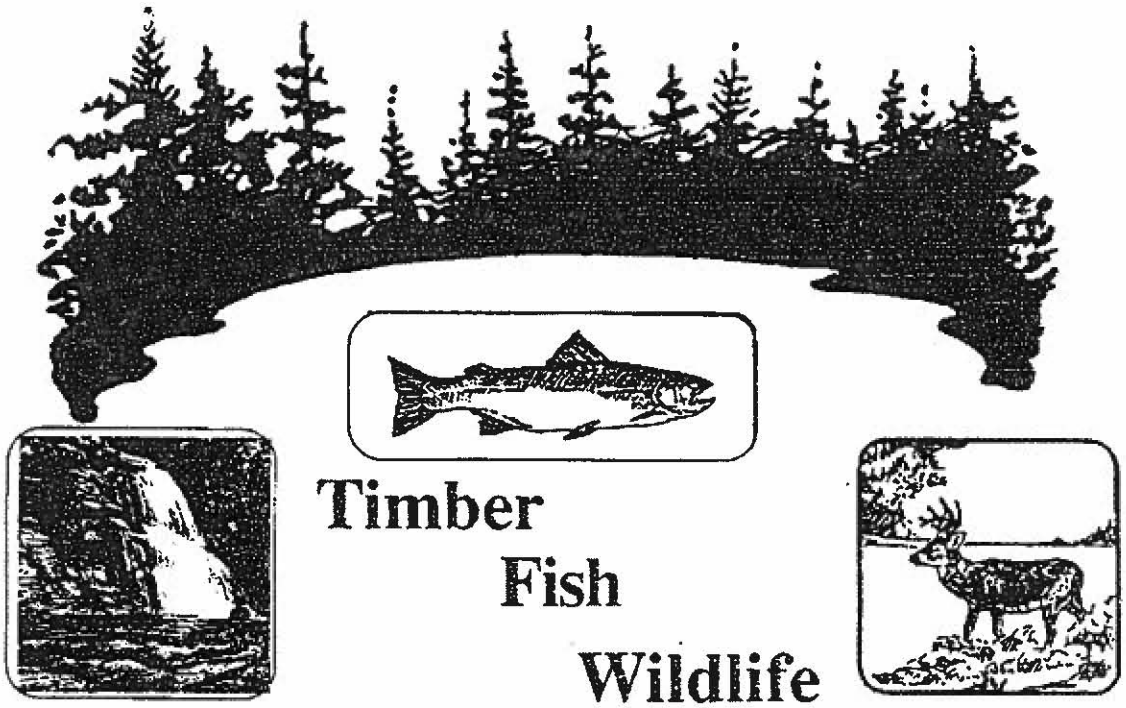
TIMBER/FISH/WILDLIFE

WILDLIFE ACTION PLAN

accepted by
The T/F/W Policy Group
27 March 1990



Includes the following documents:

TFW Policy GroupAction Items
Wildlife Action Plan
Wildlife Protection Issue Paper
Wildlife Issues from T/F/W Second Annual Review

FOREWORD

This document is the result of many intense working meetings spread over several months. During that period, the TFW participants came to understand each other's positions and perspectives much better.

The issues didn't go away, but they came into much clearer focus.

There are four sections to this document:

> TFW Policy Group Action Items

> Wildlife Action Plan

> Wildlife Protection Issue Paper

> Wildlife Issues from the TFW Second Annual Review.

The Policy Group adopted the Action Items on 27 March, following their adoption of the Wildlife Action Plan on 30 January. The issue paper and the Second Annual Review provide necessary background to the first two sections.

PTH

TFW POLICY GROUP ACTION ITEMS
from the
WILDLIFE ACTION PLAN
(Approved by Policy Group 27 March 1990)

Introduction

The working task force reached consensus on items A through G and L. We have recognized that items G through J may best be considered through a comprehensive, integrated process for forest resource management.

L 1 — Policy Group: Provide clear message on wildlife.

The TFW Policy Group recognizes that the managed forest is a changing mosaic of habitats which, in turn, affects wildlife populations. The intent of the Policy Group is to protect Washington's wildlife and to allow management of forests and harvest of timber throughout Washington. By moving forward on the Wildlife Action Plan, the Policy Group is providing a clear message on wildlife and establishing a process to integrate wildlife management into forest resource management.

A 1 — Define wildlife protection

Wildlife protection means maintaining species in a wild state in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created. This does not mean maintaining all individuals of all species at all times. In some cases, it may be sufficient to assure that a species will usually be found in certain regions across the state. In other cases, it may be necessary to assure protection to each individual. Protection needs to be species-specific and goal-oriented. Protection requires evaluating population levels, species by species, within their geographic distribution across the state; setting goals for those populations, including their habitats; and managing for those goals.

B 1 — Interpret and clarify the TFW wildlife goal statement

TFW Wildlife Goal Statement: "The wildlife resource goal is to provide the greatest diversity of habitats (particularly riparian, wetlands and old growth), and to assure the greatest diversity of species within those habitats for the survival and reproduction of enough individuals to maintain the native wildlife of Washington forest lands."

The above wildlife goal statement is intended to be interpreted as follows:

> The term "diversity" refers to "native wildlife of Washington forest lands" being maintained both in abundance and in species richness, without substituting common species for rare species. Thus, diversity implies quality as well as quantity.

> Diversity includes habitat created through forest management as well as habitat created through natural succession and other natural events.

> The phrase "particularly riparian, wetlands and old growth" is not meant to exclude other habitats; rather, the intent of the goal statement is to maintain a variety of forest communities in a landscape mosaic.

> The phrase "enough individuals to maintain" means protecting wildlife according to the definition of wildlife protection.

> The term "native" does not exclude species that have been introduced and are important to the people of Washington.

D 1 — Improve process of conditioning FPAs

After the Policy Group has accepted definitions for A1 and B1, we recommend the Administrative Committee be asked to review the current conditioning of FPAs to determine what changes, if any, are necessary to achieve the Wildlife Goal within the context of all TFW goals. These may include modification of DNR's conditioning authority, implementation in the field, compliance, and revision of the WAC, the Forest Practices Board Manual, and the DNR conditioning guidelines. In the process of accomplishing this, the Administrative Committee shall also look at the impact of any changes on the TFW Timber Goal.

E 2 — Change WAC: 30-day review of Class IIs with PIs

It is the intent of the TFW Agreement that Priority Issues be given a 30-day review period. We recommend that the Forest Practices Board change the WAC to provide 30-day review periods for all forest practices that are priority issues. We suggest that DNR develop appropriate language for TFW consideration before submitting it to the Forest Practices Board.

G 1 and G 2 — Clarify the concept of UMAs and encourage other wildlife benefits.

The intent of the TFW Agreement, with respect to UMAs, is to provide diversity of habitat to benefit wildlife. Habitat diversity can be provided by many types of forest patches, and other landscape features. (A forest patch is a cluster of trees outside a regulated RMZ and structurally different from the surrounding managed forest.)

Emphasis is currently on the Agreement guidelines, which contain certain goals for rotation and acreage. Emphasis should be (1) on the fact that landowners are providing wildlife habitat diversity; and (2) on whether there is value to wildlife in what is left. The importance of reporting UMAs is so they can be studied to determine how well they are providing a benefit to wildlife. Landowners should be encouraged to check the "UMA" box on the forest practices application so that the wildlife benefits being provided can be studied for effectiveness.

Other wildlife benefits now provided by landowners are not recorded as UMAs. These benefits include providing forest patches, road closures, spring developments, silvicultural prescriptions, and similar activities to meet specific wildlife objectives. These need to be acknowledged. We propose such benefits be recorded on FPAs separate from the UMA item.

In addition, we propose that landowners be encouraged to seek assistance at the planning stage by coordinating with a wildlife biologist to plan wildlife benefits. Landowners can also receive assistance by checking the "Landowner Assistance" box at the top of the FPA to plan for wildlife benefits.

Items G through J

We recommend that items G, H, and J be addressed within the broad context of integrating wildlife management into forest management throughout Washington. We also recommend that this task force continue to address these items in depth to develop a comprehensive, integrated management approach.

WILDLIFE ACTION PLAN

Wildlife protection and management have been major issues within the Timber/Fish/Wildlife (TFW) process. In the spring and summer of 1989, the Wildlife Steering Committee developed a Wildlife Protection Issue Paper to identify these issues and recommend possible alternatives to address the problems. At the TFW Second Annual Review, a Wildlife Work Session identified other concerns not raised in the issue paper. At the same time, the Department of Wildlife (WDW) announced it was planning a study to address some of the issues raised.

Although the Administrative Committee (Admin) did not reach consensus on all points in the issue paper, the paper was forwarded to the Policy Group (Policy) for discussion at its 11 December 1989 meeting. Policy assigned an ad hoc task force to identify responsibility for addressing the wildlife issues and agreed to make it an action item at its 30 January 1990 meeting. The task force met on 19 December with Peter Haug (WDW) serving as facilitator, and Bob Gustavson (WFPA), Ken Hires (DNR), Lee Hoppis (Yakima Nation), and Tom Shoemaker (Audubon) as participants. The group produced a draft Wildlife Action Plan for discussion at the Admin meeting 17 January.

