U.S. Department of Interior, Fish and Wildlife Service
U.S. Department of Commerce, National Marine Fisheries Service

Record of Decision

Proposed Issuance of a Permit to Plum Creek Timber Company, Authorizing Incidental Take of Native Fish in Montana, Idaho, and Washington

This Record of Decision (ROD) has been developed by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service (collectively Services) in compliance with the agency decision-making requirements of the National Environmental Policy Act of 1969, as amended (NEPA). The purpose of this ROD is to document the decisions of the Services, in response to applications for incidental take permits under the Endangered Species Act of 1973, as amended (Act), based on the submission of the Native Fish Habitat Conservation Plan (NFHCP), and other associated documents, by Plum Creek Timber Company (Plum Creek). This ROD: a) states the Services' decisions and presents the rationale for their decisions; b) identifies the alternatives considered in reaching the decisions, and identifies the environmentally preferred alternative; and c) states whether all means to avoid or minimize environmental harm from implementation of the selected alternative have been adopted (40 CFR 1505.2).

Project Description

The Services propose to issue incidental take permits for a term of 30 years to Plum Creek, under section 10(a)(1)(B) of the Act, based on the NFHCP and other associated documents. The permits would authorize incidental take, from certain Plum Creek activities, of seventeen native fish species listed in the Final Environmental Impact Statement (EIS) (FWS et al. 2000a) on page two of the Executive Summary. Eight of the seventeen species are currently listed under the Act. Incidental take of the other nine currently unlisted species would be authorized concurrent with their listing under the Act. The permit would cover approximately 1.6 million acres of Plum Creek-owned lands in western Montana (1,460,000 acres), northern Idaho (40,000 acres), and Washington (70,000 acres).

Under the permits, Plum Creek would manage the covered lands pursuant to the NFHCP (see section 3.3.2 of the EIS). The NFHCP contains seven general conservation commitment categories to benefit the seventeen covered native salmonid species: roads and upland management, riparian area forest management, range and livestock grazing management, land use planning commitments, legacy and restoration commitments, administration and implementation measures, and monitoring and adaptive management commitments. The NFHCP conservation measures are specifically intended to conserve native salmonids by providing adequate habitat conditions represented by clean and cold water, and complex and connected fish habitat. Monitoring and adaptive management commitments are intended to determine if intended habitat goals and objectives are being met, and if not, to require adjustments in NFHCP implementation.

Decision

NEPA requires Federal agencies carry out their programs in accordance with NEPA's policies of environmental protection. To this end, NEPA requires disclosure of the environmental effects for major Federal actions significantly affecting the quality of the human environment. Section 10 of the Act authorizes the Services to issue permits authorizing incidental take of Federally-listed species. The applicant for such a permit must submit a conservation plan in accordance with section 10(a)(2)(A) of the Act. The Services must issue the permit if they find that the permit application and conservation plan satisfy requirements of section 10(a)(2)(B) of the Act. Another factor the Services must consider in making a decision concerning permit issuance is consistency with the Federal trust responsibility to Native American Tribes.

The proposed NFHCP and other alternatives have been described and evaluated in the EIS. Based upon the review of the alternatives and their environmental consequences described in the EIS as required under NEPA, and satisfaction of requirements under the Act, the decisions of the Services are to issue incidental take permits to Plum Creek and to adopt the proposed NFHCP as the preferred alternative, modified as described in the EIS, and to issue incidental take permits to Plum Creek. The Services have identified the NFHCP as the environmentally preferable alternative because of its road commitments and greater projected reductions in sediment delivery to streams and increase in habitat connectivity than any of the other alternatives, as well as improvements in habitat complexity and providing cooler water. In addition, its monitoring and adaptive management measures will be used to adjust mitigation measures if necessary. The Services have concluded in their section 10 findings document (FWS and NMFS 2000a), which is incorporated here by reference, that Plum Creek's application and NFHCP meets the criteria for permit issuance in accordance with section 10(a)(2)(B) of the Act. In making this decision, the Services have also considered their trust responsibilities to Native American Tribes and have concluded that issuance of the permits is consistent with their trust responsibilities (FWS 2000).

Alternatives

In the EIS, the Services analyzed in detail three action alternatives and one no action alternative; these alternatives were: the Proposed NFHCP, Internal Bull Trout Conservation Plan Alternative, the Simplified Prescriptions Alternative, and the Existing Regulations-No Action Alternative. In addition, four other alternatives were considered by Plum Creek and/or the Services, and were discussed in the EIS, but were not analyzed in detail because they did not meet the purpose and need for the project, they were not considered reasonable, feasible, or viable for purposes of NEPA, and/or they were considered beyond the scope of the EIS. The Services did not adopt the Internal Bull Trout Conservation Plan Alternative or Simplified Prescriptions Alternative or otherwise condition the NFHCP alternative for permitting purposes because the NFHCP alternative met the Act's permit issuance criteria (FWS and NMFS 2000a).

