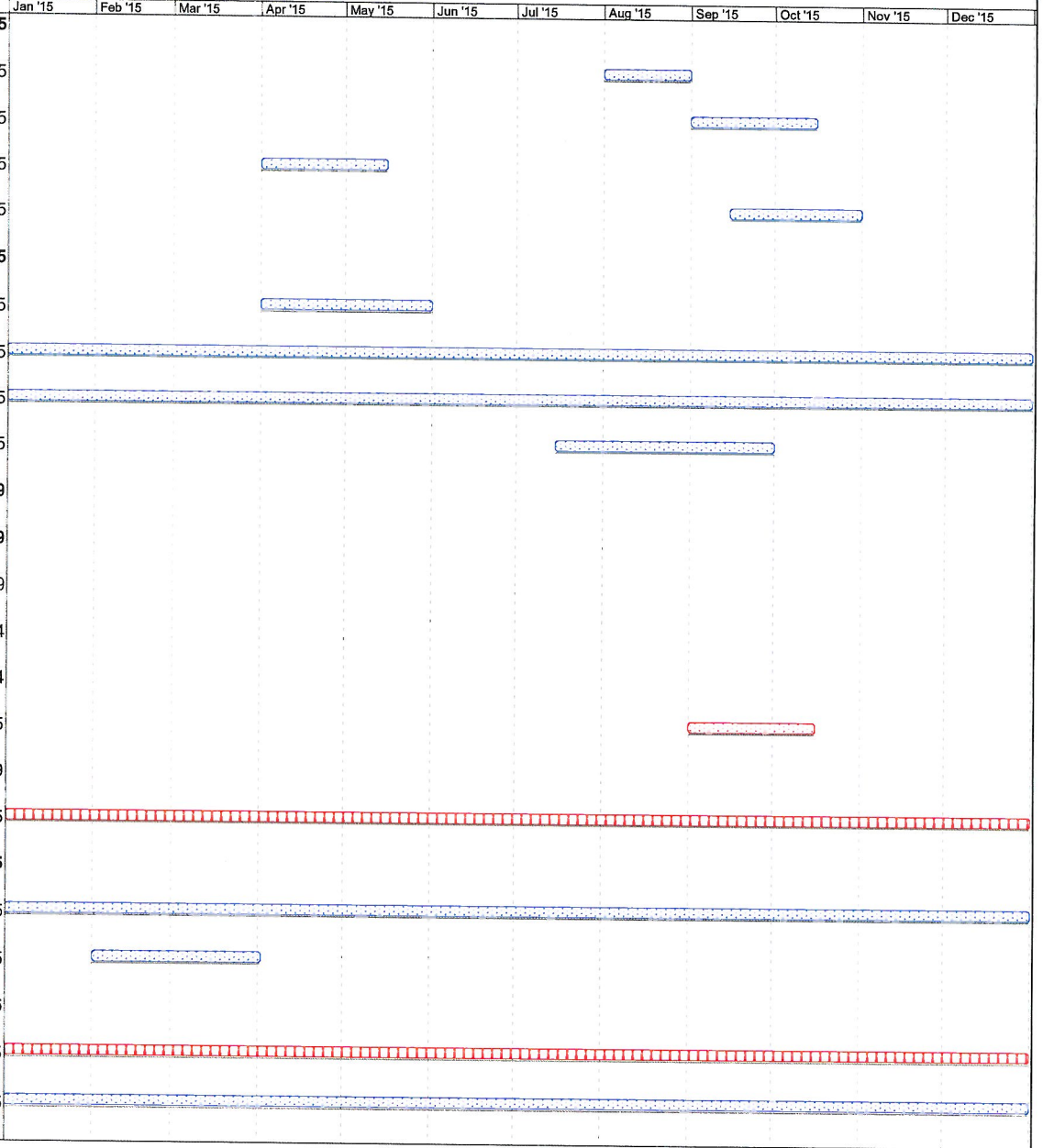
ID	Task Name	WHMP Start Date	WHMP Finish Date
97	Fertilization	Fri 3/6/15	Thu 4/30/15
98	Seeding/Planting	Fri 3/6/15	Fri 5/1/15
99	Invasive Plant Control	Wed 4/1/15	Thu 10/15/15
109	Top Seeding	Wed 4/1/15	Fri 5/15/15
110	**Access/Disturbance Reduction**	**Thu 1/1/15**	**Thu 12/31/15**
111	Fertilizing Vegetation Screen	Tue 9/1/15	Thu 10/15/15
112	Planting	Sun 2/1/15	Tue 3/31/15
113	Supplemental watering	Wed 7/15/15	Thu 10/15/15
114	Animal Damage Control	Thu 1/1/15	Thu 12/31/15
115	**Orchards**	**Thu 1/1/15**	**Fri 8/31/18**
116	**Inspection**	**Thu 1/1/15**	**Fri 8/31/18**
117	Winter	Thu 1/1/15	Sun 2/15/15
118	Summer	Wed 7/1/15	Tue 9/15/15
119	5-year Inspection	Sun 7/1/18	Fri 8/31/18
120	**Pruning**	**Sun 2/15/15**	**Fri 7/31/15**
121	Dormant	Sun 2/15/15	Wed 4/1/15
122	Summer	Fri 5/1/15	Fri 7/31/15
123	**Vegetation Control**	**Thu 1/1/15**	**Thu 12/31/15**
124	Shade Tree Control	Sat 8/15/15	Thu 12/31/15
125	Invasive Plant Species Control	Thu 1/1/15	Thu 4/30/15
126	Mowing	Sat 8/15/15	Mon 8/31/15
127	**New Plantings**	**Sun 2/1/15**	**Tue 9/15/15**
128	Replacement Plantings	Sun 2/1/15	Tue 3/31/15
129	New Plantings Inspections	Wed 7/1/15	Tue 9/15/15
130	Orchard Expansion Planting	Sun 2/1/15	Tue 3/31/15



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date
131	**Big Game Forage**	**Wed 4/1/15**	**Sat 10/31/15**
132	Soil Testing	Sat 8/1/15	Mon 8/31/15
133	Fertilizing	Tue 9/1/15	Thu 10/15/15
134	Grass Seeding (Spring)	Wed 4/1/15	Fri 5/15/15
135	Grass Seeding (Fall)	Tue 9/15/15	Sat 10/31/15
136	**Other Management**	**Thu 1/1/15**	**Thu 12/31/15**
137	Orchard Tree Fertilizing	Wed 4/1/15	Sun 5/31/15
138	Pest Control	Thu 1/1/15	Thu 12/31/15
139	Animal Damage Control	Thu 1/1/15	Thu 12/31/15
140	Supplemental Water	Wed 7/15/15	Wed 9/30/15
141	**Transmission Line Rights-of-Way**	**Tue 9/1/09**	**Tue 10/15/19**
142	**Inspections**	**Tue 9/1/09**	**Tue 10/15/19**
143	Initial Evaluations with Photo Documentation	Tue 9/1/09	Thu 10/15/09
144	Initial Inspections Final Report	Wed 1/1/14	Wed 12/31/14
145	Revise Transmission Line Right-of-Way Habitat Management Chapter	Wed 1/1/14	Wed 12/31/14
146	Annual Inspection	Tue 9/1/15	Thu 10/15/15
147	Annual Inspection with Photo Documentation	Sun 9/1/19	Tue 10/15/19
148	Post hazard tree and invasive plant species management inspection	Thu 1/1/15	Thu 12/31/15
149	**Shrub Management**	**Thu 1/1/15**	**Thu 12/31/15**
150	Shrub Management	Thu 1/1/15	Thu 12/31/15
151	Plantings	Sun 2/1/15	Wed 4/1/15
152	**Invasive Plant Species Control**	**Thu 1/1/15**	**Thu 12/31/15**
156	Invasive Plant Species Treatment	Thu 1/1/15	Thu 12/31/15
157	Vegetation Management	Thu 1/1/15	Thu 12/31/15

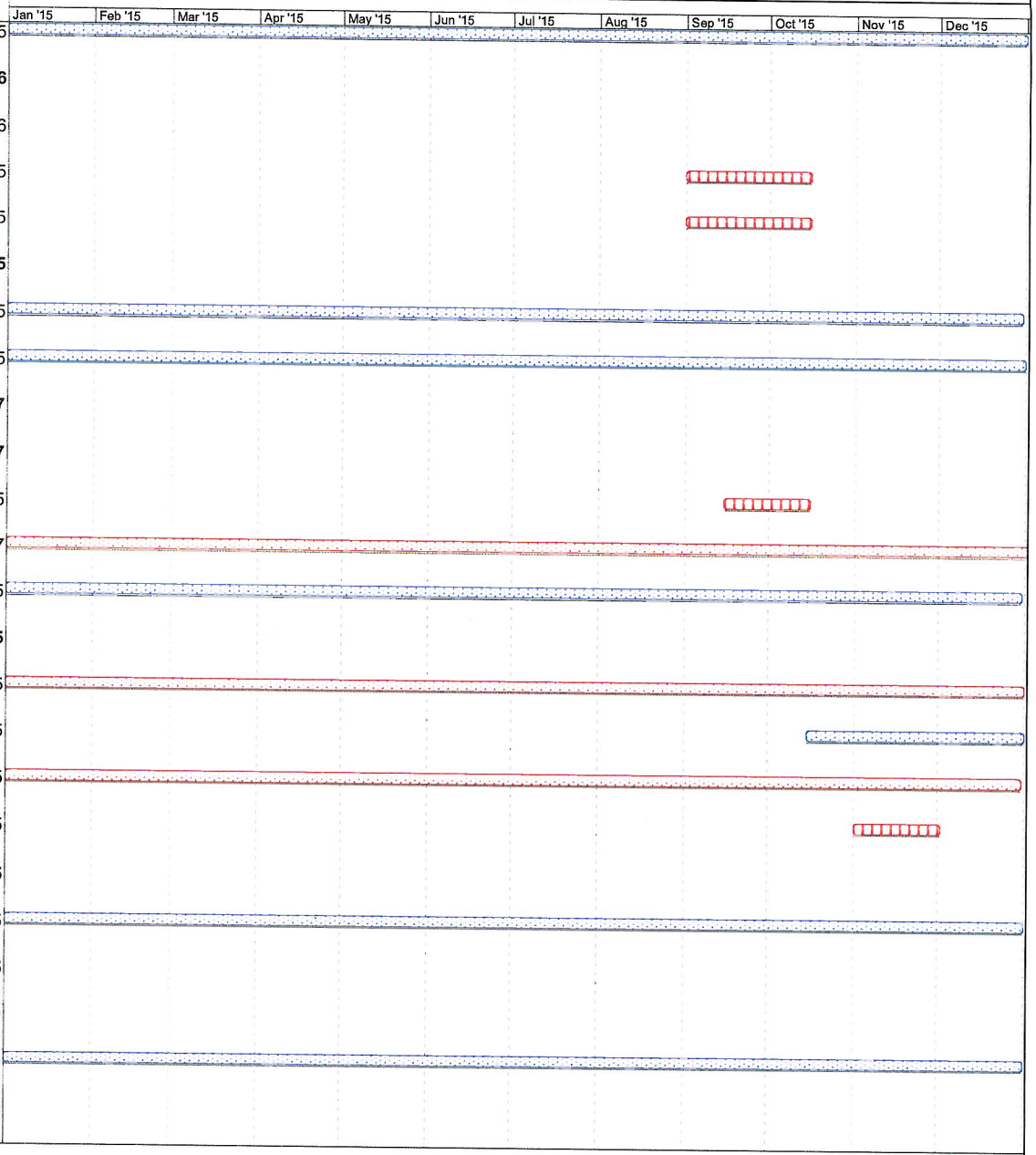


Baseline Scheduled Completed

1.30.2015

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

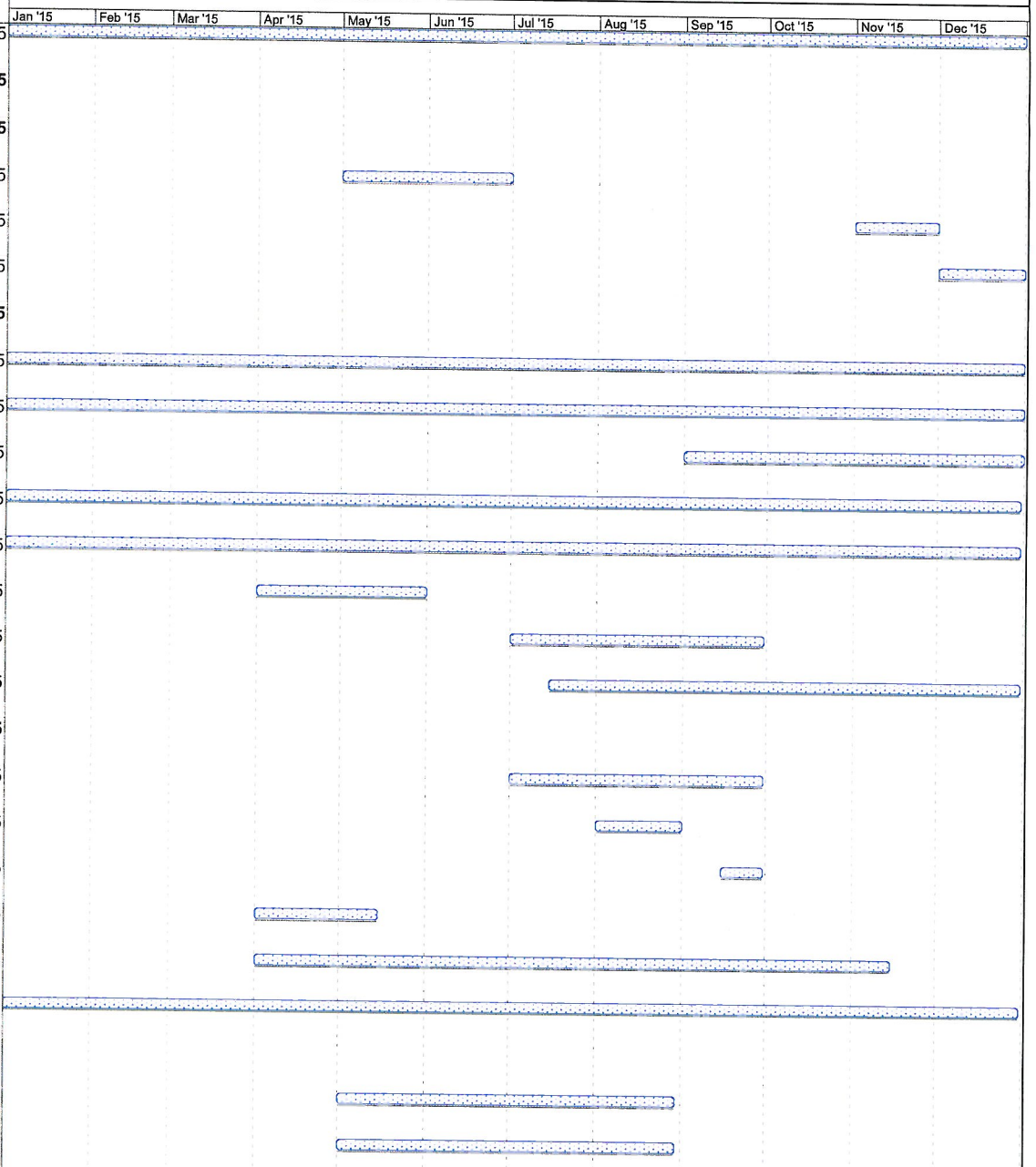
ID	Task Name	WHMP Start Date	WHMP Finish Date
158	Aquatic Area Management	Thu 1/1/15	Thu 12/31/15
159	**Big Game Forage Enhancement**	**Tue 9/1/15**	**Wed 8/31/16**
160	Soil Testing	Mon 8/1/16	Wed 8/31/16
161	Annual Mowing	Tue 9/1/15	Thu 10/15/15
162	Fertilizing	Tue 9/1/15	Thu 10/15/15
163	**Access/Disturbance Reductions**	**Thu 1/1/15**	**Thu 12/31/15**
164	Access/Disturbance Reduction	Thu 1/1/15	Thu 12/31/15
165	Closing Open Roads	Thu 1/1/15	Thu 12/31/15
166	**Unique Area /Habitat Management**	**Fri 1/1/10**	**Fri 12/29/17**
167	**Inspections**	**Thu 1/1/15**	**Fri 12/29/17**
168	Annual Oak Stands	Tue 9/15/15	Thu 10/15/15
169	Additional Oak Stands	Thu 1/1/15	Fri 12/29/17
170	Other Unique Areas/Habitats	Thu 1/1/15	Thu 12/31/15
171	**Oak Stand Management**	**Thu 1/1/15**	**Thu 12/31/15**
172	Topping a Competing Tree and Hand Piling Debris	Thu 1/1/15	Thu 12/31/15
173	Falling a competing Tree and Hand Piling Debris	Thu 10/15/15	Thu 12/31/15
174	Invasive Plant Species Control	Thu 1/1/15	Thu 12/31/15
175	Plant oak trees	Sun 11/1/15	Tue 12/1/15
176	**Cave Management**	**Thu 1/1/15**	**Thu 12/31/15**
177	Develop Management Strategy	Thu 1/1/15	Thu 12/31/15
178	**Unique Area Record Management**	**Fri 1/1/10**	**Thu 12/31/15**
179	Create Unique Area Database	Fri 1/1/10	Fri 12/31/10
180	Update Unique Area Database	Thu 1/1/15	Thu 12/31/15
181	**Ethnobotanically Significant Plant Management**	**Thu 1/1/15**	**Thu 12/31/15**



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

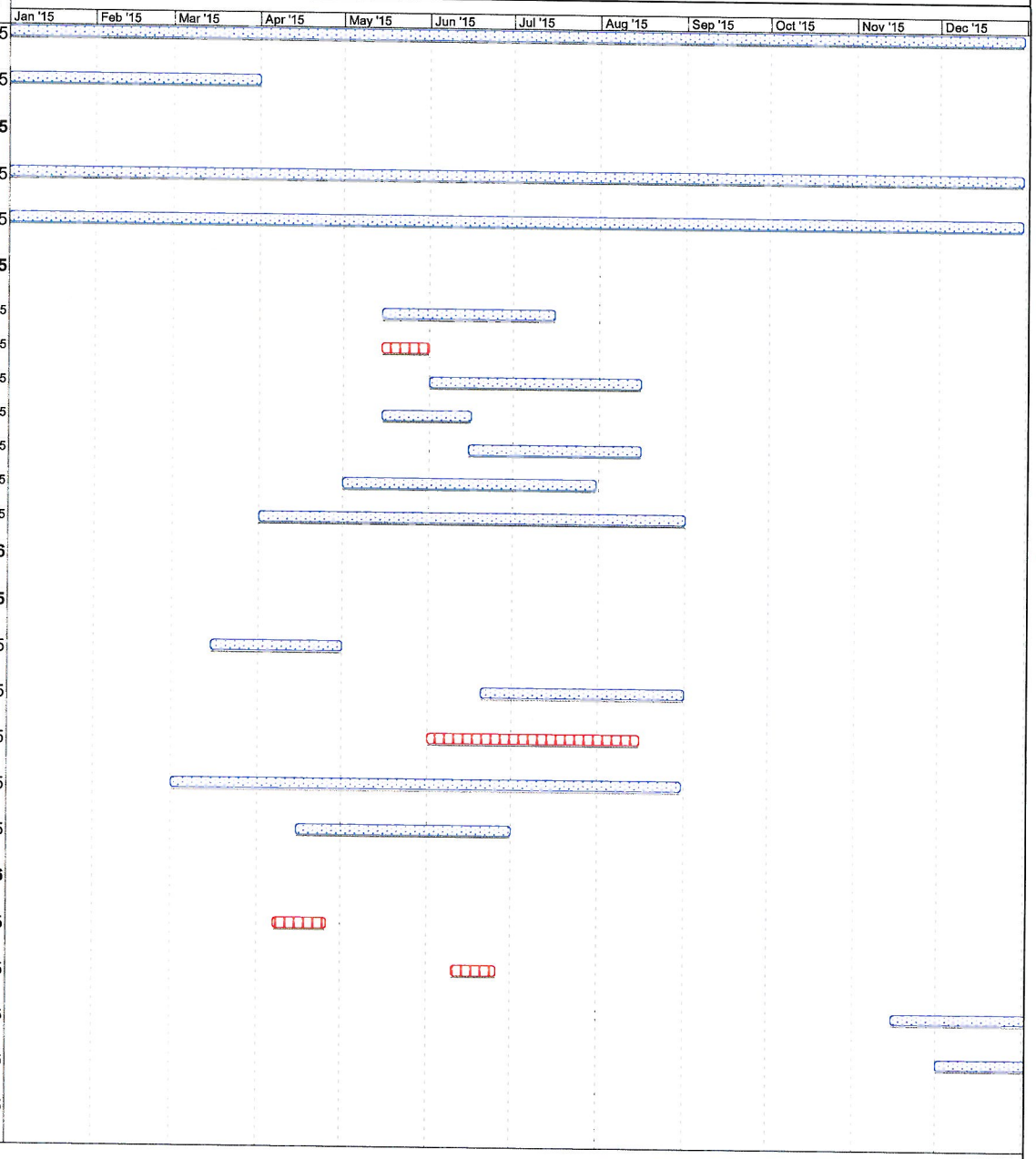
ID	Task Name	WHMP Start Date	WHMP Finish Date
182	Develop Management Strategy	Thu 1/1/15	Thu 12/31/15
183	**Forestland Management**	**Thu 1/1/15**	**Thu 12/31/15**
184	**Inspections**	**Fri 5/1/15**	**Thu 12/31/15**
185	Spring Timber Harvest Area Survey	Fri 5/1/15	Tue 6/30/15
186	Fall Timber Harvest Survey (Field Work)	Sun 11/1/15	Mon 11/30/15
187	Fall Timber Harvest Survey (Analysis)	Tue 12/1/15	Thu 12/31/15
188	**Management Actions**	**Thu 1/1/15**	**Thu 12/31/15**
189	Harvest Planning	Thu 1/1/15	Thu 12/31/15
190	Harvest Scheduling	Thu 1/1/15	Thu 12/31/15
191	First Precut Survey	Tue 9/1/15	Thu 12/31/15
192	Timber Harvest Area Traverse and GIS Update	Thu 1/1/15	Thu 12/31/15
193	Second Precut Survey	Thu 1/1/15	Thu 12/31/15
194	TCC On-Site Meeting	Wed 4/1/15	Sun 5/31/15
195	Timber Harvest Area Logging Inspections	Wed 7/1/15	Wed 9/30/15
196	Snag Development	Wed 7/15/15	Thu 12/31/15
197	**Regeneration Practices**	**Thu 1/1/15**	**Thu 12/31/15**
198	Site Preparation	Wed 7/1/15	Wed 9/30/15
199	Purchase Forage Mix	Sat 8/1/15	Mon 8/31/15
200	Forage Seeding	Tue 9/15/15	Wed 9/30/15
201	Invasive Species; Oust	Wed 4/1/15	Fri 5/15/15
202	Invasive Species (e.g. blackberry, ect.)	Wed 4/1/15	Sun 11/15/15
203	Precommercial thinning	Thu 1/1/15	Thu 12/31/15
204	**Invasive Plant Species Management**	**Thu 1/1/15**	**Thu 12/31/15**
205	Pre-Ground Disturbance Evaluation	Fri 5/1/15	Sun 8/30/15
206	Post-Ground Disturbance Evaluation	Fri 5/1/15	Sun 8/30/15



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

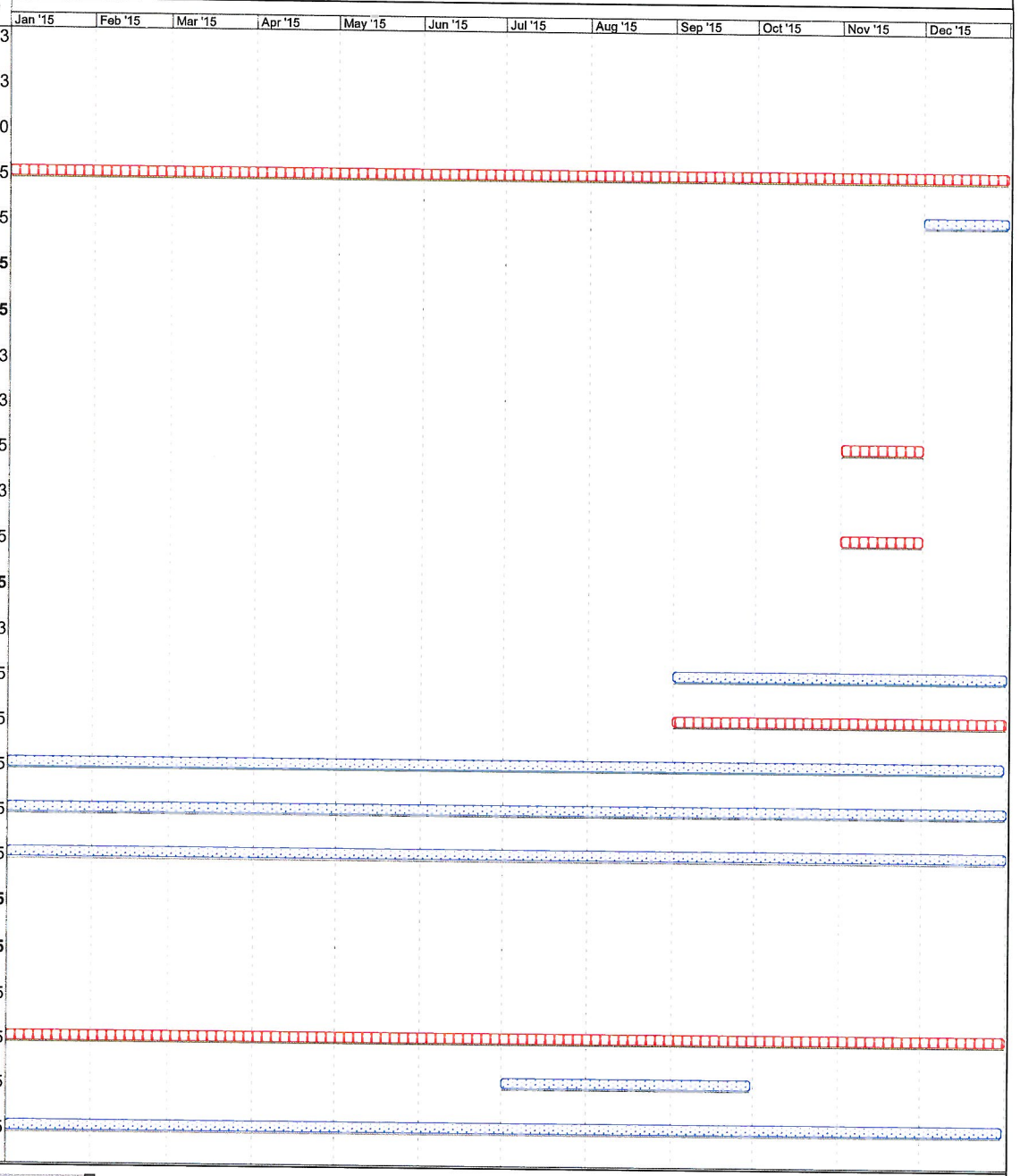
ID	Task Name	WHMP Start Date	WHMP Finish Date
207	Detection	Thu 1/1/15	Thu 12/31/15
208	Update State and County Noxious Weed Lists	Thu 1/1/15	Tue 3/31/15
209	**Control Treatments**	**Thu 1/1/15**	**Thu 12/31/15**
210	Control Treatments	Thu 1/1/15	Thu 12/31/15
211	Control Treatments within the Ordinary High Water Mark	Thu 1/1/15	Thu 12/31/15
212	**Monitoring**	**Wed 4/1/15**	**Mon 8/31/15**
213	Policemen's helmet at Merwin	Fri 5/15/15	Wed 7/15/15
214	Jewelweed at Speelyai Intake	Fri 5/15/15	Sun 5/31/15
215	Vinca at access road to Speelyai 9/1	Mon 6/1/15	Sat 8/15/15
216	Yellowflag Iris Beaver Bay	Fri 5/15/15	Mon 6/15/15
217	Vinca minor at BH orchard	Mon 6/15/15	Sat 8/15/15
218	CYSC and Yellow Flag Iris at base of Swift Dam	Fri 5/1/15	Fri 7/31/15
219	Monitor milfoil at Speelyai Boat Launch and swim area	Wed 4/1/15	Mon 8/31/15
220	**Raptor Site Management**	**Fri 1/1/10**	**Wed 3/30/16**
221	**Northern Goshawk Survey**	**Sun 3/15/15**	**Mon 8/31/15**
222	Dawn Acoustical Survey	Sun 3/15/15	Thu 4/30/15
223	Intensive Search Survey	Sat 6/20/15	Mon 8/31/15
224	Broadcast Acoustical Survey	Mon 6/1/15	Sat 8/15/15
225	Northern Spotted Owl Surveys	Sun 3/1/15	Sun 8/30/15
226	Peregrine Falcon Monitoring	Wed 4/15/15	Tue 6/30/15
227	**Bald Eagle and Osprey Monitoring**	**Tue 4/7/15**	**Wed 3/30/16**
228	Bald Eagle Nest Occupancy Monitoring	Tue 4/7/15	Sat 4/25/15
229	Osprey Nest Occupancy and Bald Eagle Nest Productivity	Wed 6/10/15	Thu 6/25/15
230	Known Communal Roost Monitoring	Sun 11/15/15	Wed 3/30/16
231	Potential Communal Roost Monitoring	Tue 12/1/15	Sun 2/28/16
232	**Habitat Management**	**Fri 1/1/10**	**Thu 12/31/15**



