

# **Chapter 5**

## **Late-Successional Reserves and Managed Late-Successional Areas**



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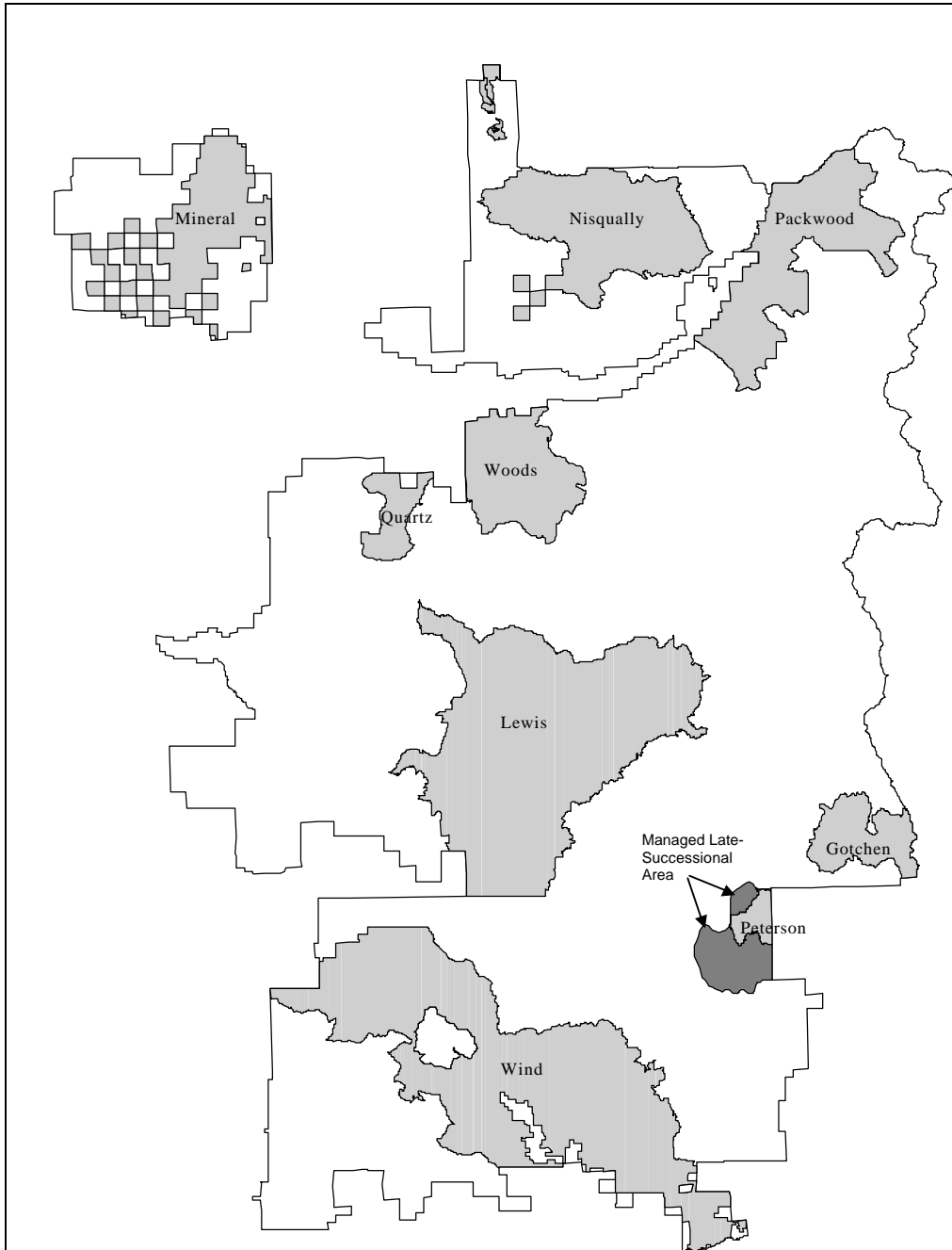
## Late-Successional Reserves and Managed Late-Successional Areas

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# Late-Successional Reserves and Managed Late-Successional Areas

*Gifford Pinchot National Forest*



# Chapter 5

## Late-Successional Reserves and Managed Late-Successional Areas [ROD C-9]

The ROD created two allocations to protect and enhance late-successional ecosystems; Late-Successional Reserves and Managed Late-Successional Areas. While they are very similar in their goals and objectives, in Managed Late-Successional Areas management is prescribed to reduce the potential for catastrophic loss. Only one Managed Late-Successional Area was identified on the Gifford Pinchot National Forest. Because they are so similar, this chapter contains direction for both allocations. Direction for Late-Successional Reserves is followed by direction for the Managed Late-Successional Area, beginning on page 5-14. Direction for underlying management areas is common to both categories of reserves and begins on page 5-17.

Key and non-Key Watersheds are specified for all areas, and therefore overlay all other land allocations. For the portion of Late-Successional Reserves located within Key Watersheds, standards and guidelines for Key Watersheds as well as standards and guidelines for Late-Successional Reserves apply.

See “Hierarchy of Standards and Guidelines” in Chapter 1, and “Key Watersheds” in Chapter 2.

A late-successional reserve assessment for all LSRs on the Forest was completed in November 1997. This document describes existing and desired conditions for the LSRs, and treatments proposed to accelerate the development of desired conditions. See “Management Assessments,” page 5-15.

## Late-Successional Reserves

### Description

The objective of Late-Successional Reserves is to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth related species including the northern spotted owl.

These standards and guidelines include reserves designed to maintain and enhance late-successional forests as a network of existing old-growth forest ecosystems, although their size, distribution, and management varies. These reserves represent a network of existing old-growth forests that are retained in their natural condition with natural processes, such as fire, allowed to function to the extent possible. The reserves are designed to serve a number of purposes. First, they provide a distribution, quantity, and quality of old-growth forest habitat sufficient to avoid foreclosure of future management options. Second, they provide habitat for populations of species that are associated with late-successional forests. Third, they will help ensure that late-successional species diversity will be conserved.

Late-successional forest communities are the result of a unique interaction of disturbance, regeneration, succession, and climate that can never be recreated in their entirety through management. The structure, species composition, and function of these forests are, in their entirety, not fully understood. Silvicultural restoration in early-successional forests, however, can accelerate the development of some of the structural and compositional features of late-successional forests. Because early-successional forests will regenerate by different processes during a different time period than existing late-successional forests, silviculturally created stands may look and function differently from current old-growth stands that developed over the last 1,000 years. Consequently, conservation of a network of natural old-growth stands maintains biodiversity into the future.

Desired late-successional and old-growth characteristics that will be created as younger stands change through successional development include: (1) multispecies and multilayered assemblages of trees, (2) moderate-to-high accumulations of large logs and snags, (3) moderate to high canopy closure, (4) imperfections such as cavities, broken tops, and large deformed limbs, and (5) moderate-to-high accumulations of fungi, lichens, and bryophytes. Although they may not be duplicates of existing old-growth forests, these stands could provide adequate habitat for many species in the long term.

Late-Successional Reserves have been designated based on five elements: (1) areas mapped as part of an interacting reserve system; (2) LS/OG 1 and 2 areas within Marbled Murrelet Zone 1, and certain owl additions, mapped by the Scientific Panel on Late-Successional Forest Ecosystems (1991); (3) sites occupied by marbled murrelets; (4) known owl activity centers; and (5) Protection Buffers for specific endemic species identified by the Scientific Analysis Team (SAT)(1993). Additional areas, such as 600 acres around known sites of fungus species *Oxyporous nobilissimus*, are protected under the survey and management standards and guidelines in Chapter 2.

#### 1. Mapped Late-Successional Reserves

Most Late-Successional Reserves are shown on the accompanying map as the purple shaded areas. They were designed to incorporate Key Watersheds to the extent possible, while remaining consistent with other objectives. They also incorporate some or parts of LS/OG1s and LS/OG2s (most ecologically significant and ecologically significant late-successional and old-growth forests, respectively, from the Scientific Panel on Late-Successional Forest Ecosystems [1991]) and some or parts of the Designated Conservation Areas (DCAs) from the Final Draft Spotted Owl Recovery Plan in the western portion of the range of the northern spotted owl.

a) LS/OG 1s and 2s

Where LS/OG status is used to define the boundaries of a Late-Successional Reserve, the boundaries are fixed regardless of the future condition of those (or other) stands.

b) Occupied Marbled Murrelet Sites

The area close to marine environments associated with most marbled murrelet activity is referred to as Marbled Murrelet Zone 1. Zone 1 extends approximately 40 miles inland in Washington. Zone 2 is defined for survey purposes and does not affect land allocations.

Preproject surveys of marbled murrelet habitat are required according to protocol currently used by the federal agencies. Current protocol requires two years of surveys to assure that no marbled murrelet nests exist in areas planned for timber harvest. If behavior indicating occupation is documented (described below), all contiguous existing and recruitment habitat for marbled murrelets (i.e., stands that are capable of becoming marbled murrelet habitat within 25 years) within a 0.5-mile radius will be protected. The 0.5-mile radius circle should be centered on either the behavior indicating occupation, or within 0.5 mile of the location of the behavior, whichever maximizes interior old-growth habitat. When occupied areas are close to each other, the 0.5-mile circles may overlap.

Behavior indicating marbled murrelet occupation includes at least one of the following:

- 1) discovery of an active nest or a recent nest site as evidenced by a fecal ring or eggshell fragments,
- 2) discovery of a chick or eggshell fragments on the forest floor,
- 3) birds flying below, through, into, or out of the forest canopy within or adjacent to a stand,
- 4) birds perching, landing, or attempting to land on branches,
- 5) birds calling from a stationary location within the stand, and
- 6) birds flying in small or large radius circles above the canopy.

