

1.0 EXECUTIVE SUMMARY

1.1 Introduction and Background

Family forests currently make up over 130,000 acres of Lewis County. Most of these are small parcels of second- and third-growth conifers on highly productive lands, where they serve as buffers between urbanizing population centers and intensively managed State and industrial timberlands. After remaining intact for multiple generations, these family forests are now facing an increasing array of economic, regulatory and social challenges that threaten their long-term viability. One of the principal regulatory challenges facing family forests is the restriction of timber harvest to comply with the Federal Endangered Species Act (ESA). Family forest landowners appreciate the importance of managing their lands for sustainable resource protection, but the current levels of protection required for fish and wildlife are in many cases having the undesired effect of encouraging the conversion of family forestlands to more profitable non-forest uses.

In an effort to address some of the many challenges facing family forest landowners, the Family Forest Foundation (Foundation), in cooperation with Lewis County, has prepared this programmatic, multiple species Family Forest Habitat Conservation Plan (FFHCP). The intent of the FFHCP is to provide a regulatory incentive for family forest landowners to maintain their lands in sustainable forest use and to provide habitat for fish and wildlife species. By creating a planning mechanism that provides regulatory stability to family forests, the FFHCP protects the public values these lands provide, such as fish and wildlife habitat, water quality, flood control, biodiversity, aesthetics and contributions to rural economies and cultures.

The FFHCP was prepared in cooperation with the U. S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) (collectively called the Services) to meet the Incidental Take Permit (ITP) issuance criteria of ESA Section 10. When substituted for the applicable Washington State Forest Practices Rules (State Rules), the FFHCP also provides landowners the opportunity to create long-term forest management plans while reducing the administrative burden on State and Federal regulatory agencies.

The FFHCP is programmatic in nature, potentially covering over 2,000 landowners. Most previous HCPs in Washington have covered individual ownerships, but the single-landowner approach is not feasible for the myriad small ownerships represented by the FFHCP. The ability of the Services and the landowners to develop individual HCPs is limited by the varied and unique needs of the landowners for technical and legal assistance, the sheer number of owners, and the funding constraints of the Services. The FFHCP addresses those limits with its programmatic approach.

Family forest landowners in Lewis County could enjoy the incidental take coverage for listed and unlisted fish species provided by the Forest Practices HCP (FPHCP) recently completed by the Washington Department of Natural Resources (WDNR), but the conservation measures in that HCP are considered overly burdensome by many small forest landowners in Lewis County, and the ITP coverage extends only to aquatic species. The FFHCP includes conservation measures appropriate to the size and nature of family forest ownerships in lowland Lewis County, and it covers wildlife as well as fish.

1.2 Scope of the FFHCP

The FFHCP can cover up to 200,000 acres of family forestland below elevation 1,250 feet within the Upper Chehalis and Cowlitz basins of Lewis County. It has a term of 100 years, and covers 56 species, including all 30 species of fish that are present or potentially present, seven amphibians, one reptile, 12 species of birds and six species of mammals.

Upon approval of the FFHCP and compliance with other pertinent provisions of the ESA, the Services will each issue ITPs to Lewis County, Washington. The County, in its capacity as the master ITP holder, will enter into contracts with eligible landowners who satisfy all requirements of the FFHCP. The County will be responsible for reviewing individual landowner implementation plans, enforcing landowner contract provisions, compiling monitoring data on covered lands, regular reporting to the Services, and implementation of the adaptive management provisions of the FFHCP. Primary enforcement of the provisions related to timber harvesting, road construction and use, and other forest practices will be done by the WDNR through administration of the State Rules and issuance of Forest Practices Approvals.

Eligible landowners are owners of eligible timberland who: a) meet the State Rule definition of small forest landowner; b) demonstrate adequate funding to implement the FFHCP on their family forest lands; and c) contractually agree to implement and comply with all pertinent terms and conditions of the FFHCP, Implementing Agreement, ITP and site-specific implementation plans. Lewis County may consider individual eligible landowners for coverage at any time during the term. Once covered, landowners will manage their covered lands in accordance with the FFHCP and their site-specific implementation plans, and retain ITP coverage until: a) the end of the FFHCP term, b) the Services or the County terminate ITP coverage in accordance with the enforcement provisions of the Implementing Agreement, or c) the landowner surrenders ITP coverage; whichever occurs first. Covered landowners may surrender ITP coverage and cease implementation of the FFHCP on their lands at any time.

The FFHCP covers all activities related to the growing and harvesting of trees on covered lands, except the use of pesticides (herbicides, insecticides, rodenticides and fungicides). All aspects of planting, growing, protecting and harvesting trees and other forest products are covered, including associated activities such as building and maintaining forest roads and minor gravel extraction for road construction on covered lands. Landowners covered by the FFHCP will be required to comply with the State Rules during the performance of covered activities, except where the FFHCP measures are specifically considered replacements for the State Rules. Activities covered by the FFHCP also must also comply with the Washington Shorelines Management Act, as implemented through the Lewis County Shoreline Master Program.

1.3 Existing Resource Conditions

Lands currently eligible for coverage under the FFHCP total 130,360 acres in approximately 2,400 forest parcels. They are located between elevations of 83 and 1,250 feet in the Upper Chehalis and Cowlitz basins of Lewis County, and are distributed from the vicinity of Pe Ell in the west end of the County to Packwood in the east. The eligible lands are concentrated along principal highway corridors (Interstate 5, U.S. Highway 12 and State Routes 6 and 508) where they are interspersed with urban, agricultural and industrial forest lands. The highest concentration of eligible lands lies east of Interstate 5 and north of U.S. Highway 12. Individual eligible ownerships range in size from 5 to 4,500 acres, with an average size of 54 acres.

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Lewis County is a rural county with a current population of approximately 68,600. Over 87 percent of the County is National Forest or private timberland, including nine percent of the total that is family forest. Gifford Pinchot National Forest and Mount Rainier National Park dominate the high elevations in the east, while State and industrial private forests occur at mid-elevations. The Lewis County Comprehensive Plan designates over 98 percent of the County as open space or remote rural area, with less than two percent available for urban development.

The climate of Lewis County is predominantly maritime, with mild temperatures both summer and winter. Most of the annual precipitation in the County comes in November through March. Storms are frequent during this time, and may continue for several days to produce annual peak stream flows. A dry season extends from late spring to late summer, with precipitation generally limited to a few light showers. Surface flow in many small streams ceases during the late summer. Annual snowfall is generally light below elevation 1,250 feet, ranging from 3.4 inches at Centralia to 27.8 inches at Packwood. Peak daytime temperatures occur in July and August.

The geology of Lewis County is characterized by steep mountains dissected by broad, flat valleys. The Chehalis Valley is the southern end of the Puget Trough, and is characterized by a broad, well developed floodplain and low terraces surrounded by highly dissected uplands of low to moderated relief. Valley bottoms in the Chehalis are at an elevation of about 150 feet, and uplands average about 300 to 600 feet. The Cowlitz Valley extends from the Cascades about 80 miles into the southwestern part of the County. The eastern part of the Cowlitz is a deeply cut trough with flat bottomlands, while the western part consists of bottomlands, terraces, and broad plains that are surrounded by glacially smoothed uplands. The Cowlitz Valley bottom varies in elevation from 800 to 1,200 feet in the east, and from 50 to 800 feet in the west. The FFHCP eligible lands are by definition below elevation 1,250 feet, and they are generally level to moderately sloping. The County has very productive forest soils. Eighty-six percent of the County is considered average to superior for growing confers (Site Class I, II, or III).

Lewis County is drained by four major river systems; the Chehalis, Cowlitz, Nisqually and Deschutes. The Chehalis and Cowlitz basins comprise 91 percent of the County, and have a total of 11,914 miles of rivers and streams. The eligible lands border 1,219 miles of these streams. The Chehalis River and its major tributaries, including the Skookumchuck and Newaukum rivers and Hanaford, Lincoln, and Bunker creeks, drain the north-central and western parts of Lewis County, including the uplands adjacent to the valley floor and the Doty and Willapa Hills to the west. The Cowlitz River originates on the flanks of Mount Rainier, and much of its summer flow comes from the seasonal melting of the Cowlitz Glacier. Its major tributaries are the Tilton and Cispus rivers and Silver, Winston, Salmon, Lacamas and Olequa creeks. The Chehalis and Cowlitz basins consist of 52 Watershed Administrative Units (WAU) within Lewis County. The eligible lands occupy 47 of these. The area of eligible lands within an individual WAU ranges from 1 to 12,273 acres (from less than 1 to roughly 22 percent of individual WAU area). The average area of eligible lands per WAU is 2,774 acres (8 percent of average individual WAU area). Of the eligible streams, 89 miles (7 percent) are Shorelines of the State, 337 miles (28 percent) are other known fish streams, 568 miles (47 percent) are non-fish streams, and the remaining 225 miles (19 percent) are unclassified. Water quality in the lowlands of the Upper Chehalis and Cowlitz basins is generally considered moderate to good, respectively. Localized impairments to water quality are related to peak summer temperature (due to lack of shade and wide stream channels), dissolved oxygen levels, suspended sediment, and nutrients (resulting largely from livestock and agricultural runoff).

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The eligible lands are dominated by conifer and mixed conifer-hardwood forests, with hardwoods occurring mostly on recently disturbed sites and saturated soils. Most of the eligible lands have been managed for timber production for a century or longer and now support second- or third-growth forest less than 100 years old. Since the lands are easily accessible, fire suppression has been very effective. Disturbance on the eligible lands is limited almost entirely to silvicultural thinning and commercial timber harvest. Conversion to non-forest use is a potential threat to current land use on most eligible lands.

The Chehalis and Cowlitz basins have 30 species of native fish, including runs of Chinook salmon, chum salmon, coho salmon, steelhead / rainbow trout and coastal cutthroat trout. The FFHCP covers all 30 of these species, including 11 that have special status at the State or Federal level. The County also has up to 234 native vertebrate wildlife species, of which 206 have the potential of being present on the eligible lands. The FFHCP covers 26 of these wildlife species, including the marbled murrelet, northern spotted owl and 13 Federal species of concern.

1.4 Riparian Habitat Conservation

The FFHCP protects aquatic and riparian habitat function on covered lands with a set of conservation measures tailored to the stream and forest conditions of lowland Lewis County.

- **No-harvest Buffers:** All perennial and all seasonal streams have no-harvest riparian forest buffers specific to stream width. Streams are separated into five classes (A-E) based on bankfull width, and three sub classes (perennial, seasonal and storm-event) based on season of flow. The minimum no-harvest buffer width for a perennial stream is 35 feet. Maximum no-harvest buffer width is 40 feet.
- **Partial-harvest Buffers:** Perennial streams over five feet wide and seasonal streams over 10 feet wide have partial-harvest riparian forest buffers beyond the no-harvest buffers. The width of partial-harvest buffer varies from 40 to 60 feet. Forest thinning (selective removal of the smaller trees) is allowed in partial-harvest buffers up to stand age of 85 years on large streams (over 20 feet wide) or 120 years on small streams (less than 20 feet wide). After age 85 or 120, all partial-harvest buffers are treated as no-harvest. Total buffer width (no-harvest + partial-harvest) for perennial streams and seasonal fish-bearing streams varies from 35 to 100 feet, depending on stream size.
- **Equipment Limitation Zones:** All streams have 25-foot Equipment Limitation Zones extending beyond the no-harvest buffers, or beyond bankfull width in the case of small storm event streams that do not have no-harvest buffers. On-site mitigation is required if any covered activity exposes the soil on more than 10 percent of the surface area in the ELZ. Mitigation must be designed to replace the equivalent of the lost functions, especially those related to erosion control.
- **Restrictions on Burning:** To protect ground vegetation and retain coarse woody debris, no slash burning of any kind will occur within no-harvest buffers, and no broadcast burning will occur within partial-harvest buffers.
- **Side-slope Seep Protection:** No-harvest buffers will be established around side-slope seeps located within 100 feet of perennial streams.