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

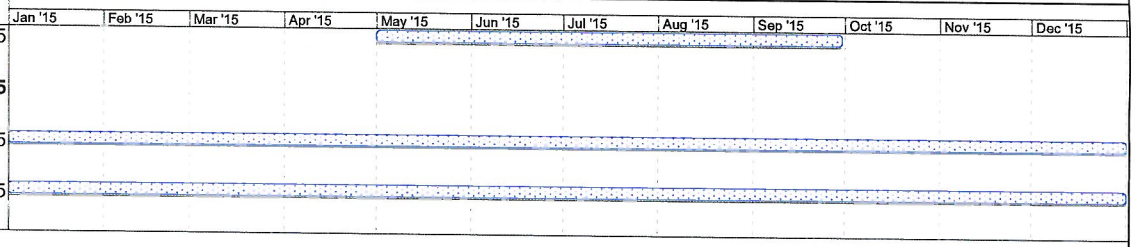
ID	Task Name	WHMP Start Date	WHMP Finish Date
233	Mature and Old-growth Raptor Habitat Evaluations	Mon 4/15/13	Mon 7/15/13
234	Develop a Schedule for Implementing Habitat Enhancement Actions in Old-growth and Mature	Tue 1/1/13	Tue 12/31/13
235	Complete Bald Eagle Management Plan	Fri 1/1/10	Fri 12/31/10
236	Revised Bald Eagle Management Plan	Thu 1/1/15	Thu 12/31/15
237	Review and Update Industry Standards for Avian Protection from Power Lines	Tue 12/1/15	Thu 12/31/15
238	**Public Access Management**	**Tue 1/1/13**	**Thu 12/31/15**
239	**Inspections**	**Wed 5/1/13**	**Mon 11/30/15**
240	Initial Road Evaluation	Wed 5/1/13	Tue 10/15/13
241	Initial Road Evaluation on Newly Acquired Lands	Wed 5/1/13	Tue 10/15/13
242	Road Closure Inspection	Sun 11/1/15	Mon 11/30/15
243	Initial Trail Evaluation	Wed 5/1/13	Tue 10/15/13
244	Trail Inspections	Sun 11/1/15	Mon 11/30/15
245	**Management Actions**	**Tue 1/1/13**	**Thu 12/31/15**
246	Initial Evaluations of Dispersed Shoreline Campsites	Tue 1/1/13	Tue 12/31/13
247	Site Pioneering Monitoring	Tue 9/1/15	Thu 12/31/15
248	Site Creep Evaluation	Tue 9/1/15	Thu 12/31/15
249	Controlling Unauthorized Motorized Vehicle Use	Thu 1/1/15	Thu 12/31/15
250	Visual Screen	Thu 1/1/15	Thu 12/31/15
251	Road Construction	Thu 1/1/15	Thu 12/31/15
252	**Monitoring**	**Thu 1/1/15**	**Wed 12/31/25**
253	**Inspections**	**Thu 1/1/15**	**Wed 12/31/25**
254	Year 17 HEP (Analysis)	Wed 1/1/25	Wed 12/31/25
255	Mink Data Analysis	Thu 1/1/15	Thu 12/31/15
256	Newly Acquired Lands (Field Work)	Wed 7/1/15	Wed 9/30/15
257	Newly Acquired Lands (Analysis)	Thu 1/1/15	Thu 12/31/15



Baseline Scheduled Completed

Appendix A: 2015 Lewis River Wildlife Habitat Managment Plan Schedule

ID	Task Name	WHMP Start Date	WHMP Finish Date
258	RMEF Exclosure Monitoring	Fri 5/1/15	Wed 9/30/15
259	**Management Actions**	**Thu 1/1/15**	**Thu 12/31/15**
260	Modify the Goal and Objectives	Thu 1/1/15	Thu 12/31/15
261	Revise the WHMP	Thu 1/1/15	Thu 12/31/15



Baseline Scheduled Completed

APPENDIX B
2015 BUDGET

Overall 2015 Budget

License Year 7
Calendar Year 2015
Annual WHMP Budget

Total Available Funds		2014 Funds	2015 Funds
Fee Simple Lands	Acres	13,134	13,134
	Cost Per Acre	$33.30	$33.76
	2014 Escalation Correction	$0.00	$5,771.29
	SubTotal	$437,392.41	$449,166.93
Interests in Lands	Acres	16	16
	Cost Per Acre	$16.85	$16.88
	SubTotal	$269.63	$270.08
Other Additional Funds	Remaining Funds from	$14,216.11	$4,310.29
	Additional HEP Funding	$20,000.00	$0.00
	RMEF	$11,281.71	$0.00
	Interest	$13,532.38	$15,070.38
	SubTotal	$59,030.20	$19,380.67
Total		**$496,692.24**	**$468,817.68**

Budget

WHMP Management Area or Plan-Wide Goal		2014 Budget Proposed	2014 Budget Actual	2015 Proposed Budget	Difference from 2014 Budget Actual Spent
Administration	Cost	$39,600.00	$48,953.07	$48,225.00	-$728.07
	Percent of Budget	7.97%	9.86%	10.29%	
Old-Growth	Cost	$850.00	$391.04	$0.00	-$391.04
	Percent of Budget	0.17%	0.08%	0.00%	
Wetlands	Cost	$30,580.00	$19,358.25	$17,932.00	-$1,426.25
	Percent of Budget	6.16%	3.90%	3.82%	
Riparian	Cost	$8,500.00	$1,014.84	$1,660.00	$645.16
	Percent of Budget	1.71%	0.20%	0.35%	
Shrubland	Cost	$6,970.00	$2,610.17	$9,296.00	$6,685.83
	Percent of Budget	1.40%	0.53%	1.98%	
Farmland, Meadow, Idle Areas	Cost	$64,270.00	$72,399.99	$74,815.00	$2,415.01
	Percent of Budget	12.94%	14.58%	15.96%	
Orchard	Cost	$29,915.00	$15,448.81	$16,304.00	$855.19
	Percent of Budget	6.02%	3.11%	3.48%	
Transmission Line Right-of-Way	Cost	$28,485.00	$36,694.12	$24,759.00	-$11,935.12
	Percent of Budget	5.73%	7.39%	5.28%	
Unique Area/Habitat	Cost	$2,890.00	$2,017.71	$7,308.00	$5,290.29
	Percent of Budget	0.58%	0.41%	1.56%	
Forestland	Cost	$187,600.00	$195,429.58	$196,283.00	$853.42
	Percent of Budget	37.77%	39.35%	41.87%	
Invasive Plant Species	Cost	$15,360.00	$19,507.00	$15,746.00	-$3,761.00
	Percent of Budget	3.09%	3.93%	3.36%	
Raptor	Cost	$25,370.00	$31,720.34	$34,762.00	$3,041.66
	Percent of Budget	5.11%	6.39%	7.41%	
Public Access Management	Cost	$16,910.00	$14,277.63	$16,545.00	$2,267.37
	Percent of Budget	3.40%	2.87%	3.53%	
Monitoring	Cost	$39,325.00	$33,252.51	$3,320.00	-$29,932.51
	Percent of Budget	7.92%	6.69%	0.71%	
	Total Cost	**$496,625.00**	**$493,075.06**	**$466,955.00**	-$26,120.06
	Total Percent of Budget Spent	**99.99%**	**99.27%**	**99.60%**	-5.30%
	Remaining Funds	**$67.24**	**$3,617.18**	**$1,862.68**	-$1,754.49

Administration Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Budgeted Hours	Cost
Terresterial Coordination Committee	Annually	200	$16,600.00
Annual Report	Annually	190	$15,770.00
Annual Plan	Annually	185	$15,355.00
	Labor rate per hour	$83.00	
	Total Labor	**575**	**$47,725.00**
Materials			
Annual Report and Plan Reproduction		$500.00	
Other		$0.00	
	Total Materials	$500.00	
	Total Labor and Materials	**$48,225.00**	

Old-Growth Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	WHMP Estimated Hours	Budgeted Hours	Cost
Initial Evaluation	Within 5 years of WHMP Implementation	140 hours	0	$0.00
Aerial Surveys	Annually	0 hours	0	$0.00
Ground Surveys	Optional	4 hours per inspection	0	$0.00
Snag Development	Optional	4 hours per tree	0	$0.00
Thinning	Optional	Unknown	0	$0.00
Large Woody Debris Placement	Optional	Unknown	0	$0.00
Mature Stand Connectivity	Within 5 years of WHMP Implementation	225 hours	0	$0.00
		Labor rate per hour	$85.00	
		Total Labor	**0**	**$0.00**
Materials				
Other			$0.00	
		Total Materials	$0.00	
		Total Labor and Materials	**$0.00**	

Wetland Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Evaluation	Within 5 years of WHMP Implementation	180 hours	0	$0.00
Initial Evaluation Final Report	Within 5 years of WHMP Implementation	80 hours	0	$0.00
Annual Inspection	Annually	80 hours	40	$3,320.00
Annual Inspection with unmanaged wetlands	Every 5 years	140 hours	0	$0.00
Post-Treatment Inspection	Optional	4 hours per inspection	0	$0.00
Diversion Draw Down	Optional	3 hours per draw down	0	$0.00
Remove 1 to 2 stop logs for high winter flows	Annually	16 hours	16	$1,328.00
Replace 1 to 2 stop logs for high winter flows	Annually	16 hours	16	$1,328.00
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	20	$1,660.00
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	10	$830.00
Implement Bullfrog Management Methods Identified in the Initial Evaluation	Within 5 years of completing the initial evaluation	40 hours	100	$8,300.00
Remove Stoplogs	Annually	16 hours	8	$500.00
Replace Stoplogs	Annually	16 hours	8	$500.00
Review WDNR Heritage Database	Annually	2 hours	2	$166.00
Great Blue Heron Colony Site Management Report	Optional	15 hours	0	$0.00
		Labor rate per hour	$83.00	
		Total Labor	**220**	**$17,932.00**
Materials				
Shrub Planting $50 per planting			$0.00	
Other			$0.00	
		Total Materials	$0.00	
		Total Labor and Materials	**$17,932.00**	

Riparian Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Riparian Mixed Forest Stand Evaluations	Within 5 years of receiving the license	200 hours	0	$0.00
Other Inspections	Optional	4 hours per site	0	$0.00
Establish Buffers	Optional	1 hour per 100 ft (30 m) of stream	10	$830.00
Water Type Modification form	Optional	18 hours per form	10	$830.00
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	$83.00	
		Total Labor	**20**	**$1,660.00**
Materials				
Other			$0.00	
		Total Materials	**$0.00**	
		Total Labor and Materials	**$1,660.00**	

Shrubland Budget

License Year 7
Calendar Year 2015

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	0	$0.00
Periodic Inspection	Annually	50 hours	16	$1,328.00
Success of Action	Annually	15 hours	16	$1,328.00
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	20	$1,660.00
Vegetation Control - Clear Competing Brush	Optional	1.75 hour per 10 foot radius of vegetation	20	$1,660.00
Revised Management Actions	Within 8 years of WHMP Implementation	100 hours	40	$3,320.00
		Labor rate per hour	$83.00	
		Total Labor	**112**	**$9,296.00**
Materials				
Other			$0.00	
		Total Materials	$0.00	
		Total Labor and Materials	**$9,296.00**	

Farmland, Idle Fields, and Meadows Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Inspection	Within 4 years of WHMP Implementation	60 hours	0	$0.00
Initial Inspection Final Report	Within 1 year of completing the initial	60 hours	0	$0.00
Annual Spring Inspections	Annually	40 hours	40	$3,320.00
5-year Passively Managed Area Inspections	Every 5 years	80 hours	80	$6,640.00
Annual Fall Inspection	Annually	40 hours	40	$3,320.00
Spring Mowing/ Hay Harvest	Annually	2 hours per acre	80	$6,640.00
Fall Mowing/ Hay Harvest	Annually	2 hours per acre	130	$10,790.00
Soil Test	Annually	2 hours per site	40	$3,320.00
Fall Fertilization	Annually	2 hours per acre	130	$10,790.00
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	115	$9,545.00
Top Seeding	Optional	4 hours per acre	10	$830.00
Fertilizing Vegetation Screening	Optional	2 hours per screen	0	$0.00
Planting	Optional	4 hours per planting	40	$3,320.00
Supplemental Watering	Optional	1 hour per exclosure	0	$0.00
Animal Damage Control	Optional	1 hour per exclosure	0	$0.00
		Labor rate per hour		$83.00
		Total Labor	**705**	**$58,515.00**
Materials				
Soil Testing (Assume $40 per test with 10 test per year)				$600.00
Fertilizer (Assume $100 per acre in materials)				$11,000.00
Herbicide for Field Restoration ($30 per acre treated)				$3,500.00
Grass Seed				$100.00
Exclosures for new plantings ($100 per exclosure)				$1,000.00
New plantings ($10 per seedling)				$100.00
Other				$0.00
		Total Materials		**$16,300.00**
		Total Labor and Materials		**$74,815.00**

Orchard Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Winter Inspection	Annually	16 hours	16	$1,328.00
Summer Inspection	Annually	16 hours	16	$1,328.00
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	80	$6,640.00
Summer Pruning	Optional	1 hour per tree	0	$0.00
Shade Tree Control	Optional	$0 to $500	12	$996.00
Invasive Plant Species Control	Optional	2 hours per acre	6	$498.00
Mowing	Annually	2 hours per acre	16	$1,328.00
Replacement Plantings	Optional	2 hours per planting	18	$1,494.00
New Plantings Inspection	Optional	2 hours per planting	8	$664.00
Orchard Expansion Plantings	2014	4 hours per planting	0	$0.00
Soil Testing	Optional	2 hours per orchard	0	$0.00
Fertilizing	Optional	2 hours per acre	0	$0.00
Grass Seeding	Optional	2 hours per acre	0	$0.00
Orchard Tree Fertilizing	Optional	1 hour per tree	0	$0.00
Pest Control	Optional	1 hour per tree	0	$0.00
Animal Damage Control	Optional	1 hour per tree	0	$0.00
Supplemental Watering	Optional	1 hour per tree	16	$1,328.00
		Labor rate per hour	$83.00	
		Total Labor	**188**	**$15,604.00**
Materials				
Exclosures ($100 per exclosure)			$400.00	
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	
		Total Materials	**$700.00**	
		Total Labor and Materials	**$16,304.00**	

Transmission Line Right-of-Way Budget

License Year 7
Calendar Year 2015

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	0	$0.00
Revise Transmission Line Rights-of-Way Habitat Management Chapter	Within 5 years of WHMP Implementation	20 hours	0	$0.00
Annual Inspections	Annually	50 hours	75	$6,225.00
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	50	$4,150.00
Shrub Management	Optional	4 hours	0	$0.00
Plantings	Optional	4 hours per planting	0	$0.00
Vegetation Management	Optional	2 hours per tree	0	$0.00
Invasive Plant Species Control	Optional	4 hours per acre	100	$8,300.00
Aquatic Area Management	Optional	Unknown	0	$0.00
Soil Testing	Every 2 years	2 hours per site	0	$0.00
Annual Mowing	Annual	2 hours per acre	24	$1,992.00
Fertilization	Optional	2 hours per acre	24	$1,992.00
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	$83.00	
		Total Labor	**273**	**$22,659.00**

Materials	
Soil Testing (Assume $40 per test)	$0.00
Fertilizer (Assume $100 per acre in materials)	$300.00
Exclosures ($200 per exclosure)	$900.00
Plantings ($50 per planting)	$900.00
Grass mix seed	$0.00
Ecology blocks/boulders	$0.00
Total Materials	**$2,100.00**
Total Labor and Materials	**$24,759.00**

Unique Area/ Habitat Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Annual Oak Stand	Annual	16 hours	10	$830.00
Additional Oak Stands	Optional	4 hours per area	4	$332.00
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	$3,320.00
Falling a Competing Tree and Hand Piling Debris	Optional	2 men x 1 hour per 1-20 in dbh Douglas-fir tree 1 hour for reporting	0	$0.00
Invasive Plant Species Control	Optional	1 hour per acre	20	$1,660.00
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	$166.00
Develop Ethnobotanically Significant Plant Management Strategy	Optional	10 hours	0	$0.00
		Labor rate per hour	$83.00	
		Total Labor	**76**	**$6,308.00**
Materials				
Planting Oak trees			$1,000.00	
		Total Materials	**$1,000.00**	
		Total Labor and Materials	**$7,308.00**	

Forestland Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Spring Timber Harvest Area Survey	Annually	50 hours	50	$4,150.00
Fall Timber Harvest Area Survey	Annually	140 hours	140	$11,620.00
Harvest Planning	Optional	80 hours	80	$6,640.00
Harvest Scheduling	Optional	8 hours	35	$2,905.00
First Precut Survey	Optional	1 hour per acre	65	$5,395.00
Timber Harvest Area Traverse and GIS Update	Optional	24 hours	30	$2,490.00
Second Precut Survey	Optional	2.5 hours per acre	70	$5,810.00
Terrestrial Coordination Committee On-Site Meeting	Optional	16 hours	16	$1,328.00
Timber Harvest Area Logging Inspections	Optional	80 hours	80	$6,640.00
Snag Development	Optional	2 hours per tree	0	$0.00
Site Preparation	Optional	12 hours per 10 acres plus 10 hours	200	$20,000.00
Forage Seeding	Optional	50 hours	60	$4,980.00
Invasive Plant Species - grasses	Optional	0.5 hour per acre	70	$5,810.00
Invasive Plant Species - competing vegetation	Optional	2.8 hours per acre	435	$36,105.00
Pre-commercial thinning	Optional	1.25 hour per acre	420	$34,860.00
		Labor rate per hour		$83.00
		Total Labor	**1751**	**$148,733.00**
Materials				
Forage seed mix				$10,000.00
Chemicals ($50.00 per acre)				$15,000.00
Seedlings				$1,550.00
Seedling Protection (vexar tubes, stakes, garlic sticks etc)				$1,000.00
Other				$0.00
		Total Materials		**$27,550.00**
Additional 2015 Cost				
Habitat restoration, invasive plant species control to release forage from bracken fern				$20,000.00
		Total Labor and Materials		**$196,283.00**

Invasive Plant Species Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Pre-Ground Disturbance Evaluation	Optional	5.0 hours per site	0	$0.00
Post-Ground Disturbance Evaluation	Optional	2.0 hours per site	0	$0.00
Detection	Optional	0.5 hour per site	0	$0.00
Update State and County Noxious Weed lists	Annual	2 hours per year	12	$996.00
Control Treatments	Optional	0.5 hour per acre	30	$2,490.00
Control treatments within the ordinary high water mark	Optional	2.0 hours per acre	10	$830.00
Monitoring	Optional	0.5 hour per site	10	$830.00
		Labor rate per hour	$83.00	
		Total Labor	**62**	**$5,146.00**
Materials				
Chemicals			$10,000.00	
Noxious Weed Training			$600.00	
		Total Materials	$10,600.00	
		Total Labor and Materials	**$15,746.00**	

Raptor Budget

License Year 7
Calendar Year 2015

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)	132	$10,956.00
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	$1,660.00
Aerial Survey for Osprey Nest Occupancy and Bald Eagle Nest Productivity	Annually	24 hours labor	20	$1,660.00
Known Communal Roost Monitoring	Optional	5 hours per survey per observer	0	$0.00
Potential Communal Roost Monitoring	Optional	6 hours per survey per observer	0	$0.00
Evaluate Mature and Old-growth Stands for Raptor Habitat Quality and Potential Enhancement	Within 5 years of WHMP Implementation	2 hours per ac (0.4 ha) time is accounted for in Old-growth	0	$0.00
Develop a Schedule for Implementing Habitat Enhancement Actions in Old-growth Stands and Mature Stands	Within 1 year of Completing Mature and Old-growth Stands Evaluations	20 hours	0	$0.00
Complete Bald Eagle Management Plan	Within 3 years of WHMP Implementation	80 hours	0	$0.00
Revise Bald Eagle Management Plan to include new nest and roost sites	As Needed Within 1 Year of Discovery	10 hours	40	$3,320.00
Review and Update Industry Standards for Avian Protection from Power lines	Annually	2 hours	2	$166.00
		Labor rate per hour	$83.00	
		Total Labor	**214**	**$17,762.00**
Materials				
Helicopter flight $8,500 per flight 2 flights per year			$17,000.00	
Other			$0.00	
		Total Materials	**$17,000.00**	
		Total Labor and Materials	**$34,762.00**	

Public Access Budget

License Year 7
Calendar Year 2015

Management Actions	Frequency	Estimated Effort	Hours	Cost
Initial Road Evaluation	Within 5 years of Wildlife Habitat Management Plan Implementation	2.0 hour per mile of road	0	$0.00
Initial Road Evaluation on Newly Acquired Lands	Within 1 year of acquiring lands	2.0 hour per mile of road	0	$0.00
Road Closure Inspection	Annually	60 hours	40	$3,320.00
Initial Trail Evaluation	Within 5 years of Wildlife Habitat Management Plan Implementation	16 hours	0	$0.00
Trail Inspection	Annually	12 hours	12	$996.00
Initial evaluations of Dispersed Shoreline Campsites	Within 1 year of receiving a new license	50 hours	0	$0.00
Site Pioneering Monitoring	Annually	10 hours	0	$0.00
Site Creep Evaluation	Every 4 years	40 hours	40	$3,320.00
Controlling unauthorized motorized vehicle use	Optional	5 hours per site	15	$1,245.00
Visual Screen	Optional	4 hours per site	0	$0.00
Road Construction	Optional	8 hours per site	8	$664.00
		Labor rate per hour	$83.00	
		Total Labor	**115**	**$9,545.00**
Materials				
Exclosures ($200 per exclosure)			$0.00	
Plantings ($50 per planting)			$0.00	
Signs ($300 per 100 vinyl purchase every 3 years)			$0.00	
Heavy Equipment Rate ($200 per hour)			$5,000.00	
Road Barriers (blocks, rocks, etc)			$2,000.00	
Other			$0.00	
		Total Materials	**$7,000.00**	
		Total Labor and Materials	**$16,545.00**	

Monitoring Budget

License Year 7
Calendar Year 2015

Management Action	Frequency	Estimated Effort	Hours	Cost
Year 17 Habitat Evaluation Procedure	Target Year 17	estimated 4 hours per plot plus a total 100 hours for analysis	0	$0.00
Newly Acquired Lands	Estimated to be completed by year 6	estimated 4 hours per plot plus a total 25 hours for analysis	0	$0.00
Modify the Goal and Objectives	Optional	10 hours	0	$0.00
Revise the Wildlife Habitat Management Plan	Optional	10 hours	0	$0.00
RMEF exclosure installation and monitoring	Optional	65 hours	0	$0.00
Mink Habitat Evaluation	Optional	200 hours	40	$3,320.00
Savannah Sparrow	Optional	100 hours	0	$0.00
		Labor rate per hour		$83.00
		Total Labor	**0**	**$3,320.00**
Materials				
Exclosures				$0.00
		Total Materials		**$0.00**
		Total Labor and Materials		**$3,320.00**

APPENDIX C
TERRESTRIAL COORDINATION COMMITTEE 2015
ANNUAL PLAN CONSULTATION RECORD

DRAFT Meeting Notes
Lewis River License Implementation
Terrestrial Coordination Committee (TCC) Meeting
February 11, 2015
Merwin Hydro Control Center
Ariel, WA

TCC Participants Present: (9)
Ray Croswell, RMEF
Bill Richardson, RMEF (via conference)
Peggy Miller, WDFW (via conference)
Eric Holman, WDFW
Diana Gritten-MacDonald, Cowlitz PUD
Kimberly McCune, PacifiCorp Energy
Kirk Naylor, PacifiCorp Energy
Kendel Emmerson, PacifiCorp Energy
Nathan Reynolds, Cowlitz Indian Tribe

Calendar:

March 19, 2015	TCC Meeting	Conference Call
April 8, 2015	*TCC Meeting*	*Cancelled*
May 13, 2015	TCC Meeting	HCC & Field Tour

Assignments from February 11, 2015	**Status**
Gritten-MacDonald: Mail a hard copy of the Cowlitz PUD WHMP to Bill Richardson (RMEF).	

