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13 January 2002  
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RE: Scoping Comments on the Aquatic Conservation Strategy EIS

Dear Examiners:

Please accept the following comments from the Pacific Coast Federation of Fishermen's Associations (PCFFA) and the Institute for Fisheries Resources (IFR) concerning the scope of the proposed Aquatic Conservation Strategy EIS. We also will be filing supplemental comments on how the various PCFFA vs. NMFS case rulings serve the best interests of the agencies and the resources, and should not be jettisoned, as is expressly intended by the proposed ACS draft EIS.

The agencies' proposal is to remove the current requirement of project level compliance with the Aquatic Conservation Strategy (ACS) objectives and remove all references to the fact that the 1994 Standards & Guidelines must be implemented as an integrated whole. Unfortunately, this makes little sense as a matter of conservation biology, among other reasons because it removes the ability to determine (or monitor) the impacts of site-specific actions on the watershed as a whole, i.e., systematically ignores cumulative effects.

Likewise this proposal would allow timber sales to proceed where they would harm or "take" salmon species listed under the Endangered Species Act (ESA), a likely violation of the federal ESA. The ACS has not yet been fully implemented. Since the adoption of the ACS in 1992, at least 24 new ESA listings of salmonids have occurred. Now is not the time to be eliminating the ACS protections that may prevent extinction, now is the time to both improve and fully implement those already in effect and to push for species and watershed recovery.

We oppose these proposed amendments to the Northwest Forest Plan Aquatic Conservation Strategy (ACS), and instead we urge the Forest Service and BLM to adhere to the ACS and the requirements of National Marine Fisheries Service's 1997

Programmatic Biological Opinion. The agencies' compliance can be aided by adopting the "Common Sense Alternative" outlined below, which we also support. This is a workable solution that will restore salmon habitat, reduce controversy, increase public support, simplify agency planning processes, and allow beneficial restoration projects to move forward, including careful thinning of young plantations, in ways that meet the requirements of law.

1. **ALTERNATIVE: NO ACTION. The ACS Is Not Broken, And "If It Ain't Broke Don't Fix It."** The Aquatic Conservation Strategy (ACS) is still a biologically sound, practical and robust policy for salmon conservation. However, the problem is that the ACS has never been fully implemented. The agencies' pattern of non-implementation and abuse has led to business-as-usual forestry and continued salmon habitat degradation, even after several salmon species were listed under the Endangered Species Act. Again and again the agencies have attempted "paperwork fixes" instead of ever dropping or modifying sales that harm salmon. This Northwest Forest Plan amendment process is just another attempt to legalize damaging projects instead of accepting the challenge of developing better, more restorative, projects. The ACS is not a barrier to properly laid out and controlled logging, particularly thinning for purposes of fire hazard suppression or restoration purposes, only to destructive logging. The plaintiffs in the PCFFA cases, for instance, have released several young stand restoration/thinning sales that can move forward without harming salmon in the long-term. It's time for the agencies to embrace the challenge and move forward, not constantly be sabotaging the ACS in a "train wreck" policy that tries to move the clock backwards.
2. **ALTERNATIVE: NO ACTION. Develop An Honest "No Action" Alternative.** NEPA requires that a "no action" alternative also be developed and separately analyzed. The "no action" alternative in this case will show that the ACS does not need to be revised or amended. The plaintiffs in the PCFFA v. NMFS cases, for instance, just moved the court for a permanent injunction that should give the agencies guidance about how to segregate the bad projects from the good projects, so that they can drop or modify bad projects and allow good projects to move forward. We have no objection to selected logging projects moving forward, so far as they are beneficial to overall watershed health both on a short-term, site-specific basis as well as a longer-term, watershed basis. It is projects that are inherently destructive of overall watershed function, and particularly those that damage salmonid habitat either on a short-term or on a long-term basis, to which we object and which the ACS as it is currently written was intended to help avoid.

If the EIS describes the ACS as interpreted by the courts as a roadblock to doing restoration, or even sensible young stand thinning sales, then the EIS would be in serious error. The ACS is a roadblock only to destructive logging projects and that is how it should be. Other non-destructive forestry operations can proceed. As an example, the plaintiffs and Judge Rothstein in PCFFA II (*PCFFA vs. NMFS*, Western Dist. WA, Civil No. C 99-0067 R) explicitly excluded restoration projects and recently released 21 other projects (including young stand thinning sales) where the

short-term impacts would be minor and those impacts would be off-set by anticipated long-term benefits of restoration. This should be the pattern for the future.

3. **ISSUE: Compliance With Standards & Guidelines Does Not Guaranty Consistency With ACS Objectives.** The briefing paper that accompanied the announcement of this ACS SEIS says: “The framers of the ACS have agreed that site-specific projects designed consistent with the aquatic Standards & Guidelines found in Appendix C and D are, by definition, consistent with the ACS. . . . The Standards & Guidelines in Sections C and D ensure that projects will ‘meet’ or ‘not prevent attainment of’ the Aquatic Conservation Strategy objectives, while acknowledging that short-term, site-level impacts may occur.” Unfortunately this statement is intellectually dishonest and requires a leap of faith that is astounding, particularly given the fact that, since these site-specific operations will not be analyzed under these proposals, and will simply be “assumed” to be of no significant impact, then little or no monitoring of site-specific changes would be done under such a “blanket exemption” under which to test any of these assumptions. The end result is a vicious cycle of self-fulfilling prophecies that will have no observable data on which to base any confidence. Such a blanket faith in standards, without any obligation to test those standards in the field in order to validate them, was acknowledged as a serious flaw from the outset in the NMFS Programmatic Biological Opinion:

“The NMFS recognizes that agency decision makers retain enough discretion when implementing management direction in the LRMPs and RMPs that application of the standards and guidelines alone may not always guarantee that all management decisions will be fully consistent with ACS objectives.” NMFS’ March 18, 1997 BiOp.

Furthermore, the Standards & Guidelines are not specifically designed to ensure conservation of salmon habitat. For instance, the Standards & Guidelines have no mechanism for dealing with cumulative effects. The only arguably applicable standard requires that 15 percent of the federal land in each watershed be maintained in old-growth condition. The other 85% of watersheds can be clearcut. The agencies later tweaked this standard to allow the 15% old growth to be 15% late-successional or only 80 years old.

This standard fails to consider cumulative watershed effects at the ESU scale, which is the only rational framework to consider cumulative effects for ESA-listed fish. This 15% standard, for instance, would allow private land within an ESU to be completely clearcut, and it would allow all the 5<sup>th</sup> field watersheds making up the ESU to be 85 percent clearcut. You can’t rely on reserves because there may not be any reserves in many 5<sup>th</sup> field watersheds, or they may have been damaged by past logging or fire, and thus the 15% standard does not have a “safety net” to apply a more protective standard in the event of past large fires or other site-specific problems. This state of affairs would certainly be inconsistent with the ACS objectives and probably drive salmon to extinction at least in that locality. Clearly, the Standards & Guidelines do

not “by definition” equate with ACS consistency everywhere and all the time, and perhaps not even in enough places enough of the time to prevent salmonid extinction.

