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CHAPTER 5: LIST OF PREPARERS

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This list of terms is intended to assist the reader in locating a broad scope of subject areas discussed in this document. The reference to specific page numbers is not intended to be complete.

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APPENDICES

Appendix A: Sediment Yield Predictions _____

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Appendix B: Best Management Practices _____

Insert in FEIS page Appendix-5, after first paragraph.

For every year since 1996, the Umatilla NF has monitored a selection of projects for implementation and effectiveness of BMPs. The results of this monitoring have been published in annual Umatilla NF Forest Plan Monitoring and Evaluation Reports, which were combined with Wallowa Whitman and Malheur NFs in 1998 into Monitoring and Evaluation Reports for the National Forests of the Blue Mountains. A substantial record of results exists. Some of these results are summarized in a poster which has been published on the internet. The poster is available on the Umatilla NF's web site <<http://www.fs.fed.us/r6/uma/water/>>, scroll down to <BMP Monitoring Poster>. The poster reports monitoring of timber sale riparian area boundaries, skid trail rehabilitation, and road decommissioning. Specific findings include:

- Implementation of RHCA buffers on harvest units generally met objectives, need improved documentation of stream category during layout,
- Use of a Harvester-Forwarder system results in more slash on skid trails, less ground disturbance, and reduces the need for structural erosion control (waterbars),
- Road decommissioning activities were properly implemented and effective; some sites need revegetating,
- Documenting BMP effectiveness still poses challenges, requires longer time frame for monitoring, and integration with instream water quality monitoring programs

Appendix C: In-Stream Fish Structures _____

No change from FEIS

Appendix D: Water Quality Monitoring Plan _____

No change from FEIS

Appendix E: Units where whole tree yarding is prohibited _____

No change from FEIS

Appendix F: Road Information _____

No change from FEIS

Appendix G: Cumulative Effects _____

Insert in FEIS page Appendix – 29, Soil and Watershed, subsoiling. Should read:

Compacted skid trails and landings within timber sale units have been subsoiled to alleviate much of the detrimental effects of compaction. Only those areas with visible signs of compaction and sufficient soil depth to allow effective treatment were subsoiled. District records indicate that the following timber sale acres have been subsoiled.

Insert in FEIS page Appendix – 36, Timber-Reasonably Foreseeable Future Projects:

Timing	Reasonably Foreseeable Future Actions	Anticipated Effects
Proposed for 2005	Sunflower/Bacon Project Area will include harvest activity.	The Sunflower Bacon and Rimrock project areas are in separate subwatersheds, although both projects are within the Wall Watershed. Other effects would be suspected to occur in the hydrological functions of the watershed. Although minimal and most likely immeasurable there would be incremental increases in overland soil movement. The hydrological effects will not be seen in the aquatic habitat due to the management practices and mitigation measures used in all project areas. A portion of this project area is within the same winter range as Rimrock and Bologna Basin Salvage. The effects are expected to be the same as discussed in the FEIS under the Bologna Basin Salvage Sale.
Proposed for 2004	Rail Salvage Unit 1 (42 acres)	The small area this project encompasses as well as the distance from the activity units in Rimrock should have no effect to the

		Rimrock sale area. The salvage and removal of snags will be local. Rail and the surrounding area would still contain the required snag density for wildlife purposes.
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Appendix H: Soil Information _____

No change from FEIS

Appendix I: Harvest Unit Information by Alternative _____

No change from FEIS

Appendix J: Screens _____

No change from FEIS

Appendix K: Public Scoping Comments _____

No change from FEIS

Insert in FEIS after page Appendix – 111, Appendix K.

Appendix L: Forest Plan Direction _____

This appendix of Forest Plan direction is intended to provide the reader with the minimum parameters of Forest Plan direction (also referred to as standards and guidelines) under which any alternative selected for implementation would normally have to follow, if applicable. However, if Forest-wide direction differs from direction for the Management Area direction, the Management Area direction takes precedence.