Assignments from December 10, 2014	**Status**
Gritten-MacDonald: Add TCC approved language in the Cowlitz PUD 2015 WHMP Plan regarding accrual of funds for certain Devil's Backbone WHMP actions.	**Complete – 2/11/15**

Assignments from June 13, 2012	**Status**
Naylor: Review the SA/WHMP budget(s) as well as determine status and opportunity for coordination with John Cook (NCASI) and Lisa Shipley (Washington State University) doing the black-tail study and report back to the TCC.	**In Progress**

Review of Agenda and Finalize Meeting Notes
Kirk Naylor (PacifiCorp Energy) called the meeting to order at 9:10 a.m. Naylor reviewed the agenda and asked the TCC if there were any changes/additions. Eric Holman (WDFW) will provide an update on SW Washington Elk hoof disease.

Naylor reviewed the December 10, 2014 meeting notes and assignments. The meeting notes were approved at 9:15 am without change.

Bacterial Hoof Disease in Southwest Washington Elk
Holman provided a comprehensive status update of the growing number of reports of elk hobbled by missing or misshapen hooves in southwest Washington. Holman discussed the efforts WDFW is implementing now and their plans for the near future such as volunteer opportunities to help conduct a survey in March and April designed to determine the extent of elk in southwest Washington with hoof disease. He also discussed the potential treatments, monitoring efforts and study goals. Further detail is provided by WDFW at the following website:
http://wdfw.wa.gov/conservation/health/hoof_disease/

Preview Cowlitz PUD WHMP 2015 Plan
Diana Gritten-MacDonald (Cowlitz PUD) informed the attendees that the *Cowlitz PUD Wildlife Habitat Management Plan (WHMP) 2015 Annual Plan* (**Attachment A**) was emailed to the TCC on February 6, 2015 for a 30-day review and comment period. Hard copies were also provided at today's meeting. Comments are due on or before March 6, 2015.

Bill Richardson (RMEF) did not receive an electronic copy so Gritten-MacDonald will mail a hard copy to his attention.

Gritten-MacDonald provided a cursory review of the anticipated 2015 budget as indicated below:

Table 2.1-1. Anticipated 2015 (Year 7) Annual Plan Budget (2015 dollars).

2015 Budget		
Dec 26, 2014 Annual Payment	$ 17,971	
2014 Carry Forward	$ 3,185	
Interest on 2014 Ending Balance	$ 103	
Total 2015 Budget	$ 21,259	
WHMP Activity	**Estimated 2015 Cost**	**Assumptions**
Administration	$6,000	Includes general oversight and accounting, preparing Annual Report and Annual Plan, contracting, maintaining project files, participating in TCC meetings related to implementing Cowlitz PUD's WHMP.
Annual inspection to monitor and manage public access	$0	Included in invasive plant surveys.
Invasive plant surveys at high priority sites	$3,500	Includes labor and mileage.
Invasive plant species control	$3,000	Includes 2 herbicide applications in 2015.
Timber Management Fund	$7,441	Defer at least 35% of the annual budget.
Estimated cost of management activities	**$19,941**	
Estimated amount remaining in 2015 budget at year end	$1,318	Any funds not spent by year end, plus accrued interest; remain in the WHMP budget to be carried into the following year.

Gritten-MacDonald also confirmed that the following requested TCC language was also included in their WHMP Plan.

Throughout 2014, TCC and Cowlitz PUD have cooperatively developed ideas for accomplishing the Wildlife Habitat Management Plan (WHMP) enhancement forestry actions on Cowlitz PUD's Devil's Backbone site. Initial budget estimates for these proposed actions reveal they are more costly than can be accomplished with one year's allocation of Cowlitz PUD annual WHMP funding.

TCC members desire that Cowlitz PUD accrue funds in order to accomplish these WHMP actions. TCC members therefore request Cowlitz PUD defer 35% of Annual Plan spending, starting in 2015 and continuing in subsequent years, until the TCC agrees on the allocation of these accrued funds toward a WHMP action. During preparation of each year's Annual Plan by Cowlitz PUD, TCC may request more or less than a 35% deferral, based on expected needs of the next project year and changing circumstances. Cowlitz PUD shall manage these deferred funds in accordance with Section 10.8.2.3 of the Lewis River Settlement Agreement.

Comments on the Cowlitz PUD WHMP 2015 Plan are due on or before March 6, 2015.

PacifiCorp 2015 WHMP Budget
Kendel Emmerson (PacifiCorp) informed the TCC that PacifiCorp's *Lewis River 2015 Wildlife Habitat Management Plan (*WHMP*)* 30-day review draft was provided at today's meeting. **Comments are due on or before March 11, 2015**.

Emmerson provided a cursory review to include but not limited to the following. For further detail the 2015 WHMP Annual Plan can be located at the following link:
http://www.pacificorp.com/es/hydro/hl/lr.html#

- License Implementation
- Annual Reports
- 2014

Section 6.0 Wetland Habitat Management - Emmerson noted that one objective is to learn more about the population and development of bullfrog larva in these ponds to insure that draining the wetlands is not selecting for a rapidly developing genotype (very warm water system; how are they surviving).

Section 9.0 Farmland, Idle Areas, and Meadows Habitat Management – Most of the actively managed fields will be surveyed for Savannah Sparrow between April 15 and May 31 to determine occupancy and gain more insight on nest phenology. Fields will be surveyed using the Area Search method.

Emmerson also noted that she wants to invest additional funds for addressing noxious weeds (see Section 9.2) in order of list of priority. **Emmerson requested TCC approval for a screen to be planted along the northern border of the Leach field meadow to screen the meadow from the adjacent homes to prevent all-terrain vehicle (ATV) trespass. The expense is approximately $3,000.**

The TCC attendees approved the expenditure for the screen as described and requested a mix of trees and shrubs such as hazel and elderberry.

Section 11.0 Transmission Line right-of-Way Habitat Management – Emmerson noted the Speelyai line is expected to need post treatment inspections at the sites that have hazard tree removal. Some visual screens will be lost. Each visual screen will be evaluated to determine what, if any, replanting can occur to reestablish a visual screen that at maturity would remain within the clearing limits. PacifiCorp biologists will continue to work closely with Vegetation Management Service to insure that the tree removal will be in accordance with the WHMP standards.

Section 15.0 Raptor Site Management – Emmerson noted that the Bald Eagle Management Plan will be revised to include new nest and territories for 2015.

Section 16.0 Public Access Management - the Site Creep Evaluation is to occur every 4 years and was scheduled to occur in 2014. Because PacifiCorp was without a recreation manager for most of 2014 the evaluation did not occur. It is scheduled and budgeted to occur in 2015 and will meet the criteria described in Final Recreation Resource Management Plan and will meet the monitoring standards provided in Appendix G.

Emmerson reviewed a draft of the *2015 Overall WHMP* budget as fully detailed in the *Lewis River 2015 Wildlife Habitat Management Plan* located at: http://www.pacificorp.com/es/hydro/hl/lr.html# to include a comparison to the 2014 proposed and actual budget. WHMP funds available for 2015 are $468,817.68. The additional HEP funding and Rocky Mountain Elk Foundation (RMEF) funding was only available through 2014. In addition, an escalation error was discovered in 2014 in the amount of $5,771.29 which has been carried over into 2015.

License Year 7
Calendar Year 2015
Annual WHMP Budget

Total Available Funds		**2014 Funds**	**2015 Funds**
Fee Simple Lands	Acres	13,134	13,134
	Cost Per Acre	$33.30	$33.76
	2014 Escalation Correction	$0.00	$5,771.29
	SubTotal	$437,392.41	$449,166.93
Interests in Lands	Acres	16	16
	Cost Per Acre	$16.85	$16.88
	SubTotal	$269.63	$270.08
Other Additional Funds	Remaining Funds from	$14,216.11	$4,310.29
	Additional HEP Funding	$20,000.00	$0.00
	RMEF	$11,281.71	$0.00
	Interest	$13,532.38	$15,070.38
	SubTotal	$59,030.20	$19,380.67
Total		**$496,692.24**	**$468,817.68**

Section 13.0 Forestland Habitat Management – Naylor provided a cursory review of this section to include but not limited to the following:

Management Unit 17 - Naylor informed the TCC attendees that in 2013 the TCC was shown an area in Management Unit 17 near Speelyai Canal where trees had become a hazard to adjacent homes and a PacifiCorp access road due to advanced decay in the alder. The area was not

harvested as planned in 2014 so it will be added to the 2015 plan. The area encompasses approximately 9.0 acres. PacifiCorp conducted goshawk surveys in this area in 2013 and 2014 without receiving any response calls. PacifiCorp will conduct another survey in 2015 prior to any harvest. The proposal is to remove all hardwoods or other hazard trees while retaining conifer and shrubs as much as practical and replant the area with conifer in 2016. The area is entirely within a riparian buffer for Speelyai Canal despite the presence of a road between the proposed harvest area and the canal. This will establish a permanent conifer buffer along the canal.

Management Unit 5 - Approximately 20.00 acres has been proposed for even aged harvest to maintain forage in an area favored by elk over the past 25 years. Additionally, an adjacent 29 year-old stand is proposed for a commercial thin. The commercial thin will be on approximately 20 acres of a 1986 harvest area to provide better tree spacing (release for larger trees) and temporary forage. The current tree density is approximately 203 trees per acre (TPA) with little understory shrub or forage species. The average tree diameter at breast height is 12.9 inches. Thinning is proposed at a spacing of approximately 14 feet to encourage understory development of early seral vegetation and to improve forest health and stand longevity. Some clearing will have to be done to reestablish landings to sort and load the harvested trees.

Management Unit 35 - This unit is comprised of approximately 791 acres of 37 to 45 year-old timber stands. The TCC reviewed the proposed harvest area (approximately 50.0 acre commercial thin) in 2014 when it was initially proposed but was deferred until 2015. Access roads were completely over-grown with alder but have been re-opened with new culverts and gate closures over the past two years. In 2015 PacifiCorp is proposing an extension of 0.39 miles of new road to connect existing roads (previously reviewed with the TCC in 2014). The road would be part of a planned timber harvest and allow access to an existing rock pit in Management Unit 35.

Management Unit 10 - One of the permanent meadows developed in Management Unit 10 last year will be reassessed in 2015 for follow-up stump removal, grading and re-seeding. Because this meadow was a stand-alone timber harvest, there was a limited area for slash management. The number of stumps and the amount of slash piles that were burned in the new 3.3 acre meadow may limit the potential of this site from producing the desired forage. With additional tractor work, grading and soil amendments, this meadow may be improved.

Naylor noted that PacifiCorp continues to update the Geographic Information System and corresponding spreadsheets depicting vegetation cover types and tracking cover/forage (C:F) ratios by management unit to comply with established WHMP plans and to develop plans for newly acquired properties. Eleven management units are currently being prioritized for further planning based on their C:F ratios as indicated below:

Table 1: Management unit priorities based on Cover and Forage

Management Unit	Total Acres	C:F Ratio	C:F Ratio Objective based on WHMP	Meets 5% permanent forage (Y/N)	Priority[1] based on C:F Ratio
1	131.2	74:26	50:50	Y	1
5	360.5	73:27	60:40	N	1
7	526.5	72:28	50:50	N	1
8	278.8	82:18	55:45	Y	1
14	123.9	77:26	TBD[2]	Y	2
16	386.7	85:15	70:30	Y	2
20	938.7	93:07	60:40	Y	2
19	163.5	66:34	60:40	N	1[3]
27	255.2	88:12	TBD[2]	N	2
34	676.2	99:01	TBD[2]	N	1
35	799.0	100:0	TBD[2]	N	1

1: Priority is relatively based on 1 = 1-3 years; 2 = 3-5 year planning.
2: TBD: To be determined; C:F objective wasn't assigned in WHMP or represent new lands
3: Root-rot area and permanent forage are drivers for management.

Naylor also reviewed regeneration practices that include management actions that promote tree regeneration following timber harvests and maintaining or establishing big game forage and cover. The 2015 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.

<Break 11:15am>
<Reconvene 11:25am>

PacifiCorp – Review Eagle Plan
In accordance with Chapter 14, Raptor Site Management - Objective B (outlined below) PacifiCorp has updated the Bald Eagle Management Plan.

• *Objective b: Develop a management plan for nesting bald eagles, considering site-specific requirements, within 3 years of WHMP implementation, and revise upon discovery of a new active nest site.*

Emmerson provided a cursory review of the *Lewis River Bald Eagle Management Plan*, 30-day review draft. The Bald Eagle Plan was distributed to the TCC for review and comment on February 9, 2015. *Note: This document is confidential and not intended for general public viewing.* **Comments are due on or before March 11, 2015.**

Emmerson informed the TCC attendees that the 2015 version has been updated to current nest site data, revised regulations, a recreation layer has been added and it includes better imagery than the 2010 version.

As of today's date one comment has been received from the following TCC participant:

From: *Wainwright, Mitch -FS [mailto:mwainwright@fs.fed.us]*
Sent: *Tuesday, February 10, 2015 1:28 PM*
To: *Emmerson, Kendel*
Subject: *RE: Bald Eagle Management Plan - February 2015; 30-day Review and Comment Period*
Sensitivity: *Confidential*

Kendel, I think the plan looks good, and I don't have any suggested changes. I think the format is good since it will be easy to add new sites if any are found during the aerial surveys or pre-project surveys for communal roosts.

Mitch Wainwright
Wildlife Biologist

Forest Service
Gifford Pinchot National Forest, South Zone

p: 360-449-7857
f: 360-449-7801
mwainwright@fs.fed.us

BiOp vs Settlement Agreement Language – Cresap Bay Recreation Area
In accordance with the Lewis River Biological Opinion (BiOp) and the Settlement Agreement, PacifiCorp's Cresap Bay Recreation Area is to be managed for both wildlife and recreation. However, PacifiCorp may need periodic access to Cresap Bay for scheduled maintenance but these activities will be timed to minimize disturbance to wildlife and will be discussed with the TCC on an annual basis.

PacifiCorp recently informed the TCC of a siren construction project at Cresap and received their approval. Emmerson noted that PacifiCorp will continue to keep the TCC aware of any unexpected needs regarding periodic access to Cresap Bay Recreation Area. Coordinating on an annual basis has not been feasible, so we have been coordinating with the TCC on as needed basis instead.

PacifiCorp 2014 Year-end Financial Reporting
Kim McCune (PacifiCorp) informed the TCC of the following year-end financial report (see **Attachment B** for more detail):

10.8.2 - WHMP Fee Simple Lands

12/31/2014 Balance	$464,065.35*
*includes 2015 contribution of	$443,395.64

10.8.2 - WHMP Conservation Easement Lands
12/31/2014 Balance $270.08*
*includes 2015 contribution of $270.08

10.2 - Swift No. 1 and Swift No. 2 Land and Habitat Protection
12/31/2014 Balance $1,950,455.35
*includes 2015 contribution of $ 625,173.63

10.3 - Lewis River Land Acquisition and Habitat Funds
12/31/2014 Balance $ 1,009,307.61

7.1.1 – Lewis River LWD Fund
12/31/2014 Balance $52,500.00

Public Comment Opportunity
No public comment was provided.

<12:00 p.m. meeting adjourned>

Agenda items for March 19, 2015

- Review February 11, 2015 Meeting Notes
- Review and Discuss WHMP 2014 Annual Report & 2015 Plan Comments

Next Scheduled Meetings

March 19, 2015	April 8, 2015
Conference Call	Cancelled – Reconvene in May
Merwin Hydro Control Center	
Ariel, WA	
9:00am – 12:00pm	

Attachments:
- February 11, 2015 Meeting Agenda
- **Attachment A** - Cowlitz PUD Wildlife Habitat Management Plan (WHMP) 2015 Annual Plan
- **Attachment B** - Lewis River TCC year-end reporting, dated 12/31/2014

Lewis River License Implementation

Lewis River WHMP Fund (Fee Simple Lands)

Section 10.8.2

Release Date	Funds Received	Expense	Interest	Balance	Notes
Contributions in 2003 dollars, Adjusted for Inflation					
					10.8.2 WHMP Fund establised: **10,085 acres** funded at $27.00 / acre,
12/26/08	$317,725.16			**$ 317,725.16**	adjusted for inflation
3/31/09			$ 4,386.48	$ 322,111.64	Annual interest added
12/14/09		$ 320,315.17		$ 1,796.47	2009 expenses
12/26/09	$321,888.52			**$ 323,684.99**	10,137 acres, including additional **52 acres** for the Jackman Parcel
3/31/10			$ 10,139.86	$ 333,824.85	Annual interest added
12/31/10		$ 325,852.59		$ 7,972.26	2010 expenses
					11,105 acres, included purchase of **968 acres**; Saddle Dam & Swift Creek
12/31/10	$354,219.00			**$ 362,191.26**	properties
3/31/11			$ 11,079.15	$ 373,270.41	Annual interest added
12/31/11		$ 340,176.89		$ 33,093.52	2011 expenses
12/31/11	$360,610.79			**$ 393,704.31**	
3/31/12			$ 12,323.19	$ 406,027.50	Annual interest added
12/31/12		$ 391,979.71		$ 14,047.79	2012 expenses
12/31/12	$435,792.62			**$ 449,840.41**	13,134 acres, included purchase of **2,111 acres**; Marble Mtn II property
3/31/13			$ 13,523.70	$ 463,364.11	Annual interest added
12/31/13		$ 441,799.04		$ 21,565.07	2013 expenses
1/1/14	$443,163.70			**$ 464,728.77**	13,134 acres
3/31/14			$ 15,070.38	$ 479,799.15	2014 expenses
1/1/15	$443,395.64			$ 923,194.79	13,134 acres
		Total Spent to Date:	**$**	**1,820,123.40**	
		Balance Remaining:	**$**	**923,194.79**	Funding Start Date: 12/26/08

Note: In August 2009, the Bureau of Economic Analysis (BEA) restated the index numbers in Table 1.1.9 (Implicit Price Deflators for Gross Domestic Product). The index numbers are now based on 2005 = 100. This changes the beginning adjustment number for year 2000, quarter 3.

Lewis River License Implementation

Lewis River WHMP Fund (Conservation Easement Lands)

Section 10.8.2

Funding Start Date: 12/26/08

Release Date	Funds Received	Funds Expended	Balance	Notes
				Contributions in 2003 dollars, Adjusted for Inflation
12/26/08			$ -	10.8.2 WHMP Fund establised: 10,085 acres funded at $13.50 / acre, adjusted for inflation
1/1/10	$ 254.03		$ 254.03	10.8.2 WHMP Fund: 16 acres owned in conservation easement, adjusted for inflation
12/31/10		$ 254.03	$ -	Expenditure for 2010
1/1/11	$ 255.18		$ 255.18	10.8.2 WHMP Fund: 16 acres owned in conservation easement, adjusted for inflation
12/31/11		$ 255.18	$ -	Expenditure for 2011
1/1/12	$ 259.78		$ 259.78	10.8.2 WHMP Fund: 16 acres owned in conservation easement, adjusted for inflation
12/31/12		$ 259.78	$ -	Expenditure for 2012
1/1/13	$ 265.44		$ 265.44	10.8.2 WHMP Fund: 16 acres owned in conservation easement, adjusted for inflation
12/31/13		$ 265.44		Expenditure for 2013
1/1/14	$ 269.93		$ 269.93	10.8.2 WHMP Fund: 16 acres owned in conservation easement, adjusted for inflation
12/31/14		$ 269.93	$ -	Expenditure for 2013
1/1/15	$ 270.08		$ 270.08	10.8.2 WHMP Fund: 16 acres owned in conservation easement, adjusted for inflation
	Total Spent to Date:	**$**	**1,304.36**	
	Balance Remaining:	**$**	**270.08**	

Note: In August 2009, the Bureau of Economic Analysis (BEA) restated the index numbers in Table 1.1.9 (Implicit Price Deflators for Gross Domestic Product). The index numbers are now based on 2005 = 100. This changes the beginning adjustment number for year 2000, quarter 3.

Lewis River License Implementation

Lewis River LWD Fund

Section 7.1.1

Funding Start Date: 12/26/08

Release Date	Funds Received	Funds Dispersed	Balance	Notes
				Unspent balance in any year shall be carried forward
11/25/08	$ 2,000.00		$ 2,000.00	7.1.1 Large Woody Debris Program, ILR-LWD
12/25/08	$ 10,000.00		$ 12,000.00	7.1.1 LWD projects in the mainstem below Merwin Dam
12/3/08		$ 2,000.00	$ 10,000.00	Chilton Logging - move LWD from Swift boat launch to muddy river access road
4/1/09	$ 2,000.00		$ 12,000.00	7.1.1 Large Woody Debris Program, ILR-LWD
4/10/09		$ 2,000.00	$ 10,000.00	Chilton Logging - move LWD for delivery to LCFEG
12/25/09	$ 10,000.00		$ 20,000.00	7.1.1 LWD projects in the mainstem below Merwin Dam
4/1/10	$ 2,000.00		$ 22,000.00	7.1.1 Large Woody Debris Program, ILR-LWD
7/1/10		$ 2,000.00	$ 20,000.00	Chilton Logging - move LWD for delivery to USFS
12/21/10	$ 10,000.00		$ 30,000.00	7.1.1 Large Woody Debris Program, ILR-LWD
4/1/11	$ 2,000.00		$ 32,000.00	7.1.1 Large Woody Debris Program, ILR-LWD
12/25/11	$ 10,000.00		$ 42,000.00	7.1.1 Large Woody Debris Program, ILR-LWD
4/1/12	$ 2,000.00	$ 4,000.00	$ 40,000.00	7.1.1 LWD projects in the Yale Reservoir
4/1/12		$ 8,500.00	$ 31,500.00	Chilton Logging - move LWD for delivery to Cowlitz Tribe
12/25/12	$ 10,000.00		$ 41,500.00	7.1.1 Large Woody Debris Program, ILR-LWD
6/2/13		$ 2,000.00	$ 39,500.00	Chilton Logging - move LWD for delivery to USFS
10/10/13		$ 10,000.00	$ 29,500.00	2013 Cedar Creek Reach 1A - LCFEG
12/26/13	$ 10,000.00		$ 39,500.00	7.1.1 Large Woody Debris Program, ILR-LWD
12/26/13	$ 2,000.00		$ 41,500.00	7.1.1 Large Woody Debris Program, ILR-LWD
9/16/14		$ 1,000.00	$ 40,500.00	7.1.1 Large Woody Debris Program, ILR-LWD
12/26/14	$ 10,000.00		$ 50,500.00	7.1.1 Large Woody Debris Program, ILR-LWD
12/26/14	$ 2,000.00		$ 52,500.00	7.1.1 Large Woody Debris Program, ILR-LWD
	Total Spent to Date:	**$ 31,500.00**		
	Balance Remaining:	**$ 52,500.00**		

Within 180 days after Issuance of the New License for the Merwin Project and annually thereafter, PacifiCorp shall make available in a Tracking Account up to $2,000, which may be disbursed to qualified entities to defray the costs of LWD transportation and placement in the Lewis River Basin (the "LWD Fund").

In addition, within 180 days after Issuance of the New License for the Merwin Project and annually thereafter, PacifiCorp shall contribute $10,000 to the Aquatics Fund (Section 7.5) that will be earmarked for LWD projects in the mainstem of the Lewis River below Merwin Dam that benefit anadromous fish.

Lewis River License Implementation

Swift No. 1 & Swift No. 2 Land and Habitat Protection Fund

Section 10.2, 10.2.1

Release Date	Funds Received	Expense	Interest	Balance	Notes
3/26/09				$ 3,781,881.67	Contributions in 2003 dollars, adjusted for inflation
3/31/09			$ 3,263.82	$ 3,785,145.49	Annual interest accrued
12/26/09	$ 917,332.70			$ 4,702,478.19	Settlement Agreement contribution, adjusted for inflation
12/31/09		$ 88,505.88		$ 4,613,972.31	Columbia Land Trust 2009 contract (total $110,000)
3/31/10			$ 130,141.43	**$ 4,744,113.74**	Annual interest accrued
5/11/10		$ 21,494.12		$ 4,722,619.62	Columbia Land Trust 2009 contract
7/13/10		$ 20,609.63		$ 4,702,009.99	Columbia Land Trust 2010 contract (total $75,000)
11/22/10		$ 15,313.22		$ 4,686,696.77	Columbia Land Trust 2010 contract
12/21/10		$ 625,755.72		**$ 4,060,941.05**	Swift Creek property purchase
1/4/11		$ 19,200.00		$ 4,041,741.05	Rocky Mountain Elk Foundation - Swift land purchase surveys & appraisals
3/31/11			$ 147,127.39	$ 4,188,868.44	Annual interest accrued
4/11/11		$ 25,040.00		$ 4,163,828.44	Columbia Land Trust 2010 contract
12/13/11		$ 51,545.50		$ 4,112,282.94	Timber Appraisal Forest Resource Management ($5663) + Rocky Mountain Elk Foundation land acquisition ($45882.50) for property appraisal, survey, & Phase I environmental report
12/26/11	$ 601,348.73			**$ 4,713,631.67**	Settlement Agreement contribution, adjusted for inflation
3/31/12			$ 140,302.13	$ 4,853,933.80	Annual interest accrued
6/4/12		$ 4,820,190.06		$ 33,743.74	Rocky Mountain Elk Foundation - Marble Mtn II purchase (2,111 acres)
12/15/12		$ 5,009.76		$ 28,733.98	Columbia Land Trust 2010 contract (March/April 2011 expenses)
12/26/12	$ 614,453.61			**$ 643,187.59**	Settlement Agreement contribution, adjusted for inflation
3/31/13			$ 33,678.20	$ 676,865.79	Annual interest accrued
12/26/13	$ 624,846.60			**$ 1,301,712.39**	Settlement Agreement contribution, adjusted for inflation
3/31/14			$ 27,339.33	$ 1,329,051.72	Annual interest accrued
9/5/14		$ 570.00		$ 1,328,481.72	Timber appraisal on Fruit Growers properties as directed by TCC
12/20/14		$ 3,200.00		$ 1,325,281.72	Timber appraisal on Fruit Growers properties as directed by TCC
12/26/14	$ 625,173.63			**$ 1,950,455.35**	Settlement Agreement contribution, adjusted for inflation
		Total Spent to Date:		**$ 5,696,433.89**	
		Running Total:		**$ 1,950,455.35**	

Note: In August 2009, the Bureau of Economic Analysis (BEA) restated the index numbers in Table 1.1.9 (Implicit Price Deflators for Gross 100. This changes the beginning adjustment number for year 2000, quarter 3.

