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FINDING OF NO SIGNIFICANT IMPACT  
AND  
DECISION  
FOR  
MANAGEMENT OF BLACK BEAR DAMAGE TO TIMBER  
IN WESTERN OREGON

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), Wildlife Services (WS) program responds to a variety of requests for assistance from individuals, organizations, and agencies experiencing damage caused by wildlife in Oregon. Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions are categorically excluded (7 CFR 372.5©, 60 Fed. Reg. 6000-6003, 1995). In order to facilitate planning, interagency coordination, and the streamlining of program management, and to clearly communicate with the public the analysis of cumulative impacts from WS's proposed program, an Environmental Assessment of alternatives for managing black bear (*Ursus americanus*) damage to timber was prepared. The EA released by WS in January 2003 documented the need for management of bear damage to timber in Western Oregon and assessed the potential impacts of various alternatives for responding to predator damage problems.

The purpose of the proposed program is to help reduce black bear damage to timber in Western Oregon. The program should be effective in reducing damage, environmentally sound, and should consider land managers' production objectives. Removal of bears, if selected as an option, should be selective for the individual bears causing damage.

### Background

In spring and early summer, black bears damage trees by removing the bark with their teeth and claws so they can eat the sugar laden cambium and inner bark. Complete girdling will kill the tree. Partial girdling does not necessarily kill the tree, but partial damage can slow growth rates and result in fungal infections and decay which discolor wood and reduce wood quality. Injured trees may also attract woodborers and bark beetles, which could further degrade or damage trees (Maser 1967, Kanaskie et al. 2001). In an Oregon Department of Forestry survey, approximately one third of the trees had been completely girdled and the remainder had varying degrees of partial girdling (Kanaskie et al. 2001). In another study of bear damage to timber in Western Oregon, bears removed an average of 4.3 square feet of bark from each tree damaged (Noble and Meslow 1998). In a stand of trees, damage can accumulate over the 10-20 year period when trees are most likely to be damaged by bears (Schmidt and Gourley 1992, Kanaskie et al. 2001). Observations of total damage within individual stands range from only a few trees to over 70% of a stand (Pierson 1966, Hartwell and Johnson 1988, Mason and Adams 1987, Schmidt and Gourley 1992). Problems with bear damage are compounded by the extended time it takes to replace damaged trees and the fact that bears have a documented preference for the fastest-growing, healthiest trees, like the trees in stands that have been recently thinned or received fertilizer to improve tree growth (Mason and Adams 1989, Kanaskie et al 1990, Schmidt and Gourley 1992).

In Oregon, state statute (ORS 498.012) permits landowners and resource managers to take bears that are damaging timber or to designate an agent (e.g. WS or private contractor) to remove depredating bears. In some sections of western Oregon, the Oregon Department of Fish and Wildlife (ODFW) also has established spring bear hunts as a population management tool in high damage areas. Timber producers in areas with spring bear hunts can also make their land available to sport hunters as a means of addressing timber damage problems. The WS EA only evaluated alternatives for WS involvement in management of bear damage to timber and cannot change Oregon State Statutes and ODFW policy permitting private landowners access to lethal and nonlethal alternatives for managing bear damage to timber. Therefore, a major overarching factor in determining how to analyze potential environmental



impacts of WS's involvement in bear damage management, as well as damage caused by other species of resident wildlife in Oregon, is that such management will apparently be conducted by state, local government, or private entities that are not subject to compliance with NEPA if WS is not involved. In fact, members of the timber industry have stated that bear damage management, including lethal methods, will occur as allowed by state statute even if WS is no longer involved. This means that the Federal WS program has limited ability to affect the environmental outcome of bear damage management in the state, except that the WS program is likely to have lower risks to nontarget species and less impact on bear populations than some alternatives available to timber managers. Therefore, WS has limited ability to affect the environmental *status quo* (see response #24 below for further details on this concept). Despite this limitation of federal decision-making in this situation, this EA process is valuable for informing the public and decision-makers of the substantive environmental issues and alternatives of bear damage management for timber protection.

### **Public Involvement**

Invitations for public involvement with notification of WS's intent to prepare an Environmental Assessment (EA) of alternatives for managing bear damage to timber were sent to potentially interested groups and individuals (conservation groups, local citizens and citizens groups, land owners, land managers, and technical experts) July 15, 2002 via FedEx®, or U.S. Postal Service. Legal notices inviting public participation in the development of the EA were Published in the Oregonian and Register Guard (July 16-18, 2002), Statesman Journal (July 16, 2002), News Review and Daily Courier (July 17-19, 2002), Curry Coastal Pilot (July 17, 2002) and the World (July 18-20, 2002). Three hundred and sixteen comments were received from groups and individuals interested in providing input for the development of the EA. The comments were considered in the development of the EA and substantive and relevant information was incorporated into the EA.

Following interagency review of a preliminary draft of the EA, an EA was prepared and released to the public on January 4, 2003 for a comment period ending Feb 14, 2003. Notice of availability of the EA was published in the Oregonian, Register Guard, News Review, Daily Courier, and the World (January 6-8, 2003), and in the Statesman Journal and Curry Coastal Pilot (January 6). A total of 642 comment letters were received in response to the EA. The comments were considered in detail and a number of editorial changes have been made to the EA which is now available in final form. Documentation of a complete review of the comments received was provided to the decision maker for this EA. Although many concerns raised in the comments received were already addressed in the EA, some of the comments indicated areas that warranted additional clarification or treatment. These are:

#### **1. Opposed to taxpayer funded assistance of private industry.**

Discussed in Section 3.2.6. During public involvement, some respondents felt that wildlife damage management was a government subsidy and should not be provided at the expense of the taxpayer or that it should be fee based. WS was established by Congress as the Federal program responsible for providing wildlife damage management to the people of the United States. Only 16.4% of the money for management of bear damage to timber comes from federal funds(Section 4.7). Federal funds are used for supervision, reporting, and for activities required for compliance with Federal and State laws. Salaries and equipment of staff performing the damage management work are paid for by service recipients. County funds are used only in those counties where the elected board of commissioners has chosen to support the WS program and to support work to protect county forests. No State funds are used to manage bear damage to timber.

#### **2. EA fails to provide perspective on the proportion of all western OR trees affected by bears (e.g. relative to number of trees undamaged). Losses are insignificant relative to total production efforts.**

Calculating bear damage as a proportion of all trees in Western Oregon does not provide an accurate reflection of the impact of damage to individual producers. Bear damage to timber is not spread evenly across the landscape or borne evenly among all timber producers. Even among timber producers using similar land/timber management practices, only a fraction of producers experience bear damage. Consequentially, WS responds to bear damage on a case by case basis. Further, damage is not restricted to large timber companies which might be perceived as having greater capacity to absorb bear damage losses. Fourteen percent of WS cooperators have small private timber investments <500 acres. Small, privately held tracts are often only cut once in an owner's lifetime. If significant bear damage occurs during the early stages of timber rotation it can set harvest back by a generation or more,

depending on the age of the stand. For a family that is actively managing their property, losing the ability to harvest for an entire generation is a very steep and likely prohibitive business cost.

3. Annual damage calculation on Page 3 was not for annual damage, but for damage that occurred over a 3 year period.

The reader identified an error in the cost of annual damage to timber estimated using data from an ODF study conducted by Kanaskie et al. (2001). The correct figure for annual damage in the study area should be \$290,250. This estimate is only for a portion of the Analysis Area for this EA and is described by the authors as being a very conservative estimate of annual damage. Also see errata sheet.

4. Timber companies are responsible for creating their own problems. Burden should be on timber producers to resolve problem through better silvicultural practices.

WS and the timber industry understand the importance of long-term silvicultural approaches to managing bear damage to timber and have jointly funded research investigating these alternatives (Kimball et al. 1998a,b,c, 1999). The EA discusses the limitations of current information on bear foraging preferences and the potential costs to timber producers. WS, through efforts of its field specialists and reports and presentations by USDA, APHIS, WS, National Wildlife Research Center (NWRC) staff, works to make producers aware of current data on these alternatives. WS is furthering this effort by producing a publication on alternatives for managing bear damage to timber with the assistance of NWRC and the USFS (EA Page 22). Each WS cooperator requesting assistance with bear damage to timber will receive a copy of this publication. There is no law or policy requiring timber producers to employ alternative silvicultural practices to protect their trees. Because of the relative lack of data on operational use of these techniques, producers adopt these strategies to the extent they believe the benefits in reduced bear damage outweigh the costs of reduced timber production. For example, although data on the value of multi species plantings for bear damage management may be less than some producers might desire, these plantings have value for other reasons including disease resistance and, consequentially, are increasingly being adopted by timber companies.

5. Please provide data on the role of the timber industry in the overall Oregon economy.

The EA provides some data on the role of timber production in the analysis area. A new report indicates that : forestry related products and industry account for \$12.8 billion or 6.9% of Oregon's total industrial output. Forestry related industries provide 75,500 living wage jobs, 3.6% of state total (Tokarczyk 2002).

6. WS is wrongly trying to protect every single tree even though damage is minimal. Timber companies have unrealistic goal of sustaining no losses to bears. Timber companies should tolerate some level of damage.

Most producers do have some tolerance for a low level of damage. For example, many timber producers use foliage discoloration identified through aerial or ground surveys as the first indicator that there may be a problem with bear damage to timber. Foliage discoloration usually doesn't appear until one year after the damage occurs, consequentially, producers using this system have a built-in tolerance for at least one season's worth of damage. Because most cooperators provide the majority of the money required for the program, there is also built in economic tolerance for low or scattered damage (e.g. that associated with traveling male bears).

