

DECISION MEMO
FOREST PLAN AMENDMENT NO. 2
SIUSLAW NATIONAL FOREST
Benton, Coos, Douglas, Lane, Lincoln, Polk
Tillamook and Yamhill Counties, Oregon

On March 7, 1990, Regional Forester John Butruille signed the Record of Decision for the Final Environmental Impact Statement for the Siuslaw National Forest Land and Resource Management Plan. The purpose of Amendment No. 2 is to modify some Forest Plan standards and guidelines to improve clarification and manageability for Plan implementation. In addition, some modifications and additions to the monitoring plan are needed, and a list of Forest Plan errata is included.

It is my decision to amend the Siuslaw National Forest Plan by substituting the attached pages for Forest Plan, Chapters IV and V. Rationale for specific changes are as follows:

Forest Plan, Chapter IV

Changes to Forest-wide and Management Area 4 standards and guidelines are described below:

FW-003 (Harvest constraint) - The standard and guideline is changed to provide limitations on timber harvests within subbasin areas, areas of 2,000 to 5,000 acres in size, rather than within subbasins. Maps of the subbasin areas in each district are added to Chapter IV. The original standard and guideline was found to unnecessarily restrict harvesting in subbasins that contained a small percent of national forest land or that were too small to provide feasible harvest units.

FW-050 (Management Plans) - The change is to ensure a management plan is developed when a peregrine falcon eyrie (nest) is discovered, but not to develop plans for all potential nest sites.

FW-081 (Down Logs) - The standard and guideline is deleted, as it is redundant with FW-110 and 15-13.

FW-083 (Seasonal Restrictions) - The standard and guideline is clarified to indicate instream activities are prohibited only when salmonid eggs or pre-emergent fry are in the stream.

FW-090 (Yarding Corridors) - Review of timber sales where yarding corridors crossed riparian areas indicated the original standard and guideline did not provide for selection of harvest methods that could result in less disturbance to the riparian area. The wording is changed to ensure the desired condition is met, but allow for selection of harvest methods that take advantage of existing openings.

FW-107 (Soil Damage) - During the first year's timber sale monitoring trips, discussions among Forest employees indicated some confusion about the intent and parameters of the original standard and guideline. The wording is changed to clarify detrimental soil conditions and to clarify which lands are included in the 15% limit of detrimental conditions.

FW-110 (Large Woody Material) - Changes are made to increase the minimum size of logs to be left on harvest units for dependent soil organisms and maintenance of long-term soil productivity. Wording changes are also made to clarify the types of logs to be left.

FW-123 (Streamside Stability) - Changes in wording are made to ensure stream-adjacent structures minimize surface erosion from adjacent slopes, but to allow for some bank instability as part of fish habitat improvement work.

FW-152 (Letters of Authorization) - The standard and guideline is deleted, since letters of authorization for short-term uses of National Forest lands have been replaced with temporary-use permits.

For Management Area 4 (Bald Eagle Habitat) -

04-08 (Habitat Management Plan) - A change is made to the schedule for completion of bald eagle management plans. The original goal to complete all plans within 2 years was unrealistic. The change ensures existing nest sites receive first priority for management plan development.

Forest Plan, Chapter V

A few new monitoring and evaluation questions are added to improve monitoring for sensitive plants and animals, special habitats and for the Aleutian Canada goose and brown pelican. Modifications are made to some of the monitoring questions for Aleutian Canada goose, water quality, and Threatened, Endangered and Sensitive Plants in order to correct the intent or monitoring methods.

Other Forest Plan Changes

Definitions of Decay Classes and Sensitive Stream Reaches are added to the Glossary. A list of Forest Plan errata is included.

SCOPING

Identification of needed changes was made initially by Forest resource specialists and reviewed by Forest Staff. Informal contacts were made with a few public groups, who provided suggestions for potential wording. The proposed changes were mailed to the full Forest Plan mailing list (about 1,500 individuals and groups) and a 30-day public comment period provided.

Comments were received from the Governor's Forest Planning Team, Oregon Department of Fish and Wildlife, Northwest Forestry Association, Siuslaw Timber Operators, Audubon Society of Corvallis, Oregon Natural Resources Council and a few individuals. In response to the comments, several changes were made to the proposed standards and guidelines.

REASONS FOR CATEGORICALLY EXCLUDING THE PROPOSED ACTION

This amendment is not significant in relation to the National Forest Management Act regulations, 36 CFR 219, and is consistent with the long-term resource management goals and objectives of the Siuslaw National Forest Land and Resource Management Plan.

This action will have limited context and intensity, individually or cumulatively to the biological, physical, social and economic components of the human environment. There will be no irreversible commitment of resources or irretrievable loss of site productivity. I have determined that this action falls within Category 1 of Section 26.1b of FSH 1909.15 - Environmental Policy and Procedures Handbook. Therefore, the action is categorically excluded from documentation in either an Environmental Assessment or an Environmental Impact Statement.

IMPLEMENTATION DATE AND ADMINISTRATIVE REVIEW

Implementation of this decision will begin 7 days following publication of the legal notice of the decision in the Corvallis Gazette-Times.

This decision is subject to appeal pursuant to 36 CFR 217. Any written Notice of Appeal of this decision must be fully consistent with 36 CFR 217.9 (Content of a Notice of Appeal) and must include the reasons for appeal. A written notice of appeal, in duplicate, must be filed with the Regional Forester, Pacific Northwest Region, P.O. Box 3623, Portland, Oregon, 97208, within 45 days of the date the legal notice of this decision appeared in the Corvallis Gazette-Times.

For further information, contact Tony Vander Heide, Planning Staff Officer, Siuslaw National Forest, P.O. Box 1148, Corvallis, Oregon 97330 (503) 750-7019.

for 

WENDY M. HERRETT
Forest Supervisor

May 22, 1992

Date



Maps of Subbasin Areas and names start on the back of this page.

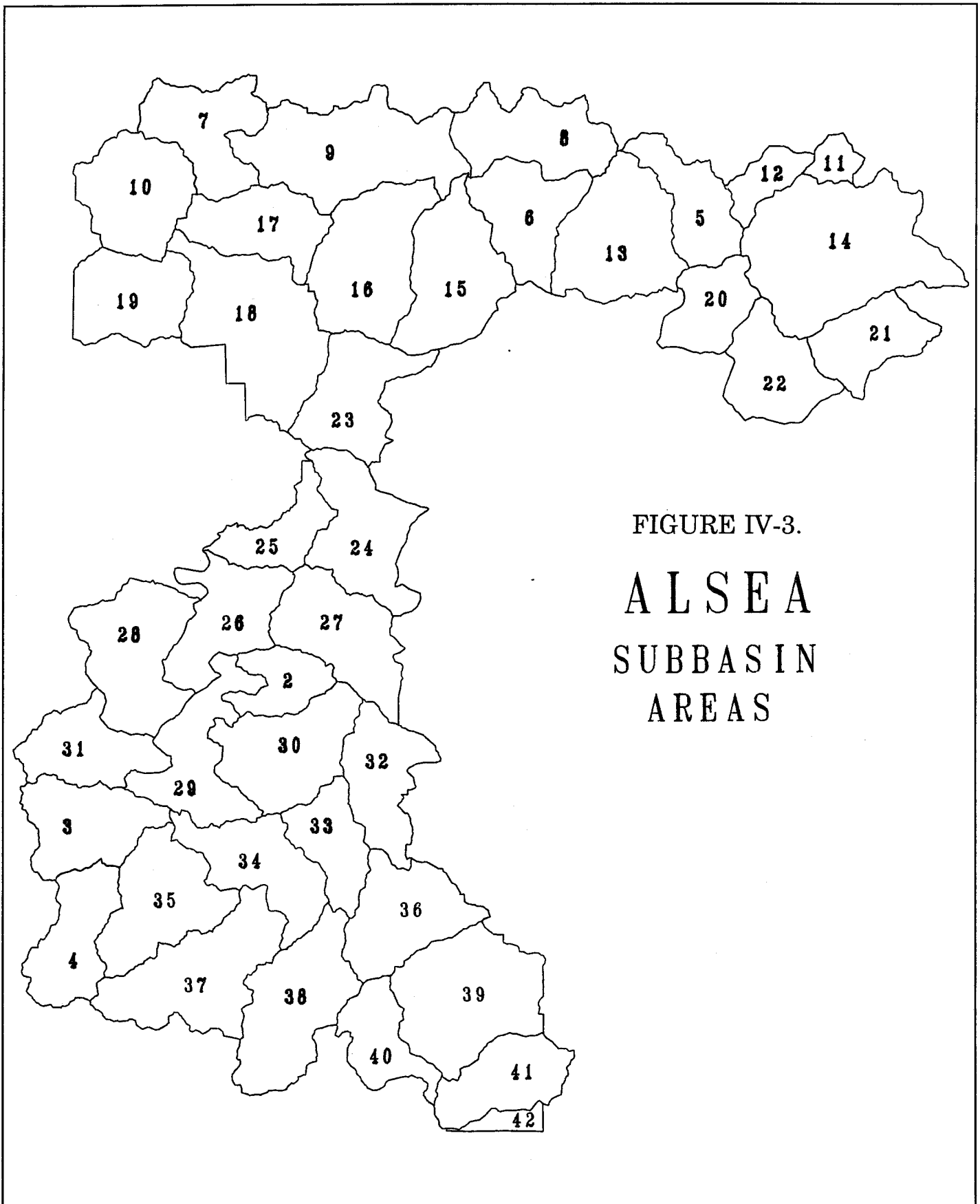


FIGURE IV-3.
**ALSEA
SUBBASIN
AREAS**



Fish

ALSEA RANGER DISTRICT SUBBASIN NAMES

<u>Number</u>	<u>Name</u>	<u>Number</u>	<u>Name</u>
1	(None)	22	Yew
2	Bear	23	Bull Run
3	Lower Buck	24	Lower Fall
4	Upper Buck	25	Scott (east portion)
5	Upper Shot Pouch	26	Alsea
6	Middle Big Elk	27	Upper Alsea
7	Homestead	28	Grass
8	Spout	29	Lower Five
9	Lower Big Elk	30	Lobster
10	Horse (east portion)	31	Cascade
11	Woods	32	Upper Lobster
12	Upper Mulkey	33	Camp
13	Upper Big Elk	34	Middle Five
14	Rock	35	Crab
15	Feagles	36	Preacher
16	Grant	37	Green
17	Gopher	38	Upper Five
18	Upper Drift (east portion)	39	Deadwood
19	Middle Drift (east portion)	40	Panther (north portion)
20	Upper Parker	41	Buck Rock
21	Greasy	42	Alpha (north portion)