Lewis River License Implementation
Lewis River Land Acquisition and Habitat Fund[5]
Section 10.3, 10.3.1, 10.3.3

Funding Start Date: 12/26/12

Release Date	Funds Received	Expense	Interest	Balance	Notes
					Contributions in 2003 dollars, adjusted for inflation
12/21/10	$ 1,299,516.31			$ 1,299,516.31	Purchased Saddle Dam Property.*
12/12/10	$ 345,881.81	$ 1,645,398.12		$ -	Taken from 2014 fund allocation
12/26/14	$ 1,009,307.61			$ 1,009,307.61	
		Total Spent to Date:	**$ 1,645,398.12**		
		Running Total:	**$ 1,009,307.61**		

*** Per TCC agreement, funds were expended early for purchase of Yale Saddle Mountain Parcel. Per SA, PacifiCorp was to fund Lewis River Land fund at $1.1 million by six months after the fourth anniversary of the license; and another $1.1 million six months after the sixth anniversary of the license.**

The remaining funds will be available six months after the sixth anniversary (2014).

Reconciliation of Funding:

Year	Funding in 2003 Dollars	Inflation Factor	Inflation Adjusted Funding	Notes
2010	$ 1,100,000.00	1.18137846	$ 1,299,516.31	
2010	$ 292,778.16	1.18137846	$ 345,881.81	Taken from 2014 Funding
Subtotal	$ 1,392,778.16		$ 1,645,398.12	Plus Yale Fund of $2,995,608.83 equals purchase price of $4,641,006.95.
2014	$ 807,221.84	1.25034725	$ 1,009,307.61	Remaining 2014 Funding
Total	$ 2,200,000.00		$ 2,654,705.73	

APPENDIX D
2015 PROPOSED TIMBER HARVEST AREA MAPS AND FIRST PRECUT SURVEY FORMS

Wildlife/Forestry Evaluation Form

Management Unit No.: 5 **Date:** Numerous visits 2014; Jan 2015

Observers: K. Naylor; Forestry consultants

Stand Descriptions:

Unit 5 is a 360 acre management area on the north side of the Merwin Project Lands roughly midway west to east up the reservoir and north of SR 503. The property is bounded on the north by DNR and Weyerhaeuser property. There have been 148 acres of prior forest management from 1982 through 2004. With the last entry being 10 years ago, the quantity of forage is declining. Other forest management entrees were in 1982, 1993, 2002 and 2004.

Elk observations in this management unit over the past 25 years have been very high.

The forest stands in Management Unit 5 being considered for management includes a mid-successional (16-20" DBH) Douglas-fir stand planned for a clear-cut and an adjacent stand that was harvested in 1986 and is planned for a commercial thin.

The stand being considered for CT was last harvested in 1986 and has several perennial and seasonal non-fish streams that were not buffered in the last harvest because the entire unit was hardwoods and there was very light stocking along the streams. There were and still are several cottonwoods that were retained during the prior harvest that provides some diversity in the over-story.

The WHMP (Dec. 2008) identified 2.6 acres of permanent forage within the existing oak sites and an additional three acres in transmission ROW.

MS = 40% (144.7 ac)
SS = 14.2% (51.3 ac)
Pole = 14.3% (51.5)
UM = 5% (18.5)
UD = 7.5% (26.9)
MS-T = 12% (43.4)

The current Cover:Forage Ratio is: 73:27

There are an estimated 102.0 acres in stream buffers (3%) and another 25.0 acres that are considered unmanageable or inaccessible for management. There are no type F (fish) streams in the management unit.

The understory of all the areas evaluated for management is primarily bare ground in the old THA and sword fern with scattered vine maple and hazel in the proposed clear-cut area.

Invasive Plant Species:

A few scattered scotch broom near roads and an occasional holly in timbered areas.

Unique Habitat Features:

Nothing unique within harvest sites other than the large remnant cottonwoods near some of the small streams. Overall, the management unit has a diverse number of age classes, containing a few oak sites a designated shrubland and some rock outcrops.

Proposed Management :

A clear-cut of approximately 23-25 acres is proposed for the MS stand. A new road approximately 1400' in length would have to be built through the stand to access the area. The slope is a moderate to gentle southern aspect that ranges from approximately 1100' MSL to 1420' MSL.
The CT stand (860520) averages almost 13" dbh and 203 trees per acre (TPA). The intent would be to thin as much of the 30 acres as possible (considering some riparian areas couldn't be crossed with equipment) and thin to approximately 120 TPA. Commercial thinning would enhance the understory composition and develop fewer but larger trees per acre; the cottonwood would be retained. The CT area is being considered for a small permanent forage area yet to be determined.

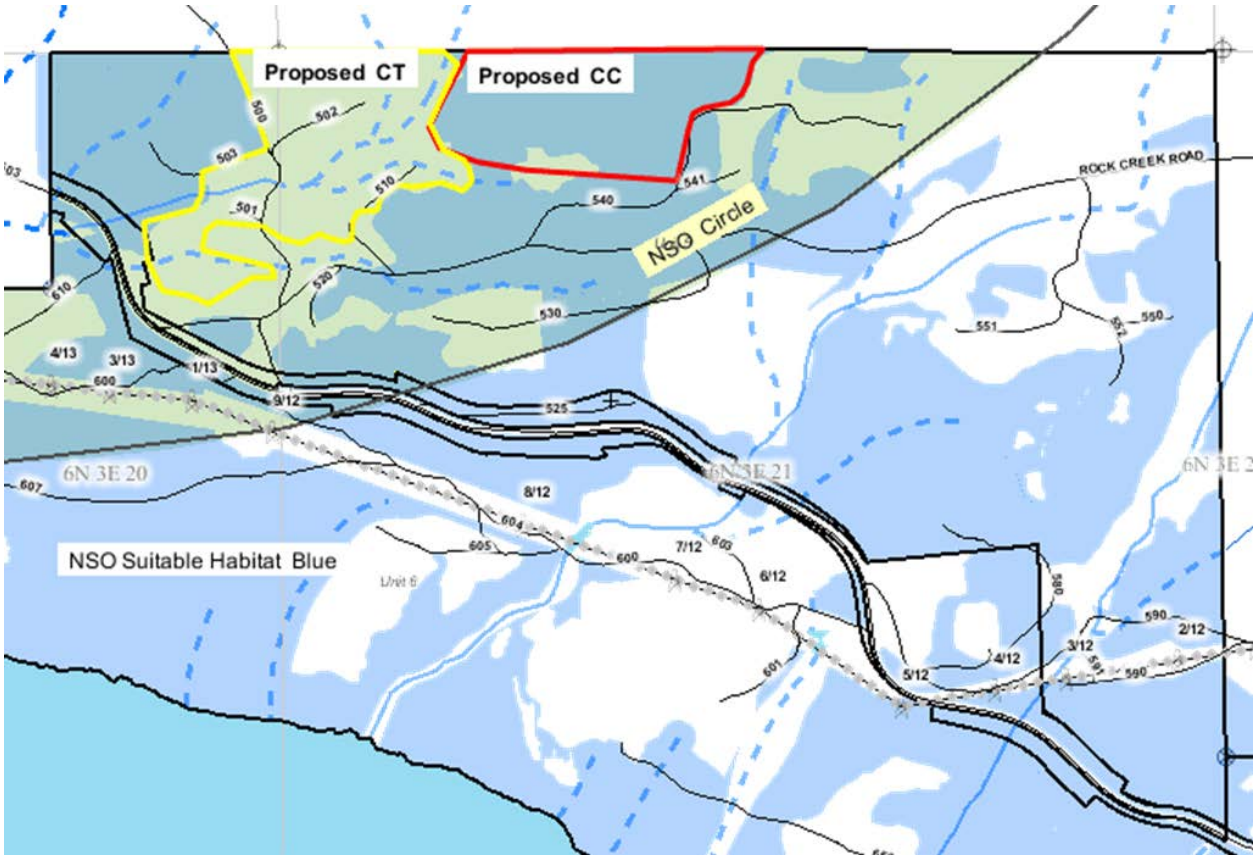
Wildlife Observations:

Deer and elk (moderate to high pellet groups in some areas). Winter wren; stellar jay; varied thrush, rb nuthatch, b. creeper, w. tananger, bc chickadee.

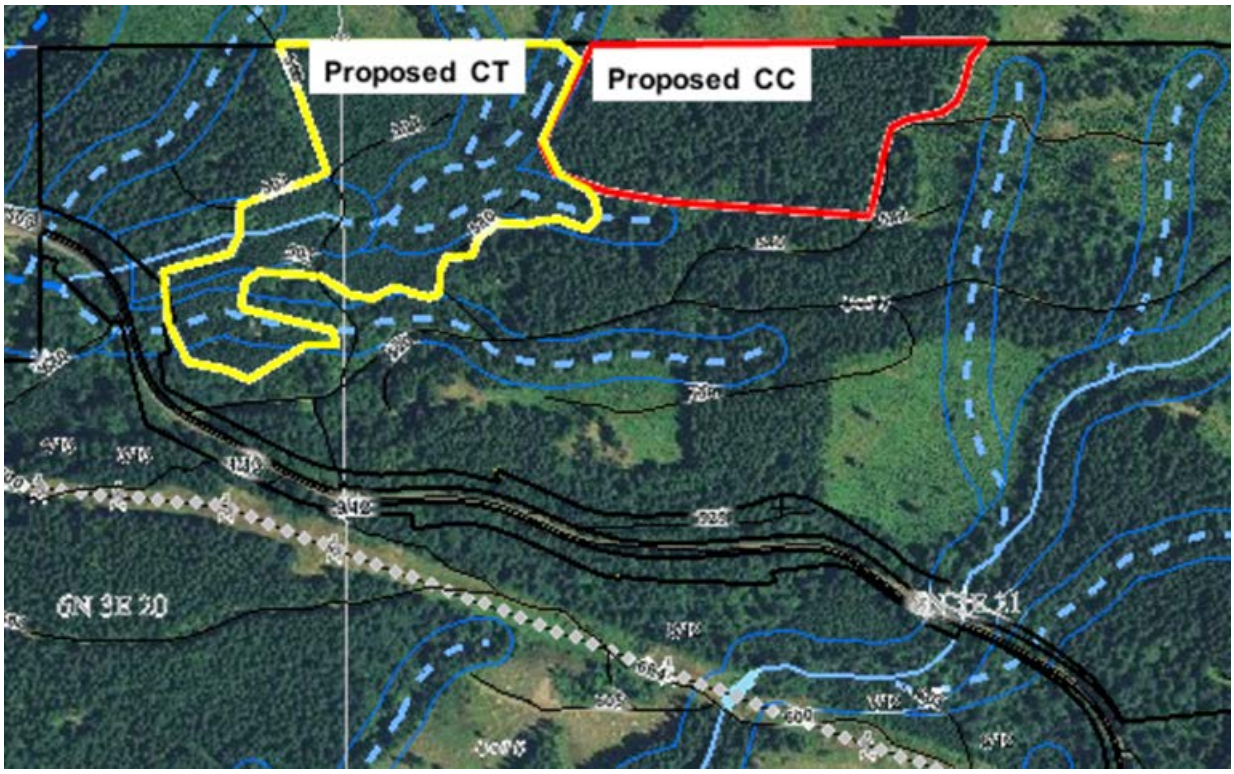
NSO Habitat:

As a mid-successional stand (16-20" avg. diameter), the proposed clear-cut harvest is suitable roosting, foraging or dispersal habitat but not nesting. The proposed clear-cut and commercial thin of the 29 year-old stand are within the radius of an NSO circle determined by DNR in 2006. The NSO data is based on vocalization from a single, non-breeding owl. Management of the NSO habitat area outside PacifiCorp ownership has continued to allow timber harvests in the core of the habitat. There is no old-growth habitat in Unit 5.

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



General location of proposed CC and CT relative to NSO circle and NSO Suitable Habitat. NSO Circle is from Wa. DNR Heritage Data (2006).



Riparian buffers relative to proposed CT and CC in Unit 5. No buffers are within the CC and thinning would be proposed in the buffers in the CT. The majority of the streams are Ns, except below the 500 Road – thinning in the proposed 150' buffer of the Np stream hasn't been evaluated.

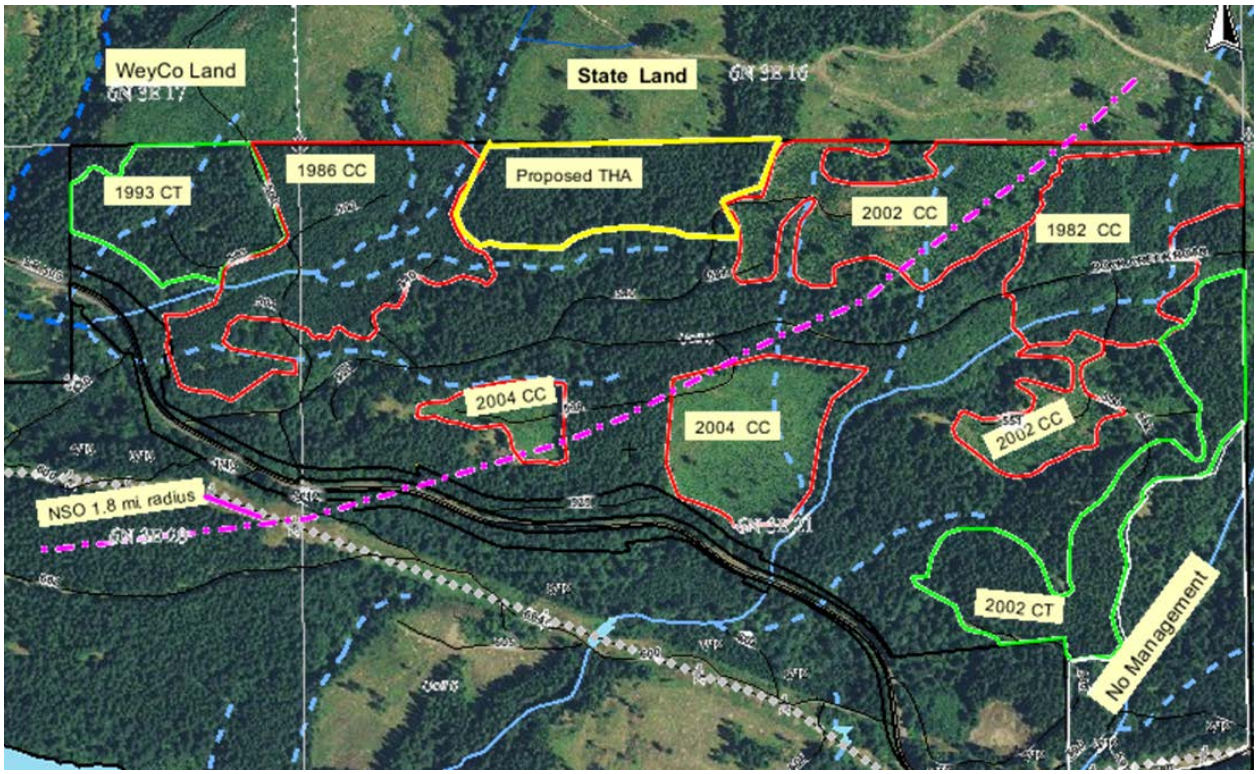


Figure 3. Forest management history in Unit 5.

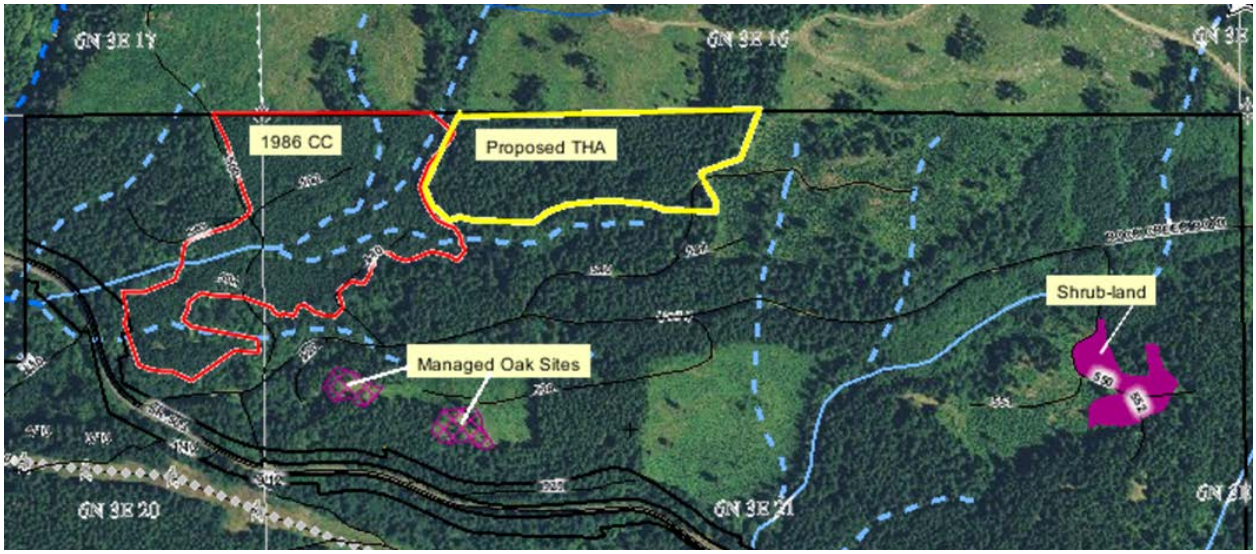
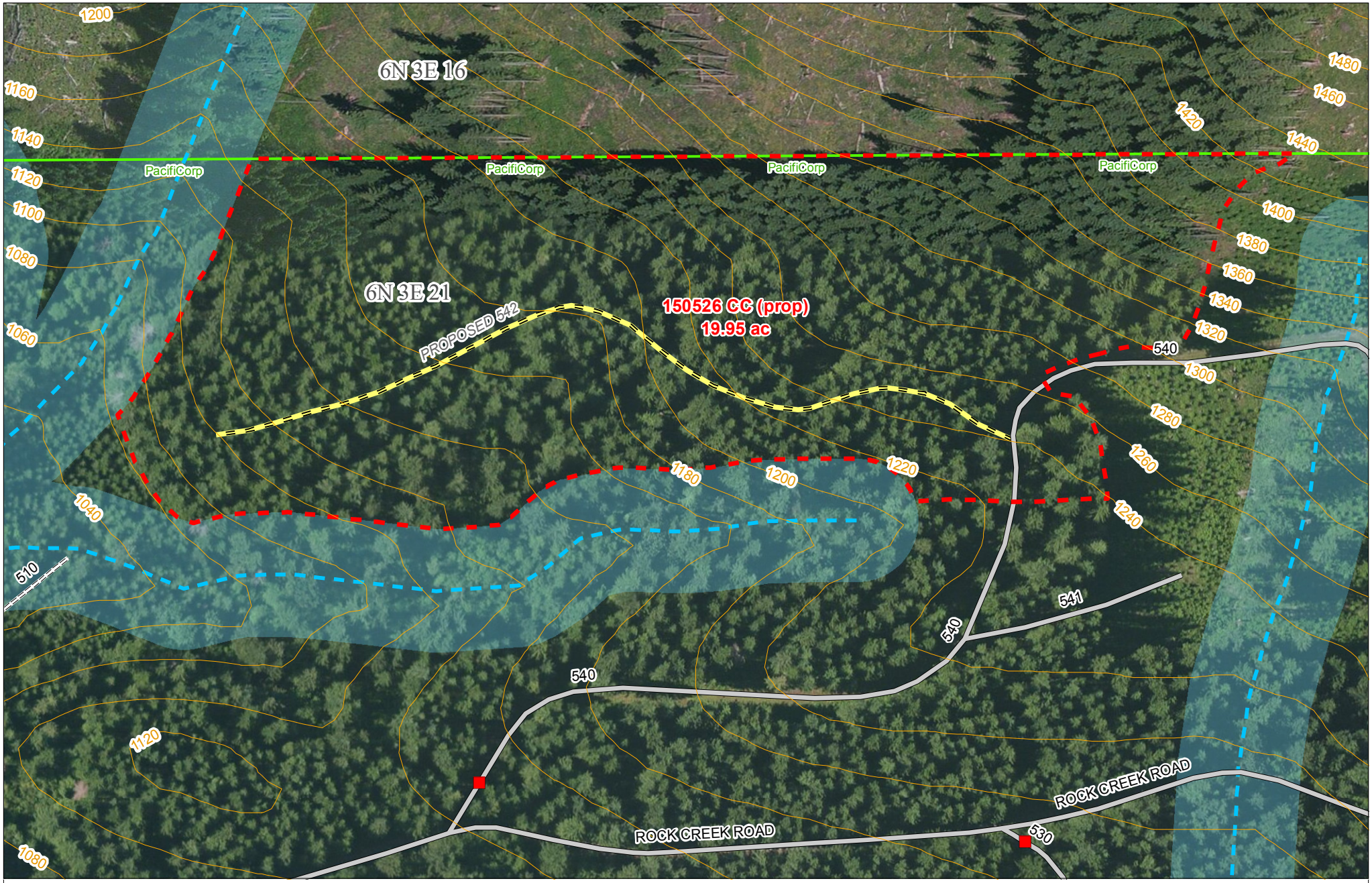


Figure 4. Other special habitat managed in Unit 5 include 3.5 acres of shrubland and 2 acres of oak woodlands



WHMP - Unit 5

2015 Proposed Harvest Area 150526 (Revised Jan 2015)

01/13/2015 U:\Projects\Hydro\Lewis\Harvest\Unit 5\Unit 5 Aerial Map.mxd

- Proposed Harvest
- Gate
- Road
- Abandon/Orphan Road
- Proposed Road
- Contour (20')
- Seasonal Stream
- Stream Buffer
- PacifiCorp Ownership
- Section

N W E S

0 100 200 Feet

1:2,500

Imagery: ESRI, July 2010

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Wildlife/Forestry Evaluation Form

Management Unit No.: 17 **Date:** June/July 2013

Observers: K. Naylor; Forestry consultants

Stand Descriptions:

This is an over mature red alder (upland deciduous) timber type adjacent Speelyai Canal. The stand is bordered by an elevated road (dike) to the north and private property cleared for a road and homes on the south. The clearing on both sides of this narrow timber type allows for light penetration to the understory and a well-developed shrub layer of salmon berry, vine maple, hazel and some ocean spray. The stand varies from 75 feet to 125 feet wide. The alder is decaying and represents a safety hazard to the private road and homes on the south side of the ownership as well as to PacifiCorp use of the canal access road.

Invasive Plant Species:

Scotch broom near roads and the canal have been treated with slashing and herbicide spraying for many years. Holly scattered in timbered areas. Reed Canary grass is also evident in depressions near the canal road.

Unique Habitat Features:

Nothing unique within the proposed harvest site. Understory is dense shrubs owing to the light. Technically, the entire area is within a riparian buffer generated from a 200-300 buffer from Speelyai Creek and Canal. This is somewhat of an artificial water type because the canal is man-made but does have fish. Maintaining a typical riparian buffer is not feasible because the integrity of the dike must be protected from woody plants that could have roots that under-mine the dike.

Proposed Management :

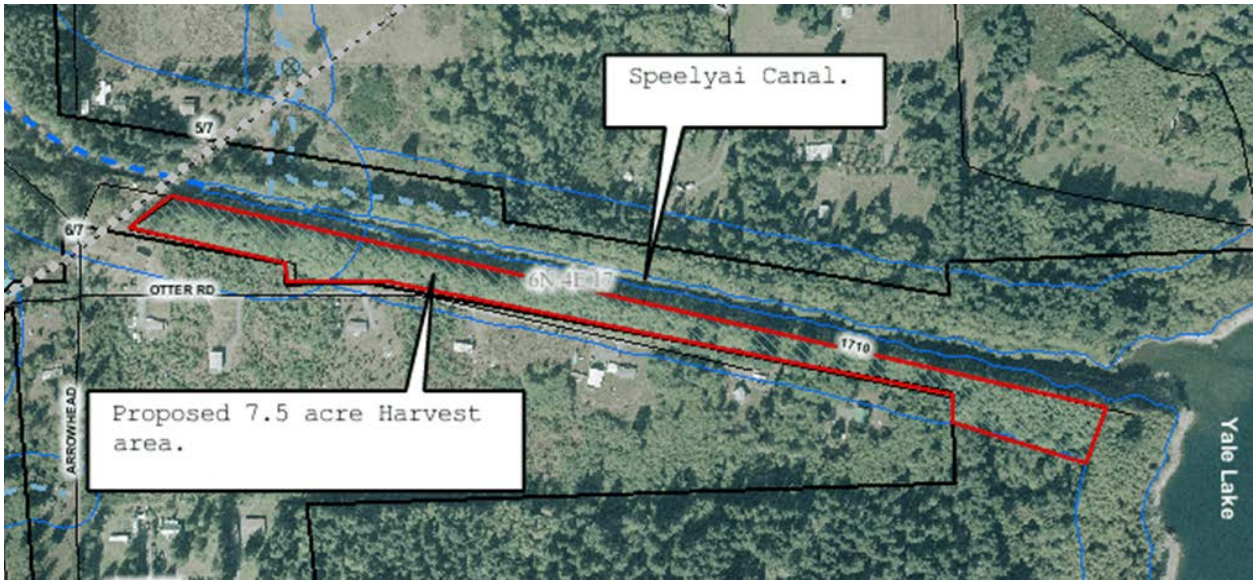
Because the alder is decaying, it represents a safety hazard to adjacent road use and homes on private land. Some dying trees have already been cut to provide safety at the homeowners request along Otter Road. This area is proposed for harvest as a 7.5 acre clear-cut, retaining any conifer and some shrubs were possible. The narrow band of ownership will restrict tree falling as directional with the long axis of the ownership and this may limit what can be retained. The area will be replanted with conifer. The intent isn't to develop this area as short term enhanced forage for big-game because of the proximity of the homes, but the area will still be seeded as is normally done on WHMP harvest areas. The grass/legume seed mix still provides cover for ground nesting or foraging birds.

Wildlife Observations:

No observations were made. Suitable nesting and forage habitat for passerine birds.

NSO Habitat: Stand age or timber type doesn't represent suitable NSO habitat. Goshawk surveys in 2013 were negative and will be conducted again in 2014.

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



Wildlife/Forestry Evaluation Form

Management Unit No.: 35 **Date:** Numerous visits 2013;

Observers: K. Naylor

Stand Descriptions:

The forest stands in Management Unit 35 originated from timber harvests from 1974 - 1975 but most stands are 37-45 years of age. Stands in the northwest portion of Section 13 that were evaluated for this assessment were planted in Douglas-fir that comprise about 60% of the over-story and the rest is mixed hemlock and pacific silver fir. The current stocking is approximately 200 trees per acre. Elevation in the evaluation area is approximately 3,000' MSL to 3,300' MSL.