2. Unmapped Late-Successional Reserves

a) Known Spotted Owl Activity Centers

This standard and guideline applies to known spotted owl activity centers that are not protected by Congressionally Reserved Areas, Late-Successional Reserves, Riparian Reserves, Managed Late-Successional Areas, or Administratively Withdrawn Areas. One hundred acres of the best northern spotted owl habitat will be retained as close to the nest site or owl activity center as possible for all known

(as of January 1, 1994) spotted owl activity centers located on federal lands in the Matrix and Adaptive Management Areas. These areas are mapped on the GIS system. There is no intent to add additional spotted owl activity centers after January 1, 1994. This is intended to preserve an intensively used portion of the breeding season home range. "Activity center" is defined as an area of concentrated activity of either a pair of spotted owls or a territorial single owl. Timber management activities within the 100-acre area should comply with management guidelines for Late-Successional Reserves. Management around this area will be designed to reduce risks of natural disturbance. Because these areas are considered important to meeting objectives for species other than spotted owls, these areas are to be maintained even if they become no longer occupied by spotted owls.

b) Protection Buffers

Unmapped Late-Successional Reserves result from the application of Protection Buffers (see Late-Successional Reserve Protection Buffers in Chapter 2).

## Standards and Guidelines for Late-Successional Reserves

See also Chapter 2, Forest-wide Management Direction.

*Objectives* - Late-Successional Reserves are to be managed to protect and enhance conditions of late-successional and old-growth forest ecosystems, which serve as habitat for late-successional and old-growth related species including the northern spotted owl. These reserves are designed to maintain a functional, interacting, late-successional and old-growth forest ecosystem.

*Exceptions* - Research Natural Areas and activities required by recovery plans for listed threatened and endangered species take precedence over Late-Successional Reserve standards and guidelines.

*Management Assessment for Late-Successional Reserves* - A management assessment should be prepared for each large Late-Successional Reserve (or group of smaller Late-Successional Reserves) before habitat manipulation activities are designed and implemented. Land management agencies may choose to develop these assessments as components of legally-mandated plans (e.g., Forest Plans), as part of province-level planning, or as stand-alone assessments. If developed to stand alone, the assessments should be closely coordinated with subsequent watershed analysis and province-level planning. Standards and guidelines should be refined at the province level, prior to development of Late-Successional Reserve assessments. Late-Successional Reserve assessments should generally include:

1. A history and inventory of overall vegetative conditions within the reserve,
2. A list of identified late-successional associated species known to exist within the Late-Successional Reserve and information on their locations,



3. A history and description of current land uses within the reserve,
4. A fire management plan,
5. Criteria for developing appropriate treatments,
6. Identification of specific areas that could be treated under those criteria,
7. A proposed implementation schedule tiered to higher order (i.e., larger scale) plans, and
8. Proposed monitoring and evaluation components to help evaluate if future activities are carried out as intended and achieve desired results. Only in unusual circumstances would silvicultural treatments, including prescribed fire, precede preparation of this management assessment. Late-Successional Reserve assessments are subject to review by the Regional Ecosystem Office. Until Late-Successional Reserve assessments are completed, fire suppression activities should be guided by land allocation objectives in coordination with local resource management specialists.

*Occupied Marbled Murrelet Sites* - Timber harvest is prohibited within occupied marbled murrelet habitat at least until completion of the Marbled Murrelet Recovery Plan. Silvicultural treatments in nonhabitat within the 0.5-mile circle must protect or enhance the suitable or replacement habitat. When objectives of the Marbled Murrelet Recovery Plan have been identified, management direction will be amended or revised as appropriate.

## **Silviculture**

Thinning or other silvicultural treatments inside reserves are subject to review by the Regional Ecosystem Office to ensure that the treatments are beneficial to the creation of late-successional forest conditions. The Regional Ecosystem Office may develop criteria that would exempt some activities from review. Stand and vegetation management of any kind, including prescribed burning, is considered a silvicultural treatment. Excepted from review are reforestation activities legally required by, and planned as part of, existing sold timber sales, where the reforestation prescription has been modified as appropriate to meet the objectives of the Late-Successional Reserve.

Activities permitted in the western and eastern portions of the northern spotted owl's range are described separately below. Salvage of dead trees is described separately below, and is limited to stand-replacing disturbance events exceeding ten acres.

*West [Side] of the Cascades* - There is no harvest allowed in stands over 80 years old.

Thinning (precommercial and commercial) may occur in stands up to 80 years old regardless of the origin of the stands (e.g., plantations planted after logging or stands naturally regenerated after fire or blowdown). The purpose of these silvicultural treatments is to benefit the creation and maintenance of late-successional forest conditions. Examples of silvicultural treatments that may

be considered beneficial include thinnings in existing even-age stands and prescribed burning. For example, some areas within Late-Successional Reserves are actually young single-species stands. Thinning these stands can open up the canopy, thereby increasing diversity of plants and animals and hastening transition to a forest with mature characteristics.

*East [Side] of the Cascades* - The following activities in older stands may also be undertaken in westside Late-Successional Reserves if levels of fire risk are particularly high. Given the increased risk of fire in these areas due to lower moisture conditions and the rapid accumulation of fuels in the aftermath of insect outbreaks and drought, additional management activities are allowed in Late-Successional Reserves. Guidelines to reduce risks of large-scale disturbance are as follows:

*Guidelines to Reduce Risks of Large-Scale Disturbance* - Large-scale disturbances are natural events, such as fire, that can eliminate spotted owl habitat on hundreds or thousands of acres. Certain risk management activities, if properly planned and implemented, may reduce the probability of these major stand-replacing events. There is considerable risk of such events in Late-Successional Reserves in the Washington Eastern Cascades. Elevated risk levels are attributed to changes in the characteristics and distribution of the mixed-conifer forests resulting from past fire protection. These forests occur in drier environments, have had repeated insect infestations, and are susceptible to major fires. Risk reduction efforts are encouraged where they are consistent with the overall recommendations in these guidelines.

Silvicultural activities aimed at reducing risk shall focus on younger stands in Late-Successional Reserves. The objective will be to accelerate development of late-successional conditions while making the future stand less susceptible to natural disturbances. Salvage activities should focus on the reduction of catastrophic insect, disease, and fire threats. Treatments should be designed to provide effective fuel breaks wherever possible. The scale of salvage and other treatments, however, should not generally result in degeneration of currently suitable owl habitat or other late-successional conditions.

In some Late-Successional Reserves in these provinces, management that goes beyond these guidelines may be considered. Levels of risk in those Late-Successional Reserves are particularly high and may require additional measures. Consequently, management activities designed to reduce risk levels are encouraged in those Late-Successional Reserves even if a portion of the activities must take place in currently late-successional habitat. While risk-reduction efforts should generally be focused on young stands, activities in older stands may be appropriate if:

1. The proposed management activities will clearly result in greater assurance of long-term maintenance of habitat,
2. The activities are clearly needed to reduce risks, and

3. The activities will not prevent the Late-Successional Reserves from playing an effective role in the objectives for which they were established.

Such activities in older stands may also be undertaken in Late-Successional Reserves in other provinces if levels of the risk are particularly high.

### ***Guidelines for Salvage***

Salvage of dead trees is based on the following standards and guidelines, and is subject to review by the Regional Ecosystem Office. The Regional Ecosystem Office may develop criteria that would exempt some activities from review.

Salvage of dead trees is not generally considered a silvicultural treatment within the context of these standards and guidelines.

Salvage is defined as the removal of trees from an area following a stand-replacing event such as those caused by wind, fires, insect infestations, volcanic eruptions, or diseases. Salvage guidelines are intended to prevent negative effects on late-successional habitat, while permitting some commercial wood volume removal. In some cases, salvage operations may actually facilitate habitat recovery. For example, excessive amounts of coarse woody debris may interfere with stand regeneration activities following some disturbances. In other cases, salvage may help reduce the risk of future stand-replacing disturbances. While priority should be given to salvage in areas where it will have a positive effect on late-successional forest habitat, salvage operations should not diminish habitat suitability now or in the future.

Tree mortality is a natural process in a forest ecosystem. Diseased and damaged trees are key structural components of late-successional forests. Accordingly, management planning for Late-Successional Reserves must acknowledge the considerable value of retaining dead and dying trees in the forest as well as the benefits from salvage activities.

In all cases, planning for salvage should focus on long-range objectives, which are based on desired future condition of the forest. Because Late-Successional Reserves have been established to provide high quality habitat for species associated with late-successional forest conditions, management following a stand-replacing event should be designed to accelerate or not impede the development of those conditions. The rate of development of this habitat will vary among provinces and forest types and will be influenced by a complex interaction of stand-level factors that include site productivity, population dynamics of live trees and snags, and decay rates of coarse woody debris. Because there is much to learn about the development of species associated with these forests and their habitat, it seems prudent to only allow removal of conservative quantities of salvage material from Late-Successional Reserves and retain management opportunities until the process is better understood.

The following guidelines are general. Specific guidelines should be developed for each physiographic province, and possibly for different forest types within provinces.

1. The potential for benefit to species associated with late-successional forest conditions from salvage is greatest when stand-replacing events are involved. Salvage in disturbed sites of less than ten acres is not appropriate because small forest openings are an important component of old-growth forests. In addition, salvage should occur only in stands where disturbance has reduced canopy closure to less than 40 percent, because stands with more closure are likely to provide some value for species associated with these forests.
2. Surviving trees will provide a significant residual of larger trees in the developing stand. In addition, defects caused by fire in residual trees may accelerate development of structural characteristics suitable for associated species. Also, those damaged trees that eventually die will provide additional snags. Consequently, all standing live trees should be retained, including those injured (e.g., scorched) but likely to survive. Inspection of the cambium layer can provide an indication of potential tree mortality.
3. Snags provide a variety of habitat benefits for a variety of wildlife species associated with late-successional forests. Accordingly, following stand-replacing disturbance, management should focus on retaining snags that are likely to persist until late-successional conditions have developed and the new stand is again producing large snags. Late-successional conditions are not associated with stands less than 80 years old.
4. Following a stand-replacing disturbance, management should retain adequate coarse woody debris quantities in the new stand so that in the future it will still contain amounts similar to naturally regenerated stands. The analysis that determines the amount of coarse woody debris to leave must account for the full period of time before the new stand begins to contribute coarse woody debris. As in the case of snags, province-level specifications must be provided for this guideline. Because coarse woody debris decay rates, forest dynamics, and site productivity undoubtedly will vary among provinces and forest types, the specifications also will vary.
5. Province-level plans will establish appropriate levels of coarse woody debris and decay rates to be used. Levels will be “typical” and will not require retention of all material where it is highly concentrated, or too small to contribute to coarse woody debris over the long time frames discussed. This standard and guideline represents one item to be considered and may indeed result in no salvage following windthrow in low density stands. As for other management activities, it is expected that salvage standards and guidelines will be refined through the implementation and adaptive management processes.