7. Why spend Federal dollars for services already offered by state? State has authority to do this. EA fails to make the case for why the federal govt. should be involved and not just leave the issue in private hands.

ODFW does not provide direct assistance with bear damage to timber. Conversations with ODFW biologists indicate that ODFW will not provide this service in the absence of a WS program but would rely on ORS 498.012 which permits landowners to conduct lethal control themselves or to contract for lethal control work. In Chapter 4 discussions of alternatives with limited WS involvement, the EA discusses the potential risks associated with some private alternatives. Further, ODFW biologists predict that the regulation and monitoring of bear damage management efforts in the absence of a WS program would probably require more state resources than monitoring the current WS program. These resources would have to be pulled from other wildlife management programs. At present there are no county programs that provide this service, except that some counties support the WS program.

ODFW has management responsibility for wildlife in the state of Oregon. Wildlife damage management is part of that responsibility. ODFW has demonstrated their confidence in the experience and professionalism of the WS staff in the Work Plan and Budget (Plan) between the two agencies. The Plan states that one goal for WS is to provide animal damage control assistance to ODFW to help resolve depredations caused by black bears and injurious furbearers. The Plan also authorizes all WS field personnel to act as official agents of ODFW for purposes of the agreement. Damage complaints involving black bear and cougar may be received by WS personnel and responded to as per WS and ODFW policy.

8. Please explain how the studies by Kanaskie et al. (2001) and Nolte and Dykzeul (2002) relate to the analysis area covered in the EA.

The study by Kanaskie et al. (2001) was conducted in Northwestern Oregon and includes approximately 39% of the analysis area. The survey covered private and federal land. It does not include the coast range of Southwest Oregon which is known to have some of the highest bear damage levels in the state. Nolte and Dykzeul surveyed timber producers who were members of the Oregon Forest Industry Council. These members are located throughout the analysis area.

9. WS states that confirmed losses are losses that occur without damage management in place. How can that be given that WS has had a program in place for years?

Confirmed losses are losses that are observed in a specific stand at the time a WS specialist is called out to help with a damage problem and may include additional damage that might occur while the WS specialist is working to resolve the problem. WS has not been working in the same stands for the duration of the program, therefore, damage in an individual stand is not necessarily related to or likely to be affected by damage management efforts in other locations.

10. Please provide information on which counties are in the analysis area and provide details of confirmed losses, bear take, costs and other program functions on a county by county basis.

The issue raised here appears to be concern about WS's rationale for determining the geographic scope of this analysis. WS currently has programs to assist with wildlife damage (not just bear damage to timber) in Columbia, Washington, Yamhill, Polk, Lincoln, Benton, Clackamas, Marion, Linn, Lane, Douglas, Coos, and Curry counties in the analysis area. The Curry county program does not receive county money. To date, Coos County is the only county which has requested WS assistance in protecting county timber. WS most commonly provides assistance with bear damage to timber in Clackamas, Columbia, Coos, Curry, Linn, Marion, and Washington counties. However, WS could potentially provide assistance with bear damage to timber in any of the cooperating counties. In non-cooperating counties, WS specialists may provide operational assistance when funding is provided by the individual or agency with the damage problem.

All counties west of the Cascade ridge were included in the EA because bear damage to timber is known to occur in all of these counties and because of the potential for new cooperative agreements to be signed within counties that are not currently in the program, and the potential to work for specific cooperators in counties without a cooperative WS program. Planning for the management of bear damage to timber must be viewed as being conceptually similar to federal or other agency actions whose missions are to stop or prevent adverse consequences from anticipated future events for which the actual sites and locations where they would occur are unknown but could be anywhere in a defined geographic area. WS has prepared an EA that provides as much information as possible to address and predict the locations or types of locations of potential bear damage management actions and coordinates efforts with the ODFW to insure that black bear populations remain healthy and viable in the state. Although some of the sites where bear damage to timber would occur can be predicted, the majority of specific locations of bear damage to timber in any given year cannot be predicted. Further, the current definition of the analysis area also allows for more accurate assessment of impacts of all efforts to manage bear damage to timber because it includes counties where the majority of bear damage to timber is being handled by private contractors. Thus, the EA addresses the substantive environmental issues that pertain to management of bear damage to timber wherever these activities might occur in the analysis area. The analyses in this EA are intended to apply to any action that may occur *in any locale* and at *any time* within the analysis area. In this way, APHIS-WS believes it meets the intent of NEPA with

regard to site-specific analysis and that this is the only practical way for WS to comply with NEPA and still be able to accomplish its mission. Additionally, a more detailed and more site-specific level of analysis would not substantially improve the decision-making process.

11. EA should state extent to which ground surveys were used to estimate damage. Want verified damage data. Aerial surveys are not adequate.

WS always confirms damage from the ground before initiating damage management actions. The ODF surveys (Kanaskie et al. 1990, 2001) were the only studies which used aerial surveys combined with a ground-truthed subset of the sites identified through aerial surveys to estimate total losses to bear damage. The ODF study protocol was subject to internal ODF and external review by qualified scientists. All other studies cited in the EA used ground surveys.

12. Current silvicultural practices destroy natural food supplies. EA fails to address that bears are damaging trees because of loss and degradation of natural habitat.

Patterns in bear foraging on timber do not support this hypothesis. Not all bears in a given area engage in this behavior. If damage was caused by habitat degradation associated with timber production, then one would anticipate that damage would be more widespread and involve a greater portion of the bear population. Some reports (Mazer 1998) suggest that food availability for bears may be improved by patchy habitat of different aged stands created by current timber management practices. Early reports of bear damage provide evidence that bears were foraging on trees at the turn of the century, prior to the advent of intensive forest management. The annual end to bear foraging on timber generally coincides with the ripening of berry crops. This would appear to indicate that these plants are available in adequate quantities but that the problem is seasonal availability (ripening). The same may also be true for the availability of insects (EA section 4.2.1.2).

13. Timber companies should not expect forest to be devoid of wildlife just to protect their timber.

In comment letters from scoping and the EA, timber producers and the Oregon Forest Industry Council emphasized that they did not want to eliminate bears, but wanted a program that targeted specific depredating individuals. Timber producer interest in minimizing impacts on bears and the ecosystem is also supported by the fact that producers have provided much of the funding that has supported NWRC research efforts into nonlethal alternatives for managing bear damage to timber that are described in the EA including studies on silvicultural practices and supplemental feeding as alternatives for managing bear damage to timber. Analysis of impacts on bear population and on nontarget species indicate that the proposed action would not jeopardize wildlife populations.

14. Bear damage has been going on for over 50 years, but no WS involvement until 1980's so why do companies need help now?...Losses have been occurring and unmanaged for years.

It is inaccurate to assume that timber companies did not act to manage bear damage to timber prior to 1980. The EA notes that as early as 1970 timber associations were reporting removal of bears to manage timber damage. Poelker and Hartwell (1973) reported that, in Washington, bears were being removed as early as the 1950's to reduce timber damage. The same may have been true for Oregon. However, because there were no restrictions on bear hunting in Oregon from 1943-1961, ODFW did not collect data on bears taken for damage management at this time. ODFW did not collect data on damage complaints or bear take for damage prior to 1971.

15. WS needs additional research on nonlethal techniques.

WS conducts research through its research branch (NWRC). Individual state programs do not generally have the resources or funding available to do methods research independent of NWRC. Currently NWRC spends approximately 70% of research funds on nonlethal methods research. NWRC maintains a field station in Olympia, WA which runs a project with the goal of finding alternatives for managing wildlife damage to timber. Many of the studies on nonlethal techniques cited in this EA (Partridge et al. 2001; Nolte et al. 1998, 2002; Nolte and Dykzeul 2002; Fersterer et al. 2001; Ziegltrum 1994, 1997; Zeigltrum and Nolte 2000, 2001; and Kimball et al. 1998a,b,c, 1999, Witmer and Pipas 1999, Witmer et al. 2000) were conducted by or in collaboration with the NWRC biologists. The timber industry provided financial and logistical support for most of these studies.

16. Please clarify how the WS decision making model applies to bear damage to timber.

The following is an example of how the WS decision model relates to the WS program to manage bear damage to timber. It is important to reiterate here that the decision model is an undocumented thought process used by WS personnel to determine strategies for resolving individual damage problems.

**1. Receive Request for Assistance.** Foresters working for a timber producer in NW Oregon contacted the District WS office requesting assistance with bear damage to a stand of timber.

**2. Assess the problem.** The WS specialist considered the following types of questions during his initial evaluation.

- Is the problem within the purview of WS.
- Where exactly did the damage occur?
- Is there a cooperative agreement in effect for WS to provide control assistance for this type of problem in this area?
- Does WS have expert personnel available to visit the damage site to confirm the damage, formulate a control strategy and carry out the control?
- Who can provide more information (landowner, area forester, timber manager, etc.)? Where and when can WS contact them?

**a. Type of damage.** Black bear peeling of 15-18 year old trees in a stand of mixed tree species but primarily Douglas fir.

**b. Location.** Damage occurred on private land in Northwest Oregon

**c. Site visit.** The WS specialist was able to confirm, after examining damage to the trees, that the damage appeared to be caused by an adult bear. Approximately 25-30 trees had been damaged by the time of the visit. Damage was located along a line of bear travel indicating that it was probably caused by an adult male. The stand was in a remote location in a region of privately owned timber (various landowners) 5 miles from any residences or recreational areas. Locked gates restricted access to the site.

**d. Responsible species.** Tracks, claw and tooth marks and pattern of damage on trees indicated damage by black bear.

**e. Previous control.** Stand had not been precommercially thinned, but it had been recently fertilized. Stand was in an area where damage had been observed in nearby stands. Landowner permits fall sport hunting which may provide a degree of population reduction.