The understory composition varies from diverse to bare ground. Commercial thinning to enhance the understory composition and develop more structure is feasible as the trees have significant crown development owing to the lower stocking rates compared to Unit 10 (similar age class). Understory species consist of vine maple, scrub willow and huckleberry (*Vaccinium* spp.). Some openings in the existing stands are thick shrub stands showing browse use but could support some opening for access.

Topography is gentle to moderately sloped but not steep. Streams need to be better defined by tracing the sources and stream channels to further define riparian buffers.

Invasive Plant Species:

None noted

Unique Habitat Features:

Nothing unique within the proposed harvest area was noted. A few decaying larger downed logs; Standing dead trees are usually less than scattered and receiving light use.

Proposed Management :

There are primarily two options for managing the forests of this age class that meet the objectives for enhancing wildlife habitat diversity. One is a passive approach to let stands naturally thin themselves and develop for another 20 years until stands reach an age of approximately 60 years. Another approach, in order to develop stand diversity (age classes, structure, and species) is recommended to selectively thin portions of the stands and develop smaller clear-cut openings. Lowering stand density will enhance or encourage shrubs to develop along with more vertical diversity.

A present, an area of approximately 90 acres would be further

evaluated for management. No specific areas within the 90 acres have been identified until more time can be spent on the ground. A connecting road between the upper and lower roads (3510 road and 3540 road) is proposed to allow access to an existing rock source that can be used to maintain roads in the upper ownership.

Wildlife Observations: Deer (moderate pellet groups in some areas), and light elk pellet groups observed. Due to some disturbance in the area from managing new culverts and clearing over-grown roads, there wasn't any wildlife observed. Trails existed throughout the area suggesting at least transitory use by big game but there isn't a lot of forage to hold animals.

NSO Habitat: Stand age doesn't approach NSO habitat nor does it provide suitable goshawk habitat.

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

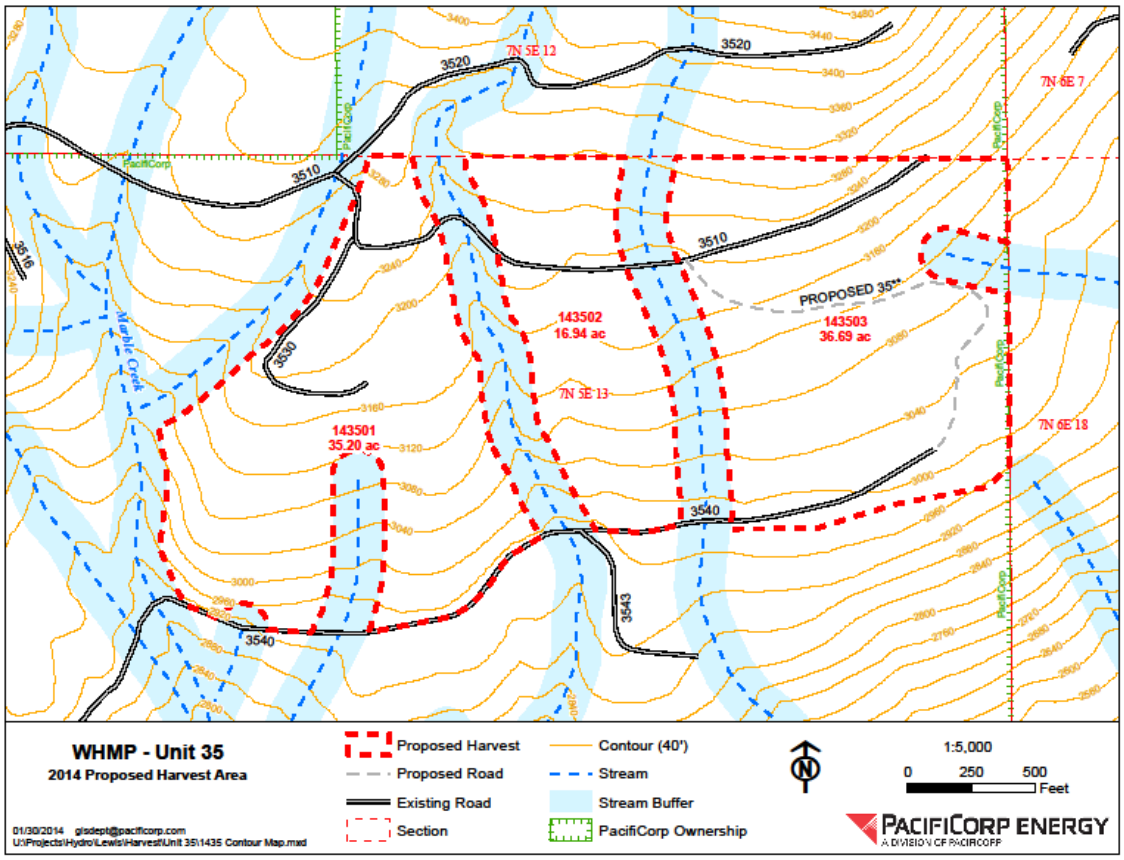


Figure 1. Northwest portion of Management Unit 35 showing proposed areas of management.

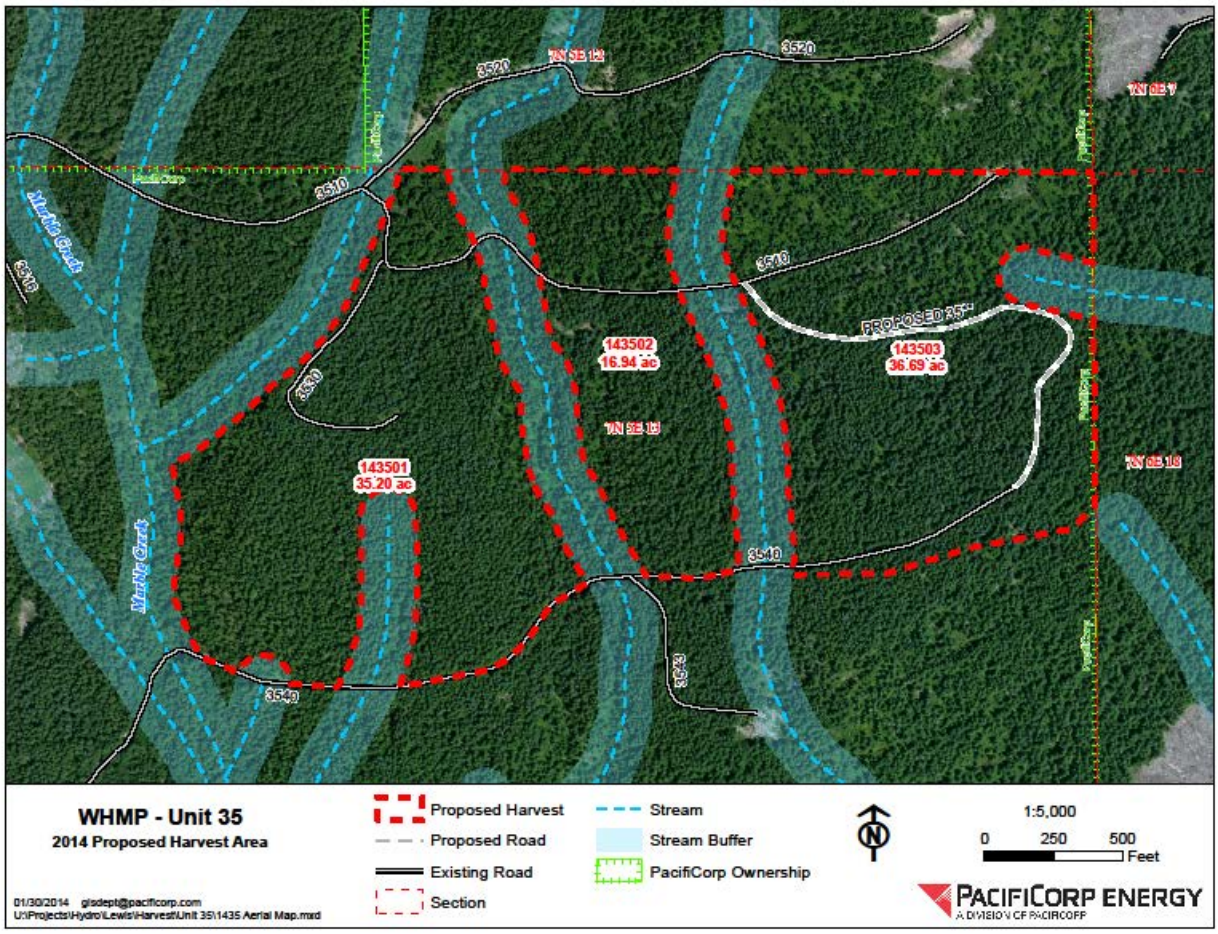
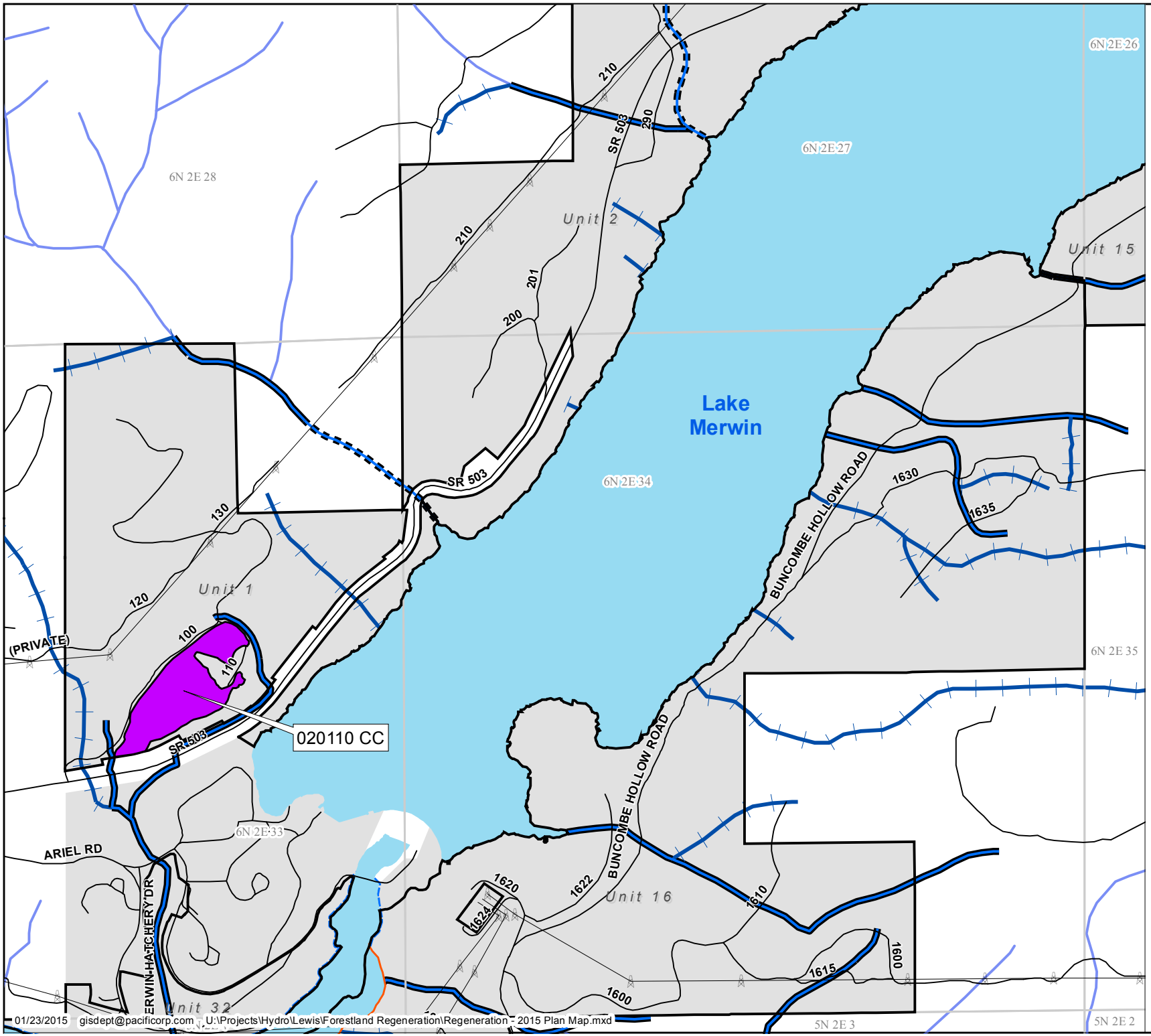


Figure 2. Aerial image showing relative uniform tree coverage through area considered for management.

APPENDIX E
2015 REGENERATION PRACTICES MAPS



Lewis River
Wildlife Habitat
Management Plan

2015 Forestland
Regeneration
Maintenance Actions

Sheet 1 of 10

Legend

- Plant
- Prune
- Pre-Commercial Thin
- Pre-Emergent Herbicide
- Plant / Pre-Emergent Herbicide
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Fish Stream
- Anadromous Fish Stream
- Non-fish Perennial Stream
- Non-fish Seasonal Stream
- Other Stream
- Road
- Water Body
- Wetland

0 500 1,000
Feet

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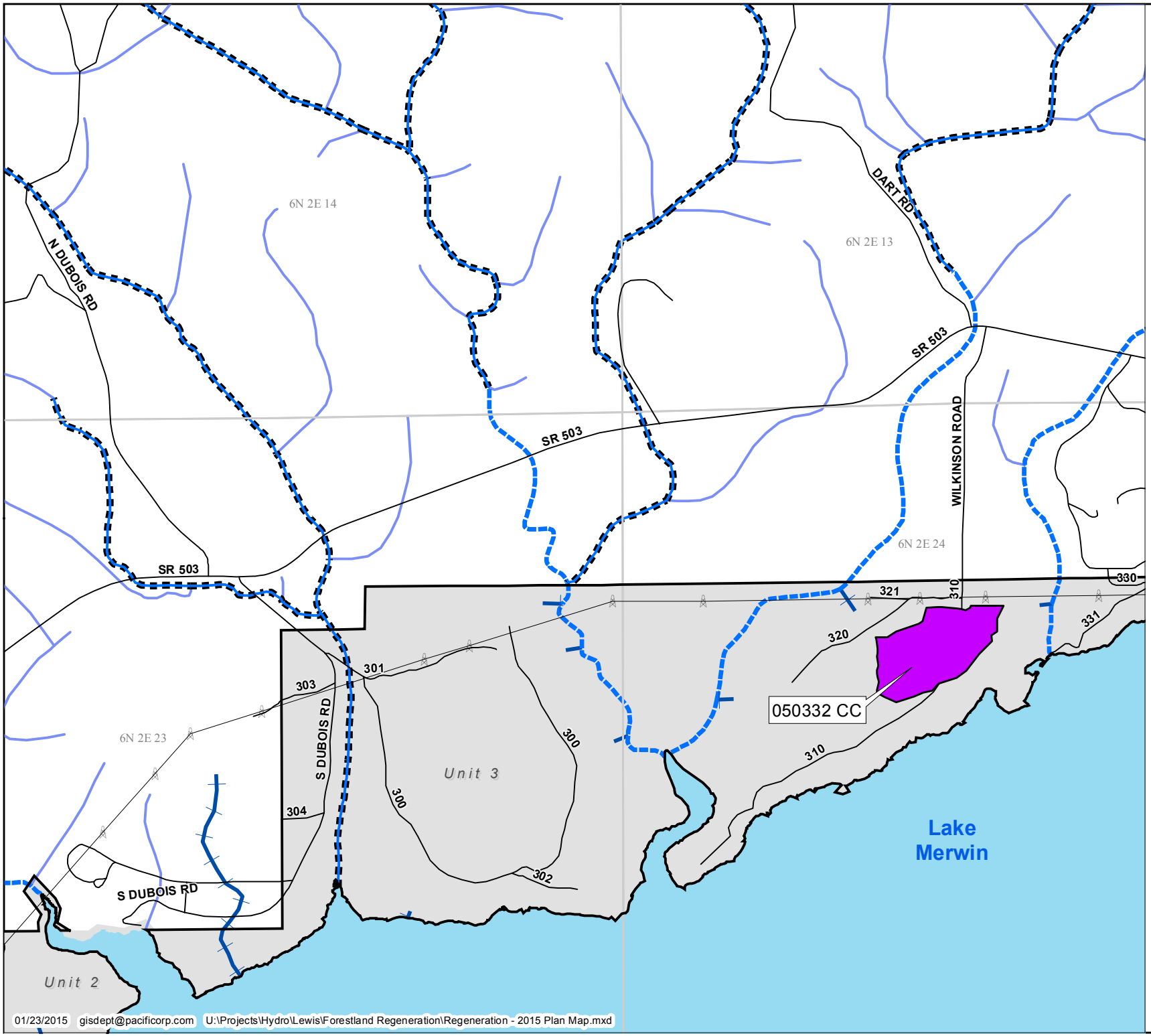
A DIVISION OF PACIFICORP
GIS SUPPORT SERVICES
Solutions Group
gisdept@pacificorp.com

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



Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 2 of 10

Legend

- Plant
- Prune
- Pre-Commercial Thin
- Pre-Emergent Herbicide
- Plant / Pre-Emergent Herbicide
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Fish Stream
- Anadromous Fish Stream
- Non-fish Perennial Stream
- Non-fish Seasonal Stream
- Other Stream
- Road
- Water Body
- Wetland

N W E S

0 500 1,000
Feet

PACIFICORP ENERGY
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gisdept@pacificorp.com

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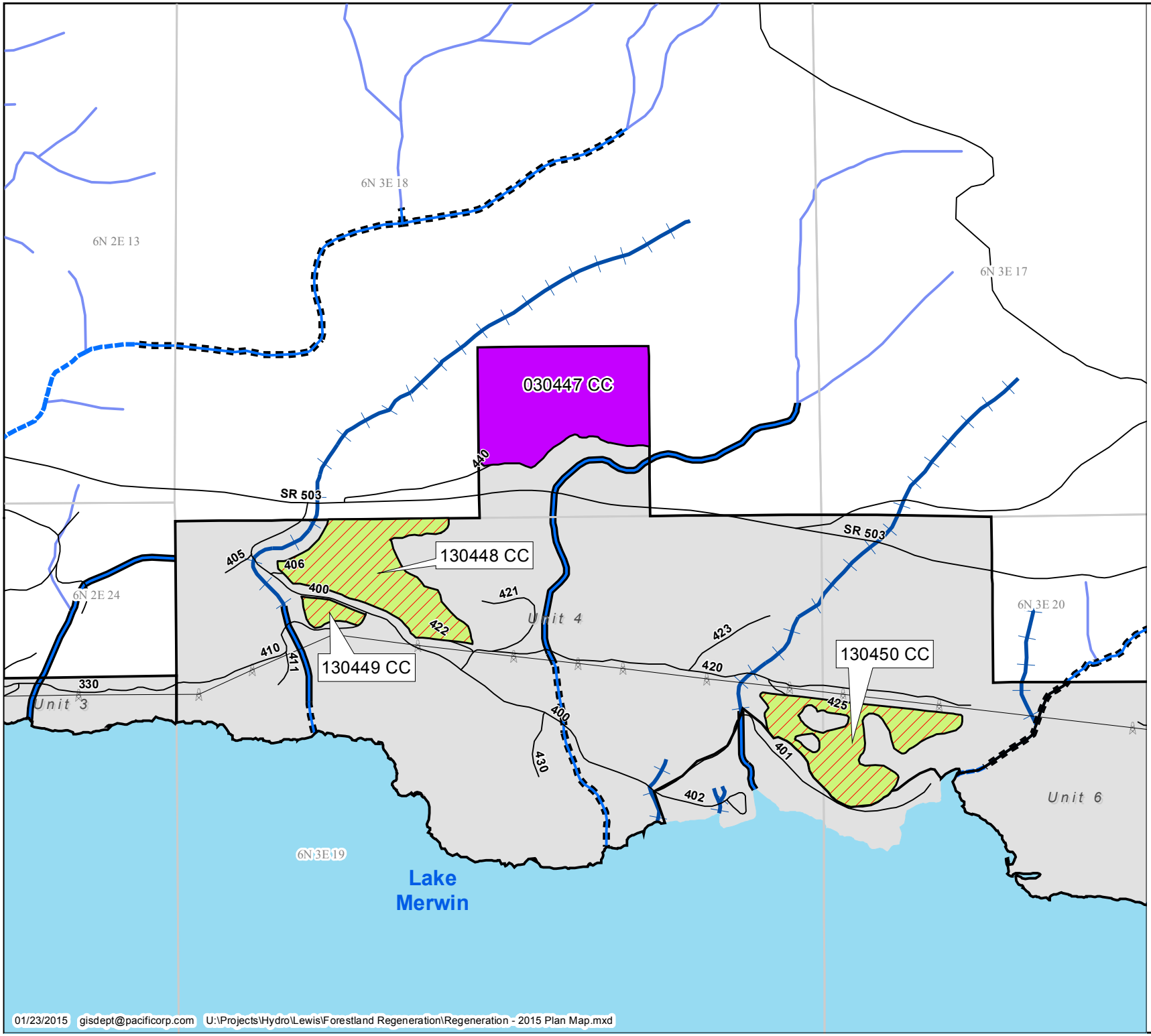

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 3 of 10

Legend

- Plant
- Prune
- Pre-Commercial Thin
- Pre-Emergent Herbicide
- Plant / Pre-Emergent Herbicide
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Fish Stream
- Anadromous Fish Stream
- Non-fish Perennial Stream
- Non-fish Seasonal Stream
- Other Stream
- Road
- Water Body
- Wetland

N W E S

0 500 1,000
Feet

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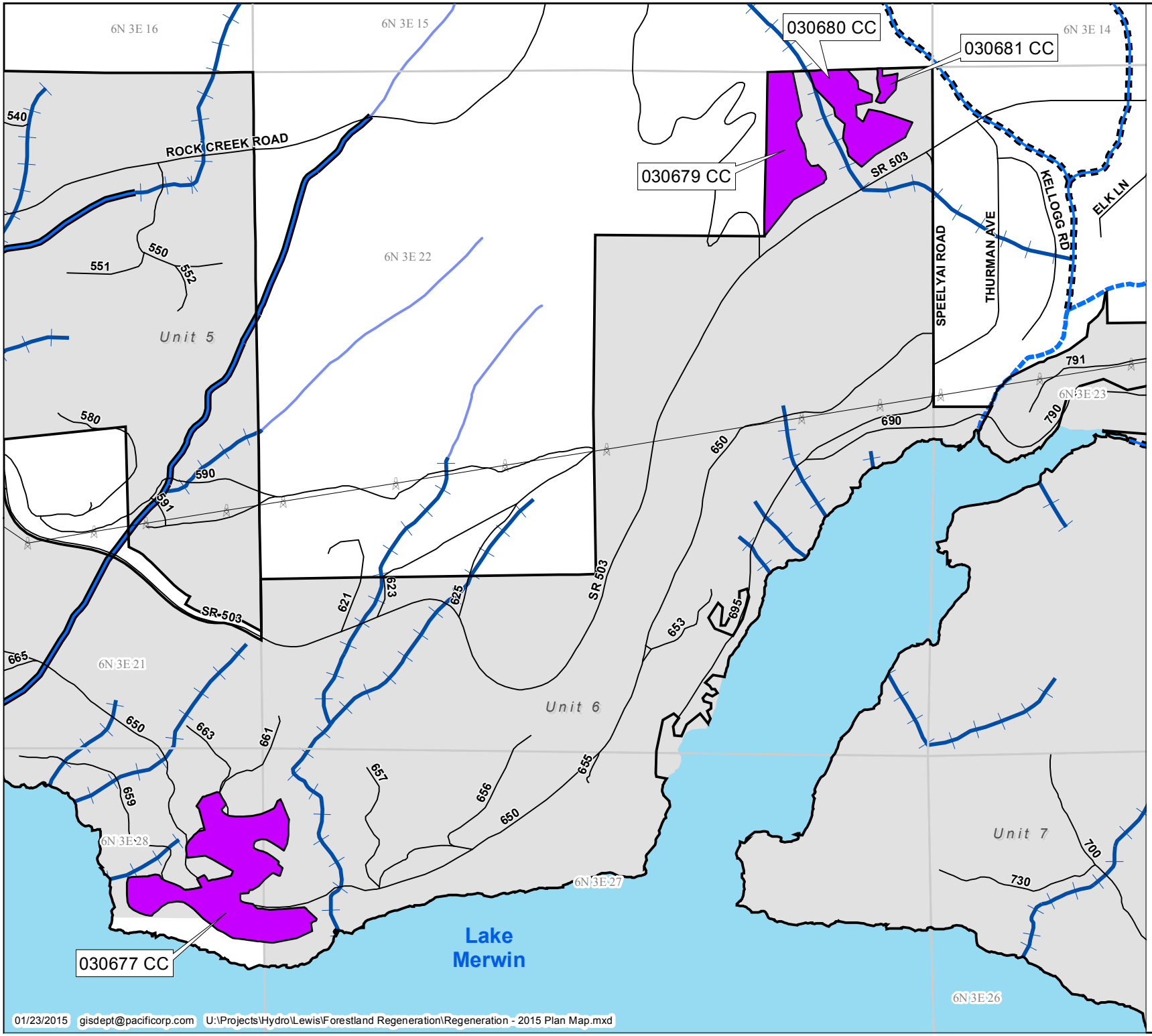

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 4 of 10

Legend

- Plant
- Prune
- Pre-Commercial Thin
- Pre-Emergent Herbicide
- Plant / Pre-Emergent Herbicide
- PacifiCorp Transmission Pole
- PacifiCorp Transmission Line
- Management Unit
- PacifiCorp Ownership
- Fish Stream
- Anadromous Fish Stream
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- Non-fish Seasonal Stream
- Other Stream
- Road
- Water Body
- Wetland