6. Some salvage that does not meet the preceding guidelines will be allowed when salvage is essential to reduce the future risk of fire or insect damage to late-successional forest conditions. This circumstance is most likely to occur in the eastern Washington Cascades. It is important to understand that some risk associated with fire and insects is acceptable because they are natural forces influencing late-successional forest development. Consequently, salvage to reduce such risks should focus only on those areas where there is high risk of large-scale disturbance.
7. Removal of snags and logs may be necessary to reduce hazards to humans along roads and trails, and in or adjacent to campgrounds. Where materials must be removed from the site, as in a campground or on a road, a salvage sale is appropriate. In other areas, such as along roads, leaving material on site should be considered. Also, material will be left where available coarse woody debris is inadequate.
8. Where green trees, snags, and logs are present following disturbance, the green tree and snag guidelines will be applied first, and completely satisfied where possible. The biomass left in snags can be credited toward the amount of coarse woody debris biomass needed to achieve management objectives.
9. These basic guidelines may not be applicable after disturbances in younger stands because remnant coarse woody debris may be relatively small. In these cases, diameter and biomass retention guidelines should be developed consistent with the intention of achieving late-successional forest conditions
10. Logs present on the forest floor before a disturbance event provide habitat benefits that are likely to continue. It seldom will be appropriate to remove them. Where these logs are in an advanced state of decay, they will not be credited toward objectives for coarse woody debris retention developed after a disturbance event. Advanced state of decay should be defined as logs not expected to persist to the time when the new stand begins producing coarse woody debris.
11. The coarse woody debris retained should approximate the species composition of the original stand to help replicate pre-existing suitable habitat conditions.
12. Some deviation from these general guidelines may be allowed to provide reasonable access to salvage sites and feasible logging operations. Such deviation should occur on as small a portion of the area as possible. Deviations should not result in violation of the basic intent that late-successional forest habitat or the development of such habitat in the future should not be impaired. While exceptions to the guidelines may be allowed to provide access and operability, some salvage opportunities will undoubtedly be foregone because of access, feasibility, and safety concerns.

## ***Standards and Guidelines for Multiple-Use Activities Other Than Silviculture***

The following standards and guidelines apply to Late-Successional Reserves and Managed Late-Successional Areas.

As a general guideline, nonsilvicultural activities located inside Late-Successional Reserves that are neutral or beneficial to the creation and maintenance of late-successional habitat are allowed.

While most existing uses and development are envisioned to remain, it may be necessary to modify or eliminate some current activities in Late-Successional Reserves that pose adverse impacts. This may require the revision of management guidelines, procedures, or regulations governing these multiple-use activities. Adjustments in standards and guidelines must be reviewed by the Regional Ecosystem Office.

*Road Construction and Maintenance* - Road construction in Late-Successional Reserves for silvicultural, salvage, and other activities generally is not recommended unless potential benefits exceed the costs of habitat impairment. If new roads are necessary to implement a practice that is otherwise in accordance with these guidelines, they will be kept to a minimum, be routed through nonlate-successional habitat where possible, and be designed to minimize adverse impacts. Alternative access methods, such as aerial logging, should be considered to provide access for activities in reserves.

Road maintenance may include felling hazard trees along rights-of-way. Leaving material on site should be considered if available coarse woody debris is inadequate. Topping trees should be considered as an alternative to felling.

*Fuelwood Gathering* - Fuelwood gathering for home or commercial use will be permitted only in existing cull decks, where green trees are marked by silviculturists to thin (consistent with standards and guidelines), to remove blowdown blocking roads, and in recently harvested timber sale units where down material will impede scheduled post-sale activities or pose an unacceptable risk of future large-scale disturbances. In all cases these activities should comply with the standards and guidelines for salvage and silvicultural activities.

*American Indian Uses* - The exercise of tribal treaty rights will not be restricted by these standards and guidelines unless the Regional Interagency Executive Committee determines that the restriction is (1) reasonable and necessary for preservation of the species at issue, (2) the conservation purpose of the restriction cannot be achieved solely by regulation of non-Indian activities, (3) the restriction is the least restrictive available to achieve the required conservation purpose, (4) the restriction does not discriminate against Indian activities either as stated or as applied, and (5) voluntary tribal conservation measures are not adequate to achieve the necessary conservation purpose.

*Mining* - The impacts of ongoing and proposed mining actions will be assessed and mineral activity permits will include appropriate stipulations (e.g., seasonal or

other restrictions) related to all phases of mineral activity. The guiding principle will be to design mitigation measures that minimize detrimental effects to late-successional habitat.

*Developments* - Development of new facilities that may adversely affect Late-Successional Reserves should not be permitted. New development proposals that address public needs or provide significant public benefits, such as powerlines, pipelines, reservoirs, recreation sites, or other public works projects, will be reviewed on a case-by-case basis and may be approved when adverse effects can be minimized and mitigated. These will be planned to have the least possible adverse impacts on Late-Successional Reserves. Developments will be located to avoid degradation of habitat and adverse effects on identified late-successional species. Existing developments in Late-Successional Reserves such as campgrounds, recreation residences, ski areas, utility corridors, and electronic sites are considered existing uses with respect to Late-Successional Reserve objectives, and may remain, consistent with other standards and guidelines. Routine maintenance of existing facilities is expected to have less effect on current old-growth conditions than development of new facilities. Maintenance activities may include felling hazard trees along utility rights-of-way, trails, and other developed areas.

*Land Exchanges* - Land exchanges involving Late-Successional Reserves will be considered if they provide benefits equal to or better than current conditions. Consider land exchanges especially to improve area, distribution, and quality (e.g., connectivity, shape, contribution to biodiversity) of Late-Successional Reserves, especially where public and private lands are intermingled (e.g., checkerboard ownership).

*Habitat Improvement Projects* - Projects designed to improve conditions for fish, wildlife, or watersheds should be considered if they provide late-successional habitat benefits or if their effect on late-successional associated species is negligible. Projects required for recovery of threatened or endangered species should be considered even if they result in some reduction of habitat quality for other late-successional species. For example, watershed rehabilitation projects, such as felling trees along streams, will be coordinated with a wildlife biologist and may include seasonal restrictions. Design and implement watershed restoration projects in a manner that is consistent with Late-Successional Reserve objectives.

*Range Management* - Range-related management that does not adversely affect late-successional habitat will be developed in coordination with wildlife and fisheries biologists. Adjust or eliminate grazing practices that retard or prevent attainment of reserve objectives. Evaluate effects of existing and proposed livestock management and handling facilities in reserves to determine if reserve objectives are met. Where objectives cannot be met, relocate livestock management and/or handling facilities.

*Fire Suppression and Prevention* - Each Late-Successional Reserve will be included in fire management planning as part of watershed analysis. Fire management in Late-Successional Reserves will utilize minimum impact suppression methods. Fuels management will adhere to with guidelines for reducing risks of large-scale disturbances. Plans for wildfire suppression will emphasize maintaining late-successional habitat. During actual fire suppression activities, fire managers will consult with resource specialists (e.g., botanists, fisheries and wildlife biologists, and hydrologists) familiar with the area, these standards and guidelines, and their objectives, to assure that habitat damage is minimized. Until a fire management plan is completed for Late-Successional Reserves, suppress wildfire to avoid loss of habitat in order to maintain future management options.

In Late-Successional Reserves, a specific fire management plan will be prepared prior to any habitat manipulation activities. This plan, prepared during watershed analysis or as an element of province-level planning or a Late-Successional Reserve assessment, should specify how hazard reduction and other prescribed fire applications will meet the objectives of the Late-Successional Reserve. Until the plan is approved, proposed activities will be subject to review by the Regional Ecosystem Office. The Regional Ecosystem Office may develop additional guidelines that would exempt some activities from review. In all Late-Successional Reserves, watershed analysis will provide information to determine the amount of coarse woody debris to be retained when applying prescribed fire.

In Riparian and Late-Successional Reserves, the goal of wildfire suppression is to limit the size of all fires. When watershed analysis, province-level planning, or a Late-Successional Reserve assessment are completed, some natural fires may be allowed to burn under prescribed conditions. Rapidly extinguishing smoldering coarse woody debris and duff should be considered to preserve these ecosystem elements.

*Special Forest Products* - Special forest products include but are not limited to posts, poles, rails, landscape transplants, yew bark, shakes, seed cones, Christmas trees, boughs, mushrooms, fruits, berries, hardwoods, forest greens (e.g., ferns, huckleberry, salal, beargrass, Oregon grape, and mosses), and medicinal forest products. In all cases, evaluate whether activities have adverse effects on Late-Successional Reserve objectives. Sales will ensure resource sustainability and protection of other resource values such as special status plant or animal species. Where these activities are extensive (e.g., collection of Pacific Yew bark or fungi), it will be appropriate to evaluate whether they have significant effects on late-successional habitat. Restrictions may be appropriate in some cases.

*Recreational Uses* - Dispersed recreational uses, including hunting and fishing, generally are consistent with the objectives of Late-Successional Reserves. Use adjustment measures such as education, use limitations, traffic control devices, or



increased maintenance when dispersed and developed recreation practices retard or prevent attainment of Late-Successional Reserve objectives.

*Research* - A variety of wildlife and other research activities may be ongoing and proposed in late-successional habitat. These activities must be assessed to determine if they are consistent with Late-Successional Reserve objectives. Some activities (including those within experimental forests) not otherwise consistent with the objectives may be appropriate, particularly if the activities will test critical assumptions of these standards and guidelines, will produce results important for habitat development, or if the activities represent continuation of long-term research. These activities should only be considered if there are no equivalent opportunities outside Late-Successional Reserves.