Forest-wide direction and Management Area direction may be amended if is specifically addressed for a project and subsequently approved. An amendment to change the Habitat Effectiveness Index (HEI) for big game in Management Area C3 has been proposed in this EIS.

The following listing of Forest Plan Direction is divided into two main sections:

1. Forest-wide Management Direction, and
2. Management Area Direction.

1. Forest-wide Management Direction

The following are excerpts of The Forest-wide general direction from the Umatilla National Forest’s Forest Plan. This list reflects an itemization of all the Forest-wide direction, as indicated by resource topic and numbering. Directions not pertinent to the nature of this project are identified as “Not Applicable” and are not itemized in this listing. To reduce the length of this appendix, additional explanations included in the Forest Plan are omitted here.

Recreation

General

- In all management activities, incorporate recreation considerations to enhance the quality of opportunities and positively affect use.
- Provide Forest recreationists with freedom of choice in selecting sites, areas, routes, and activities to meet their recreation needs.
- Maintain recreation as an important component of access management.

Dispersed Recreation

- Provide for a spectrum of recreational activities such as hunting, fishing, gathering forest products, viewing scenery, camping, hiking, floating, and so forth.
- Provide a range of physical (remoteness, size of area, evidence of humans), social (encounters), and managerial (restrictions, information services) settings for recreation.
- Project planning will provide for the protection of established occupancy spots (especially hunter camps) and other special places.
- Manage the occupancy sites and adjacent area to at least partial retention visual quality level.
- Operate and maintain the Forest road system to provide dispersed recreation opportunities in concert with management are emphasis and direction.

Visual Resource Management

- The Forest will follow direction given in the Forest Service Visual Management System.
- Design roads, trails, and vegetative manipulation to be consistent with adapted visual quality objectives indicated by the management prescription.
- Created openings will be shaped and blended, to the extent practicable, with the natural terrain.

Cultural Resources

Inventory

- A professionally supervised Cultural Resource Inventory Program will be conducted in compliance with applicable Federal historic preservation legislation and regulation.
- All requirements for consultation with the respective State Historic Preservation Offices (SHPO's) before, during and after a project will be followed.

Evaluation

- Identified cultural resource properties will be evaluated by a professional cultural resources specialist using the significance criteria of the National Register of Historic Places (NRHP) (36 CFR 60.4) and the guidelines provided by the Lithic-dominated Sites Programmatic Memorandum of Agreement (USDA Forest Service 1983b) and other standard national and Regional criteria.
- In consultation with the SHPO's from Washington and Oregon, identified sites will be evaluated for eligibility for the NRHP.

Protection

- The Forest will develop management plans for the various classes of prehistoric and historic resource properties found on the Forest.

Wildlife Habitat

(See also Appendix J - Screens)

Old Growth

- Maintain (or develop where presently unavailable) old growth tree habitat distributed throughout the Forest in units within suitable and/or capable habitat for the pileated woodpecker, pine marten, and northern three-toed woodpecker.
- Maintain sufficient amounts of old growth forest stands to provide habitat for all wildlife species that may be dependent on, or make heavy use of, this habitat type including: Northern goshawk, great gray owl, Cooper's and sharp-shinned hawks, Townsend's warbler, Hammond's flycatcher, Vaux's swift, white-headed woodpecker, brown creeper, and others.

Dead and Down Tree Habitat

Forest Plan standards and guidelines for dead and down tree habitat have been superseded by the Eastside Screens. See Appendix J for a discussion of Screens consistency.

Nongame Wildlife Habitat

- Nest and roost sites used by raptors will be protected from all management activities and human disturbance around the nest site until nesting and fledging are completed.
- Large dead and down woody materials at least 16 feet or more in length and at least 12 inches in diameter at the small end will be left at the rate of an average of two down logs per acre.
- Seeps, springs, bogs, wallows, and other wet areas, generally under 10 acres, are inherently unique and will be evaluated on a project level basis for their value as wildlife habitat and to provide appropriate levels of protection.