To support the assertion that compliance with the Standards & Guidelines ensures ACS consistency *per se*, the agencies would need to have credible results from effectiveness monitoring. Mere implementation monitoring will not prove anything. Yet ACS effectiveness monitoring is still in its infancy, and far from complete. For instance, it would take several major storm events to trigger relatively rare, dynamic disturbance events and test the effectiveness of the Aquatic Conservation Strategy as a method of conserving aquatic ecosystems over a substantial period of time.

Since the agencies don’t know whether the Standards & Guidelines are in fact effective at maintaining and restoring aquatic resources, and since they probably won’t know for many decades, they must continue to consider cumulative effects and analyze each project separately for consistency with the ACS objectives. Any approach other than that would simply be institutionalizing scientific ignorance.

4. **ALTERNATIVE: The Common Sense Alternative Is A Real Solution.** A common sense solution is to cancel or modify projects that harm salmon, then resolve to protect the best habitat that remains, and embrace forest and watershed restoration. The ACS does not need to be amended. The agencies can more easily comply with the ACS if they adopt the attached Common Sense Alternative and the Restoration Principles of the Northwest Old-Growth Campaign, attached. The Common Sense Alternative calls for protecting the remaining mature and old-growth forests, called “late successional and old growth” or LSOG in the Northwest Forest Plan) and redirecting the agencies toward restoration of roads, streams, and young plantations. This proposal will address all of the agencies objectives:
  - less public controversy over logging late-successional old-growth forests,
  - reduced risk of harm to salmon and reduced risk of conflict over impacts to salmon habitat;
  - greater public support for federal forest management;
  - fewer wildlife conflicts and reduced need for surveys;
  - simpler National Environmental Policy Act compliance (shorter “Environmental Assessments” can be prepared instead of more detailed “Environmental Impact Statements”);
  - simpler Endangered Species Act compliance (informal consultation instead formal consultation);
  - fewer appeals and litigation;
  - lower management costs; and
  - greater timber volume from thinning young stands than is currently available under the conflict-ridden LSOG logging program.
5. **ALTERNATIVE: Adopting Common Sense Alternative Will Help The Agencies Avoid Salmon Conflicts.** Judge Rothstein was concerned about the agencies “rubber-stamping” timber sales that harm salmon. She said, “By employing a long term/watershed approach in making jeopardy determinations, NMFS has virtually

guaranteed that no timber sale will ever be found to jeopardize the continued existence of the Oregon coastal coho or Umpqua River cutthroat trout.” As an aid to ACS compliance, we urge the agencies to adopt the procedure outlined in the Common Sense Alternative:

Application of the Aquatic Conservation Strategy:

The Aquatic Conservation Strategy (ACS) does not need to be amended under the Common Sense Alternative. To aid ACS compliance the agencies can simply make the following findings with respect to each restoration project:

- The short-term impacts of any restoration project are minor and offset by considerable long-term benefits that result from the restoration project (including progress towards attainment of ACS objectives and species recovery), and
- The cumulative impacts of all restoration projects considered at all scales does not jeopardize the continued existence of listed salmon and other wildlife.

The agencies should adhere to the Restoration Principles of the Northwest Old-Growth Campaign, attached.

6. **ISSUES: Analyze Options Starting From The New Baseline.** The context of the current proposal include:
  - a. A seriously degraded environmental baseline due to past public and private land management of lowlands, riparian areas, uplands, etc.
  - b. Fundamentally inadequate private forest land management requirements that, for instance, fail to protect small streams and landslide prone areas.
  - c. New scientific information indicating the need to thin hundreds of thousands of acres of young plantations if we expect them to develop late-successional characteristics and provide habitat for spotted owls and marbled murrelets, and large logs for instream habitat.
  - d. New information on large fires such as the Biscuit fire, the Tiller fire, and the Big Bar fire that temporarily but significantly change the aquatic habitat baseline.
  - e. Many new ESA listings of anadromous salmonids and bull trout. The short life span of these listed fish means that they can only tolerate a limited amount of disturbance in any given life-cycle.
7. **ISSUES: The Cumulative Impacts Of Natural Disturbance, Private Land Degradation, And The Short-Term Impacts Of Restoration Activities Leave No Room For Commodity Production On Federal Lands.** Private land management practices are still causing serious adverse effects on the habitat requirements for listed fish. The magnitude of needed restoration and its associated short-term impacts leaves no room for non-restorative commodity production. Natural disturbances such as the Biscuit, Tiller, and Big Bar fires also use up the limited available “disturbance space” and make commodity production impossible. The governments expert witness in the PCFFA v. NMFS case says that the ACS calls for restoration in circumstances such as this:

If the distribution of conditions was outside the acceptable range of variability [as determined by watershed analysis] then the watershed or subwatershed was out of compliance with the ACS. Management actions that would degrade a site or small subwatershed were not expected to proceed under such circumstances unless it was established that the actions would bring the system back within the acceptable level of variability in the long-term and this outweighed any short-term negative impacts. Management activities are focused on restoration in such circumstances.

PCFFA II, Declaration of Gordon Reeves at 9. 5-27-99.

8. **ISSUE: Degraded Watersheds Must Be Restored And Currently Healthy Areas Must Be Maintained.** This is clear in the Northwest Forest Plan and as stated by Judge Rothstein, “By the Programmatic Biological Opinion’s definition, management actions that do not maintain the existing condition or lead to improved conditions in the long-term do not meet the intent of the ACS.” PCFFA I at 16. There can be no clearer statement that projects that degrade watersheds (such as old forest liquidation) cannot proceed. There is simply no way that the agencies can clearcut mature forest and “maintain” watershed conditions.
  
9. **ALTERNATIVES: Diminished Environmental Baseline And Needs Of Listed Fish Constrains The Range Of Scientifically And Legally Defensible Alternatives.** Given the diminished environmental baseline described above, the clear intent and objectives of the ACS to maintain and restore aquatic resources, the agencies’ decision-space is very constrained. The need to bring provinces and ESUs to within their historic range of variability will require an end to all federal projects that harm fish (including logging of mature and old-growth forest) and a commitment to restoration, including significant investment in stream rehab, road decommissioning, and variable density thinning in young plantations. You should consider options such as “passive,” “pulsed,” and “continuous” restoration. See Bormann, B., P. Cunningham, P. Thomas, M. Brookes, B. Buckley, C. Cloyd, M. Jensen, J. Linares, D. Mummey, E. Obermeyer, J. Sleeper, and C. Snyder. Plan For the Five Rivers Landscape Management Study. Appendix A, in USDA Forest Service. 2001. Five Rivers Landscape Management Project, Final Environmental Impact Statement. Waldport Ranger District, Siuslaw National Forest. March 2001. <http://www.fs.fed.us/r6/siuslaw/5rivers/contents.htm>  
<http://www.fs.fed.us/r6/siuslaw/5rivers/feis/feis-app-a.pdf>

**Path A—Passive Management.** Many concerned citizens believe that any intervention, even in existing plantations, will only result in further environmental damage. Closing roads is associated with this belief. Existing evidence suggests that already dense plantations may stagnate, and individual trees may grow to the 70-cm-DBH, old-growth objective very slowly, if at all. But natural disturbances like windthrow, snow breakage, insects, and diseases may help thin these stands and allow old-growth conditions to develop. Unthinned but disturbed stands might attain old-growth characteristics different from those in thinned stands. Roads are thought by some to be largely incompatible with old-growth conditions

and riparian conservation, and funds to maintain them might be better spent on other projects. Decommissioning means removing stream crossings and problem culverts and adding water bars and vehicle diversions. Access to two- and four-wheel-drive vehicles will be prohibited, but all-terrain vehicles, horses, and hikers will not be limited unless they are found to cause damage. The Team believes this pathway is applicable and allowed in all land allocations where it is placed.

