

**FINDINGS AND RECOMMENDATIONS FOR MODIFICATION OF  
PLUM CREEK TIMBER COMPANY'S INCIDENTAL TAKE PERMIT (PRT-808398)  
RESULTING FROM THE I-90 LAND EXCHANGE BETWEEN  
PLUM CREEK TIMBER COMPANY AND THE U.S. FOREST SERVICE  
WITHIN KING AND KITTITAS COUNTIES, WASHINGTON**

This document reviews the conclusions contained in the Statements of Findings and Recommendations for the original permit issuance (Service 1996a) and the permit amendment to add Columbia River Bull Trout to the permit (Service 1998a), which are herein incorporated by reference, in the context of the requested modification of the HCP to incorporate the I-90 Land Exchange. Based on findings stated below, Service staff recommend approval of the requested HCP modification (Plum Creek letter of October 23, 1998).

**I. DESCRIPTION OF PROPOSAL**

Plum Creek Timber Company (Plum Creek; Company) has requested the U.S. Fish and Wildlife Service (Service) and National Marine Fisheries Service (NMFS)(together, the Services) to approve a minor modification to the Cascades Habitat Conservation Plan (HCP)(Plum Creek 1996a) which would incorporate the revised land-base and make other related changes precipitated by the change in land-base. The changes are described in greater detail in the Final Supplemental Environmental Impact Statement (FSEIS)(USDI and USDC 1999a), the HCP Modification Document (Plum Creek 1999), and the Record of Decision (ROD)(USDI and USDC 1999b), which are herein incorporated by reference.

The HCP assumed that some level of Land Exchange was likely to occur in the near future between Plum Creek and the U.S. Forest Service (Forest Service). In addition, the HCP and Implementation Agreement (IA)(Plum Creek et al. 1996) outlined procedures to incorporate such an exchange into the HCP (HCP Section 5.3.4.2; IA Section 7.3.2.(b) and (c)).

Under the Northwest Forest Plan, Late-Successional Reserves are designed to maintain functional interacting, late-successional and old-growth forest ecosystems (USDA and USDI 1994). The Northwest Forest Plan addresses land exchanges involving Late-Successional Reserves by stating that they will be considered if the exchange occurs: (1) where public and private lands are intermingled; (2) where they contribute to biodiversity; (3) if they improve the area, distribution, connectivity, and shape of Late-Successional Reserves; and (4) if the objectives of the Northwest Forest Plan's Aquatic Conservation Strategy are met. These criteria are similar to the goals of the Service's HCP program.

The IA stated that "Plum Creek may acquire lands within the Planning area and add them to the HCP. Activities on such lands may also be covered by the Permit pursuant to subparagraph (a) unless the Services find during the 60-day notice period that such addition would result in additional incidental take of Permit Species not analyzed in connection with the original HCP." It also stated that "Plum Creek may sell or exchange lands within the Planning area to any

agency of the U.S. Government. Such a sale or exchange will result in removal of such lands from Permit coverage. The Services may review the proposed sale or exchange during the 60-day review period provided in subparagraph (a) to ensure that such sale or exchange will not compromise the effectiveness of the HCP." Therefore, this document also addresses whether incidental take of Permit species will increase or whether the effectiveness of the HCP will decrease.

## **Location**

The Planning Area of Plum Creek's Cascades HCP is located both east and west of the Cascade Mountain crest in central Washington, between 60 to 100 miles east of Seattle. The subject ownership occurs in a "checkerboard" pattern in an area commonly referred to as the Interstate-90 (I-90) Corridor, in King and Kittitas Counties, Washington. The term "checkerboard" refers to alternate sections of public and private land. The outer boundaries of the "planning" area encompass 418,690 acres. Plum Creek's ownership in the Planning Area currently consists of 169,177 acres of alternating sections (1 square mile) of Plum Creek lands bordered, mainly, by intermingled Federal lands administered by the Forest Service. The covered lands also include about 1,400 acres of City of Tacoma land where Plum Creek has retained timber harvest rights. Because of the checkerboard configuration of land ownership, the area includes 249,513 acres of other ownership. Federal lands are managed for multiple uses, but timber harvest has traditionally been one of the most significant land uses that has affected wildlife habitat. The predominant nonfederal land use in the I-90 corridor and surrounding areas is commercial timber production.

## **Covered Activities**

The covered activities are described in the HCP, Biological Opinions (Service 1996b and Service 1998b), and Unlisted Species Assessment (Service 1996c). These activities are generally those associated with managing, harvesting, and replanting trees for timber production. It also includes other associated actions such as road construction and maintenance needed to manage such timber, and administration and maintenance of existing structures and facilities.

## **Covered Species**

The HCP, IA, and associated documents address vertebrate species which may be found within the Planning Area. Over 300 vertebrate species are identified in the HCP, Unlisted Species Assessment, or technical papers supporting the HCP (e.g., Technical Reports 8 and 9; Lundquist and Hicks 1995 and Lundquist et al. 1995, respectively). The unlisted species agreement addresses all of those species as well as any other vertebrate species which may be found within the Planning Area and affected by Plum Creek's operation.