At the 17 January meeting, Admin did not reach consensus on the Wildlife Protection Issue Paper, but Admin did reach consensus on the Wildlife Action Plan. On 30 January, Policy adopted the action plan as a consensus document, with the Wildlife Protection Issue Paper as a background document.

This Wildlife Action Plan summarizes, in a list of action items, recommendations from the issue paper and the work session. The attached matrix identifies which action items should be addressed by the various TFW participants or committees. Items are listed in the same order as in the issue paper and the annual review working sessions. When reviewing this plan, those documents need to be consulted for a full explanation of each action item and its background. Items A through J are from the issue paper; items K through M are from the work session. Numbers in the matrix identify who has responsibility for an action item and in what sequence. For example, action item A2 is initiated by WDW, but is reviewed by Admin and Policy in that order.

RECOMMENDED ACTION ITEMS

A. Definitions

1. Define wildlife protection.
2. Clarify which wildlife habitats and species need special management considerations within the context of forest practices.

B. Adequacy of TFW Wildlife Goal Statement

1. Interpret and clarify the TFW wildlife goal statement.

C. Evaluating Wildlife Resource Protection

1. Develop habitat objectives for wildlife and evaluate how well the wildlife resource is being protected under TFW.

D. Conditioning FPAs

1. Clarify and implement consistently the process of conditioning Forest Practice Applications.

E. Priority Issues

1. Clarify and implement consistently the priority issues process.
2. Change the WAC to provide options for 30-day review of Class II forest practices that are priority issues.

F. Implementation of Snag/Woody Debris Management

1. Develop information and education programs with landowners, L&I, WDW, and DNR on snag and woody debris management of demonstrate importance of this habitat component.
2. Develop clearer guidelines and a process for working with L&I on the ground (as with ID teams) for leaving safe snags.
3. Encourage operators and landowners to use RMZs and UMAs for greater snag management opportunities.
4. Develop snag management recommendations and work with L&I for implementation.
5. Provide incentives for landowners to protect snags.

G. Establishment of Upland Management Areas

1. Clarify the concept of UMAs to facilitate implementing the intent of the TFW Agreement.
2. Develop a mechanism to encourage landowners to establish and report UMAs.

H. A Landscape Perspective for Wildlife

1. Establish mechanisms to maintain, to the greatest extent possible, a balanced distribution of forest age classes in the managed landscape.
2. Pursue a landscape approach in managing forests.
3. Develop mechanisms for integrating identified, prioritized habitat protection needs as a part of timber management plans outside specified protection zones, such as managing some level of within-stand diversity throughout managed forests.
4. Establish ways to recongnize or credit landowners who assist in managing and protecting wildlife through creative silviculture.
5. Evaluate environmental impacts of conversion of oak woodlands into other forest types.

I. Inadequate Mechanisms for Implementing TFW

1. Establish mechanisms for prioritizing workloads.

J. Improving Human Relationships

1. Establish mechanisms to improve interpersonal communication skills, such as conflict resolution, problem-solving, sensitivity training, and similar techniques for all TFW participants.
2. Encourage TFW land managers to invite other TFW participants to cooperate in specific wildlife management projects.
3. Encourage more informal local interactions among TFW participants, such as regular breakfast meetings, "tailgate" sessions, etc.

K. CMER Wildlife Studies

1. Review CMER workplan for adequacy of wildlife research. [short-term]

L. Policy Statement on Wildlife

1. Provide a clear message from Policy Group on wildlife. [long-term]

M. Third Annual Review

1. Plan now for revisiting these wildlife issues at the Third Annual Review [long-term]

Action Items		FOOTNOTES	FPB	POLICY	ADMIN	FIC	CMER	WDW	DNR	WC
WILDLIFE PROTECTION ISSUE PAPER		(1)						(9)		(9)
A 1	Define wildlife protection		2	1						
A 2	Identify priority wildlife habitat and species		4	3	2			1		
B 1	Interpret and clarify the TFW wildlife goal statement			1	2	3				
C 1	Develop habitat objectives for wildlife			3	2			1		
C 2	Evaluate protection of wildlife under TFW	(2)		3	2	1	1			
D 1	Improve process of conditioning FPAs	(3)		1						
E 1	Improve priority issue clarity and consistency				2	1			3	
E 2	Change WAC: 30-day review of Class II's with PIs		3	1					2	
F 1	Improve I&E on snag and woody debris management									
F 2	Develop process for working with L&I to leave safe snags									
F 3	Encourage use of RMZs/UMAs for better snag management	(4)			1					
F 4	Improve ways to manage snags; implement through L&I									
F 5	Provide incentives for landowners to protect snags									
G 1	Clarify the concept of UMAs			1						
G 2	Encourage landowners to establish and report UMAs									
H 1	Balance distribution of forest age classes									
H 2	Pursue a landscape approach in managing forests	(5)		1						
H 3	Integrate wildlife habitat in timber management plans									
H 4	Credit timber landowners who manage/protect wildlife									
H 5	Evaluate impacts of oak woodlands conversion	(6)		3	2			1	1	
I 1	Establish mechanisms for prioritizing workloads	(7)			1					
J 1	Improve interpersonal skills among TFW participants									
J 2	Land managers: invite cooperative wildlife management			1						
J 3	Encourage informal interactions among TFW participants									
SECOND ANNUAL REVIEW WILDLIFE WORKING SESSION										
K 1	Review CMER workplan for adequacy of wildlife research			3	2		1			
L 1	Policy Group: Provide clear message on wildlife	(8)		1						
M 1	Plan for wildlife issues discussion at the 3rd Annual Review				1					

FOOTNOTES FOR ACTION ITEM MATRIX

[1] Numbers in the matrix indicate sequence. For example, item A2 is initiated by WDW, but then goes through Admin. and Policy for TFW review.

[2] Short-term (FIC) and long-term (CMER).

[3] Action Items A and B need to be completed before this can be done.

[4] At its 17 January 1990 meeting, Admin. agreed to appoint an ad hoc task force to deal with the snag issue.

[5] Recommend that a Policy Group ad hoc task force be appointed to deal with these.

[6] Incorporate H5 into A2, and ask WDW to include in its study. DNR will work with WDW to deal with the short terms aspects of this issue.

[7] This is not limited to the wildlife issue, but what happens to wildlife depends on other priorities.

[8] Policy Group should act on items listed here in a timely fashion.

[9] Where appropriate, the Wildlife Commission will be involved in action items.

TIMBER/FISH/WILDLIFE
WILDLIFE PROTECTION ISSUE PAPER

prepared for

The T/F/W Administrative Committee

by

The Wildlife Steering Committee
of the
TFW Cooperative Monitoring, Evaluation, and Research Program

Peter Haug, Washington Department of Wildlife
Coordinator/Editor

Tim Cullinan, Audubon Society
Chairman, Wildlife Steering Committee

James Alto, Colville Confederated Tribes
Robert Anderson, Weyerhaeuser Company
Robert Bicknell, Washington Department of Wildlife
Eric Hanson, Yakima Indian Nation
Lorin Hicks, Plum Creek Timber Company
Deborah Lindley, Washington Department of Natural Resources
Lisa Lombardi, Washington Environmental Council
John Mankowski, Washington Department of Wildlife
David Whitwill, Boise Cascade

21 November 1989

PREFACE

This document is the result of many intense working meetings spread over several months. During that period, we came to understand each other's positions and perspectives much better. The issues didn't go away, but they came into much clearer focus. TheWildlife Steering Committee hopes that this clarity is sufficient to assist the Forest Practices Board and Timber/Fish/Wildlife (TFW) cooperators in choosing alternatives so as to realize the wildlife goal of the TFW Agreement.

The paper was presented to the TFW Administrative Committee on 13 October 1989 and again on 20 November 1989. This draft contains revisions inserted at those meetings.

We would also like to thank the following for their comments on early drafts: Rollie Geppert, Arden Olson, Michael Reed, John Rohrer, William Weiler, and Terry Williams.

EXECUTIVE SUMMARY

This paper responds to a request from Public Lands Commissioner Brian Boyle, on behalf of the Forest Practices Board, about the adequacy and effectiveness of wildlife protection, and progress being made, under the TFW Agreement. The paper analyzes issues and offers alternatives and recommendations for further consideration.

The major issue of wildlife protection revolves around the adequacy and effectiveness of the TFW Agreement, the FPB Rules and Regulations, and the FPB Manual in meeting the intent of the Forest Practices Act to afford protection to the wildlife resource, i.e., how adequate these instruments are in meeting that intent.

Section II, Background, discusses how interactions between wildlife and forest practices have been dealt with under three sets of circumstances: Pre-TFW Conditions, Programs and Activities Complementary to TFW, and TFW Influences on Wildlife Protection. Section III, Issues, provides analysis of current status, alternatives, and recommendations.