**Path B—Pulsed Management.** This pathway starts by managing the plantations and streams in an area during just a few years (partly limited by sale contracting rules), closing the road for at least 20 to 30 years, and then reopening it for another management pulse. Road closures are designed to be reversible and to lessen environmental and road maintenance costs. Actions during the pulses have to reflect the lack of access during the years of road closure. Thinning existing plantations to wide spacing (leaving as few as 40 trees per acre) is needed for plantations to promote the fastest diameter growth, avoid stagnation, and to support second-story conifers (fig. A-1). Even wider thinnings might speed growth of residuals further and better produce large-branch habitat for murrelets, but concerns with predation on spotted owls in open stands precludes this option. Alders and deciduous shrubs will be planted—or not removed—between residual trees to improve soil fertility and growth of residual conifers on poor sites. Where hardwoods are not wanted, vegetation control will likely be needed to establish conifer seedlings. Also, trees would be thinned in stages, starting with 50 to 70 trees per acre, followed by a second thinning 5 years later to make snags and fell trees for coarse woody debris objectives. Windthrow risk may be increased in some areas by thinning for several years, but windthrow will be considered a reintroduced natural disturbance, possibly important for some wildlife species and soil processes. Other resources, such as recreation, elk forage, and nontimber products may be affected by this pathway and will be considered, but they are not central to its goals. Road access policy during closures is similar to the passive-management pathway. The Team believes that the pulsed-management pathway is also applicable and allowed in all land allocations where it is placed.

**Path C—Continuous Management.** Continuous access permits actions to be distributed evenly through time, and thereby allows each individual action to be less intense. Thinning can be much lighter, but more frequent than in the pulsed management pathway. Logs in streams can be added gradually instead of all at once. Windthrow risk may be increased in some areas by thinning for several years. This pathway has the advantages of allowing better access for recreation, emergencies, and response to unanticipated changes and catastrophes, for example, salvaging windthrown or insect-damaged trees. These advantages might be partly offset by higher road maintenance costs and environmental effects from roads than in the other pathways. This pathway is supported by foresters who believe in active management to achieve Northwest Forest Plan objectives. The Team believes this pathway is also applicable and allowed in all land allocations where it is placed.

Given the degree of past habitat damage, there are risks with the purely passive approach. Roads need to be decommissioned, and recent science indicates a need to thin some dense young plantations, though of course some areas will be passively managed within the framework of the other alternatives. The “continuous” approach is probably not preferable because it will cause “chronic” aquatic impacts. The “pulsed” approach probably has some merit and should be considered the preferred alternative within an adaptive management framework of continuous learning.

- 10. ALTERNATIVES: Consider Alternative Restoration Priorities.** Within the pulsed and continuous restoration pathways, you should consider alternatives such as focusing on restoring 0-50 year old uniform, dense stands vs. restoring 0-80 year old uniform, dense stands. Apparently these alternatives were considered in the LSR Standards & Guidelines in the FEMAT process but it was not brought out for the public to evaluate and consider. Now is the time to do it.

“The FEMAT team debated guidelines for management of young stands in LSRs. One issue was whether the upper age limit of stands should be 50 or 80 years and another was whether to extend management opportunities to all young stands or just plantations. Ultimately the decision was to consider all stands less than 80 years old as candidates for management, with the proviso that the management activity must be judged as having a positive effect on recovery of late-successional conditions.” From Franklin, Jerry F. 2001. *Keynote Comments: Managing Young Stands to Meet LSR and Riparian Objectives*; Workshop held at Portland, OR on August 29, 2001.  
<http://www.fs.fed.us/r6/plan/franklin2001.htm>

- 11. ISSUE: Its Time To Consider All Northwest Forest Plan Amendments In One Programmatic Environmental Impact Statement.** The ACS is related to the survey and manage SEIS being prepared simultaneously with this EIS. Survey and manage requirements and the ACS stream buffers were adopted jointly to increase the likelihood of persistence and dispersal for rare and uncommon species. The buffers established for “survey and manage” species will help reduced management related risks to aquatic resources. The agencies are also considering an interagency range-wide programmatic EIS on how to reduce the threat of Port Orford Cedar (POC) root disease. There are definite synergies between prevention of POC root disease and prevention of aquatic degradation, and there are also a few potential conflicts between the need for restoration and the best methods of POC disease prevention.

The POC, ACS, and S&M EISs are obviously interrelated and must be considered together along with consideration of the Common Sense Alternative. We hereby incorporate by reference the November 20, 2002 scoping comments submitted by ONRC and others on the survey and manage SEIS.

- 12. ISSUE: The Population Viability Of Salmonids Is Closely Linked To The Condition Of Whole Watersheds, Not Just Riparian Reserves.** Watershed condition is a direct reflection of disturbance history which is most accurately

reflected in the distribution of seral stages across large-scale landscapes. Distributions of LSOG that reflect the historic range of variability will help maintain and improve watershed and hillslope hydrology, large woody debris, nutrient cycling and retention, soil functions, stream shade, and the natural sediment regime.

The ACS, as originally conceived by the FEMAT authors, embodies a landscape approach to the protection and recovery of aquatic systems (see e.g., FEMAT V-32 through V-58). In other words, riparian reserves alone are insufficient to protect adequately aquatic and riparian species' habitat and the watershed functions necessary to maintain or restore it. There is some indication that the Forest Service is trying to prove just the opposite so that it can justify upping the cut in the matrix. This would lead to significant hydrologic and soil impacts, and probably increase the rate of landslide occurrence, especially as the agency has done a poor job of extending the riparian reserves to include steep slopes/unstable soils as directed by the Northwest Forest Plan ROD, page C-31. ("At a minimum, the Riparian Reserves must include: The extent of unstable and potentially unstable areas (including earthflows) . . .")

The EIS that preceded the approval of the Northwest Forest Plan said:

Watershed conditions, in part represented by the abundance and quality of late-successional habitat, affect the quality of aquatic habitat. The amount of late-successional forest, and Late Successional Reserves affects the recovery of riparian and aquatic ecosystems by reducing the risk of management-related disturbances, Watershed restoration programs, initially concentrated in the Key watersheds, would build off the natural recovery centered around existing late successional forests, and Late Successional Reserves, and help accelerate recovery of riparian and aquatic ecosystems . . .  
FSEIS page 3&4-64. This statement clearly recognizes that late successional forests both inside and outside of reserves serves valuable aquatic habitat functions.

Cumulative effects of forest practices may include changes in sediment, temperature, and hydrologic regimes, resulting in direct, indirect or eventual loss of key habitat components (e.g., clean gravel interstices, large woody debris (LWD), low temperature holding pools, and protected off-channel rearing areas) necessary for spawning and rearing of anadromous salmonids. These changes often are not expressed "immediately" at the project site, but instead may occur subsequent to triggering events (fire, floods, storms) or are manifested off-site (downstream) of where the effects are initiated.