## **Time Period**

The incidental take permit addresses Phase I of the HCP for 50-years and Phase II for an additional 50 years. This document assesses the continued management and implementation of the agreement for the remainder of the 50- to 100-year permit period which began in 1996.

## **Summary of HCP Modification Actions**

The primary change resulting from the land exchange is the new land-base to which the HCP will apply, and the new land-base to which the Northwest Forest Plan will apply. However, additional changes are being made to the HCP commitments as a result of and consistent with the new land-base. The HCP modification document addressed revisions in the baseline that have occurred since issuance of the permit in 1996, and revisions to anticipated impacts as a result of the modified land-base and associated changes to the HCP.

While conducting marbled murrelet surveys required in the HCP, Plum Creek scientists discovered the presence of murrelets. Since the HCP requires a set aside of acreage when murrelets are present, Plum Creek declined to accept those two sections. Therefore, in November 1999 the U.S. Congress amended the I-90 Land Exchange Act to reflect the removal of these two sections. Eight Plum Creek sections were withdrawn to offset the value contained in the two murrelet sections. Since the Forest Service expressed a desire to acquire the Plum Creek sections it was agreed to place them in escrow for 3 years to allow enough time for the Forest Service to obtain the funding for the purchase. These are referred to as escrow lands. The eight sections will continue to be covered in the HCP as long as they remain in Plum Creek ownership. Should they be purchased by the Forest Service they will be removed from the HCP. Sales to the Federal Government are covered in Section 5.3.4.2 of the HCP.

Also in the November 1999 Amendment, Forest Service lands in the Gifford Pinchot National Forest were withdrawn from the exchange. To offset the value of the Forest Service sections which were withdrawn outside the HCP Planning Area, Plum Creek withdrew 19 sections within the HCP Planning Area. The Forest Service and environmental/recreational groups expressed a desire to buy these sections and Plum Creek agreed to give them options for up to 4 years to buy the sections at the value established in the land exchange appraisal. These 19 sections are referred to as options lands. The 19 sections would remain covered by the HCP under Plum Creek ownership but will be removed when purchased. Sales to nonfederal government parties are covered in Section 5.3.4.3 of the HCP.

The following section summarizes the actual change to the land-base and to the commitments of the HCP, based on the range of conditions which might exist if both escrow and option lands remain with Plum Creek or if both escrow and option lands are transferred to the Forest Service.

**Table 1.**

The land ownership in the HCP Planning Area resulting from the land exchange and the potential sale of the 8 sections (about 4,700 acres) of "escrow" lands and 19 sections (about 13,600 acres) of "option" lands is summarized below:

	Original HCP	Land Exchange	Escrow Sections	Option Sections
Plum Creek	170,500	148,300	143,600	130,000
Forest Service	196,500	218,700	223,400	237,000 <sup>1</sup>
Other	45,300	45,300	45,300	45,300
Water	6,600	6,600	6,600	6,600
Total	418,900	418,900	418,900	418,900

<sup>1</sup> It is not certain that all of the 13,600 acres of option lands potentially leaving Plum Creek ownership would be owned by the Forest Service. Recreational/environmental groups are included in the option offer. For purposes of this document and analysis, it is assumed that these lands will be either managed under the standards and guidelines of the HCP, or they will be managed comparable to Forest Service management under the Northwest Forest Plan. In both cases, this includes active management where necessary to provide for the vertebrate species covered by the HCP. In the remainder of this document, we will use the term "Forest Service" when addressing outgoing Plum Creek lands in any of the above categories.

**Landbase within the Planning Area**

- \* 8,600 acres will be acquired by Plum Creek from the Forest Service.
- \* 30,800 to 49,000 acres will be acquired by the Forest Service from Plum Creek.
- \* 2,000 acres of increased ownership by Plum Creek in the Green River Basin.
- \* 22,300 to 40,000 acres of decreased ownership by Plum Creek in the Yakima Basin.
- \* 5,400 to 10,100 acres of spotted owl nesting habitat acquired by the Forest Service.
- \* 6,200 to 10,000 acres for spotted owl foraging habitat acquired by the Forest Service.
- \* 5,300 to 9,300 acres of increase in Forest Service's Late-Successional Reserve lands.
- \* 700 acres of decrease in Forest Service's Matrix lands.
- \* 17,500 to 31,700 increase in acres of Forest Service's Adaptive Management Area
- \* 470 acres of decrease in Forest Service's potential murrelet habitat.
- \* Riparian Reserve land allocation occurs along streams, wetlands, and other waterbodies within the other land allocations. However, the Forest Service will gain as much as 12,000 acres of Riparian Reserve.

In addition, the Interstate-90 Land Exchange Act established the Kelly Butte Special Management Area of 5,616 acres south of the Green River, which will consist of 2,408 acres of

land from Plum Creek, 2,448 acres of Matrix land, 434 acres of Late-Successional Reserve, and 326 acres of Administratively Withdrawn lands.