Proposed NFHCP Alternative: The NFHCP was submitted by Plum Creek as part of their application for incidental take permits, in accordance with section 10 of the Act. The NFHCP

represents Plum Creek's plan to conserve native salmonids and their habitat and is intended to satisfy the requirements of section 10(a)(2)(A) of the Act so the Services can issue permits authorizing the incidental take of seventeen native salmonids.

The NFHCP minimizes and mitigates impacts resulting from the possible incidental take of the covered native salmonids. The NFHCP is a set of conservation commitments and land management prescriptions that Plum Creek agrees to follow for 30 years. The general commitment categories are: roads and upland management, riparian area forest management, range and livestock grazing management, land use planning commitments, legacy and restoration commitments, administration and implementation measures, and monitoring and adaptive management commitments. The NFHCP mitigation measures are intended to meet the Services' objectives for fish conservation by providing adequate fish habitat conditions represented by clean and cold water, and complex and connected habitat. The Services believe that the NFHCP commitments will minimize and mitigate the effects on salmonids and their habitat from the covered activities, and will maintain or achieve, over time, properly functioning aquatic habitat conditions.

The NFHCP includes existing State and Federal regulations as a foundation, and supplements them with a broad array of conservation commitments that minimize or mitigate effects of covered land management practices. The conservation commitments provide long-term benefits for the conservation of the covered species, but some take of listed species would be authorized. The Services would have assurances that mitigation measures would be implemented for activities or areas that pose the greatest risk of harm to the species, for example, measures to reduce sediment input to streams. Plum Creek would receive long-term regulatory certainty that they could manage their lands, in accordance with the NFHCP, providing them with the opportunity to minimize their risk of noncompliance with the Act. Monitoring of NFHCP implementation and performance would occur throughout the proposed 30-year permit term, and results reported to the Services. Adaptive management provisions would be used to modify conservation measures if biological goals and objectives are not being met.

Internal Bull Trout Conservation Plan Alternative: This alternative consists of science-based land management practices and conservation measures that could be developed and implemented by Plum Creek to fulfill their intention of avoiding take of ESA-listed fish species. This alternative could potentially be used to authorize incidental take for a single-species or listed-only species HCP. This alternative and the NFHCP alternative serve to contrast a single-species or limited species approach with a multi-species approach that includes unlisted species.

The Internal Bull Trout Conservation Plan Alternative is a set of regulated and voluntary land management practices that resemble Plum Creek's Environmental and Land Use Principles, and its Environmental Forestry philosophy. Under this alternative, Plum Creek would seek to achieve ESA compliance by implementing its own version of a conservation plan for listed salmonids (including primarily bull trout, but also steelhead, chinook salmon, and chum salmon). The alternative may satisfy the Services' conservation objectives for a single-species, or listed-species only HCP, but unlisted species would receive no special consideration. This approach to fish protection includes

existing Federal and State regulations as a foundation, supplemented with an array of conservation commitments that address forest road and upland, riparian, and range management; conservation land sales; and initiatives to continuously improve the quality and performance of land management. Plum Creek's Environmental and Land Use Principles would guide overall plan implementation and continued participation as a cooperator in existing watershed groups and collaborative conservation projects.

Conservation measures implemented under this alternative would likely reduce the risk of take under section 9 of the Act or minimize and mitigate authorized take for some Plum Creek activities. Emphasis would be placed on activities or areas that potentially pose the greatest risk of take of listed species. Monitoring would be performed where it is desired to demonstrate this alternative's effectiveness at conserving or avoiding take of species. Monitoring and reporting of plan performance or the condition of listed species would not occur, except as required under Federal or State regulations or in a permit, should one be issued.

Simplified Prescriptions Alternative: This represents a general approach to road, riparian buffer, and grazing restrictions, with either no or minimal commitments to other practices that conserve fish. This general approach contrasts with the focused conservation approach of the proposed NFHCP.

The Simplified Prescriptions Alternative seeks to augment the implementation of fish conservation measures, focusing on three land management categories: forest road and upland management, riparian management, and range management. The Services believe land management actions taken under these three categories generally have the greatest potential to influence aquatic health and result in take of listed native salmonids. Under this alternative, prescriptions for management activities would be more uniform and simplified for ease of permit implementation and monitoring, but are based on less specific scientific information and have fewer opportunities for adjustment. Supplemental conservation measures, beyond these three areas, would be minimal or voluntary. Adaptive management provisions would focus on management of roads, riparian areas, and range conditions and would be narrower in scope because the uncertainties associated with the prescriptions would be fewer. A permit issued under this alternative would authorize incidental take of the seventeen native fish species, and there would be long-term regulatory certainty provided to Plum Creek.