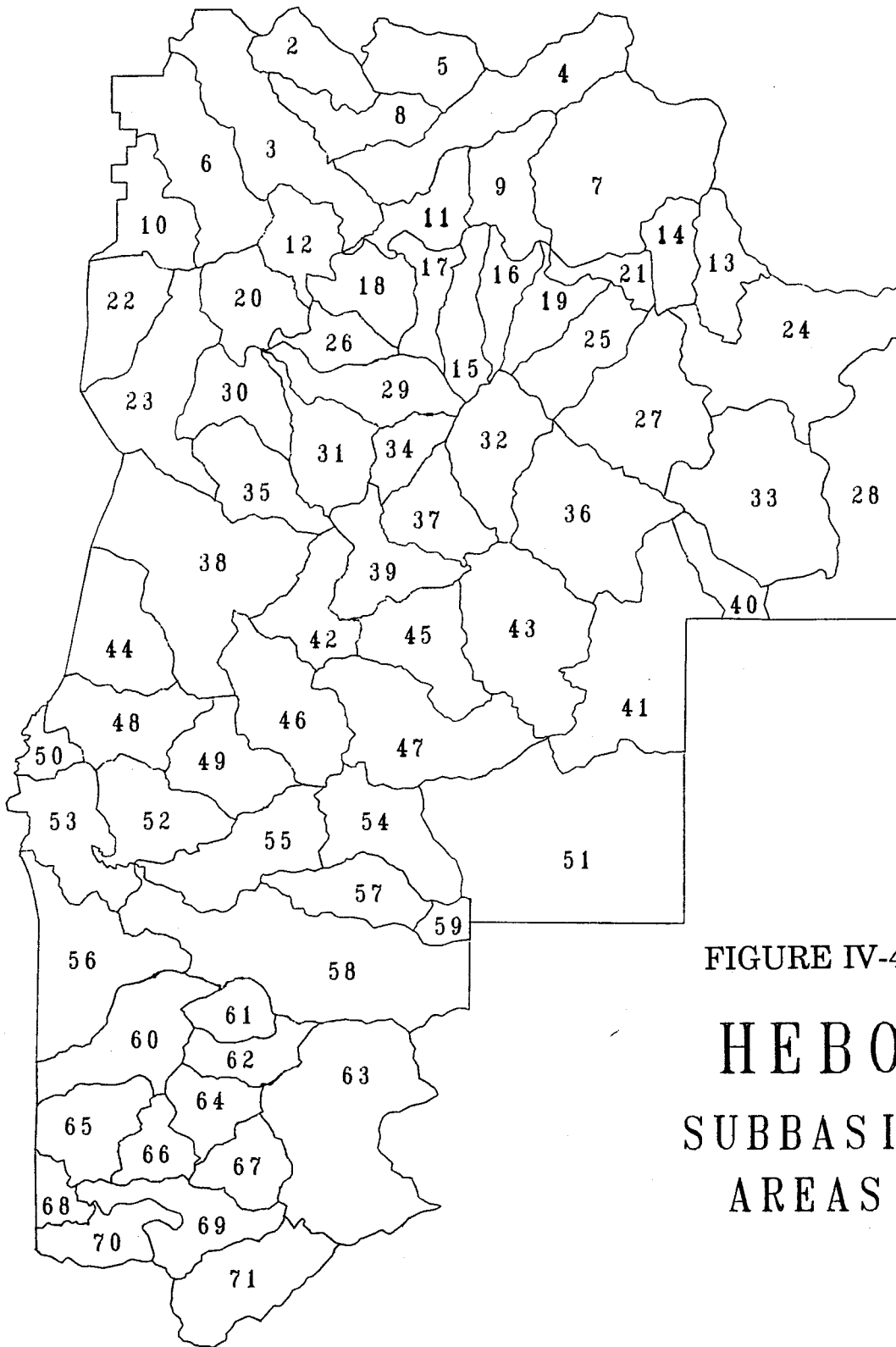


FIGURE IV-4.

HEBO
SUBBASIN
AREAS



Fish

HEBO RANGER DISTRICT SUBBASIN NAMES

<u>Number</u>	<u>Name</u>	<u>Number</u>	<u>Name</u>
1	(None)	37	Crazy (56E)
2	61B	38	Little Nest/Fall/Kellow/Squaw (54A B C)
3	Lower Beaver/Tiger/N/W (60A D E)	39	Alder/Buck (56D)
4	East Beaver (60B)	40	Cosper (2XXX)
5	Munson/Mills (61A)	41	52
6	Sand/Jewel/Andy (59C D E)	42	Bear/McKnight/Small (54D G)
7	Moon/East (57P Q)	43	Pierce/Kitten/EAD (52G H)
8	Bear (60C)	44	Butte/Hawk (55A)
9	Bays (57N)	45	Baxter/Louie/Sourgrass (54I J)
10	Sand Lake (59B)	46	South Fork Little Nestuc (54E F)
11	Wolfe (57J)	47	Cedar/Hiack/Stilwell/Pheasant (54H K)
12	West/Saling (57H)	48	Lower Neskowin (55B)
13	Slick Rock (57V)	49	Upper Neskowin (55C)
14	Clarence (57T)	50	Cliff (55D)
15	Boulder (57L)	51	49I
16	Alder (57M)	52	Salmon/Deer (49B)
17	Tony (57K)	53	Lower Salmon River/Estuary (49A)
18	Foland (57I)	54	Prairie/Boulder (49H)
19	Limestone (57O)	55	Panther (49D F)
20	Farmer (57F)	56	Rock (48A)
21	Blaine (57R)	57	Treat (49G)
22	Miles/Reneke (59F)	58	Willis/Bear/Slickrock/Trout (49C E)
23	Nestucca/Horn (57A B)	59	49J
24	Mina/Bible/Testament (57W X)	60	Lower Schooner/Erickson (47A B)
25	Powder (57S)	61	North Fork Schooner (47C)
26	George (57G)	62	South Fork Schooner (47D)
27	Niagara (57U)	63	Sampson/Smith/Upper Drift (47I J K)
28	Indian (XXXX)	64	North (47G)
29	Cedar (56A)	65	Gordey/Lower Drift (47E)
30	Sanders/Hartney (57D E)	66	Quarry (47F)
31	Dorothy (56B)	67	Wildcat (47H)
32	Upper Three Rivers (56F)	68	43A
33	Burton/Canada (53A B)	69	Bear/Echo Falls (43C)
34	Pollard Lawrence (56C)	70	43B
35	Clear (57C)	71	Upper Cedar (43I)
36	Yoncalla/Upper Agency (52D E)		