**HCP Commitments:** Plum Creek will make several changes to their actions as a result of the land exchange. These changes fall into several broad categories:

1. **Habitat Projections:** Because the initial amounts of habitat categories (e.g., owl habitat and stand structural stages) will be different, projected amounts will also be different for subsequent decades, in spite of the similar management scenarios being applied through forest management simulation.
2. **Site-specific Adjustments:** Where owl or goshawk habitat harvest deferrals will be exchanged to the Forest Service, those will no longer be Plum Creek deferrals. In other areas, Plum Creek would acquire and defer lands which would benefit from such deferrals (see biological opinion Figure 3).
3. **Survey and Monitoring Adjustments:** Adjustments to survey and monitoring areas would be made since it is no longer practical for Plum Creek to monitor areas which will be exclusively Forest Service. Another adjustment would be made to accommodate the acquisition of potential murrelet habitat which will require surveys. Adjustments were also made to the survey methods.

Specifically, the HCP modification included the following changes to Plum Creek commitments:

**1. Habitat Projections:**

- \* Maintain 8-9 percent of their ownership in nesting habitat at year 10; 6-7 percent in years 20, 30, and 40; and 7-8 percent at year 50.
- \* Maintain 9-10, 7-9, 15-18, 26-28, and 32-34 percent of their ownership in foraging habitat at years 10, 20, 30, 40, and 50 respectively.
- \* Modify the commitment to amounts of Stand Structural Stages on Plum Creek ownership: (1) across the landscape; (2) within Riparian Habitat Areas; and (3) surrounding rock and talus areas, as depicted in Table 30A of the Record of Decision.

**2. Site-Specific Adjustments:**

- \* Decrease the number of NRF harvest deferrals for northern spotted owls. The final number of deferrals will depend upon escrow and option lands purchases and be between 9 owl sites containing 1,102 acres and 13 owl sites containing 1,855 acres. See Figure 1.

- \* Decrease the number of foraging/dispersal corridors. The final number of corridors will be between 10 owl sites containing 1,267 acres and 15 owl sites containing 2,287 acres. See Figure 1.
- \* Defer from harvest potential murrelet habitat on about 400 acres. See ROD Figure 1 for general location.
- \* Decrease the number of harvest deferrals for goshawk nest sites. The final number of deferrals will be between 2 sites containing 101 acres and 4 sites containing 262 acres. See Figure 1.

### **3. Survey and Monitoring Adjustments:**

- \* Apply a modified murrelet survey protocol which incorporates not only ground observers but also simultaneous radar stations to a portion of the acquired lands.
- \* Move owl demographic monitoring areas from the I-90 Lakes Subunit to other portions of the Planning Area not previously monitored. See HCP Modification Figure A.
- \* Designate response reaches for aquatic monitoring in Green River Basin that might have otherwise been designated in the Yakima River Basin; and make other appropriate adjustments to aquatic monitoring to improve the opportunity to learn from the aquatic-monitoring effort. The Service intends to do so in consultation with aquatic experts working for Native American Tribes in the affected area.

### **Minimization and Mitigation of Effects**

Measures to be implemented by Plum Creek to minimize and mitigate effects on listed and unlisted vertebrate species are fully described in the HCP, as amended by the HCP Modification Document, and are herein incorporated by reference. The modified HCP remains a programmatic-style plan for Planning Area management. Individual management units are not scheduled for harvest at any particular time and individual road locations and management are not specified. The HCP focuses on timber management as the primary landscape influencing factor and the factor with the most influence on wildlife species. It also relies on adaptive management and flexibility in implementation. For instance, the measurement of Riparian Habitat Areas was recently modified to begin at the outside of the Channel Migration Zone / Channelized Debris-flow Zone, rather than the Ordinary High Water Mark as was originally agreed.

## **Criteria to be Addressed**

Section 10 of the Endangered Species Act (Act) authorizes the issuance of incidental take permits for listed species. This document assesses a number of criteria to determine the continued validity of the Services original findings with respect to section 10 of the Act.

### Mandatory Elements

According to the Act, the applicant must submit a habitat conservation plan specifying certain mandatory elements (Section 10(a)(2)(A)): (1) the impact which will likely result from such taking; (2) what steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps; (3) what alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and (4) such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan. The mandatory elements of an HCP are further defined in the Services respective regulations: 50 CFR 17.22, 17.32, and 222.22. For the Service, an HCP must specify: (1) the impact that will likely result from the taking; (2) what steps the applicant will take to monitor, minimize and mitigate such impacts, the funding available to implement such steps, and the procedures to be used to deal with unforeseen circumstances; (3) what alternative actions to such taking the applicant considered, and the reasons why such alternatives are not proposed to be used; and (4) such other measures that the Director may require as being necessary or appropriate for the purposes of the plan.

### Issuance Criteria

The issuance criteria for an incidental take permit are contained in the Act and again in its implementation regulations. According to the Act, the Secretary shall issue the requested permit if the Secretary (delegated to Service and NMFS) finds that the issuance criteria (section 10(a)(2)(B)) are being met: (1) the taking will be incidental; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) the applicant will ensure that adequate funding for the plan will be provided; (4) the taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and (5) the measures, if any, required under subparagraph (A)(iv) will be met; and that the Secretary has received such other assurances as he may require that the plan will be implemented. The Fish and Wildlife Service's issuance criteria contained in 50 CFR 17.22(b)(2) and 17.32(b)(2) are: (1) the taking will be incidental; (2) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) the applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided; (4) the taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; (5) applicant will ensure that other measures the Service may require as necessary and appropriate will be provided; (6) the Services have received such other assurances as may be required that the HCP will be implemented.