Existing Regulations-No Action Alternative: The No Action Alternative would provide applicable compliance with Federal and State laws, including forest practice regulations. Under this alternative permits would not be issued by the Services and conservation measures to conserve native salmonids would not be implemented beyond those required under Federal and State laws and regulations. The No Action Alternative represents what is likely occurring on non-Federal land in most portions of the Planning Area today.

Under the No Action Alternative, Plum Creek would comply with Federal and State regulations pertaining to forest management and other covered activities addressed in the proposed NFHCP, without acquiring incidental take permits. Plum Creek would not commit to implementing its

Environmental Principles, nor engage in voluntary actions or supplementary conservation-related efforts, except where necessary to comply with Federal and State laws. In addition, Plum Creek would not address unlisted native fish species, except to the extent that they would benefit from existing regulatory requirements, and few if any opportunities would arise for proactive conservation actions benefitting listed native fish. As a consequence, Plum Creek would not receive assurances leading to regulatory certainty for these covered species while managing its lands. Similarly, the Services would not receive assurances that supplemental fish conservation measures would be implemented.

The No Action Alternative provides no assurance that the collective actions under the varying existing regulations would result in coherent, long-term conservation value to native fish. However, land management activities would be subject to review by the States on a project-by-project basis, and generally would be consistent. Regulations and best management practices would evolve over time to address new issues. Compliance with the Act could occur through modification or avoidance of operations in areas where the risk of affecting listed species or their habitats is high.

Rationale for the Decision

As discussed above, the Services' decision was whether to issue, deny, or issue with conditions, incidental take permits, pursuant to section 10(a)(1)(B) of the Act, covering the seventeen native fish species identified in the NFHCP. The Services analyzed three action alternatives and a no action alternative in the EIS. Of the action alternatives, the Services adopted the NFHCP alternative as the preferred alternative. The Services also believe that the NFHCP alternative is the environmentally preferable alternative. These selections were based, in part, on the analysis presented in the EIS which compared the predicted environmental consequences of each of the action alternatives against the no action alternative. The EIS analyzed effects on resources that require attention under NEPA, including a variety of elements of the human environment. The analysis included relative effects of the alternatives on: geology and soils, water resources and hydrology, water quality and contaminants, vegetation resources, fisheries and aquatic resources, wildlife resources, land use, recreation resources, visual and aesthetic resources, cultural resources, social resources, economic resources, and air quality. In addition to analyses in the EIS, the Services decisions were also based on analyses in the Biological Opinion (FWS and NMFS 2000b) and the section 10 Findings (FWS and NMFS 2000a) documents prepared for the Services' actions of responding to Plum Creek's permit application. Both of these documents are incorporated here by reference.

Effects of Alternatives on Fish Habitat

Implementation of the NFHCP would establish a comprehensive conservation strategy that adequately reduces potential adverse effects of Plum Creek's activities and promotes improvements in fish habitat quality to benefit native salmonids on Plum Creek lands. Plum Creek is one of the largest non-Federal landowners of native salmonid habitat in the northwest and implementation of the NFHCP conservation measures on these lands is important for conservation and recovery of these species. Issuance of the permits and implementation of the NFHCP also provides for Plum Creek's economic needs by accommodating land management activities and providing long-term regulatory

assurances with respect to the Act. Consistent with the Act's issuance criteria for section 10(a)(1)(B) permits, the approved NFHCP's conservation measures minimize and mitigate impacts to the seventeen covered native salmonid species to the maximum extent practicable (FWS and NMFS 2000a).

The NFHCP's conservation strategy is to meet biological goals and objectives based on providing adequate habitat for native fish in the form of cold, clean water and complex, connected habitat over Plum Creek's 1.6 million acres of covered lands. In addition, the NFHCP commits Plum Creek to carry out a monitoring and adaptive management program, in cooperation with the Services, to monitor the plan's success at meeting the desired biological goals and objectives, and to make necessary adjustments in conservation measures. To reach the desired biological goals and objectives, the NFHCP contains conservation or restoration measures for roads and upland management, riparian area forest management, range and livestock grazing management, land use planning, legacy and restoration, and administration and implementation commitments designed to enhance native salmonid habitat. Impacts to fisheries and aquatic resources are discussed below in terms of effects to habitat for native fish in the form of cold, clean water and complex, connected habitat.