*Rights-of-Way, Contracted Rights, Easements, and Special Use Permits* - Access to nonfederal lands through Late-Successional Reserves will be considered and existing right-of-way agreements, contracted rights, easements, and special use permits in Late-Successional Reserves will be recognized as valid uses. New access proposals may require mitigation measures to reduce adverse effects on Late-Successional Reserves. In these cases, alternate routes that avoid late-successional habitat should be considered. If roads must be routed through a reserve, they will be designed and located to have the least impact on late-successional habitat. Review all special use permits and when objectives of Late-Successional Reserves are not being met, reduce impacts through either modification of existing permits or education.

*Nonnative Species* - In general nonnative species (plant and animal) should not be introduced into Late-Successional Reserves. If an introduction of nonnative species is proposed, complete an assessment of impacts and avoid any introduction that would retard or prevent achievement of Late-Successional Reserve objectives. Evaluate impacts of nonnative species (plant and animal) currently existing within reserves, and develop plans and recommendations for eliminating or controlling nonnative species that are inconsistent with Late-Successional Reserve objectives. These will include an analysis of the effects of implementing such programs to other species or habitats within Late-Successional Reserves.

*Other* - Other activities should be evaluated by local interdisciplinary teams and appropriate guidelines should be written and documented. Activities deemed to have potentially adverse effects on Late-Successional Reserve objectives are subject to review of the Regional Ecosystem Office. The Regional Ecosystem Office may develop additional criteria for exempting some additional activities from review.

## Managed Late-Successional Areas [ROD C-22>

### Description

Managed Late-Successional Areas are similar to Late-Successional Reserves but are identified for certain owl activity centers on the eastside where regular and frequent fire is a natural part of the ecosystem. Certain silvicultural treatments and fire hazard reduction treatments are permitted to help prevent complete stand destruction from large catastrophic events such as high intensity, high severity fires or disease or insect epidemics.

Managed Late-Successional Areas have been designated for these standards and guidelines based on two elements:

1. Managed pair areas for known owl pairs and resident singles in the Washington Eastern Cascades Provinces from the Final Draft Spotted Owl Recovery Plan, and
2. Protection buffers for specific endemic species identified by the Scientific Analysis Team (1993).

Details are as follows:

1. **Managed Pair Areas:** Managed Late-Successional Areas are specified as shown on the Amendment Map for northern spotted owl activity centers outside of other designated areas.
2. **Protection Buffers:** Unmapped Managed Late-Successional Areas result from the application of Protection Buffers (see “Managed Late-Successional Area Protection Buffers” in Chapter 2).

## **Standards and Guidelines for Managed Late-Successional Areas**

See also Chapter 2, Forest-wide Management Direction.

### ***Silviculture***

Management activities proposed are subject to review by the Regional Ecosystem Office. The Regional Ecosystem Office may develop criteria that would exempt some activities from review. This review is especially important because innovative silvicultural techniques may be applied to manage suitable northern spotted owl habitat through time. These techniques may benefit from technical review by the Regional Ecosystem Office.

Managed Late-Successional Areas are identified in areas where regular and frequent fire is a natural part of the ecosystem. The objective for these areas is to produce and maintain an optimum level of late-successional and old-growth stands on a landscape scale. In these designated areas, certain silvicultural treatments and fire hazard reduction treatments would be allowed to help prevent complete stand destruction from large catastrophic events such as high intensity, high severity fires or disease or insect epidemics.

Suitable northern spotted owl habitat should be maintained through time using various management techniques. The objective will be to always maintain an amount of suitable habitat equal to median amounts observed in pair home ranges in the province. The location of this acreage may change through time as management is rotated through the area. Some uncertainty will be accepted in management to provide habitat in these areas. The intent to accommodate some risk in the managed pair areas should be considered in any Section 7 consultations in these areas. (See Glossary.)

Silviculture, salvage, and other multiple-use activities for these areas always should be guided by the objective of maintaining adequate amounts of suitable habitat.

### ***Management Assessment***

Each Managed Late-Successional Area or group of smaller Managed Late-Successional Areas should have a management assessment, as described for Late-Successional Reserves. In addition, the assessment should ensure the Managed Late-Successional Area contains adequate late-successional as old-growth habitat.

## Home Ranges

Delineate an area surrounding the owl activity center with an acreage at least equal to the median home range size for pairs. The size of this area will be determined from median home range data for the province (see Table 5-1). Use data from the spotted owl study area that is most similar to the site being considered. The delineated area should be configured so that it contains an amount of suitable habitat that approximates at least the median amount observed in pair home ranges for the province (see Table 5-2).

*Table 5-1 Annual home range areas (in acres) of northern spotted owl pairs in the Eastern and Western Cascades Provinces.* [ROD C24>

Physiographic Province	Forest Type	Range (in acres)		
		Min	Median	Max
Eastern Cascades	Mixed Conifer	3,694	7,124	15,587
Western Cascades	DF/Hemlock	2,969	6,657	17,942

*Table 5-2 Amounts of old-growth and mature forest (in acres) in annual pair home ranges of spotted owls in the Eastern and Western Cascades Provinces.*

Physiographic Province	Forest Type	Range (in acres)		
		Min	Median	Max
Eastern Cascades	Mixed Conifer	—	—	—
Western Cascades	DF/Hemlock	1,715	3,281	8,998

## Multiple-Use Activities Other Than Silviculture

“Standards and Guidelines for Multiple-Use Activities Other Than Silviculture,” which are found in the standards and guidelines for Late-Successional Reserves earlier in this chapter, also apply to Managed Late-Successional Areas.

## Management Area Categories

National Forest land within the Gifford Pinchot National Forest is assigned to various Management Area Categories (MACs). Each Management Area Category has a goal, or management emphasis. Each Management Area Category includes one or more management areas. Each management area has a set of standards and guidelines and other management practices designed to achieve multiple use goals and objectives. Forest-wide standards and guidelines described in Chapter 2 and standards and guidelines for each designated area described previously in this Chapter also apply. The direction given in this section applies only to the management areas within Late-Successional Reserves or the Managed Late-Successional Area. The management areas are shown on the Amendment Map.

*Table 5-3 Management Area Categories within the Late-Successional Reserves and Managed Late- Successional Areas.*

Management Area Category	Code	Acres**
Developed Recreation Site*	2L	860
Administrative Sites*	3W	703
Utility Sites and Corridors*	4W	37
Recreation River	6L	2,515
Wild River*	8D	7,141
Special Interest Area*	9L	2,225
Botanic Special Interest*	BL	2,403
General Late-Successional Reserve	LS	265,750
Experimental Forest*	FS	8,942
Geologic Special Interest Area*	GD	214
Wildlife Special*	IL	2,593
Mountain Goat Summer Range	ML	11,662
Scenic Rivers*	NA	19,449
Mountain Goat Winter Range	QL	8,819
Roaded Recreation*	RL	2,578
Scenic Special Interest Area*	SD	5,163
Unroaded Recreation without Timber Harvest*	UD	22,461
	UH	9,797
	UL	5,478
Visual Emphasis	VL	68,617
<b>Total</b>		<b>447,408</b>
*These management areas are also Administratively Withdrawn		
**Includes Riparian Reserves		

## Administrative Sites

### Management Area Category 3

Includes Management Area 3W [FP IV-146]

#### Goal

Provide for facilities required to accomplish the administration of the National Forest in an efficient manner.

#### Description of Lands Where This MAC is Applied

Existing sites such as ranger stations, engineering zone compounds, road maintenance shops and compounds, scale stations, lookouts, the Wind River Nursery, seed orchards, the Cispus Center, the Mount St. Helens National Volcanic Monument Headquarters, work centers, guard stations, and additional lands required for these and other activities which must be performed in order to administer National Forest System lands (see page 5-11, "Developments").

#### Desired Future Condition

Buildings, roads, and other structures are quite evident; most have required the creation of openings. Since most of the activities are on-going, structures are generally permanent. They are well kept, neat, and orderly in appearance. Vegetation varies widely from ornamental trees and shrubs to stands of old-growth timber.

#### Standards and Guidelines

##### Recreation

##### Planning and Inventory

1. Cultural, biological and other features of interest should be inventoried. Public access may be provided when it does not conflict with the functions of the administrative site.
2. The Visual Quality Objective and Recreation Opportunity Spectrum class assigned to these Management Areas are:

Management Prescription	VQO	ROS
3W	Modification	Rural

Recreational facilities should be few or absent.

### *Use Administration*

Recreational off-road vehicles should not be permitted.

### **Range**

#### *Planning*

Livestock grazing should not be permitted.

### **Timber**

#### *Hazard Trees*

Trees should be felled to protect life and property or as necessary for insect attack or disease control. Ordinary timber salvage should not be permitted.

### **Water, Soil, and Air**

#### *Rights/Use Management*

Water rights should be acquired for all sources supplying water for domestic use or irrigation at the site, unless the Reservation Principal (see Glossary) applies.

### **Minerals and Geology**

#### *Inventory and Development*

1. Common mineral material sources should not be inventoried or developed.
2. Potential aquifers should be evaluated prior to well location and drilling.

### **Lands**

#### *Special Use Management*

Permits, leases, rights-of-way, or easements inconsistent with the purposes of the administrative site should not be permitted.

#### *Federal Energy Regulatory Commission (FERC) License and Permits*

Feasibility studies should be conducted in a manner which does not interfere with operation of the administrative site.

#### *Withdrawals, Modifications, and Revocations*

Subject to the determination of values, including mineral values, portions of the area should be recommended for withdrawal under the public land laws if required to protect special values.

### *Landownership Planning*

All lands should be placed in Ownership Category II, retain or acquire. Sites outside the Forest boundary operating with leases or other temporary permits are exceptions.

## **Facilities**

### *Road Operation*

Access roads and parking lots should be managed to encourage or accept general public use.

Some storage areas may require gates or fences to protect government property.