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- **Road Construction, Maintenance:** Covered landowners will follow the Forest Practices Habitat Conservation Plan measures provided for roads (Road Construction and Maintenance [WAC 222-24]), Additionally, the County will encourage participating landowners who upon review of their County Implementation Plan identify potential fish blockages, to participate in the Family Forest Fish Passage Program.

The FFHCP riparian habitat conservation measures are designed to provide levels of aquatic and riparian habitat function comparable to natural (unmanaged) forest in lowland Lewis County. Aquatic and riparian function is defined according to the six key habitat elements of shade, large woody debris (LWD), streambank integrity, gravel recruitment, erosion control and nutrient input. The unmanaged forest reference condition is represented by a sample of forest stands derived from the USDA Forest Inventory and Analysis (FIA) Integrated Database for the Pacific Northwest (Version 1.4, April 2004). The FIA Integrated Database contains detailed information on forest stands throughout Oregon and Washington. It was queried for sites with similar physical and biological conditions to the FFHCP eligible lands, producing a sample of 179 stands. The majority of these stands are on un-harvested U. S. Forest Service lands dominated by Douglas-fir trees with average stand ages of 105 to 165 years. To validate the FIA Integrated Database sample as representative of the unmanaged riparian forest condition in Lewis County, it was subjected to review by four forest ecologists familiar with western Washington conditions. All four scientists supported its use as the FFHCP reference condition.

The measurement of LWD function under the FFHCP was accomplished with the use of a habitat metric known as Available Functional Large Woody Debris (AFLWD). This metric measures the amount of woody material capable of falling from a given riparian forest, reaching an adjacent stream, and contributing to the support of in-channel fish habitat. It accounts for the size of each tree in the riparian forest, the distance from each tree to the stream edge, and the size of the stream. AFLWD is reported as the: a) density, and b) volume of potentially functional trees capable of recruiting to the stream. It replaces earlier metrics that reported only the basal area and/or volume of trees in the riparian forest without consideration of individual tree size or location, and is superior to those earlier metrics because it does not give credit to riparian trees that are too small and/or too far from the stream edge to contribute functional instream LWD.

AFLWD volume and density were calculated for the 179-plot reference condition sample, and compared to AFLWD volume and density for riparian forest grown according to the FFHCP riparian habitat conservation measures. The growth of the FFHCP stands was simulated using the ORGANON growth and yield model Version 8.2 (Hann 2006). The results of this comparison demonstrate that forest stands grown according to the FFHCP will meet or exceed reference condition values for AFLWD volume and density on all perennial streams over five feet wide by stand age 120, the point at which thinning in the partial-harvest buffers ceases. Modeled FFHCP stands only failed to meet the reference condition for AFLWD on perennial streams over five feet wide if initial stocking (tree density) in the stands was too low. To minimize the potential for low stocking to impair habitat function on covered lands, the FFHCP measures include provisions for planting additional trees in poorly-stocked no-harvest buffers, and restricting thinning in adjacent partial-harvest buffers.

Riparian shade function is met under the FFHCP by requiring no-harvest forest buffers on all perennial and all seasonal fish bearing streams. Stream temperatures on covered lands will exceed State water quality standards only when natural conditions (i.e., wide stream channels) prevent mature trees from providing full shade.

1.5 Upland and Wetland Habitat Conservation

Habitat for covered upland and wetland species is provided through several of the State Rules that will continue to be implemented on covered lands (see Section 3.7). Additional upland and wetland habitats will be provided by the FFHCP measures.

- Even-aged harvest (clearcut) unit size on FFHCP covered lands is limited to 60 acres. The current State Rules limit is 120 acres without interdisciplinary team environmental review, and 240 acres with review.
- The minimum age for regeneration harvest on FFHCP covered lands is 50 years. The current State Rules have no limit on regeneration harvest age.
- The FFHCP requires the retention of roughly three times the number of snags and residual live trees required by the current State Rules. The sizes of the snags and live trees required by the FFHCP are at least twice those required by the current State Rules, and the allowable distance between retained snags and live trees under the FFHCP is less than one-third the allowable distance under the current State Rules.
- The FFHCP requires the retention of hard (merchantable) logs during all commercial harvest entries (thinning and regeneration harvest) to provide a diversity of downed wood for wildlife. The current State Rules require log retention only at the time of regeneration harvest, and the retained logs do not have to be hard.
- Snags, live trees and logs retained on FFHCP covered lands to satisfy the upland habitat conservation measures may not be salvaged or cut for firewood.
- Known nest and communal roost trees of covered wildlife species will be protected on covered lands for the term of the FFHCP.
- Seasonal buffers will be enforced around the active nests of covered wildlife species. Some of these seasonal buffers are less restrictive than the current State Rules, but they are consistent with the small average parcel size of the eligible lands.
- The FFHCP includes species-specific habitat protection measures for the bald eagle, marbled murrelet, band-tailed pigeon, western gray squirrel, Vaux's swift and Northwestern pond turtle.
- At least 20 percent of the live trees in forested wetlands must be retained during timber harvesting on FFHCP covered lands. The current State Rules encourage, but do not require, the retention of trees in forested wetlands.
- The FFHCP no-harvest and partial-harvest riparian buffers will be implemented on all wetlands with open water components that support fish, unless the standard wetland buffers required under the current State Rules would provide greater protection of public resources.

1.6 Monitoring, Reporting and Adaptive Management

Individual landowners will submit annual compliance reports to the County, and the County will summarize those reports and submit them to the Services. Using information provided by covered landowners, the County will report to the Services the percent of covered lands subjected to regeneration harvest in each year. If total regeneration harvest of parcels over 60 acres exceeds 15 percent of the covered lands in parcels greater than 60 acres in any consecutive three-year period, or 25 percent in any consecutive five-year period, the County and the Services will evaluate the need for additional FFHCP requirements to limit the overall rate of harvest. They will determine why the reported rate of regeneration harvest occurred, and consider: a) incentives for covered landowners to voluntarily extend harvest rotations beyond 50 years, b) incentives for eligible landowners with young (pre harvest age) forest to seek FFHCP coverage, and c) additional limits on the rate of regeneration harvest for covered lands. If additional limits on the rate of regeneration harvest are developed, they will apply only to parcels of more than 60 acres that become covered after the limits are added, and only if the lands lie within Watershed Administrative Units (WAU) where covered lands make up more than 10 percent of the WAU. If future analyses of regeneration harvest indicate the overall rate is less than 15 percent of the covered lands in any consecutive three-year period and 25 percent in any consecutive five-year period, the additional limits on rate of harvest may be relaxed by the Services.

Riparian buffer effectiveness monitoring will be conducted by the County beginning in Year 11 of FFHCP implementation, and repeated every 20 years thereafter. Buffers will be sampled to verify they are providing the intended level of habitat function, and specified adjustments will be made to the riparian habitat conservation measures as needed. The FFHCP can also be subjected to adaptive management at any time if scientific peer review demonstrates that use of the FIA Integrated Database reference condition or the AFLWD metric are resulting in incorrect or inaccurate evaluation of the adequacy of the riparian habitat conservation measures.

1.7 Changed Circumstances

The FFHCP includes provisions for dealing with changes in circumstances during the term of the FFHCP that result in a change in the status of the covered lands or the covered species. Categories of changed circumstances include episodic natural events (wildfire, wind storm, insects, forest disease, landslide and flood), global climate change, changes in the ESA status of a species, and public condemnation of covered lands.

1.8 Costs and Funding

Initial coverage under the FFHCP will cost individual landowners approximately \$2,500, and the processing at the time initial coverage will cost Lewis County approximately \$1,000 per landowner. Compliance monitoring and reporting will cost individual landowners less than \$100 per year, and it will cost the County approximately \$5,000 per year for all landowners. Effectiveness monitoring could cost Lewis County \$10,000 or more at each of the five monitoring intervals.

1.9 Effects of the Proposed Incidental Take and FFHCP on Covered Species

Implementation of the FFHCP will result in the maintenance of riparian forest conditions on covered lands comparable to unmanaged forest in lowland Lewis County. All perennial streams and all seasonal fish-bearing streams will have no-harvest buffers 35 to 40 feet wide to maintain shade and provide a source of LWD. Perennial and fish-bearing seasonal streams over five feet wide will also have no-harvest buffers 40 to 60 feet wide (for total buffer widths of 80 to 100 feet) to provide additional LWD. Resulting shade conditions will be sufficient to maintain water temperatures in streams less than 10 feet wide in compliance with the State Water Quality Criterion (7-DADmax of 16 °C or less) after forests reach 20 to 30 years of age, comparable to unmanaged forest. Larger streams will require older forest (taller trees) to reach the State Water Quality Criterion, but they will provide shade levels comparable to unmanaged forest of similar age at all times.

The FFHCP riparian buffers will produce AFLWD volume and density that meets or exceeds the median (mid-point) of the FIA reference condition sample by age 120 on all streams over five feet wide. Streams less than five feet wide will have lower levels of AFLWD, in keeping with the assumption that the LWD demands of small, low-gradient streams are considerably less than those of larger streams. The average size of recruitable LWD pieces produced by the FFHCP will be comparable to unmanaged forest, except that the volume and density of very large pieces (those over 25 inches in diameter) will be lower under the FFHCP. This is the result of maintaining no-harvest buffers for shade. Overall tree density in the no-harvest buffers will be high to ensure adequate shade, but high density will delay the diameter growth of individual trees relative to unmanaged forest conditions where tree density is often lower.

Other riparian forest conditions considered important to the maintenance of fish habitat will be protected by the FFHCP buffers. Bank stability, erosion control and gravel recruitment will be ensured by the no-harvest buffers and by limitations on the use of ground-based heavy equipment for 25 feet beyond the no-harvest buffers. Nutrient input to streams will be provided by the maintenance of native forest cover along all streams. Surface hydrology will be maintained within natural limits on covered lands by restricting even-aged harvest unit (clearcut) size to 60 acres and requiring a minimum harvest rotation of 50 years. Surface erosion and mass wasting on uplands will be controlled through adherence to the road use and maintenance provisions of current State Rules

Covered aquatic species are expected to find functional habitat on all covered lands as a result of the FFHCP. Conditions will continue to improve over current levels, which are the result of historic management practices that were less protective of fish habitat. Native fish populations are expected to benefit accordingly.

Riparian wildlife species (primarily amphibians) will benefit from the riparian buffers of the FFHCP, and habitat will generally improve on covered lands. Shade, LWD, soil moisture and soil temperature, all of which are important to terrestrial amphibians, will be maintained at or near unmanaged forest levels in riparian buffers. Air temperature and wind speed within buffers may be more heavily influenced than other microclimate parameters by timber harvest in adjacent uplands, but the effects of these on ground-dwelling amphibians will be minor. The extended rotation age of 50 years in uplands will reduce the frequency of harvest adjacent to buffers, and similarly reduce the amount of time buffer microclimate is negatively influenced.

Upland and wetland wildlife habitat conditions will improve markedly under the FFHCP due to substantial increases in the retention of legacy wood (residual live trees, snags and logs) during all stages of forest management. Habitat for species associated with snags and logs, such as

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the pileated woodpecker, will increase from current levels, and from levels that would be provided under current State Rules. Habitat for species associated with mature forest will also increase due to the development of mature forest in riparian buffers, the retention of legacy trees in uplands, and the requirement to conduct even-aged harvests no earlier than 50 years. The last two measures, in particular, will represent significant improvements over current State Rules. Species associated with forested wetlands will benefit from retention of at least 20 percent of the trees over 6 inches DBH at the time of regeneration harvest. Individual species will benefit from FFHCP measure to protect specific habitat features important to those species. Known nest trees and snags of covered species will be protected from felling, and will be buffered from human activity for at least one year in two. Provisions to allow landowners to conduct timber harvesting close to nest trees outside the breeding season in all years, and during the breeding season in one year out of two, could lead to the abandonment of nests and mortality of nestlings. The potential for such impacts may be higher under the FFHCP than under current State Rules, because the increased retention of large trees and snags required by the FFHCP will increase the numbers of these species present in managed uplands. Periodic impacts to nesting birds and squirrels are considered an appropriate trade-off for overall increases in the populations of these species on lands covered by the FFHCP, particularly if the FFHCP is effective at preventing or delaying the urbanization of family forest lands in the County.