Water and stream substrate would likely be cleanest under the NFHCP than any of the other alternatives, because of reduced sediment delivery as a result of road construction and upgrade mitigation measures. Under the NFHCP, average sediment delivery from roads owned or shared by Plum Creek would be reduced by approximately 50 percent from current levels over the 30 year period. Compared to the No Action Alternative, average sediment delivery would be 33 percent less under the NFHCP, primarily because application of enhanced road best management practices would occur sooner on existing forest roads that are currently delivering sediment to streams, and surplus roads would be retired. The projected reduction in sediment delivery to streams under the NFHCP would promote the most rapid movement toward fully functioning habitat conditions for the covered fish species. To ensure these mitigation measures are adequate to provide the desired habitat conditions, monitoring and adaptive management measures are found in the NFHCP for future adjustments at the planning area basin scale.

Riparian canopy closure would be greater than current conditions at the end of 30 years under each of the alternatives. Estimated reductions in stream temperature would be slightly greater (approximately 1 °F) under the Simplified Prescriptions Alternative than under the NFHCP. The NFHCP would result in slightly greater stream temperature reductions than the Internal Bull Trout Conservation Plan or the No Action Alternatives. Overall, the estimated stream temperature reductions are similar for all alternatives. The lack of variation in stream temperature reductions between alternatives is largely due to the current condition of riparian areas on Plum Creek lands, which have a large proportion of immature riparian stands where harvest is generally precluded by current forest practice regulations. Therefore, all of the alternatives would provide similarly limited opportunities for riparian timber harvest, and therefore, similar increases in shade.

Fish habitat complexity, as influenced by large woody debris (LWD) loading, bank stability, channel migration zone integrity, canopy cover, and other factors would be most improved under the Simplified Prescriptions Alternative, followed closely by the NFHCP. The NFHCP would provide more LWD over time to stream reaches used by native salmonids than the No Action Alternative, especially to areas used by these species that may be most sensitive to LWD inputs for maintaining fish habitat.

Riparian buffers would vary in width, with the widest buffers in areas where stream channels are believed to be most responsive to effects of forest practices. Monitoring and adaptive management would be used to determine whether riparian buffers provide adequate levels of fish habitat function to conserve native fish, and to provide adjustments in NFHCP implementation if necessary.

Benefits from increased habitat connectivity would be greatest under the NFHCP, primarily due to fish passage prescriptions. Under the NFHCP, Plum Creek would identify and remove human-caused barriers to habitat connectivity at an accelerated rate. Habitat connectivity would be restored as completely as possible for a fully functioning landscape condition under the NFHCP, and would exceed the rate and extent of connectivity restoration under each of the other three alternatives.

The Services cannot conclusively determine the extent to which changes in fish habitat under any of the alternatives would contribute to the conservation and recovery of native fish. However, the Services believe that the NFHCP will allow for recovery of permit species primarily because of the combination of up-front commitments that will improve habitat quality, coupled with the NFHCP commitment for monitoring and adaptive management, where necessary. The NFHCP contains broad and flexible monitoring and adaptive management commitments to determine if the plan is adequately meeting the desired biological goals at the planning area basin scale, and if necessary, requires adjustments to NFHCP commitments. The NFHCP contains the most comprehensive monitoring and adaptive management commitments of any of the alternatives. This monitoring and adaptive management program is critical to assuring the NFHCP will adequately conserve native salmonids in the planning area.

There are commitments under the NFHCP, which the Services believe are beneficial to conservation of native fish species, that would not be implemented under any of the other alternatives. Some of these commitments are: reduction of fish poaching through access restrictions and enforcement agreements with the States; implementation of Interface Caution Areas; riparian harvest deferrals; riparian habitat condition assessment and restoration; management of irrigation diversions; brook trout suppression; and native fish assemblage management. Implementation of these conservation measures are expected to contribute to a higher level of native fish species conservation under the NFHCP than under the other alternatives.

The No Action and Internal Bull Trout Conservation Plan Alternatives were not selected because they did not fully meet the Purpose and Need of the proposed action, or permit issuance criteria under section 10 of the Act. These alternatives would not create a conservation strategy for a wide variety of native salmonids addressing a wide range of threats to the species, and would provide no

or very little assurances to the Services that any comprehensive, long-term conservation strategy would be implemented. Also, neither of these alternatives provide the level of regulatory assurances desired by Plum Creek. While the Simplified Prescriptions Alternative would protect multiple salmonid species and provide less risk to covered species up front than the NFHCP due to more robust riparian buffers, it was not selected because of Plum Creek's impaired ability to meet their business goals, and the Services' impaired ability to monitor and adjust conservation measures through adaptive management. The NFHCP was selected over the Simplified Prescriptions Alternative because it provides greater long-term assurance of adequate protection through legally-binding mechanisms to adjust the NFHCP, includes obligations that go beyond riparian buffer commitments (e.g., specific sediment reduction commitments; connectivity restoration commitments), and because it fully meets the Purpose and Need and permit issuance criteria under section 10 of the Act. Because the NFHCP meets permit issuance criteria, the Services are obligated to issue a permit to Plum Creek.