To analyze the major issue of wildlife protection, the Wildlife Steering Committee (WSC) identified ten component issues related to forest practices. Each issue is summarized below, with WSC recommendations in boldface type.

A. Definitions

The WSC agreed that definitions of two key terms used in the TFW process are unclear. These are:

> "wildlife protection" and
> "critical wildlife habitats."

Wildlife Protection: Request the Wildlife Commission, Forest Practices Board, and TFW Policy Group to define the term together.

> The Wildlife Steering Committee suggests the following as a start: "Protection," at a minimum, means maintaining species that occur naturally in Washington, as reflected by two components: population numbers and geographic distribution. This does not necessarily mean protecting all individuals of all species at all times. It does mean evaluating the need for protection, species by species, across the state. In some cases, it may be sufficient to assure that a species will usually be found in certain regions across the state. In other cases, it may be necessary to assure protection to each individual. The concept of protection needs to be species-specific and goal-oriented.

Critical Wildlife Habitats:

> Clarify the intent of WAC 222-16-010(11) to clearly distinguish wildlife habitats and species of special concern and how they will be managed in the field.

B. Adequacy of TFW Wildlife Goal Statement

There are two parts to this issue:

1. Definition of Wildlife Protection Until "wildlife protection" is defined, it cannot be determined whether the TFW wildlife goal statement is adequate to meet the intent of the RCW.

2 General Misunderstanding Language in the TFW wildlife goal statement is not understood the same way by all participants, with respect to which habitats are included and what "enough individuals to maintain" implies.

The TFW Policy Group is encouraged to provide to the FPB an interpretation of the TFW goal statement that is clear and agreeable to TFW participants, and to communicate it to TFW participants.

> As an example, the WSC agrees that "particularly riparian, wetlands and old growth" is not not meant to exclude other habitats, and that the term "enough individuals to maintain" does not necessarily mean minimum viable populations.

C. Evaluating Wildlife Resource Protection

Currently, methods are not in place for analyzing, measuring, or otherwise determining the effectiveness of the Agreement, Act, regulations, and manual in protecting the wildlife resource. The major question is how to evaluate the TFW Agreement in terms of wildlife management and protection. Although some data are coming in from the CMER program, it is too early to know how well the evaluation system is working. Before this process can be successful, a clear definition of "wildlife protection" is necessary to develop objectives and evaluation criteria.

Request WDW to develop habitat objectives for wildlife, in consultation with TFW participants; and

Encourage the Cooperative Monitoring, Evaluation, and Research (CMER) committee to expedite the process for analyzing, measuring, and otherwise evaluating how well the wildlife resource is being protected under TFW.

D. Conditioning FPAs

The FPA conditioning process is not always adequate to protect the wildlife resource, for several reasons. Although DNR has issued conditioning guidelines, questions remain about their adequacy with respect to wildlife.

Have the TFW Policy Group address the process of conditioning and present their findings to the FPB, once a definition of wildlife protection has been agreed on. The FPB should then clarify their intent, recognizing the need of field people to have both guidance and adaptability, and make any necessary changes in regulations to reflect the FPB's intent.

E. **Priority Issues**

There are two aspects to this issue: Inconsistent implementation and Class II priority issues.

Procedures for identifying priority issues and for calling ID teams on wildlife priority issues are not followed consistently in the field among DNR regional offices, despite DNR guidelines. As a result, wildlife issues are not always addressed in the field.

Suggest TFW seek clarification of DNR procedures for implementing priority issues consistently by all TFW cooperators.

When Class II forest practice notifications contain a Priority Issue, the five days allotted for approval can be inadequate for review.

Change WAC 222-20-020(1) to provide options for 30-day review of Class II forest practices that are priority issues.

F. Implementation of Snag/Woody Debris Management

The relationship between snag and woody debris habitat, and both game and nongame wildlife species is well documented. Yet, despite DNR's ability to condition FPAs to protect snags, there is a perception that this crucial habitat component is not receiving adequate protection in many parts of Washington.

Develop information and education programs with landowners, L&I, WDW, and DNR on snag and woody debris management to demonstrate importance of this habitat component. Develop clearer guidelines and a process for working with L&I on the ground (as with ID teams) for leaving safe snags. Encourage operators and landowners to use RMZs and UMAs for greater snag management opportunities. The TFW Policy Group should encourage FIC to develop snag management recommendations and work for implementation with L&I. Provide incentives for landowners to protect snags.

G. Establishment of Upland Management Areas

It is perceived that UMAs are not being left to the extent expected in the TFW Agreement, partly due to landowner reluctance and partly because they are not designated prior to harvest.

Have the TFW Policy Group clarify the concept of UMAs to facilitate implementing the intent of the TFW Agreement. This may include discussion of areas retained for a period less than two rotations. Develop a mechanism to encourage landowners to establish and report UMAs.

H. A Landscape Perspective for Wildlife

A relatively new discipline of landscape ecology is placing more emphasis on biodiversity. This issue contains four interrelated parts that address diversity: Between-stand and within-stand habitat diversity; integrating wildife benefits into active timber management; conversion of habitat types; and roads. There is concern that cumulative effects of maintaining entire landscapes in low-diversity stands will result in impoverished wildlife resources over the long term, despite the establishment of RMZs and UMAs. The conversion issue at present applies only to oak woodlands. The issue of roads was raised, but not addressed in depth.

For habitat diversity, **establish mechanisms to maintain, to the greatest extent possible, a balanced distribution of forest age classes in the managed landscape. Pursue a landscape approach in managing forests, incorporating results of CMER Project 17, Wildllife Use of Managed Forests, when available.**

For active timber management, **develop mechanisms for integrating identified, prioritized habitat protection needs as a part of timber management plans outside specified protection zones, such as maintaining some level of within-stand diversity throughout westside managed forests. Establish ways to recognize or credit landowners who assist in managing and protecting wildlife through creative silviculture.**

For habitat type conversion, **the FPB should evaluate environmental impacts of conversion of oak woodlands into other forest types.**

I. Inadequate Mechanisms for Implementing TFW

Because most field personnel time in WDW and DNR is spent processing FPAs and visiting sites for priority issues, they have little time for advance interaction with landowners, such as harvest and road reviews, educational programs, and on-site visits prior to application.

Establish mechanisms for prioritizing workloads.

J. Improving Human Relationships

Although many relationships among TFW participants have generally been constructive, exceptions have occurred which underscore the need for culturing and encouraging positive interaction. If the human relationship aspect of the wildlife issue can be adequately addressed, it is likely that many concerns outlined above would be reduced, and the wildlife goal of TFW would be successfully attained.

Establish mechanisms to improve interpersonal communication skills, such as conflict resolution, problem-solving, sensitivity training, and similar techniques for all TFW participants. Encourage TFW land managers to invite other TFW participants to cooperate in specific wildlife management projects. Encourage more informal local interactions among TFW participants, such as regular breakfast meetings, "tailgate" sessions, etc.

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INTRODUCTION

This paper is a response to a request from Public Lands Commissioner Brian Boyle as a result of a motion of the Forest Practices Board (FPB), February 8, 1989, adopting "ranked priorities for attention during 1989" for seven "forest practices issues." The commissioner requested the Timber/Fish/Wildlife (TFW) Policy Group and Administrative Committee to "inform the Board as to any progress being made" in the area of "wildlife protection: adequacy, effectiveness, given existing degree of adequacy." [1]

The TFW process offers the opportunity to cooperatively address issues and develop solutions. Accordingly, this paper was assigned to the Wildlife Steering Committee (WSC) of the Cooperative Monitoring, Evaluation, and Research (CMER) program for completion and presentation to the Administrative Committee. The WSC examined this request by reviewing the legal and administrative language directing protection of wildlife and then reviewing the TFW Agreement itself. This paper analyzes the issues and offers alternatives and recommendations for further consideration.

Legislative Mandate

The Washington RCW states [2]:

"(1) The legislature hereby finds and declares that... coincident with the maintenance of a viable forest products industry, it is important to afford protection to . . . wildlife. . .

"(2) The legislature further finds and declares it to be in the public interest of this state to create and maintain through the adoption of this chapter a comprehensive statewide system of laws and forest practices regulations which will achieve the following purposes and policies: . . .

"(b) Afford protection to forest soils and public resources by utilizing all reasonable methods of technology in conducting forest practices."

"'Public resources' shall mean. . . wildlife. . ."

TFW Agreement

The TFW goal for wildlife reflects the legislative intent:

"The wildlife resource goal is to provide the greatest diversity of habitats (particularly riparian, wetlands and old growth), and to assure the greatest diversity of species within those habitats for the survival and reproduction of enough individuals to maintain the native wildlife of Washington forest lands." [3]

I. STATEMENT OF THE ISSUE

The major issue of wildlife protection revolves around the adequacy and effectiveness of the TFW Agreement [3], the FPB Rules and Regulations, and the FPB Manual [4] in meeting the intent of the Forest Practices Act to afford protection to the wildlife resource, i.e., how adequate these instruments are in meeting that intent. To analyze this issue, the WSC identified ten component issues related to forest practices.