### *Fire, Administrative, and Other (FA&O) Construction/Reconstruction*

1. Boundaries of administrative sites adjacent to private lands should be surveyed and posted prior to site planning and construction. Existing sites should be surveyed and posted prior to further development.
2. Temporary buildings should be limited to temporary activities or circumstances. They should not be built in lieu of permanent structures. Plans should be developed for the removal or replacement of temporary structures.
3. Plans should be developed to blend new construction with architectural and landscape themes of the existing compound facilities.
4. A site development plan will be prepared for all administrative sites to increase operating efficiency. It should include consideration of the direction above.

## **Protection**

### *Fire Management*

Fire plans will adhere to state, county, and local fire ordinances and laws.

### *Fire Suppression*

Fire Suppression Strategy, Control, should be used.

Fire Suppression Priority 1, protect life and property, should apply and all fuels will be disposed or removed.

### *Pest Suppression and Prevention*

The protection of developments and existing vegetation should be emphasized in pest suppression and prevention activities. <FP IV-148]



# Developed Recreation

## Management Area Category 2

Includes Management Area 2L

### **Goal** [FP IV-101>

Readily-accessible, appropriately-designed facilities will provide for concentrated visitation by people seeking a convenient recreational experience.

### **Description of Lands Where This MAC is Applied**

Developed recreation sites are usually close to water bodies, berryfields, and other areas of scenic or special interest. Except for winter recreation areas, they are usually located on relatively flat land with slopes of less than ten percent. Soils and vegetation must be able to absorb heavy use. Camp and picnic grounds, ski areas, recreation residences, viewpoints, boat launches, and other facilities may be accommodated.

### **Desired Future Condition**

Roads, buildings, ski lifts, tables, docks, and other physical facilities are evident, but design and construction will repeat the color, shapes and lines of the surroundings.

### **Standards and Guidelines**

#### **Recreation**

#### *Planning and Inventory*

1. On selected sites, special facilities needed for the convenience of visitors, including the elderly, young, and handicapped, should be provided.
2. The Visual Quality Objective and Recreation Opportunity Spectrum classes assigned to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
2L	Retention	Roaded Natural

#### *Facility and Site Reconstruction, Construction, and Management Administration*

1. Site development and management should be guided by these considerations:
  - a) Public safety and sanitation.
  - b) Long-term protection of site and facilities.
  - c) Accommodation for groups and for the handicapped.

- d) Information services.
  - e) Aquatic Conservation Strategy
2. Operation and maintenance plans should be prepared.
  3. New camp units should be located away from the immediate foreground of lakes and streams. Those which are now in these locations should be moved whenever practicable. See “Riparian Reserve Standards and Guidelines for Recreation,” in Chapter 2.
  4. Every site will be surveyed for hazard trees annually.

### *Use Administration*

Off-road vehicle use on roads should be limited to ingress and egress. ORV use may be permitted on designated trails with the same limitation.

### **Range**

#### *Administration*

Livestock grazing should not be permitted.

### **Timber**

#### *Administration*

Trees should be felled when they may be a hazard to life or property. Methods least likely to produce lasting visual impacts should be employed. Trees may be felled to improve a ski area, provide a scenic view, or accomplish other recreational enhancements. Ordinary timber salvage should not be permitted.

In the foreground of areas adjacent to concentrated use:

1. Remove portions of downed trees which are not needed to meet recreation and Aquatic Conservation Strategy Objectives.
2. Flush-cut or remove stumps.
3. Remove logs and debris by methods which minimize ground and vegetative disturbance.

### *Silvicultural Examination and Prescriptions*

As a basis for the Vegetative Management Plan, a silvicultural examination should be prepared for every developed recreation site. It should take into account crown closure, hazard trees, and the ability of the stand to withstand concentrated recreation.

### *Genetic Forest Tree Improvement Program*

Genetic improvement program activities should be limited to select trees. Identification marks should be inconspicuous.

## **Water, Soil, and Air**

### *Inventory, Planning, and Improvement*

Adverse impacts of recreation on soil, water, and air should be identified. Those impacts which may jeopardize public health and safety will be corrected immediately. Others should be treated before the opening of the next season (see “Riparian Reserve Standards and Guidelines for Recreation” in Chapter 2.

### *Rights/Use Management*

Water rights should be acquired for all sources supplying or expected to supply domestic water to the recreation site.

## **Minerals and Geology**

### *Evaluation and Development*

1. Common mineral material sources should not be developed.
2. Potential aquifers should be evaluated prior to well location and drilling.

## **Lands**

### *Special Use Management*

Only those permits, leases, rights-of-way, and other special uses which are compatible with developed recreation and Late-Successional Reserve objectives should be permitted.

### *Federal Energy Regulatory Commission License and Permits*

Feasibility studies may occur providing they are performed in a manner which does not impair recreational use of the area.

### *Withdrawals, Modifications, and Revocations*

The recreation site or area should be withdrawn from mineral entry, subject to the determination of values, including mineral values, if required to protect the site.

### *Landownership Planning*

All lands should be placed in Landownership Category II, acquire or retain.

## **Facilities**

### *Transportation Planning*

Roads and other facilities inconsistent with developed recreation should be located away from the primary use areas, closed, removed, or decommissioned.

### *Road Operation*

Access roads to developed sites should be managed to permit passenger car traffic.

When vandalism is a problem, the Prohibit traffic scheme can be applied to seasonally close sites. When vandalism is not a problem, road use may be seasonally discouraged by posting closure signs.

## **Protection**

### *Fire Management*

Fire Suppression Strategy, Control, should be used at all developed sites.

Fire Hazard Reduction Priorities, utilize and dispose, should apply.

### *Pest Suppression and Prevention*

Pest suppression and prevention methods should be used for maintaining the health of vegetation. This activity should be timed to avoid the recreation season if possible.

<FP IV-103]

# Experimental Forest

## Management Area Category F

Includes Management Areas FS [FP IV-141>

### **Goal**

Manage the Experimental Forest as a center for Forest research and demonstration, providing a variety of long-term research opportunities.

### **Description of Lands Where This MAC is Applied**

The existing Wind River Experimental Forest.

The Experimental Forest is specifically set aside for research essential to managing the Nation's timber and range resources. It is administered by the Pacific Northwest Forest and Range Experiment Station (PNW) in cooperation with the Gifford Pinchot National Forest. Thornton T. Munger RNA, management area F8 is within the boundary of the Experimental Forest. Direction for the RNA is in Management Area Category Y in Chapter 4.

### **Desired Future Condition**

Research activity is apparent. Stand structure and composition ranges from natural openings to stands of mature and old-growth timber. Roads and trails provide passenger car and foot access to most of the Experimental Forest.

Management and development of the forage, recreation, timber, wildlife, and water resources on Experimental Forests and Ranges will be a joint responsibility of the Station Director and the Regional Forester. The Director will determine whether a proposed use or occupancy is compatible with the research program. For additional direction, refer to the 1987 "Wind River Experimental Forest Research Management Plan."

### **Standards and Guidelines**

Also see "Research," in Chapter 2 and page 5-13

### **Recreation**

#### *Planning*

1. The Gifford Pinchot National Forest and PNW will jointly determine the Visual Quality and Recreation Opportunity Spectrum objectives to be met. The following options should be considered:

The Visual Quality Objective of Retention, Partial Retention, Modification or Maximum Modification. The Semi-Primitive

Non-Motorized, Semi-Primitive Motorized, or Roded Natural class on the Recreation Opportunity Spectrum.

For planning purposes in this Forest Plan, the following Visual Quality Objective and Recreation Opportunity Spectrum class have been assumed.

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
FS	Retention	Roded Natural

2. Research planners should be attentive to the visual quality requirements of adjacent Forest lands.
3. Unless it is specifically required for research, recreation use of the areas should not be encouraged. Firewood/Christmas tree cutting, collecting plants, berry-picking, hunting, fishing, and other activities which threaten research and education values may be discouraged or prohibited. PNW should review recreation use and its impact on research.
4. Picnicking and camping should be permitted in designated areas only.
5. Interpretive signs may be placed along the Pacific Crest Trail and elsewhere to describe ongoing research projects.
6. Cultural resources and other features of interest may be interpreted.

*Use Administration*

Recreational off-road vehicles, including snow machines, should not be permitted.

*Trail Construction, Reconstruction, Maintenance, and Operation*

1. PNW and the Forest should plan trail reconstruction, construction, and maintenance based on the expected needs of research. Trails should be primitive unless a higher standard is required by research.
2. Trail work should usually be done by the Forest. Opportunities should be sought to combine it with other activities, e.g., training crews in fireline construction. It may also be contracted by PNW.

*Recreation Research*

Opportunities should be sought for both dispersed and developed recreation research. Recreation may be permitted or encouraged if required to meet specific research goals. (Refer to “Problem Analysis for PNW Research Work Unit No. 4901”).

**Wildlife and Fish**

*Planning*

Minimum management requirements for the Forest's wildlife indicator species should be met unless they conflict with significant research.

### *Wildlife, Fish, and Plant Habitat Research*

1. Research to determine the impacts of fish and wildlife habitat manipulation should be encouraged.
2. Research on the adequacy of management requirements for wildlife should be emphasized.

## **Range**

### *Administration and Management*

Grazing should be limited to range research projects on transitory forage areas.

## **Timber**

### *Planning and Inventory*

District Ranger will assist PNW in slash disposal and reforestation planning to ensure that the cost of work required on the Experimental Forest is included in requests for K-V funding.

### *Reforestation*

1. Regeneration will be in accordance with research objectives.
2. Atypical methods and sources may be used.

### *Timber Stand Improvement*

PNW and the District will jointly plan and conduct all precommercial thinning.

### *Timber Sale Preparation*

The District staff will assist PNW with Experimental Forest timber sales.

### *Harvest Administration*

1. The District will administer timber sales on the Experimental Forest in consultation with PNW.
2. The District and PNW should jointly sponsor prebid conferences to clarify research-related sale objectives before contract bids are submitted.