Effects of Alternatives on Soils

Impacts to soil resources were analyzed primarily in terms of sediment delivery to streams and related soil productivity. Current rates of sediment delivery to streams and soil productivity losses from erosion are lower than rates during the past 50 years in the planning area, and are expected to continue to decline as a result of implementation of State forest practice regulations. Adverse effects from sediment delivery and lost soil productivity would continue to decline under any of the alternatives, although the rate and magnitude of decline would vary among alternatives. According to modeling efforts developed for this project, estimated sediment delivery to all project area streams from existing and new roads during the 30-year planning period would total 546,000 tons under the No Action Alternative. Reductions in sediment delivery from implementation of conservation measures would be greatest under the NFHCP, followed by the Simplified Prescriptions Alternative and the Internal Bull Trout Conservation Plan Alternative. Compared to the No Action Alternative, sediment delivered from roads over the same period would be reduced by an estimated 178,000 tons (33 percent) under the NFHCP, 73,000 tons (13 percent) under the Simplified Prescriptions Alternative, and 47,000 tons (8 percent) under the Internal Bull Trout Conservation Plan Alternative.

Effects of Alternatives on Water Quality and Hydrology

Reduction of impacts on water quality and hydrology in the Project Area would be greatest from mitigation measures under the NFHCP and the Simplified Prescriptions Alternative, less under the Internal Conservation Plan Alternative, and least under the No Action Alternative. Water quality and hydrology under the No Action Alternative would generally be similar to existing conditions. Changes in flow regimes would be small under any of the alternatives. Relatively fewer benefits would result under the Internal Conservation Plan Alternative because fewer prescriptions would be associated with road and upland management, riparian harvest, range management, and irrigation diversions. The more rigorous prescriptions under the NFHCP and Simplified Prescription Alternatives may have moderating effects on unnatural stream flow spikes during precipitation events, and slightly reduce impacts to downstream drainages in the planning area.

All of the alternatives are expected to result in improved water quality in the project and planning Areas during the next 30 years. Under the No Action Alternative, water quality in the project area would slowly improve as sediment delivery to streams is reduced, riparian conditions are improved and maintained, and instream habitats are improved. Benefits to water quality in the project area would be more substantive and immediate from mitigation measures under the proposed NFHCP and the other two action alternatives than under the No Action Alternative. This is primarily because of the timing and long-term benefits from road and upland management, riparian management, range management, and land use planning prescriptions that would be implemented. These mitigation measures would reduce sediment delivery to streams (reduced most under the NFHCP) over large geographical areas and move towards re-establishing properly functioning riparian systems and ecological processes that contribute to improved water quality through large woody debris and nutrient inputs, stream shading, and bank stability.

Effects of Alternatives on Plant Communities

Impacts to plant communities were analyzed in terms of potential alterations in the types of plant communities or their extent, age and stand structure, the diversity of vegetation, and the viability of Federally-protected or special status plant species. The primary vegetative characteristics that would change under the alternatives are forest age and stand structure. All other plant community characteristics would be generally similar to existing conditions. The representation of various forest structural types would be similar for all alternatives, with the greatest shifts being away from young dense forest toward forest with intermediate-size trees and forest with less dense large trees. Vegetation structures and patterns within the project area would be more diverse under the action alternatives compared to the No Action Alternative, with some differences such as more large tree retention in riparian zones under the Simplified Prescriptions Alternative, and more habitat structures retained in Interface Caution Areas outside riparian management zones under the proposed NFHCP. The amount of recovery and development of riparian plant communities damaged by livestock grazing would be most rapid under the Simplified Prescriptions Alternative, intermediate under the other two action alternatives, and relatively unchanged under the No Action Alternative. Mitigation and minimization measures under the NFHCP and Simplified Prescriptions Alternatives would provide for the most rapid recovery of riparian and aquatic habitats, while changes in upland vegetation resources would be similar among the alternatives.