NOTE: The WSC agreed it would be easier to deal with each of the ten issues in its entirety. Thus, Section III, Issues, combines a discussion of each issue's current status with its alternatives and recommendations, rather than separating status and alternatives into two different sections.

II. BACKGROUND

This section sets the context for the component issues described in Section III. This background can be divided into three categories: Pre-TFW Conditions, Programs and Activities Complementary to TFW, and TFW Influences on Wildlife Protection.

Pre-TFW Conditions

Prior to the TFW Agreement there were few systematic approaches to integrating wildlife concerns into state and private land management planning. Outside the Washington the Department of Wildlife (WDW), wildlife biologists were employed by a few larger timber companies and the Department of Natural Resources (DNR).

Wildlife biologists from the timber industry provided significant input when dealing with the federal Endangered Species Act, in cooperative efforts such as the Bald Eagle Rules and Guidelines, and in developing internal guidelines to manage specific components of wildlife habitat, such as snags. At the state level the Forest Practices Memorandum of Understanding between the DNR and WDW was a very visible result of the effort to integrate wildlife concerns.

Neither case integrated wildlife into the broad spectrum of land management planning, however. The WDW was most interactive with the landowner after a Forest Practice Application (FPA) was submitted and approved for an area of particular interest, such as mule deer winter range or when a species of special interest to the state was present in the general vicinity of the forest practice, as indicated by the Total Resource Access Cross-reference (TRAX). This established lines of communication between WDW biologists and landowners, lines that in some cases are still the most effective. However, input from WDW was reactive rather than pro-active.

In addition to these lines of communication, many major timber managers were already working with state agencies to integrate wildlife concerns, such as streamside management zones, snag management (Snag MOU), hardwood management, road closure agreements, and large block harvest management. Although not universal, these efforts were broad enough to provide a foundation upon which wildlife could be made an integral part of land management planning.

Programs and Activities Complementary to TFW

In addition to wildlife benefits arising from the TFW Agreement (discussed below), many TFW participants are working independently to improve their efforts at wildlife protection.

Department of Wildlife

As chief steward for wildlife and game fish in the state, WDW currently is improving and refining methods by which it designates fish and wildlife species and habitats of concern. One of these efforts involves an ad hoc task force of WDW and outside interests to establish criteria for designating state endangered, threatened, and sensitive species. The task force includes representatives from industry, agriculture, Indian tribes, environmental groups, local governments, and state agencies. It expects to complete the proposed rules by the end of 1989.

Within WDW, several recent initiatives have joined existing programs to identify fish and wildlife species and habitats of special interest or concern. A summary of these efforts follows:

> Habitat Management Guidelines - About 60 species are being evaluated for status as state endangered, threatened, or sensitive. Non-regulatory guidelines are being drafted by WDW for managing the habitat of these and other species of concern.

> Nongame Data System - For a decade, the WDW Nongame Data System has provided information about wildlife species of concern to DNR's TRAX system in a cooperative effort with DNR's Natural Heritage Program. Information in TRAX includes known locations of species of concern.

> Wildlife Areas - WDW manages 800,000 acres of land for wildlife in WDW-owned or controlled Wildlife Areas. All wildlife habitats on these areas currently are being mapped for inclusion in the WDW geographic information system (GIS), and standards are being developed for habitat and species management zones.

> Nongame Strategic Plan - WDW's Nongame Program is responsible for managing 406 of the total 497 recognized species of birds, mammals, fishes, reptiles, and amphibians in Washington. A strategic plan now being drafted will implement the primary goal of maintaining native nongame wildlife at self-sustaining population levels to perpetuate wildlife diversity in Washington.

All these efforts share a common purpose: to manage wildlife in order to meet WDW's legislative mandate. Although WDW is working on these within the context of its mandate, there is a need for wide acceptance of the methodology. The TFW process provides consensus-building mechanisms for generating this acceptance.

Department of Natural Resources

The DNR is revising its policy for protecting and enhancing wildlife habitat on state lands. This revision will include direction for integrating wildlife habitat management into timber management, protecting threatened and endangered wildlife species, and guidelines for establishing and managing UMAs. Guidelines are being developed to improve management of dead and defective trees on state forests. DNR policy and guidelines for managing trust land riparian zones require that RMZs be designed and managed to benefit fish, wildlife, water quality, and aesthetics as the priority.

DNR is in the process of developing management plans on all large basins or blocks of state forest land. Two to three block/drainage plans are scheduled for completion biennially. Identification of key wildlife issues and integration of habitat management are required elements of all block/drainage plans. The primary goal of wildlife habitat management is to provide long-term habitat diversity from a landscape perspective.

DNR supports wildlife research conducted by others such as the Colockum Elk Study (WDW), the Cooperative Fish and Wildlife Research Unit (University of Washington), and cooperative inventory and monitoring of selected spotted owl sites. In 1985-86, DNR conducted a cooperative survey of spotted owls in the Olympic National Park, and recently completed a two-year cooperative inventory of spotted owls on state trust lands in the Hoh and Clearwater river basins.

The Natural Heritage Program is responsible for development and maintenance of the Natural Area System. This system preserves examples of important terrestrial and aquatic ecosystems, habitats for rare and vanishing species, and unique geological features in an effort to protect Washington's natural diversity. Additionally, the Registry Program works to obtain voluntary protection of natural heritage resources by landowners. DNR also participates in public education programs such as Project Learning Tree, Keep Washington Green, and Animal Inn. In 1988, DNR and the Department of Labor and Industries (L&I) jointly developed a Wildlife Tree Retention and Safety Education program which has been given to industry, tribes, DNR, L&I, and US Forest Service field personnel throughout the state.

In June, 1988, Brian Boyle created the Commission on Old Growth Alternatives for Washington's Forest Trust Lands to advise DNR on future management of old growth forests on state trust lands on the western Olympic Peninsula. The commission completed its task in June, 1989. Recommendations include:

> Establish the Olympic Experimental State Forest;

> Create the Olympic Natural Resources Center;

> Create an independent sustained yield unit on the western Olympic Peninsula;

> Defer 15,000 acres of old growth forest to protect the spot-ted owl; and

> Reserve permanently up to 3,000 acres of special lands which possess unique values.

Timber Industry

Industrial forest landowners in Washington have worked independently and in cooperation with other interests to address wildlife concerns. Many of these projects began before the TFW program and others have been enhanced by the TFW influence. Industry has conducted and sponsored independent, cooperative, and contract research efforts on wildlife-forest management interactions. Topics include big game cover-forage relationships, threatened and endangered species-habitat associations and management, and development of census techniques. Active management programs include cooperative road management, wildlife inventories/surveys, site-specific management for selected wildlife species, water development projects, and internal wildlife management training.

Supplemental to TFW, discussions were initiated with tribal and other wildlife interests to address basin level concerns in several areas, including the Yakima, Taneum, Nisqually, and Cowlitz drainages.

TFW Influences on Wildlife Protection

TFW Agreement

Although wildlife habitat has not been defined as a public resource [5], the wildlife goal in the TFW Agreement [3] recognizes diverse habitat as a source of diverse wildlife. The Agreement provides specific opportunities to establish this diversity through administrative procedures, voluntary cooperation, and rule changes adopted by the FPB. TFW encourages innovative problem solving via voluntary programs, increased dialogues, and alternate plans. These include:

> Riparian Management Zones (rule change) - The Agreement establishes Riparian Management Zones (RMZ) "to provide protection for wildlife, fish, and water quality while allowing forest management activities to occur at reduced levels and under controlled operating conditions." Those conditions are spelled out in the FPB Rules and Regulations and the FPB manual. They are mandatory, unless overridden by agreement of an interdisciplinary (ID) team, an alternate plan, or a Resource Management Plan (RMP). [6]

> Upland Management Areas (voluntary) - The Agreement states: "Wildlife needs diversity in plant communities to meet their daily and seasonal needs. Reductions in diversity of habitats (size, species, or age) result in losses of wildlife." Although not mentioned in WAC 222, UMAs are defined in the FPB Manual as a method "to create increased diversity in forest lands through a voluntary process..." The manual further states: "Upland Management Areas (UMAs) provide increased wildlife habitat diversity by providing habitat conditions which would not occur in timber harvest areas. They also provide areas of shelter, security for travel, and other activities for wildlife species associated with harvest areas. UMAs also are locations where snags and downed logs can be provided and future snags recruited. The increased habitat diversity provided by UMAs results in an irregular scattering or dispersion of habitats for a broad spectrum of wildlife species... The landowner and the Washington Department of Wildlife should work together for the mutual benefit of wildlife and landowners in establishing upland management areas." [7]

> Interdisciplinary Teams (rule change) and Priority Issues (administrative procedure) - The ID team is "a group of varying size comprised of individuals having specialized expertise, assembled by the [DNR] to respond to technical questions associated with a proposed forest practice activity." [8] ID teams are used to deal with "priority issues," which are discussed extensively in the Agreement, but which are not mentioned in WAC 222 or the FPB Manual. ID teams include "habitat biologists in the Departments of Fisheries and [Wildlife] whose primary responsibility is on-site inspection of forest practices," as well as other technical experts [9]. The intent of this approach was "to identify the significant [forest practice] applications through the priority issue program, focus their review and attention on the problem areas, condition these critical applications as necessary to avoid or lessen adverse impacts, expedite the reviews, and to impose the least burden possible on all parties." [10]