Riparian Areas

- Riparian areas will be managed to retain dead and down tree habitat to maintain 100 percent of the potential population level for cavity users and will emphasize retention of satisfactory cover.

Big Game

- Big game habitat effectiveness models will be used in project planning to provide the quality, quantity, and distribution of cover and forage needed to reach management objectives for each planning area.
- Forest stands managed for satisfactory cover will be 40 feet or more in height with a canopy closure of at least 70 percent and generally no less than 600 feet wide. The desired cover condition will generally appear as a multi-layered stand capable of obscuring 90 percent of a standing elk at a distance of 200 feet or less. Stands managed for marginal cover will be no less than 10 feet in height with a canopy closure of at least 40 percent and also capable of hiding 90 percent of a standing elk at a distance of 200 feet.
- Forest stands designed and managed to maintain or enhance elk use should provide cover of 600 feet to 1,800 feet in width.
- In evaluating habitat effectiveness for big game (elk and deer) species, roads considered as 'open' to vehicular access are those that receive, on average, more than four trips per month. Timing of use will be measured on a monthly
- Provide available forage to meet the requirements of desired populations of Rocky Mountain elk, mule and white-tailed deer, and bighorn sheep.
- Key big game use areas and habitats such as migrational corridors, calving/fawning areas, and wallows will be considered in the design and implementation of projects to retain or protect their important

Big Game Winter Range

- Where available, maintain no less than 10 percent of each identified winter range as satisfactory cover.
- On designated big game winter ranges, Forest management activities will be restricted during the big game winter use period of December 1 through March 30 or April 15 (as specified for individual winter ranges) to meet big game management objectives

Riparian/Fish Habitat

General

- Maintain or restore biological, chemical, and physical qualities of Forest fish habitats.
- Provide habitat to maintain steelhead and rainbow by meeting Best Management Practices and Clean Water Act standards (MR) and implementing fish habitat enhancement projects.

-
- Areas in which fish habitat or water quality is being adversely impacted will be given high priority for treatment to correct the impacting activity or mitigate or rehabilitate the effects of the impact.
 - Meet the direction and processes for management of wetlands and floodplains in accordance with EO 11990 and EO 11998 and FSM 2527.
 - Seeps, springs, bogs, and other wet areas, generally under 10 acres, are inherently unique and will be evaluated on a project level basis for their wildlife and other values and will be given appropriate levels of protection.

Best Management Practices (BMP's)

- Implement Best Management Practices (BMPs) to meet water quality standards protect streams and adjacent areas to maintain aquatic resources.

Class IV Streams

- Management activities will not deteriorate water quality below existing established water quality goals for downstream Class I and II streams; water quality changes in Class IV may involve some temperature and turbidity increases.
- BMPs for Class IV stream areas will be concerned primarily with preventing soil and debris movement, including slumps, earth slides, etc., from migrating downstream into higher class streams during periods of runoff.
- Assess the potential for improving stream and riparian conditions.
- Manage roads and trails to protect riparian wildlife values, fish habitat, and water quality. Water quality and/or fish habitat problems caused by roads will be corrected.

Class III Streams

The following practices are in addition to those needed for Class IV streams:

- In order to prevent damage to streambanks and riparian habitat and to keep undesirable levels of slash out of the stream, avoid felling timber across stream channels.
- Logging equipment shall not operate in the channel proper. All logs shall be fully suspended over the stream or crossed on temporary structures.
- Within the riparian areas, limit mineral soil exposure by ground-disturbing activities to 10 percent of the project area.
- For Class III (and I and II) stream reaches on the Forest which exceed desired maximum stream temperatures, as identified in state water quality standards, management activities within the contributing watershed shall not reduce stream surface shade below ecological potential (except at required crossings).
- For Class I, II, and III stream reaches which do not exceed desired maximum temperatures, management activities within the contributing watershed shall

not reduce stream surface shading more than 20 percent below ecological potential in upstream reaches.