National Marine Fisheries Service, Position Paper on the Oregon Forest Practices Act, May 13, 1996. [http://www.umpqua-watersheds.org/nmfs\\_on\\_ofpa.html](http://www.umpqua-watersheds.org/nmfs_on_ofpa.html)

Practices such as felling, yarding, roading, and slash burning occur on relatively small units. These activities lead to changes in site processes such as increases in snow accumulation, snow melt rate, surface erosion, and landsliding. During a single large flood event, these individual alterations collectively may lead to substantial increases in streamflow and erosion downstream. . . . Other types of basin cumulative effects include changes in water temperature, [and] stream chemistry . . .

Riparian Management Guide, Willamette National Forest, 1990, page 33.

Collectively, the statistical analyses reported here strongly suggest that there has been a large increase in peak discharges attributable to forest harvest in both small and large basins in the western Cascades. The major mechanism responsible for these changes is the increased drainage efficiency of basins attributable to the integration of the road/patch clear-cut network with the preexisting stream channel network. In small basins discharges increased by 50% in the first 5 years after treatment and were 25 to 40% higher than pretreatment up to 25 years later. Peak discharges have increased even more in large basins, by 10 to 15% or 30 to 55% of the 1-year flow, depending on the basin, for a 5% difference in area cut. When extrapolated to the cumulative area cut (which ranged from 10 to 25%) this implies that peak discharges have increased by at least 50% and perhaps by as much as 250% of the 1-year flow over the 50-year period. For large basins our analysis must have underestimated the magnitude of peak discharge increase because it was based on more- versus less-harvested basins, not harvested versus control basins.

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Such changes have implications for stream geomorphology and ecology. If all peak discharges have been increased systematically, there may be more frequent inundation of the riparian zone, more rapid turnover of riparian zone vegetation, and perhaps increased transport of woody debris and sediment.

Jones, J.A., Grant G.E., "Peak flow response to clear-cutting and roads in small and large basins, western Cascades, Oregon," *Water Resources Research*, 32(4) 959-974, April 1996.

NOTE: The debate that followed the publication of this important paper should not be used as an excuse to ignore its important message. The underlying conclusions are in no way undermined. It has merely been pointed out that there is a small sample size for large storm events, so while our confidence may be slightly lower, the direction of the trend is still the same. DO NOT pretend that there is any proof (or even any strong evidence) of any contrary conclusion.

13. **ISSUE: Cumulative Effects Must Be Considered.** The briefing paper that accompanied the announcement of the ACS SEIS says that it is inappropriate to apply ACS objectives 1, 2, 3, 5, and 6 in the context of site-specific projects. In fact, it is not only appropriate but legally mandatory to consider these landscape effects and indirect effects of logging and road-building. The National Environmental Policy Act explicitly requires consideration of both cumulative effects and indirect effects that may be remote in both time and location. Logging may deprive a distant stream of future large woody debris. NEPA and the ACS require that it be analyzed and prevented.

Logging and road building in upland areas also causes cumulative watershed effects such as unnatural patterns timing and magnitude of "peak flows" (as described above by Jones and Grant). Peak flows can cause scour fish eggs from their nest and cause

turbidity and sedimentation from bank erosion. Clearly, the ACS was drafted to consider and avoid these adverse effects of land management and now that so many salmon stocks are listed the agencies must continue to analyze and avoid these cumulative and indirect effects. The Standards & Guidelines do not address these important issues in any way.

14. **ISSUE: Analyze “Historic Range Of Variability” At A Meaningful Scale.** It is disingenuous to allow degradation at the project scale without also applying “historic range of variability” at the province or ESU scale. Individual sites vary over time from 0-100% late-successional forest, but at the province scale, “historic range of variability” of seral stages across the landscape can be a useful indicator of watershed health. Salmon are endangered because we have pushed their watershed habitat so far from the historic norm. Salmon recovery requires that we stop harmful logging practices and start restoring forests, streams, and watersheds. Lets start moving toward the mid-point of HRV.

Stewardship of aquatic resources has the highest likelihood of protecting biological diversity and productivity when land use activities do not substantially alter the natural disturbance regime to which these organisms are adapted. FEMAT V-29 citing (Swanson et al. in press).

*Historical range of variability*

An idea that recurs in current forest management literature is that of historical range of variability (hrv). This concept is used to characterize the fluctuations or variations in ecosystem conditions or processes over a period of time. For instance, Kimmins (1995) interprets a forest ecosystem to be healthy when stand-level attributes, such as structure, condition, and species composition, are all within the historical range shown by the forest’s seral stage, or the stage that is being managed for. At the landscape level, the forest is healthy if the pattern of forest ages, conditions, and seral stages is within the typical range for that landscape.

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Similarly, Swanson et al. (1994) contend that managing an ecosystem within its range of variability is appropriate to maintain diverse, resilient, productive, and healthy ecosystems for viable populations of native species. Using the historical range of variability, they believe, is the most scientifically defensible way to meet society’s objective of sustaining habitat.

Patrick Daigle and Rick Dawson, Extension Note 07; Management Concepts for Landscape Ecology (Part 1 of 7). October 1996.

<http://www.for.gov.bc.ca/hfd/pubs/docs/en/en07.pdf>; citing Swanson, F. J.; Jones, J. A.; Wallin, D. O.; Cissel, J. H. 1994. Natural variability--implications for ecosystem management. In: Jensen, M. E.; Bourgeron, P. S., tech. eds. Eastside Forest Ecosystem Health Assessment--Volume II: Ecosystem management: principles and applications. Gen. Tech. Rep. PNW-GTR-318. Portland, OR: U.S. Dept. of Agriculture, Forest Service, Pacific Northwest Research Station: pp 89-106.

At the late-successional reserve scale, variability was so high that any amount of old growth from 0 to 100% might be considered historically probable. . . . Under a disturbance regime of large, relatively infrequent fires, a range of historic variability may be definable only for relatively large areas.

Michael C. Wimberly, Thomas A. Spies, Colin J. Long, and Cathy Whitlock; "Simulating Historical Variability in the Amount of Old Forests in the Oregon Coast Range," *Conservation Biology*, Pages 167-180, Volume 14, No. 1, February 2000; <http://www.fs.fed.us/pnw/pubs/journals/0010.pdf>

To be successful, restoration activities should be evaluated across a hierarchy of scales: regional, river basin, watershed, and site.

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It is becoming more apparent that to be successful, restoration programs must evaluate the effectiveness of a proposed project within the context of not only watersheds, but the entire river basin. For some restoration issues, such as restoring salmon runs, even the entire river basin is too small for establishing context, and a regional perspective is necessary.

Ziemer, Robert R., Some Scale Considerations for Watercourse Restoration and Rehabilitation, Second Australian Stream Management Conference, 8-11 February 1999, Adelaide, South Australia; <http://www.rsl.psw.fs.fed.us/projects/water/Ziemer99a.pdf>.

. . . if fish . . . are listed under the Endangered Species Act . . . Watershed-based analysis at province, river basin, and subwatershed levels will provide opportunities to establish site-specific habitat objectives to protect watersheds and streams inhabited by at-risk fish stocks outside Key Watersheds.