### *Genetic Forest Tree Improvement Program*

1. The Forest will manage the Planting Creek Seed Orchard in cooperation with PNW. It is intended that the orchard should remain intact as long as the genetically superior seed produced is required by the National Forest System. The status of the orchard should be reviewed by PNW and the Forest at least each ten years when the Forest Plan is scheduled for revision.

2. Selection of candidate trees as genetic seed sources should be encouraged. If possible, such trees should have crowns within ten feet of existing timber harvest areas.
3. Select trees should be protected.

#### *Nursery Expansion*

Expansion onto the Experimental Forest will not be permitted.

#### *Timber Engineering Research*

Encourage use, testing, and development of new harvesting systems.

#### *Timber Management Research*

Encourage use of the Experimental Forest in developing improved methods for establishing and manipulating timber producing forests, including yield predictions.

#### *Utilization Research*

Research should take advantage of both natural and created opportunities for utilization research.

### **Water, Soil, and Air**

#### *Inventory*

PNW and Forest soil scientists should jointly determine base line soil inventory and data needs.

#### *Monitoring*

Some research projects are designed to estimate the magnitude of various environmental impacts. When activities exceed the management requirements for soil, water, and air, the District and PNW should jointly determine if corrective action is needed to protect adjacent resource values.

#### *Rural Community and Human Resources*

##### **Youth Conservation Corps Program and Volunteers**

The participation by volunteers and young people in research projects should be encouraged.

### **Lands**

#### *Right-of-Way Grants for Roads and Trails*

Except for those required for research, rights-of-way, easements, and other permits should not be permitted if there is a practical alternative.



### *Withdrawals, Modifications and Revocations*

The entire Experimental Forest should be recommended for withdrawal from mineral entry based on a PNW statement of reasons and rationale.

### *Property Boundary Locations*

Boundaries of the Experimental Forest should be jointly determined and posted by PNW and the District.

### *Land Ownership Planning*

Lands which are critical to the integrity of the Experimental Forest should be retained or acquired, Landownership Category II

## **General Administration**

### Regional and Forest Level Planning

1. Representatives of PNW, the Forest, and the District should meet annually to review the research program and plan future operations in the Experimental Forest and interactions with surrounding Forest land.
2. A forester or forestry technician should be housed at the Experimental Forest to assist in coordinating public information, technology transfer of research, and maintenance and measurement of studies with the District.

(NOTE: The Station Director and Regional Forester will determine who funds this position.)

3. The District GIS, or another data base system, should be used to record plot locations. Information should be updated annually by PNW scientists.

### *Resource Economics Research*

The economic trade-offs of alternate land management treatments will be studied on appropriate sites.

## **Facilities**

### *Transportation Planning*

1. A road management plan for research projects should be developed by the Forest and PNW. Other roads in the Experimental Forest should be compatible with research objectives. New roads, unless needed to serve research needs, should avoid crossing the Experimental Forest.
2. New roads should not be permitted unless approved by the Station Director and should not cross PNW control areas.

### *Road Operation*

The Road Management Objectives should be reviewed by PNW and the District annually to assure compatibility with the research program. At a minimum, all roads open to public travel should be managed to allow passenger car access.

### **Protection**

#### *Fire Management*

1. A cooperative fire protection plan for the Experimental Forest should be jointly prepared by the Forest and PNW.
2. Prevention and suppression activities and priorities should be based on the threat to scientific values. Suppression Strategy, Control, should be used.

#### *Pest Suppression*

The Forest and PNW should actively seek opportunities to design and implement control programs. <FP IV-145

# General Late-Successional Reserve

## Management Area Category L

Includes Management Area LS [FP-IV-136>

### **Goal**

The objective of General Late-Successional Reserve is to protect and enhance conditions of Late-Successional and old-growth forest ecosystems.

### **Description of Lands Where This MAC is Applied**

In the past these lands were primarily timber producing lands and deer and elk habitat. They also include areas with such market values as minerals, energy, and forage for livestock grazing. Where they occur within Late-Successional Reserves, these lands are no longer suitable for timber management or habitat manipulation to benefit early successional related species such as deer and elk.

### **Desired Future Condition**

Late-successional and old-growth forest ecosystems will develop over time. Destructive fires seldom occur. Recreational opportunities are available for hunters, fishermen, off-road vehicle operators, and other motorists, although many roads will be closed in the winter months in the biological deer and elk winter range.

### **Standards and Guidelines**

#### **Recreation**

##### *Planning and Inventory*

1. The Visual Quality Objectives and Recreation Opportunity Spectrum class assigned to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
LS	Retention	Roaded Natural

2. Where appropriate, recreational activities compatible with Late-Successional Reserve objectives may continue. Driving for pleasure, hunting, dispersed camping, wildlife viewing, berrypicking, cross-country skiing, the use of off-road vehicles, and interpretation of cultural or other features of interest are examples of possible activities.

## Range

### *Administration*

In the biological winter range, conflicts between deer and elk and livestock will be resolved in favor of deer and elk.

### *Nonstructural Improvement and Maintenance*

Plant species selected for range improvement should not significantly compete with Forest tree species. <FP -IV-136]

## Mountain Goat

### Management Area Categories M, Q

Includes Management Areas QL and ML [FP IV-129>

#### **Goal**

Manage habitat to provide forage and cover that maintains the 1990 carrying capacity of 230 animals.

#### **Description of Lands Where This MAC is Applied**

Places where mountain goats are known to exist or to have existed in the past as identified on the accompanying Amendment Map.

##### *Winter Range - Q*

Winter range habitat is typically characterized by mid-elevation steep slopes with heavy coniferous forest cover. These areas may have avalanche chutes, rock outcrops, cliffs, and ledges.

##### *Summer Range - M*

Summer range is characterized by higher elevation habitat where coniferous slopes and rocky and ledge-type terrain are interspersed. Gently sloping meadows within the above habitat are commonly used for feeding and, sometimes, resting.

#### **Desired Future Condition**

On summer range and locally on winter range, open ridge areas, rock outcrops, talus slopes, and avalanche chutes are common and are generally in a natural condition. Most trees on forested land will be pole size or larger. Vegetation ranges from natural openings through stands of mature and old-growth timber. There are few roads, and those that do exist usually are closed to motorized traffic. The area is used by backpackers and hunters and affords outstanding opportunities to view scenery and wildlife.

#### **Standards and Guidelines**

The following direction applies to all management areas in MAC Q and M, unless indicated otherwise.

#### **Recreation**

##### *Planning and Inventory*

1. Development or management which concentrates recreational activity should not occur.

2. New trails should be designed to avoid key habitat features such as rock outcrops, talus slopes, avalanche chutes, and kidding areas.
3. Existing trails which conflict with mountain goats should be relocated or be limited in use to reduce harassment.
4. The Visual Quality Objective and Recreation Opportunity Spectrum classes assigned to these Management Areas are:

<b>Range</b>	<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
Winter	QL	Retention	Roaded Natural
Summer	ML	Retention	Roaded Natural

5. Cultural resources will generally not be interpreted.

#### *Facility Site Reconstruction and Construction*

Facilities should be limited to those required to protect resources.

#### *Use Administration*

ORV use may be permitted on designated trails or routes only.

Recreational off-road vehicles, including oversnow machines, should not be permitted on mountain goat summer range, Management Prescription-ML, April 15-December 1, and on winter range, Management Prescription QL, November 1-June 30.

#### **Range**

Any conflict between grazing by domestic livestock and mountain goats should be resolved in favor of mountain goats.

#### **Timber**

##### *Reforestation and Timber Stand Improvement*

Herbicides should not be used if they jeopardize desirable wildlife browse species.

##### *Timber Sale Preparation and Harvest Administration*

1. Timber harvest and road building should not be performed on winter range, Management Prescription QL, between November 1 and June 30.
2. To provide hiding and thermal cover, a buffer of at least 200 feet should be maintained adjacent to avalanche chutes, cliffs, and rock outcrops which are important mountain goat habitat. Timber harvest should not occur within this 200-foot area.

3.

### *Genetic Forest Tree Improvement Program*

Genetic improvement activities should be limited to select trees.

## **Minerals and Geology**

### *Exploration Development and Administration*

1. Common mineral sources which adversely affect mountain goats should not be developed.
2. Exploration should be performed in a manner which does not significantly disturb mountain goats.
3. Activities may be limited from November 1 to June 30 to protect mountain goats.
4. Cliffs, rock outcrops, and avalanche chutes should be avoided when practicable.

## **Lands**

### *Federal Energy Regulatory Commission (FERC) License and Permits*

Exploration should be performed in a manner which does not significantly disturb mountain goats.

### *Landownership Planning*

Lands should be placed in Ownership Category II, Retain or Acquire.

## **Facilities**

### *Road Construction and Operation*

Construction of roads and other facilities should not be permitted from November 1 to June 30 in winter range, Management Prescription QL. See “Special Habitat Management Objectives” in Chapter 2 for timing restrictions in kidding areas.

Major through routes should be managed for standard passenger car use. Some local roads required to access recreation destinations may also be managed for passenger car use. All other roads should be maintained only for intermittent timber management activities. Local roads not being used for resource management activities should be closed using the Eliminate or Prohibit traffic schemes or decommissioned.

All local and minor collector roads in Mountain Goat Winter Range, Management Prescription QL, should be closed from November 1 to June 30. <FP -IV-132]

## Roaded Recreation

### Management Area Category R

Includes Management Area RL

#### **Goal**<sub>[FP IV-95]</sub>

Provide a variety of dispersed recreational opportunities in areas conveniently reached by auto.

#### **Description of Lands Where This MAC is Applied**

These lands accommodate dispersed recreation—hiking, fishing, berry-picking, camping, wildlife viewing, rockhounding, winter sports—beside or near roads. They include unique or distinctive portions of the Forest with features like clustered lakes, berryfields, and roaded scenic corridors.

#### **Desired Future Condition**

Management activities are evident, but not conspicuous. Vegetation will remain largely natural in appearance along the major travel ways and may vary from natural openings through stands of mature and old-growth timber. Travel to dispersed sites over roads maintained at a variety of standards is an important aspect of the recreational experience. Much of the area provides for interaction with a near-natural environment. Recreation facilities have been kept at a minimal level of development.