> Resource Management Plans (addressed by rules, voluntary, and administrative procedure) - A method described in the Agreement is being implemented for "cooperative voluntary resource management planning among forest landowners, governmental agencies, affected Indian tribes, and environmental groups which would result in the development of plans which might be used as an alternative to the forest practice regulations in achieving the purposes and policies set forth in the [Forest Practices] act." [11]

> Road Management (voluntary, administrative procedure) - The Agreement directed DNR to "develop a comprehensive mapping system of all forest land roads on state and private lands which is accessible to other parties. This system will include information on other resources, such as soils, wildlife, and fisheries resources, so that potential resource conflicts can be identified.... The DNR, agencies, tribes, industry and the public will promote road closure plans which take into account the needs of timber, fish, and wildlife resources. It is recognized that road access management is a very important component of wildlife management issues. The participants agree to pursue the possibility of state-wide or regional road management programs which provide for a sharing of costs." [12]

The Agreement also recognized that "the status of orphaned roads under the Forest Practices Act is unclear," and that "they were constructed with various levels of quality and may, in some instances, pose a risk to human health and safety, capital improvements, aquatic resources, and wildlife. There is an opportunity . . . to begin a program of putting these roads to bed, addressing the liability issues and reducing risks." [13]

> Old Growth - The Agreement recognized the extreme sensitivity of old growth for both wildlife and the timber industry: "Wildlife representatives identified large contiguous stands of old growth as important to certain wildlife species.... It was estimated that private landowners have only 70,000 acres of old growth remaining in the State and these are of critical importance to the private companies because they provide a bridge until their second growth stands are mature enough for harvest..." [14] Recommendations by the Old Growth Commission for state lands on the western Olympic Peninsula are now being reviewed for adoption by the Board of Natural Resources.

> Cumulative Effects - The Agreement recognized the opportunities to assess cumulative effects in the TFW process: "The T/F/W participants recognize that all resource management practices have the ability to affect other resources. Multiple actions over time and space within an area or watershed must be monitored and evaluated in a cooperative fashion to anticipate or minimize adverse impacts on other natural resources. In light of this, the following system will be implemented to meet the collective needs of timber, fish, wildlife, and water quality." The system referred to is being designed and implemented within the CMER program and through RMPs. [15]

Pre-harvest Reviews

With the TFW Agreement came an increased awareness of the advantages of early notification of harvest plans and potential effects on public resources. Many landowners now host annual pre-harvest reviews to display their field activities for the year, prior to submitting forest practice applications. Other TFW participants attempt to provide early notification to the landowner regarding possible impacts their plans may have on wildlife resources. This process provides more time and flexibility to resolve conflicts prior to the standard review process.

New Rules and Regulations

In response to the TFW Agreement, the FPB adopted new rules and revised existing rules to address issues identified in the Agreement. Rules adopted which influence protection of wildlife habitat include:

> Minimum and maximum width and leave-tree requirements for riparian management zones along all Type 1-3, and riparian leave tree areas on some Type 4, waters;

> Options for alternate plans which meet or exceed specific protection requirements;

> Extended time of review for Class III forest practices to 30 days;

> Minimizing road locations in riparian management zones, marshes, and wet meadows;

> Minor restrictions on felling, bucking, and yarding in Type 1, 2, and 3 waters, and coordination with Hydraulic Project Approvals (HPA);

> Requiring landowners to prepare a road maintenance and abandonment plan for specified road systems or segments of road when directed by the DNR;

Increased Technical Involvement

In response to the Agreement, the Washington legislature authorized and funded increased staff in state agencies to deal with an increased workload. In November, 1987, WDW began its TFW Program by hiring five (now six) habitat biologists to implement the TFW agreement within the department.

Additional technical support was acquired by Washington Environmental Council, National Audubon Society, and Indian tribes.

Cooperative Monitoring, Evaluation, and Research Program

In order to better understand the impacts of forest practices on public resources, TFW participants agreed to develop and implement a Cooperative Monitoring, Evaluation, and Research (CMER) program. Unresolved questions and concepts regarding forest/wildlife management relationships prompted five CMER wildlife projects. These projects address the

inventory, description, and wildlife use of UMAs, RMZs, and managed forest habitats. Knowledge gained from this program will be used to evaluate voluntary and regulatory measures to address wildlife concerns. Results are expected to provide a scientific basis to assess the need for additional regulatory measures.

Information and Education

Numerous training sessions, workshops, and publications are addressing wildlife and forest practices under the Agreement and publicizing accomplishments.

Adaptive Management

The modified Eastside Riparian Management Zone Rules have often been cited as an example of TFW in its most positive aspect. Although originally requiring five "wildlife" trees per acre, the rules were modified as a result of field studies in eastside RMZs. The modified rules took a more comprehensive approach.

III. ISSUES

Component Issues of Wildlife Protection

Much of Section II, Background, reflects the current status of ongoing efforts to protect wildlife. This section identifies ten component issues that reflect unresolved concerns about adequacy and effectiveness of the rules, regulations, and Agreement in meeting the intent of the Forest Practices Act to protect the wildlife resource:

A. Definitions
B. Adequacy of TFW Wildlife Goal Statement
C. Evaluating Wildlife Resource Protection
D. Conditioning FPAs E. Priority Issues
F. Implementation of Snag/Woody Debris Management
G. Establishment of Upland Management Areas
H. A Landscape Perspective for Wildlife
I. Inadequate Mechanisms for Implementing TFW
J. Improving Human Relationships

Discussion of each issue is divided into two parts, Review of Current Status and Alternatives. **Recommendations are highlighted with boldface type.**

A. Definitions

Review of Current Status

The WSC agreed that definitions of two key terms used in the TFW process are unclear. These are:

> "wildlife protection" and
> "critical wildlife habitats."

Wildlife protection — This definition is an issue because of the many meanings and interpretations within different contexts. Basically it is unclear what is meant by the RCW statement [16] "to afford protection to . . . wildlife." For example, "protection" can be applied to individuals of a species (e.g., a specific Bald Eagle pair), to a single species (e.g., Bald Eagle), or to many species and habitats.

> "Protection," at a minimum, means maintaining species that occur naturally in Washington, as reflected by two components: population numbers and geographic distribution. This does not necessarily mean protecting all individuals of all species at all times.

> "Protection," within the TFW context, is the TFW Agreement wildlife goal statement. This includes habitat diversity as well as species diversity. Does this mean evaluating the need for protection, species by species, across the state? In some cases, it may be sufficient to assure that a species usually will be found in certain regions across the state. In other

cases, it may be necessary to assure specific protective measures for each animal.

> "Protection" may mean maintaining a population within a certain geographic range as an integral part of the forest.

> "Protection" can include using forest practices to manipulate and provide habitat. Wildlife can be managed by manipulating habitat.

> In order to protect wildlife, goals and objectives must be defined for individual species, groups of species, or particular population or distribution levels. At the landscape level, this includes cumulative effects.

Critical Wildlife Habitats — Language referring to "critical wildlife habitat," "critical habitat," "key wildlife habitat," and "habitats of interest" in the WAC and the FPB Manual is confusing. These terms should be defined and used consistently throughout.

For example in the FPB manual, "critical wildlife habitat" seems to be used interchangeably with the federally defined "critical habitat." Federally threatened and endangered species, along with their "critical habitat," are protected under the FPB Rules and Regulations and are discussed in the FPB Manual [17]. However, federal "critical habitat" requires specific geographic designation by the Secretary of the Interior. At present, no such critical habitat exists in Washington. For further discussion, see Appendix A.

The FPB Manual lists Wildlife Species and Habitats of Interest on pages 13 through 16 of the Manual. What is not clear is whether this list comes under the first sentence of the FPB Manual, Sec. 3, "Critical Wildlife Habitat" [17].

Alternatives

Wildlife Protection To provide a clear definition acceptable to TFW participants, the following alternatives are suggested:

1. Request the Attorney General's office to define wildlife protection.

2. Conduct a survey to determine the public perception of "wildlife protection."

3. Request the Wildlife Commission, Forest Practices Board, and TFW Policy Group to define the term together.

The Wildlife Steering Committee suggests the following as a start: "Protection," at a minimum, means maintaining species that occur naturally in Washington, as reflected by two components: population numbers and geographic distribution. This does not necessarily mean protecting all individuals of all species at all times. It does mean evaluating the need for protection, species by species, across the state. In some cases, it may be sufficient to assure that a species will usually be found in certain regions across the state. In other cases, it may be necessary to assure protection to each individual. The concept of protection needs to be species-specific and goal-oriented.

Critical Wildlife Habitats The following alternatives are suggested.

1. Clarify WAC 222-16-010(50) to limit the definition specifically to federal endangered and threatened species.

2. Change WAC 222-16-010(50) to include state endangered, threatened, and sensitive species along with federal endangered and threatened species.