FSEIS Appendix F-169 (Response to Comment)

Watershed analysis is based on watershed boundaries not administrative boundaries . . . [A]nalysis will consider processes and functions occurring within the entire watershed, regardless of ownership.

FSEIS Appendix F-177 (Response to Comment)

FEMAT clearly noted that consultation may need to occur on these large scales if fish are listed under the Endangered Species Act.

If fish species listed under the Endangered Species Act are present within the northern spotted owl's range, the land management agencies will need to consult on the effects of their actions pursuant to Section 7 of the act in this multi-scale context. Consultation may be needed at three levels: (1) on the final regionwide plan; (2) then during implementation phase, on the provincial, watershed, or other management plans (that step down the regionwide plan); and (3) on individual actions.

FEMAT V-59.

The Forest Ecosystem Management Assessment Team (FEMAT 1993) recommended that watershed analyses be carried out to better understand

environmental requirements in 50- to 500-km<sup>2</sup> watersheds, . . . The 50- to 500-km<sup>2</sup> range was selected as a compromise between the minimum size needed to evaluate large-scale and downstream effects and the maximum size that reasonably allowed analysis over a 2-month period. However, FEMAT also realized that even a 500 km<sup>2</sup> watershed is too small to understand many issues. Some of the most important environmental concerns focus on changes occurring on mainstem rivers and in estuaries with drainage basins of tens of thousands of square kilometers. FEMAT therefore specified that two additional levels of analysis would be carried out: river basin assessment and regional assessment (FEMAT 1993 p. V-I-4). The FEMAT report itself was the regional assessment. The basin assessment will be conducted for entire river basins, from their upstream origin to their point of entry to the sea. Basin assessments are intended to provide input to watershed analyses on larger-scale issues, and to integrate the results of multiple watershed analyses as they pertain to those larger-scale issues.

BASIN ASSESSMENT AND WATERSHED ANALYSIS, Leslie M. Reid and Robert R. Ziemer <http://www.rsl.psw.fs.fed.us/projects/water/5Basin.htm>

HRV does not imply a particular condition, rather it implies a distribution of conditions for each resource of interest. For example, if the amount of old-growth forest in Oregon's Coast Range varied from 25 to 60% during the past few thousand years, the HRV approach would argue for management strategies that attempted to keep the current distribution of old-growth conditions within that range in the future.

Using the HRV concept does not prohibit humans from the landscape. First, actions are often needed to shift altered systems back within the HRV, as described in Sidebar 3-3. Second, the HRV provides a target distribution of environmental conditions within which human action can operate without significant risk to the integrity of species and ecosystems. Conditions that exceed the HRV provide a set of warning signals when landscapes are beyond the bounds of evolutionary experience.

HRV is best applied to coarse attributes of the landscape: the condition of streams; the distribution among seral stages of different forest types; the amount and distribution of large dead trees; and the size, frequency, and intensity of disturbances.

Some dimensions of HRV are difficult to reestablish within some landscapes. As an example, the forests of the Western Cascades in Oregon and Washington will not be managed for the large, infrequent, high-intensity burns that created them. It is just not socially acceptable. Such burns may occur, but not through purposeful public policy.

Committee of Scientists, Sustaining the People's Lands— Recommendations for Stewardship of the National Forests and Grasslands into the Next Century, March 15, 1999 <http://www.fs.fed.us/news/science/cos-ch3.pdf>

**15. ISSUE: Is It Even Possible To Continue Logging Late-Successional Old-Growth And Manage Within The Historic Range Of Variability?** The concept of “historic range of variability” (HRV) has been recognized by many prestigious scientific and policy groups that have investigated how to make forest practices more consistent with conserving biodiversity—including the Forest Ecosystem Management Assessment Team (FEMAT), the Scientific Analysis Team (SAT), the Independent Multidisciplinary Science Team (IMST), and the Committee of Scientists (COS). To employ this concept, federal forest managers must assess the historic extent of late successional forest across scales at least as large as the forest plan *provinces* or (ESUs) to ensure that timber harvest and other activities do not retard progress toward historic average levels of late successional forest.

Scientists have found that the Oregon coast range is far from the historic range of variability for late-successional and old-growth forests. Using a model based on historic fire size and historic fire frequency Wimberly et al estimated the mean percentage of old growth and late successional forest in the Oregon coast range during the last 3000 years. At the province scale, the mean percentage of old growth in the Oregon Coast Range was estimated at between 39 and 55 percent. The mean percent of late successional forest showed less variation at between 66 to 76 percent. The authors also noted that currently-

the entire Coast Range province contains approximately 5% old growth and 11% late successional forests. These estimates fall far below the 5% quantiles for percent old growth and percent late successional forest modeled at the province scale. . . . Current levels of old growth and late successional forests are so low that even halving the natural fire rotation or doubling the mean fire size would not bring them within the estimated provincial-scale ranges of historical variability. Michael C. Wimberly, Thomas A. Spies, Colin J. Long, and Cathy Whitlock; *Simulating Historical Variability in the Amount of Old Forests in the Oregon Coast Range*, Conservation Biology, Pages 167-180, Volume 14, No. 1, February 2000; <http://www.fs.fed.us/pnw/pubs/journals/0010.pdf>

Any further loss of old forest will drive the region further from historic range of variability in violation of the Northwest Forest Plan and the programmatic biological opinions supporting the plan.

**16. ISSUE: Salmon Listings Since 1994 Contraindicate Relaxed Salmon Conservation Standards.** Except for Chinook in the Sacramento River Basin, the salmon that spawn in federal forests covered by the Northwest Forest Plan were not listed when the Plan was approved in 1994. In subsequent programmatic consultations, the agencies relied on the lofty goals of the ACS to fulfill their obligations under the Endangered Species Act, and the courts upheld their approach. Amending the ACS to reduce protection for salmon threatens to undermine the agencies current ESA compliance strategy.

The listing of salmon and steelhead in the NWFP area indicates that the ACS, as it has been implemented by the agency, is not reversing the downward trend of these

important aquatic species. Therefore, relaxing the standards and guidelines runs counter to the intent of FEMAT (id. at V-64 through V-72) and applicable federal laws such as NFMA and the ESA.

17. **ISSUE: The Idea Of Going Back To The “Original Intent” Is Just Smoke And Mirrors.** The Original intent of the ACS includes ACS consistency analysis at all four spatial scales. Contrary to recent agency rhetoric, FEMAT did envision that impacts analyses would be conducted at multiple temporal and spatial--from the landscape to the watershed to the stream reach--scales (See FEMAT pages V-58 through V-63).

“The court finds that NMFS is required by the Northwest Forest Plan and the Programmatic Biological Opinion to ensure ACS compliance at all four spatial scales.” PCFFA II “The court has concluded that NMFS rationally assumed in the Programmatic Biological Opinion that USFS and BLM would comply with the ACS on a project level basis.” PCFFA I at 16.

NMFS’ programmatic biological opinion states: “. . . ACS objectives . . . and Standards & Guidelines will be fully applied at the four spatial scales of implementation (region, province, watershed, and site or project);” March 18, 1997 BiOp at 38.