- Smolt habitat capability will be increased by improved summer and winter rearing habitat associated with greater amounts of in-channel large wood. Trees within one tree height of the stream channel will be managed to provide for a continuous supply of naturally occurring large woody material for future instream fish and riparian habitat in adjacent and downstream reaches. Upland areas and lands adjacent to Class IV streams may also be managed to provide large wood when these areas are determined to be critical to the provision of inputs of future large wood to downstream fish-bearing reaches. Inchannel large woody material objectives will be established during the environmental analysis process for projects affecting present or future levels of inchannel large woody material.
- Permitted construction activities proposed for instream locations are reviewed by state fish and wildlife agencies and approved on a case-by-case basis dependent on fish species present at the time of the proposed activity. Permitted activities such as instream bridge or Culvert construction will normally be limited to the following timeframe:

North Fork John Day River—Start July 15, Finish August 15.

Class I and II Streams

- Management activities will not degrade water quality, fish, or aquatic resources below the water quality goals except for temporary change due to permitted activities.
- Allow for the passage of both adult and juvenile fish in the design and construction of bridges, dams, and culverts.
- Human-caused existing, stable, natural woody debris shall be removed (usually by hand) only in cases where fish migration is blocked, water quality is impaired, erosion is occurring as a result of the debris, or access for recreation purposes is hampered.
- Streambanks should have 80 percent or more of their total lineal distance in a stable condition.
- Increases in water temperature will seldom be allowed in Class I streams.

Range

General

- Protect the productivity and make suitable National Forest System lands available for grazing and browsing use in coordination with other resource uses.

Ecosystems & Diversity

- Maintain native and desirable introduced or historic plant and animal species.
- Provide or develop an ecologically sound distribution and abundance of plant and animal communities and species on the stand, basin, and forest levels.
- Provide for all seral stages of terrestrial and aquatic plant associations in a distribution and abundance that meets the goal. Early successional stages may be improved through introduced forage species in order to increase production, protect soil resources, and prevent noxious or other undesirable weed invasion.
- Meet standard and guideline requirements including:
 1. Vertical, horizontal, and species diversity shown in Timber,
 2. Old growth/mature tree, dead and down tree, and big game habitats size, characteristics, and spatial locations described in Wildlife or specific management areas:
 3. Riparian vegetation and instream condition and characteristics in Riparian/Fish
- During project planning, site-specific management prescriptions should be developed and evaluated that meet objectives for biological diversity and ecosystem function.
- Reductions in diversity of plant and animal communities and tree species from that expected in a natural forest, or from that similar to the existing diversity in the planning area, may be prescribed to meet overall multiple-use objectives.

Timber

Commercial Forest Lands

- Regulated timber harvest will be allowed only on lands classified as tentatively suitable

Silvicultural Systems Selection

- Selection of the appropriate silvicultural system will be guided by criteria (a-g) and the land management emphasis.
 4. Selected method must produce a volume of marketable trees that meet utilization standards and are designated for harvest
 5. Selected method must use available and acceptable logging methods
 6. Selected method must be capable of meeting special management and multiple-use objectives
 7. Selected method must permit control of vegetation to establish desired species composition, density, and rates of growth

8. Selected method must promote a stand structure and species composition which minimize risks from insects, disease, and wildfire
9. Selected method must assure that lands can be adequately restocked
10. Selected method must be practical and economical in terms of transportation, harvesting, preparation, and administration of timber sales
11. In addition, no harvest cutting method was selected primarily because it resulted in the greatest dollar return or provided the highest output of timber; and no method was selected which permanently reduced site productivity, or could not assure conservation of the water and soil resources

Use of Clearcutting

- The National Forest Management Act of 1976, section 6(g)(3)(f)(i), states that clearcutting is to be used only where it is found to be the optimum method.

Management Intensities

- Management intensities will vary with site productivity, timber species, other resource management objectives, and timing of implementation.

Road Management

- Operate and maintain the Forest road system to meet management area emphasis and direction.