### Minor Modification Criteria

The above findings were made in the Service's Statement of Findings issued in 1996 and again with respect to adding Columbia River bull trout in 1998. However, the Implementation Agreement identified standards required for a land exchange conducted with the Federal Government which would be incorporated as a minor modification. Those standards are that there would not be an increase in the level of incidental take for Permit Species, and that the integrity/effectiveness of the HCP would not be compromised. The Service interprets the maintenance of integrity/effectiveness of the HCP as ensuring the ratio between take and minimization/mitigation remains at least as favorable as the original HCP and that the combination of lands and surrounding contextual factors continue to make the same contribution to the long-term survival of the multitude of species addressed in the HCP as the original scenario and land-ownership pattern. The Service will assess these three criteria under the heading "Minor Modification Criteria". It is not necessary to meet these criteria in order to complete the HCP modification, however these criteria guide the Services' decision as to whether the modification should be processed as a "minor modification".

## **II. PUBLIC COMMENT**

The original DEIS and FEIS (USDI and USDC 1995 and 1996a) and the Record of Decision on permit issuance (USDI and USDC 1996b), considered the potential for a land exchange of this nature. With respect to the Interstate-90 land exchange, the Services provided early notification to the Washington Department of Fisheries and Wildlife and the affected Native American Tribes. On December 9, 1998 (63 FR 67914), the Services announced our intent to prepare a Supplemental Environmental Impact Statement (SEIS). The Draft SEIS (DSEIS)(USDI and USDC 1998), with the attached draft HCP Modification Document was sent out for a 52-day review period. The Services were available at two public meetings (as announced on January 5, 1999; 64 FR 482) and participated in three meetings with the Muckleshoot Indian Tribe. The review period generated written comments on behalf of 12 individuals and organizations, as well as comments received in public meetings and government-to-government meetings, which were summarized and addressed in a 151-page appendix to the FSEIS. Comments led to clarification and changes to the SEIS. A complete description of the public-involvement process to the point of FSEIS publication is contained in the FSEIS section entitled Context. The FSEIS was then mailed to interested parties and filed with the Environmental Protection Agency (EPA) on May 14, 1999. The availability of the FSEIS was announced by EPA in the May 21, 1999, Federal Register (64 FR 27781). The Services also published a Federal Register document on May 19 (64 FR 27236). The Services did not receive any comments on the FSEIS.

### III. MINOR MODIFICATION CRITERIA

#### 1. The take of Permit Species will not increase.

Grizzly Bear. Plum Creek will own about 16,500 - 28,500 fewer acres in the Grizzly Bear Recovery Zone as a result of the exchange. Within the Grizzly Bear Recovery Zone, the Forest Service will acquire substantial amounts of land. Plum Creek will own very little land within the Recovery Zone. It is within the Grizzly Bear Recovery Zone (e.g., I-90 Lakes Subunit of the Planning Area) that the establishment of resident grizzlies is most likely to occur. It is therefore expected that the probability of take occurring from Plum Creek actions under the HCP, which was already at a very low likelihood, would further decrease with the HCP modification.

Gray Wolf. The most likely areas for wolves to colonize within the HCP area would be within the Grizzly Bear Recovery Zone and within the upper Taneum Creek area and Plum Creek will own about 16,500 - 28,500 fewer acres in the Grizzly Bear Recovery Zone as a result of the exchange. The primary exchange action in these areas is for Plum Creek land to be exchanged to the Forest Service. It was expected that the take of wolves was unlikely under the original HCP, but would be even less likely under the modified HCP.

Columbia River Bull Trout. The Forest Service will be acquiring lands surrounding the known locations of bull trout within the Planning Area. Plum Creek will own and manage fewer roads and will conduct less harvest east of the Cascade Crest, in areas which may have as-yet-undiscovered bull trout. Plum Creek will own from 23,700 to 41,400 fewer acres within the Yakama River Basin as a result of this action. Lands which leave HCP management will be managed according to the Aquatic Conservation Strategy under the Northwest Forest Plan. Thus, the take expected under the HCP modification should be less than without the HCP modification.

Marbled Murrelet. The conservation strategy for marbled murrelets is primarily a take-avoidance strategy. All potential habitat with a reasonable chance of occupancy will be surveyed according to procedures which incorporate both ground observers and radar stations. Occupied stands, should they be discovered, would receive the full protection of the HCP. Therefore, the probability of any take occurring is remote and discountable.

Northern Spotted Owl. Plum Creek will own less habitat within fewer owl circles following the exchange. Plum Creek will own about 5,400 - 10,100 acres less nesting habitat and 6,200 - 10,000 acres less foraging habitat following the exchange. The potential for Plum Creek to impact owl sites will be less following the exchange than it was prior to the exchange.