The Northwest Forest Plan ROD said it loud and clear.

Complying with the Aquatic Conservation Strategy objectives means that an agency must manage the riparian-dependent resources to maintain the existing condition or implement actions to restore conditions. . . .

The standards and guidelines are designed to focus the review of proposed and certain existing projects to determine compatibility with the Aquatic Conservation Strategy objectives. The standards and guidelines focus on "meeting" and "not preventing attainment" of Aquatic Conservation Strategy objectives. The intent is to ensure that a decision maker must find that the proposed management activity is consistent with the Aquatic Conservation Strategy objectives. The decision maker will use the results of watershed analysis to support the finding. In order to make the finding that a project or management action "meets" or "does not prevent attainment" of the Aquatic Conservation Strategy objectives, the analysis must include a description of the existing condition, a description of the range of natural variability of the important physical and biological components of a given watershed, and how the proposed project or management action maintains the existing condition or moves it within the range of natural variability. Management actions that do not maintain the existing condition or lead to improved conditions in the long term would not "meet" the intent of the Aquatic Conservation Strategy and thus, should not be implemented.

Northwest Forest Plan ROD, Standards & Guidelines at B-10. (emphasis added).

The 1994 Northwest Forest Plan FSEIS was also clear that ACS compliance was applicable at the project level and that long-term negative effects were prohibited:

The Aquatic Conservation Strategy institutes a new comprehensive policy for managing aquatic ecosystems within the range of the northern spotted owl. The overall intent of the Aquatic Conservation Strategy is to restore and maintain the ecological function and processes of watersheds and aquatic ecosystems within natural disturbance regimes. Proposed projects must meet Aquatic Conservation Strategy objectives and will be approved based on the restoration and maintenance criteria.

. . . Decision makers will use the information developed during a watershed analysis to support decisions and to determine if a proposed project meets Aquatic Conservation Strategy objectives. This is a new approach; in the past, . . . frequently, mitigation was used to attempt to neutralize the negative effects on riparian-dependant resources. . . . Mitigation or planned restoration, . . . should not be used as a substitute for preventing habitat degradation. Under the Aquatic Conservation Strategy, a project cannot have a negative effect, in the long-term, on riparian-dependant resources. The risk has been shifted under the Aquatic Conservation Strategy because each project must meet the maintenance and restoration criteria by maintaining or restoring the physical and biological processes required by riparian-dependent resources within a watershed.

FSEIS pages 3&4-68 and -69. (emphasis added).

Assuming, only for the sake of argument, that the Northwest Forest Plan ROD didn't require a ACS consistency at the project level, the subsequent listing of several salmon ESUs and the March 18, 1997 programmatic BiOp made ACS consistency explicit at all four spatial scales.

<http://www.nwr.noaa.gov/1publcat/1997/osb1997-0711.PDF>

Individual environmental factors include water quality, habitat access, physical habitat elements, river channel condition, and hydrology. Properly functioning watersheds, where all of the individual factors operate together to provide healthy aquatic ecosystems, are also necessary for the survival and recovery of these species.

. . .

. . . the environmental baseline condition of the Oregon Coast Range Province is predominantly rated as “not properly functioning.”

. . .

The NMFS has determined that the biological requirements for freshwater life stages of UR cutthroat trout, OC and SONC coho salmon, OC and KMP steelhead trout, chinook salmon, chum salmon, and coastal cutthroat trout are currently not being met under the environmental baseline of the action area. Their status is such that there must be a significant improvement in the environmental conditions of their habitat over those currently available under the environmental baseline (see Attachment 1, Species Status Under the Environmental Baseline). Any further degradation of these conditions is expected to have a significant impact due to the

level of risk that listed, proposed, and candidate salmonids presently face under the environmental baseline.

...

Generally, adverse effects to listed salmonids and their habitat result from the aggregation of impacts which occur at the site-specific level. The accumulation of effects at the landscape level from numerous actions, if not fully arrested at the project scale, would reduce the likelihood of both survival and recovery of the species.

...

The effects of individual proposed actions on listed, proposed, and candidate salmonid species addressed in this Opinion are generally predictable, however, because, by definition, they must be consistent with the ACS objectives.

...

Decision Maker Discretion: The land allocations and standards and guidelines described above were designed to focus the review of proposed actions to determine compatibility with the ACS objectives. The NMFS recognizes that agency decision makers retain enough discretion when implementing management direction in the LRMPs and RMPs that application of the standards and guidelines alone may not always guarantee that all management decisions will be fully consistent with ACS objectives. However, the review of proposed actions by Level 1 teams pursuant to the interagency ESA consultation streamlining agreement provides an added measure of assurance that projects will be properly designed to fully meet ACS objectives.

...

... Some [individual and groups of actions (programs or projects)] may result in adverse effects to salmonid habitat, while others are expected to maintain or restore habitat conditions. Because all actions will be designed and mitigated in accordance with the ACS objectives, land allocations, and standards and guidelines, any associated adverse effects (e.g., increased habitat sedimentation) are expected to be generally minor in magnitude and short-lived in duration.

...

Currently, NMFS applies the three criteria described in Attachment 2 for determining whether proposed actions would jeopardize the continued existence of listed UR cutthroat trout. These criteria are: (1) essential components of LRMPs and RMPs, including ACS objectives, watershed analysis, restoration, land allocations, and standards and guidelines, will be fully applied at the four spatial scales of implementation (region, province, watershed, and site or project); (2) management actions will comply with all applicable land allocations and standards and guidelines; and (3) management actions will promote attainment of the ACS objectives. Should OC and SONC coho salmon, OC and KMP steelhead trout, chinook salmon, chum salmon, or coastal cutthroat trout be listed under the ESA, the NMFS will evaluate the effects of future USFS and BLM actions using these same criteria.

...

Incidental Take Statement

...

The measure described below are non-discretionary.

...

Each administrative unit shall:

1. Apply the review criteria described on pages B-9 and B-10 of the NFP *ROD* (USDA-FS and USDI-BLM 1994) to ensure that proposed actions are fully consistent with applicable standards and guidelines and ACS objectives.

...

Continued LRMP and RMP Implementation

1. To ensure that proposed actions designed in accordance with relevant standards and guidelines are in fact consistent with the NFP ACS objectives, USFS and BLM decision makers will apply the results of watershed analysis and other relevant information to reach findings that actions either "meet" or "do not prevent attainment" of the ACS objectives.

- a. The finding must be supported by an analysis that includes a description of the existing condition, a description of the range of natural variability of the important physical and biological components of a given watershed, and how the proposed project or management action maintains the existing condition or moves it within the range of natural variability.

- b. Management actions that do not maintain the existing condition or lead to improved conditions in the long term would not "meet" the intent of the Aquatic Conservation Strategy and thus should not be implemented.

NMFS, March 18, 1997 BiOp (emphasis added).

And finally the courts reaffirmed the obvious statements in the 1994 Standards & Guidelines and the BiOp.

“In the biological assessment USFS and BLM submitted to NMFS at the outset of the consultation process, the agencies . . . state that all site specific projects ‘should be designed and mitigated in accordance with the [National[sic] Forest Plan] ACS objectives . . . ‘ “ PCFFA I (5/29/98) at 23. “It’s no jeopardy determination is expressly based on USFS’s and BLM’s implementation of site-specific projects in compliance with ACS objectives . . . “

PCFFA I (5/29/98) at 24.