**f. Authorization/Existing agreement.** WS has a Memorandum of Understanding with the Oregon Department of Fish and Wildlife authorizing WS to provide assistance with bear damage management in Oregon. This timber company has a standing contract with WS to provide assistance with bear damage to timber as needed.

**g. Assessment:** The problem was determined to be within the purview of WS. The WS specialist agreed to provide assistance.

**3. Evaluate Wildlife Damage Control Methods.** The WS specialist evaluated the potential damage control methods (see table below) to determine which methods were applicable. The basis for selection or rejection of the control methods and the results of the evaluation follow.

Method	Basis for selection or rejection
Delay thinning	Possible. Stand had not been thinned.
Plant multiple species and/or damage resistant species.	Technique would not work as a corrective control technique
Delay fertilization	Technique would not work as a corrective control technique. Stand had already been fertilized
Pruning	Rejected because value as a corrective control technique (time required before pruning results in a change in tree chemistry) uncertain and because of logistical difficulties in immediately initiating pruning in the stand.
Plant supplemental feed	Technique would not work quickly enough to be an

	effective corrective control technique. Because damage occurs on a ridgeline area, alternatives for improving bear food sources are limited. (EA section 4.2.1.2) Possible.
Bear feeders	
Bear removal:	
Culvert trap	Rejected because site topography and vegetation prohibited the WS specialist from getting the culvert trap to the location of damage.
Leg snares	Possible. No recreational or human activity in area that would indicate risk to people from a snared bear.
Body snares	Rejected because it was the perception of the WS biologist that use of leg snares results in a more humane death than body snares. Additionally, bears are salvaged for human consumption. It was the perception of the WS specialist that use of body snares compromises the quality of the meat.
Dogs	Rejected because of the high number of other property owners in close proximity to the site. Pursuit with dogs would probably not be confined to property of landowner with damage.
Hunting without dogs	Too thick of timber insufficient viewing area for effective hunting without dogs.
Sport hunting	No ODFW spring season in area.

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**a. Legal, Administrative.** The state of Oregon permits timber producers or their designated appointee to use lethal techniques to manage bear damage to timber (ORS 498.012). No chemosterilants, chemical repellents, or toxicants are registered for use in managing bear damage to timber in Oregon. No ODFW spring sport hunt is authorized for the area.

**b. Environmental Considerations**

1) **Biological.** No threatened or endangered species inhabited the general area of the damage site. ODFW bear population monitoring data indicate a stable to increasing black bear population in western Oregon.

2) **Sociocultural.** Many members of the public are opposed to the use of lethal techniques for managing bear damage to timber. This attitude is reflected in the management choices of some timber producers. This particular client did not have philosophical objection to lethal control. Landowner perception of feeding programs discussed below.

3) **Economic.** Approximately 25-30 trees had been damaged by the time the WS specialist was called to the site. Timber managers used company calculations of expected stand yield when considering adopting silvicultural strategies.

**c. Applicable Methods.** Based on the evaluation, the following methods were considered practical: Bear feeding, pruning, and lethal removal with snares.

**4. Formulate Damage control strategy.**

The WS specialist and the timber producer formulated a control strategy and options to address the damage problem as a result of the step III evaluation. The order and emphasis of considerations was (A) methods applicable by technical assistance, and (B) direct control methods. Effectiveness was assessed in final selection of the methods.

**a. Technical assistance.** The timber producer is one of the cooperators in the Oregon Forest Industry Council which supported research on nonlethal alternatives for bear damage management and was already aware of the data of the NWRC Olympia Field station studies on the effects of pruning, fertilization, and thinning on bear foraging preferences. Thinning is being delayed in the damage site. Timber managers are incorporating increasing tree species diversification in their reforestation programs as a means of reducing problems with wildlife damage and disease (e.g. Swiss needlecast). Pruning is still under evaluation for programmatic evaluation. Timber managers rejected pruning for this situation because of logistical difficulties with getting pruning teams to the site in a timely manner and concerns about cost effectiveness.

**b. Direct control**

1) **Nonlethal.** Bear feeders were rejected by landowners because of reports of additional supplemental lethal control being necessary for feeding programs. Land manager felt that feeding programs were unethical because they amounted to feeding/attracting the bears and then eventually killing them.

2) **Lethal.** The remaining available method in this case was the use of leg snares to remove the depredating bear.

**c. Decision.** The strategy adopted for this damage situation was a combination of technical assistance (delayed thinning, diversification in species used for reforestation to help reduce future problems) and direct control (leg snares to remove the depredating bear).

**5. Provide assistance.**

Technical assistance recommendations were made regarding the impact of thinning, pruning, planting a diversity of species, and fertilization. An Agreement for Control on Private Property was already on file with WS. The agreement authorized control activities and described the method to be used. Direct control service provided by the WS specialist involved setting snares at the sites of fresh damage. The landowner was notified of the time and location of snare placement and warning signs were placed at the entrances to the site.

**6. Monitor and Evaluate results of control actions.**

Within the following week the WS specialist captured and killed a large adult male bear. The site was monitored for the remainder of the damage season (mid July). No new bear damage was observed.

**7. End of Project.**

Mid July, after several weeks without damage, and knowing that bear damage usually stops by this time of year, the WS specialist and the land manager ceased monitoring the site for bear damage. All information regarding WS actions and the animal removed was reported as required by WS policy and ODFW regulations.

17. WS should document its use of and recommendations for nonlethal techniques.

WS dissemination of information on the potential of nonlethal alternatives is difficult to quantify because it is not restricted to conversations between field specialists and timber producers. The NWRC uses journal articles and presentations at meetings, conferences, and workshops to present data on nonlethal alternatives. Further, the NWRC Olympia Field Station has a collaborative research team comprised of state wildlife and forestry officials, members of the timber industry, and representatives of the Oregon and Washington forest industry councils which helps identify and fund research on ways to reduce wildlife damage to timber. The NWRC reports research results to committee members, who help convey this information to the timber industry. Because of the efforts of the NWRC, many timber producers are aware of nonlethal alternatives prior to talking to WS field specialists. The OR WS MIS system does not provide an accurate representation of WS recommendations for nonlethal alternatives and producer use of these alternatives, in part, because, for cooperators with large holdings, WS may provide advice on nonlethal alternatives during an initial visit or when staff changes occur but may not repeat this information each year. It is easier to quantify WS use of bear feeding programs. WS spent an average of 105 hours placing an average of 30,552 pounds of bear food annually for the period of 1998-2001.

18. Silvicultural practices and habitat management are preferable because they are long term solutions.

WS agrees, that if effective and where applicable, silvicultural practices would provide longer-term protection than lethal removal of depredating individuals. EA sections 4.2.1.1 and 4.2.1.2 discuss the limitations of these techniques and the state of current data on these techniques. Nonlethal techniques are not suitable for or effective in all situations, therefore, WS supports an alternative that allows for the use of nonlethal and lethal alternatives.

19. Cubs that are found with their mother should be rehabilitated and released. Euthanizing cubs is not humane or acceptable. Killing of cubs is not justified because no proof that they have learned tree peeling behavior.

It is extremely rare that WS finds cubs of the year with a sow in a snare or trap. ODFW has established the policy on disposition of cubs of the year. The policy to kill cubs in this situation is based on the following considerations.

1) Oregon supports a healthy and abundant bear population, 2) instances of cubs being found with sows are extremely rare, 3) killing cubs is judged by ODFW biologists as more humane than the stress and health risks

associated with rehabilitation and the stress and health risks to rehabilitated bears who may not have adequate survival or social skills, once released in an environment where most bear habitat is already occupied, 4) concerns about disease and parasite transmission associated with cubs when they are captured and any other diseases that may be acquired in rehabilitation facilities, 5) concerns about the behavior of cubs that are at least partially acclimated to humans, 6) the only facility currently qualified to raise cubs for release into the wild is in Idaho, and 7) source of funds for rehabilitation costs.

20. WS should use light-siren devices (electronic guard), radios, lights, flags, pepper spray devices, dogs, and fencing around individual trees to reduce damage. WS should encourage producers to plant/leave a border of densely planted trees around a core of thinned trees. Dense trees would inhibit bear access.

There is no data on the efficacy of any of these alternatives in reducing bear damage to timber. Some techniques like the electronic guard, lights, and dogs have the potential to impact nontarget species including state and federally listed threatened and endangered species. These ideas have been forwarded to NWRC biologists for their consideration. WS would continue to monitor development of these strategies. Should additional data or new products become available in the future, WS could consider these techniques among the methods to be used. Any additional NEPA analysis deemed necessary would be conducted prior to incorporating the technique into the program.

21. WS program competes with private business.

Private wildlife damage management contractors help timber producers with bear damage in some sections of Oregon. WS Directive 4.22, "To avoid the appearance of competition with private business or an individual engaged in wildlife damage management, ADC (WS) would only provide direct control services after satisfying all of the following conditions.

- a. The work is within the ADC authorization or ADC has authority to engage in work to resolve a wildlife conflict as provided by cooperative agreement or MOU with the appropriate regulatory or governing body
  - b. ADC discusses the legal and practical methods available to resolve a wildlife conflict. The requestor is made aware of all the options available, such as technical assistance and direct control, and other providers of assistance, including the use of services available through the private sector.
  - c. The cooperator requests ADC assistance with wildlife damage resolution."
- The WS program to manage bear damage to timber meets all of these criteria.

22. Replace term euthanized with killed and describe method used to kill bears.

Bears that are captured during programs to manage damage to timber are killed via gunshot. WS field specialists are trained in AVMA preferred method of using gunshot for euthanasia (shooting animal in head). Regrettably, it is sometimes impossible to make a shot to the head under field conditions, in which case shots are placed to induce death in as quick and humane a method as possible. Also see errata sheet.