1.10 Alternatives to the Proposed Incidental Take

Five alternatives to the proposed incidental take have been identified. The first alternative includes a range of different riparian management prescriptions. During the course of developing the FFHCP, the Foundation and the Services identified over 200 variations in the widths of the no-harvest and partial-harvest riparian buffers, and in the level and timing of allowable timber harvest in the partial-harvest buffer. Each variation was evaluated for streamside shade, potential LWD recruitment (AFLWD), operational feasibility, and cost to implement. Prescriptions involving non-restorative timber harvest within 35 feet of the stream edge were eliminated from perennial streams because they had the risk of not meeting FFHCP shade objectives. Those with no-harvest buffers less than 40 feet wide were excluded from streams over 10 feet wide because of the need to allow for potential bank cutting on these large streams. All prescriptions with total buffer widths (no-harvest + partial-harvest) of less than 35 feet were eliminated from all perennial streams because they did not meet the reference condition for AFLWD volume and density by stand age 120. Several prescriptions met all aquatic habitat objectives of the FFHCP, but were eliminated because they were operationally impractical or would cost substantially more to implement than the proposed prescriptions. Lastly, a number of prescriptions were eliminated because they were virtually indistinguishable from the proposed prescriptions with respect to aquatic habitat function and cost of implementation. The County intentionally limited the FFHCP to a single set of riparian prescriptions to simplify implementation and monitoring.

The second alternative considered was continued management under the current State Rules. This alternative was rejected for two reasons. First, the State Rules provide no incidental take coverage for 21 of the 26 listed and unlisted species of amphibians, reptiles, birds and mammals covered by the FFHCP. Family forest landowners in Lewis County desire the regulatory certainty associated with incidental take coverage for wildlife species. Second, the State Rule riparian management requirements are considered impracticable by family forest landowners in Lewis County. The FFHCP measures, on the other hand, have been specifically designed to protect the habitats of the covered species in a manner consistent with the economic and operational constraints of family forest ownership in Lewis County.

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The third alternative considered was management according to the State Rules in effect on 1 January 1999, prior to development of the new riparian management measures that form the basis for the Forest Practices HCP. This alternative was dismissed because it did not offer adequate protection of aquatic and riparian function.

The fourth alternative would be to avoid all risk of incidental take on the FFHCP eligible lands. This alternative was not considered practicable because of the anticipated difficulty in determining take avoidance for aquatic species, and the likelihood it would involve riparian management in excess of the current State Rules.

The fifth alternative considered was the preparation of an HCP and issuance of an ITP for fish species only. The County rejected this alternative because of the desire to provide regulatory certainty to family forest landowners with respect to both fish and wildlife species.

2.0 INTRODUCTION AND BACKGROUND

2.1 Introduction

Over 75 percent of Lewis County is forested. Federal lands, which are a combination of forest and alpine tundra, dominate the mid to high elevations at the east end of the County, while State and industrial forests occur at mid elevations in the east and west. Smaller, family-owned forest parcels surround and are interspersed within many rural communities in the lower elevations. These family forests tend to be located on highly productive and ecologically sensitive land, effectively serving as buffers between urbanizing population centers and commercial forestlands. Family-owned forests are an integral part of Lewis County's heritage from both cultural and economic perspectives, and have been managed by many families for multiple generations. Providing the regulatory stability essential for their long-term viability will be critical in protecting the important contributions these smaller forests make to the future economic, ecological and social well-being of Lewis County.

Family forest landowners are facing an increasing array of economic, regulatory and social challenges that threaten their long-term viability. A quickly globalizing economy has caused market fluctuations that make the value of timber unpredictable, and decreased the market leverage of small-scale producers. Simultaneously, societal concerns with environmental protection have led to changes in forest management regulations that have increased the regulatory burden on forest landowners and reduced the economic return from their lands.

In an effort to address some of the many challenges facing family forest landowners, Lewis County, in cooperation with the Family Forest Foundation (Foundation), has prepared the programmatic, multiple species Family Forest Habitat Conservation Plan (FFHCP) for family forestlands in the County that meet specified criteria. The intent of the FFHCP is to provide a regulatory incentive for family forest landowners to maintain their lands in sustainable forest use and to provide habitat for fish and wildlife species. By creating a planning mechanism that provides regulatory stability to family forests, the FFHCP will protect the public values these lands provide, such as fish and wildlife habitat, water quality, flood control, biodiversity, aesthetics and contributions to rural economies and cultures.

The FFHCP was prepared in cooperation with the U. S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) (collectively called the Services) to meet the Endangered Species Act (ESA) Section 10 Incidental Take Permit issuance criteria. When substituted for the applicable Washington State Forest Practices Rules (State Rules), the FFHCP will provide landowners the opportunity to create long-term forest management plans. As an alternative to individual HCPs for each family forest ownership, the FFHCP will reduce the administrative burden on State and Federal regulatory agencies. Given the large number of individual landowners, their need for technical assistance, and the dispersed nature of their lands, individual HCPs or similar agreements would be neither technically feasible nor within the current capabilities of the State and Federal agencies to process and implement. A programmatic approach is an effective way to implement the ESA and the Washington Forest Practices Act. A programmatic approach also provides a critical solution to the fiscal and technical challenges facing agencies and family forest landowners during the development and administration of an HCP. The successful implementation of the FFHCP represents a win-win situation for regulatory agencies currently struggling to address the needs of listed species, and the land stewards whose commitment to sustainable forestry is challenged in the present regulatory environment.

2.2 The Nature of Washington State Family Forestlands

Family forests in Washington State represent an estimated 4.2 million acres and roughly 96,000 landowners (WDNR 2001). Due to historical settlement patterns, these forests are located primarily in low-elevation watersheds, encompassing or adjacent to stream systems and often in the rural-urban interface. Because of their location and management practices, family forestlands make critical contributions to the natural resource values enjoyed by the State's citizens. Family forest landowners interested in long-term stewardship face a multitude of challenges that include, but are not limited to:

- Reduced capacity to produce traditional wood products,
- International competition that influences the value of harvested timber,
- Estate taxes of up to 55 percent of the land and timber value upon generational transfer,
- Escalating land prices driven by population growth and urban expansion, and
- Increasing regulatory burdens.

Distinctive differences in individual landowner management objectives, along with the diverse demographics of family forest ownership, present a series of challenges to family forest owners and regulatory agencies. These include:

- The large numbers of landowners relative to the area of forest;
- The small scale of individual ownerships (average 54 acres);
- The sensitivity to management costs associated with small parcels and family economics;
- The need for lands to change ownership about every 30 years through generational transfer;
- A diversity of ownership objectives derived from intimate knowledge and personal attachment to the land, including love of the land, family heritage, maintenance of a legacy for descendents, wildlife habitat and recreation;
- Profit incentives based on family values and needs rather than return to shareholders;
- Forest management styles (e.g., long rotations and small harvest units) that result in a diversity of habitats.

The ability of the Services and the landowners to develop individual HCPs is limited by the varied and unique needs of the landowners for technical and legal assistance, the sheer number of owners, and the funding constraints of the Services. The unique nature of family forests requires a different approach than that used for industrial forestlands. Such an approach must be creative and focus on incentives and outcome based mechanisms to succeed. Family forest HCPs should address unique individual ownerships and management practices if they are to serve as a viable tool for this constituency.

2.3 Family Forestlands in Lewis County

Lewis County is a rapidly growing rural area with a current population of approximately 74,100 according to the latest Office of Financial Management projection. Over 87 percent of the County is forested, and nine percent (136,353 acres) of the County is in family forest ownership. Family forestlands tend to be located in fertile valley bottoms at the rural-urban interface. Interstate 5 and U. S. Highway 12 run through the lower elevations of the County, and the access they provide to family forestlands contributes significantly to the potential for residential and commercial development.

Family forestlands in Lewis County are predominantly lowland Douglas-fir forest. Historically, this dry forest type had a natural fire disturbance regime with stand replacement fires occurring every 50 to 100 years (Agee and Edmonds 1991). Commercial timber harvest in the lowlands began in earnest at the turn of the 20th Century, and fire suppression was widespread and effective by the 1920's. By the end of the century, the vast majority of the lower elevation private forestlands in the County had been logged at least once, and the amount of forest that originated from wildfire was very small. Most of the forest in lowland Lewis County now consists of second and third generation stands where disturbance is limited to periodic timber harvest. Harvest rotations on most industrial lands are now less than 50 years, while those on family forestlands are more variable, and often longer.

Due to their proximity to large contiguous blocks of Federal, State and industrial forestland, family forests contribute to the support of several species of fish and wildlife that might not otherwise be expected to occur on small forest parcels. The Gifford Pinchot National Forest and Mount Rainier National Park both extend into eastern Lewis County. The known distributions of species like the northern spotted owl, bald eagle, elk and cougar extend beyond the Federal lands and onto State, industrial and family forestlands in the County. Family forestlands are important for wildlife habitat connectivity as well, because they contribute to an upland habitat corridor between the large industrial forests in the coast mountains at the west end of the County and the Federally-dominated forestlands in the Cascade Mountains at the east end. The importance of these habitat corridors for the dispersal and migration of spotted owls, for example, has been noted in the draft recovery plan for that species (USFWS 1992). Because they typically lie between industrial forests and large rivers, family forestlands also play a role in the support of anadromous fish. Most species of salmon and trout in the watersheds of the region find habitat on family forestlands. In the Cowlitz River basin, most family forest holdings are below dams that block volitional fish passage, and therefore represent a portion of the habitat accessible to anadromous fish. Lewis County currently provides habitat for nine Federally listed species of vertebrates and 18 species of concern. Most of these have the potential to occur on family forestlands.

2.4 Lewis County Family Forest Landowner Demographics

There are 2,237 family forest landowners (ownerships between five and 5,000 acres in designated forest tax classifications) representing 136,353 acres of forestland in Lewis County. Currently, 75 percent of this ownership is zoned for Rural Development District in five, ten or twenty acres tracts under the Growth Management Act. While conversion to non-forest use is increasing in adjacent counties along the I-5 corridor, family forest ownership acreage in Lewis County has remained relatively stable over recent years.

2.0 Introduction and Background

Lewis County family forest landowners exemplify a wide range of reasons for owning forestland and a wide range of objectives for managing forestland. Since 1991, seven different family forest ownership surveys of County and State-wide data have been conducted. Most striking in the results is the difference in ownership objectives when compared to the industrial forest landowners typically thought of when forest management issues are brought to the public's attention. When asked what their top management priority is, over 75 percent of family forest landowners respond that providing wildlife habitat, a legacy for their children, and aesthetics are a higher priority than timber revenue (Lien 2004). Recent WDNR data indicate the rate of harvest on private forestland (including industrial forests) is less than one percent per year (Larsen et al. 2000). Survey data also show that the average regeneration (clear-cut) harvest on family forestland is about 20 acres, while current State Rules allow harvests of up to 200 acres. Both figures indicate that family forest landowners practice thinning regimes and extended harvest rotations. When asked, about 30 percent of family forest landowners said they have management plans, and another 55 percent indicated a willingness to develop one (Lien 2004).

Clearly, family forest management objectives differ from their publicly held industrial forest landowner counterparts. These differences in ownership and management objectives reveal an opportunity within the regulatory framework to provide incentives to maintain family forestlands in the managed landscape.