0 500 1,000
Feet

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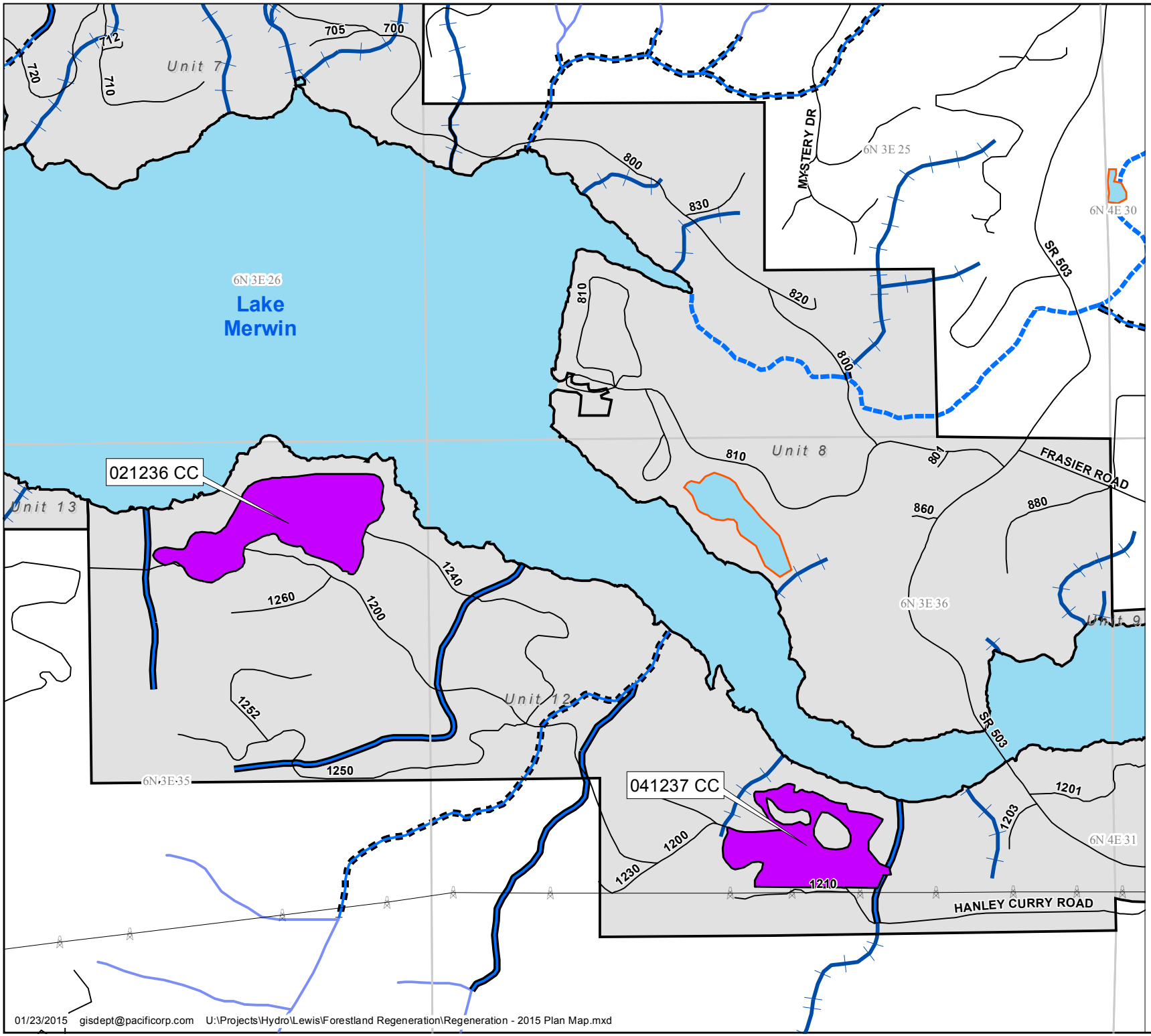

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 5 of 10

Legend

- Plant
- Prune
- Pre-Commercial Thin
- Pre-Emergent Herbicide
- Plant / Pre-Emergent Herbicide
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- Management Unit
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- Non-fish Seasonal Stream
- Other Stream
- Road
- Water Body
- Wetland

0 500 1,000
Feet

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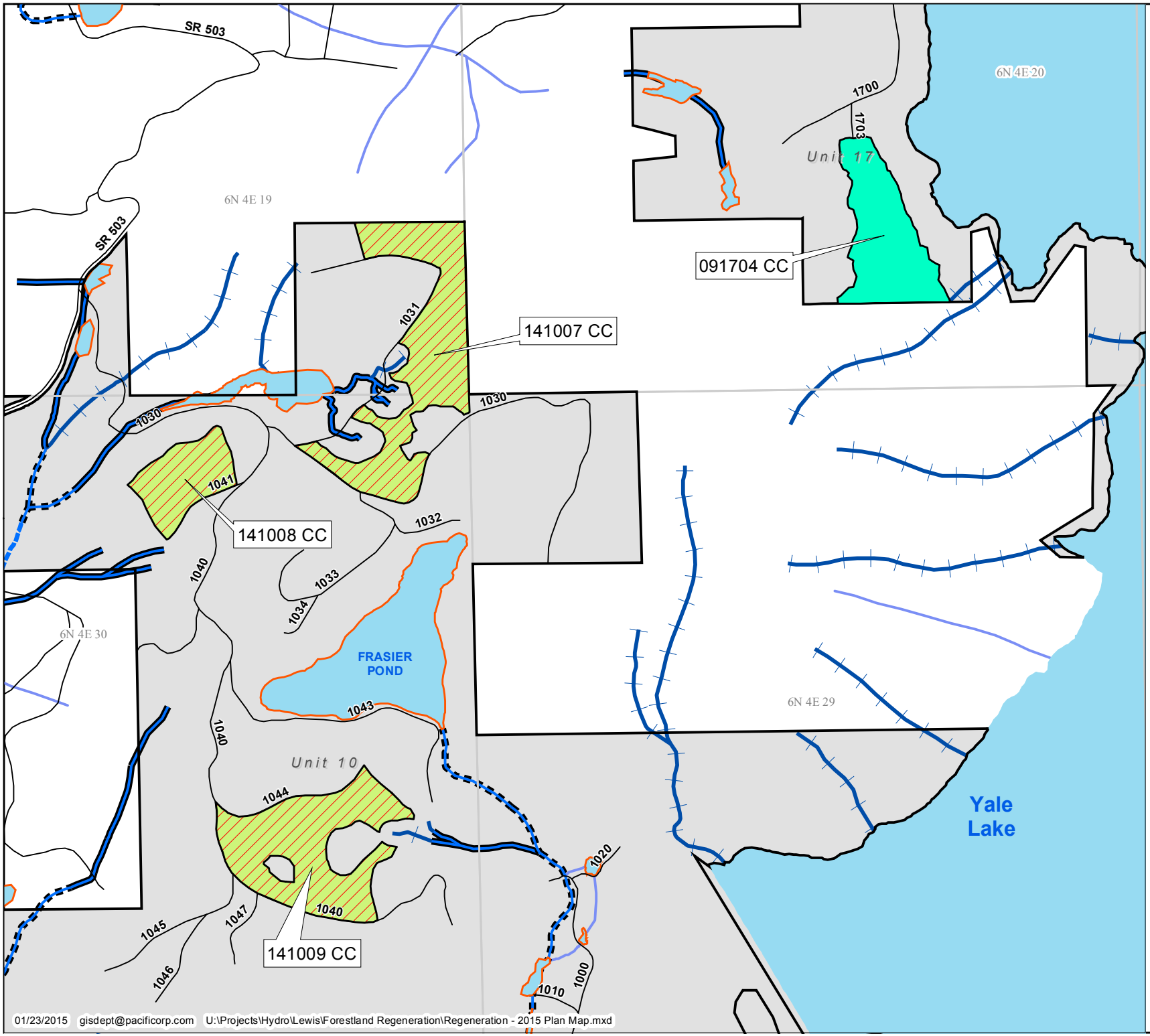

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 6 of 10

Legend

- Plant
- Prune
- Pre-Commercial Thin
- Pre-Emergent Herbicide
- Plant / Pre-Emergent Herbicide
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- Non-fish Seasonal Stream
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- Wetland

N W E S

0 500 1,000
Feet

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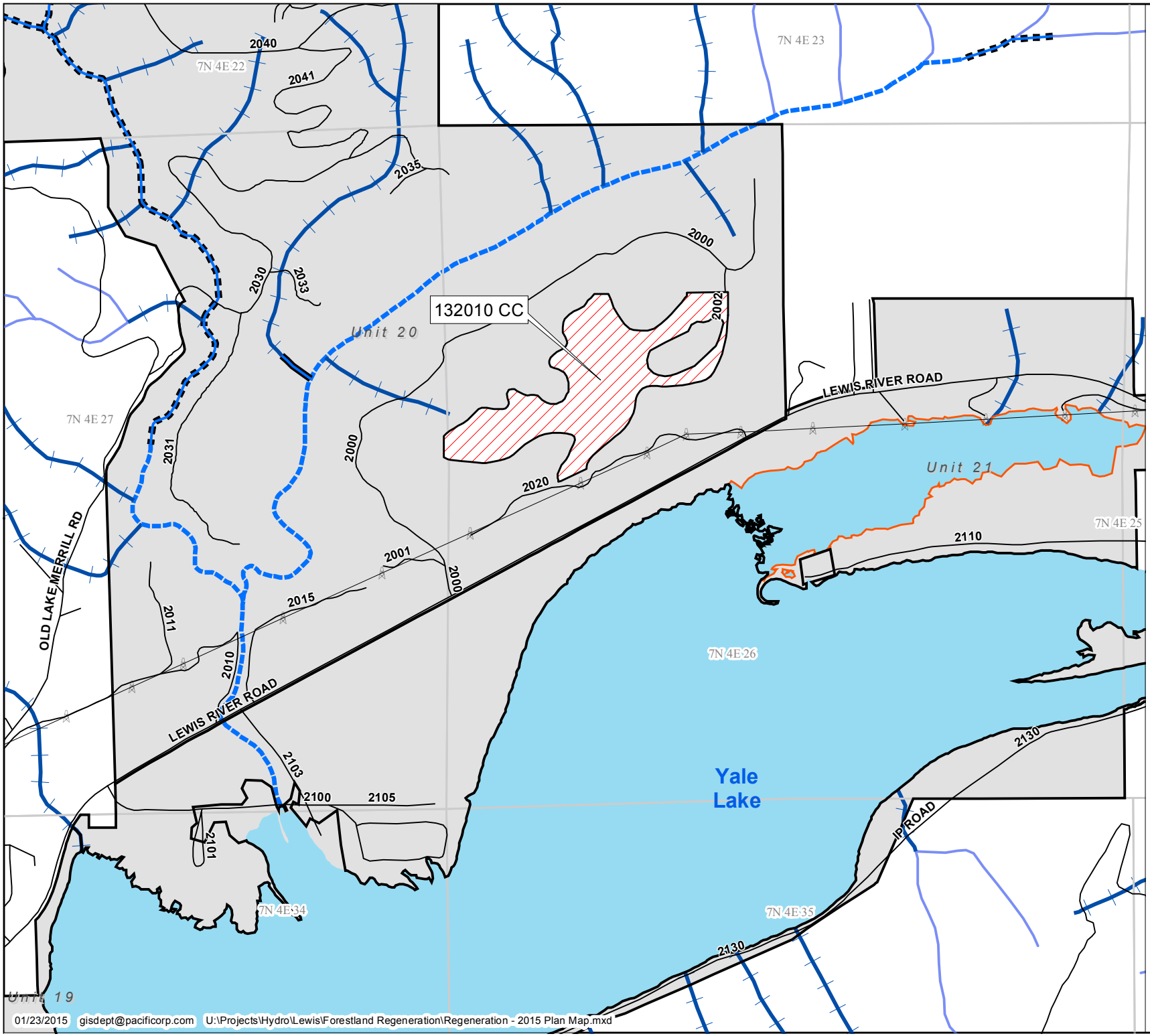

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 7 of 10

Legend

- Plant
- Prune
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N W E S

0 500 1,000
Feet

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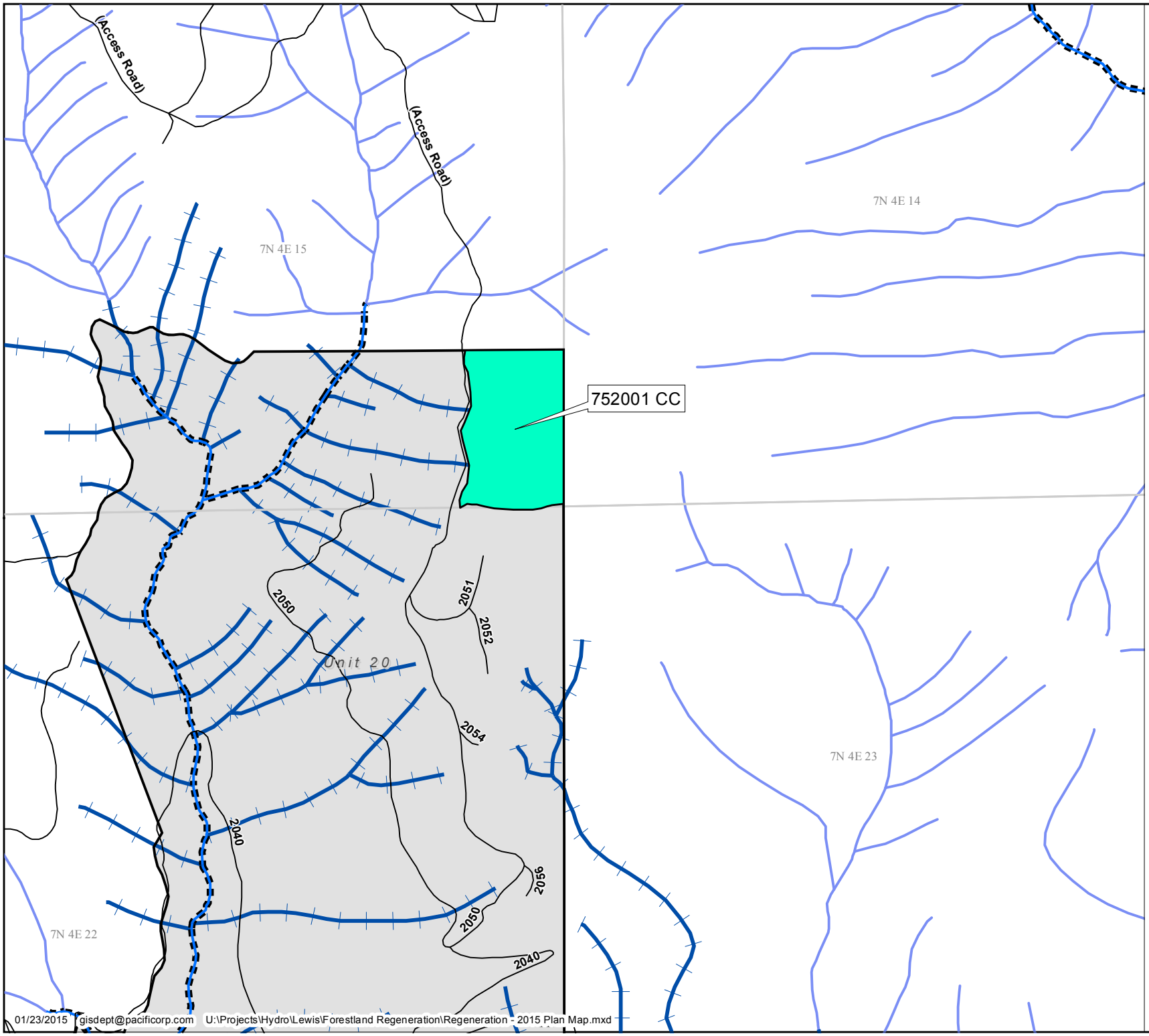

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 8 of 10

Legend

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N W E S

0 500 1,000
Feet

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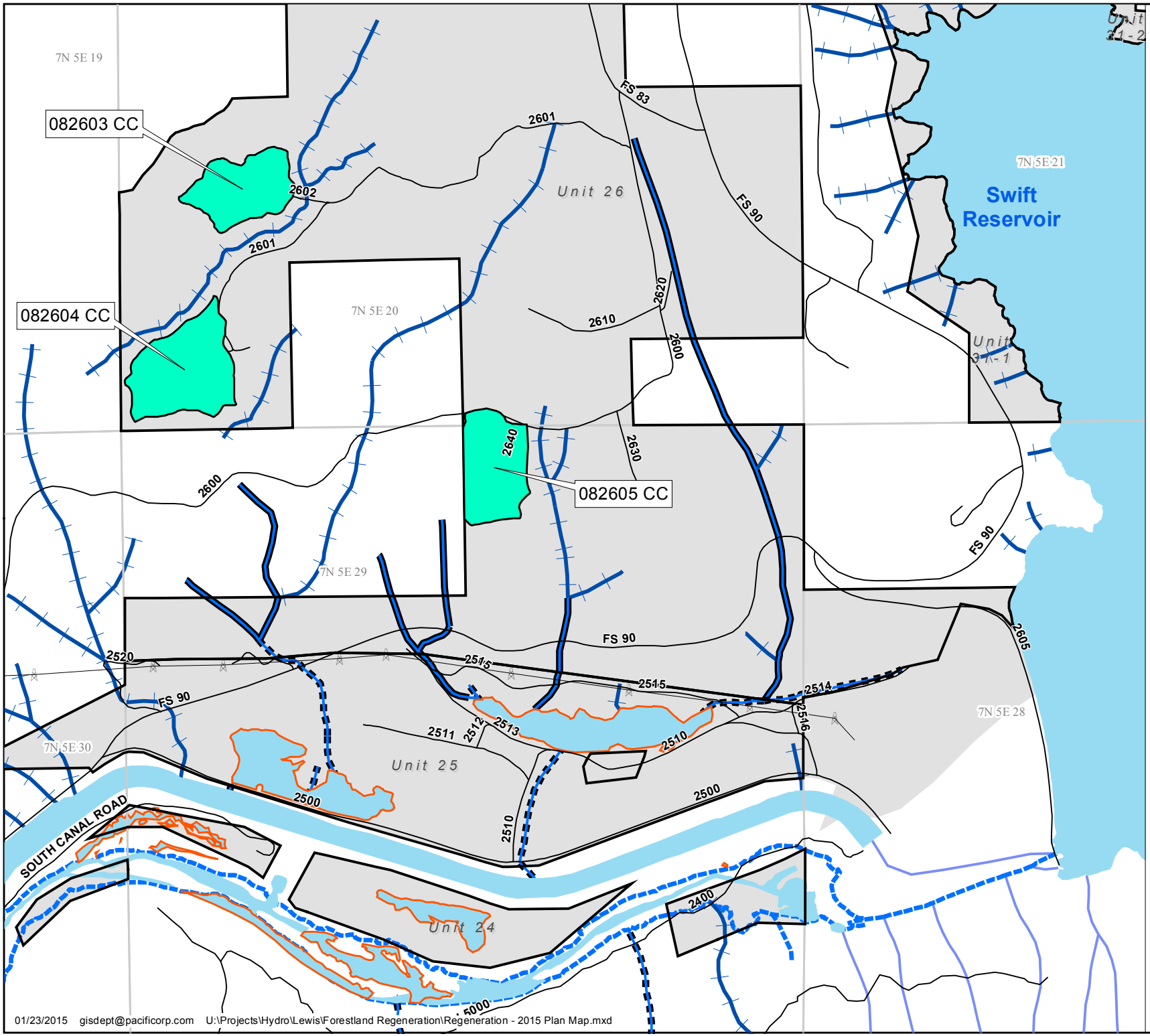

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 9 of 10

Legend

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- Wetland

N W E S

0 500 1,000
Feet

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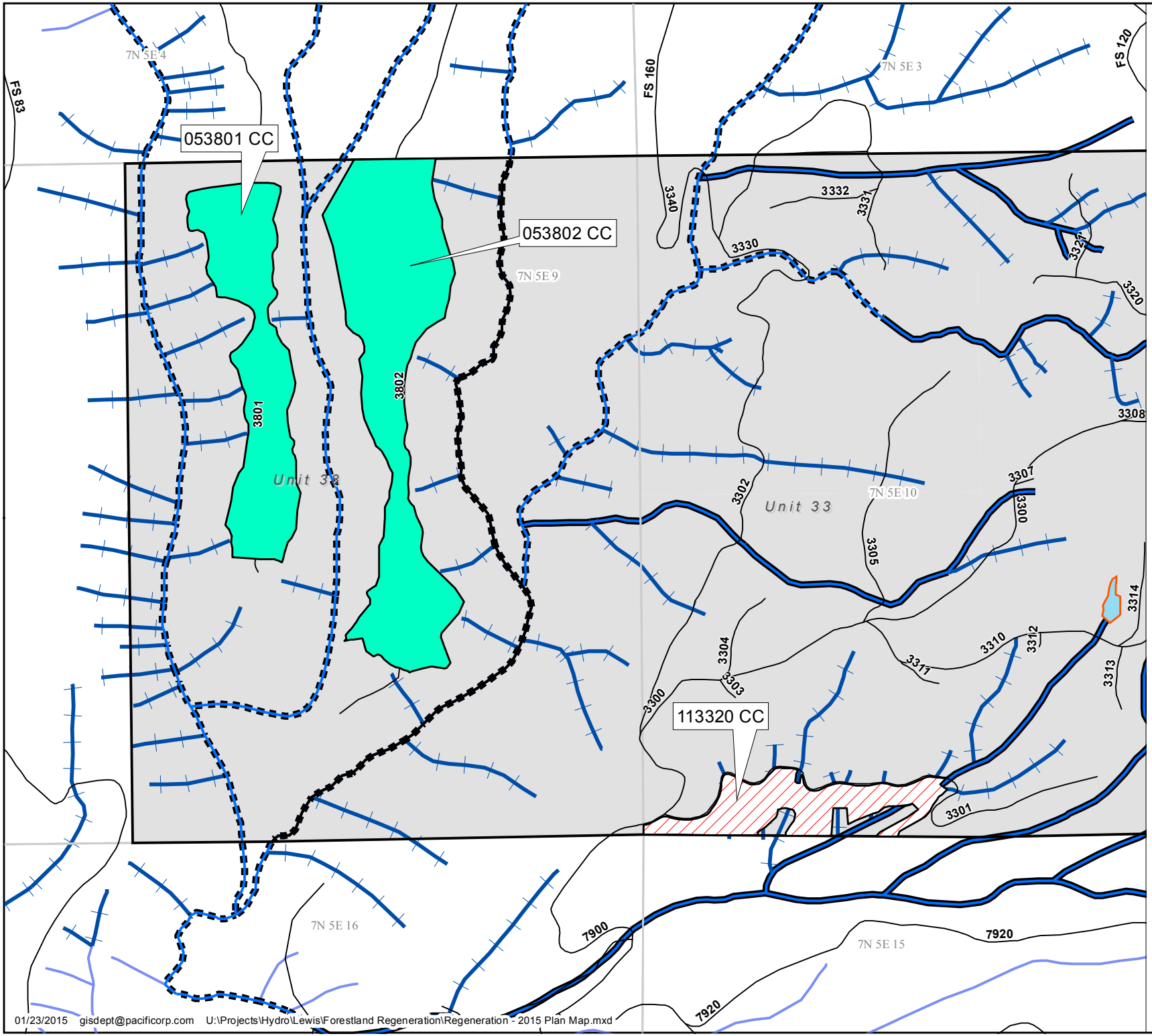

Lewis River Wildlife Habitat Management Plan

2015 Forestland Regeneration Maintenance Actions

Sheet 10 of 10

Legend

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N W E S

0 500 1,000
Feet

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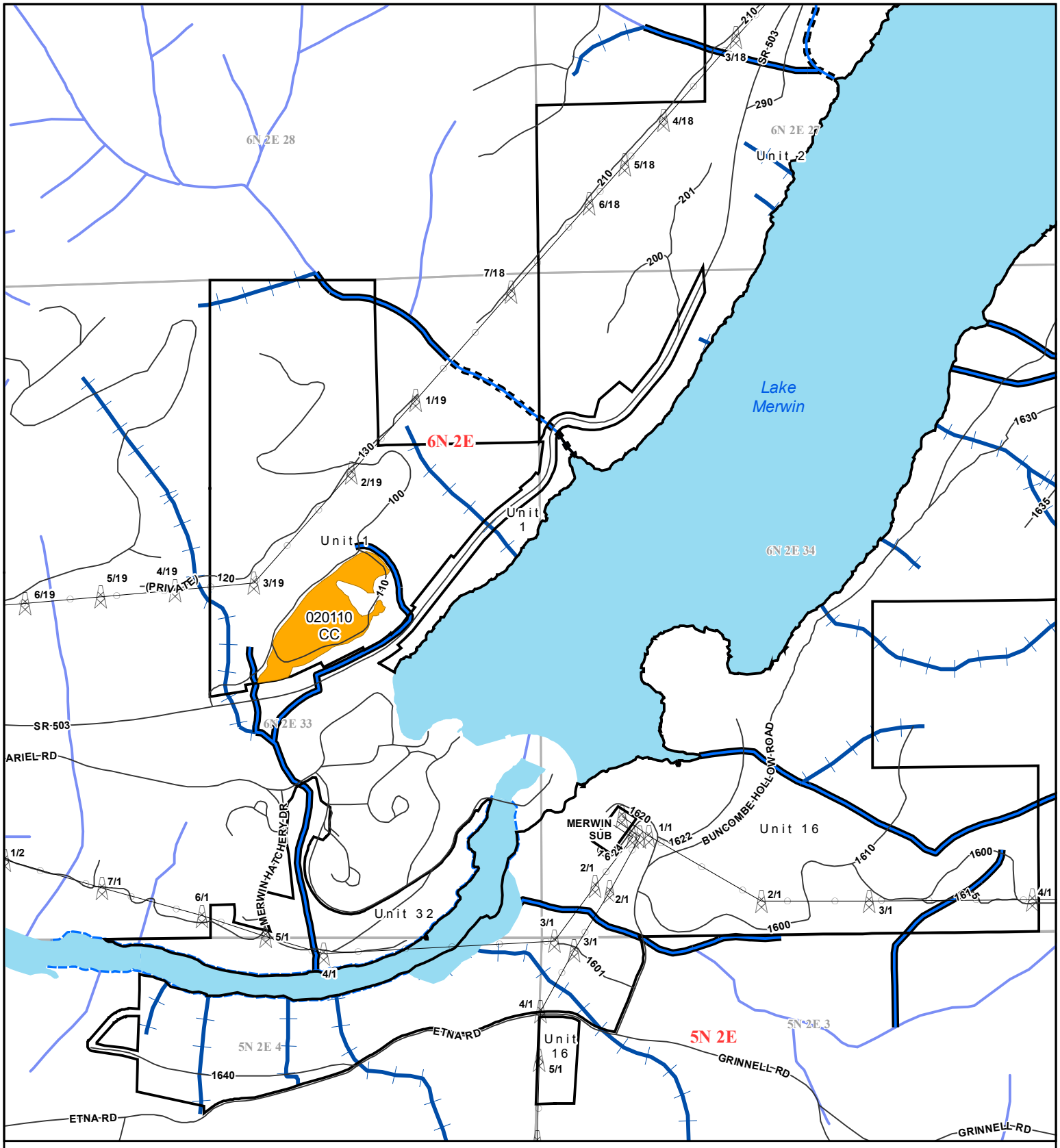
APPENDIX F
2015 VEGETATION CONTROL MAP



Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000

Feet

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

Sheet 1 of 11

PACIFICORP ENERGY
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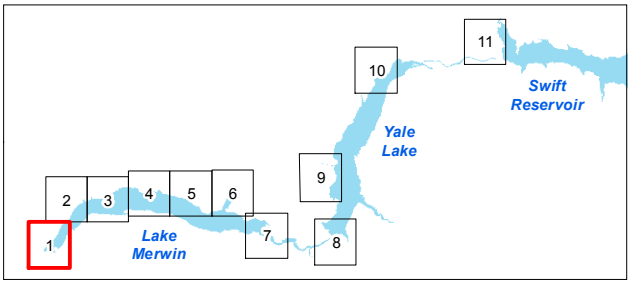

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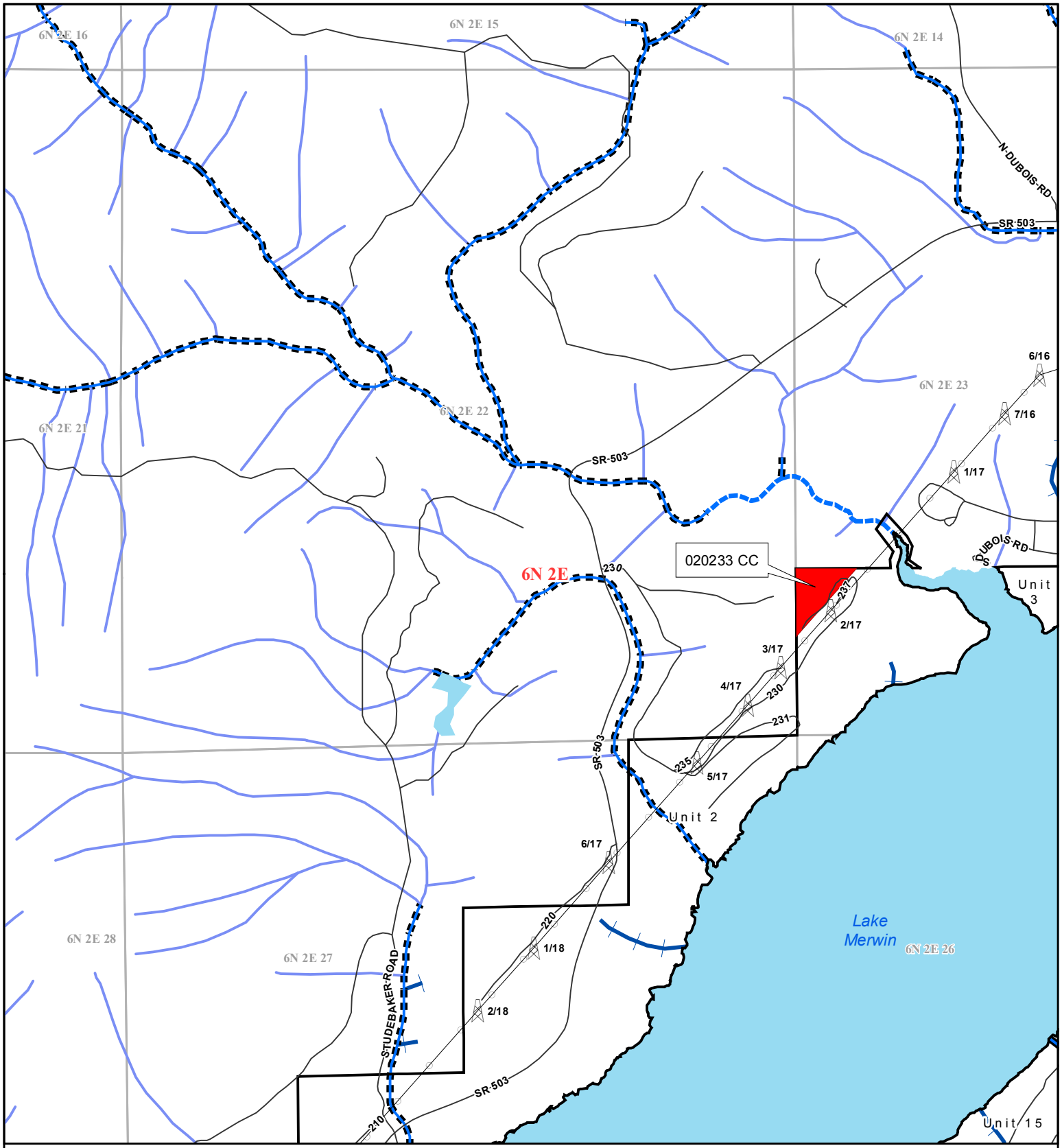

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000

Feet

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

Sheet 2 of 11

PACIFICORP ENERGY
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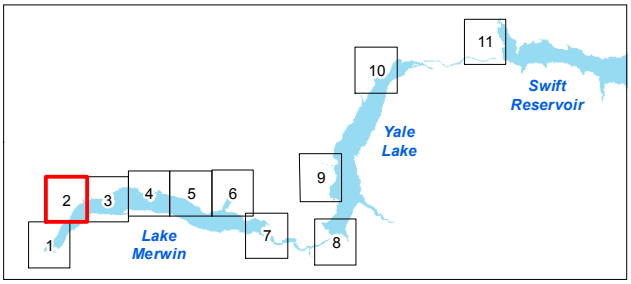

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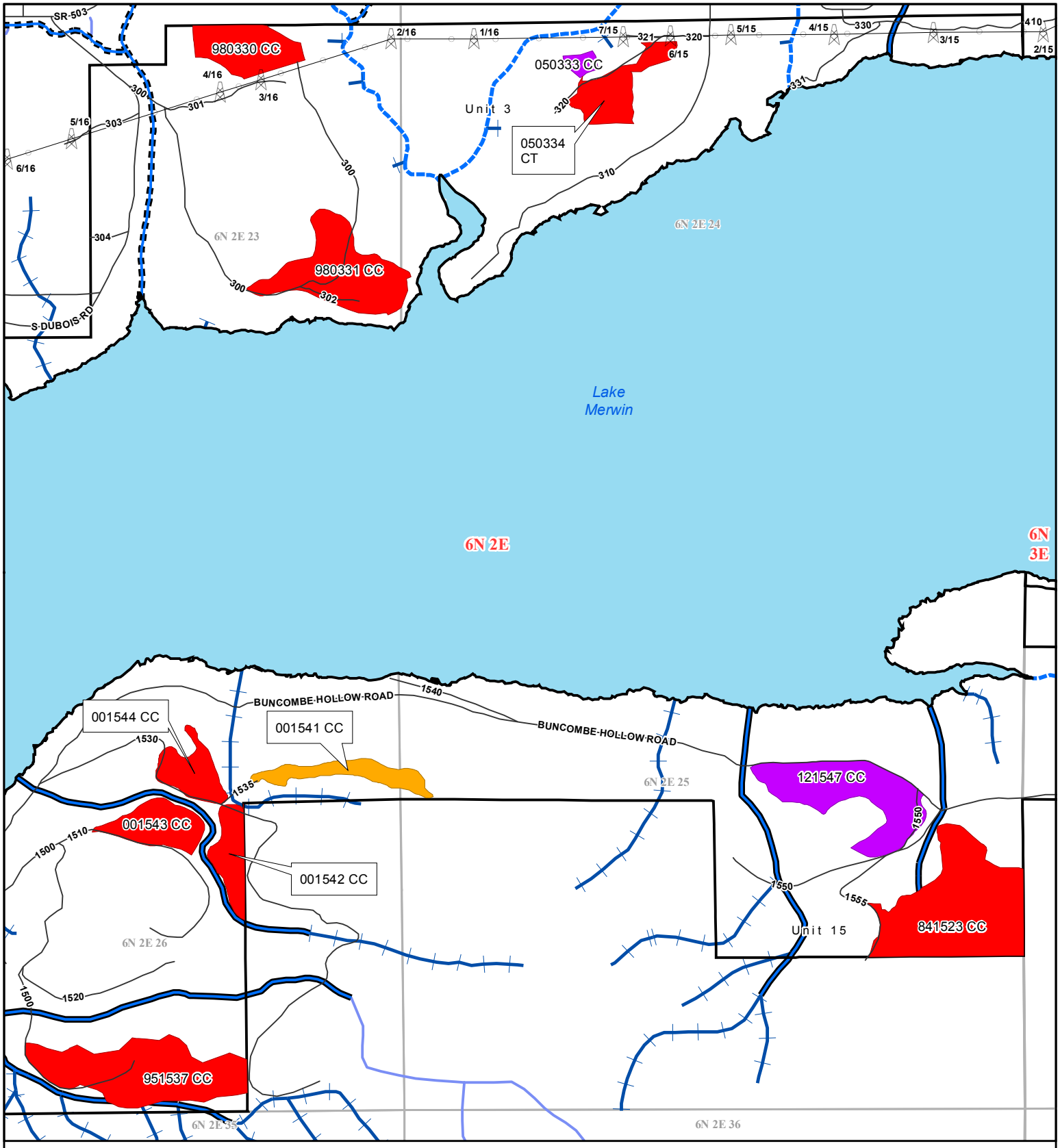

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000
Feet

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

Sheet 3 of 11

PACIFICORP ENERGY
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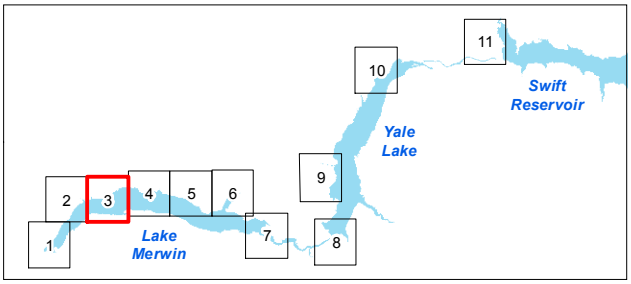

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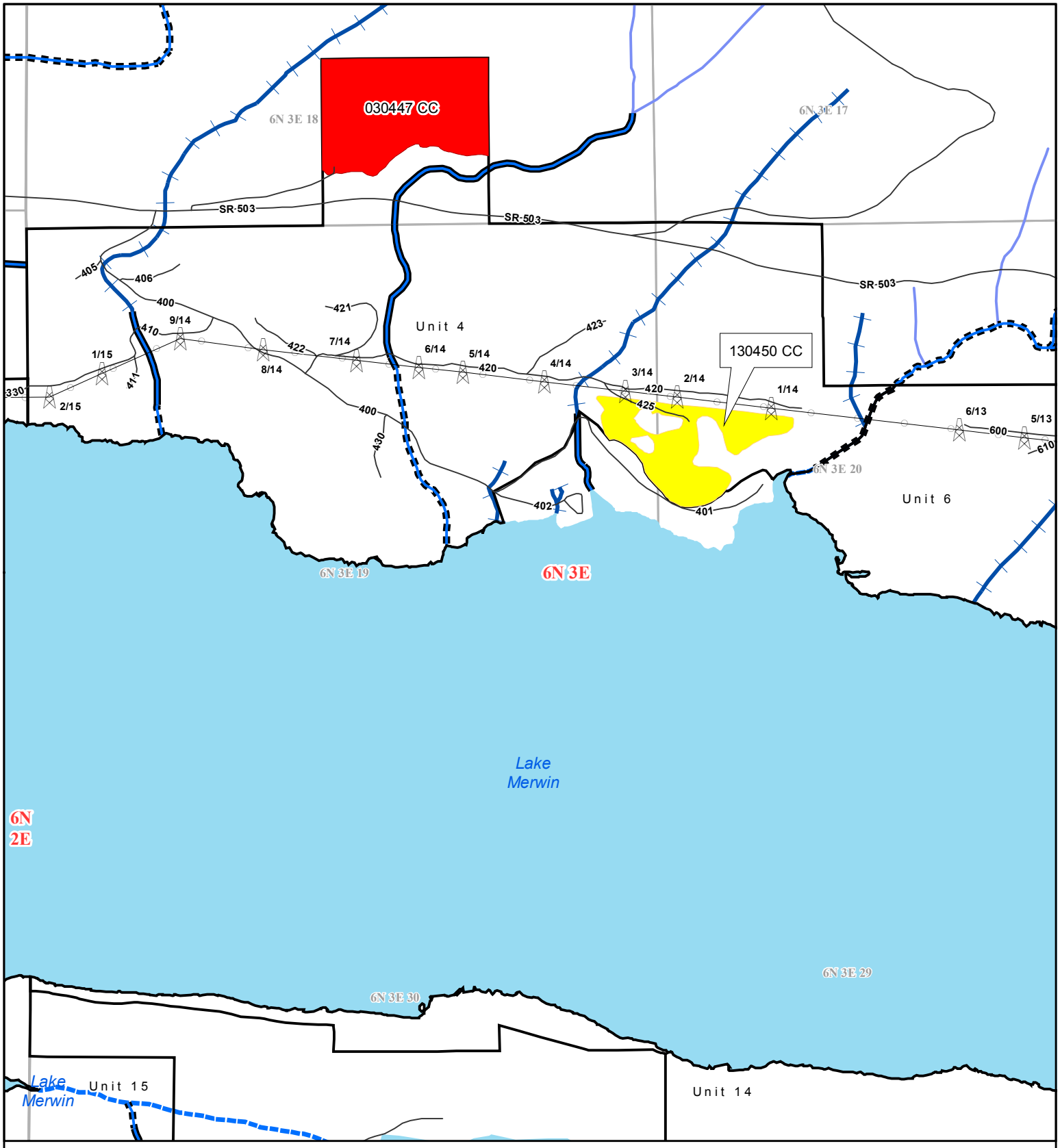

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000
Feet

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

Sheet 4 of 11

PACIFICORP ENERGY
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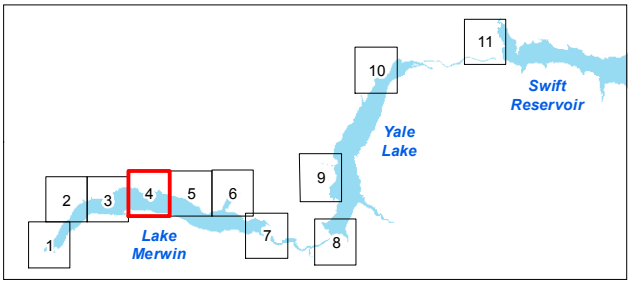

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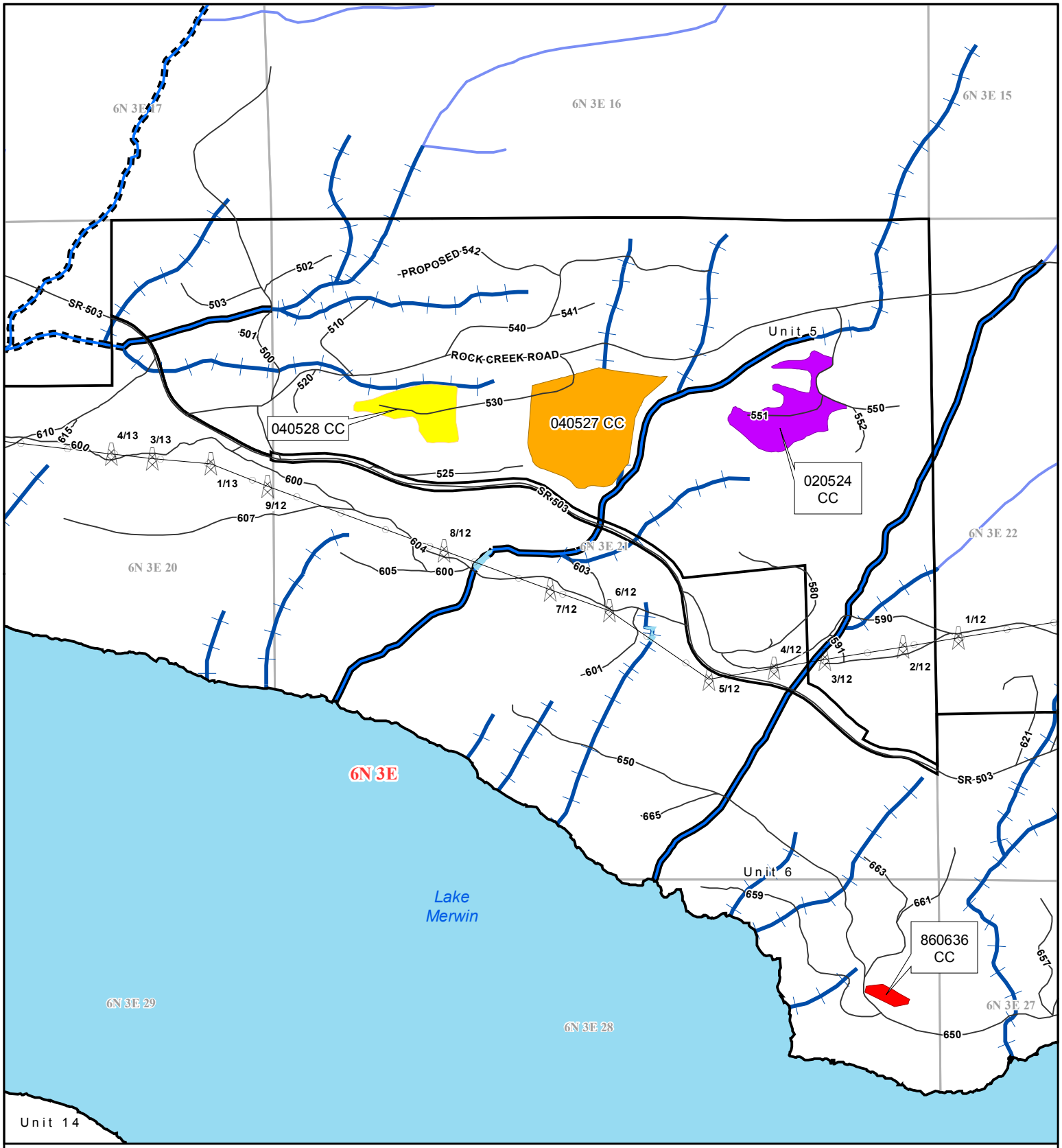

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000

Feet

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

Sheet 5 of 11

PACIFICORP ENERGY
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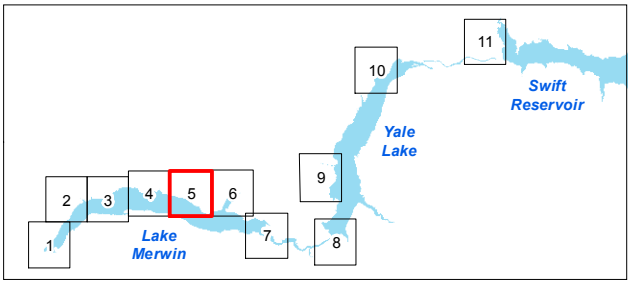

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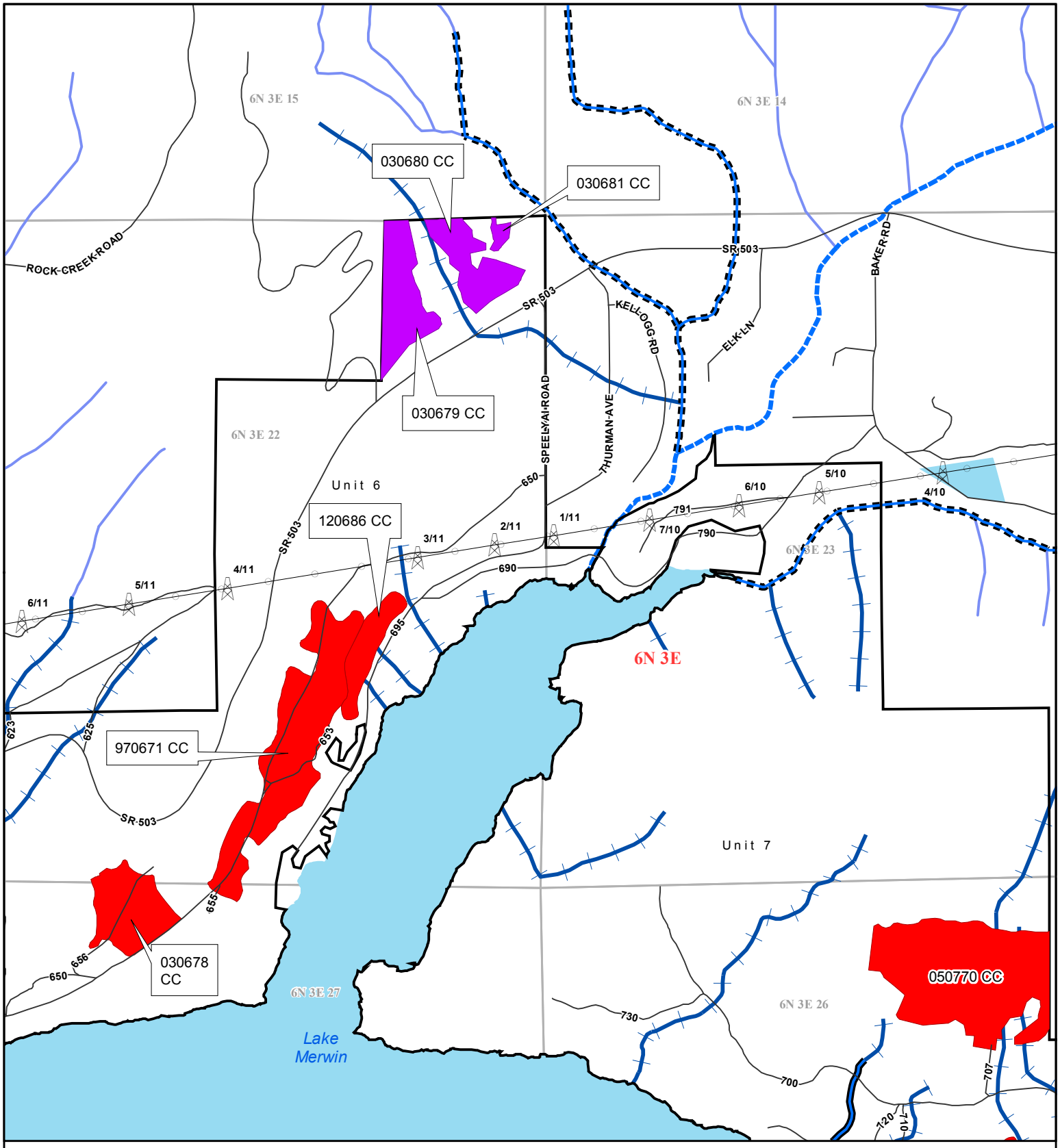

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000
Feet

- Class B
- Class C
- Class B and C
- Not Classified
- Transmission Pole
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- Road
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- Non-fish Seasonal Stream
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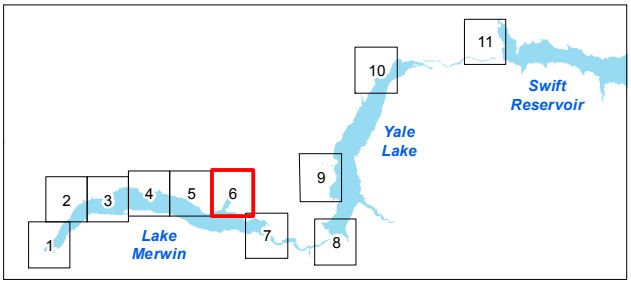
- Water Body
- Township/Range
- Section

Sheet 6 of 11

PACIFICORP ENERGY
A DIVISION OF PACIFICORP



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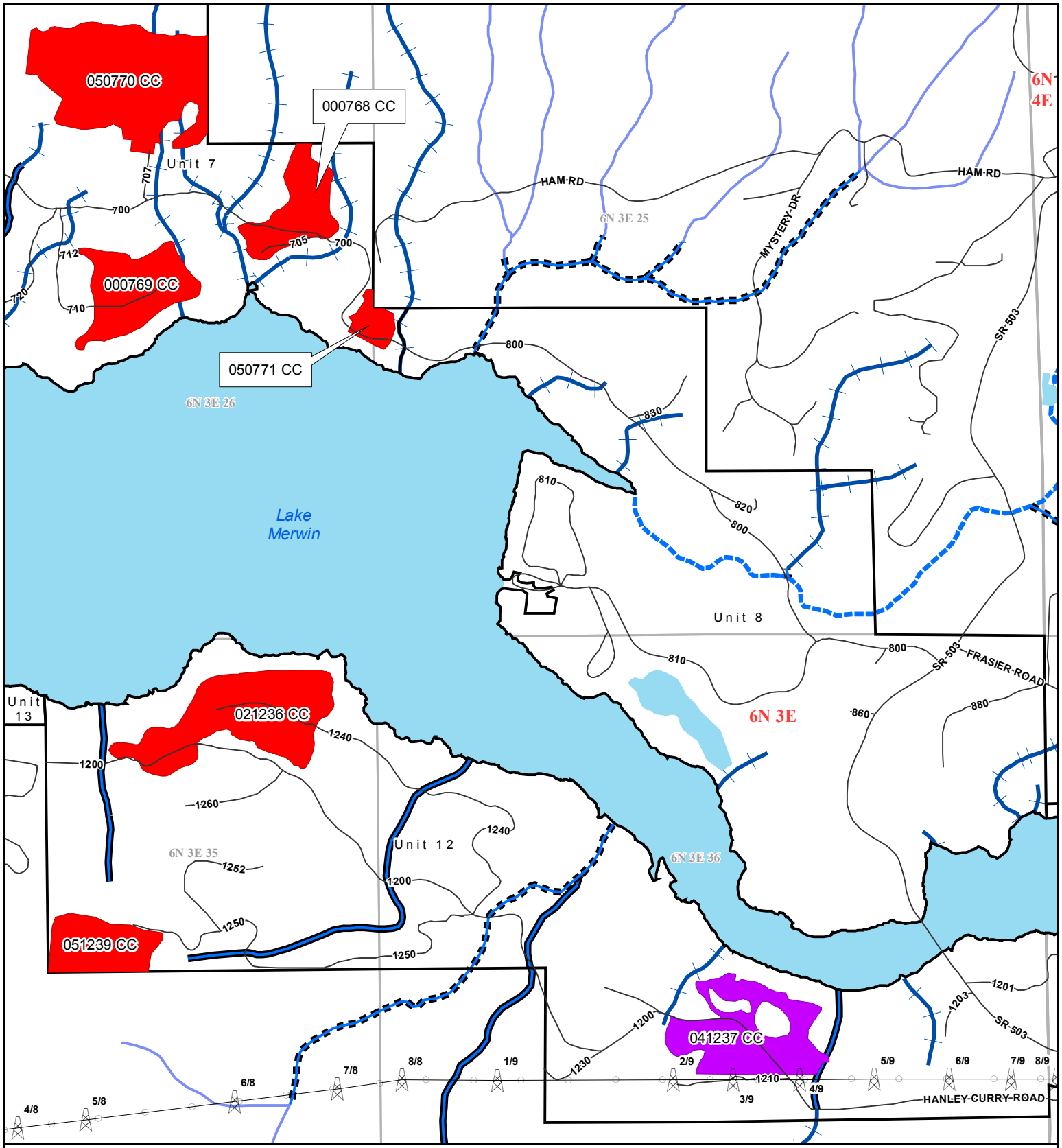