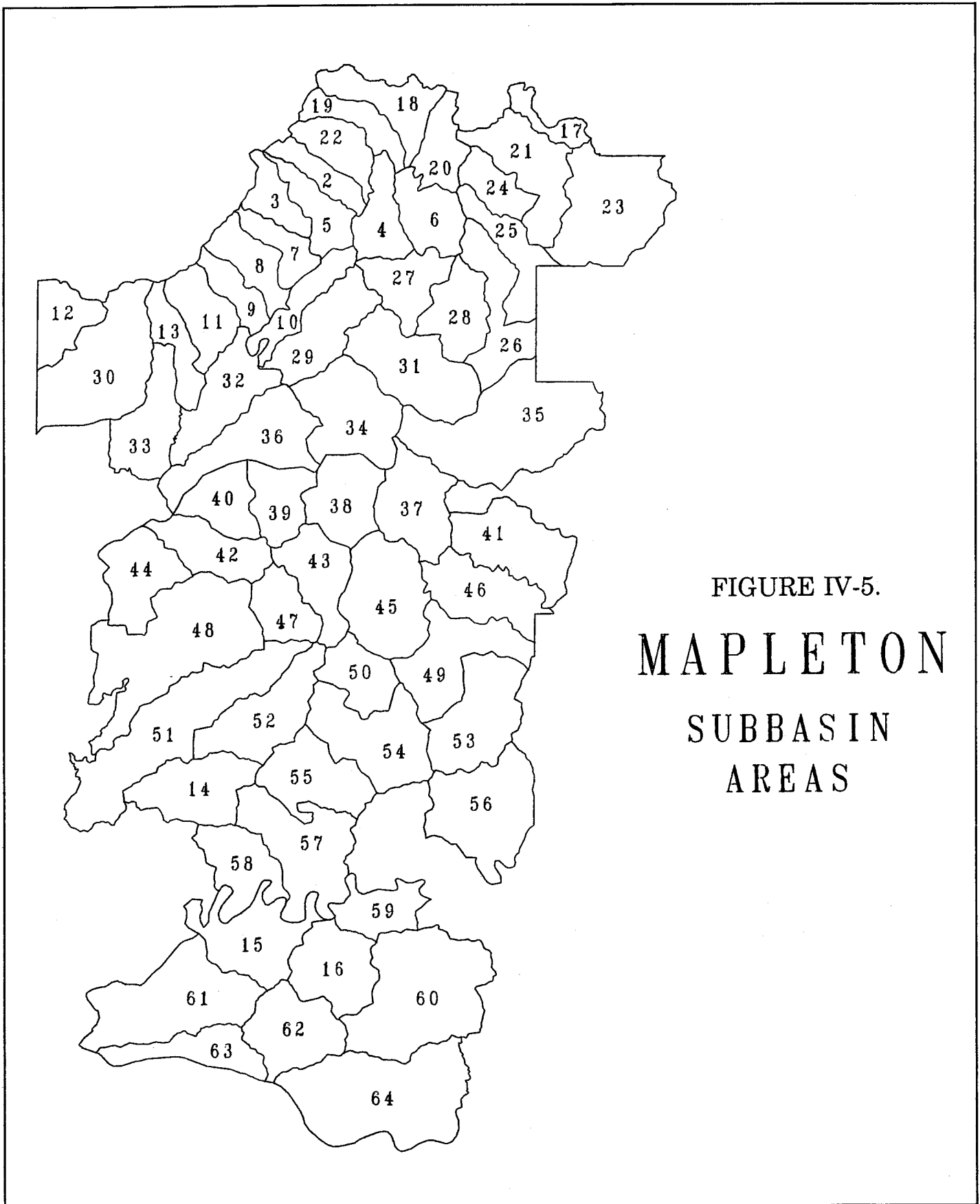


FIGURE IV-5.
MAPLETON
SUBBASIN
AREAS



Fish

MAPLETON RANGER DISTRICT SUBBASIN NAMES

<u>Number</u>	<u>Name</u>	<u>Number</u>	<u>Name</u>
1	(None)	33	Morris
2	Rogers	34	Walker
3	Sam	35	Barber
4	Long	36	Divide
5	Elma	37	Hadsall
6	Gibson	38	Lower Sweet
7	Porter	39	Hoffman
8	Wilhelm	40	Karnowsky
9	Drew	41	Upper Knowles
10	Cataract	42	Lawson
11	Uncle	43	Cedar
12	Berry	44	Siboco
13	Billie	45	Hand
14	Fivemile	46	Sheep
15	Murphy	47	Shultz
16	Lower Wassen	48	Maple
17	Panther (south portion)	49	Kentucky
18	North Indian	50	West Branch
19	Upper Indian	51	Bear
20	Herman	52	Upper Fiddle
21	West Deadwood	53	Steelie
22	Maria	54	Peach
23	Alpha (south portion)	55	Sulphur
24	Misery	56	Coon
25	Failor	57	Johnson
26	Green	58	Eslick
27	Elk	59	Weiss
28	Lower Indian	60	Upper Wassen
29	McLeod	61	Butler
30	Dahlin	62	Harvey
31	Thompson	63	Echo
32	Russel	64	Franklin

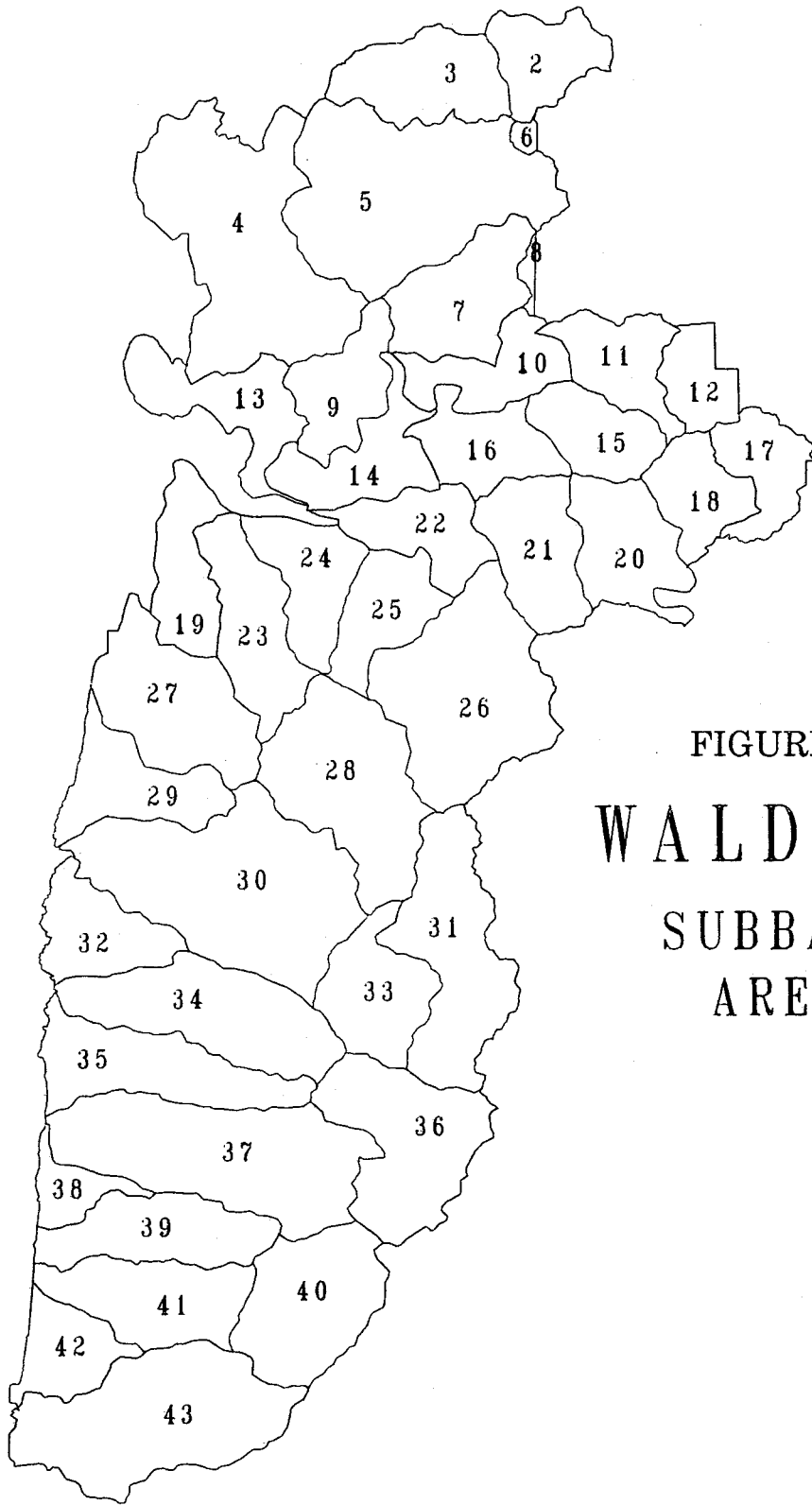


FIGURE IV-6.
**WALDP
SUBBASIN
AREAS**



Fish

WALDPORT RANGER DISTRICT SUBBASIN NAMES

<u>Number</u>	<u>Name</u>	<u>Number</u>	<u>Name</u>
1	(None)	23	Eckman
2	Mill	24	Darkey
3	Yaquina	25	Sudan
4	Beaver	26	Canal
5	North Beaver	27	Blodgett
6	Horse (west portion)	28	North Yachats
7	Trout	29	Vingie
8	Middle Drift (west portion)	30	Yachats
9	Lyndon	31	Upper Yachats
10	Drift	32	Perpetua
11	Gold	33	Stump
12	Upper Drift (west portion)	34	Cummins
13	Bayview	35	Bob
14	Wheelock	36	Upper Tenmile
15	Boulder	37	Tenmile
16	Cougar	38	Squaw
17	Scott (middle portion)	39	Rock
18	West Scott	40	Upper Big
19	Bayview2	41	Big
20	Hatchery	42	China
21	Tidewater	43	Cape
22	Risley		

RESOURCE SUMMARIES

Maps and names of the Subbasin Areas are shown on the previous eight pages.

FOREST-WIDE STANDARDS AND GUIDELINES

Standards and guidelines (S&Gs) are the base level practices used to achieve goals and objectives of the Forest Plan. They generally emphasize the desired result rather than provide detailed management direction; this enables resource specialists using on-site information to tailor direction to specific needs and opportunities associated with each project and the complexities of the resources involved. Project-level direction will be developed through NEPA procedures, within the bounds of the S&Gs.

The monitoring questions displayed in Chapter V reflect the expected end results of applying S&Gs. In some cases, such as watershed management, thresholds of concern in monitoring questions can be used to clarify the intent of the S&Gs.

S&Gs are one link in a chain of Federal and Regional Direction that includes federal and state laws, regulations, and executive orders; the Forest Service Manual (FSM) and Handbook (FSH); General Water Quality Best Management Practices, Pacific Northwest Region; and the Regional Guide for the Pacific Northwest Region (USDA Forest Service 1984a). S&Gs supplement this direction and, for the most part, synthesize and consolidate rather than repeat higher level direction.

S&Gs apply only to NFS land. The following S&Gs apply to all management areas (MAs) across the Forest; thus, they are referred to as "Forest-wide" S&Gs. For ease of reference, each Forest-wide S&G is given a distinct number including the prefix FW (Forest-wide). Additional S&Gs that apply to specific MAs are found in "Management Area Prescriptions" later in this chapter.

S&Gs are listed by activity or resource area (e.g., project planning, recreation, cultural resources, visual quality, wildlife, and fish), and each is preceded by a short, highlighted descriptor.

Project Planning and Implementation

- FW-001 Project Planning** - Plan and design projects in compliance with NEPA regulations, policy, and procedures, including proposals to modify projects after the initial decision has been made.
- FW-002 Planning Analysis** - Analyze areas larger than the actual project area (third- or fourth-order subbasins) if necessary to estimate cumulative effects, to determine spatial distribution and timing of all projects proposed for implementation, and to ensure that resource management objectives for each MA are being met. The size of the area will depend on the issue being analyzed. Consider activities on lands owned by others as well as on National Forest System (NFS) lands in the analysis.
- FW-003 Harvest Constraint** - Harvest for regeneration no more than 20% of the National Forest land in a subbasin area in any 10-year period. Subbasin areas are delineated on the Subbasin Area Index Layer (dated May 1992) of the Siuslaw National Forest Geographical Information System. Reductions of these maps are shown on pages IV-34b through IV-34i.
Amended
May 1992
- FW-004 Timber Planning** - Include analysis of present and future transportation and general logging feasibility in timber sale planning and design.
- FW-005 Removal Of Facilities** - Abandon or remove existing facilities (e.g, trails, roads, buildings) only when the advantages of removal or abandonment outweigh the disadvantages.