2.5 Need for Incidental Take Coverage

Family forest landowners in Lewis County need incidental take coverage to relieve them from the threat of prosecution under the ESA, and enable them to continue investing in land stewardship over the long-term. The ESA definition of incidental take includes significant habitat modification that actually kills or injures a listed species through significant impairment of essential behaviors (e. g., nesting or reproduction). Such incidental take could occur unintentionally as a result of timber harvesting on family forest lands, where those lands provide habitat for a listed species. When landowners are faced with the threat of prosecution for harvesting timber, they lose the incentive to make the necessary investments of land, capital and time to grow the timber. The net result can be a reduction in habitat for listed species over the long term, rather than an increase.

The incidental take coverage sought by Lewis County family forest landowners needs to be specific to the economic and biological constraints of their lands. The regulatory options provided under current State Rules have a disproportionately high economic impact on family forests due to the small scale of individual ownerships. The Small Business Economic Impact Statement developed for the Forests and Fish Report (WFPB 2001) estimated that the average impact on family forest landowners by the current State Rules represents a 25 percent value loss for landowners in western Washington. Recent statistics for the WDNR Forestry Riparian Easement Program, a compensation program for landowners with timber in riparian areas that cannot be harvested according to new State Rules, indicate that of 41 landowners participating in the program, 19 were impacted at 100 percent (i.e., could not harvest any timber on their ownership). The average impact to landowners participating in this program was nearly 75 percent (WDNR 2001).

Although the Washington Forest Practices Board (WFPB) recently adopted the Forest Practices HCP to cover the State Rules, it lacks several necessary features critical to protecting the viability of family forest enterprises. The Forest Practices HCP only covers aquatic species, and

2.0 Introduction and Background

has been proven to unduly impact the timber harvest potential of small forest landowners who have riparian resources on their ownerships, consequently affecting their ability to remain in forest use (WDNR 2001 and 2007). Although the current State Rules may be appropriate for industrial forestlands, in order for the Forest Practices HCP to succeed in its goal of aquatic resource protection, it is critical that alternative planning mechanisms be developed for family forestland that addresses their scale of ownership and unique management strategies.

The current regulatory burden, combined with a fear of additional regulatory losses, has led to a sense of regulatory uncertainty among many family forest owners. As a result of this and other pressures, such as rapidly increasing population, the most current data available indicate western Washington is losing family forestlands at a rate of 100 acres per day (56 square miles a year) through conversion to non-forest uses (WDNR 1998). When forestlands are converted to non-forest use, the habitat, water quality, biodiversity and other public values they provide are lost. If landowners can achieve a sense of regulatory stability through the FFHCP, they will have a critical incentive to continue contributing to public values and local economies.

2.6 Development of the Family Forest Habitat Conservation Plan

Work on the FFHCP began in 1997 after several small forest landowners who were attempting to negotiate individual HCPs were approached by the USFWS with the concept of a programmatic HCP process. The Family Forest Foundation was formed in 2000 to take the lead in development of the FFHCP. It consists of a Board of Directors, a Steering Committee and a broad multi-stakeholder Program Development Committee. The Steering Committee was designated as the FFHCP negotiating representative for family forest landowners in Lewis County. It includes seven family forest landowners and representatives from the Washington Department of Natural Resource's (WDNR) Forest Stewardship Program as well as the Forest Practices Division. Members of this committee were responsible for representing the views of landowners, participating in FFHCP negotiations, and developing management recommendations.

The Program Development Committee included representatives from both public agencies and the private sector, including: the U. S. Fish and Wildlife Service, National Marine Fisheries Service, WDNR Forest Practices Division, WDNR Forest Stewardship Program, University of Washington, biological consultants, private legal counsel and family forest landowners. The Program Development Committee was responsible for providing expertise on the habitat requirements of the covered species, the potential impacts of forest practices on the species, and methods to minimize or mitigate those impacts. The members of this committee were actively involved in the development of the FFHCP conservation measures. Washington State Departments of Fish and Wildlife (WDFW) and Ecology (WDOE) have provided technical and policy input at key junctures during the planning process. Additionally, the Cowlitz, Chehalis and Quinault tribes have been consulted during the planning process.

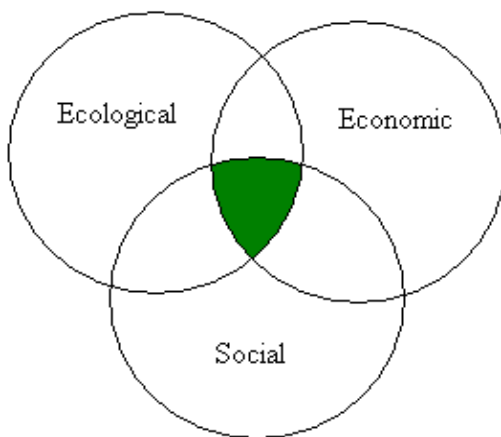
The Steering Committee committed to a plan development process based on the best available science for the covered species and their habitats. The methodology and rationale behind the FFHCP were documented in a series of white papers, some of which were reviewed by independent scientists for accuracy and appropriateness to the covered species and lands.

2.7 The Family Forest HCP Approach to Conservation

The FFHCP is a multi-landowner, multi-species County-wide HCP that will protect habitat for aquatic and upland species, while providing Lewis County family forest landowners planning flexibility and regulatory certainty. It is available to eligible landowners on a voluntary basis. This programmatic approach provides an efficient process for implementing landscape level resource protection, and demonstrates that conservation of wildlife habitat and sustainable timber management can coexist.

Qualified family forest landowners within Lewis County have the option to obtain incidental take coverage under the FFHCP by developing site-specific implementation plans that address the needs of covered species that currently inhabit, or have the potential to inhabit, their forests. Family forest landowners will receive incidental take coverage in exchange for accepting responsibility for following the conservation measures outlined in the FFHCP.

History has shown that to be successful, natural resource management regimes must meet ecologic, economic, cultural and social standards (Firey 1960). The FFHCP must therefore be part of a strategy that addresses cultural and economic issues if it is to succeed at protecting both family forestry and listed species. Such a strategy relies heavily on incentives to foster ongoing investments in small-scale forest management, and acknowledges the public values provided by small forestlands. Successful incentive programs integrate social, ecological and economic values (Figure 2-1) to avoid the potential losses to society if these values are lost through conversion to non-forest use.



Family forestlands provide a wide variety of local, national, and global services, including carbon sequestration, biodiversity conservation, recreation and watershed protection in addition to endangered species habitat. These benefits, however, do not usually accrue to the forest owner or manager, who generally lacks both the incentives and the funds to maintain these services. In principle, if beneficiaries of these environmental services paid for them, forest owners would profit from maintaining standing forests and incentives would shift from forest destruction to forest preservation (Heal 2000).

Figure 2-1. Integration of social, ecological and economic values.

Family forest enterprises are a fundamental part of Washington State's heritage and natural resource base, providing a multitude of economic and public values. Maintaining the legacy of small-scale forest management preserves an aspect of our culture that might not be valued until it is lost. Lewis County acknowledges the significant contributions family forests make to the quality of life we have come to enjoy in our state. They are committed to working with the Services, Native American tribes, other State and Federal agencies and other stakeholders to ensure that family forests in the County can continue to provide public services while remaining ecologically and economically viable through the implementation of the FFHCP.

2.8 Benefits of the Family Forest Habitat Conservation Plan

The FFHCP will apply conservation measures to benefit 56 species of fish and wildlife across a landscape of up to 200,000 acres. This acreage is geographically important because of its location in lowland areas adjacent to low-gradient streams utilized by many species of fish and wildlife. Protection of these lands will help maintain various types of habitat that are currently being threatened by development and are relatively scarce on industrial, State and Federal forestlands.

Protection of aquatic and riparian habitats on family forestlands will complement similar conservation measures in headwater habitats on Federal, State and industrial forestlands, and improve connectivity between headwater and marine habitats. The FFHCP eligible lands contain an estimated 1,219 miles of streams, including 89 miles classified as Shorelines of the State, in the Cowlitz and Chehalis river basins. As the family forestlands lie primarily below the Federal, State and industrial lands, the habitats protected under the FFHCP will expand the potential geographic ranges for the covered species and protect migration waters used by some anadromous fish to get to the headwaters.

The regulatory certainty provided by the FFHCP will encourage the long-term stewardship needed to keep family forestlands in forest use and providing a wide range of social and ecological benefits. Family forests are integral to maintaining the economic and cultural well being of small rural communities. Additionally, research shows that 90 percent of currently listed endangered species rely on private forestland for some of their habitat needs (National Academy of Science 1998).

Information from this project will facilitate other resource conservation efforts within Lewis County including the State's Watershed Planning Process, the State's Salmon Recovery Effort and the Growth Management Act. In addition to the Limiting Factors Analysis completed in Lewis County, habitat requirements for anadromous fish reviewed by the HCP Steering Committee will aid in the prioritization of salmon recovery projects in Lewis County. Educational and informational events designed for the FFHCP will increase public awareness and interest in watershed planning, wildlife habitat conservation and tribal cultural resource protection.

3.0 SCOPE OF THE FAMILY FOREST HCP

3.1 Parties Eligible for Coverage

With approval of the FFHCP and completion of the appropriate steps under ESA Sections 7 and 10, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) (collectively the Services) will each issue Incidental Take Permits (ITPs) to Lewis County, Washington. The County, in its capacity as the master permit holder, will enter into contractual agreements with eligible landowners who satisfy all requirements of the FFHCP, including County approval of site-specific implementation plans. Eligible landowners are owners of eligible timberland (as defined in Section 3.2) who: a) meet the Washington Forest Practices Rules (State Rules) definition of small forest landowner (Washington Administrative Code [WAC] 222-21-010); b) demonstrate adequate funding to implement the FFHCP on their family forest lands; and c) contractually agree to implement and comply with all pertinent terms and conditions of the FFHCP, Implementing Agreement, ITPs and site-specific implementation plans.

Lewis County may consider individual eligible landowners for coverage at any time during the term of the FFHCP. Once covered, landowners with Certificates of Inclusion will manage their covered lands in accordance with the FFHCP and their site-specific implementation plans, and retain ITP coverage until: a) the end of the FFHCP term, b) the Services or the County terminate ITP coverage in accordance with the enforcement provisions of the Implementing Agreement, or c) the landowner surrenders ITP coverage; whichever occurs first. Covered landowners may surrender ITP coverage and cease implementation of the FFHCP on their lands at any time.

3.2 Lands Eligible for Coverage

Up to 200,000 acres of timberlands below elevation 1,250 feet within the Chehalis and Cowlitz river basins of Lewis County may be covered under the FFHCP. To be eligible, the lands also must be owned by an eligible landowner, as described in Section 3.1 above. Lands already covered by an HCP (other than the Washington Forest Practices HCP) are not eligible for coverage under the FFHCP if the other HCP is identified as a covenant on the land.

3.3 Covered Species

The FFHCP covers 56 species (Table 3-1). The covered species include all 30 species of native fish that are present or potentially present on the eligible lands, along with seven species of amphibians, one species of reptile, 12 species of birds and 6 species of mammals. Pertinent information on the life histories and distributions of all 56 species are presented in Appendix B.

3.0 Scope of the Family Forest HCP

Table 3-1. Species covered by the Family Forest Habitat Conservation Plan.