23. WS should consider an alternative using genetic testing to identify depredating individuals like the program being tested on the Hoopa Indian reservation.

This type of program would involve capturing, marking and obtaining genetic identification data for all or most of the bears in an area. When damage occurs, genetic material would be collected from the damage site, sent to a lab for analysis and comparison with the genetic material of the marked bears, and then removal efforts would focus on capturing the specific offending individual. This process is feasible for a relatively small area, but given the dispersed nature of WS projects to manage black bear damage to timber and the fact that new sites are added each year, this would require marking bears over a large portion of Western Oregon. The process would involve capturing and stressing a large number of bears who may never be involved in timber damage, and would involve capturing/locating depredating bears twice. Black bears that have been captured once often become "trap-shy" and are difficult to capture a second time. Labor and lab analysis costs would be much higher than for other alternatives. For reasons of cost and logistics, WS is not considering this alternative in detail.

24. EA cannot analyze impacts because there is no data on baseline before establishment of the program.

WS does not concur. The Council on Environmental Quality (CEQ), in interpreting the requirement that the "no action" alternative be considered, has provided guidance to federal agencies stating that the "no action" alternative can be interpreted as continuing with an ongoing program initiated under existing legislation and regulations. Further, population monitoring data from ODFW indicate that the bear population in Western Oregon has met ODFW standards for a stable to increasing population since 1983 (ODFW 1992, Kohlman et al. 1999, J. Toman pers. comm.). The 6 year record of WS nontarget take indicates that the risk to nontarget species is negligible (the only animal killed was 1 opossum) and extremely unlikely to have any impacts on nontarget species populations.

Another aspect that is germane to the determination of significance under NEPA is the effect of the federal action on the *status quo* for the environment. The States have the authority to manage populations of resident wildlife species as they see fit without oversight or control by federal agencies<sup>1</sup>. Management direction for a given species can vary among states, and state, local government, and private management actions are not subject to NEPA compliance or to federal oversight. Therefore, the *status quo* for the environment with respect to state-managed wildlife species is whatever management direction that is established by the States. Federal actions that are in accordance with State management have no effect on the *status quo*. Also, wildlife populations are typically dynamic and can fluctuate even without harvest or control by humans. Therefore, the *status quo* for wildlife populations is fluctuation, both within and among years, which complicates determining the significance of human impact on such populations.

In Oregon, the environmental *status quo* for management of bear damage to timber in the absence of action or involvement by WS would include lethal techniques for bear damage management by private timber producers or their designated agents (private contractors or sport hunters) as allowed under state law and, as indicated by timber producers in comments on the EA, would occur anyway.

<sup>1</sup>An exception is for species listed as threatened or endangered under the Endangered Species Act.

25. WS use of lethal control is not justified because of the lack of efficacy data. Killing bears for peeling won't work because WS would have to kill all bears.

WS does not agree. Removal of depredating bears is an effective short term method for reducing bear damage to timber. Issue of efficacy of lethal control is addressed in EA on page 31. Lethal removal of depredating bears is considered an effective and acceptable technique for managing bear damage to timber by biologists with the Oregon and Washington departments of wildlife management. WS assertions as to the efficacy of lethal methods are based, in part, on years of experience with operational use of this method. When WS specialists remove a bear or bears from a damage site, the damage stops. The relief from damage in that stand almost always lasts for the duration of the damage season and can extend into subsequent years depending on factors discussed in EA page 31. WS's use of lethal techniques is focused on specific depredating individuals and not on all bears. There are many areas of Western Oregon that do not have bear damage. WS efforts to remove depredating bears to reduce damage to timber have only taken a small (<1%) portion of the population over a small portion of the total area in Western Oregon (<3.5% of analysis area).

26. EA should discuss whether annual confirmed damage has decreased because of bear killing.

The WS confirmed loss data is not collected in a manner suitable for tracking program efficacy over time. In order for verified loss to work as system for tracking program efficacy, WS would have to work in the same stands every year. However, this is not the case. The sites where WS works vary from year to year although there may be some repetition between years. Additionally, WS specialists only verify sufficient damage to identify the cause of the damage and do not attempt to quantify all damage.

27. EA needs assessment of short and long-term effectiveness of all alternatives.

Silvicultural practices and habitat management practices that increase the amount of bear forage reduce the likelihood that damage would start, and, as such, have the potential to be long term solutions to damage problems. However, as discussed in the EA in Sections 4.2.1.1 and 4.2.1.2 many of these techniques are based on knowledge

of bear foraging preferences. Evidence of a foraging preference does not guarantee avoidance of other foods/trees in the absence of the preferred food. Lethal control techniques are generally a short term solution to damage problems. The short term nature of lethal control and its relationship to immigration of new bears to the site are discussed in EA on page 31. Bear feeding programs may also be considered a short-term solution because after initiating a feeding program the feeders must be maintained each year until the trees are large enough to be less attractive to foraging bears.

28. Costs associated with nonlethal techniques and lack of data on some nonlethal methods are not an adequate reason to discount nonlethal methods.

The EA provides a thorough discussion of nonlethal alternatives, data available on the efficacy of these techniques, and the potential strengths and weakness of each method. The comment appears to have been made primarily in reference to silvicultural and habitat management methods. WS is not the landowner, and as such, can recommend these strategies, and actual implementation is up to the timber producer. When choosing to implement a nonlethal technique, producers compare the costs of implementing the program and anticipated impacts on stand yield, rotation periods and anticipated efficacy in reducing damage against the anticipated likelihood that the stand will be damaged, costs of corrective damage management, the cost of damage that will occur even with a corrective damage management program in place, and anticipated social costs associated with using lethal control techniques. Cost of implementing the program and anticipated impacts on yield will affect producer willingness to try a new technique, especially if there is some uncertainty as to the efficacy of the technique.

29. Concerned about the risks of separating sows from young cubs and then killing the sow without knowing if she has cubs, thereby unwittingly orphaning and abandoning cubs to starve. EA fails to consider the number of cubs that die this way. WS has few records of killing cubs because very young cubs don't travel with their mothers so untold numbers of cubs are being left orphaned to starve and die. WS take of bears is a serious underestimate of total take. EA should provide data on age and sex of bears taken during efforts to manage bear damage to timber.

Immediately after emerging from dens sows will leave cubs in dens and feed in the immediate area approx - April 1 - May 15. Later, cubs travel with sows. Risk to nontarget sows is reduced because sows stay close to den and travel less and are less likely to encounter snares or traps. WS worked with ODFW to create the following estimate of cubs (bears <1 year old) potentially orphaned by WS activities to manage bear damage to timber. Proportions used below were obtained from 1998-2001 ODFW data on age and sex of bears removed by WS program to manage bear damage to timber.

Factor	# of bears
Annual Avg. number of bears removed for timber damage.	122
34% of bears are females	41
20% of females captured on or before May 15	8
32% of females captured on or before May 15 are 2 yrs old or less and not likely to have cubs	3
Total bears likely to have cubs or yearlings.	5
28% of females 3 years old and likely to have new cubs	1
Females >3 yrs	4
50% of females >3 yrs old with cubs (other 50% with yearlings)	2
Total estimated females with cubs taken by WS	3
2(assume twins) x females with cubs = estimate of orphaned cubs	6

Consultations with ODFW indicate that this is probably the maximum number of cubs likely to be orphaned because the calculations use estimations of the age of first reproduction obtained from placental scars. Confirmed observations of bears with cubs indicate the age of first successful reproduction may be higher than 3 years, especially for the Cascade range (D. Immell, ODFW, pers. com.)

The following table provides data on the proportion of bears in each age and sex class for bears taken during efforts to manage damage to timber. The data was compiled from ODFW reports for the period from 1998-2001. Black

bears are considered reproductively mature at age 3 although actual age of successful reproduction may be as late as 5 in some areas.

	Sex	Cubs	1 year old	2 years old	3 years old	4 years old	≥5 years old
Males	68%	0	8%	19%	22%	15%	36%
Females	32%	0	5%	16%	17%	12%	50%

30. EA fails to consider all sources of bear mortality.

The EA considered all known sources of bear mortality. However, there was some confusion among readers as to the nature of the known sources of mortality. WS has recently obtained a complete set of 2001 bear data to add to its analysis. To improve communication WS has developed a table detailing known sources of bear mortality. This table also includes the estimate of orphaned cubs discussed under issue #29. These numbers are consistent with the magnitude of impact analyzed in the EA and do not substantively change the conclusions in the analysis.

Cumulative Impact on bear population for all of Western Oregon

	1998	1999	2000	2001	Average
WS take for timber	131	117	120	119	121.8
Est. cubs possibly orphaned by WS actions	6	6	6	6	6
Bears taken by WS for all other projects	30	38	63	42	43.3
Bears taken for damage by other than WS*	119	132	57	75	95.8
Bears taken in Spring sport hunt	83	38	86	105	78.0
Bear taken in Fall sport hunt	468	560	583	432	510.8
Reported bears lost to other causes* (Poaching, car accidents, etc.)	16	19	8	20	15.8
Estimated BLM take	12	12	12	12	12.0
<b>TOTAL</b>	<b>865</b>	<b>922</b>	<b>935</b>	<b>811</b>	<b>883.3</b>

\* 2000 and 2001 data not available for just western Oregon. Data from 1998 and 1999 indicate that the majority of these losses are for western Oregon, so the table uses statewide totals for 2000 and 2001.