Recreation

- FW-006 ORV Use** - Permit the use of motor vehicles off roads, except where specified otherwise in MA direction in Forest Plan, Appendix D.
- FW-007 ORV Management Plans** - Restrict or prohibit specific types of motor vehicles off roads in areas not already restricted if needed to protect resources, provide for public safety, or minimize conflicts among users. Remove restrictions if adverse effects have been eliminated, and measures have been implemented to prevent reoccurrence (36 CFR 295).
- FW-008 ORV Plan Review** - Annually review ORV management plans and invite public participation if the plan needs revision (36 CFR 295).
- FW-009 Trail Construction** - Construct and maintain trails where they will either provide access to scenic attractions and recreational opportunities or serve as recreational opportunities for a variety of users. When possible, locate trails where adverse effects from or on other management activities will be minimized. When management activities will adversely affect trails, consider relocating the trail temporarily. If the trail is not relocated, reduce the effects of management activities (e.g., residue, stumps, rootwads, and disturbed soil) within 100 feet. Generally, do not reduce harvest volume in order to avoid effects on trails.
- FW-010 Features Inventory** - Develop an inventory of significant scenic attractions and recreational opportunities (e.g., attractive waterfalls or other water features, scenic bedrock features, scenic vistas, small roadside old-growth groves, meadows, significant cultural resource sites, dispersed camps). Maintain a visually pleasing setting around these features. (Visually pleasing settings could range from natural appearing with no vegetation removed from the nearby area to settings where significant modifications of the natural conditions have been made which enhance the appearance or use of the feature while meeting other resource objectives.)
- FW-011 Use Inventory** - Develop an inventory of areas with concentrations of dispersed public use (e.g., fishing, hunting, mushroom picking, mountain bike or horseback riding).
- FW-012 Dispersed Development** - Use the above inventories to plan additional dispersed recreational developments which will help meet projected public demand. Provide appropriate facilities (e.g., access, parking spots, and sanitation facilities) for the scenic attractions, recreational opportunities, or concentrations of dispersed use selected for management.
- FW-013 Interpretation** - Provide interpretation of attractions and features of public interest, including Forest Service resource management activities.
- FW-014 Developed Site Operation** - Operate and maintain existing developed sites in a cost effective manner so that:
- Public health and safety are assured. Follow directions in FSM 2332, 2333, and 7420, and FSH 7409.11, the Sanitary Engineering and Public Health Handbook;
 - Facilities are responsive to the needs and desires of the recreating public, while enhancing users' interaction with the natural resource;



Peregrine Falcon

FW-049 Recovery Plan - Although peregrine falcons (an endangered species) are not known to nest on the Forest, there is habitat for nesting and feeding. Protect sufficient existing nesting and feeding habitat to meet the objectives of the Pacific Coast Recovery Plan for the American Peregrine Falcon (USFWS 1982b). The recovery objective for the Forest is one pair. Protect any nest found, and protect and enhance associated habitat (such as feeding areas) if necessary.

FW-050 Management Plans - Within 3 years after implementation of the Forest Plan, complete an inventory which catalogues habitat suitable for peregrine falcon. Within one year of finding an eyrie, complete an eyrie management plan for the nest site. Coordinate the development of proposed management plans with the USFWS. Cooperate and coordinate with federal, state, and private organizations involved in recovery efforts.

Amended
May 1992

FW-051 Disclosure - Do not disclose information about falcon nest sites to the public.

Northern Spotted Owl

The management direction in the Forest Plan for northern spotted owls was amended by the Record of Decision on the FEIS on Management for Northern Spotted Owl in the National Forests, March 3, 1992. The new management direction is described in detail in that FEIS, as Alternative B, pages 2-19 through 2-40.

Snowy Plover

Status - This species is currently listed as sensitive by the Forest Service, as threatened by ODFW, and as a Federal Candidate Category 2 species by USFWS. The plover nests, feeds, and winters in sandy areas virtually devoid of vegetation, driftwood, and other structure near salt or brackish waters of the Pacific Ocean and bays. The following S&Gs were developed in accordance with recommendations from USFWS management guidelines and ODFW's draft management plan for snowy plover.

FOREST-WIDE STANDARDS AND GUIDELINES

Wildlife

- FW-058 Area Closures** - Post informational signs at trailheads and other entry points to snowy plover nesting areas requesting that pedestrians, pedestrians with dogs, and equestrians avoid walking or riding in nesting areas from March 15 to September 15. Include the estuaries of Sutton Creek, Siltcoos River, Tahkenitch Creek, and Tenmile Creek in the areas posted. Develop and post signs in cooperation with ODFW and the Oregon Department of Transportation.
- FW-059 Public Education** - Initiate public education programs to explain the need for closures and how to avoid impacts when using nesting areas.
- FW-060 Access Facilities** - Manage existing public access facilities to minimize potential impacts to nesting areas. Take plover nesting areas into consideration when planning facilities, and either avoid or mitigate impacts. Access facilities include parking lots and trails which have the potential to direct public use into nesting areas.
- FW-061 Existing Habitat** - Cause no further loss or degradation of existing habitat.
- FW-062 Habitat Enhancement** - As environmental conditions permit and as research determines suitable methods, create nesting habitat through methods such as the removal or control of beach grass or enhancement efforts such as the deposition of dredge spoils in appropriate areas.
- FW-063 Monitoring** - Collect information needed to manage plover populations, including: location, number, and success of nesting plovers; responses of nesting plovers to management practices (especially changes); why existing suitable nesting habitat is not fully utilized; and responses to enhancement efforts.
- FW-064 Cooperation** - Cooperate with ODFW and USFWS in doing surveys and research.

Other Species

- FW-065 Brown Pelican** - Although the California brown pelican (a threatened species) does not nest in Oregon, it is a common visitor along coastal shores and off-shore islands. Manage habitat affecting the species in accordance with the Recovery Plan (USFWS 1983a). Coordinate proposals for habitat enhancement projects with the USFWS.
- FW-066 Aleutian Canada Goose** - The Aleutian Canada goose (an endangered species) does not nest on the Forest, but is a winter migrant along the coast in estuaries and wetlands. Protect and manage the species' habitats in accordance with the Recovery Plan (USFWS 1982a). Coordinate proposals for habitat enhancement projects with the USFWS.
- FW-067 Big-eared Bat** - Evaluate use of habitat by Pacific western big-eared bat (an R6 sensitive and federal candidate species). In cooperation with ODFW, attempt to verify the presence of this species on the Forest. Manage any occupied essential habitat to maintain population stability.
- FW-068 Other Sensitive Animals** - The Regional Forester's list of sensitive species includes animals such as the long-billed curlew, common loon, white-footed vole, and western pond turtle. Continue to evaluate reported sightings of these species. In cooperation with ODFW, attempt to verify the presence and distribution of the species. Provide occupied essential habitat through a species management plan if a species is found on the Forest.



Wildlife

FW-069 Sensitive Plant Surveys - Survey all proposed projects that might disturb the ground for sensitive plants. Conduct surveys with qualified personnel at appropriate times of the year to detect presence of sensitive plants, and protect any occupied essential habitat. Forward the survey results to the Forest coordinator on an annual basis. Consult with the Oregon Department of Agriculture regarding new locations of sensitive plants and technical information. (Note: The Regional Forester's list of sensitive species includes 23 plants for the Forest. Nine have been documented on the Forest. Of these, five are Federal candidate species (*Abronia umbellata breviflora*, *Cardamine pattersonii*, *Erythronium elegans*, *Filipendula occidentalis*, and *Poa laxiflora*).

Wildlife

FW-070 Viable Populations - Manage activities and projects so they do not reduce suitability of habitat needed to maintain viability of species. Determine acceptable levels of effects on the habitat and assure that these levels are not exceeded. (Measures may include support of research, intensive evaluation of habitat conditions, and temporary or intermittent restrictions on public use.)

FW-071 Special Habitats - Protect, maintain, and enhance wildlife habitats which are limited on the Forest. These habitats include meadows, marshes, wetlands, estuaries, lakes, ponds, cliffs, talus outcrops, caves, and colonial nest/roost sites. Protection and maintenance of these areas includes consideration of sufficient adjacent area to maintain the integrity and functional character of the habitat. Address management of these sites as part of environmental analysis of specific management activities.

FW-072 Deciduous-Mix Habitat - For diversity purposes, maintain at least 5% of the Forest in hardwood and mixed hardwood/conifer stands. These stands should be distributed across the Forest in upland and riparian areas.

Dead and Defective Tree Habitat

FW-073 Subbasin Objectives - On NFS land in each subbasin (about 2,000 to 5,000 acres), provide enough snags to support at least 40% of the potential population level of primary cavity-nesting species. This is to ensure adequate distribution of snags throughout the Forest.

FW-074 Distribution Area Objectives - Provide snag densities needed for at least a 20% potential population level within land areas that are generally no larger than normal harvest units (maximum of 60 acres). This is to ensure adequate distribution of snags within a given subbasin.

FW-075 Green Replacement Trees - Maintain snag densities within distribution areas throughout a full rotation by providing green replacement trees that can be made into, or will become snags of adequate size when existing snags fall.

FW-076 Patch Size - Provide one or more patches of snags within a distribution area. Patches should be designed so that snags needed to meet the requirements of a pair of the excavator species with the smallest territory size are available within that territory size. Patches should be no closer than 750 feet wherever existing distribution of snags and live trees allows.

FOREST-WIDE STANDARDS AND GUIDELINES

Wildlife

- FW-077 Mature Conifer Areas** - Within each mature conifer habitat area managed for pileated woodpecker and marten, provide enough hard snags or green trees for snag mitigation purposes to support at least 60% of the potential population of primary cavity excavator species.
- FW-078 Analysis Procedures** - Calculate the number of snags needed to meet subbasin and distribution area objectives, using Forest species specific information and the general procedure outlined by USDA (1989a). Develop Forest guidelines for analysis and implementation of wildlife tree habitats.
- FW-079 Mitigation in Units** - Wildlife trees left in harvest units for mitigation purposes should be hard snags (Classes I, II, and III) and/or green trees to provide for current needs of hard snag dependent species and to serve as a source of future snags. Hard snags and topped green trees left to meet current needs should be at least 20 inches dbh and at least 20 feet tall. Green trees left as future wildlife trees must meet this size requirement by the time they are needed as replacement trees.
- FW-080 Soft Snags in Units** - Leave all soft snags (Classes IV and V) in harvest units except where they would create unacceptable conditions for safety, logging systems, or fire protection.