Silvicultural Prescriptions

- Silvicultural prescriptions will be prepared for all activities proposing management of forest vegetation to meet resource objectives. Stand diagnoses will be prepared for alternatives in environmental assessments. Unit prescriptions will be prepared for the selected alternative and will be recorded in project environmental assessments or analyses files and in stand data records.
- All prescriptions will be prepared or approved by a certified silviculturist.
- Elements required in a silvicultural prescription are documented in FSM 2478 and the Silvicultural Examination and Prescription Handbook (FSH 2409.26d).
- Silvicultural prescriptions must address the following:
 1. Designation of number and sizes of snags, green wildlife trees, and downed logs that will meet the habitat requirements for cavity dependent species;
 2. Protection, maintenance, and enhancement of hardwood vegetation found in activity areas;

3. An analysis of the options of shelterwood, natural regeneration, and uneven-aged management as part of the selection of a regeneration harvest method;
 4. An optimum and minimum stocking level where regeneration harvests are applied;
 5. Pest management in both the long and short term (pests include insects, diseases, animals, and vegetation); and
 6. The use of prescribed fire as a silvicultural tool in support of returning fire to its natural role in the ecosystem.
- Stand examinations and/or other data gathering processes will be used to verify or develop silvicultural prescriptions.

Reforestation

- Stand examinations and/or other data gathering processes will be used to verify or develop silvicultural prescriptions.
- When trees are cut to achieve timber production objectives, the cutting shall be planned and implemented to assure and expect adequate restocking of lands within 5 years after final harvest.
- Minimum stocking for this planning period will be 150 trees per acre for the South Associated Working Group.
- Stocking should also be of desirable species capable of being managed to meet management area objectives.
- As a minimum, planted seedlings will meet SIA seed certification standards.
- In regeneration units, site preparation (if any) should be completed within 2 years of harvest.
- Regeneration examinations should be made in accordance with FSM 2472.4, including as a minimum, examinations after the first and third growing seasons.

Precommercial Thinning

- Precommercial thinning is recommended when:
7. It is consistent with management objectives;
 8. Overstocking will reduce future yields below planned levels;
 9. The expected return from increased future timber production and value exceeds the cost of the thinning: or
 10. Stocking level control is necessary to protect the stand from losses due to insects and diseases.
- Stands with an average DBH over 6 inches should not normally be precommercially thinned unless not thinning the stand would incur significant losses from insects, diseases, or stagnation.

- Precommercial thinning requires at least minimum stocking in trees capable of responding to release.

Management of Advanced Regeneration

- Advanced regeneration is defined as conifers of less than merchantable or marketable size, which are established in areas, proposed for silvicultural activities. Advanced regeneration should be retained and managed as future crop trees if these trees are of desirable species and acceptable condition.
- Timber harvest and post-harvest activities (fuels treatment and site preparation) should be tailored to protect advanced regeneration from damage as much as is practical.

Natural Regeneration

- Natural regeneration should be the preferred alternative where economic, stand, and site conditions are appropriate and where natural regeneration does not conflict with other resource objectives identified and documented during the project planning process. Species diversity and preference should be important considerations.

Species Preference

- In determining which conifer species to favor during the development of silvicultural prescriptions, consideration should be given to the following objectives:
 1. Long-term stand health, vigor, and productivity specifically related to insect and disease impacts;
 2. Economic efficiency based on the costs and values associated with timber management; and
 3. The biological diversity needs for wildlife species, visual quality, or other resource needs in accordance with the standards and guidelines for diversity.
- In the North and South Associated Working Groups, strong consideration should be given to maintenance of stands dominated by early successional species including ponderosa pine, Douglas-fir, western white pine, and western larch since, in these forest types, the potential for insect and disease depredation is high if latter successional species are managed.

Diversity

- Management activities should be tailored to provide the horizontal, vertical, and vegetative species diversity necessary for the maintenance of wildlife species, aesthetics, and recreational objectives as established in the Plan.