3. Limit the term "critical habitat" to federally designated habitats under the Endangered Species Act, and analogous habitat designated under state statute, whenever so designated. Establish a new term "priority habitats" or "crucial habitats" or "habitats of interest" to identify habitats of concern, as such habitat is established by the board in the forest practices board manual . . . where specific management practices are needed to prevent critical wildlife habitat destruction. Consider the adequacy of different terminologies and how the terms are applied as part of the regulatory process to "protect" wildlife.

4. Modify Alternative 3 to replace "critical wildlife habitats" with a new term, "priority wildlife habitats."

5. **Clarify the intent of WAC 222-16-010(11) to clearly distinguish wildlife habitats and species of special concern and how they will be managed in the field.**

B. Adequacy of TFW Wildlife Goal Statement

Review of Current Status

There are two parts to this issue:

1. Definition of Wildlife Protection Until "wildlife protection" is defined, it cannot be determined whether the TFW wildlife goal statement [3] is adequate to meet the intent of the RCW [2].

2. General Misunderstanding Language in the TFW wildlife goal statement is not understood the same way by all participants, with respect to which habitats are included and what "enough individuals to maintain" implies.

Alternatives

Definition of Wildlife Protection Alternatives to address this part of the issue are the same as in Issue A.

General Misunderstanding The following is suggested:

1. **The TFW Policy Group is encouraged to provide to the FPB an interpretation of the TFW goal statement that is clear and agreeable to TFW participants, and to communicate it to TFW participants.**

> **As an example, the WSC agrees that "particularly riparian, wetlands and old growth" is not not meant to exclude other habitats, and that the term "enough individuals to maintain" does not necessarily mean minimum viable populations.**

C. Evaluating Wildlife Resource Protection

Review of Current Status

Currently, methods are not in place for analyzing, measuring, or otherwise determining the effectiveness of the Agreement, Act, regulations, and manual in protecting the wildlife resource. For example, there is not yet a process for determining effectiveness of riparian management zones (RMZ) and upland management areas (UMA) for any particular wildlife species or class of species.

The major question is how to evaluate the TFW Agreement in terms of wildlife management and protection. The CMER program was set up to evaluate, through scientific investigation, the technical merits of the Agreement, i.e., how well the Agreement is working with respect to public resource protection. For wildlife, this is being done through the Wildlife Steering Committee. Although some data are coming in, it is too early to know how well the evaluation system is working.

Before this process can be successful, a clear definition of "wildlife protection" is necessary to develop objectives and evaluation criteria.

Alternatives

1. Request WDW to develop a monitoring program to determine adequacy of the FPB rules and regulations to protect wildlife, in consultation with TFW participants.

2. **Request WDW to develop habitat objectives for wildlife, in consultation with TFW participants; and encourage the Cooperative Monitoring, Evaluation, and Research (CMER) committee to expedite the process for analyzing, measuring, and otherwise evaluating how well the wildlife resource is being protected under TFW.**

D. Conditioning FPAs

Review of Current Status

The FPA conditioning process is not always adequate to protect the wildlife resource, for the following reasons:

> DNR has issued conditioning guidelines that interpret DNR's ability to condition. There is some disagreement over the authority of the DNR to condition for the protection of wildlife.

> Biologists' recommendations for wildlife protection often are not translated into conditions on the FPAs, due to perceived lack of authority on the part of DNR foresters.

> When conditions are placed on FPAs, they are not always thought to be adequate.

> Communications between wildlife biologists, landowners, and DNR foresters are not always effective. This is discussed under Issue J, Human Relationships.

The FPB rules and regulations and the FPB manual provide little protection for wildlife and its habitat outside riparian management zones, other than through voluntary compliance by the landowner. Because language in these documents is unclear and internally inconsistent (See Section III.A, Definitions), confusion exists among TFW participants about the amount of wildlife protection provided by the Act and the FPB rules and regulations. To clarify this, the Department of Natural Resources (DNR), on 28 June 1989, released "Guidelines for Conditioning Forest Practice Notifications and Applications." They went into effect in early July, 1989. The guidelines were developed by the DNR and the DNR assistant attorney general based on the Act, the FPB regulations, and the FPB manual. Excerpts from these guidelines relevant to wildlife are found in Appendix B.

As reflected in these guidelines, DNR's current interpretation of the authority granted to them under the Act and the FPB Rules and Regulations for protection of wildlife falls short. This interpretation is limited to protection of "individuals on-site . . . from courtship to dispersal" [18], i.e., only the breeding season. The regulations focus on controlling the 'timing' of forest practices and not the basic needs of wildlife species, such as food, water, cover, and other essential habitat factors. For some species, other life requisites are limiting and should be considered.

In lieu of conditioning, in many cases DNR has asked WDW to negotiate wildlife protection with landowners where the WDW feels such protection is not provided in the law, rules and regulations, or manual. This has not always been a reliable means of wildlife protection.

Although the FPB manual contains "recommendations for protecting wildlife species and habitats of interest," it is left for the landowners and WDW to "consult" for "specific management of these species and habitats." [19] The new DNR guidelines state:

". . . DNR shall condition applications and notifications to protect the individual or individuals on-site from impacts of a pro-posed forest practice. 'On-site' means places used by the individuals from courtship to dispersal of the young. . . DNR has authority to provide wildlife and fisheries habitat protection in RMZ's through conditioning and use of alternate plans as provided through RMZ regulation. The FPB has not specifically provided DNR with authority to protect habitats of interest for individual species, except for RMZ's." [18]

Alternatives

1. Require DNR foresters to provide feedback to wildlife biologists on how the foresters used the biologists' recommendations in FPA conditioning and why.

2. Require DNR to use recommendations from field biologists, where DNR has legal authority to apply such conditions and re-quirements.

3. Request TFW participants to address the conflict between wildlife protection and maintenance of a viable forest products industry.

4. Require DNR to use wildlife recommendations from interdisciplinary teams.

5. Have the TFW Policy Group address the process of conditioning and present their findings to the FPB, once a definition of wildlife protection has been agreed on. The FPB should then clarify their intent, recognizing the need of field people to have both guidance and adaptability, and make any necessary changes in regulations to reflect the FPB's intent.

E. Priority Issues

Review of Current Status

Inconsistent Implementation

The concept of "priority issues" in the TFW Agreement was an attempt, in part, to deal with wildlife habitats of special concern [20]:

> State threatened, endangered, and sensitive plant and wildlife species; and

> Critical wildlife habitat and wildlife habitats of interest as outlined in the Forest Practices Board Manual.

Procedures for identifying priority issues and for calling ID teams on wildlife priority issues, are not followed consistently in the field among DNR regional offices. Although DNR has issued guidelines for dealing with priority issues using interdisciplinary teams, problems of inconsistent field implementation still exist with respect to wildlife. Some FPAs are not being designated as priority issues, consistent with the guidelines. As a result, wildlife issues are not always addressed in the field.

Class II Priority Issues

Class II forest practices are those that have been "determined to have less than ordinary potential to damage a public resource" [21]. These applications must be approved within five days. Class III forest practices, because of their potential to impact public resources, receive "... early field review, protective conditions, or further review by a specialist or I.D. team" [22]. The review period is 30 days to allow DNR to identify and deal procedurally with a Priority Issue, if one exists.

When Class II forest practice notifications contain a Priority Issue, the five days allotted for approval can be inadequate. In such cases a forest practice is determined to have LESS than ordinary impact (Class II, from a regulatory standpoint), and GREATER than ordinary impact (Priority Issue, from a procedural standpoint) to public resources at the same time.

Alternatives

Inconsistent Implementation

1. **Suggest TFW seek clarification of DNR procedures for implementing priority issues consistently by all TFW cooperators.**

Class II Priority Issues

1. Extend timeline to provide adequate time for operator and WDW to develop a plan for protecting the public resource.

2. **Change WAC 222-20-020(1) to provide options for 30-day review of Class II forest practices that are priority issues.**

F. Implementation of Snag/Woody Debris Management

Review of Current Status

The relationship between snag and woody debris habitat, and both game and nongame wildlife species is well documented. Yet, despite DNR's ability to condition FPAs to protect snags [23], there is a perception that this crucial habitat component is not receiving adequate protection in many parts of Washington.

From a field perspective, the protection of snag habitat may be failing for any combination of the following reasons:

> Some landowners, particularly small non-industrial landowners, may not be aware of the need to protect snag habitat.

> Some landowners, both large and small, are afraid of committing safety violations if they attempt to protect snags.

> Many are unwilling to protect snags, having received citations in the past from L&I.

> Some landowners are not willing to pay the costs, either operational or direct, of protecting snags by foregoing economic opportunities.

> DNR Forest Practice Foresters generally have been unwilling to exercise their authority to protect snags, probably due to concerns over L&I regulations and liability, should a snag-related accident occur.