FW-081

Deleted
May 1992

Fish

- FW-082 Fish Passage** - Design and maintain instream structures to maintain streamflow velocities and channel gradients which permit anadromous and resident fish migration. Provide adequate conditions for fish migration in currently occupied as well as in potential habitat.
- FW-083 Seasonal Restrictions** - When possible, carry out activities which disturb stream channels, such as fish habitat structural work and bridge building, during seasons when there are no salmonid eggs or pre-emergent fry in the stream (generally July 1 - September 15).
Amended
May 1992
- FW-084 Instream Debris** - In all streams, leave natural and logging-induced debris which has the potential to maintain or enhance stream structure. When practical, remove excess debris which obstructs fish passage or has the potential to degrade the stream channel.
- FW-085 Withdrawal of Water** - Limit the withdrawal of water for Forest Service activities so that instream flows provide adequate habitats for spawning and rearing of fish.
- FW-086 Habitat Enhancement** - Develop fish habitat enhancement projects to open unavailable habitat and rehabilitate deteriorated habitat conditions that are limiting the size of fish populations. Base projects on standardized inventories of instream and riparian conditions, and evaluate their effectiveness. Coordinate priority selection with ODFW.



Fish

Amended Forest-wide Standard and Guideline FW-090 is on the back side of this page.

FOREST-WIDE STANDARDS AND GUIDELINES
Riparian Areas

Forest-wide Standard And Guideline FW-090 on the facing page has been amended to read:

FW-090 Yarding Corridors - When yarding corridors are needed through riparian buffers in order to harvest adjacent land, locate and design them so they:
Amended
May 1992

- Take advantage of natural openings where possible;
- Are relatively evenly spaced;
- Are 40 feet or less in width; and
- Result in removal of no more than 20% of the tree canopy present prior to harvest in any 1,000-foot reach of stream.

Fully suspend all logs yarded over perennial streams.



Fish

Riparian Areas

Description of Riparian Area

The following S&Gs apply to the riparian areas along all perennial streams (Class I, II and III), and will be used primarily within the lands that are suitable for timber production on the Forest. The width of the riparian area will vary according to site-specific conditions, and, for the Forest as a whole, is assumed to average 100 feet, measured horizontally, on each side of the stream.

- FW-087 Buffer Prescription** - Develop a site-specific prescription to design the riparian leave area needed to produce the desired condition for each reach of stream adjacent to an area planned for management activities. Normally this riparian leave area will vary in width to fit on-the-ground conditions. The prescription will consider factors such as the number and location of trees and their probability of falling into the stream, the amount and condition of existing large woody debris and other components of fish habitat in the channel, valley floor configuration, threats to the integrity of the riparian area from adjacent activities, stream and watershed conditions elsewhere in the basin, and riparian enhancement and management opportunities.
- FW-088 Buffer Width** - Where conifers exist along Class I and II streams, leave a zone of such trees, averaging at least 10 per 100 feet of stream reach (about half on each side), that are likely to contribute large woody debris to the channel. (On the average, these conifers are assumed to be within 100 feet of the streams, measured horizontally.)
- FW-089 Buffer Width** - Where conifers exist along Class-III streams, leave a zone of such trees, averaging at least 8 per 100 lineal feet of stream (about four trees on each side), that are likely to contribute large woody debris to the channel. On the average, these conifers are assumed to be within 60 feet of the streams, measured horizontally. Trees in the riparian area above the break in slope that are not needed to meet other objectives may be harvested.
- FW-090** This S&G has been amended. See Forest-wide Standard and Guideline FW-090 on facing page.
Amended
May 1992
- FW-091 Buffer Integrity** - Assure that riparian objectives are met by including sufficient upland transition zones or by using practices such as stage felling, lining, and jacking to provide long-term integrity of riparian buffers.
- FW-092 Riparian Tree Cutting** - Except for necessary felling of cable corridors, harvest trees within streamside buffers only when necessary to protect or enhance riparian dependent resources, such as fish habitat, watershed conditions, and water quality.
- FW-093 Fish Habitat Management** - Manage the vegetation in the riparian area to assure a continuing supply of conifer trees as a source of large woody debris for stream structure to improve fish habitat. Management activities will vary according to the existing condition of streamside vegetation. Options will include preservation of existing vegetation; removal of hardwoods and planting conifers in their place (together with the associated activities to conduct these operations); selective felling of trees into the stream channel when existing large woody material levels are deficient; and placement of large woody material originally located outside of the area into the stream channel.

FOREST-WIDE STANDARDS AND GUIDELINES

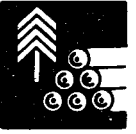
Timber

Range

- FW-094 Grazing Management** - Livestock grazing may be used as a tool to manage vegetation.
- FW-095 Noxious Weeds** - Control noxious weeds when necessary to meet state and county objectives, or to improve conditions or outputs of other resources (e.g. make more forage available for big game, reduce competition with trees). Noxious weed control will be coordinated with Oregon Department of Agriculture.
- FW-096 Riparian Protection** - Develop grazing systems to be compatible with riparian management goals.
- FW-097 Riparian Forage** - Limit grazing of preferred forage species in riparian areas to 35-50%.
- FW-098 Watering Facilities** - Where feasible, develop watering facilities away from stream courses to reduce the potential for bank disturbance and adverse effects on water quality.
- FW-99 Water Quality** - Livestock management practices will conform with State Recreational Water Quality Standards.
- FW-100 Soil Damage** - Prevent livestock grazing in areas with wet or saturated soils to prevent excess puddling or soil compaction and displacement of surface vegetation

Timber

- FW-101 Logging on Unsuitable Lands** - Vegetation management is a principal tool used to attain resource goals throughout the Forest. Unless stated otherwise in the MA S&Gs, trees may be cut or removed from land unsuitable for timber production for the following reasons, provided that the management direction for the area can still be achieved:
- Salvage trees or stands killed or substantially damaged by fire, windthrow, or other catastrophe;
 - Control the spread of insect or disease outbreaks;
 - Conduct research;
 - Provide for the safety of Forest users (this includes hazard tree removal in camp and picnic grounds, in administrative sites, and along roads open to the public);
 - Maintain or enhance fish and wildlife habitats;
 - Improve the visual resource by opening scenic vistas or by improving visual variety;
 - Construct new facilities such as roads, trails, administrative facilities, recreation facilities, and so forth.
- FW-102 Unit Size and Location** - Ensure that dispersion and maximum size of created openings (clearcuts) conform to R-6 Regional Guide (USDA Forest Service 1984a) Standard and Guidelines 2-1, 2-2, and 2-3, except as outlined in 2-1.



Timber

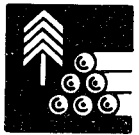
Amended Forest-wide Standard and Guideline FW-107 is on the back side of this page.

Forest-wide Standard and Guideline FW-107 on the facing page has been amended to read:

FW-107 Soil Damage - To maintain long-term productivity, do not allow the total acreage of all detrimental soil conditions to exceed 15% of the total National Forest land within each harvest unit, excluding roads and landings. Detrimental conditions are those that would reduce the potential of the site to grow trees or other vegetation. They include:

Amended
May 1992

- Mechanical displacement or erosion - removal of at least ½ of the A horizon over an area of at least 100 square feet.
- Compaction - an increase of at least 20% bulk density at a depth greater than 4 inches and at least 3 or 4 inches thick over an area of at least 100 square feet. A 20% increase in bulk density obliterates all evidence of soil structure (compacted soil is a massive block without individual peds). Laminar structure of the compacted, massive soil may be evident, but may not always occur.
- Intensely burned soil - complete incineration of duff (surface organic matter above the mineral soil) or the exposed mineral soil is yellow or reddish in color. These changes indicate heating that is sufficient to reduce nutrients and measurably affect long term productivity.



Timber

- FW-103 Utilization Standards** - Ensure that utilization standards conform with R-6 Regional Guide (USDA Forest Service 1984a) Standard and Guide 4-2.
- FW-104 Special Use Permits** - Ensure that timber sales are compatible with existing special use permits where significant permanent improvements have been made.
- FW-105 Oil and Gas Development** - Give oil and gas development priority over timber sales if irreconcilable conflict occurs.
- FW-106 Other S&Gs** - All other timber S&Gs are contained in MA 15.

Soil and Water

- FW-107** This S&G has been amended. See Forest-wide Standard and Guideline FW-107 on facing page.
Amended
May 1992
- FW-108 Stability Assessment** - Assess the stability of all slopes and roads prior to implementation of ground-disturbing activities.
- FW-109 Site Productivity** - Retain sufficient ground vegetation and organic matter to maintain long-term surface soil stability and site productivity. Practices include preventing erosion (landslides, dry ravel, sheet and rill), hazard reduction, and site preparation on sensitive sites and result in maintenance of organic matter in the surface soil.
- FW-110 Large Woody Material** - Within each harvest unit, leave an average of at least 2 pieces per acre of dispersed, large, down woody material in Decay Class I or II following regeneration harvest, catastrophic salvage, and site preparation. Leave pieces of conifer species if available, otherwise leave pieces of deciduous species. Each piece must be larger than 18 inches in diameter at the small end, longer than 12 feet, and at least 40 cubic feet in volume. In addition, leave all standing or down woody material in Decay Classes III, IV, or V that does not meet utilization standards.
Amended
May 1992
- FW-111 Leave Areas for Safety** - Leave vegetation intact on slopes where root strength or other characteristics of that vegetation may be needed to prevent landslides which might hit an inhabited building.
- FW-112 Vegetation Leave Areas** - Leave all vegetation intact on slopes where root strength or other characteristics of that vegetation may be needed to prevent an increase in landslide occurrence, unless no significant direct or cumulative adverse effects on downslope resources or site productivity are anticipated as a result of the increased landslides.
- FW-113 Leave Area Protection** - Design logging and road construction in areas adjacent to vegetation leave areas to minimize the adverse effects of logging activities, broadcast burning, and wind on the leave areas.

FOREST-WIDE STANDARDS AND GUIDELINES

Soil and Water

FW-114 Best Management Practices - Comply with State requirements in accordance with the Clean Water Act for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41) through planning, application, and monitoring of Best Management Practices (BMPs) in conformance with Oregon's Forest Practices Rules (OAR Chapter 629-24) and Clean Water Act regulations and federal guidance issued thereto. The key beneficial uses which BMPs are designed to protect are fish habitat and water for domestic use.