#### **Standards and Guidelines**

##### **Recreation**

##### *Planning and Inventory*

1. Locations for viewing, photographing, or interpreting wildlife, cultural, geologic, biological, and other features of interest should be identified and evaluated.
2. The Visual Quality Objective and Recreation Opportunity Spectrum class assigned to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
RL	Retention	Roaded Natural



### *Site Management*

Areas which are designated for management as berryfields should be maintained by such methods as emphasizing permits for plant removal and encouraging the removal of encroaching vegetation by volunteers. Future research may provide more efficient methods for perpetuating these popular berrypicking areas.

### *Use Administration*

Off-road vehicles may be permitted on designated routes or areas.

## **Wildlife And Fish**

### *Improvements*

Opportunities for hunting and fishing may be enhanced by methods such as fish stocking and habitat improvement.

## **Range**

### *Administration*

Animals should be kept away from fields which are being managed for berrypicking during the harvest season.

### *Structural Improvement and Maintenance*

Loading ramps, stock tanks, fences, holding pens, and other improvements should be located away from areas of concentrated recreation except for those specifically designed for recreation stock.

## **Timber**

### *Administration*

Timber harvesting will not be scheduled, and timber salvage should not be permitted in management areas assigned the RL prescriptions. Trees may be felled, however, to enhance recreation, e.g., the opening of a scenic view, construction of a road, or removal of hazard trees.

Fuelwood gathering is not permitted except for camp fires.

### *Genetic Forest Tree Improvement Program*

Select trees should be marked inconspicuously. Other genetic tree improvements should be located away from areas of concentrated use.

## **Minerals and Geology**

### *Development Proposals*

The development of common minerals material sources, if necessary, should occur away from areas of concentrated use.

## Lands

### *Landownership Planning*

Lands needed to protect the integrity of the management area should be placed in Ownership Category II, Retain or Acquire, others should be placed in Category III, Neutral.

## Facilities

### *Transportation Planning and Inventory, Arterial/Collector/Local Road Reconstruction, Road Operation, and FA&O Construction and Preconstruction*

Roads and other facilities which are not consistent with the recreation objectives should be located away from concentrated use areas.

Local roads should be closed or decommissioned unless needed for a specific recreational purpose.

## Protection

### *Pest Suppression and Prevention*

Pest suppression and prevention methods which minimize visual disturbance should be employed. Biological and silvicultural treatments should be favored. Hazard trees in use areas should be felled. <FP IV-97]

## Special Interest

### Management Area Categories S, G, B, 9

Includes Management Areas SD, GD, BL, and 9L [FP IV-104>

#### Goal

Maintain the special feature(s) in a substantially natural condition while providing for an appropriate level of public access and enjoyment.

#### Description of Lands Where This MAC is Applied

Areas with a special feature or features which are important enough to deserve particular attention. Areas S, G, and B qualify for classification under Code of Federal Regulations (CFR 294.1). See Table 4-2, page 4-17, in the “Special Interest” management area section of Chapter 4, for a list of Special Interest Areas within Late-Successional Reserves.

Area	Management Area	Description of Land
Scenic	SD	Places of outstanding or matchless beauty
Geologic	GD	Outstanding formations, fossils, caves, or other geologic features which display the earth's evolutionary processes.
Botanical	BL	Lands containing plant species or communities which are significant because of form, color, occurrence, habitat, location, life history, arrangement, ecology, environment, rarity, or other quality.
Other	9L	These lands, like those described above, are unique because they include features deserving special management. They include a wide range of features, such as waterfalls, scenic spots, caves, and botanical, historical, and geological sites. They differ from the above areas in two respects. First, they are relatively small in size, ranging from one acre to about 1,200 acres; most are 20 acres or less. The second and most significant difference in these areas, however, is that they are not significant enough to qualify for classification under Code of Federal Regulations (CFR 294.1).

## Desired Future Condition

Visual evidence of management activities is subordinate to the special feature(s). Fences, signs, viewpoints, and other facilities may exist if needed to protect the feature(s) or provide for public use and enjoyment. Plant communities are usually the product of natural succession. Vegetation may range from natural openings through stands of mature and old-growth timber.

Most features included in this MAC will remain in an essentially undisturbed condition. In most special interest areas, there is an opportunity to interact with the natural environment. In some, there is an opportunity for solitude; in others, the experience is shared.

## Standards and Guidelines

The following direction applies to all management areas in MAC S, G, B, and 9, unless otherwise indicated.

### Recreation

#### Planning and Inventory

1. All areas, except for those to which the 9L Prescription is assigned, will be classified as Special Interest Areas under the Code of Federal Regulations (CFR 294.1).
2. The Visual Quality Objective and Recreation Opportunity Spectrum class assigned to these Management Areas are:

Management Prescription	VQO	ROS
SD and GD	Retention	Semi-primitive Non-Motorized
BL and 9L	Retention	Roaded Natural

*NOTE:* In the event that oversnow machines are permitted within management areas assigned prescriptions SD or GD, the ROS class is changed to Semi-Primitive Motorized for the duration of such use.

The assigned VQO is applicable to all roads, trails, and use areas within the management area.

#### Use Administration

1. Recreational off-road vehicles, including oversnow machines, should not be permitted in management areas assigned prescriptions BL, GD, or SD, except oversnow machines may be permitted in GD and SD when snow is deep enough to ensure that resource damage will not occur.
2. Off-road vehicles, including oversnow machines, may be permitted in 9L areas on a case-by-case basis.
3. Hazard trees near use areas should be felled.

### *Facility, Site, and Trail Reconstruction and Construction*

Trails and facilities should be subordinate to features for which the management area was created.

## **Wildlife**

### *Nonstructural and Structural Habitat Improvement and Maintenance*

Native or natural materials should be used.

## **Range**

### *Planning and Inventory*

Livestock grazing may be permitted if it is consistent with Late-Successional Reserve objectives and does not detract from the special feature(s) and public use and enjoyment. No grazing should be permitted in areas assigned the BL prescription.

### *Nonstructural/Structural Improvements and Maintenance*

1. Native or natural materials should be used in improvements.
2. Stock tanks, fences, and holding pens should be located away from the special interest feature or areas where recreation is concentrated.
3. Revegetation or rehabilitation necessitated by stock grazing should be initiated no later than the following season.

## **Timber**

### *Administration*

Trees should be removed when they are a hazard to life or property. Trees may be felled to enhance recreation, e.g., the creation of a scenic view or construction of a road. Ordinary timber salvage should not be permitted.

### *Firewood Cutting*

Firewood cutting, except for campfire use, should not be permitted.

### *Genetic Forest Tree Improvement Program*

With the exception of seed orchards, genetic improvement activities may be permitted when they do not adversely affect special feature(s) or public use and enjoyment.

## Minerals And Geology

### *Development Proposals*

1. Common mineral material sources may not be developed.
2. Recommendations for development should include reasonable, operationally feasible requirements for protecting special features.
3. Recommendations on the design of facilities should be appropriate to the nature of the special feature involved.
4. When facilities are no longer needed they should be removed and the area rehabilitated.

## Lands

### *Special Use Management*

Permits, leases, rights-of-way, and easements not compatible with special interest area objectives should not be permitted. Nonconforming uses should be discontinued when the opportunity permits.

### *Withdrawals, Modifications and Revocations*

The area should be recommended for withdrawal under the public land laws, subject to the determination of values, including mineral values.

### *Landownership Planning*

Lands which are critical to the integrity of the special interest area should be retained or acquired, Landownership Category II.

## Facilities

### *Transportation Planning*

There should be no roads in management areas assigned the SD or GD Prescriptions. They may be permitted in GL or BL areas when required for recreation purposes consistent with maintaining special interest values. Existing roads in 9L areas may be permitted if needed for through traffic. All other roads in 9L areas should be closed or decommissioned and new roads should not be constructed. [FP IV-107]

## Protection

### *Treatment of Activity Fuels*

Fire Hazard Reduction Applications rearrangement, removal, or disposal should be used. Rearrangement, removal, or disposal fuel treatment applications should be employed along travel routes and in or adjacent to special features. The remainder of the area should utilize the fuel treatment application which best meets the natural condition of the area.

*Pest Suppression and Prevention*

Pest suppression and prevention methods which minimize visual disturbance should be employed. In botanical areas, the plant or plants of interest will be the primary concern. Biological and silvicultural treatment methods will be preferred. Hazard trees near use areas should be felled. <FP IV-107]

# Unroaded Recreation Without Timber Harvest

## Management Area Category U

Includes Management Areas UD, UH, and UL [FP IV-92>

### **Goal**

Provide a variety of dispersed recreation opportunities in a Semi-Primitive or undeveloped setting.

### **Description of Lands Where This MAC is Applied**

Portions of the Forest with outstanding recreational attributes. They provide quality fishing, hunting, berry-picking, backpacking, and other outdoor activities. They may be located near a road but are in a substantially undisturbed condition.

### **Desired Future Condition**

A natural to predominantly natural-appearing environment has been maintained; changes are largely the result of natural succession. Campsites, sanitation facilities, and other management activities are few in number and not conspicuous. Wildlife habitats are diverse. The area affords visitors an experience which is usually free from the sight and sounds of other people. Principal access is by trail; there are no roads within the area. The opportunity to practice outdoor skills in a challenging environment is afforded. Vegetation may vary widely from natural openings to mature and old-growth stands.

### **Standards and Guidelines**

The following direction applies to all management areas within MAC U unless otherwise indicated.

### **Recreation**

#### *Planning and Inventory*

1. Future trail and campsite locations should be identified and coordinated to access areas of interest or destination points, e.g., vistas or berry-picking areas.
2. The trail system should be designed to disperse use and enhance the optimum recreational opportunities of this area.



- The Visual Quality Objectives and Recreation Opportunity Spectrum classes assigned to these management areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
UD	Retention	Semi-primitive Non-Motorized
UH	Retention	Semi-primitive Motorized
UL	Retention	Roaded Natural

- Cultural sites or other features of interest may be interpreted if they can be adequately protected.