**2. The ratio between take and minimization/mitigation will remain at least as favorable as the original HCP.**

The HCP is based in part upon minimization measures for special habitats. These minimization measures are applied wherever these special habitats are encountered. Minimization of impacts for these special habitats is therefore dependent on landscape features for their location. Streams buffers will be retained along streams. Similar measures, such as buffers, will be applied depending on the occurrence of special features such as talus slopes, caves, wetlands, etc. Wildlife reserve trees and snags will continue to be left in each harvest unit as described in the original HCP.

The HCP is also based in part on the landscape-level amounts of forest stand structural stages. Plum Creek will be applying the same treatments to stands under the modified HCP. Changes in Plum Creek ownership for stand structural stage amounts is a reflection of the changes to their baseline resulting from the exchange. Landscape-level amounts of older forest will increase with the exchange, which translates into decreased landscape-wide effects which would also decrease the amount of mitigation needed.

Another site-specific mitigation measure is the harvest deferrals of owl and goshawk habitat and nest sites, respectively. These specifically designated areas (Figure 1.) were designed to ameliorate the negative impacts to the population on a landscape basis that would result from short-term declines in the amount of habitat. Following the land exchange, there will be less impact to many of these sites as they will become Federal sites and short-term population declines will be further ameliorated by increased amounts of habitat across the landscape (Figure 2).

For these reasons, the Service believes the ratio between take and minimization/mitigation will remain at least as favorable as it was under the original HCP.

**3. The HCP, and surrounding contextual factors, will make the same contribution to long-term survival as the original HCP.**

The HCP modification reflects the land exchange itself in character. In general, the species and habitats for which the Service is most-concerned, such as species dependant on mature forest with structure, will benefit from the modification. However, the land exchange does represent a series of trade-offs. While most species, habitats, and life forms are expected to increase following the exchange and subsequent HCP modification, not all species/habitats will benefit from the exchange. For instance, species such as black bears, shrews, or voles which utilize early successional habitats may have less habitat available to them at year 2045 with the HCP modification than without the modification. However, even for these species, as the Planning Area returns to a condition which is closer to what would have occurred naturally, there will remain sufficient habitat within the Planning Area to contribute to the long-term survival of these species. Additionally, difference in landscape amounts of habitat

between the original HCP and the HCP modification remain relatively small (See Table 30 in ROD Appendix A).

#### IV. MANDATORY ELEMENTS

**1. The impact that will likely result from the taking.**

The impacts of the alternatives were described in HCP modification document Section 2.3.3 which revised the impact analyses contained in HCP Section 3.5, Impacts of the HCP. Additional impacts were also contained in the FSEIS Chapter 4 Environmental Consequences. In general, the impacts to listed species either remain near zero or are reduced by this action.

**2. What steps the applicant will take to monitor, minimize and mitigate such impacts, the funding available to implement such steps, and the procedures to be used to deal with unforeseen circumstances.**

Nothing in the HCP modification will alter the application of procedures to deal with unforeseen circumstances or assurance of funding, as described in the original HCP and supporting documents. Both of these elements will be further addressed under Section V Issuance Criteria. The HCP modification document presented modifications to the steps that Plum Creek will take to monitor, minimize, and mitigate the impacts of the covered actions. These were also addressed in the Description of the Proposal earlier in this document.

**3. What alternative actions to such taking the applicant considered, and the reasons why such alternatives are not proposed to be used.**

Chapter 2 of the FSEIS Alternatives, Including the Proposed Action, described the alternatives which were considered and analyzed. Section 2.3 discussed the alternatives considered but eliminated from detailed analysis.

In the Services' Record of Decision (ROD)(USDI and USDC 1999b), both the no-action alternative and the proposed HCP modification were selected as the environmentally preferred alternatives. Table 2 of the FSEIS and Chapter 4 of the FSEIS, Environmental Consequences, contain sufficient analysis to indicate why the partial HCP modification was less desirable even though it might involve less incidental take than the other two alternatives. In summary, the partial HCP modification would have left certain lands to be managed by the standards contain in the Forest Practices Rules and Regulations (WFPB 1998), which provides little to no protection for many types of habitat.

- 4. Such other measures that the Director may require as being necessary or appropriate for the purposes of the plan.**

The Services and Plum Creek entered into an IA and the Service imposed Permit Conditions which will remain in effect following the HCP modification (see also item 6 under Issuance Criteria, below).

## **V. ISSUANCE CRITERIA**

- 1. The taking will be incidental.**

Any take of listed species and other species dependent on the habitat types addressed in the HCP would result from, but not be the purpose of, otherwise lawful forest management and related land use activities conducted by Plum Creek, as specified in the HCP. The HCP and IA do not authorize any intended, directed, or purposeful take of listed species. All forest practices would continue to comply with applicable State Forest Practices Rules and Regulations (WFPB 1998).