FW-115 BMP Process - In cooperation with the State of Oregon, use the following process:

- Select and design BMPs based on site-specific conditions, technical, economic and institutional feasibility, and the water quality standards for those waters potentially impacted;
- Implement and enforce BMPs;
- Monitor to ensure that practices are correctly applied as designed;
- Monitor to determine the effectiveness of practices in meeting design expectations and in attaining water quality standards;
- Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMPs do not perform as expected; and
- Adjust BMP design standards and application when it is found that beneficial uses are not being protected and water quality standards are not being achieved to the desired level. Evaluate the appropriateness of water quality criteria for reasonably assuring protection of beneficial uses. Consider recommending adjustment of water quality standards.

FW-116 Water Quality Plan - Use the existing approved process to implement the State Water Quality Management Plan on lands administered by the USFS as described in Memoranda of Understanding (MOU) between the Oregon Department of Environmental Quality and U.S. Department of Agriculture, Forest Service (2/12/79 and 12/7/82), and "Attachments A and B" referred to in this MOU (Implementation Plan for Water Quality Planning on NFS lands in the Pacific Northwest 12/78 and Best Management Practices for Range and Grazing Activities on Federal Lands, respectively).

For a more complete explanation of the above, refer to FEIS, Appendix J "Best Management Practices".

Individual, general BMPs are described in General Water Quality Best Management Practices, Pacific Northwest Region, 11/88. This provides guidance but is not a direction document. Also included in this document is a description of the process and limitations and use of these BMPs. Each BMP listed includes the Title, Objectives, Explanation, Implementation and Responsibility, and Monitoring. Evaluations of ability to implement and estimated effectiveness are made at the project level.

Not all of the general BMPs listed will normally apply to a given project, and there may be specific BMPs which are not represented by a general BMP in this document.

The sensitivity of the project determines whether site-specific BMP prescriptions are included in the EA/EIS, sale/project plan, or analysis files.



FW-117 Water Quality - BMPs are designed largely to protect fish and water for domestic use. The key water quality standards for the State are:

a. **Temperature Increases** - Use the following table to determine the maximum acceptable increase in temperature:

When stream temperature is:	Maximum increase allowed:
64 F or more	none
62 - 63.5 F	0.5 F
less than 62 F	2.0 F

b. **Turbidity Increases** - Do not allow more than a 10% increase in turbidity above natural or existing stream turbidity measured upstream from an activity causing turbidity.

FW-118 Stream Shading - Leave enough vegetation intact along perennial streams to limit solar heating of streams and maintain water temperatures within State water quality standards.

FW-119 Hazardous Spill - Take measures which will assure that downstream water users and residents are notified immediately in the event of a spill of hazardous material.

FW-120 Protection from Chemicals - Use measures which are effective in preventing chemicals (including fertilizer) from entering water and other areas not intended for treatment. Measures may include no-spray buffers and road closures for transport of chemicals.

FW-121 Sanitation Facilities - Provide sanitation facilities wherever human wastes would cause a hazard to human health.

FW-122 Spill Plan - Prevent disposal of petroleum products and hazardous materials on Forest lands. Follow the Forest's Hazardous Materials Spill Plan for control and cleanup of accidental spills of hazardous materials.

FW-123 Streamside Stability - Design any structure which is in or near a stream to maintain stability of stream-adjacent slopes and minimize surface erosion which enters the stream.
Amended
May 1992

FW-124 Domestic Use - When an activity proposed within a domestic-use watershed could measurably affect water quality or quantity, consider the needs of the water user in a site-specific environmental analysis under the NEPA process.

FW-125 Instream Flows - Protect instream flow on Forest lands through site-specific analysis of proposed water uses, diversions, and transmission applications in accordance with NEPA and renewal of permits. Protect instream flow needs by: filing protests with the State where applications are made that adversely affect National Forest resources; asserting claims for this water under federal or state laws where applicable; inserting protective measures into special use permits; and reaching formal agreements over use. Purchase of water rights and impoundments are other means for reducing impacts.

FW-126 Floodplain Protection - Plan, construct, and maintain all existing and proposed facilities and structures within floodplains so they comply with floodplain management directions found in the Forest Service Manual.

FOREST-WIDE STANDARDS AND GUIDELINES
Minerals and Geology

- FW-127 Stream Diversion** - When streamflow is temporarily diverted to accommodate construction or other activities, restore it to the natural course as soon as practical.
- FW-128 FERC Coordination** - Do not locate significant capital investment projects within FERC power withdrawals unless it would be practical to relocate them if the hydroelectric site is developed.

Municipal Watersheds

- FW-129 Environmental Analysis** - When an activity is proposed within a municipal watershed (see Glossary), conduct a site-specific environmental analysis under the NEPA process which considers the needs of the water users.
- FW-130 Cooperative Agreements** - In the Toledo and Corvallis municipal watersheds, assure that activities comply with the 1915 and 1922 Cooperative Agreements between the Secretary of Agriculture and the cities of Toledo and Corvallis, respectively.
- FW-131 Harvest Limitation** - Limit clearcut harvest acres to less than 15% of any municipal watershed within any 10-year period.
- FW-132 Special Practices** - Use herbicides only when other methods would not be effective. If herbicides are necessary, use only ground-based methods. Comply with mitigation measures in the Regional EIS, Managing Competing and Unwanted Vegetation (1988b).

Minerals and Geology

- FW-133 Surface Disturbance** - Manage mineral activities, including exploration, to minimize surface disturbance.
- FW-134 Withdrawal From Entry** - Consider withdrawing lands with permanent facilities, T&E species habitat, or designation as a Special Interest Area from mineral entry. Lands being recommended for withdrawal shall be examined to assess the effects on all resources, including minerals.
- FW-135 No Surface Occupancy** - Apply a "no surface occupancy" stipulation to leases only when (a) surface occupancy would cause significant resource disturbance which cannot be mitigated by any other means, (b) resource impacts would be irreversible or irretrievable, or (c) the activity is incompatible with surface management objectives.
- FW-136 Common Variety Minerals** - Provide common variety mineral material for roads, trails and other activities on Forest lands. Make common variety material available for off-Forest uses when it has been determined, through environmental analysis, that reserves exceed those necessary to meet projected Forest needs.
- FW-137 Common Variety Management** - Manage common variety mineral materials by lease, sale, or permit in accordance with the following criteria:
- Utilizes existing sources before developing new ones;
 - Authorize activities on lands covered by other mineral leases or permits only when removal will not unduly interfere with the prior authorization; and



Minerals

- Do not authorize exploration and development activities in areas where there would be conflict with other beneficial uses, such as riparian areas, special wildlife areas, and developed recreational or administrative sites.

FW-138 Common Variety Removal - Administer removal of common mineral materials on a sale or permit basis in areas where development does not conflict with other resource objectives. Process mineral material requests in accordance with procedures in 36 CFR 228, Subpart C. Proposed mineral material sources shall have a development plan.

FW-139 Development Plans - Include reasonable, operationally feasible provisions to protect riparian values and meet state water quality standards in plans for exploration and development of any type of mineral resource (leasable, locatable, and common variety).

Research

FW-140 RNA Network - In cooperation with PNW Research Station, identify biotic communities on the Forest which might represent unique ecosystems that qualify for the Research Natural Area network.

FW-141 Cultural Resource Studies - Provide selected cultural resource properties for scientific study of past human behavior, lifeways, economics, and adaptation.

Lands

FW-142 Right-of-Way Applications - When applications for rights-of-way for utilities are received, give first priority to utilization of residual capacity in existing corridors. (A map showing electronics sites and major utility corridors is on file at the Forest Supervisor's Office.)

FW-143 Additional Corridors - Designate any additional corridors for major utilities through an interagency environmental analysis, following procedures set forth in the Regional Guide. Amend the Forest Plan to include the newly designated corridor.

FW-144 BPA Coordination - Coordinate all new utility corridor requests with the Bonneville Power Administration. Limit right-of-way clearing for utility corridors to the extent necessary for safe and efficient use.

FW-145 Protection of Raptors - Design new power lines to avoid electrocution of raptors.

FW-146 Subsurface Lines - Bury new or reconstructed linear utility facilities unless environmental analysis indicates it would be unacceptable.

FW-147 Road Grants - Issue road rights-of-way grants to public road agencies for long term-use only as permanent easements.

FW-148 Temporary Access - Acquire temporary access for Forest Service activities when one-time entry is expected to access relatively small and/or isolated parcels.

FW-149 Limited Access - Do not acquire limited access for permanent rights-of-way unless either the public has alternative access to the parcel, or costs to acquire access outweigh public benefits.

FOREST-WIDE STANDARDS AND GUIDELINES

Transportation

FW-150 Special Easements - Acquire conservation or scenic easements rather than full ownership when objectives can be met and cost is substantially less than the cost of full ownership.

FW-151 Electronics Management - Manage sites designated for electronic use to maximize the number of compatible users while minimizing construction of individual buildings and facilities. Utilize existing site capacity before developing new sites when coverage is comparable. In addition,

- Develop site plans for existing sites with facilities in place; and
- Develop site plans for new sites prior to installation of facilities.

FW-152

Deleted
May 1992

FW-153 Land Acquisition - Acquire and dispose of lands as prioritized in Appendix C.

FW-154 Rights-of-Way - Reserve rights-of-way needed for management on land sales and exchanges.

FW-155 Land Exchange Restrictions - Do not permit new activities on land where a land exchange statement of intent has been signed, unless consent of the proponent is obtained.

FW-156 Trespass - Identify and resolve occupancy trespass cases.

FW-157 Small Tracts - Identify and complete Small Tracts Act cases in a timely manner.

FW-158 Monuments and Property Lines - Locate and post survey monuments and property lines with the goal of completing the Forest by the end of the first decade.

FW-159 Land Lines - Locate and post all land lines needed for resource production before activity.

FW-160 Maintenance - Maintain corner monuments on a 10-year cycle. Survey property line conditions on a 10-year cycle and maintain lines, as needed, prior to management activities.

FW-161 Permits - Issue only those new permits which are compatible with management area objectives.

Transportation

FW-162 Road Design - Design and maintain roads to the minimum standard required for the safety of users, for current and future intended uses, and to meet all resource objectives for an area. Design roads to avoid wetlands and riparian zones wherever possible. Design necessary crossings to minimize adverse impacts to water and fish habitat and in no way inhibit fish passage.

FW-163 Road Stability - Construct and maintain roads and rock pits to minimize risk of landslides and erosion on the road surface.

Management Area 4 (Bald Eagle Habitat)

Prescription

Provide nest sites for bald eagles; enhance habitats to contribute to removal of T&E species from state and federal lists C20, S20).