Effects of Alternatives on Wildlife

Potential impacts on wildlife resources from the alternatives generally include modifications in forest and riparian vegetation structural characteristics as a result of natural and human-induced disturbances, including tree harvesting. These modifications may affect the quantity and quality of wildlife species' habitats. Land management activities under the proposed NFHCP, other two action alternatives, and the No Action Alternative would be similar, resulting in only slightly different proportions of forest structures that provide wildlife habitat. All alternatives focus on the integrity of riparian stand types, but the greatest changes would be under the Simplified Prescriptions Alternative such that there would be fewer riparian stands with intermediate-size trees, and more stands with large-size trees. None of the alternatives would substantively change

landscape patterns, although the NFHCP includes conservation measures that would extend across Interface Caution Areas, beyond riparian management zones. All alternatives would promote the connectivity of riparian corridors. In general, primary and secondary forested riparian habitats for most wildlife faunal groups (lifeforms) and special emphasis species would not be significantly or adversely affected under the NFHCP or any alternative. Under all alternatives, including the NFHCP, Plum Creek would avoid take of wildlife species listed under the Act that are not covered by the permit. Overall, compared to existing conditions, forested riparian habitat under the NFHCP and other alternatives would be about the same or slightly better for gray wolves and their prey, lynx and their prey, grizzly bears, bald eagles, and northern spotted owls.

Effects of Alternatives on Land Use
No existing land uses would be completely precluded under any of the alternatives. However, some of the proposed mitigation commitments could locally restrict the levels of certain existing land uses in the project area. Effects of such commitments would be greatest under the Simplified Prescriptions Alternative (primarily for recreation, grazing, and to a lesser extent timber harvest), followed by the NFHCP and the Internal Conservation Plan Alternative, and least under the No Action Alternative. The level of sales of Plum Creek lands with assurances of continued fish conservation measures (i.e., conservation measures that would affect use of these sold lands) and conservation certainty for native fish species would be greatest under the NFHCP. Under all other action alternatives, Plum Creek could transfer title to land in a manner that would have less restrictions on land use activities than under the NFHCP.

Impacts to recreational resources were evaluated primarily based upon the use of and access to recreational resources. The use of, and access to, project area recreation resources would be greatest under the NFHCP, followed by the Internal Conservation Plan Alternative due to conservation measures in those alternatives. Recreation access under both would exceed existing conditions. Recreation uses under the No Action Alternative would be similar to existing conditions, while those under the Simplified Prescriptions Alternative would be less than at present because of mitigation measures resulting in reduced public access.

Effects of Alternatives on Visual Resources
Impacts to the quality of visual resources in the Project Area would be minor under any of the alternatives compared to existing conditions. Effects to visual resources would be slightly less under the NFHCP or Simplified Prescriptions Alternative than under the No Action or Internal Conservation Plan Alternatives. Managed forestlands would continue to predominate the landscape, and scenic integrity would be similar under all alternatives.

Effects of Alternatives on Cultural Resources
The No Action Alternative would likely have some level of impact on known and unknown cultural resources, depending on site-specific factors. For example, areas where modification or avoidance of operations by Plum Creek are necessary to avoid take of listed salmonids, may

receive more protection for cultural resources than areas receiving State forest practice rule protections. Under the No Action Alternative, there would be some likelihood of finding and potentially disturbing cultural resources, particularly along perennial stream and river channels since these areas often have a high probability of past human use. However, the specific impact on cultural resources under the No Action Alternative is unknown at this time since future Plum Creek forest management activities in relation to the location of cultural resources is unknown. Impacts to known and unknown cultural resources may occur in some cases under the proposed NFHCP, the Internal Bull Trout Conservation Plan, and the Simplified Prescriptions Alternatives. Similar to the No Action Alternative, the specific impact to individual cultural resources is unknown at this time since specific Plum Creek forest management activities and the associated conservation measures under each alternative in relation to the location of cultural resources are unknown. In general, impacts to cultural resources under the action alternatives could be greater or less than those under the No Action Alternative depending on the site-specific activities under each alternative and the location of the particular cultural or ethnographic resource. Impacts would likely be less under the action alternatives than the No Action alternative in areas where listed salmonids do not occur and the action alternative would provide additional protections. The likelihood of harm to Native American cultural resources would likely be less under any of the action alternatives than under the No Action Alternative because of the generally greater protections adjacent to stream and river channels where most past human activity was concentrated. To comply with Section 106 of the National Historic Preservation Act, the NFHCP's Implementing Agreement commits the Services to negotiate memoranda of agreements with the State Historic Preservation Offices and other interested parties in a phased approach to minimizing impacts to historic properties.