- 2. Plum Creek Timber Company will, to the maximum extent practicable, minimize and mitigate the impacts of taking listed species and effects to other species dependent on the habitat types that may occur on lands covered in the HCP.**

The HCP and IA contain measures to minimize and mitigate the impacts of take of listed and unlisted covered species. The overall goal for species conservation under the HCP, was to address the range of all habitat types that occur in the planning area. In terms of the range of habitat types that occur on the planning area, the proposed HCP modification provides more protection for most species of concern than would occur in the Planning Area in the absence of the HCP modification. The resulting habitat conditions are deemed sufficient to provide long-term survival, especially as the condition will more closely approximate the natural condition of the landscape. The described prescriptive activities and minimization and mitigation measures provided in the HCP are summarized in HCP section 3.6 (Plum Creek 1996a), the HCP Modification Document (Plum Creek 1999), the Service's biological opinions (Service 1996b and 1998b), the Service's Statement of Findings (Service 1996a and 1998a), the Unlisted Species Assessment (Service 1996c), and in NMFS's Unlisted Species Analysis and Findings (NMFS 1996).

The HCP was developed through review and consultation with government, industry, Tribal, and academic experts, and included input through the public process. During the development of the HCP, the Services considered the baseline environmental conditions, the need for enhanced conservation in the Planning Area, and the ability of Plum Creek to implement prescriptions and procedures feasibly and in the context of its business constraints. All of these factors define practicability for Plum Creek. Specifically, the

Service has found that: (1) the HCP provides for recovery; and (2) the mitigation is commensurate with the impacts.

The Service analyzed the impacts expected to occur and the mitigation to be provided under the revised HCP. After consideration of all the above factors, the Service finds that the HCP continues to minimize and mitigate the effects of take to the maximum extent practicable.

**3. Plum Creek Timber Company will ensure adequate funding for the HCP. Procedures to deal with unforeseen circumstances have been provided.**

The HCP and IA commit Plum Creek to adequately fund implementation of the HCP. Plum Creek is the fifth largest private timberland owner in the Nation. The company owns more than 3.3 million acres of timberlands in the Pacific Northwest (Montana, Washington, and Idaho), in the Southeast (Arkansas and Louisiana), and the Northeast (Maine). It also owns and operates 12 manufacturing facilities with a workforce of 2,500. The Company's operating income was \$165 million, \$173 million, and \$141 million on revenues of \$634 million, \$726 million and \$699 million in 1996, 1997, and 1998 respectively (Plum Creek Annual Reports for 1996, 1997, and 1998) (Plum Creek 1996b, 1997, and 1998). The operating costs of the HCP are not expected to exceed \$1 million annually, which is approximately 0.6 percent of current annual operating income.

To address the issue of Plum Creek's continuing financial ability to implement the HCP, and in light of the long-term permit requested, the IA provides that Plum Creek will provide the Services with periodic status reports. This will ensure notification of any material change in the Company's financial condition during the life of the permit.

The HCP and IA both provide procedures to deal with unforeseen circumstances. The likelihood of unforeseen circumstances arising is reduced by the use of adaptive management (HCP section 5.4). Under the HCP, the Services may suggest amendments at any time (HCP section 5.3.5). The IA specifically provides a process to develop additional mitigation in cases of extraordinary circumstances (IA section 8.0).

**4. The taking will not appreciably reduce the likelihood that the species will survive and recover in the wild.**

The Act's legislative history establishes the intent of Congress that this issuance criteria be based on a finding of "not likely to jeopardize" under section 7(a)(2) [see 50 CFR 402.02]. As a result, approval of Plum Creek's request for HCP modification has also been reviewed by the Service under section 7 of the Act. In the biological opinion resulting from the reinitiation of formal consultation (Service 1999), which is incorporated by reference, the Service concluded that modification of the HCP as requested by Plum Creek would not likely jeopardize the continued existence of the northern spotted owl, grizzly bear, gray wolf, marbled murrelet, bald eagle, peregrine falcon, or Columbia River bull trout. This

conclusion was reached based on the expected decrease in effects rising to the level of take as a result of this action. For example, it is expected that the number of northern spotted owls impacted in both the short and long term will be even less than would have been impacted under the original HCP. It is also expected that the landscape amounts of habitat will be increased. We also expect generally improving conditions of northern spotted owl critical habitat. With respect to the marbled murrelet, we expect a minimal amount of take of occupied habitat or individual birds as a result of harm and because murrelet populations in this area comprise a small proportion of the total number of murrelets in the Puget Zone. The NMFS (1999) also concluded, in their biological opinion, that listed salmonid species would not be jeopardized as a result of the HCP modification.

In addition, the Services concluded that the HCP adequately addresses the conservation of unlisted species dependent on the various habitat types analyzed and will not significantly contribute to the need to list such species (Unlisted Species Assessment; Service 1996c). Based on information contained in the HCP modification document, the Service concluded that the situation with respect to unlisted species remains unchanged.

**5. Other measures, as required by the Services, have been met.**

The HCP and IA incorporate all elements determined by the Services to be necessary for approval of the HCP and issuance of the permit. As elaborated in Section 5.1 of the HCP, Plum Creek will implement effectiveness monitoring and report results to the Services as part of its continuing duty to report to the Services. The Services will monitor compliance in accord with its responsibilities to implement section 10 of the Act and under its more general duty to enforce the Act.