Alternatives

1. **Develop information and education programs with landowners, L&I, WDW, and DNR on snag and woody debris management to demonstrate importance of this habitat component.**

2. **Develop clearer guidelines and a process for working with L&I on the ground (as with ID teams) for leaving safe snags.**

3. **Encourage operators and landowners to use RMZs and UMAs for greater snag management opportunities.**

4. **The TFW Policy Group should encourage FIC to develop snag management recommendations and work for implementation with L&I.**

5. **Provide incentives for landowners to protect snags.**

G. **Establishment of Upland Management Areas**

Review of Current Status

The Agreement establishes UMAs as specific leave areas to establish wildlife habitat diversity. It is perceived that UMAs are not being left to the extent expected in the TFW Agreement.

A major reason for this is that some landowners are reluctant to leave UMAs because of the long-term commitment in designating a UMA. Another reason is that often UMAs are not designated prior to harvest. The result is that UMAs often are not identified on FPAs.

Alternatives

1. **Have the TFW Policy Group clarify the concept of UMAs to facilitate implementing the intent of the TFW Agreement. This may include discussion of areas retained for a period less than two rotations.**

2. **Develop a mechanism to encourage landowners to establish and report UMAs.**

H. A Landscape Perspective for Wildlife

Review of Current Status

Between-stand and Within-stand Habitat Diversity

The wildlife resource goal in the TFW Agreement emphasizes the need to provide wildlife habitat diversity on Washington's forest lands. Widespread reduction of habitat diversity, at both the stand and landscape levels, may result in altered species composition and/or reduced abundance and diversity of Washington's native wildlife. Although loss of habitat diversity may not be noticeable in each individual forest stand, the additive impacts on many stands over vast areas will lead to an overall reduction. There is concern that the cumulative effects of maintaining entire landscapes in low-diversity stands over the long term will result in impoverished wildlife resources.

The objective of timber management is to maximize wood fiber production in the shortest period of time. This usually necessitates harvesting when the forest is in mid-successional stages. As a result, managed forests contain fewer seral stages for a shorter period of time than normally would occur in an unmanaged condition. Forest management activities, such as thinning, brush control, and site preparation, can further reduce within-stand diversity. Such forests have reduced within-stand and between-stand diversity, and may fail to provide sufficient habitat for wildlife species adapted to very early or late seral stages.

At present there are several TFW mechanisms which may contribute to habitat diversity in managed forests. RMZs and UMAs are thought to enhance landscape diversity by providing older seral stage patches. Resource Management Plans are another mechanism for addressing habitat diversity.

Integrating Wildlife Benefits into Active Timber Management

RMZs and UMAs constitute a very small portion of the managed forest landscape. When evaluating the efficacy of habitat protection mechanisms, it is necessary to view them in terms of populations and landscapes. For example, even with the discrete zones afforded by UMAs, amount and distribution of habitats could be inadequate in an intensively cut block. There is no incentive or "credit" for a landowner who attempts to produce a diversified forest stand outside specified zones by modifying silvicultural techniques or harvest methods.

Conversion of Habitat Types

There is a concern about potential conversion from one habitat type to another. The one example identified by the WSC concerns oak woodlands. The southeast slope of the Cascades contains extensive oak forests occurring in pure stands, mixed with conifers, or in clusters on grassy slopes. These extremely productive wildlife habitats provide a unique and valuable food resource and cover type for deer, bear, turkey, quail, and songbirds.

Because these oaks are not commercially valuable, some landowners are converting oaks into conifers. These activities do not require an FPA, despite the fact they affect more than 5,000 board feet.

Roads

The WSC identified the presence of roads in a landscape context as potentially affecting wildlife and their habitat. Lack of time precluded any further discussion of this topic.

Alternatives

Between-stand and Within-stand Habitat Diversity

1. **Establish mechanisms to maintain, to the greatest extent possible, a balanced distribution of forest age classes in the managed landscape.** This would require careful long range planning and coordination across ownerships. Resource Management Plans are an ideal way to coordinate planning. Currently there is no regulatory mechanism through which such age class balance could be achieved. This would probably require harvest regulation. Another proposed mechanism to increase within-stand diversity is to leave standing green trees in clear-cuts. Through judicious selection of trees to be left, managers could create stands with multi-level canopies resulting in high structural diversity. Such an approach might be more useful than UMAs in meeting the needs of both wildlife and timber interests. However, this technology is still in its earliest stages of development, so it is not yet available as a management tool.

2. **Pursue a landscape approach in managing forests, incorporating results of CMER Project 17, Wildlife Use of Managed Forests, when available.**

Integrating Wildlife Benefits into Active Timber Management

1. Have the FPB, which has lead responsibility for this task under WAC 222-16-010(11), consult with WDW to identify "other situations . . . where specific management practices are needed to prevent critical wildlife habitat destruction." This may result in changing regulations to reflect more specific requirements for protecting wildlife.

2. Encourage FPB to include wildlife habitat concerns in its deliberations on cumulative effects.

3. Request CMER to consider establishing "impact thresholds" for selected wildlife species and habitats for determining a measure of cumulative effects.

4. Explore opportunities to implement experimentation in forest management with respect to wildlife habitat.

5. **Develop mechanisms for integrating identified, prioritized habitat protection needs as a part of timber management plans outside specified protection zones, such as maintaining some level of within-stand diversity throughout westside managed forests.**

6. Establish ways to recognize or credit landowners who assist in managing and protecting wildlife through creative silviculture.

Conversion of Habitat Types

1. **The FPB should evaluate environmental impacts of conversion of oak woodlands into other forest types.**

I. Inadequate Mechanisms for Implementing TFW

Review of Current Status

Regulatory or management effectiveness is largely determined by the ability of an agency to review proposed practices, inspect them as they occur, and evaluate them when completed. The cooperative problem-solving and consensus-building mechanisms of TFW cannot replace these basic requirements.

The restructuring of DNR and WDW in response to TFW provided the number of FTEs needed for adequate review of submitted applications or, importantly, for field review of completed harvests. FPA processing and field review of priority issues occupy most of the available time. There is little or no time left to take advantage of the advance notice provided by annual harvest or road reviews whenever they have been offered by landowners. Also largely precluded is the oppor-

tunity to interact with landowners through educational programs or on-site visits before an FPA is even submitted.

All these mechanisms — harvest reviews, road reviews, educational programs, and on-site visits — permit managers to address wildlife concerns at the best time for integrating those concerns into a land management plan and before they become issues. While further restructuring in the WDW might expand the number of personnel in each region responding to FPAs, experience in the DNR indicates there will still be insufficient FTEs for post-harvest review, even of priority issues, and only minimal opportunity for early interaction with landowners.

Alternatives

1. Institute organizational changes to deal with the problem.

2. Increase funding and FTEs to accomplish the necessary work-load.

3. Establish mechanisms for prioritizing workloads.

J. Improving Human Relationships

Review of Current Status

Achievement of the TFW wildlife goal depends on voluntary and regulatory accommodations by landowners. Landowner cooperation depends on notification and motivation by wildlife interests. This human element of TFW underlies the technical, political, and economic aspects of the wildlife issue. Positive human relationships, coupled with good scientific evidence, are crucial to the objective evaluation of wildlife protection efforts. Positive relationships are also essential for maintaining trust among divergent interests that will adaptively manage wildlife resources in the future.

Although many relationships among TFW participants have generally been constructive, exceptions have occurred which underscore the need for culturing and encouraging positive interaction. If the human relationship aspect of the wildlife issue can be adequately addressed, it is likely that many concerns outlined above would be reduced.

Alternatives

1. Establish mechanisms to improve interpersonal communication skills, such as conflict resolution, problem-solving, sensitivity training, and similar techniques for all TFW participants.

2. Encourage TFW land managers to invite other TFW participants to cooperate in specific wildlife management projects.

3. Encourage more informal local interactions among TFW participants, such as regular breakfast meetings, "tailgate" sessions, etc.

SUMMARY AND CONCLUSIONS

The wildlife protection issue revolves around adequacy and effectiveness of the TFW Agreement, the FPB Rules and Regulations, and the FPB Manual in meeting the intent of the Forest Practices Act to afford protection to the wildlife resource. Many mechanisms both within the TFW process and outside it address aspects of the wildlife protection issue, but often these are perceived as inadequate.

This paper divided the wildlife protection issue into ten component issues related to forest practices. These sub-issues are analyzed separately, alternatives are offered, and recommendations are suggested for resolving them.

FOOTNOTES

[1] Memo from Brian Boyle, Commissioner of Public Lands and Chairman of the Forest Practices Board, dated 23 March 1989 to the TFW Policy Group and Administrative Committee. The term "Wildlife Protection" as a title for this issue paper derives from the original Forest Practices Board request, as reflected in the 10 April minutes of the TFW Administrative Committee meeting.

[2] Revised Code of Washington (RCW) 76.09.010 and RCW 76.09.020(13)

[3] Timber/Fish/Wildlife Agreement Final Report, 17 February 1987, printed by the Northwest Indian Fisheries Commission, p. 2.