Horizontal Diversity (harvest unit size)

- Even-aged management strategies can have a positive effect on the development of large-scale horizontal diversity. In intermediate or mixed-age stands greater than 40 acres in size, harvest activities such as overstory removal, precommercial thinning, and commercial thinning should be prescribed in unit sizes and tree spacings that complement the eventual development of horizontal diversity. The needs for long term stand health and vigor achievable through stand density control should take precedence over the short-term need for horizontal diversity.
- The Forest will conform to the Regional guidelines on created forest openings. Forest openings created by even-aged silviculture should not exceed 40 acres. Exceptions are permitted in the following cases:
 1. When natural catastrophic situations such as fires, windstorms, or insect or disease attacks occur;
 2. On an individual case by case basis after a 60-day public notice and review by the Regional Forester; and
 3. When any one of the criteria in the Regional Plan is met but not exceeded by more than 50 percent without review by the Regional Forester or 60-day public notice.

Species Diversity

- In regeneration units where single species management is not dictated by plant community composition, at least two and preferably more tree species will be managed together over time. Preference may be given to a single species, but as a minimum, 20 percent of the stocking should be made up of other species.
- Reforestation of 'noncommercial' tree species (hardwoods and conifers such as Pacific yew, Western juniper, etc.) should be considered in meeting management area objectives.
- Special and unique ecological communities such as aspen and other hardwood stands, seeps, springs, bogs, and other riparian areas should receive special attention and protection from potentially damaging management activities. Silvicultural prescriptions will specifically address measures to protect, maintain, and enhance aspen and other hardwood clones, clumps, and stands.

Water

General

- Meet (MR) or exceed state requirements in accordance with the Clean Water Act for protection of waters of the State of Oregon (Oregon Administrative Rules, Chapter 340-41), and the State of Washington (Washington Administrative Code, Chapters 173-201 and 202), through planning, application, and monitoring of Best Management Practices (BMP's) in conformance with the Clean Water Act, regulations, and Federal guidance.
- For all lands within national forest boundaries (including private lands), no

more than 30 percent of the forest land within a subwatershed will have timber stand age classes of 0-10 years except where analysis documented in an environmental assessment indicates that watershed condition would not be impaired.

- In (sub)watersheds where project scoping identifies an issue or concern regarding the cumulative effects of activities on water quality, quantity, or stream channels, a cumulative effects analysis will be performed.
- Meet the direction and processes for management of wetlands and floodplains in accordance with EO 11990 and EO 11998 and FSM 2527.

Protection of Water Quality

- Select and design BMP's based on site-specific conditions, technical, economic, and institutional feasibility, and the water quality standards for potentially impacted waters.
- Implement and enforce BMP's.
- Monitor to ensure that practices are correctly applied as designed.
- Evaluate monitoring results and mitigate where necessary to minimize impacts from activities where BMP's do not perform as expected.
- Use the existing process agreements to implement state water quality management plans on lands administered by the Forest as described in Memorandum of Understanding 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 National Forest Lands in the Pacific Northwest 12/78).
- Evaluations of both the ability to implement BMP's and their estimated effectiveness will be made at the project level.
- Management activities will not degrade water quality, fish, or aquatic resources below the water quality goals except in temporary change due to permitted activities.

Watershed Improvements

- Inventory potential watershed rehabilitation sites that are identified during project Scoping.
- Areas in which fish habitat or water quality are being adversely impacted will be given high priority for treatment to mitigate or rehabilitate the effects of the impact or correct the impacting activity.
- Watershed improvements will be designed, constructed, and maintained to conform with the resource objectives and goals of the management area.

Soil**Soil Productivity**

- Plan and conduct land management activities so that reductions of soil productivity potential caused by detrimental compaction, displacement, puddling, and severe burning are minimized.
- Maintain a minimum of 80 percent of an activity area in a condition of acceptable productivity potential.
- Plan and conduct land management activities so that soil loss from surface erosion and mass wasting, caused by said activities, will not result in an unacceptable reduction in soil productivity or in water quality.
- Management activities shall be designed and implemented to retain sufficient ground vegetation and organic matter to maintain long-term soil and site productivity.
- Active slump and landslide areas will generally be considered unavailable for road construction.