Common Name	Scientific Name	Common Name	Scientific Name
FISH		REPTILES	
Pacific lamprey	<i>Lampetra tridentata</i>	Northwestern pond turtle	<i>Clemmys marmorata</i>
River lamprey	<i>Lampetra ayresi</i>	AMPHIBIANS	
Brook lamprey	<i>Lampetra richardsoni</i>		
Chum salmon	<i>Oncorhynchus keta</i>	Columbia torrent salamander	<i>Rhyacotriton kezeri</i>
Chinook salmon	<i>O. tshawytscha</i>	Cascade torrent salamander	<i>Rhyacotriton cascadae</i>
Coho salmon	<i>O. kisutch</i>	Dunn's salamander	<i>Plethodon dunni</i>
Steelhead/rainbow trout	<i>O. mykiss</i>	Larch Mountain salamander	<i>Plethodon larselli</i>
Coastal cutthroat trout	<i>O. clarki clarki</i>	Van Dyke's salamander	<i>Plethodon vandykei</i>
Mountain sucker	<i>Catostomus platyrhynchus</i>	Pacific tailed frog	<i>Ascaphus truei</i>
Largescale sucker	<i>Catostomus macrocheilus</i>	Western toad	<i>Bufo boreas</i>
Bridgelip sucker	<i>Catostomus columbianus</i>	BIRDS	
Mountain whitefish	<i>Prosopium williamsoni</i>		
Northern pikeminnow	<i>Ptychocheilus oregonensis</i>	Great blue heron	<i>Ardea herodias</i>
Chiselmouth	<i>Acrocheilus alutaceus</i>	Osprey	<i>Pandion haliaetus</i>
Peamouth	<i>Mylocheilus caurinus</i>	Bald eagle	<i>Haliaeetus leucocephalus</i>
Shorthead sculpin	<i>Cottus confusus</i>	Northern goshawk	<i>Accipiter gentilis</i>
Torrent sculpin	<i>Cottus rhotheus</i>	Merlin	<i>Falco columbarius</i>
Prickly sculpin	<i>Cottus asper</i>	Marbled murrelet	<i>Brachyramphus marmoratus</i>
Reticulate sculpin	<i>Cottus perplexus</i>	Band-tailed pigeon	<i>Patagioenas fasciata</i>
Riffle sculpin	<i>Cottus gulosus</i>	Northern pygmy owl	<i>Glaucidium gnoma</i>
Coastrange sculpin	<i>Cottus aleuticus</i>	Northern spotted owl	<i>Strix occidentalis</i>
Speckled dace	<i>Rhinichthys osculus</i>	Vaux's swift	<i>Chaetura vauxi</i>
Longnose dace	<i>Rhinichthys cataractae</i>	Pileated woodpecker	<i>Dryocopus pileatus</i>
Leopard dace	<i>Rhinichthys falcatus</i>	Olive-sided flycatcher	<i>Contopus cooperi</i>
Olympic mudminnow	<i>Novumbra hubbsi</i>	MAMMALS	
White sturgeon	<i>Acipenser transmontanus</i>		
Sandroller	<i>Percopsis transmontana</i>	Long-eared myotis	<i>Myotis evotis</i>
Redside shiner	<i>Richardsonius balteatus</i>	Long-legged myotis	<i>Myotis volans</i>
Longfin smelt	<i>Spirinchus thaleichthys</i>	Yuma myotis	<i>Myotis yumanensis</i>
Three-spine stickleback	<i>Gasterosteus aculeatus</i>	Big-eared bat	<i>Corynorhinus townsendii</i>
		Western gray squirrel	<i>Sciurus griseus</i>
		Northern flying squirrel	<i>Glaucomys sabrinus</i>

3.4 Covered Activities

The FFHCP covers activities related to the growing and harvesting of trees on covered lands. Except as noted herein, all aspects of planting, growing, protecting and harvesting trees and other forest products are covered, including associated activities such as building and maintaining forest roads and minor gravel extraction for use on covered lands. The use of pesticides (herbicides, insecticides, rodenticides and soil fumigants) is not covered, although it is not prohibited under the FFHCP where it does not result in the take of a covered species. Activities unrelated to forestry (e.g., agriculture and residential construction) are not covered, and harvest or conversion of oak woodland is not covered. Covered activities include:

- a) Activities related to timber management and harvest, including mechanical site preparation, burning of slash, reforestation (planting, seeding or natural regeneration), vegetation management (other than with herbicides), pre-commercial thinning, commercial thinning, salvage and other commercial harvest (felling, yarding, skidding, processing, loading, and hauling) of timber;
- b) Fire prevention and small-scale fire suppression activities conducted by landowners and their contractors (large-scale fire suppression by governmental agencies is not covered);
- c) Non-chemical control of animal pests other than covered species;
- d) Construction, reconstruction, improvement, maintenance (including dust control with water only), abandonment, closure, and all use of logging roads, spurs, landings, and decking areas;
- e) Construction, use, maintenance, repair and replacement of water crossing structures such as bridges and culverts (including the temporary diversion of streams for construction);
- f) Quarrying, stripping, digging, processing, and transporting of stone, gravel, and/or dirt within individual covered ownerships for use in logging roads, spurs, landings and decking areas on covered lands and access roads contiguous with covered lands, provided that no stone, gravel or dirt extraction will occur within stream channels, channel migration zones or floodplains;
- g) Scientific studies and monitoring required by or otherwise necessary to meet the goals of the FFHCP;
- h) Administrative activities, such as land surveying, timber cruising and other resource inventorying;
- i) All other activities required by the FFHCP and ITPs;
- j) Executing, issuing and administering implementation contracts; and
- k) All other activities necessarily incident to the activities described above.

3.5 Term of the FFHCP

The FFHCP and ITPs will run concurrent for a term of 100 years. Individual landowners may seek coverage at any time during the 100 years. The period of individual coverage will be specified in each implementing contract, but in no case will it extend beyond the initial 100-year term of the FFHCP and ITPs, unless extended pursuant to the Implementing Agreement.

3.6 FFHCP Implementation

Lewis County will be responsible for reviewing individual landowner site-specific implementation plans, certifying eligibility, enforcing landowner contract provisions, compiling monitoring data on covered lands, regularly reporting to the Services, and implementing the adaptive management provisions of the FFHCP. The County may delegate its monitoring and reporting duties to a third party with approval of the Services. Primary enforcement of the provisions related to timber harvesting, road construction and use, and other forest practices will be done by the Washington Department of Natural Resources (WDNR) through administration of the State Rules and issuance of Forest Practices Approvals (FPA).

3.7 Relationship to Washington Forest Practices Rules

Forest practices in the State of Washington come under the jurisdiction of the Forest Practices Act (Revised Code of Washington [RCW] 76.09), as implemented through the State Rules (WAC 222). Forest landowners are required to submit Forest Practices Applications or Notifications to the WDNR for certain classes of forest practices, and conform to specified limits on the types, amounts, locations and timing of silvicultural, timber harvest, road construction and road maintenance activities.

Landowners covered by the FFHCP will be required to comply with the State Rules during the performance of covered activities, except where the FFHCP measures are considered replacements for the State Rules. The State Rules (WAC 222-12-041) specify that forest practices consistent with an HCP and ITP approved by the Secretaries of Interior and Commerce pursuant to the ESA [16 U.S. Code [USC] Section §1539(a)] are exempt from those specific State Rules pertaining to Watershed Analysis (WAC 222-22), Riparian Open Space (WAC 222-23), Road Construction and Maintenance (WAC 222-24), Timber Harvest (WAC 222-30), Reforestation (WAC 222-34) and Forest Chemicals (222-38) if the following criteria are met:

- a) The State Rules being replaced pertain to a species included within aquatic resources, and the species is covered by the HCP and ITP, and
- b) The primary risks to public resources addressed by the rules being replaced (e.g., delivery of sediment to streams, inadequate recruitment of large woody debris (LWD) to streams, and delivery of thermal energy to streams) are addressed in the HCP. The HCP may address the risk using different prescriptions, approaches, or timing than the State Rules.

Forest practices may also be exempt from classification as Class IV Special and review under the Washington State Environmental Policy Act (SEPA) based on potential impacts to aquatic resources if they are consistent with an approved HCP and ITP (WAC 222-16-051).

3.0 Scope of the Family Forest HCP

To qualify for the exemptions, a landowner covered by the FFHCP must provide the WDNR with a list of the State Rules being replaced at the time a Forest Practices Application or Notification is submitted. The WDNR will then review the information provided by the covered landowner and determine whether the above criteria are met. To facilitate this submittal and review process, Table 3-2 includes a comprehensive list of the State Rules from which landowners covered by the FFHCP will be exempt, along with the corresponding FFHCP measures that address the associated risks to public resources. All State Rules not specifically listed in Table 3-2 will remain in effect for covered lands.

Table 3-2. Washington Forest Practices Rules from which landowners covered by the FFHCP will be exempt, and corresponding FFHCP replacement measures.

Washington Forest Practices Rule	FFHCP Replacement Measure
WAC 222-24-010 through 060 Road Construction and Maintenance	R-6
WAC 222-30-020 Harvest Unit Planning and Design	
(3) Western Washington riparian management zones	R-1, R-2, R-3, R-4, R-5
(5) Riparian leave tree areas	R-1, R-2
(6) Forested wetlands	W-2
(7) Wetland management zones (WMZ)	W-1, W-3
(8) Type A or B wetlands	W-1, W-3
(11) Wildlife reserve tree management	U-3, U-4
(12) Channel migration zones	R-1
WAC 222-30-021 Western Washington riparian management zones	
(1) Western Washington RMZs for Type S and Type F Waters	R-1, R-2
(2) Western Washington protection for Type Np and Ns Waters	R-1, R-2, R-3, R-5

3.0 Scope of the Family Forest HCP

Table 3-2. Continued.

Washington Forest Practices Rule	FFHCP Replacement Measure
WAC 222-30-023 Riparian management zones for exempt 20-acre parcels	
(1) Western Washington RMZs for exempt 20-acre parcels	R-1, R-2
(3) Riparian leave tree areas for exempt 20-acre parcels	R-1, R-2
WAC 222-30-025 Even-aged harvest size and timing	
(1) through (7), inclusive	U-1, U-2
WAC 222-30-030 Stream bank integrity	
(1) through (4), inclusive	R-1, R-2, R-3
WAC 222-30-040 Shade requirements to maintain water temperature	
(1) through (6), inclusive	R-1, R-2
WAC 222-30-045 Salvage logging within riparian management zones	
(1) through (5), inclusive	R-1, R-2
WAC 222-30-050 Felling and bucking	
(1) Falling along water	R-1, R-2
(2) Bucking or limbing along water	R-1, R-2
(3) Falling near riparian management zones, wetland management zones and setting boundaries	R-1, R-2
WAC 222-30-100 Slash disposal or prescribed burning	
(1) Slash disposal or prescribed burning are prohibited in the core zone	R-4

3.0 Scope of the Family Forest HCP

The State Rules also include provisions for landowner exemption from State requirements to protect critical habitats of threatened and endangered species. Forest practices will not be classified as Class IV Special and will not require review under SEPA based on State-designated critical habitat for a species, if the forest practice is consistent with an approved HCP and ITP for that species, provided the HCP has received environmental review with opportunity for public comment under the National Environmental Policy Act (NEPA) [WAC 222-16-080(6)(a)(i)]. The State Rules list critical habitats for ten wildlife species; the FFHCP covers four of those species. Table 3-3 lists the FFHCP measures that address those four species.

Table 3-3. Wildlife species covered by the FFHCP for which the Washington Forest Practices Board has designated critical habitat at the State level.

Species	FFHCP Measure
Northwestern Pond Turtle	R-1, R-2, R-3, U-9, W-1, W-3
Bald Eagle	U-3, U-7, U-8, U-9, U-10
Marbled Murrelet	U-3, U-7, U-8, U-9, U-11
Northern Spotted Owl	U-3, U-4, U-7, U-8, U-9

3.8 Enforcement of the FFHCP and Forest Practices Rules

3.8.1 Overview

The FFHCP is available to approximately 2,400 currently eligible landowners representing 130,360 acres in lowland Lewis County. A maximum of 200,000 acres below elevation 1,250 feet could eventually be covered by the FFHCP in the future if owned by persons who qualify as small forest landowners (WAC-222-21). Participation in the FFHCP is voluntary. Small forest landowners in Lewis County currently have three options for land management:

- Current State Rules, which are based on the Forest and Fish Rule Package;
- Lewis County Critical Areas Ordinances, for those forest landowners who wish to convert to non-forest land use; or
- The Family Forest Habitat Conservation Plan.