Effects of Alternatives on Social and Economic Resources

Social resources of timber-dependent communities would probably not be affected to any substantive degree under any of the alternatives. The NFHCP and Simplified Prescriptions Alternative would each offer more combined benefits of increased environmental protection for native salmonids and long-term community stability through regulatory certainty than would the Internal Bull Trout Conservation Plan Alternative or the No Action Alternative. Under the No Action Alternative, conditions and characteristics of social systems would be about the same as at present.

Economic resources in the project area would be most affected under the Simplified Prescriptions Alternative and the NFHCP. The overall costs of program implementation under either would be high, with individual costs varying depending on the specific conservation category. The NFHCP and Simplified Prescriptions Alternative would both result in greater long-term certainty of economic use of Plum Creek lands while conserving salmonid habitat. There may be a slight risk of job loss in rural resource-dependent communities because of reduction in riparian timber harvest and perhaps subsequent declines in economic multiplier effects. Economic resources and systems under the No Action and Internal Conservation Plan Alternatives would be about the same as at present; trends of increasing costs to address environmental concerns and uncertain economic uses of their lands by Plum Creek would

continue under both of these alternatives. Any potential effects on economic resources in the planning area under the action alternatives would probably be minor given the considerably larger size of the planning area relative to the project area.

Effects of Alternatives on Air Quality
The potential for air quality impacts would be avoided or minimized under the action alternatives by complying with Federal and State requirements that regulate forest practices. Because of associated management prescriptions, air quality in the project area under the NFHCP, Internal Conservation Plan, and Simplified Prescriptions Alternatives would probably be slightly better than under the No Action Alternative. Air quality under the No Action Alternative would be about the same as at present.

Public Involvement and Coordination

In preparation for initiation of formal public scoping for this NEPA process, the Services and Plum Creek held a total of 39 meetings with interested members of the public between October 1997, and January 1998. Meeting objectives were to inform the public about the pending NEPA and HCP processes, and receive ideas and comments. Information received was included as formal public scoping comments in preparation of the Draft Environmental Impact Statement (DEIS) (FWS et al. 1999).

Public scoping was formally initiated with publication of the public notice for scoping in the *Federal Register* on December 12, 1997. Public scoping was conducted to help the Services determine what issues to consider in Plum Creek's proposed NFHCP and in the DEIS, and the range of alternatives to be considered in the DEIS. The scoping process is described in detail in Chapter1, Section1.6, *Public Information and Involvement,* of the DEIS. Six scoping meetings were held throughout the planning area during January 1998 as follows: Libby, Montana, on January 14; Kalispell, Montana, on January 15; Coeur d'Alene, Idaho, on January 21; Missoula, Montana, on January 22; Kelso, Washington, on January 28; and Yakima, Washington, on January 29. Each meeting ran from 3:30 p.m. to 7:30 p.m. Scoping comments were requested from the public by February 27, 1998, which was 30 days following the Yakima meeting. However, comments received after that date but prior to publication of the DEIS were considered in the DEIS alternatives analysis and impact assessment. The scoping and public involvement processes are documented in the *Scoping Report for the Plum Creek Timber Company Aquatic Habitat Conservation Plan* (FWS and NMFS 1998).

Coordination between the Services and interested agencies and entities and the public that began in early project planning continued to occur periodically throughout DEIS development. Issues identified during scoping were considered during preparation of the DEIS and the NFHCP. The Services and Plum Creek continued to receive comments from the public during DEIS development, and encouraged such participation on their web sites and through personal contacts. The Services did not share detailed information concerning the development of conservation commitments with agency cooperators or other interested scientists over much of

the development of the HCP, at the request of Plum Creek to respect the proprietary nature of information shared with the Services. Some agency cooperators and interested scientists were involved in review of Plum Creek technical documents at the request of the Services.

The Services documented a total of at least 150 meetings, 110 letters and written communications, and 130 phone calls with agencies, tribes, and special interest groups. More than 20 of these contacts occurred during the project planning stage prior to scoping, and the remainder were contacted from scoping through the release of the DEIS.

The Fish and Wildlife Service conducted government-to-government meetings, provided written communications to, made phone calls to, and requested information from 14 Native American Tribes in the planning area on multiple occasions between September 1997, and September 1999. A 60-day formal public comment process was initiated on December 17, 1999, with a notice published in the *Federal Register* announcing the availability of the DEIS, NFHCP, and Plum Creek's permit application for public review and comment. To facilitate public review of the DEIS and NFHCP and to obtain public comments, six public meetings were held on the DEIS and NFHCP: Kelso, Washington, on January 11, 2000; Yakima, Washington, on January 12, 2000; Libby, Montana, on January 17, 2000; Kalispell, Montana, on January 18, 2000; Missoula, Montana, on January 11, 2000; and Coeur d'Alene, Idaho, on January 11, 2000. All meetings were held from 3:30 to 7:30 p.m.. After receiving several requests for extension of the public comment period, the comment period was extended an additional 30 days until March 17, 2000. During the comment period, the Services distributed to interested parties approximately 400 copies of the DEIS and NFHCP, and 75 copies of the executive summary of the DEIS.