18. **ISSUE: Weakening The Aquatic Conservation Strategy Will Only Breed More Conflict And Controversy.** This proposal is in response to repeated court rulings that show the agencies propensity to develop timber sales that harm salmon. What is truly shocking is that the agencies have now been given several chances to drop or modify the enjoined sales to protect salmon, but instead of actually changing their logging plans, the agencies keep coming back with more paperwork attempting to

legalize illegal logging projects that harm salmon. This ACS EIS is only the latest such attempt.

If the agencies want to move forward and avoid conflict and controversy, they must become willing to drop and modify projects to make them restorative of salmon habitat. If this proposal moves forward it will not be the end of litigation and controversy. It will only breed more controversy and mistrust.

Please be sure to send copies of the DEIS to:

Pacific Coast Federation of Fishermen's Associations (PCFFA)  
and the Institute for Fisheries Resources (IFR)  
c/o PO Box 11170  
Eugene OR 97440-3370

Sincerely,

Glen H. Spain  
Northwest Regional Director  
For PCFFA/IFR

Enclosed: Common Sense Alternative and Restoration Principles

ACSSEISscoping.doc

# **A Common Sense Alternative to Bush's Rollback of the Northwest Forest Plan**

## Introduction

The Forest Service and Bureau of Land Management are now considering two Environmental Impact Statements (EISs) to amend the Northwest Forest Plan which will have the effect of reducing environmental safeguards and allowing more mature and old-growth forest to be logged. The two EISs will (1) reduce or eliminate pre-logging surveys for rare and uncommon species and (2) reduce project-level protection for salmon and water quality. These amendments will not fix the current problems with the Northwest Forest Plan. Instead they will lead to increased conflict and controversy.

These new EISs should consider a "Common Sense Alternative" that avoids the conflict and controversy associated with logging the last mature and old-growth forests (known as "late-successional and old-growth forests" or LSOG) by protecting the remaining LSOG on federal land and shifting the federal agencies' efforts toward job creation through ecological restoration of forests and watersheds.

The Common Sense Alternative will advance the terrestrial and aquatic ecosystem management goals of the Northwest Forest Plan by protecting all remaining LSOG habitat on federal lands within the range of the northern spotted owl. These are the most important habitat areas for species associated with late-successional and old-growth forests.

The Common Sense Alternative will also advance many of the social and economic goals of the Northwest Forest Plan by encouraging active restoration of forests and watersheds, including road decommissioning, road maintenance, stream restoration, and thinning of young plantations. The need for restoration far exceeds the agencies current capacities to accomplish needed work.

The Common Sense Alternative will also meet the agencies goal of simplifying project planning and reducing costs because in most cases surveys for species associated with LSOG will be unnecessary, and pursuing lower controversy projects (e.g. restoration projects with broad public support) will lead to less conflict over process.

By increasing federal investments in restoration we can simultaneously create skilled jobs, improve the environment, and simplify agencies processes. This is a win-win-win that has been endorsed by leading conservation groups and must be considered.

## The Common Sense Alternative calls for:

### ***Protection of late-successional forests***

Protecting all remaining LSOG forest is the magic key that reduces public

controversy, increases public support, and allows survey and manage requirements to be relaxed.

All late-successional and old-growth forest stands and trees aged 80 years and older (LSOG) in 2003 and are within the NWFP area will be protected from cutting and removal.

### ***Active restoration***

Restoration is an integral component of the Northwest Forest Plan, but this important objective has not been fully realized. Active restoration is also the key to meeting the social and economic objectives of the Northwest Forest Plan through job creation and rural community stabilization. The Common Sense Alternative calls for active restoration including:

- Stream restoration such as large wood placement, and riparian vegetation management;
- Road maintenance to improve water quality;
- Road and culvert removal where roads are no longer needed;
- Variable density thinning of young managed stands to enhance diversity of species, diversity of structures, and diversity of developmental pathways towards LSOG.

### ***Maintenance of Northwest Forest Plan principles***

Except as amended by this direction, all land allocations and Standards & Guidelines of the NWFP will remain in effect. In particular, all silviculture in Late Successional Reserves and Riparian Reserves will continue to be designed to protect and enhance late-successional and old-growth characteristics and aquatic habitat values.

### ***Fuel reduction in fire-dependent forests***

Recognizing that fire suppression has substantially altered many forest stands that were historically maintained by frequent low-intensity fire, the Common Sense Alternative calls for a very cautious approach to restoration of fire-suppressed stands.

Thinning small trees to reduce fuels and restore ecological integrity in fire-dependent stands with a long history of fire suppression may be allowed when the primary objective of active management is ecological restoration and all alternative means of accomplishing restoration (e.g. prescribe fire) are carefully considered.

### ***Application of survey and manage strategy***

- Pre-disturbance surveys for survey and manage species will not be required for restoration projects (such as prescribed fire and variable density thinning) conducted in stands less than 80 years old (non-LSOG). Pre-disturbance survey

- requirements can be relaxed because the remaining LSOG will be protected thereby increasing the security of rare and uncommon species associated with LSOG, and because species associated with LSOG are generally much less likely to occur in stands younger than 80 years old.
- For fuel reduction projects that may substantially modify stands 80 years and older, and other projects that remove a significant portion of the forest canopy, pre-disturbance surveys will be conducted within the range and habitat of the survey and manage and protection buffer species listed in the 1994 NFP Record of Decision. The finding of substantial modification will consider the context and intensity of: disturbance of the habitat characteristics required by survey and manage species that may live within the affected area, the anticipated rate of recovery of the habitat characteristics of the stand, soil disturbance, canopy disturbance, biomass removal, and nutrient cycling, (among other factors). It is anticipated that some fuel reduction projects, will not substantially modify habitat and will not require pre-disturbance surveys.
  - Regional strategic surveys will continue in order to increase our knowledge about little-known species associated with late-successional and old-growth forests and to facilitate application of scientifically sound adaptive management. Strategic surveys are an investment worth continuing and they do not impede project implementation.

***Application of the Aquatic Conservation Strategy***

- The Aquatic Conservation Strategy (ACS) does not need to be amended under the Common Sense Alternative. The agencies must simply make the following findings with respect to each restoration project:
  - The short-term impacts of restoration are minor and offset by considerable long-term benefits of restoration (including progress towards attainment of ACS objectives and species recovery) at the project site, and
  - The cumulative impacts of restoration considered at all scales does not jeopardize the continued existence of listed salmon and other wildlife.
- The agencies should adhere to the attached Restoration Principles.

**Other benefits of the Common Sense Alternative:**

Protecting LSOG and refocusing on restoration and thinning young stands will result in a dramatic converge of positive outcomes:

1. less public controversy over logging late-successional old-growth forests,
2. greater public support for federal forest management;
3. fewer wildlife conflicts and reduced need for surveys;
4. simpler National Environmental Policy Act compliance (shorter “Environmental Assessments” can be prepared instead of more detailed “Environmental Impact Statements”);
5. simpler Endangered Species Act compliance (informal consultation instead formal consultation);

6. fewer appeals and litigation; and
7. lower management costs.