The FFHCP is intended to provide an incentive for landowners to maintain their lands as working forests. Landowners who are planning to convert their lands to non-forest uses have no incentive to participate in the FFHCP prior to converting, since the permit and planning costs of the FFHCP would be considerably more than simply converting lands under the County Critical Areas Ordinance. The regulatory certainty provided by the FFHCP will attract those landowners committed to long-term forest stewardship principles.

As noted in Section 3.7, the current State Rules contain provisions for landowners to substitute a Federally-approved HCP for a small subset of rules in WAC 222-24 and 222-30. The

3.0 Scope of the Family Forest HCP

remaining State Rules (WAC-2222-08, 10, 12, 16, 20, 21, 24, 34, 38, 42, 46 and 50) will not be affected by implementation of the FFHCP on covered lands. Similarly, substituting the FFHCP for the subset of WAC 222-30 rules will not preclude participants from using the alternate planning process (WAC-222-21) for unique forest features not addressed in the FFHCP, or from applying for the Forest Riparian Easement Program (WAC-222-21). When completed, the Long-term Forest Practices Application process will be available to FFHCP participants. As a package, the subset of FFHCP rule substitutions and the rest of the State Rules are enforced by the WDNR.

3.8.2 Department of Natural Resources Enforcement Overview

The WDNR implements the Forest Practices program through the Forest Practices Division (FPD) at the headquarters in Olympia, and through regional offices across the State. The FPD coordinates and provides policy direction to the Forest Practices program statewide. The FPD coordinates the development of State Rules and the Board Manual for consideration by the Forest Practices Board (Board), provides technical and policy guidance to regional staff related to program implementation, responds to appeals of agency decisions, creates and maintains technology-based tools, develops and delivers State Rule training, and provides technical and scientific support for program implementation. The WDNR regional offices handle most other aspects of Forest Practices program implementation. The Pacific Cascade regional office, located in Castle Rock, Washington, oversees implementation of the Forest Practices program in Lewis County and is responsible for enforcement of State Rules and rule substitutions for landowners participating in the FFHCP. The Pacific Cascade regional office has four Forest Practices foresters assigned to Lewis County.

The FPD staff is responsible for forest practices permitting, compliance checks, and enforcement. They review and process Forest Practices Applications and Notifications; perform compliance checks of ongoing forest practices activities; take enforcement actions where appropriate; oversee Road Maintenance and Abandonment Plans (RMAP); provide technical assistance to non-industrial forest landowners; participate in administrative appeals of agency decisions; and regularly communicate changes in State Rules, guidance and policy to forest landowners and cooperating agencies and organizations. Staff members from the FPD and the regional offices regularly meet to discuss and address issues related to Forest Practices program development, implementation and refinement. Ongoing communication between FPD and regional staff helps ensure fair, consistent interpretation and application of program requirements within and between the six WDNR regions. Like the FPD, the regional offices use a collaborative approach to program implementation. Cooperating agencies and organizations, and the general public, can review and comment on proposed forest practices through an Internet-based system known as the Forest Practices Application Review System (FPARS). Also, representatives of cooperating agencies and organizations frequently participate in interdisciplinary team reviews of Forest Practices Applications by providing WDNR staff with technical input on potential hazards and risks to public resources and providing recommendations to avoid and/or reduce those risks.

3.8.3 Forest Practices Permitting Process

The Forest Practices Act authorizes WDNR to administer a permitting process to ensure that forest practices comply with applicable laws and rules. The permitting process requires that landowners submit an Application or Notification to the WDNR for proposed forest practices. Applications differ from Notifications based on the risk posed by proposed activities and WDNR processing requirements. Forest Practices Applications are required for activities that pose a higher risk to

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public resources or public safety. Applications must be reviewed and approved by the WDNR before forest practices can begin. Forest Practices Notifications are required for lower-risk activities. Notifications do not require WDNR approval. A Notification or approved Application represents the forest practices “permit” that authorizes forest practices on covered lands.

In addition to being regulated under the Forest Practices Act, forest practices activities that affect the natural bed and/or flow of surface waters and that have a potential for adversely affecting fish life are also subject to the Washington State Hydraulics Code, which is administered by the Washington Department of Fish and Wildlife (WDFW) through a permit known as the Hydraulic Project Approval (HPA).

Classes of Forest Practices

The Forest Practices Act establishes classes of forest practices based on the potential for the proposed operation(s) to adversely affect public resources. The Board establishes standards that determine which forest practices are included in each class. The different classes determine the level of WDNR involvement in the permitting process. All forest practices, irrespective of class, must be conducted in accordance with the State Rules.

The Forest Practices Act establishes four classes of forest practices (Class I, Class II, Class III and Class IV). Class I forest practices are those determined by the Board to have no direct potential for damaging a public resource. Examples of Class I forest practices include pre-commercial thinning outside riparian zones, and road maintenance activities where there is no potential for sediment delivery to waters or wetlands. Emergency fire control and suppression are also considered a Class I forest practices.

Class II forest practices are those determined by the Board to have a less than ordinary potential for damaging public resources. Class II forest practices require submittal of written notification of the operation to WDNR. Class II forest practices involve timber harvest and/or road construction where no surface waters, wetlands, unstable slopes, threatened or endangered wildlife species and/or cultural resources are present on the site. Class II forest practices may begin five calendar days following WDNR receipt of written notification.

Class III forest practices include all operations other than those considered Class I, Class II, or Class IV. Applications for Class III forest practices typically involve streams, lakes, wetlands, threatened or endangered wildlife species and/or cultural resources on-site. A large majority of Forest Practices Applications and Notifications received on an annual basis are considered Class III. Most Forest Practices Applications submitted under the FFHCP will be Class III.

Class IV forest practices are separated into two sub-classes: Class IV-Special and Class IV-General. Class IV-Special forest practices require compliance with SEPA and the State Rule SEPA guidelines because they have the potential for a substantial impact on the environment. The WDNR may require additional information or a detailed Environmental Impact Statement (EIS) before determining whether these forest practices may be carried out.

Class IV-Special forest practices are defined in WAC 222-16-050(1) as:

- a) Aerial application of pesticides in a manner identified as having the potential for a substantial impact on the environment under WAC 222-16-070 or ground application of a pesticide within a Type A or Type B wetland,

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- b) Specific forest practices listed in WAC 222-16-080 on lands designated as critical habitat (State) of threatened or endangered species,
- c) Harvesting, road construction, aerial application of pesticides and site preparation on all lands within the boundaries of any national park, state park or any park of a local governmental entity, except harvest of less than 5,000 board feet within any developed park recreation area and park-managed salvage of merchantable forest products,
- d) Timber harvest, or construction of roads, landings, gravel pits, rock quarries or spoil disposal areas on potentially unstable slopes or landforms that have the potential to deliver sediment or debris to a public resource or that have the potential to threaten public safety and which has been field verified by DNR,
- e) Timber harvest in a watershed administrative unit (WAU) not subject to an approved watershed analysis under Chapter 222-22 WAC, or construction of roads, landings, rock quarries, gravel pits, borrow pits and spoil disposal areas on snow avalanche slopes within those areas designated by WDNR, in consultation with the Department of Transportation and local government, as high avalanche hazard where there is the potential to deliver sediment or debris to a public resource or the potential to threaten public safety,
- f) Timber harvest, construction of roads, landings, rock quarries, gravel pits, borrow pits and spoil disposal areas on archaeological or historic sites registered with the Washington Office of Archaeology and Historic Preservation, or on sites containing evidence of Native American cairns, graves or glyptic records, as provided for in Chapters 27.44 and 27.53 RCW,
- g) Forest practices subject to an approved watershed analysis under Chapter 222-22 WAC in an area of resource sensitivity identified in that analysis which deviates from the prescriptions in the watershed analysis, and
- h) Filling or draining of more than 0.5 acre of a wetland.

Forest practices on unstable slopes or landforms (see (4) above) are subject to additional State Rule SEPA guidelines that go beyond completion of an environmental checklist. Proposed timber harvest or construction on potentially unstable slopes or landforms must undergo review by a qualified expert with education and experience in geology, geomorphology or a related field. The expert must assess the likelihood that the proposed forest practices will cause slope movement and the likelihood of sediment or debris delivery to a public resource or in a manner that would threaten public safety. In addition, the expert must suggest measures to mitigate the identified hazards and risks. The assessment must be submitted as a written report to WDNR for use in making a SEPA determination.

Class IV-General forest practices are those activities determined by the Board to be related to land uses other than forestry. These proposals may require a license or permit from a local government agency associated with a county or city. The local government agency assumes lead agency status for purposes of ensuring compliance with SEPA. Class IV-General forest practices include:

- a) Forest practices (other than Class I) on lands platted after January 1, 1960, or on lands being converted to another use, and

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- b) Forest practices that would otherwise be Class III, but which are taking place on lands which are not to be reforested because of likelihood of future conversion to urban development.

When a Forest Practices Application is determined to be Class IV-General, the Lewis County assumes lead agency status for compliance with SEPA rules if a County permit is required in conjunction with the harvest permit. In these cases, the WDNR retains its authority under the Forest Practices Act and State Rules and may place conditions on the permit. In instances when the WDNR retains lead agency status for Class IV-General SEPA compliance, local government entities provide comments and may place conditions on the permit to ensure compliance with local critical area ordinances.

In accordance with RCW 76.09.240, the WDNR is in the process of working with local government entities to transfer jurisdiction of Class IV-General forest practices. Each city and county in the state was required to adopt ordinances to regulate Class IV-General forest practices. These ordinances must: a) establish minimum standards for Class IV forest practices; b) set forth necessary administrative provisions; and c) establish procedures for the collection and administration of forest practices and recording fees. The city or county's ordinances or regulations must meet or exceed the standards set forth in the State Rules. The WDNR, in consultation with Washington Department of Ecology (Ecology), may approve or disapprove the regulations in whole or in part (RCW 76.09.240(3)). Some forest practices within designated urban growth areas (UGA) may not be Class IV forest practices. Exceptions are provided for in RCW 76.09.050. The WDNR retains authority over forest practices within UGA where: a) the landowner provides a written statement not to convert to a use other than commercial forest product operations for ten years, accompanied by either a forest management plan acceptable to the WDNR or documentation that the land is "designated forestland" and enrolled under the provisions of RCW 84.33; or b) a conversion option harvest plan has been approved by the local governmental entity and submitted to the WDNR as part of the Application. Additionally, the WDNR retains authority over forest practices within UGA that are determined to be Class IV-Special.

Assigning forest practices to different risk classes allows the WDNR and its cooperating agencies and organizations to prioritize workload more effectively. Like most agencies and organizations, participants in the Forest Practices program are limited in their capacity to review proposed activities. Many reviewers of forest practices focus their reviews on those activities that pose the greatest risk to public resources or public safety, such as Class IV-Special and/or Class III forest practices.

Forest Practices Application and Notification Review Process

Under the Forest Practices Act and State Rules, the WDNR is responsible for processing Forest Practices Applications and Notifications from individuals who are planning to conduct forest practices that are regulated under the State Rules, including those that involve the substitution of a Federally- approved HCP for specific State Rules (WAC 222-12-041). The WDNR Pacific Cascade region will administer the permitting process for Forest Practices Applications and Notifications for the FFHCP.

Whether an Application or Notification needs to be filed depends on the class of forest practices involved. Prior to initiating work, forest landowners and/or operators are required to submit a Notification to the WDNR for Class II operations and submit an Application and obtain approval from the WDNR for Class III or Class IV Applications. A Notification or approved Application represents the forest practices "permit" that authorizes forest practices on covered lands. Class I forest

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practices can be conducted without submitting an Application or Notification to the WDNR, but must still adhere to the requirements of the State Rules.