Approximately 66% of WS take is from SW Oregon (Coos, Curry, Josephine and Jackson counties). ODFW is conducting a population density study in this area which has provided a bear population estimate of 4,286 bears, not including cubs of the year. We have calculated the population impact for this area. As with the population impact analysis for the entire analysis area, the impact of cumulative take on the bear population (13%) is within tolerance levels described in the EA. Therefore WS concludes that cumulative take has a low impact on the bear population in SW Oregon.

Cumulative Impact on Bear Population for SW Oregon

	1998	1999	2000	2001	Average
WS bear take for timber	88	70	80	83	80
Estimated cubs possibly orphaned by WS <sup>1</sup>	4	4	4	4	4
Bear taken by WS for all other projects	15	40	63	45	41
Bears taken for damage by other than WS <sup>2</sup>	24	41	25	25	29
Bears taken in Spring sport hunt	71	32	66	77	61
Bears taken in Fall sport hunt	252	360	326	270	302
Reported bears lost to other causes <sup>3</sup>	10	14	5	14	11
Estimated BLM take	12	12	12	12	12
<b>Total</b>	<b>476</b>	<b>573</b>	<b>581</b>	<b>530</b>	<b>540</b>

1. WS take of bears during timber damage management in SW Oregon is 66% of all bears taken by WS for timber damage management in Western Oregon. This proportion was applied to the estimate of cubs that may be orphaned by WS removal of the adult.
2. Data for SW Oregon were not available for 2000 and 2001. Values were calculated by determining the proportion of all OR bears taken for damage that were non-WS damage take from SW Oregon in 1998 and 1999 and applying that proportion to the data from 2000 and 2001.
3. Data for SW Oregon was not available for 2000 and 2001. Values were calculated by determining the proportion of all OR bears killed by other sources that were from Southwestern Oregon in 1998 and 1999 and applying that proportion to the total number of bears killed by other sources in 2000 and 2001.

Some factors impacting the bear population cannot be fully quantified like poaching or habitat loss. However, the ODFW population monitoring system does allow a qualitative determination of the effects of all sources of bear mortality. Declines in the bear population resulting from habitat loss, poaching and other unquantifiable factors would be reflected as increases in the number of females, increases in the proportion of subadults, and/or decreases in the median age of the harvest. For the last 20 years ODFW harvest monitoring data indicate that the bear population is stable to increasing. ODFW population monitoring criteria are similar to criteria used in Washington (WDFG 2002), and California (CDFG 2001). WS combined information on known take with ODFW population monitoring data when determining cumulative impacts on the bear population.

31. Bears are being punished for eating a natural food/ engaging in a natural behavior.

In order to fulfill WS's mandate to protect agricultural resources, wildlife damage management is conducted to prevent or minimize damage and protect resources while complying with strict measures to ensure public safety as well as the protection of domestic animals, nontarget and T/E species and native wildlife populations. Hence, wildlife damage management is not based on the principle of condemning or punishing offending animals but rather as a means of reducing damage, predicting future damage and is conducted using the WS Decision Model as described in the EA and in the Programmatic EIS. An example of the WS Decision model as it pertains to managing bear damage to timber is provided above in response to comment #16.

32. EA has inadequate analysis of impact of biscuit fire on bear population. Need new consult. EA fails to provide baseline data on bear population before and after fires.

WS initiated a new consultation with ODFW on the impact of the Biscuit Fire on the bear population. The consultation letter is attached. In general, bears prefer the early seral stages of forested habitats in western Oregon. Patches of this type of habitat can result from a variety of factors including fire and logging. ODFW predicts that although a short-term reduction in cover habitat and availability of some forage sources is possible, most grasses forbes and berry producing shrubs should respond favorably and quickly to the recent fire. Fires also produce large amounts of dead and down woody material which should provide a good insect foraging source over an extended number of years. ODFW biologists predict that the fire will benefit bears over the long term. Although there has been disruption of individual bear home ranges, this disruption is not anticipated to affect bears for more than 1 year post-fire.

33. WS should provide reasoning behind estimate of bears that might be taken for Coos Bay BLM.

The BLM has not formally started the EA process nor determined what alternatives they will propose or select. It is difficult to predict the number of bears that would be removed to address a bear damage problem, especially in an area where bear foraging on trees has occurred for several years. The estimated take for Coos Bay BLM was developed after consultations between ODFW, WS, and Coos Bay BLM foresters and wildlife biologists (records are in Administrative Record for EA). Initial estimates indicated that 25-28 stands had bear damage and were candidates for damage management. In the first year of a control program, it would not be unreasonable to estimate that one bear would be removed for each stand. However, the reality of the situation is that >1 bear might be removed in some stands and other stands may be close enough together that the removal of 1 bear resolves the problem in both stands. Take after the 1<sup>st</sup> year was anticipated to be less than 12 bears per year. After consultation with its biologists, Coos Bay BLM decided to limit its bear take to 12 bears even in the first year of the project.

34. Use of bait (as referred to in ORS 498.164) increases risk to nontarget bears and nontarget species.

WS does not use bear baiting in the manner banned by Measure 18. When used for recreational hunting, hunters will establish a feeding area where they lure bears by providing large amounts of food over a period of time. Once bears have established a feeding pattern, the hunter will go to the site and kill the bear. This use of bait stations will attract any bear in the area. In contrast, the goal of WS is to try and capture the bear that is causing damage. When feeding on trees, bears usually return repeatedly to the same site. Snares or culvert traps are only placed in the area with recent damage. WS may use a small amount of bait to attract a bear that is already near the trap to the snare/trap in such a manner that it pulls or steps on the trap/snare trigger. WS only uses the bait for the period when the trap is set. The amount of bait provided is small and not adequate to constitute a dietary supplement or attract bears over large distances.

35. EA only analyzes impact of removing 119 bears what if removal numbers increase and take is higher?

The cumulative annual known losses are only 7.1 and 8.7% of the population depending upon the population estimate used. Even in the improbable instance that cumulative take increased by 200 bears per year, the total annual known take would still only increase to 8.7 and 10.7% of the population depending upon the population estimate used. Both levels of take are within allowable tolerances.

36. The 20% sustainable harvest level is unsubstantiated and based on old assumptions. The ODFW study cited on page 34 states that mortality is already almost 20%. WS is wrongly concluding that the population could sustain an additional 20% above the mortality measured in the ODFW study.

The EA cites the WS programmatic EIS and the California Department of Fish and Game (CDFG) for its sources of the 20% sustainable harvest estimation. The sustainable harvest levels in the WS programmatic EIS were obtained using technical advice from D. Koch, M. Pelton, and C. Willey. The EIS on bear hunting by the CDFG (2001) uses computer modeling to determine that a bear population can sustain a maximum sustained yield (mortality in excess of natural mortality) of 20%. This model was updated and revised in 2000.

As used in the CDFG 2001 model and WS EIS the 20% sustained yield rate is for removals above and beyond natural mortality. Consultations with D. Immel of ODFW clarified that the mortality level in Jackson et al. 1999 is mortality by all causes, including hunting which accounted for 87.5% of the known sources of bear mortality in their study. Additionally, the study was conducted over a period which included the passage of Measure 18 which impacted bear hunting rates, especially in the thicker vegetation of Western Oregon. Annual survival rates prior to Measure 18 were 70% in 1993-1994 and averaged 88% for the period of 96-98. (Note 1999 data as reported is incomplete and has been dropped from final analysis.) Small sample size precluded detecting a significant difference prior and post Measure 18 but biologists associated with the project consider the difference biologically significant. Data from 96-98 is probably indicative of current harvest levels (D. Immel, ODFW, pers. comm. 3/19/03).

37. EA should disclose the number of nontargets captured annually.

EA discloses the number and fate of nontarget species captured over a 6 year period. Annual records for the same period are as follows FY 1996 – 1 mountain lion caught in a leg snare and released; FY 1997 – 1 opossum caught by dogs and killed; FY 1998 – none; FY 1999 – none; FY 2000 – none; FY 2001 – 2 mountain lion caught in a leg snare and released, 1 dog caught in a culvert trap and released.

38. EA should indicate whether captured nontargets will be examined and treated for injury before release.

In the instance of the capture of a companion animal, WS will work with the local animal control to ensure proper care and disposition of the animal. In the instance of nontarget wildlife, the WS field specialist will use his/her best judgment to determine if the animal is capable of surviving if released. In the case of life threatening injuries or injuries that would need intensive medical treatment, the animal is euthanized as per ODFW direction. When a mountain lion is captured in a bear snare, the WS specialist anesthetizes the animal with an appropriate dosage of telazol, makes sure animal is in appropriate environmental conditions, (shade, dry), and stays with it for a short period of time to ensure recovery from drug (J. Brent, USDA/APHIS/WS pers. comm.). Observations of injuries

and disturbance of the area surrounding the snare indicate that lions appear to fight the snare less than other species. Consequentially, there may be swelling in the foot, but there is rarely incidence of lacerations.

39. EA fails to consider additional stress to bears from being chased with dogs on top of physiological stress from hibernation.

Bears that are targeted by WS efforts to reduced damage to timber are probably under a degree of physiological stress associated with the nutritional demands from hibernation. Any chase-related physiological stress that bears would incur in addition to nutritional stress from hibernation would be short term since the bears are killed at the end of the chase. It is likely that even if WS decided to discontinue lethal removal of bears, the timber companies would find access to alternative sources of similar methods since they are allowed to under state law and have indicated in responses to the EA they would do so.

40. WS fails to state its policy on checking snares and culvert traps. Commenter wants a more frequent trap check interval.

Respondents referenced the OR WS trapping policy regarding 48 hour trap check intervals. The 48 hour trap check policy applies to traps and snares set for furbearers not big game species.