Reporting duties are described in HCP section 5.1.8. In summary, Plum Creek would provide reports at years 2, 5, 10, 15, 20, 30, 40 and 50. Reports would be provided within 180 days after the close of the calendar year in which the report is due. For termination occurring prior to the end of the permit term, a termination report must be provided to the Services. The proposed HCP modification does not alter the monitoring and reporting procedures except to make them more effective. Permit conditions will remain in place.

**6. The Services have received the necessary assurance that the plan will be implemented.**

Signing of the IA by Plum Creek and the Services ensured that the HCP will continue to be implemented. No additional assurances are needed at this time.

## **VI GENERAL CRITERIA AND DISQUALIFYING FACTORS - ANALYSIS AND FINDINGS**

The Service has no evidence that the permit should be revoked on the basis of the criteria and conditions set forth in 50 CFR 13.21(b)-(c). The Service also is not aware of any situations of

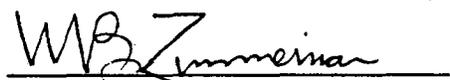
noncompliance with the terms and conditions of the incidental take permit. Plum Creek has met the criteria for the issuance of the permit and does not have any disqualifying factor that would prevent the permit from being implemented or amended under current regulations.

## VII. RECOMMENDATION ON HCP MODIFICATION

Based on the foregoing findings with respect to the proposed HCP modification, I recommend approval of the HCP modification to incorporate changes resulting from the Interstate-90 Land Exchange. The HCP modification will extend permit authorization for incidental take of northern spotted owls, grizzly bears, gray wolves, marbled murrelets, bald eagles, peregrine falcons, and Columbia River bull trout by Plum Creek to the newly acquired lands and will discontinue the commitments with respect to lands being exchanged or donated to the Forest Service, in accordance with the HCP and IA.