The class of the forest practice determines when operations can begin. The Act and State Rules establish timelines for the permitting process:

- Work on Class II forest practices may begin five calendar days after the WDNR receives a complete Notification.
- Class III and Class IV forest practices must be approved, approved with conditions or disapproved by the WDNR within 30 calendar days after receipt of a complete Application; however, the WDNR is directed to act on Class III Applications that do not require field review within 14 calendar days.
- Class IV forest practices that require an EIS receive 30 days additional review when ordered by the Commissioner of Public Lands (RCW 76.09.050).

When the WDNR receives a Forest Practices Application or Notification, it evaluates the proposal for unstable slopes, hydric soils, forested wetlands, threatened and endangered species, rain-on-snow zones, cultural/archaeological sites, city or county permit requirements, and other resources issues. Staff classify the permit based on the outcome of the screening, and enter it into the FPARS for review by WDNR field staff and cooperating agencies and organizations.

The degree of field review each Application receives depends on the level of risk to public resources. Class II Applications generally receive less field review than Class III or Class IV Applications, because the likelihood for impact to public resources or public safety is low. The WDNR field staff prioritizes on-site review of Applications based on their local knowledge of the area and the information contained in the Forest Practices Application.

The WDNR typically conducts site reviews of proposed forest practices if public resources such as fish habitat or water quality are potentially affected by the proposal. In the Pacific Cascade Region an estimated 70 percent of Class III Applications will receive a field visit prior to approval. Upon approval, 50 percent will receive a field visit during operation. An additional 25 percent will receive a follow-up visit after operations are complete to ensure operational compliance with the State Rules or rule substitutions. Factors that could increase the percentages of field review include landowners with no Forest Practice Application history or a history of non-compliance, forest practices staff that are unfamiliar with the area in an Application or the operators/landowners, and landowners wishing to substitute Federally-approved conservation measures for the State Rules.

If complex issues arise that require expertise in a specific scientific discipline, WDNR field staff request technical assistance. Depending on the issue, technical assistance may be provided from within the WDNR Forest Practices Division, or it may come from cooperating agencies and organizations such as WDFW, Ecology, or affected tribes. The WDNR arranges a site review of the proposal with one or more technical specialists to provide input and recommendations related to the issue(s) identified by WDNR field staff. After considering input and recommendations received from the technical specialist(s), WDNR field staff approves, conditionally approves or disapproves the Application. Applications that are conditionally approved have one or more restrictions or “conditions” in order to ensure compliance with all applicable State Rules and guidelines and to prevent material damage to public resources.

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If during the Application review period, the Forest Practices forester identifies resource issues not identified on the proposal, the Application may be disapproved. The applicant must address the resource issues identified during the review period appropriately prior to re-submittal.

If an Application is determined to be Class IV-Special because it proposes harvesting or construction on potentially unstable slopes or landforms, a geotechnical evaluation must be performed by a qualified expert as described in WAC 222-10-030. In addition to meeting the qualifications of the State Rules, this expert must also be licensed by the State of Washington as a geologist with at least three years of experience working in the forested environment, because performing forest practices-related slope stability work is considered to be practicing geology. More information on geologist licensing can be found in RCW 18.220 and WAC 222-10-030.

The WDNR uses the qualified expert's report to determine if the proposed forest practices are likely to have a probable significant adverse impact on the environment and therefore require an EIS. In making its determination, the WDNR evaluates whether the proposal: a) is likely to increase the probability of mass movement on or near the site, b) would deliver sediment or debris to a public resource or in a manner that would threaten public safety, and c) whether the movement and delivery are likely to cause significant adverse impacts.

The State Rules direct the WDNR to evaluate the proposal using appropriate expertise and in consultation with other affected agencies and tribes. When a Forest Practices Application is determined to be Class IV-General, the local county (e.g., Lewis County) assumes lead agency status for compliance with SEPA rules. In these cases, the WDNR retains its authority under the Act and State Rules, and may place conditions on the permit. In instances when the WDNR retains lead agency status for Class IV-General SEPA compliance, the County will provide comment and may place conditions on the permit to ensure compliance with local critical area ordinances.

Alternate Plans

An alternate plan is a tool forest landowners can use to develop site-specific management plans for forest practices regulated under the Forest Practices Act. The State Rules (WAC 222-12-0401) describe the alternate plan process, including their review by interdisciplinary teams. An alternate plan may deviate from the standard State Rules, as long as the plan provides public resource protection at least equal in overall effectiveness to the protections afforded by the Forest Practices Act and the State Rules.

Both large and small forest landowners can submit alternate plans. Small forest landowners who want assistance in preparing an alternate plan may seek assistance from the Small Forest Landowner Office. Each plan must contain:

- a) A map of the area covered,
- b) A description of how the alternate plan provides public resource protection to meet the WDNR approval standard,
- c) A list of the State Rules that the alternate management plan is intended to replace,
- d) Descriptions of any monitoring or adaptive management strategies associated with the plan,
- e) A description of an implementation schedule, and

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- f) Justification showing that sufficient common physical characteristics exist for Forest Practices Applications submitted separately under the same alternate plan.

Upon receipt of a Forest Practices Application associated with an alternate plan, the WDNR appoints an interdisciplinary team to evaluate the impact of the plan and determine whether the plan provides resource protection at least equal in overall effectiveness to the protections afforded by the Forest Practices Act and the State Rules. The composition of the interdisciplinary team is determined by the WDNR; however, representatives of WDFW and Ecology, as well as any affected tribe, are invited to participate. The team determines if the proposal meets the WDNR approval standard. If the interdisciplinary team provides the WDNR with a consensus recommendation regarding alternate plan approval, conditional approval, or disapproval, the agency is directed to give substantial weight to that recommendation when making its decision.

Guidelines for alternate plans are in the Board Manual and include template prescriptions specific for small forest landowners. Template prescriptions are prescriptions for common situations that are repeatedly addressed in alternate plans. If a small landowner chooses to follow a template, the standardization of a template alternate plan will make the plan layout and approval process more efficient, while continuing to maintain protection of public resources. An interdisciplinary team may submit a recommendation for approval, conditional approval or disapproval of a Forest Practices Application associated with a template alternate plan without a site visit. The Board Manual also contains recommendations for alternate plans or alternate harvest restrictions that meet riparian functions, the effectiveness of strategies for meeting resource objectives and protecting public resources, and criteria to assist the WDNR in determining whether a small forest landowner alternate plan qualifies as a low impact alternate plan.

3.8.4 Compliance and Enforcement

The Forest Practices Act authorizes the WDNR to ensure that all classes of forest practices comply with both it and the State Rules. Initiation of work under an approved Application or Notification represents the beginning of the compliance and enforcement phase.

Compliance Checks of Ongoing Forest Practices

The WDNR field staff, forest landowners, timber owners and operators are responsible for ensuring that ongoing forest practices are in compliance with the Forest Practices Act and the State Rules. Field staff prioritizes compliance visits based largely on the potential risk to public resources posed by the operation. For example, forest practices that propose substitutions to the current State Rules are more likely to receive increased compliance visits than those following the State Rules. Generally, prioritization coincides with the class of forest practice. Class III and Class IV forest practices typically receive much more frequent compliance visits than Class II forest practices. Other factors that influence the number of compliance visits include operator experience and proficiency and the time of year the operation is conducted. This targeted approach helps the WDNR ensure the effective and efficient use of field staff when carrying out its resource protection responsibilities.

Compliance checks are used to identify the level to which forest operations are in compliance, and the information gathered is utilized towards the goal of continual improvement. Improvement to the program may include clarification of State Rule language, improved administration of the rules, additional education and training, and/or rule modification.

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Enforcement by WDNR

The Forest Practices Act and the Board both, by policy, encourage informal, practical, result-oriented resolution of alleged violations and action needed to prevent damage to public resources. It is also Board policy to use a progressive approach to enforcement that begins with consultation and voluntary efforts to achieve compliance while reserving civil penalties (i.e., monetary fines) to more serious infractions. When forest practices are found to be out of compliance with the State Rules, the WDNR has a number of compliance and enforcement options it may choose to take. These include supplemental directives, informal conferences, notices to comply, stop work orders, technical assistance compliance notices, notices of correction, corrective actions, civil penalties, disapprovals, financial assurances and criminal penalties. If an Application associated with the FFHCP incurs an enforcement activity, the WDNR will notify the County and Services of the violation. Each of these options is described below.

Supplemental Directive: A supplemental directive is an informal advisory notice from the WDNR to the landowner, timber owner or operator regarding specific actions or minor changes to the operation the WDNR prefers.

Informal Conference: This is an informal discussion between the WDNR and the landowner, timber owner or operator to assist with State Rule compliance and to prevent compliance problems. The process is educational and advisory. The WDNR is required to give the operator and/or representative an opportunity for an informal conference prior to taking further enforcement action, unless damage to public resources is imminent. The State Rules (WAC 222-46-020) describe informal conferences in more detail.

Notice to Comply: A notice to comply is an official, formal enforcement document. It is served to the landowner, timber owner or operator, and it informs him or her of the need to comply with the direction detailed in the notice (i.e., to correct a failure to comply with the State Rules or to take action to prevent resource damage when there has been no violation, unauthorized deviation or negligence). Also, if a violation, deviation, material damage or potential for material damage to a public resource occurs, and the WDNR determines that a stop work order (see below) is unnecessary, the WDNR must issue a notice to comply. Oftentimes, notices to comply are used as an administrative tool to make minor changes to an approved Forest Practices Application. When used in this way, a notice to comply does not mean the landowner, timber owner or operator has violated the Forest Practices Act and the State Rules. Notices to comply are final orders of the WDNR subject to appeal. The Forest Practices Act (RCW 76.09.090) and the State Rules (WAC 222-46-030) describe notices to comply in more detail.

Stop Work Order: A stop work order is an official, formal notice served to an operator to temporarily or permanently shut down all or part of an operation in progress. The WDNR has the authority to issue a stop work order if there is any violation of the Forest Practices Act or the State Rules, there is a deviation from an approved Application, or immediate action is necessary to prevent continuation of or to avoid material damage to a public resource. This action may be taken to prevent material damage to public resources when no violation, unauthorized deviation or negligence has occurred. A stop work order is a final order of the WDNR, subject to appeal, and effective immediately upon service. Stop work orders are described in more detail in the Forest Practices Act (RCW 76.09.080) and the State Rules (WAC 222-46-040).

Technical Assistance Visit Compliance Notice and Notice of Correction: Technical assistance visit compliance notices are used when a violation is discovered during a technical assistance visit and a stop work order is unnecessary. A notice of correction is used only when a

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violation of the State Rules is discovered and other enforcement documents cannot be served. Both kinds of notices are served to a landowner, timber owner or operator to inform him or her of the need to comply with the direction in the notice. Technical assistance visit compliance notices and notices of correction are official, formal enforcement documents created by the Regulatory Fairness Act of 1995. Neither notice is a final order of the WDNR or is subject to appeal to the Forest Practices Appeals Board. Revised Code of Washington 43.05 describes these notices in more detail.

Corrective Action: A corrective action is an action taken by the WDNR to correct or repair a site condition required by a final order of the WDNR or a final decision of the Forest Practices Appeals Board in cases where a landowner, timber owner or operator fails to correct or repair the site. Before taking corrective action, the WDNR must first determine the associated cost of the work to be performed and give notice of the cost to the landowner, timber owner or operator. If the landowner, timber owner or operator fails to complete the work, the WDNR may conduct the work and recover the cost. The Forest Practices Act (RCW 76.09.120) and State Rules (WAC 222-46-050) describe corrective actions in more detail.

Civil Penalty: A civil penalty is a monetary fine imposed by the WDNR when other enforcement measures are not effective in securing compliance with provisions of the Forest Practices Act or when a violation results in significant damage to public resources. Anyone who violates provisions of the Forest Practices Act or State Rules or who converts forestland to a use other than commercial forest without the consent of the county, city or town is subject to a civil penalty. Each violation is subject to a maximum \$10,000 penalty. A civil penalty is a final order of the WDNR and is subject to appeal. Civil penalties are described in more detail in RCW 76.09.170 and WAC 222-46-060.