It is OR WS practice to check snares and traps set for bears in intervals of no more than 76 hours with most checked within 48 hours or less. Culvert traps are usually checked more frequently than once every 48 hours. This is more restrictive than the current State regulations which do not set any specific interval for checking snares or traps set for bears which are designated big game animals. Current State trapping regulations were upheld by a majority of Oregon voters in November 2000 when measure 97 was defeated. WS continually endeavors to balance the need to provide practical and effective solutions to wildlife damage problems while still striving to minimize animal suffering. WS could adopt more frequent trap check intervals; however, this would result in substantial increases in program costs.

41. WS not using methods that are as humane as possible. If true then wouldn't be using lethal.

Comment is in reference to statement on page 40, "WS personnel are experienced and professional in their use of management methods that are as humane as possible." Clarification is provided in paragraph 3 of the same page, "The challenge in coping with this issue is how to achieve the least amount of animal suffering with the constraints imposed by current technology. WS personnel are concerned about animal welfare. WS is aware that techniques like snares and hunting with dogs are controversial, but also believes that these activities are being conducted as humanely and responsibly as practical. To ensure the most professional handling of these issues and concerns, WS has numerous policies giving direction toward the achievement of the most humane wildlife damage management program possible (Section 2.3). WS and the National Wildlife Research Center are striving to bring additional nonlethal damage management alternatives into practical use including research on bear feeding programs (Nolte et al. 2002), the relationship between tree chemistry and bear foraging preferences (Kimball et al. 1998a), the impact of silvicultural practices on tree chemistry and associated patterns in bear damage (Kimball et al. 1998a,b,c; 1999), and repellents to deter bear foraging on trees (Witmer and Pipas 1999). Research continues to improve the selectivity and humaneness of management devices. Until new findings and products are found practical, a certain amount of animal suffering could occur when some methods are used in situations when non-lethal damage management methods are not practical or effective.

42. Revise humaneness discussion using studies by Onderka et al. 1990 and Rowsell et al. 1980.

Studies of the impacts of snare devices indicate that the impact of the device and the extent of pain and injury can vary substantially among species and among devices (Onderka et al. 1990, Roswell et al. 1980). Care should be taken when extrapolating these finding to other species. Although it has not been specifically documented for black bears and the snare design used by WS, swelling and lacerations of soft tissues has been documented for other species captured in leg snares and are indicators that the capture device can cause pain. The fact that snares will cause pain is discussed in the EA. Because of typical temperatures in Western Oregon when damage occurs, freezing of trapped limbs is not anticipated to be a substantial problem. The Roswell et al. (1980) study of neck snares provided evidence of pain, stress, and distress in the animal captured, especially in the case of larger animals

(coyotes, fox). WS is aware of this concern, and for this reason avoids the use of body snares unless all other methods of capture have failed. This avoidance of body snares is reflected in the low incidence of their use as reported in the EA Section 2.1.1.2.

43. EA fails to discuss whether the public needs or desires such a program. EA fails to cite a Washington survey of public attitudes on bear hunting to protect timber.

The range of public attitudes regarding the use of lethal techniques is addressed in EA section 4.5. A 2002 survey of Washington resident's attitudes on hunting and game species management (Responsive Management 2002) indicated that 70% of respondents felt it was acceptable to hunt animals to protect human property and that 69% of respondents supported hunting in situations where it is used to control animal populations in a way that benefits people. A majority (65%) supported hunting to control animal damage to private property and hunting to address human wildlife conflicts (79%). However, in apparent contrast, only 26% supported reducing the number of black bears to prevent damage to timber (27%) and 69% of respondents were opposed. Additionally 53% of the respondents opposed any hunting of black bear in the spring to control damage to commercial timber. Several factors are important in interpreting this response. First is that the questions posed was, "Do you support or oppose reducing the number of black bears in situations where it is used to prevent damage to timber on industrial lands?". The question was phrased in such a way as to imply support or opposition to population control as a technique to manage bear damage to timber. WS (EA Section 2.2.4) focuses its efforts on removing specific depredating individuals and not on reducing bear populations to manage damage to timber. In context of the rest of the survey, the question also may be perceived as implying approval of sport hunting for this purpose. The EA discusses the limitations of using sport hunting for the management of bear damage to timber in Sections 2.2.1, 3.2.11 and 4.2.1.4. The question also did not provide respondents any reason to consider that the problem would occur anywhere other than on large industrial lands.

44. WS must maintain public trust.

Issue implied is that WS use of lethal techniques violates American common law with respect to wildlife – such common law does not prevent killing of wildlife for management purposes. The proposed action would be consistent with state laws established for the conservation of bears and with the wildlife management goals of ODFW. There is no evidence that any of the proposed WS actions in this EA would jeopardize wildlife populations or ecosystems. As such there is no reason to believe that the proposed actions would be a violation of public trust.

45. Estimate of economic losses in the absence of a WS program is not acceptable. WS should just compare known (confirmed) loss to program costs.

Cost effectiveness cannot be determined by comparing WS expenditures with the value of claimed or confirmed losses from wildlife damage as the comment suggests. WS confirmed losses are associated with direct control activities and are intended to document wildlife damage as the source of loss. Confirmed losses do not represent the full value of losses. The most valid way to determine if the program is cost-effective is to compare WS expenditures to the value of the losses that have been avoided by direct control and technical assistance. Measuring avoided losses, however, is difficult, if not impossible, because of the logic of trying to account for an event that did not occur. Little data exists for losses prevented by wildlife damage control activities. The EA combines research studies with data on WS work to manage timber damage to provide an estimate of losses in the absence of damage management actions such as those proposed by WS.

46. Ecological values which translate into economic values of bears are not in cost benefit analysis. Nutrient transport and seed (berries) dispersal. Snags for wildlife, increased forest diversity by thinning canopy. Ecological role of bears exceeds cost to timber companies.

In order for the proposed action to result in adverse impacts on nutrient transport, seed dispersal, snag creation, and forest diversity, it would have to result in a reduction in the bear population. The proposed action is not anticipated to result in anything more than very short term (<1 year) localized reductions in bear density. The proposed action is not anticipated to result in a reduction in the Oregon bear population and therefore will not impact the aforementioned ecological functions, nor will there be costs to environment or economy in these factors.

47. By supporting timber industry and its destructive environmental practices, companies, tourists will be less willing to go to Oregon. This economic impact is not included. Tourist have also stated in comment letters that they will not go to Oregon if OR continues to kill bears for timber.

One hundred and seven individuals responded that they would not be visiting OR if lethal methods were used to manage bear damage to timber and that they would advise their friends and/or clients not to visit OR. As discussed in the EA, the use of lethal techniques to manage bear damage to timber would continue under all alternatives, the only difference among alternatives is the degree of WS involvement in these techniques. Many respondents were opposed to any lethal control no matter what source and it seems unlikely that any of the alternatives would result in substantial change in the opinions of the individuals who stated such strong opposition to this technique.

48. WS calculations of losses prevented are overestimated by subtracting confirmed from estimated because WS states not all damage is confirmed.

Agreed. However, actual losses prior to bear damage management would have to be 10 times that confirmed by WS before the costs of the program would start to equal estimated benefits. The magnitude of the difference between confirmed and actual losses is unlikely to be this high. It should also be noted that the economic benefits calculated in Section 4.7.1.2 do not include the cost of reductions in timber quality and yield that resulted from partial girdling by bears.

49. EA fails to consider long-term savings from switching silvicultural practices. Including creating a bear-friendly product label.

To date, data on efficacy of operational use of most silviculture programs is not available to make a projection of long term cost effectiveness. Aside from the EA discussion of cost effectiveness of pruning, the only data on cost effectiveness of silviculture vs costs of bear damage management is a model by Mason and Adams (1989) that indicated that the increases in stand yield resulting from thinning outweighed the costs of bear damage even if 50% of the stand is damaged and 25% of the stand is killed. Information on Mason and Adams study is provided in EA on page 47.

A bear-safe label would have to be developed by the timber industry. The recommendation is noted and will be passed on to timber producers. The development of a Bear-Safe label is outside expertise and authority of WS program. WS could provide support for documentation of damage management practices and technical assistance on nonlethal alternatives under Alternatives 1-4 discussed in EA.

50. EA should include a discussion of the role of bears in ecosystems. Includes removing tree destroying insects, creating open patches in the canopy, creating snags and fallen trees which are habitat for other species, and controlling rodent populations that will damage trees.

WS agrees that bears play an important role in the ecosystem. Ecosystem level functions performed by bears include seed dispersal (Auger et al. 2002, Traveset and Willson 1997), nutrient cycling and dispersal (Backhouse 1999), and habitat alteration through foraging activities such as those discussed in EA in section 1.2.4. Black bears also forage on insect and vertebrate species which might cause damage to trees. The role of bear predation in regulating most of these populations and any corresponding relationship to timber predation has not been documented. However, there is some data indicating that under certain circumstances, bear predation may have a significant impact on elk calf survival (Schlegal 1976).

51. EA ignores EO 13045 regarding the risk to children from dangerous ensnared bears.

Most WS actions to manage bear damage to timber are in extremely remote locations and/or behind locked gates on access roads. WS does not place snares in areas with high recreational use or in close proximity to areas used by children. In the rare instance when it may be necessary to work in an area with high recreational use or in close proximity to dwellings, WS specialists will use cage traps which minimize risk to humans from trapped bear. When placing snares, WS informs the landowner as to the location of the snare and places conspicuous warning signs on entrances to the site.

52. Analysis is biased because of post-project NEPA. EA used to justify actions. Lethal removal must halt until adequate NEPA can be completed. WS failing to comply with spirit of NEPA because NEPA not done at start of project.