Introduction

The bald eagle is listed by the U.S. Fish and Wildlife Service (USFWS) as a threatened species in Oregon. Habitat must be provided to assist in recovery of the species and to ensure that the population will not become endangered. The MA consists of 23 nest sites (all seven known on the Forest and another 16 potential sites). Until completion of an individual nest site plan, at least 125 acres of habitat will be protected at each site.

Management prescriptions for this area help resolve the portion of Issue 5 (See Chapter III) which is concerned with amounts of habitat maintained for T&E and sensitive species.

All land in this MA is categorized as "unsuitable for timber production."

Refer to Forest-wide S&Gs for T&E species for additional guidance regarding management of bald eagle habitat in areas outside of MA 4.

Goals

The primary goals for MA 4 are to provide effective nesting habitat for bald eagles and to assist recovery of the species.

Desired Condition

Habitat consists of mature and old-growth forest with numerous large conifer trees (50-90 inches in diameter). Large snags with sizeable limbs for perching are common. Activities are not disturbing the eagles, especially during nesting and fledging periods. Roads and trails may be present, but may be closed during critical seasons.

Standards and Guidelines for MA 4

General

- 04-01 **Prohibited Activities** - Do not allow activities which are incompatible with either bald eagle nesting and roosting or seasonal concentrations of eagles.
- 04-02 **Consultation** - Ensure that all proposed activities conform with consultation requirements with the USFWS.

Recreation

- 04-03 **Recreational Use** - Allow dispersed recreational use which does not adversely affect bald eagle recovery.
- 04-04 **ROS Class** - Manage recreational opportunities to be in the roaded-natural ROS class.

Management Area 4

- 04-05 Trail Construction** - Permit construction of new trails and other developments where site-specific biological review and environmental analysis have determined that there will be no adverse effects on bald eagle recovery objectives.

Visual Quality

- 04-06 VQO Management** - When a portion of MA 4 is seen from the sensitive viewing location (road, recreation site) in a viewshed assigned special scenic protection, manage the portion which is seen to meet or exceed the VQO assigned to the corresponding portion of the viewshed. See Table IV-11 for a list of viewsheds which are assigned special scenic protection, and their VQOs. See the Glossary or USDA Forest Service (1974) for a description of VQOs.

Wildlife

- 04-07 Boundary Adjustments** - In cooperation with USFWS and ODFW, adjust the boundaries of a nest site if patches of habitat larger than 5 acres are lost. Ensure that replacement stands best meet long-term needs of the bald eagle.
- 04-08 Habitat Management Plan** - Annually prepare management plans for at least four nest sites until all nest sites (existing and potential) have plans. First priority is to complete plans for existing nest sites. Develop the plans to meet informal consultation requirements with USFWS.
- Amended
May 1992
- 04-09 Habitat Protection** - Until completion of site-specific management plans, protect at least 125 acres of habitat at each site (where this much NFS land is present; Anthony and Issac 1989). Ensure that the site is a contiguous block of the best available habitat.
- 04-10 Habitat Enhancement** - Coordinate habitat enhancement opportunities with the USFWS. Do not permit activities within 125-acre active nest areas between January 1 and August 31.
- 04-11 New Sites** - If bald eagles establish a nest outside a potential bald eagle nest site, substitute an appropriate area around the newly established nest in place of a potential site.

Timber

- 04-12 Timber Harvest** - Do not program or normally allow timber harvest and firewood cutting. Do not salvage dead or down material. Permit exceptions on a case-by-case basis for one or more of the following purposes, provided that environmental analysis shows that the activity would not conflict with meeting goals of the MA and consultation requirements with USFWS have been met:

- Wildlife and fish habitat enhancement or maintenance (including manipulation of stands to enhance bald eagle habitat);
- Protection of stands imminently threatened by catastrophic outbreaks of insects or disease;
- Research (related to the management direction for this MA);
- Safety of people or facilities;
- Development and maintenance of roads and trails; and

Protection

- 12-06 Suppression Methods** - Use suppression methods and equipment that minimize disturbance to the wilderness landscape, land surface, or visitor solitude.
- 12-07 Fire Support** - Locate fire camps, helispots, and other temporary facilities or improvements outside of the wilderness boundary whenever feasible.
- 12-08 Rehabilitation** - Rehabilitate the fire area only if necessary to prevent an unnatural loss of the wilderness resource or to protect life, property, and other resource values outside of wilderness.
- 12-09 Pest Management** - Do not control insect or disease outbreaks unless it is necessary to prevent either unacceptable damage to resources on adjacent lands or an unnatural loss to the wilderness resource due to exotic pests, and then only after an evaluation of the epidemic and the proposed suppression measures are approved by the Chief.

Lands

- 12-10 Land Acquisition** - Retain NFS lands and acquire adjacent lands that would enhance the wilderness values of the Wildernesses.
- 12-11 Boundary** - Provide a marked and visible boundary, with monuments every 1/2 mile, which accurately identifies the Congressionally designated Wildernesses.

Transportation

- 12-12 Trail Construction** - Construct hiking trails which are relatively narrow and unsurfaced, and which may be fairly steep - ("More Difficult", FSM 7709.12 - Trails Handbook). Use hand tools and native materials to the extent possible.
- 12-13 Abandoned Roads** - Put abandoned roads in a condition that prevents landslides which would cause unacceptable damage to resources downstream.
- 12-14 Motorized Use** - Approve the use of motorized equipment or mechanical transport only if justified as described in FSM 2326.1.

Wildlife

- 12-15 Spotted Owls** - Permit trail construction and reconstruction within spotted owl habitat if site specific biological review and environmental analysis has determined that owl breeding, rearing, or fledging will not be disrupted. In general, do not construct new trails within 600 feet of a nest or heavily used roost site.

Research

- 12-16 Establishment Record** - Complete the establishment record for the potential Cummins Creek/Gwynn Creek Research Natural Area and submit it for approval within 3 years of Forest Plan approval.
Added
May 1992

Management Area 13 (Research Natural Areas)

Prescription

Maintain a land area where natural conditions and processes are allowed to dominate (C12, S10).

Introduction

Research Natural Areas (RNAs) are physical or biological units in which current natural conditions are maintained insofar as possible (at best, an entire small drainage basin embracing a number of terrestrial and aquatic situations). These units are part of a national system of examples of major ecosystems (FSM 4063). This MA contains the existing Flynn Creek RNA, which will be managed in a manner consistent with the Establishment Report (McKee 1977), and the potential Reneke Creek and Sand Lake RNAs.

Management prescriptions for this area help resolve the portion of Issue 12 (see Chapter III) which is concerned with areas of the Forest reserved as RNAs for research on natural systems. This issue is also partly resolved by management of the existing Neskowin Crest RNA (in MA 6) and the potential Cummins/Gwynn Creeks RNA (in MAs 5 and 12).

If any recommended potential RNA is rejected for formal RNA designation after the site-specific establishment report is completed, the area will be restudied to determine which MA it should be assigned to. A new assignment will be an amendment to the Forest Plan.

All land in this MA is categorized as "unsuitable for timber production."

Goals

The primary goal is to preserve naturally occurring physical and biological units where natural conditions are maintained insofar as possible for the purposes of: 1) comparison with those lands influenced by man; 2) provision of educational and research areas for ecological and environmental studies; and 3) preservation of gene pools of typical, rare, and T&E plants and animals. An additional goal is to provide habitat for the bald eagle.

Desired Condition

The desired condition consists of naturally occurring physical and biological processes that are operating without undue human intervention. The environment is preserved in its natural condition as a source of gene pools and for education and research on plant and animal communities.

In general, natural physical and biological processes prevail without human intervention. Animal life representative of the vegetative conditions is present. The only signs of logging are felling of trees which may be hazardous to facilities or people using adjacent roads. Some recreational activities compatible with natural systems, such as hiking and birdwatching, may be present. The desired condition for each area follows:

Flynn Creek - This 688-acre RNA consists of the entire 560-acre, heavily forested drainage of Flynn Creek, plus 130 acres of buffer outside the drainage which is needed to prevent blowdown. The area is in an essentially natural state, with highly productive terrestrial and aquatic systems. Anadromous salmonids, particularly coho salmon and searun cutthroat trout, live in Flynn Creek. The vegetation is dominated by a mature Douglas-fir (100-150 years old) and sword fern community that is interspersed with red alder stands of various sizes.

Table V-6B. Monitoring Questions - Soil and Water (Water Quality)

QUESTION: Is the water quality of perennial streams being maintained as predicted?

Discussion - Activities such as road building, timber harvest, and site preparation adjacent to intermittent and perennial streams can affect downstream water quality. Primary causes of these potential affects are landslides, channel scouring or filling, and sedimentation from surface erosion. Perennial streams are used as domestic and municipal water supplies and habitat for a variety of fish and other aquatic species. The condition of sensitive stream adjacent riparian ecosystems is reflected by the water quality of perennial streams. Assessment of the water quality of perennial streams will help us understand the cumulative effects of our activities.