Notice of Intent to Disapprove and Disapproval: The WDNR has the authority to disapprove any Forest Practices Application or Notification submitted by any person who has failed to comply with a final order or decision, or who has failed to pay any civil penalty. The WDNR is required to provide written notice of its intent to disapprove future Applications and Notifications. The disapproval is in effect for up to one year or until compliance is achieved, whichever is longer. This is a final order of the WDNR, subject to appeal. While the disapproval is in effect, the violator may not serve as a person in charge of, be employed by, manage or otherwise participate to any degree in forest practices activities. The Forest Practices Act (RCW 76.09.140) and the State Rules (WAC 222-46-070) describe disapprovals in more detail.

Financial Assurances: The WDNR has the authority to require financial assurances before a landowner, timber owner or operator conducts any forest practices activity in cases where the landowner, timber owner or operator has, within the preceding three-year period: a) operated without an approved Forest Practices Application, b) continued to operate in breach of, or failed to comply with, the terms of a stop work order or notice to comply, or c) failed to pay any civil or criminal penalty. The financial assurance required could be in the form of a bank letter of credit, a cash deposit, a savings account assignment or a corporate surety bond executed in favor of the WDNR. The WDNR may deny any Forest Practices Application or Notification for failure to submit financial assurances as required. Financial assurances are described describe in more detail in RCW 76.09.140 and WAC 222-46-090.

Criminal Penalty: Any person who conducts forest practices or knowingly aids or abets another in conducting forest practices in violation of the Forest Practices Act or State Rules can be found guilty of a gross misdemeanor, punishable by a fine and/or imprisonment. See RCW 76.09.190 and WAC 222-46-080 for detailed descriptions of criminal penalties.

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For routine enforcement in Lewis County, the WDNR Pacific Cascade regional office currently employs four Forest Practices foresters. The current number of approved Forest Practices Applications and Notifications varies daily as new permits are approved and older permits expire. However, most permits are valid for two years. Therefore, the number of permits approved over a two-year period can give a general indication of the number of permits valid at any one time. There are a small number of multi-year permits approved under specific circumstances (approved alternate plans, road maintenance and abandonment plans and watershed analysis permits) that may be valid for up to five years. Because there are very few of these permits, they have little influence on the current number of valid Applications and Notifications.

Table 3-4 illustrates the total number of Applications and Notifications approved during calendar years 2000 through 2006, and the number of enforcement actions taken during the same time period. Enforcement documents depicted in the table are stop work orders and notices to comply. As described earlier, these documents are used for both non-violation and violation situations. Non-violation situations include:

- Authorized changes to the Application or Notification;
- Modification of an approved Application or Notification in order to avoid resource damage, often as a result of new information becoming available; and
- Unauthorized deviations from the approved Application or Notification where there is no direct violation of the State Rules and no significant public resource damage.

Violation situations include unauthorized deviations from the approved Application or Notification where there is a direct violation of the State Rules and thus damage or potential for damage to a public resource.

Table 3-4. Forest practices compliance and enforcement activity in Lewis County, Washington for 2000 through 2006.

Forest Practices Applications / Notifications	Enforcement Actions	
	Non-Violations	Violations
3,765	296	45

During calendar years 2000 through 2006, 3,765 Applications and Notification were reviewed and approved in Lewis County. During the same time period, there were a total of 341 enforcement documents prepared (nine percent). Of these, 296 (seven percent) were for non-violations and 45 (one percent) were for violations. Therefore, of the enforcement documents prepared, approximately

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87 percent are for non-violations and 13 percent are for violations. Approximately 13 percent of the violation enforcement documents go on to secondary enforcement such as a civil penalty or notice of intent to disapprove. Assuming these data are fairly representative, the overall non-compliance rate, which results in a civil penalty or notice of intent to disapprove, is very low.

Results from ongoing compliance checks of forest practices and the developing compliance monitoring program will work to inform one another over time so as to more efficiently and effectively target limited compliance and enforcement resources. As explained earlier, Forest Practices foresters prioritize compliance checks on those Applications and Notifications that are suspected of having the highest risk to public resources. However, the formal compliance monitoring program, through the use of sampling, may reveal areas in need of more focused field compliance efforts. Or, it may be found that the current practice is effective at correcting most of the violations that could have resulted in resource damage. Similarly, information learned about certain rule groups through ongoing compliance checks may be used to help prioritize the efforts of the formal compliance monitoring program. An information feedback loop between the two programs will result in continuous improvement in each and increased compliance over time.

Lewis County is involved in Forest Practices program implementation when they share jurisdiction with the WDNR. Joint WDNR-Lewis County government jurisdiction over forest practices occurs in three areas:

- Implementation of the State Shoreline Management Act (Shorelines Act),
- Implementation of the State Environmental Policy Act (SEPA), and

Lewis County government has been delegated the responsibility for implementing the Shorelines Act along surface waters designated as Shorelines of the State (See Section 3.9). When forest practices are proposed within the Shoreline Management Zone, the WDNR Pacific Cascade regional office coordinates with the Lewis County to ensure provisions of both the State Rules and the Shorelines Act are met. When Shorelines Act requirements exceed those of the State Rules, the higher standard applies to covered lands. When Shorelines Act requirements would provide less resource protection than the State Rules, operations must still comply with the State Rules.

The WDNR regions coordinate with local governments on Forest Practices Applications subject to review under SEPA, including proposed forest practices activities that have the potential for substantial environmental impact, activities where forestland is to be converted to another use, activities on lands likely to be converted to urban development, and activities on lands platted after January 1, 1960.

Enforcement by Lewis County

Lewis County will enforce FFHCP compliance in three areas:

- Small forest landowner status
- Eligible land status
- Forest practice violations (in addition to enforcement of the State Rules by WDNR)

If the County determines that a landowner has misrepresented either their status as a small forest landowner or the eligibility of their forestland, and no FFHCP activities have occurred, the

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County will enforce such measures as applicable under contract law toward the landowner. If FFHCP activities have occurred, the same contract enforcement measures will occur and the County will consult with the WDNR and the Services to determine whether impacts to resources have occurred and what level of mitigation if any will be required.

Upon notification by the WDNR of an FFHCP associated Forest Practices Application violation, the County and the Services will determine if the violation is also a violation of the FFHCP and what level of mitigation will be required of the violating landowner and/or the County.

Federal Enforcement

The USFWS and the NMFS jointly conduct monitoring of forest practices conducted under HCPs through a joint program and dedicated staff. The Services also assess other commitments made as part of those HCPs. Due to workload constraints and a desire to be as effective as possible, the Services' program is not focused on random sampling; but instead, the Services focus their effort on topics, in areas, and at projects most likely to be noncompliant. Their intent is to maximize opportunity at discovering noncompliance, determine the reasons for noncompliance, and work toward correcting those underlying causes of noncompliance.

In order to better accomplish these objectives, the Services have utilized a cooperative agreement with WDFW. Under this agreement, WDFW has provided a specific staff person to assist with monitoring of HCP related harvest units and road projects. The Services envision continuing this relationship with WDFW and regardless of which agencies staff conduct the work, this program is referred to herein as the Services' program. In addition, there is ongoing involvement in compliance monitoring by other participants in the Timber, Fish and Wildlife (TFW) program, specifically local WDFW and tribal biologists, who review forest practices in their local geographic area on a regular basis. Irregularities observed during the course of such visits are brought to the attention of the WDNR and/or the Services, who in turn notify each other. This level of cooperative activity by local biologists is variable across the State and depends on the commitment of the local TFW staff and the working relationship they have with the WDNR and Services staff. The Services intend to continue to utilize all available information to maximize the effectiveness of its compliance monitoring program.

For most HCPs, there is a direct relationship between a landowner and the Services. Therefore, when the Services check on the compliance of a harvest unit, they are checking whether that landowner and its agents and contractors conducted their business as agreed. In the case of the Forest Practices HCP, the relationship is not so direct. Under the Forest Practices HCP, the Services would check to see if WDNR is enforcing the State Rules as they committed to in that HCP.

The FFHCP will be monitored in a similar manner. The Services will monitor whether Lewis County is operating as agreed to in the HCP and Implementing Agreement. In spite of the differences between such a "regulatory" HCP and the more-direct, single-landowner HCP, the Services or its agents will still conduct on-the-ground monitoring. Such monitoring will be in the form of an "audit" of Lewis County's progress in meeting its obligations under the FFHCP. Where noncompliance is discovered, the County and WDNR will be notified. Lewis County and the WDNR will have the obligation of dealing with such noncompliance at the individual-landowner level.

3.8.5 Landscape Level Mitigation of the Family Forest Habitat Conservation Plan

As previously stated, the FFHCP is available to approximately 2,400 currently eligible landowners representing 130,360 acres in lowland Lewis County. Up to 200,000 acres total could be covered by the FFHCP if owned by landowners who qualify as small forest landowners (WAC-222-21). Since the FFHCP is voluntary, there is no quantifiable way to predict how many or which landowners will opt for the FFHCP.

The FFHCP is designed to provide functional habitat for 56 fish and wildlife species at the individual ownership site level. Individual participant ownerships are not dependent on other ownerships to provide mitigation for their activities. The forest practices proposed under the FFHCP are conservation measure within themselves. That said, there is the potential for individual ownerships to have different levels of risk for incidental take of listed species, depending on the unique characteristics of an individual ownership. If it is determined that as a whole the FFHCP requires mitigation, the Services and the County will review the FFHCP conservation measures to see if additional measures can be created that will address the mitigation need. If no appropriate additional measures can be identified, the Services may nullify the ITPs issued to the County. It is anticipated that the level of mitigation required by the FFHCP will be negligible, and be accounted for by the level of conservation benefits provided by the Forest Practices HCP.

3.9 Relationship to Washington Shorelines Management Act

Activities covered by the FFHCP must also comply with the Washington Shorelines Management Act of 1971 (Shorelines Act; RCW 90.58), as implemented through the Lewis County Shoreline Master Program. The Shorelines Act specifies minimum protection standards for Shorelines of the State (rivers and streams with a mean annual flow of 20 cubic feet per second or more, and lakes with a surface area of 20 acres or more, as defined in RCW 90.58.030). Individual counties may develop shoreline master programs that are more protective than the Shorelines Act. According to the Lewis County Shoreline Master Program, timber harvest within 200 feet of a Shoreline of Statewide Significance may not result in the removal of more than 30 percent of the merchantable trees in any 10-year period. Trees shall be considered merchantable if the outside bark diameter at breast height (DBH) is over 8 inches, or if the owner can demonstrate the market value of the logs producible from the trees exceeds all of the costs of harvesting, marketing, and delivering the logs.

The Lewis County Shoreline Master Program specifies that forest roads, landings, and other forest practices require substantial development permits if, but only if, they:

- a) Cost over \$5,000 or materially interfere with the normal public use of water or shoreline; and
- b) Involve construction or exterior alteration of structures; dredging; dumping; filling; mining of sand, gravel or minerals; bulkheading; driving pilings; obstructing the flow or use of the water; or any other interference with normal public use of the surface of the waters; and
- c) In the case of forest roads, the project either occurs in a Shoreline of Statewide Significance (rivers and streams with a mean annual flow of 1,000 cubic feet per

3.0 Scope of the Family Forest HCP

second or more and lakes with a surface area of 1,000 acres or more, as defined in RCW 90.58.030) or involves a road segment which is longer than 500 feet, enters the shoreline more than once, or crosses through or over a shoreline stream or lake.

The Shoreline Master Program will take precedent over the FFHCP in cases where the former is more restrictive regarding the covered activities, but the Shoreline Master Program will not in any way relieve covered landowners from their obligations under the FFHCP.