The Services received 83 separate pieces of correspondence commenting on the DEIS and NFHCP. Public meeting were held in Kelso and Yakima Washington, Libby, Kalispell, and Missoula, Montana, and Coeur d'Alene, Idaho. Written comments and the responses from the Services on the DEIS were provided in Appendix F of the EIS. Most comments on the DEIS were concerning the alternatives and their impacts. Revisions to the DEIS and the NFHCP were presented in the EIS. The most notable changes to the NFHCP occurred in adaptive management, riparian, roads, and administration and implementation.

On September 21, 2000, the Services announced in the *Federal Register* the availability of the EIS and NFHCP. By regulation, the Services cannot render a Record of Decision and incidental take permit decision any sooner than 30 days from publication of the EIS. Copies of the EIS, NFHCP, and Implementing Agreement were mailed to elected officials, Federal and State government agencies, Native American Tribal governments, County and City governments, interested organizations and individuals. Copies of these documents were made available directly, on the world wide web, or through solicitation, to approximately 393 entities that were on the project mailing list, or who contacted the Services for a copy of the documents subsequent to public announcement of their availability.

The Services received additional comments on the final documents from the Environmental Protection Agency (EPA), during the 30-day period following release of the EIS. The EPA provided comments covering eight topics. The Services believe that all eight of those topics had previously been identified during the public comment period for the DEIS and the Services responded to all of those comments in the EIS. Additional responses are provided below on certain aspects of three of the eight EPA topics for clarification purposes. In addition, no information was received that would alter the conclusions in the Services' section 7 biological opinion (FWS and NMFS 2000b), or the Services conclusions that the Act's section 10 issuance criteria have been met (FWS and NMFS 2000a).

Comment: EPA is concerned about the availability of detailed NFHCP monitoring reports and other information to agencies and the public.

Services' Response: Any detailed NFHCP monitoring information obtained by the Services will be available to tribes, states, or the public upon request.

Comment: EPA asked what is the basis for the 12 additional Tier 1 watersheds that can be added to the NFHCP?

Services' Response: The commentor is referred to NFHCP commitment AM6 and the accompanying statement explaining the rationale for the additional Tier 1 watersheds.

Comment: EPA asked if there are any 303(d) listed streams on Plum Creek lands in Idaho and Washington?

Services' Response: Based on current information, there are no 303(d) listed streams on Plum Creek lands in Idaho and Washington.

References

U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. National Environmental Policy Act Scoping Report for the Plum Creek Timber Company Aquatic Habitat Conservation Plan. July 27, 1998. 36p.

U.S. Fish and Wildlife Service, National Marine Fisheries Service, Plum Creek Timber Company, Inc., and CH2M Hill. 1999. Draft Environmental Impact Statement and Native Fish Habitat Conservation Plan - Proposed Permit for Taking of Federally Listed Native Fish Species on Plum Creek Timber Company, Inc. Lands. December, 1999.

U.S. Fish and Wildlife Service, National Marine Fisheries Service, Plum Creek Timber Company, Inc., and CH2M Hill. 2000. Final Environmental Impact Statement and Native Fish Habitat Conservation Plan - Proposed Permit for Taking of Federally Listed Native Fish Species on Plum Creek Timber Company, Inc. Lands. September, 2000.

U.S. Fish and Wildlife Service and National Marine Fisheries Service. 2000a. Findings and Recommendations on Issuance of an Incidental Take Permit for, and Approval of, an Agreement with the Plum Creek Timber Company for their Native Fish Habitat Conservation Plan for Montana, Idaho, and Washington. October, 2000.

U.S. Fish and Wildlife Service and National Marine Fisheries Service. 2000b. Biological and Conference Opinions Regarding Issuance of a Section 10(a)(1)(B) Incidental Take Permit to Plum Creek Timber Company for the Proposed Native Fish Habitat Conservation Plan in the states of Washington, Idaho, and Montana. October, 2000.

U.S. Fish and Wildlife Service. 2000. Summary of Native American Tribe Involvement with the Plum Creek Native Fish HCP Development. October, 2000.

Signatures

Acting Regional Administrator
National Marine Fisheries Service

Deputy Regional Director, Region 1
U.S. Fish and Wildlife Service

Regional Director, Region 6
U.S. Fish and Wildlife Service