[4] Washington Forest Practices Rules and Regulations, Chapter 222 WAC, as published by the Forest Practices Board 1 January 1988, with addendum rules effective 11-88. This document includes the Forest Practices Board Manual and the enabling legislation, the Forest Practices Act, Chapter 76.09 RCW, as cited in note [2] above.

[5] "Public resources" in the Forest Practices Act, RCW 76.09.020(13), "shall mean water, fish and wildlife, and in addition shall mean capital improvements of the state or its political subdivisions."

[6] TFW Agreement, p. 23-28.

[7] TFW Agreement, p. 28, and FPB Manual, pp 16-17.

[8] WAC 222-16-010(25).

[9] TFW Agreement, p. 7.

[10] TFW Agreement, p. 18.

[11] WAC 222-08-035(3).

[12] TFW Agreement, p. 20.

[13] TFW Agreement, p. 21-22.

[14] TFW Agreement, p. 39.

[15] TFW Agreement, p. 40.

[16] RCW 76.09.010(1)

[17] The confusion results from the first paragraph on p. 10, FPB Manual, which states, "The following is a list of critical wildlife habitats, as defined in WAC 222-16-010(11)." Although this sentence appears to be talking about federally listed species and habitats, its referral back to the WAC definition broadens the meaning. The WAC definition defines critical wildlife habitat as "habitat of any threatened or endangered species, as such habitat is established by the board in the forest practices board manual, or other situations as identified by the board. . ." [emphasis supplied]. This seems to suggest that the board intended to go beyond the narrow definition of federally designated "critical habitat."

[18] Final Draft (6-15-89) Guidelines for Conditioning Forest Practice Notifications and Applications, Department of Natural Resources, Sec. B.3. Wildlife.

[19] FPB Manual, p. 13.

[20] Although "priority issues" are discussed extensively in the TFW Agreement (pages 4, 9, 11, 13, 14, 17, 18, 20, 28, 31), the words do not appear in either WAC 222 or the FPB Manual. TFW participants developed a list of ten priority issues as the basis for forming interdisciplinary teams. This list was circulated by DNR in a memo of 16 May 1988 (as corrected by memos of 29 June and 11 July 1988) from Arden Olson to DNR regional managers. The list includes these two wildlife issues.

[21] WAC 222-16-050(4)

[22] TFW Agreement, p. 17.

[23] AC 222-30-020(7)(d)

BACKGROUND AND EXPLANATION OF PRIORITY ISSUE/CRITICAL WILDLIFE HABITAT PROBLEM

Wildlife interests feel the Forest Practices Board (FPB) rules and regulations and the FPB manual provide little protection for wildlife and its habitat, other than through voluntary compliance by the landowner. Because the language of these documents is unclear and internally inconsistent, confusion exists among TFW participants about the amount of wildlife protection provided by the Act and the FPB rules and regulations. WDW has been asked to negotiate wildlife protection with landowners where the agency feels such protection is not provided for in the law and regulations.

The problem revolves around the concept of "priority issues." Priority issues in the TFW Agreement are a way to identify issues that require field priority attention when reviewing Forest Practices Applications (FPAs). FPAs identifying a priority issue will "receive early field review, protective conditions, or further review by a specialist or I.D. [interdisciplinary] team."

When implemented fully, the TFW Agreement "will allow landowners, agencies, and the interested public an improved opportunity to identify the significant applications through the priority issue program, focus their review and attention on the problem areas, condition these critical applications as necessary to avoid or lessen adverse impacts, expedite the reviews, and to impose the least burden possible on all parties." It is noteworthy that the words "priority issue" do not occur in the FBP regulations or manual. This approach was recommended by participants at the negotiations on the TFW agreement.

The TFW agreement places the responsibility for developing a list of priority issues on the DNR, in consultation with interested parties. To this end, the DNR invited TFW participants to a series of priority issue meetings, beginning in December, 1987. The purpose was to identify, on a regional basis, issues that might require additional field time to review, or time in which to assemble and receive input from an interdisciplinary team.

During these meetings, some confusion arose about priority issues, particularly with respect to wildlife. For example, many of the lists from the seven DNR regions mention the term "critical wildlife habitat." Because this term is not clearly defined in the FPB regulations and manual, it was used variously to mean different things at the regional meetings.

The FPB regulations (WAC 222-16-010(11)) state:

"Critical wildlife habitat" means the habitat of any threatened or endangered species, as such habitat is established by the board in the forest practices board manual, or other situations as identified by the board, after consultation with the department of wildlife, where specific management practices are needed to prevent critical wildlife habitat destruction.

The regulations further define threatened or endangered species as "all species of wildlife listed as 'threatened' or 'endangered' by the United States Fish and Wildlife Service," with the exception that WDW may exclude a species under the Forest Practices Act under certain conditions. Affected federally listed species are listed in the FPB Manual.

The U.S. Endangered Species Act (ESA) uses the term "critical habitat" very specifically. It applies only to threatened and endangered species, and it is a legally defined habitat that must have been designated "critical habitat" by the secretary of the U.S. Department of the Interior. According to the U.S. Fish and Wildlife Service, <u>there is no federal "critical habitat" in the state of Washington.</u>

However, the FBP regulations and manual apparently picked up the term, added the word "wildlife," and applied it to other species and habitats in Washington. Although the introduction to the FPB manual states that "all of these sections are advisory. . .," Section 3, "Critical Wildlife Habitat," contains information on "protection of federally listed threatened and endangered wildlife species."

Section 3 also contains "recommendations" for protecting "other wildlife species and habitats." These are listed under a subsection entitled "Wildlife Species and Habitats of Interest," which states: "This section of the Manual contains recommendations for protecting wildlife species and habitats of interest. The landowner is encouraged to list these habitats on the forest practices application. Landowners should consult with WDW for specific management of these species and habitats."

Although "critical wildlife habitats" are mentioned in several of the agreements that resulted from the DNR's regional meetings, it appears that there is no clear agreement on what the term means. What is clear is that the manual does not require DNR to enforce anything having to do with wildlife, other than that required in the Endangered Species Act. (These are automatically a Class IV Special practice, and so are outside the discussion of priority issues.)

APPENDIX B

Excerpts Relevant to Wildlife from DNR's

GUIDELINES FOR CONDITIONING FOREST PRACTICE NOTIFICATIONS AND APPLICATIONS

Dated 15 June 1989

Section B.3. Wildlife -

The Forest Practices Board has specifically provided DNR with the authority to condition applications to protect Federal Threatened and Endangered species and their critical wildlife habitats. Bald eagle protection requires a "site management plan" prepared by the Department of Wildife in accordance with WAC 232-12-292 (Bald Eagle Protection Rules). DNR shall apply the conditions of the plan.

WDW maintains a list of state Threatened, Endangered and Sensitive species. The Board has listed wildlife species and habitat of interest in the Forest Practices Board Manual. Because of the sensitivity of these species and the fact that they are public resources, DNR shall condition applications and notifications to protect the individual or individuals on-site from impacts of a propose forest practice. "On-site" means places used by the individuals from courtship to dispersal of the young. Conditioning will be done in accordance with general guidelines in Section A, and can include timing of operations.

Where practical harvest methods and patterns in established big game winter ranges should be designed to insure adequate access routes and escape cover. Cutting units should be dispersed over the area to provide cover, access for wildlife and to increase edge effect. It is current Board regulation, when not in conflict with safety requirements of the Department of Labor and Industries, to protect snags. DNR will condition for protection of snags when not in conflict with Chapter 49.17 RCW (Snag falling law) and WAC 332-24-020, 025, and 027.

DNR has authority to provide wildlife and fisheries habitat protection in RMZ's through conditioning and use of alternate plans as provided for through RMZ regulation. The FPB has not specifically provided DNR with authority to protect habitats of interest for individual wildlife species, except for RMZ's

DNR has authority to protect old growth if old growth is critical habitat to Federal Threatened or Endangered Species or if old growth trees are critical to protect individual wildlife species on the State Threatened, Endangered or Sensitive Species list.

WILDLIFE ISSUES FROM THE TFW SECOND ANNUAL REVIEW

Many issues surfaced during the Wildlife Working Sessions of the TFW Second Annual Review in October, 1989. Most were already discussed in the Wildlife Protection Issue Paper. Three, however, were sufficiently different to be included in the Wildlife Action Plan. They are:

K 1 — Provide feedback to CMER about adequacy of wildlife research through Wildlife Steering Committee. [NOTE: Recognize that CMER is a technical research body, not a political body.]

L 1 — Request a clear message from Policy Group, including:

> That policy issues of the issue paper are addressed;

> That Forest Practices Board, Wildlife Commission, and Policy Group coordinate.

M 1 — Evaluate wildlife issues at the Third Annual Review, based on:

> Is Department of Wildlife Priority Habitats and Species Study completed?

> Are on-the-ground personnel perceptions changed? Are conflicts being resolved more readily, with great sensing of mutual respect?

> Has the Wildlife Protection Issues Paper been reviewed and consensus reached?

> Has the Field Implementation Committee instituted a tracking system and evaluation ("audit") process?

> What is the opinion of wildlife biologists on success of protective measures, and how well are we doing?