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are indicators of surface erosion absent on at least 85% of that portion of harvest units which contribute sediment to first and second order streams.	Dry ravel	Random transect on 20% of harvest units burned	% of area affected	Moderate	Within 1 week of burn	Every 3 years	Watershed staff	More than 15% of the contributing area with signs of surface erosion	\$2,600/ year
Are state water quality standards being met where road prisms are contributing sediment to streams.	Turbidity	On-the-ground inspections of roads to identify road adjacent areas influencing streams plus grab samples above and below at perennial stream junctions.	NTUS Turbidity	Moderate	Ongoing during storms	Every 3 years	Watershed staff	More than 15% of samples do not meet state water quality standards.	\$1,600/ year

Table V-6B Cont. Monitoring Questions - Soil and Water (Water Quality)

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Does production of sediment, particularly fines, from timber harvest activities result in accelerated deposition or changes in downstream sensitive stream reaches?	Channel erosion and deposition; bank erosion quantity, distribution and stability of woody debris	1) Identify areas 2) Establish permanent, site-specific data collection transects; stream surveys	Change in channel erosion and/or deposition	Moderate	Every 3 years or after a 10 year or larger storm event	Every 3 years or after a 10 year or larger storm event	Watershed staff	More than 15% or greater change in erosion or deposition	\$10,000/year \$20,000 to establish
Are management related landslide rates and volumes within 20% of the rates predicted in the Siuslaw National Forest sediment model?	Cause of axial failures and torrents (In unit or road/sidecast related). Miles of stream habitat lost or damaged.	FERM reports, field recon, air photo recon, measure volume and compare to the Sediment Model.	Size (M ³) -slide -torrent track; number; and miles of (stream affected stratify origin by SRI land type).	Moderate	On going	5, 10 years and after a greater than and equal to 10-year storm event (annually)	Watershed staff	More than a 20% deviation from derived rates.	\$7,000/year \$2,000 to establish
Are stability vegetation leave areas (SVLAs) implemented and surviving as prescribed?	Leave area size; appropriate placement; harvest survival (felling yarding burning); storm survival (blow-down slides); and adjacent in/unit slides.	Tracks VLA from reconnaissance through harvest and past harvest for 10 years.	Size, Rate	Moderate	On going; Prior to beginning of water year	5, 10 years and after a greater than or equal to 10-year storm event.	Watershed staff	More than a 20% deviation from predicted landslide rates	\$900/year \$2,500 to establish

Table V-8 . Monitoring Questions - Transportation

QUESTION: Is the transportation system meeting the planned levels?

Discussion - Roads are designed and maintained to the minimum standards required for the safety of users, for intended uses and to meet all resource objectives for an area. The monitoring items will provide information about how well the proposed road program meets the Forest Plan objectives.

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are planned projects and program targets being accomplished?	Project output	ROADS (existing reports)	Miles	High	Annually	Annually and as needed	Planning Staff	Accomplishments deviate more than 10% from Plan targets over 3 years.	\$5200
Are system roads meeting Plan objectives?	Roads open to passenger car. Roads suitable for high clearance vehicles. Roads closed to vehicles.	Roads accomplishment report (existing reports)	Miles	High	Annual	Annually	Engineering Staff	Road system (miles) deviates from Plan more than 10% over 3 years.	\$500

Table V-9A. Monitoring Questions - Wildlife (Aleutian Canada Goose and Brown Pelican)

QUESTION: Are recovery plan objectives being met for Aleutian Canada geese and brown pelicans on the Siuslaw National Forest?

Discussion - Aleutian Canada geese are listed as Threatened by the USFWS and require special protection. This species migrates south from their nesting grounds in Alaska, with one flock wintering on the Oregon Coast near Pacific City, roosting on off shore rocks and feeding in agricultural pastureland. Inland lakes and large expanses of flooded deflation plain on the Oregon Dunes NRA provide potential migratory/transitory habitat, however very little, if any, suitable winter feeding habitat exists on the Siuslaw National Forest. With waterfowl enhancement programs in the Oregon Dunes NRA, Aleutian Canada geese should be watched for and protected if found. Other estuaries along the coast may provide potential winter habitat but are not under Forest Service management. Brown pelicans are listed as Endangered by the USFWS and require special protection. This species moves north, along the coast, from California during its post breeding dispersal and south again during the fall. It roosts on the off shore rock islands, beaches, estuaries jetties and occasionally on the main coast during the late summer and fall. Suitable resting/roosting habitat exists on the Oregon Dunes NRA adjacent to estuaries and along beaches.

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Have suitable habitat sites been identified on the Forest and management plans been written for them once use was established?	Habitat availability	Survey, ODFW survey, if available	Acres	Moderate	5 years	5 years	Wildlife Staff	No habitat sites are identified and no management plans are written.	\$300
Is suitable migratory/transitory habitat for either Aleutian Canada geese or brown pelicans being maintained or increasing on the Siuslaw National Forest?	Habitat availability	Field survey &/or GIS query	Acres	High	Biannually	Biannual	Wildlife Staff	Any habitat loss from 1991 levels.	\$200
Have the suitable habitat sites been surveyed to determine use by Aleutian Canada geese or brown pelicans and has protection been provided once use was established?	Goose use, Pelican use	Field survey, FWS flight survey data when available	Birds	High for goose, moderate for pelican	Annual	Annual	Wildlife Staff	Any occupied sites not protected.	\$900

Table V-9A Cont. Monitoring Questions - Wildlife (Aleutian Canada Goose and Brown Pelican)

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are planned projects and program targets for management of these species being accomplished?	Project output	MARS (existing reports)	Units in MARS	High	Annually	Annual	Wildlife Staff	Accomplishments are more than 10% below Plan targets over 3 years.	\$100

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Table V-9F Cont. Monitoring Questions - Wildlife (Spotted Owls)

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Is the number of young being fledged annually in the SOHA network remaining constant or increasing?	Reproductive success	Field monitoring using standard protocol	# of fledged birds	High	Annually	Annual	Wildlife Staff	Any decline in # of fledged birds	Included above
Have all SOHAs that have fledged young since 1987, produced young in the last 3-year period?	SOHA suitability for reproduction	Field monitoring using standard protocol	# of SOHAS with fledged birds	High	Annually	Annual	Wildlife Staff	Any SOHA that ceases to produce fledged birds in the last 3 years	Included above

Table V-9G. Monitoring Questions - Wildlife (TE&S Plants)

QUESTION: Are Endangered Species Act requirements being met for Threatened and Endangered (TE&S) Plants and is habitat for documented Sensitive plants being managed to prevent the need for federal listing of any species?

Discussion - There are presently no known Threatened or Endangered plants located on the SNF. Several species listed as Sensitive on the Regional Forester's list occur on the Forest and require special protection. All management activities that affect habitat that could contain TE&S plants must be surveyed for their presence.

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are all protected populations of TE&S plants surviving under present management policies?	Population survival	Field surveys of protected stands	Plant pop. #	High	Annually	Every 3 years	Wildlife Staff	For T&E species: Any decline in protected populations. For sensitive species: A 10% decline in protected populations.	\$2100
Are all Standards and Guidelines that apply to TE&S plant populations being implemented as required?	S & G compliance	Records review	N/A	High	By project	Annual	Wildlife Staff	A "no" to the question "Were S&Gs implemented?"	\$750
Has an interagency management plan for each TE&S plant species been written?	Management plan	Review	Management plan	High	Annually	Annual	Wildlife Staff	Less than 1 plan written each year.	\$50
Are planned projects and program targets for management of TE&S plants being accomplished?	Project output	MARS (existing reports)	Units in MARS	High	Annually	Annual	Wildlife Staff	Accomplishments are more than 10% below plan targets over 3 years.	\$100

Table V-9M. Monitoring Questions - Wildlife (Special Habitat)

QUESTION: Are special habitats being identified, protected, maintained and/or enhanced on the Forest? (New Monitoring Question - May 1992)

Discussion - The overall goal is to identify, maintain, protect and/or enhance special habitats that are limited on the Forest. These habitats include, but are not limited to, meadows, marshes, wetlands, estuaries, lakes, ponds, cliffs, talus, sandunes, rock outcrops, caves and colonial nest/roost sites. These habitats not only provide unique wildlife habitat, but contribute to the overall biological diversity on the Siuslaw National Forest. Management and/or protection of these habitats will include consideration of sufficient adjacent acres to maintain the integrity and functional character of the special habitat.

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are special habitats being identified, protected, maintained and/or enhanced as required by standards and guidelines?	Acres per habitat site	Field survey and/or record review	Acres	Moderate	Annually	Every 5 years	Wildlife Staff	Any degradation of special habitats	\$1200

Table V-9N. Monitoring Questions - Wildlife (Sensitive Animals)

QUESTION: Is the habitat for documented sensitive animals being managed to prevent the need for Federal listing? (New Monitoring Question - May 1992)

Discussion - The Regional Forester is responsible for compiling a Proposed, Endangered, Threatened and Sensitive (PETS) plant and animal list. This list identifies each PETS species and Forests on which a species has been documented or is suspected to occur. A sensitive species is one thought to be vulnerable to becoming threatened or endangered due to low population levels or significant threats to its habitat. The Regional Forester's most recent PETS animal list (March 1989) identifies 14 sensitive animal species for the Siuslaw National Forest. Forest Plan page IV-33 lists these species. All of these species have been documented on the Siuslaw. The objective for sensitive animals in the Forest Plan is to insure that no management action taken will jeopardize their continued existence or result in an adverse modification to their essential habitat. In addition, the Forest Plan recommends cooperation with ODFW to verify the presence and distribution of each species. Further, the Forest Plan recommends completion of a species management plan for all documented sensitive animal species which will identify essential habitat and incorporate the information on species presence and distribution.

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are proposed ground disturbing activities being evaluated and field surveyed when necessary for sensitive animals?	Biological evaluation results	Review biological evaluations (BEs) for proposed projects	BE report	High	Annually by project	Annual	Wildlife Staff	A "no" to question, "Has an adequate BE been completed?"	\$200
Has a Species Management Guide been prepared and essential habitat defined for those sensitive animals documented on the Forest that are predicted to be adversely affected by standard management practices.?	Species Management Guide	Review records	Management Plan	High	Annually	Annual	Wildlife Staff	Failure to prepare one plan per year	\$100
Are standards and guidelines for protection of sensitive animal species being implemented?	S&G compliance	Review projects and records	N/A	Moderate	Annually	Annual	Wildlife Staff	A "No" answer to the monitoring question	\$400

Table V-9A Cont. Monitoring Questions - Wildlife (Sensitive Animals)

Evaluation Question	Measured Action/Effect	Methods	Unit of Measure	Estimated Reliability	Information Collection Frequency	Report Period	Management Responsibility	Threshold of Variability	Estimated Annual Cost
Are respective habitat protection and/or mitigation measures effective in maintaining the habitat quality of sensitive animals and/or their populations?	Habitat quality and/or population parameters	Field review of a sample of protected/mitigated areas	Habitat capability or population info	Moderate	Annually	Annual	Wildlife Staff	A 10% decline in acres of protected habitat and/or failure to locate 10% of known population in protected areas	\$500
Are planned projects and program targets for sensitive species management being accomplished?	Project output	MARS (existing reports)	Units in MARS	High	Annually	Annual	Wildlife Staff	Accomplishments are more than 10% below plan targets over three years	\$100

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SIUSLAW NATIONAL FOREST PLAN
Amendment 2 - May 1992

V-44d