Lewis River

Wildlife Habitat Management Plan

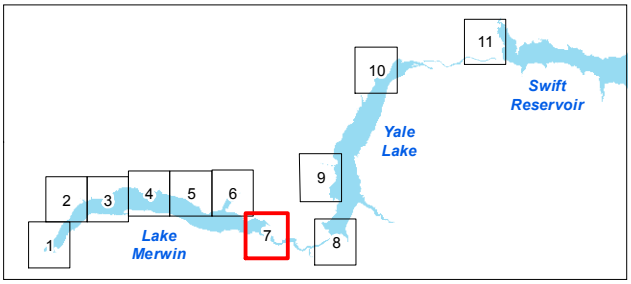
2015 Invasive Plant Control Areas

0 500 1,000
Feet

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

Sheet 7 of 11

PACIFICORP ENERGY
A DIVISION OF PACIFICORP



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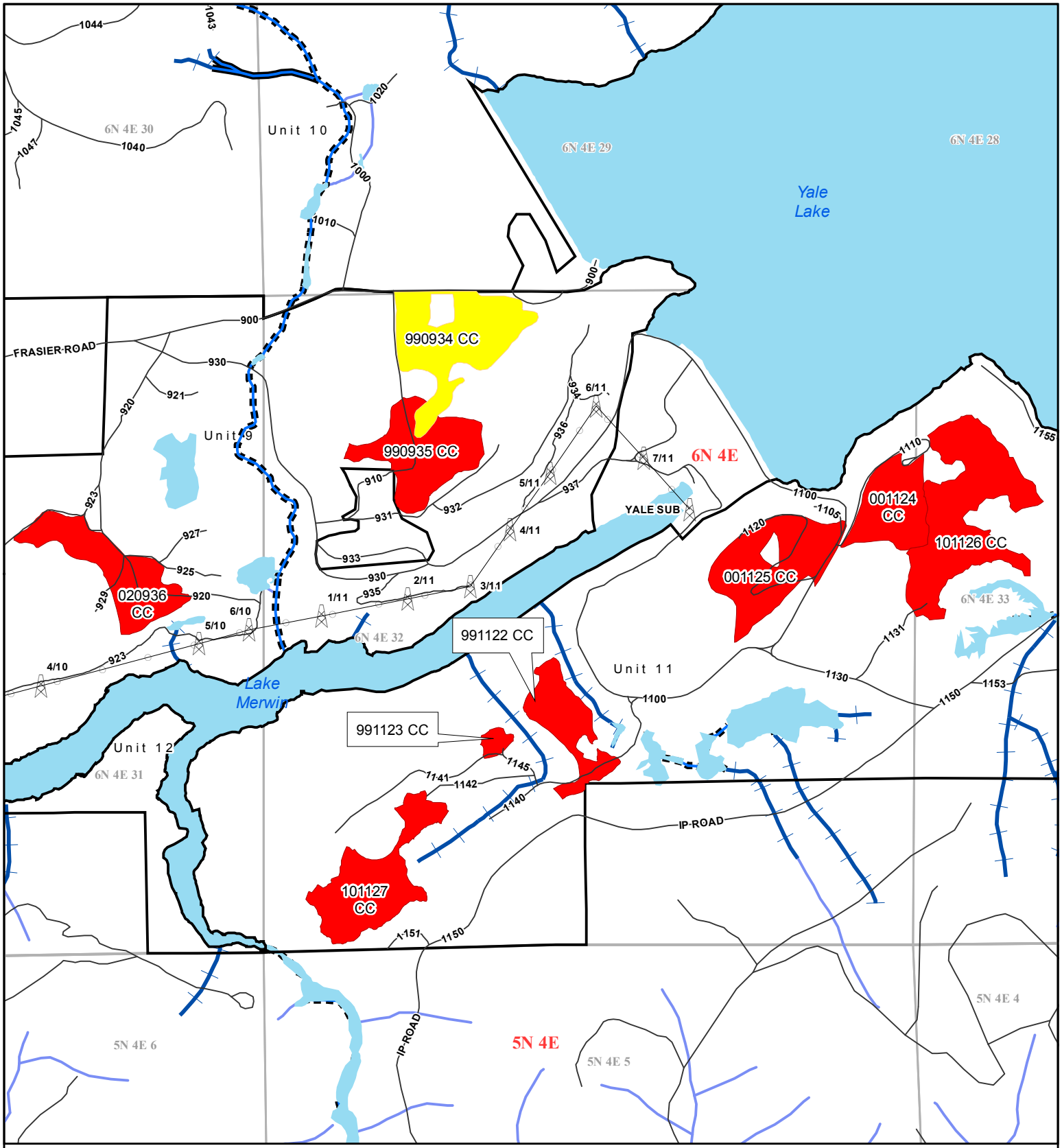

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000
Feet

Class B
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Class B and C
Not Classified
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Transmission Line
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Non-fish Seasonal Stream
Other Stream
Water Body
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Section

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PACIFICORP ENERGY
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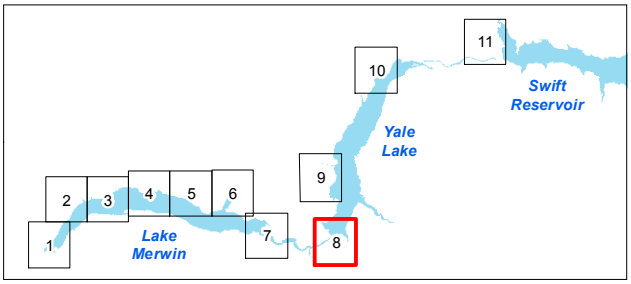

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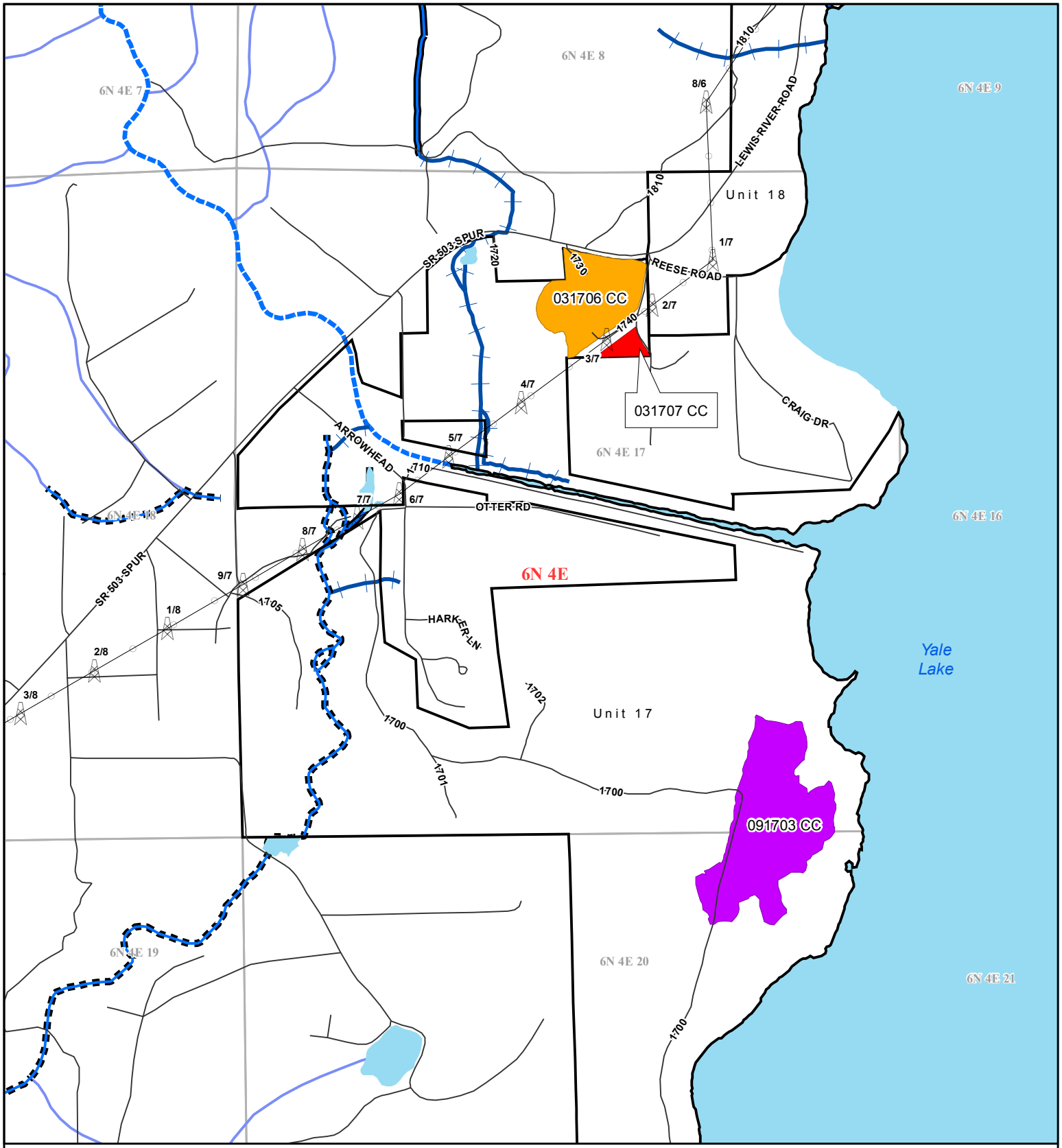

Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

0 500 1,000
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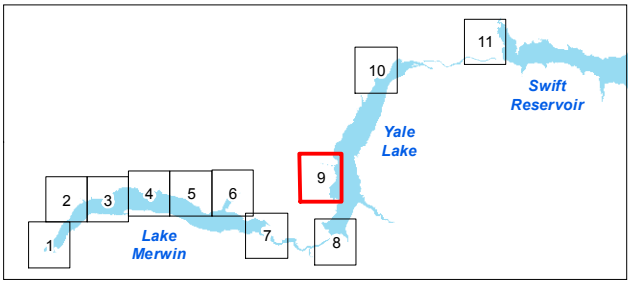

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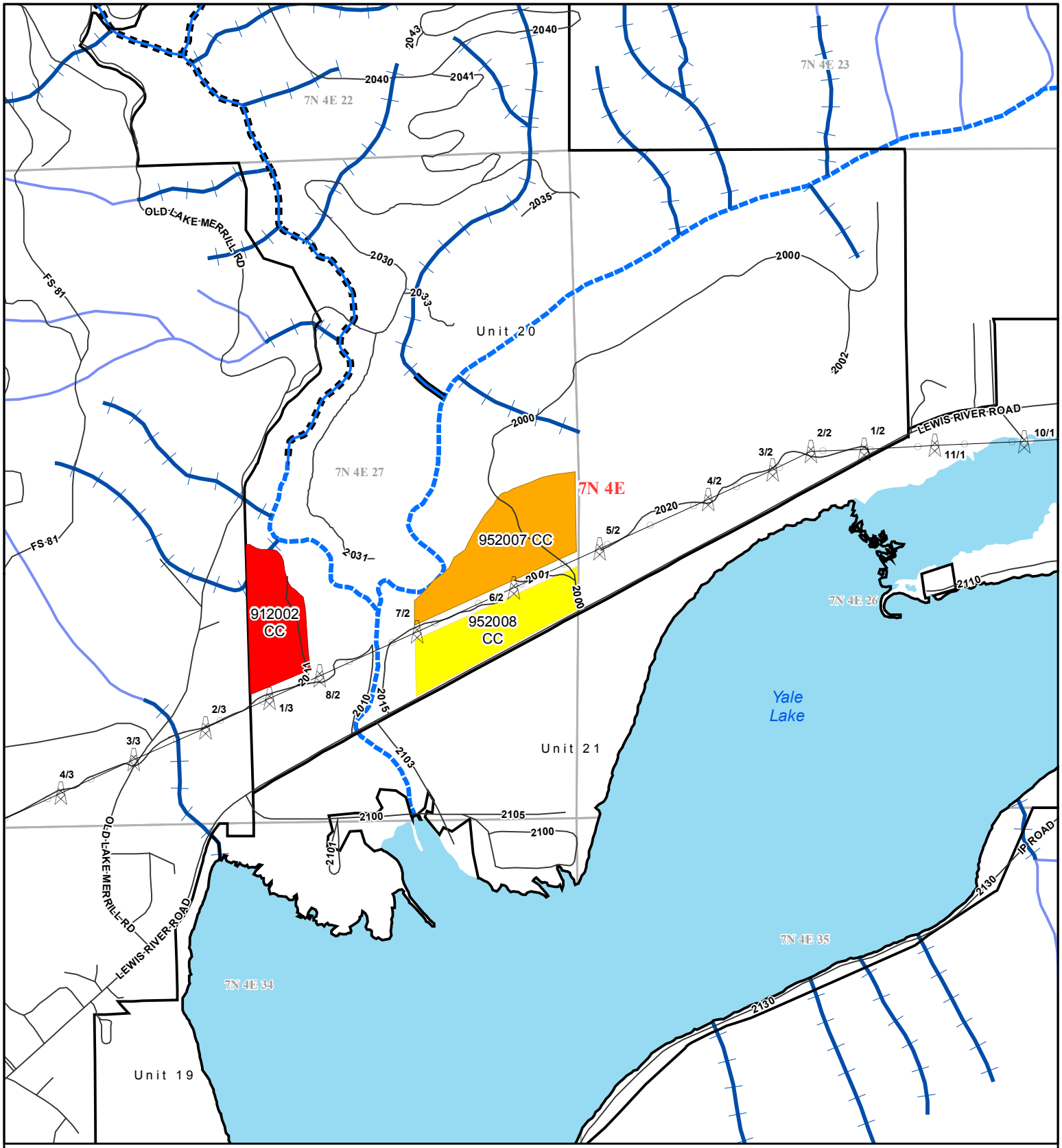

Lewis River

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2015 Invasive Plant Control Areas

0 500 1,000

Feet

Class B
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Not Classified
Transmission Pole
Transmission Line
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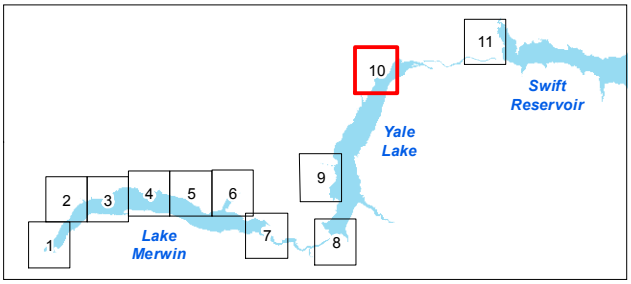
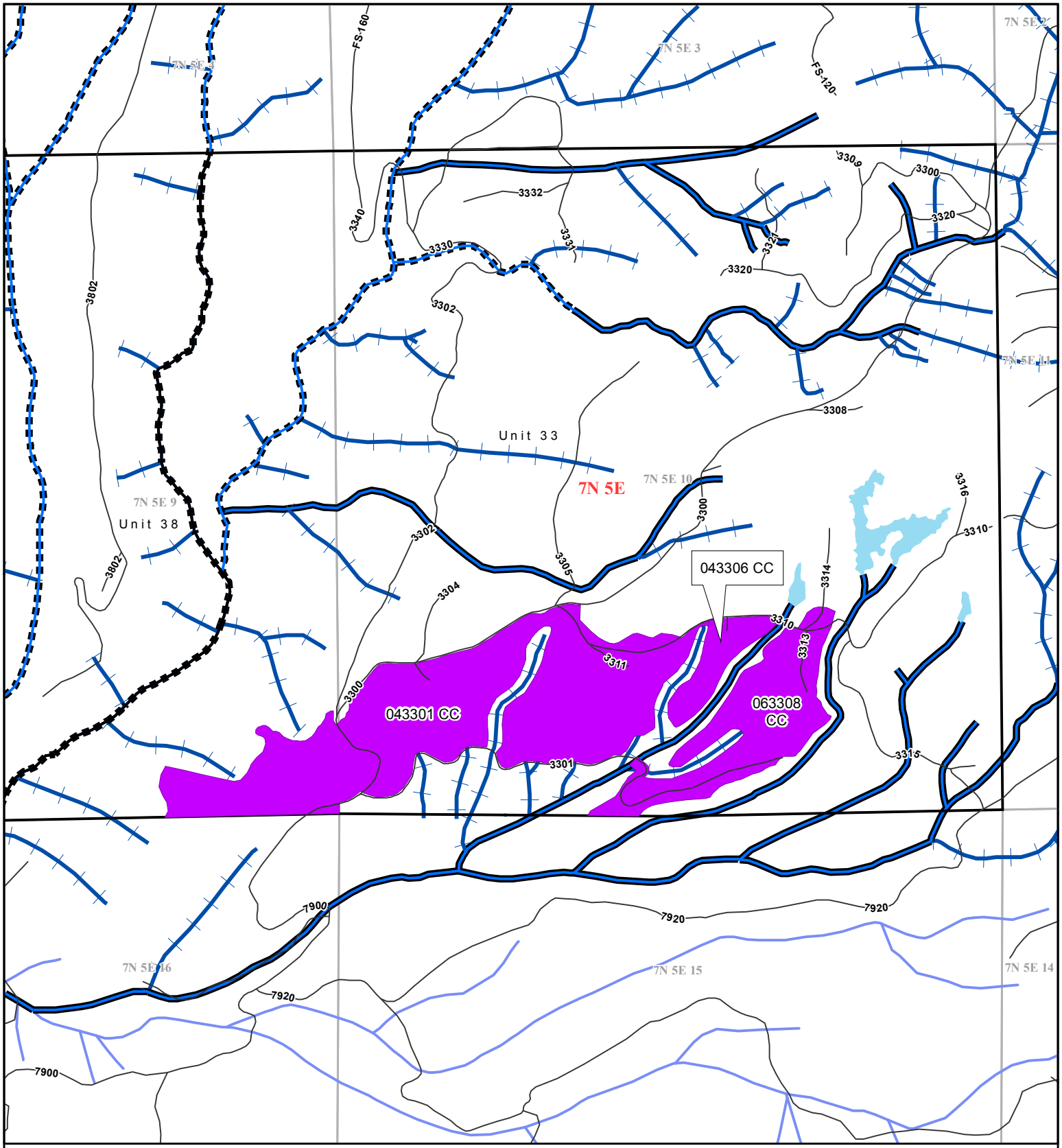
A DIVISION OF PACIFICORP





Lewis River

Wildlife Habitat Management Plan

2015 Invasive Plant Control Areas

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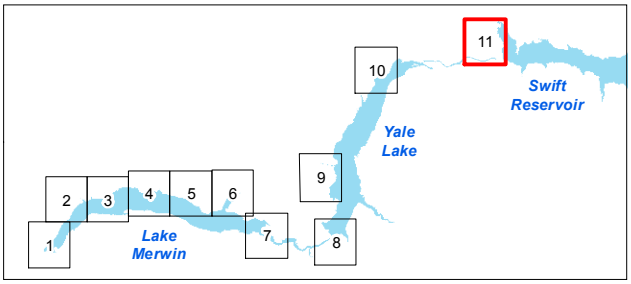
Section

Sheet 11 of 11

PACIFICORP ENERGY
A DIVISION OF PACIFICORP



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APPENDIX G
FINAL RECREATION RESOURCE MANAGEMENT PLAN EXHIBIT E

Exhibit E
Recreation Monitoring Indicators and Standards

Exhibit E. Recreation Monitoring Indicators and Standards

Table 1. Recreation Monitoring Indicators and Standards for Developed Recreation Facilities and Dispersed Shoreline Sites.

Monitoring Indicators	Monitoring Standards
Developed Recreation Facilities	
RESOURCE:	
None identified	Currently not a problem. None required
SOCIAL:	
Perceived Crowding	Currently not a problem. Based on future detailed survey results (approx. every 12 years after the new licenses become final), average crowding score of 4.5 (scale of 1 to 9) should not be exceeded. Conduct studies sooner than every 12 years if use levels increase significantly.
MANAGERIAL:	
Boat Use Levels – Reservoir Surface Water	Currently not a problem. Based on future project reservoir boater counts (approx. every 6 years after the new licenses become final), average seasonal weekend watercraft counts should not exceed 25 acres/boat for each project reservoir.
Project Day Use Site Capacity Utilization	Based on future user counts at project day use sites (counts conducted approx. every 6 years after the new licenses become final), the weekly peak month (July and August) capacity utilization of the parking areas should not exceed 75 percent occupancy for the Swift Reservoir Management Unit individually, and the Yale Lake and Lake Merwin Management Units combined. When day use site use levels reach the above standard, monitoring will be conducted annually and facility planning, permitting, and design will be initiated. Capacity will be assumed if use levels reach or exceed the standard for 3 out of 5 consecutive years.
Project Campground Capacity Utilization	Based on future user counts at project campgrounds (counts conducted approx. every 6 years after the new licenses become final), the weekly peak month (July and August) capacity utilization of campsites should not exceed 90 percent occupancy for the Swift Reservoir Management Unit individually, and the Yale Lake and Lake Merwin Management Units combined. In addition, the weekly seasonal (Memorial Day to Labor Day period) capacity utilization of campsites should not exceed 60 percent occupancy for the Swift Reservoir Management Unit individually, and the Yale Lake and Lake Merwin Management Units combined. Both standards are to be reviewed concurrently, and only 1 standard needs to be triggered. When campground use levels reach one or both of the above standards, monitoring will be conducted annually and facility planning, permitting, and design will be initiated. Capacity will be assumed if use levels reach or exceed one or both of the above standards for 3 out of 5 consecutive years.
Dispersed Shoreline Sites	
RESOURCE:	
Site Creep (Expansion)	Dispersed shoreline sites will be evaluated on site every 4 years. A maximum of 10 percent expansion of the area of impact should be allowed without remediation (this percentage may vary and may be dependent upon the size of the site – to be assessed during the initial testing of the monitoring standards and indicators). Dispersed shoreline sites will be evaluated on site every 4 years. A maximum of 5 percent expansion into sensitive habitat should be allowed without remediation (this

Monitoring Indicators	Monitoring Standards
	percentage may vary and may be dependent upon the size of the site – to be assessed during the initial testing of the monitoring standards and indicators).
Site Pioneering (New Sites)	Dispersed shoreline sites will be evaluated on site every year. If new sites are located, they should be closed as they are identified.
SOCIAL:	
Perceived Crowding	Currently not a problem. Based on future detailed survey results (approx. every 12 years after the new licenses become final), average crowding score of 3.5 (scale of 1 to 9) should not be exceeded. Conduct studies sooner than every 12 years if use levels increase significantly.
MANAGERIAL:	
Dispersed Site Utilization (designated and hardened campsites)	Based on future user counts at project dispersed shoreline campsites (counts conducted approx. every 6 years after the new licenses become final), the weekly peak month (July and August) capacity utilization of designated and hardened dispersed campsites should not exceed 50 percent for each Management Unit (Swift, Yale, and Merwin). Day use sites are excluded.

Table 2. Recreation Monitoring Indicators, Method of Measurement, and Management Options for Developed and Dispersed Recreation Sites.

Monitoring Indicators and Frequency	Method of Measurement	Management Options to Consider When Capacity is Reached
Developed Recreation Facilities		
Visitor Use Levels at Project Day Use Sites Frequency = 6 years	Monitor facility use levels during peak month (July and August) timeframes based on user counts and vehicle counts conducted at selected sample sites. Track data for each sample site, but also aggregate across sites in the Management Unit to develop an overall average/indicator.	• Redistribute use by providing visitors with information about alternative sites. • Expand the open season. • Enhance under utilized sites to make them more attractive.
Perceived Crowding Frequency = 12 years (conduct sooner if use levels increase significantly)	Monitor visitor perceptions using the results of a detailed visitor survey and an established 9-point crowding scale to identify the percentage of users that feel crowded. Focus on selected sample sites during the summer recreation season (Memorial to Labor Day weekends) and during peak use months of July and August. Indicators to be tracked for each sample site and aggregated for the Management Unit.	• Provide adequate buffer between user groups and sites. • Expand the open season. • Address identified user conflicts. • Provide additional enforcement.
Boating Use Levels Frequency = 6 years	Monitor boating use on-water at project reservoirs for the season during weekends (count watercraft on-water). Monitor trends in watercraft types.	• Provide visitors with information about alternative boat launches.
Campground Capacity Utilization Frequency = 6 years. If a	Monitor campground utilization by calculating the average capacity utilization of project campgrounds during the summer recreation season (Memorial Day to Labor Day weekends) and during the 2 peak use months (July and August). Track campgrounds individually and also aggregate for the Management	• Increase campground capacity. • Institute a limited entry system. • Expand the reservation system (partial to full).

Monitoring Indicators and Frequency	**Method of Measurement**	**Management Options to Consider When Capacity is Reached**
standard is reached, begin to track annually	Unit.	• Provide visitors with information about alternative sites.
Dispersed Shoreline Sites		
Site Creep (Expansion) Frequency = 4 years	Monitor designated campsites for expansion of the area of impact. Initially, document the baseline conditions and then monitor for creep at sample sites in each Management Unit (Swift and Yale). Calculate the expansion of area of impact over initial measurement as a percentage.	• Erect natural barriers to better define site boundaries. • Harden sites including fire rings, picnic tables, and/or tent pads on a site by site basis. • Enforce use to officially designated dispersed sites only (signed). • Site closures and rehabilitation. • Provide additional enforcement. • Provide education.
Site Pioneering (New Sites) Frequency = 1 year	Annually survey the reservoir shoreline and record the number and type of dispersed undeveloped sites. Compare this information with baseline conditions. Evidence of new dispersed sites may include new bare ground, accumulated litter, site erosion, new structures, sanitation problems, and/or vegetation damage.	• Provide visitors with information about location of dispersed sites. • Enforce use to officially designated dispersed sites only (signed). • Institute a reservation system. • Provide additional enforcement. • Obliterate new sites.
Perceived Crowding Frequency = 12 years (conduct sooner if use levels increase significantly)	Monitor dispersed site visitor perceptions using the results of a detailed visitor survey and the established 9-point crowding scale (see previous survey questions asked during relicensing) to identify users that feel crowded at varying levels. Focus on selected sample sites during the summer recreation season (Memorial Day to Labor Day weekends) and during the 2 peak use months of July and August. Indicators to be tracked for each sample site and aggregating across sites in the Management Unit (Swift and Yale).	• Redistribute use by providing visitors with information about alternative sites. • Institute a reservation system. • Provide additional buffer between sites. • Address user conflicts as needed. • Provide enforcement.
Dispersed Site Occupancy Frequency = 6 years	Monitor the number of designated, hardened dispersed campsites occupied during the 2 peak months (July and August), both individually and aggregated for the Management Unit (Swift and Yale). Day use sites are excluded.	• Provide visitors with information about alternative sites. • Institute a reservation system.