  
Assistant Regional Director  
North Pacific Coast Ecoregion

12/22/99  
Date

Concur:   
Deputy Regional Director

12/22/99  
Date

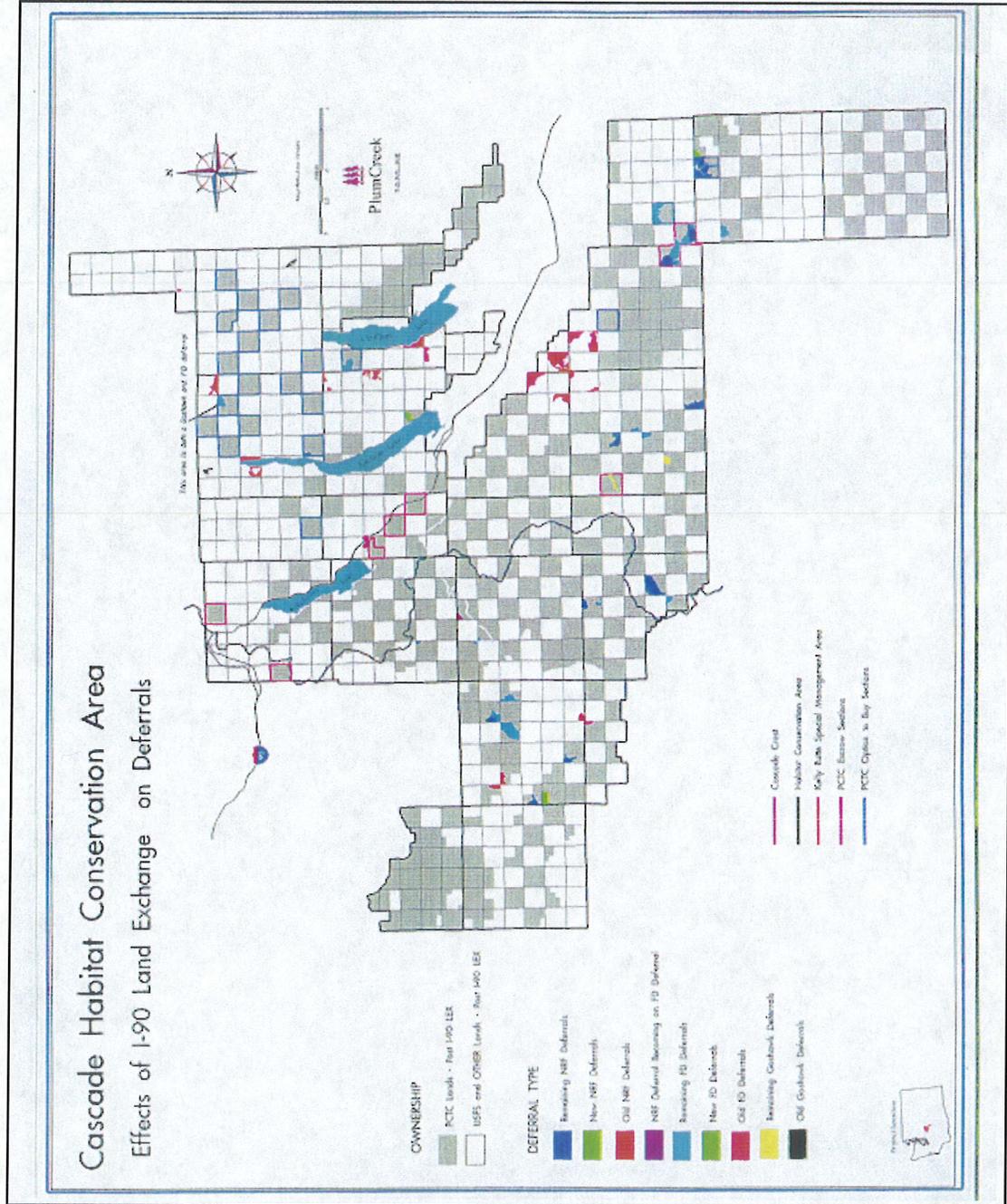
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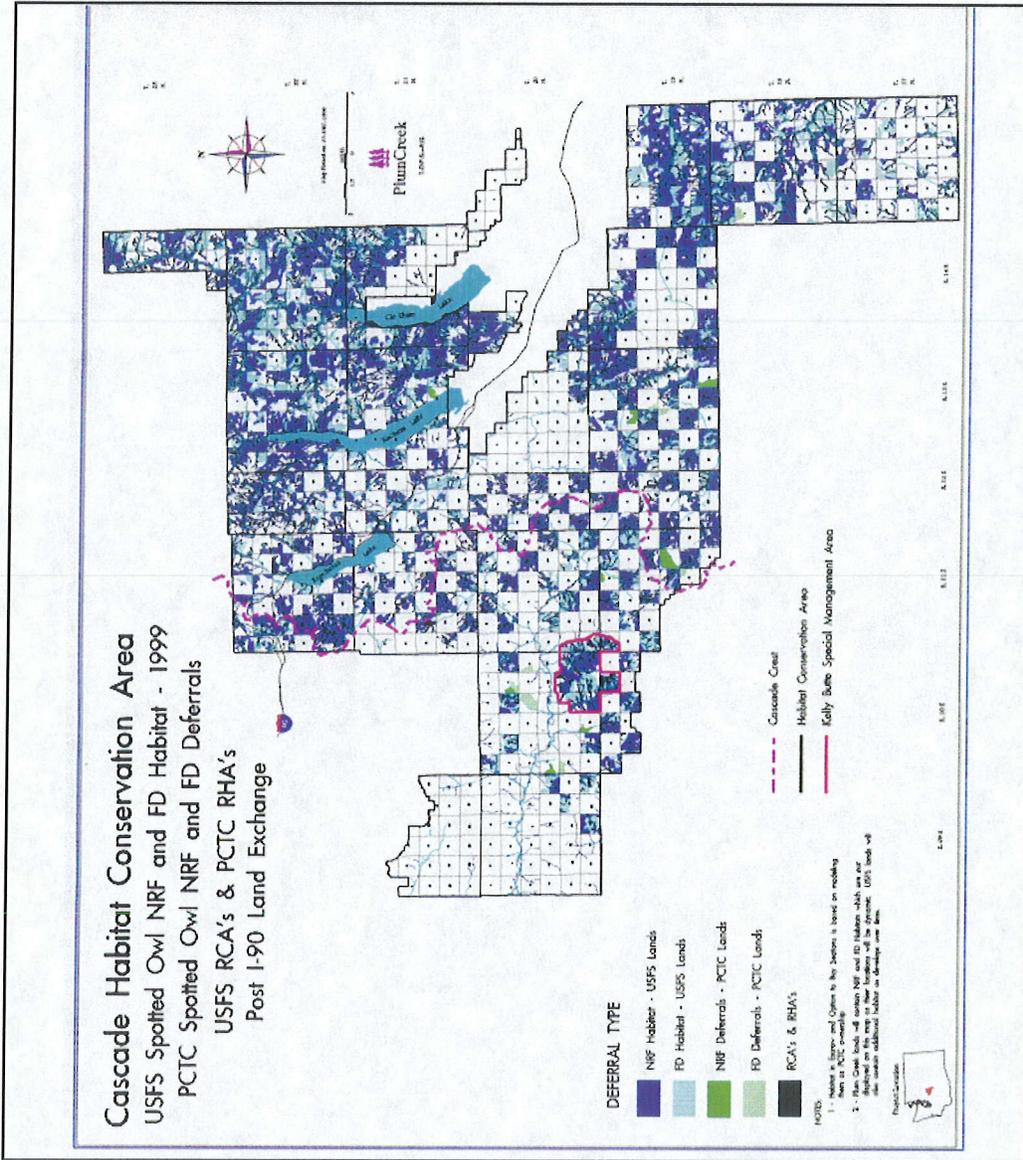
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**FIGURE 1. Changes in Spotted Owl Deferrals.**



**Figure 1.** Map depicting changes in habitat deferrals resulting from I-90 Land Exchange.

**FIGURE 2. Spotted Owl NRF and FD Deferrals –Post-Land Exchange**



**Figure 2.** Map depicting Plum Creek habitat deferrals, Forest Service habitats, and areas within riparian areas to show specific places where habitat will be retained during the first 20 years of the Permit Period. **Note:** Additional areas on Plum Creek lands will contain owl habitat, but will shift locations over time.