Reasons why the Common Sense Alternative must be considered in the SEIS:

(1) Late-successional old-growth forests of the Pacific Northwest are critical to maintaining clean water supplies, recovery of threatened and endangered species, providing landscape habitat connectivity, maintaining soil productivity and soil stability, and mitigating the effects of climate change. LSOG forests provide critical and unique habitat for thousands of animal, plant and fungi species, including rare, endemic, sensitive, threatened and endangered species.

(2) LSOG forests are a source of pride and are of significant cultural importance to the residents of the Pacific Northwest and to all Americans. An overwhelming majority of the public in both urban and rural areas support the protection of LSOG forests.

(3) More than 80 percent of LSOG forests in the Pacific Northwest have been destroyed or converted to fiber plantations or non-forest uses. The vast majority of remaining LSOG forests are located on public lands managed by the U.S. Forest Service and Bureau of Land Management. Due to the current and projected condition of state and private forestlands and past logging on federal land, efforts to restore the abundance and distribution of LSOG forest habitat will occur primarily on federal land.

(4) Additional loss of LSOG forests has the potential to reduce genetic diversity and species diversity that is invaluable as a source of medicines and other products for the welfare of the nation.

(5) Natural disturbances, such as fire, are likely to cause the loss of an unknown amount of LSOG forests before younger forests have aged sufficiently to provide habitat that performs the same functions as LSOG forests.

(6) Due to their irreplaceable social, ecological, and economic value, it is in the public interest to retain in public ownership remaining LSOG forests.

(7) Conserving all existing LSOG forests is the most effective strategy for recovering desired habitat conditions across the landscape over the next several decades. Even small or isolated LSOG forest stands should be left intact because these stands have critical conservation value as refugia for sensitive species that are particularly vulnerable to disturbance. They also serve as the origin for eventual colonization of the surrounding landscape by species that do not easily disperse over longer distances.

(8) A significant portion of federal forestlands westside of the Cascades have been converted into relatively densely stocked young managed stands of uniform size, age and species. Active management in these stands has the potential to introduce structural complexity and accelerate the development of habitat for species associated with LSOG

forests. Active management of these stands also has the potential to create jobs and provide economic benefits in traditionally resource-dependent Westside communities.

(9) Nearly all of the Pacific Northwest's wood-processing mills have retooled to process smaller logs and no longer depend on LSOG forests from federal lands. These mills are profiting from log supplies available from state and private lands.

(10) LSOG forests on federal lands provide habitat that is important for the recovery of a variety of threatened and endangered fish and wildlife species, and conservation of LSOG forests on federal lands eases the regulatory burden on private land owners.

(11) The ecosystem management framework of the Northwest Forest Plan, which emphasizes the recovery of large contiguous blocks of ecologically complex forest habitat, is an ecologically and scientifically sound basis for management of federal forests within the range of the northern spotted owl.

(12) Ongoing efforts to provide timber volume from ecologically complex older forest stands have created substantial scientific, legal, and public controversy and have undermined the Northwest Forest Plan's goal of providing for healthy communities and healthy ecosystems. Protecting remaining LSOG forests would help secure long-term scientific, legal, and public support for the Plan. Such protection would not warrant other significant changes to the Plan's management framework.

(13) There are significant unmet restoration needs on Westside Forests and Districts, including, but not limited to, active management of young managed stands, in-stream habitat restoration, under-sized culvert replacement, and road stabilization, maintenance and de-commissioning.

(14) The Northwest Forest Plan, and the Aquatic Conservation Strategy of the Plan, provides a framework for management designed to restore degraded landscapes. Realizing the potential of the Plan's restoration mandate requires additional commitment of resources. Funding for watershed restoration activities has the potential to provide significant social, economic and ecological benefits to communities, workers and watersheds in and around Westside Forests and Districts.

# Restoration Principles

February 4, 2002

The restoration requirements of the Northwest Forest Plan are not being fully realized and a more proactive restoration effort would result in ecological, social, and economic benefits.

Therefore . . .

- A. The Forest Service and Bureau of Land Management will accelerate implementation of existing Northwest Forest Plan restoration objectives in order to improve terrestrial and aquatic ecosystems and generate employment opportunities.
- B. Restoration activities shall be guided by scientifically sound assessments that may include watershed analyses and Late-Successional Reserve assessments.
- C. Comprehensive restoration includes restoring streams, placing large woody material, improving fish passage and erosion problems at road-stream crossings, decommissioning and removing roads, thinning certain managed stands less than 80 years old, replacing non-native with native vegetation, under-planting diverse plant species, creating snags, prescribing fire, reducing fuels, rehabilitating soils, and conducting integrated weed management.
- D. The objectives of restoration thinning are:
  - 1. To restore structural and species diversity to relatively homogenous and densely stocked previously clearcut stands and other plantations (“managed stands”) less than 80 years old;
  - 2. To increase options for realizing future benefits in managed stands;
  - 3. To introduce species and structural diversity into managed stands through plantings and variable density silviculture treatments that also retain unthinned areas and include small open patches;
  - 4. To establish multiple successional pathways toward late-successional conditions by varying treatments among managed stands in a landscape;
  - 5. To retain and protect biological legacies, including large or old trees, snags, and down woody material, wherever they occur on the landscape;
  - 6. To provide opportunities to learn about effective strategies for restoring structural and species diversity to aquatic and terrestrial ecosystems;
  - 7. Although thinning will contribute to employment and generate products, ecological integrity, not commercial objectives, shall guide restoration activities.
- E. The priority for types of managed stands to be considered for thinning (from highest to lowest):
  - 1. Thinning in dense, uniformly stocked stands less than 30 years old;
  - 2. Thinning in dense, uniformly stocked stands less than 50 years old that have never been thinned,

3. Thinning in dense, uniformly stocked stands less than 50 years old that have been previously thinned,
  4. Thinning in 50-80 year old dense, uniformly stocked stands.
- F. Within the stand types listed above, higher priority for considering thinning will be given to stands that are located in source areas for recruiting large woody debris into streams and areas that contribute to the functionality of existing late-successional habitat.
- G. Stands with relatively low density and less uniform stocking, that are expected to make timely progress toward late-successional conditions will not be thinned, but other restoration activities may be considered for these stands to advance restoration of late-successional conditions.
- H. No restoration projects will include road construction or significant road reconstruction unless needed to prevent serious resource damage.
- I. Thinning projects will require NEPA analysis and mitigation of potential adverse impacts to biological legacies, soils, water quality, wildlife and botanical resources, and weeds, as well as impacts from roads. Under conditions where adverse impacts outweigh the potential benefits of thinning, thinning will not take place.
- J. During restoration project design and planning, opportunities must be considered to prevent and significantly reduce harmful impacts from roads, including reducing overall road density and making culverts passable for all species and life stages of fish likely to use an affected stream reach.
- K. Pre-project surveys for special status species are required for restoration projects only to the extent that such projects will adversely modify the habitat of the species as described in official survey protocols. It is anticipated that thinning young managed stands should greatly reduce the overall wildlife survey burden (relative to that required when logging mature and old-growth forests), but the importance of regional strategic surveys and pre-project surveys in older stands that may provide habitat for special status species is also recognized.