Bear damage management to protect timber resources was included in the Animal Damage Control Program, Final EIS (USDA 1997, revised). No significant impacts from the Oregon program were found. The Record of Decision issued from that EIS did not direct local programs to halt pending site specific analyses. The localized information provided from the ongoing program in Oregon was useful in the analysis in the EA as baseline information. Also, the timber industry has stated that lethal removal of bears will continue with or without any action by WS. Therefore, stopping WS's actions will not result in the halt of lethal bear removal.

CEQ, in interpreting the requirement that the "no action" alternative be considered, has provided guidance to federal agencies stating that the "no action" alternative can be interpreted as continuing with an ongoing program initiated under existing legislation and regulations. Because the WS program was initiated in 1931, it is considered an ongoing program. Thus, there is support from CEQ to conclude that the ongoing program would not have to cease until the EA was completed.

53. WS should consider use of stops on snares, padded snares and other techniques as means of reducing injuries to bears from snares.

WS uses stops on snares as a measure to reduce risk to the endangered Columbian white-tailed deer. In this instance the need to protect an endangered species exceeds WS concerns over the operational use of this technique. WS does not use stops as a method for reducing injuries to bears, in part, because a stop set at a small enough diameter to allow WS to maintain full efficacy of the technique is unlikely to substantially reduce the potential for pain and injury to captured bears. A snare with a stop set so that the snare loop is small enough to effectively capture a smaller bear will probably tighten to an extent that can potentially cause swelling and lacerations in larger bears. A snare set tight enough to prohibit the escape of a large struggling bear is likely to be tight enough to cause swelling and injuries in the affected limb.

WS consulted with an ODFW research biologist on the use of stops, specially designed locks, leaving fallen logs within the reach of the snared bear, using car hood springs on snare cables, and plastic tubing on cables (padded snares) as a means of reducing injuries to bears. The consultation revealed that although the specially designed snare locks and plastic tubing may have helped reduce injuries, both strategies increased the rate of bears pulling out of snares (snare failure). In the instance of a research study where bears are released after capture, there are higher tolerances of snare failures in order to reduce risk of injuries. However, for damage management situations where the bear is to be killed after capture, this may not be an acceptable cost, especially given that WS specialists experienced with capturing bears report marked increases in the amount of difficulty and effort associated with capturing a bear that has escaped from a snare. OR WS specialists will start investigating potential of hood springs and leaving logs within the bear's reach as methods for reducing injuries. These suggestions will also be passed on to NWRC as suggestions for formal research.

54. WS has not adequately evaluated the impact of the bear management program on threatened and endangered species, specifically lynx, fisher and wolverine.

WS declared no effect on Canada lynx in our consultation with USFWS (Appendix C). Nationwide, the WS program has never captured a lynx with any of the methods proposed for use in the bear EA. WS uses pan tension systems to preclude the capture of lynx in leg snares used to capture bear. WS dogs used to hunt bear are trained not to follow scent of other species. In the unlikely event that WS dogs happened to encounter a lynx while tracking a bear, lynx can readily climb trees and easily evade the dogs. The loops on body snares are large enough to allow smaller animals to pass through without being caught.

Fisher and wolverines are only federally listed as species of concern, not threatened or endangered species. The WS program to manage bear damage to timber has not captured any fisher or wolverine.

Wolverines are a state listed species. The ODFW concurred with the following conclusions about potential to affect wolverine: "Observations of wolverine in Oregon are rare. Wolverine have been observed in the eastern portions of

the Analysis Area. Most records of wolverine observations are for elevations > 5,000 feet, with some exceptions in winter during years of high snowfall. WS programs to manage bear damage to timber are not conducted in these areas. Additionally, the majority of land within the area specified is owned by the State or Federal government and, as such, is not included in the proposed program to manage bear damage to timber. WS has never captured wolverine in projects to manage bear damage to timber. Consequentially, WS concludes that the proposed program to manage bear damage to timber will have no effect on wolverine populations." Lynx and fisher are not state listed species.

55. Dogs can pose a threat to T&E species (fishers, martin, lynx) and disrupt other species.

The use of dogs to manage bear damage to timber was included in the consultation with the USFWS and ODFW. Neither fishers nor martin are state or federally listed T&E species. Risks to lynx are addressed in USFWS consult. As indicated by the proportion of the Analysis Area where WS works in any given year (EA page) and the relatively low use of dogs to resolve bear timber problems, disruption of wildlife by the use of dogs is likely to be minimal and short term. Also, it is likely that timber producers would continue to employ the use of dogs to pursue and capture bears that damage timber in the absence of involvement by WS. Therefore, if this method presented a risk to other wildlife not anticipated in the analysis in the EA, the risk would likely be similar without involvement by WS.

56. Redaction in the Environmental Assessments for Wildlife Damage Management in the Oregon WS Northwest and Southwest Districts and redaction in Appendix N of the WS Programmatic EIS was an obstacle to understanding and full participation in the NEPA process.

WS has addressed the difficulty with the redaction in Appendix N of the programmatic EIS by providing an example of the use of the Decision Model in this document under section #16 above. The redaction in the Oregon EA's consists primarily of blocking out the source of the data for the bear population estimates. The bear population estimates in the Northwest and Southwest District EA's were obtained with the assistance of ODFW. Redactions were perceived to provide no additional obstacles to comprehension of the documents and participation in the NEPA process. WS is currently working with USDA legal staff to resolve issues like this.

57. Commenter only wants feeding programs to be used for 1 month per year, wants WS, ODF, and ODFW to commit to eventually phasing out feeder use after 15-20 years. Commenter feels feeding programs should only be used if silvicultural practices and habitat management for bear foods are also being done, and does not want any supplemental lethal control used with feeding programs.

For best efficacy bear feeding programs must be established at the time bears start foraging on trees and be made available until bears wean themselves off feed. This period can last up to 4 months. If feeders are removed prematurely, then bears that have acquired the habit of going to the feeder site may turn to the surrounding trees for additional nourishment. Overall damage may be worse than if feeders were never used. In every instance where OR WS has tried feeders without the use of supplemental lethal control, the amount of feed and feeders required increased annually and the bear damage did not necessarily stop, or damage started again after a period of a few years. Eventually, the costs of feed and the diminishing efficacy in reducing damage have resulted in cooperators choosing to use supplemental lethal control or discontinuing feeding altogether. Experts in the use of bear feeding programs note that some sort of supplemental lethal control will be needed to maintain maximum efficacy.

WS reviews the efficacy of its techniques, current data on new techniques, impacts associated with existing techniques, and changes in regulations relating to wildlife damage management annually. It is the assessment of the WS program that bear feeding programs are one of the most effective nonlethal alternatives available for corrective control of bear damage to timber. In the absence of data on substantial adverse impacts associated with the use of bear feeders, WS will continue to keep bear feeding programs as part of its program. The commenter implies that silvicultural practices and habitat management for bear food will eventually resolve bear damage problems and there will be no additional need for feeding or lethal techniques. WS does not concur with this assessment. The EA sections 4.2.1.1 and 4.2.1.2 provide a thorough assessment of the strengths and limitations of these alternatives, including limitations of data on proof of efficacy under operational use.

## Major Issues

Cooperating agencies and the public helped identify a variety of issues deemed relevant to the scope of this EA. These issues were consolidated into the following primary issues that were considered in detail:

1. Relative efficacy of the proposed alternatives,
2. Impact on black bear populations,
3. Impact on nontarget species populations including impact on state and federally listed Threatened and Endangered species,
4. Impact on sport hunting,
5. Sociological issues including humaneness, impact on the public's aesthetic enjoyment of bears, and wildlife values and ethical perceptions of wildlife damage management,
6. Economic costs and benefits of the alternatives.

## Alternatives Analyzed in Detail

Five potential alternatives were developed to address the issues identified above. Five additional alternatives, including the one described above in comment #23 were considered but not analyzed in detail. A detailed discussion of anticipated effects of the alternatives on the issues list above is described in Chapter 4 of the EA. The following summary provides a brief description of each alternative and its anticipated impacts.

- 1) **Alternative 1. Continue the Integrated Wildlife Damage Management Program for Bear Damage to Timber (Preferred Alternative/Current Program/No Action Alternative).** This alternative consists of the current program of technical assistance and operational Integrated Wildlife Damage Management (IWDM) by WS on county and private lands under Cooperative Agreement, and Agreements for Control. This option would include the use of lethal and nonlethal management techniques. Alternative 1 is likely to provide the greatest efficacy in reducing bear damage to timber because it allows full access to all management techniques. At the same time this alternative would not have any significant effect on the black bear or nontarget species populations including state and federally listed threatened and endangered species. WS involvement in lethal removal of bears to reduce damage to timber would have a low magnitude of impact on sport hunting of bears and on bear viewing opportunities. The proposed action would involve lethal removal of bears, and as such, would be perceived as inhumane and unethical by some members of the public. WS is aware that there is opposition to techniques like snares and hunting with dogs, but also believes that these activities are being conducted as humanely and responsibly as practical within the constraints imposed by current technology. To ensure the most professional handling of these issues and concerns, the EA lists policies giving direction toward the achievement of the most humane wildlife damage management program possible. Estimates provided in the EA indicate that this alternative would be cost effective.
- 2) **Alternative 2. Nonlethal Before Lethal Control Program.** This alternative would require that lethal methods would be available for use only if nonlethal methods are tried first, but fail to meet the timber producer's damage management objectives. Any or all of the nonlethal methods described under Alternative 1 could be used or recommended, and in theory, any or all of the lethal methods could be used afterwards. Some timber producers may experience more damage than might have occurred if a full range of damage management alternatives were immediately available, and other timber producers may switch to alternative sources of lethal bear damage management instead of risking increases in damage while nonlethal methods are tried. Members of the timber industry have stated that they would continue to access effective methods for bear damage management, including lethal techniques, in the absence of involvement by WS. The efficacy of non-WS alternatives is likely to be equal or less than that of a WS program depending on the type of alternative selected and the experience level of the individual(s) conducting the damage management. Where nonlethal is effective, WS would take fewer bears and have even lower risk to nontarget species, but non-WS options for lethal control are likely to have similar or greater impacts to bear populations and nontarget species than Alternative 1. This alternative is likely to result in increased feeder use, so it may have a higher impact on sport hunting than Alternative 1 depending on the alternatives selected by producers who drop the WS program. Declines in WS impact on bear viewing opportunities are likely to be offset by increased risk associated with some non-WS alternatives. While some individuals

may consider this alternative preferable because it requires producers to try nonlethal first, it would still be unacceptable and controversial to others because it continues to allow use of lethal methods. There may be increased concerns over the ethics and humaneness related to producer use of non-WS options. Timber producers may perceive this as an unethical restriction of their access to legal management techniques. This alternative is anticipated to have a low impact on bear viewing opportunities similar to Alternative 1. This alternative is likely to be more expensive than Alternative 1. The magnitude of the difference in cost would depend on options selected by producers who drop the WS program.