Floodplains/Wetlands

- Address the presence of, and potential impacts to any floodplains/wetlands within the project area in project environmental assessments.

Best Management Practices

- Along all perennial streams, adjacent floodplains, and riparian areas take actions to prevent soil movement, including slumps, earth slides, and other debris and material from moving downstream into higher class streams.
- In floodplains, riparian areas, and aquatic habitats, ground-disturbing activities are limited to the degree necessary to minimize erosion and sedimentation.

Soil Improvements

Plan and accomplish rehabilitation projects to meet soil and water objectives and standards.

Transportation System**Roads Construction**

- Roads will be designed, constructed, and reconstructed according to standards appropriate to planned uses and activities, safety, economics, and impacts on lands and resources using criteria in FSM 7700 and 7720.

Operations and Maintenance

- Road access will be adequate to accomplish commercial, resource, and protection management activities.
- During commercial activities, public access may be discouraged or prohibited.
- Traffic management may be used to control access due to road structural limitations, safety considerations, road standards, or limitations imposed by

resource management.

Road Closures

- Short-term (temporary) roads will be obliterated.
- Road closures will be based on the following criteria
 1. Need to protect the facility;
 2. Need to protect soil and water;
 3. Expected need or use;
 4. Safety of expected users;
 5. Need to protect critical cultural values,
 6. Need to maintain or improve habitat for wildlife,
 7. Need to provide planned recreation experience opportunities, and
 8. Cost of maintenance.
- Close long-term intermittent roads to motorized use at the termination of sale or post sale activities as appropriate.

Fire and Fuels

Fuels Management

- Levels and methods of fuels treatment will be guided by the protection and resource objectives of the management area. Emphasis will be on intensive utilization of wood residues using a marketing strategy to reduce fuel loadings.
- Prescribed fire will be utilized to meet management objectives and maintain fuel profiles in all ecosystems.
- Burning plans will be prepared in advance of ignition and approved by the appropriate line officer for each prescribed fire.
- Emphasize maintenance of air quality when planning prescribed fire use.

Air Quality

- All prescribed burning will be in accordance with state smoke management plans.
- Available predictive methods and models and cost efficient technologies will be used to minimize impacts of prescribed burning on smoke sensitive and Class I areas.
- Smoke management mitigating measures, listed in the Pacific Northwest Regional Guide FEIS and Managing Competing and Unwanted Vegetation will be used to reduce emissions from prescribed burning.

Pest Management

- Integrated pest management (IPM), prevention, and suppression strategies will be utilized to manage pests within the constraints of laws and regulations and to meet Forest-wide management objectives. Methods may include management practices (cultural or silvicultural); biological, mechanical, manual, prescribed fire, or chemical treatments; or regulatory measures.
- Where practical, noxious weeds and invader plants will be controlled to prevent threats to adjacent agricultural lands or to prevent unacceptable loss of forest and range productivity.
- Plans for control of competing and unwanted vegetation including noxious weeds will be in keeping with *Managing Competing and Unwanted Vegetation (FHS) USDA, Forest Service, 1988*.

Threatened, Endangered, and Sensitive Species

- Legal and biological requirements for the conservation of endangered, threatened and sensitive plants and animals will be met. All proposed projects that involve significant ground disturbance or have the potential to alter habitat of endangered, threatened or sensitive plant and animal species will be evaluated to determine if any of these species are present
- Where endangered or threatened species are present, the required biological assessment process will be carried out according to the requirements of the Endangered Species Act (Public Law 93-205); consultation requirements with USDI Fish and Wildlife Service and state agencies will be met.
- When sensitive species are present, a biological evaluation will be prepared. There must be no impacts to sensitive species without an analysis of the significance of adverse effects on its population, habitat, and on the viability of the species as a whole.

Bald Eagle Habitat

- Bald eagles and their habitat will be protected and managed in accordance with the latest available management guidelines and the Pacific States Bald Eagle Recovery Plan.
- Within 2 years of Forest Plan implementation, a management plan should be prepared for known nest sites and potential bald eagle habitat on the National Forests.