- 3) **Alternative 3. Only Nonlethal Methods.** Only nonlethal techniques including but not limited to bear feeding programs and recommendations for silvicultural techniques could be used. Nonlethal alternatives are not appropriate or effective in all situations, so this alternative is likely to be less effective than Alternatives 1 and 2. Many timber producers would drop the WS program and seek legal alternative sources for lethal control. Members of the timber industry have stated that they would continue to access effective methods for bear damage management, including lethal techniques, in the absence of involvement by WS. Efficacy of non-WS options would depend on the alternative selected. WS would not take any black bears or nontarget species, but, as with Alternative 2, cumulative risks to black bears and nontarget species would depend on the non-WS alternatives selected by timber producers and are likely to be similar to or greater than Alternatives 1 and 2. Overall impact on sport hunting and bear viewing opportunities would depend on the alternatives selected by producers who drop the WS program. The WS program would be perceived by many as more humane and ethical than in Alternatives 1 and 2 and would be acceptable to opponents of lethal control. However, there are also likely to be higher concerns about non-WS management actions than with Alternatives 1 and 2. Timber producers are likely to perceive this as an unethical restriction of their access to legal management techniques. The WS program is anticipated to be more expensive than Alternatives 1 and 2, but most of the increase would be paid by WS cooperators. Most producers are anticipated to drop the WS program so total costs to timber producers would depend on methods selected by timber producers.
- 4) **Alternative 4. Technical Assistance Program.** Under this alternative, WS would not conduct wildlife damage management in the Analysis Area. The entire program would consist of only technical assistance. Landowners could resolve problems on their own or work with private contractors or sport hunters to resolve their problem. WS would only provide advice on ways to reduce damage to timber. Members of the timber industry have stated that they would continue to access effective methods for bear damage management, including lethal techniques, in the absence of involvement by WS. Efficacy of timber damage management efforts would depend on the management alternative selected by the timber producer. WS would not take any black bears or nontarget species, but, as with Alternative 2, cumulative risks to black bears and nontarget species would depend on non-WS alternatives selected by timber producers and are likely to be similar to or greater than Alternatives 1 and 2. Overall impact on sport hunting and bear viewing opportunities would depend on the alternatives selected by producers who drop the WS program. The WS program would be perceived by many as more humane and ethical than in Alternatives 1 and 2 and would be acceptable to opponents of lethal control. However, there are also likely to be higher concerns about non-WS management actions than with Alternatives 1 and 2. Timber producers are likely to perceive this as an unethical restriction of their access to legal management techniques. WS program would be less expensive because there would be no operational assistance. Overall costs to timber producers would depend on methods selected by timber producers.
- 5) **Alternative 5. No WS Bear Damage Management in the Analysis Areas.** This alternative would terminate the Federal wildlife damage management program within the Analysis Area. Landowners could resolve problems on their own or work with private contractors or sport hunters to resolve their problem. Members of the timber industry have stated that they would continue to access effective methods for bear damage management, including lethal techniques, in the absence of involvement by WS. Efficacy of timber damage management efforts would depend on the management alternative selected by the timber producer and is likely to be similar to or lower than with WS. WS would not take any black bears or nontarget species, but, as with Alternative 2, cumulative risks to black bears and nontarget species would depend on non-WS alternatives selected by timber producers and are likely to be similar to or greater than Alternatives 1 and 2. Overall impact on sport hunting and bear viewing opportunities would depend on the alternatives selected by producers who drop the WS program. There would not be any concerns about the

humaneness of WS actions but there are likely to be higher concerns about non-WS management actions than with Alternatives 1 and 2. Timber producers are likely to perceive this as an unethical restriction of their access to legal management techniques. There would be no WS program costs. Overall costs to timber industry would depend on methods selected by timber producers.

### **Finding of No Significant Impact**

The analysis in the EA indicates that the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of section 102(2)(c) of the National Environmental Policy Act of 1969. Therefore an environmental impact statement will not be prepared. This determination is based on the following factors:

1. The proposed activities could occur in Clatsop, Columbia, Tillamook, Washington, Yamhill, Multnomah, Hood River, Clackamas, Marion, Linn, Polk, Lincoln, Benton, Lane, Douglas, Coos, Curry, Josephine and Jackson counties. Annually, program activities have been conducted on <3.5% of this area. The management of bear damage to timber, as proposed by WS in western Oregon analysis area, is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety. The methods used to manage bear damage to timber are highly target specific and are not likely to affect public health and safety. WS does not use pursuit with hounds or snares in areas where the public is likely to be exposed. No injuries to any member of the public are known to have resulted from WS activities to manage bear damage to timber.
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. The methods proposed for alleviating damages are not land altering and would not otherwise cause any permanent effect on the physical environment.
4. The effects on the human environment are not highly controversial. Although there are some individuals who oppose the use of lethal techniques for managing bear damage to timber, the methods and impacts are not controversial among experts.
5. Based on the analysis documented in the EA, the effects of the proposed program to manage black bear damage to timber on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects or represent a decision in principle about a future consideration. WS's involvement in bear damage management in Oregon could be ended at any time and the environmental *status quo* would remain essentially the same because similar actions by entities not subject to NEPA would occur with similar effects.
7. No significant cumulative effects on the *status quo* for the human environment were identified through this assessment. State law allows for the control or removal of bears by private or other entities not subject to NEPA, and members of the timber industry have indicated that removal of bears will occur with or without involvement by WS. Nevertheless, the total annual removal of bears would not exceed established tolerance levels. Any reductions in bear densities resulting from the removal of individual bears would be short term and localized. Additionally, ODFW population monitoring data indicates that the black bear population in Western Oregon has remained stable to increasing in the presence of the current WS program to manage bear damage to timber (Alternative 1).
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Historic Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historic resources. The Oregon State Historic Preservation Office has concurred that the impacts associated with WS placement of traps are so minimal as to not be an undertaking as defined under Section 106 of the National Historic Preservation Act. WS contacted the Native American tribes within the analysis area to identify cultural issues and no conflicts were identified.
9. The proposed activities will fully comply with the Endangered Species Act of 1973, as amended. The proposed activities would either have no effect or are not likely to adversely affect nontarget Federally or State listed

threatened or endangered species. The USFWS concurred that the proposed action would not be likely to adversely affect the Columbian white-tailed deer (*Odocoileus virginianus leucurus*) or bald eagle (*Haliaeetus leucocephalus*). ODFW concurred that the proposed action would not affect the state listed Aleutian Canada goose, peregrine falcon or wolverine. WS has determined that the proposed activities will have no effect on the Canada lynx and this is supported by the fact that, nationwide, WS has not captured any lynx with the methods proposed for use in this project.

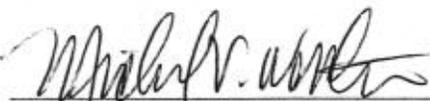
10. There are no irreversible or irretrievable commitments of resources identified by this assessment except for minor consumption of fossil fuels and electrical energy for routine operations.

11. The proposed action would be in compliance with all Federal, State, and local laws imposed for the protection of the environment. Federal, state, and county agencies, and timber producers are authorized under Federal and Oregon law to remove black bears to reduce damage to timber using the same methods as proposed for use by WS.

### Decision

I have carefully reviewed the EA and the input resulting from the public involvement process. I believe the issues and objectives identified in the EA would be best addressed through implementation of Alternative 1. Alternative 1 is therefore selected because (1) it offers the greatest chance of maximizing effectiveness and benefits to timber producers while keeping cumulative impacts on target species populations within the *status quo* for these populations; (2) it has minimal risks to nontarget and T&E species; (3) impacts on black bear populations and nontarget species are likely to be less variable and easier to monitor than with some other alternatives, (4) it has a low magnitude of impact on sport hunting and bear viewing opportunities, and (5) it is cost effective. WS is aware of opposition to the use of snares and hunting with dogs, but also believes that, in the hands of WS specialists, these activities are being conducted as humanely and responsibly as possible. As discussed in the EA, if WS discontinues use of lethal methods, these methods will still be available to and used by timber producers. Use of these methods by alternative sources may not be as effective, selective or humane as methods used by WS. WS will continue to use an IWDM approach in compliance with all the applicable standard operating procedures listed in Chapter 2 of the EA.

For additional information regarding this decision, please contact Dave Williams, USDA-APHIS-WS, 6135 NE 80<sup>th</sup> Ave., Suite A8, Portland OR 97218, telephone (503) 326-2346.



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USDA-APHIS-WS Western Region

4-11-03

Date

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