Gray Wolf

- Investigate and evaluate all reports of gray wolf sightings on the Forest, in cooperation with the Washington Department of Wildlife, Oregon Department of Fish and Wildlife and the USDI Fish and Wildlife Service. If resident wolves are discovered, initiate appropriate actions in consultation with the USDI Fish and Wildlife Service, ODFW, and WDW to insure the protection of the animals.

Peregrine Falcon Habitat

- Peregrine falcons are not known to nest on the Forest. Habitat for nesting and feeding, however, does exist.
- Within 3 years after implementation of the Forest Plan, an inventory should be completed which catalogues habitat suitable for peregrine falcon.

Community Development and Human Resources

- The ceded land rights and privileges of the Walla Walla, Cayuse, Umatilla, Nez Perce, and Warm Springs Indian Tribes, under the treaties of 1855 (U.S. Laws, Statutes, etc. 1855a, 1855b, 1855c), will be appropriately provided for in Forest activities.
- Resource planning and development activities will be coordinated with plans and programs of each of the tribes.

General Procedures

- Activities affecting Forest system lands and resources will be analyzed, and results documented through the Environmental Analysis (NEPA) and associated planning procedures.
- Identify, design, and achieve a high level of multiple-use coordination in all resource management activities
- Economic efficiency will be a consideration in Forest and project level planning and development.
- The appropriate setting for each Management Area is determined by the area goals, desired conditions, and suitability of the area to achieving these conditions. When an allowable project would result in conditions that do not meet the setting criteria, address the need for changing the designated setting as part of the environmental assessment process. Evaluation includes factors such as activity extent, duration of impact, season of operation, sight or sound impacts, and feasibility of rehabilitation.
- Management of Forest system lands, resources, and activities will be coordinated with appropriate local, state, and Federal agencies, private landowners, Native American tribes, and interest and user groups.

1. Big Game Winter Range (C3) Management Direction

Management Area direction is supplemental direction specific to specified areas. Management Area direction supersedes Forest-wide general direction for the applicable area.

This DSEIS only includes activities proposed in the Big Game Winter Range (C3) Management Area. This list reflects an itemization of all the direction for that management area. To reduce the length of this appendix, additional explanations included in the Forest Plan are omitted here.

Recreation

A Roaded Modified social and physical setting Recreational Opportunity Spectrum (ROS), may result in meeting the goal. Dispersed recreation activities that meet the goal are permitted.

Recreation site modification and facility development levels 1 and 2 are permitted.

Access will be mostly for walk-in or horseback opportunities on trails or closed roads, with some road-oriented activities.

Off-highway vehicle (OHV) use will be permitted on designated routes. OHV use will be curtailed by closures where this use is determined to be detrimental to wintering big game species.

Visual

A range of visual quality objectives from Retention to maximum Modification will apply.

Cultural

Meet Forest-wide Standards and Guidelines.

Wildlife

Current Forest Plan direction is:

“Elk habitat will be managed on designated big game winter ranges to achieve a habitat effectiveness index of no less than 70, including discounts for roads open to motorized vehicular traffic as described in *Wildlife Habitats in Managed Forests* (Thomas and others 1979). The habitat effectiveness standard will be measured on an individual winter range basis.”

This project is located in the Monument Winter Range, which has a current habitat effectiveness index of 67. A site specific Forest Plan amendment is proposed in this DSEIS that would change the habitat effectiveness index requirement for the Monument Winter Range to be no less than 67.

Cover

Marginal and satisfactory cover will be managed to the extent possible to meet optimum size and distribution criteria as described in “Habitat Effectiveness Index for Elk on Blue Mountain Winter Ranges” (Thomas and others 1988).

Where possible, a minimum of 10 percent of each winter range will be maintained and managed as satisfactory cover (15-20 percent is desirable). If this is not attainable because of low natural potential, the highest possible percentage of satisfactory cover will be created or maintained. Where possible, a minimum of 30 percent of an area will be managed as total cover (satisfactory and marginal).