### *Facility and Site Management and Use Administration*

Recreational off-road vehicles may be permitted on trails only in management areas UH or UL.

### **Range**

#### *Administration*

- Improvements should utilize native or natural-appearing materials whenever they are available.
- Livestock grazing may occur when compatible with dispersed recreation.

### **Timber**

#### *Planning and Inventory*

Thinning should not be permitted.

#### *Firewood*

Gathering campfire wood may be permitted. Firewood cutting for home or commercial use should not be permitted.

#### *Genetic Forest Tree Improvement Program*

The genetic improvement program should be limited to select trees.

### **Minerals and Geology**

#### *Exploration and Development Proposals*

- Exploration should be performed in a manner which does not alter the semi-primitive character of the land. Exploration should be timed to avoid conflict with recreational activities, i.e., not on weekends during the summer season.
- Facilities should be designed to minimum standards and removed when no longer needed. The site should then be rehabilitated.

## **Lands**

### *Special Use Management*

Nonconforming uses should be terminated.

### *Federal Energy Regulatory Commission Licenses and Permits*

Facilities should be designed to minimize adverse effects on the natural setting. Pipelines and transmission lines should not be permitted. If unavoidable, they should be buried if practical.

### *Land Ownership Planning*

Lands critical to the integrity of the management area should be placed in ownership Category II, Retain or Acquire. The remainder should be in Category III, Neutral.

## **Facilities**

### *Transportation Planning*

There will be no roads constructed. Existing roads should be obliterated.

## **Protection**

### *Fire Suppression*

1. Fire Suppression Strategy should be Control.
2. The use of retardants and hand lines is preferred to minimize long-term fire suppression impacts.

### *Pest Suppression and Prevention*

Biological methods for prevention will be preferred.

<FP IV-94]

## Utility Sites and Corridors

### Management Area Category 4

Includes Management Area 4W

#### **Goal** [FP IV-149>

Provide effective and economical utilities with the least impact on the various natural resources involved.

#### **Description of Lands Where This MAC is Applied**

Existing sites and corridors for such purposes as communication, signal relay, canals, penstocks, pipelines, and power transmission lines. (See page 5-10, Developments.) All utility sites and corridors are not shown on the Amendment Map.

#### **Desired Future Condition**

Signs of human activities are frequently dominant. Buildings, antennas, pipelines, high voltage powerlines, and similar structures will usually be visible. The vegetation is mostly ground cover in the form of small conifers and hardwood brush. Vegetation partially screens smaller sites from distant views and provides edge habitat for wildlife. Recreational opportunities are frequently available for operating off-road vehicles, viewing distant scenery, and gathering miscellaneous forest products.

#### **Standards and Guidelines**

##### **Recreation**

##### *Planning*

1. Opportunities to harvest Christmas trees, view wildlife, operate off-road vehicles, hunt, cross-country ski, and pursue other recreational activities may be provided.
2. The Visual Quality Objective and Recreation Opportunity Spectrum class assigned to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
4W	Modification	Rural

3. Permittees will be required to sign or otherwise adequately mark items or areas which may be safety hazards to the public.

### *Use Administration*

Off-road vehicles may be permitted on designated trails or areas.

## **Wildlife And Fish**

### *Habitat Improvements*

Wildlife habitat improvements such as forage seeding using native species and other vegetative manipulations should be considered.

## **Lands**

### *Special Use Management*

1. Adherence to Federal standards for the use of chemicals to control vegetation will be required in permits.
2. Additional facility needs should utilize existing sites and corridors whenever possible.
3. When a site or corridor is no longer in use, it should be rehabilitated.

## **Facilities**

### *Road Construction and Operation*

Roads constructed to develop, service, or maintain facilities within this management area should not be maintained or managed for public use. Public use, however, may be permitted when conflicts with other resources are minor. Closures using the Prohibit traffic scheme should be applied if protection of facilities is required.

Roads passing through a corridor for other purposes should be managed commensurate with the adjacent management areas.

## **Protection**

### *Fire Suppression*

Fire Suppression Strategy, Control, should be used.

Fire Suppression Priority 1, protect life and property, will be used and all fuels should be disposed or removed.

### *Pest Suppression and Prevention*

The protection of adjacent resource values should be emphasized in pest suppression and prevention activities. <FP IV-150]

## Visual Emphasis

### Management Area Category V

Includes Management Area VL [FP-IV-98]

#### **Goal**

Provide a visually natural or near-natural landscape as viewed from the designated travel route or use area.

#### **Description of Lands Where This MAC is Applied**

Scenic viewsheds which are sensitive because they are viewed by many people from major roads, trails, and recreation sites, including lakes and streams.

#### **Desired Future Condition**

These areas accommodate a variety of activities which, to the observer, are either not evident or visually subordinate to the natural landscape. Management of the visual attributes of the corridor provides a continuing opportunity to appreciate scenic worth. Vegetation is diverse and includes a wide variety of tree species and sizes, living and dead. Stands exhibiting mature and old-growth characteristics are common. Viewing scenery, hiking, and camping occur, and access to other recreational facilities is provided.

#### **Standards and Guidelines**

The following direction applies to all management areas in MAC V, unless indicated otherwise.

#### **Recreation**

##### *Planning and Inventory*

1. Viewing opportunities may be enhanced by opening views to such features as distant peaks, unique rock forms, and unusual vegetation.
2. The Visual Quality Objectives (viewed from the designated travel route or site) and Recreation Opportunity Spectrum class assigned to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
VL	Retention	Roaded Natural

### *Facility and Site Reconstruction and Construction*

1. Parking areas should be screened from the designated travel route or recreation site except where visibility might deter vandalism.
2. Industrial camps should not be allowed within the foreground of the designated route or site.

### *Use Administration*

Off-road vehicles should be limited to specified trails.

## **Range**

### *Structural Improvement and Maintenance*

Structures such as loading ramps, stock tanks, fences, and holding pens, should be located away from the immediate foreground.

## **Timber**

### *Genetic Forest Tree Improvement Program*

Genetic improvement activities should be limited to select trees within the immediate foreground of the designated route or sites. Select trees should be inconspicuously marked. Beyond the immediate foreground, genetic activities should meet the assigned Visual Quality Objectives as viewed from the designated route or sites.

## **Minerals And Geology**

### *Development Proposals and Administration*

1. Common mineral material sources should not be developed within the foreground of the designated travel route or recreation site. Visible sources existing in these areas should be identified and programmed for rehabilitation.
2. Within the foreground of the designated travel route or recreation site and to the extent reasonable and operationally feasible, surface mining and geothermal activities should not be visible unless there is no practicable alternative. Where visible, mitigation measures should be applied

## **Lands**

### *Landownership Planning*

Lands should be placed in Ownership Category II, Retain or Acquire.

## Facilities

### *Transportation Planning*

1. In planning and designing the designated travel route, location of the route parking areas, viewpoints, etc. should be identified and analyzed with the visual resource in mind. Preference should be given to blending the road into the landscape rather than emphasizing speed and efficiency.
2. Material stockpiles and other facilities should not be visible in the foreground from the designated travel route.

### *Road Operation*

Dust abatement should be considered on the designated travel route.

Vegetation adjacent to the designated travel route or recreation site should be controlled in a visually inconspicuous manner, primarily by hand or machine methods. Any use of chemicals should be timed to avoid vegetative brownout (e.g., a dormant spray used in the fall).

Local roads should be managed using the Discourage, Eliminate, or Prohibit traffic management schemes. Roads providing access to a specific recreation destination may be managed to allow passenger car use and should be maintained at a level commensurate with the recreation opportunity.

## Protection

### *Fire Management*

Fire Hazard Reduction should apply. Residues from thinning or harvesting activities remaining in the immediate foregrounds of areas seen from the designated travel route or recreation site should be left in the following condition:

1. Less than two feet above the ground.
2. Screened by shrubs, grasses, or other understory vegetation.
3. Sparsely distributed and behind large diameter, dead material as opposed to tangles of small limbs. <FP -IV-100]

## Wild and Scenic Rivers

### Management Area Categories 8, N, 6

Includes Management Areas 8D, NA, and 6L [FP -IV-108>

#### **Goal**

Protect the Wild, Scenic, or Recreational River characteristics pending possible addition to the National Wild and Scenic Rivers System.

#### **Description of Lands Where This MAC is Applied**

Lands within 1/4 mile of designated rivers within the Forest boundary appearing to be both eligible and suitable for addition to the National Wild and Scenic Rivers System. Also included are those eligible river corridors for which suitability has not yet been determined. Suitability for rivers has not been determined.

#### **Desired Future Condition**

##### Wild Rivers - 8D

Wild Rivers are generally inaccessible by road, but can be reached by trail or water. Vegetation is varied in size, species, and age, and is predominantly the product of natural succession. Vegetation categories may vary from natural openings through stands of mature and old-growth timber. Along Wild Rivers, the opportunity to interact with a natural environment, away from the sights and sounds of other people, is available. A high degree of challenge is offered.

##### Scenic Rivers - NA

The rivers are accessed in some places by road and in some instances a major travel route parallels the river. Vegetation is varied in size, species, and age, and is predominantly the product of natural succession. Vegetation may vary from natural openings through stands of mature and old-growth timber. Some structures may be visible, but the shorelines are largely undeveloped. A challenging interaction with the natural environment is available.

##### Recreational Rivers - 6L

Development is acceptable. Parallel roads or railroads on one or both banks, as well as bridge crossings and other river access points, may occur. Vegetation is varied in size, species, and age, and is predominantly the product of natural succession. Vegetation may vary from natural openings through stands of mature and old-growth timber.



## Standards and Guidelines

The following direction applies to all Management Areas in MAC 8, N, and 6, unless otherwise indicated. Because this MAC follows the stream corridor, much of the MAC is subject to standards and guidelines of the Aquatic Conservation Strategy. Additional management direction is described in the Wild and Scenic Rivers Act and guidelines for its implementation.

## Recreation

### *Planning and Inventory*

- 1a. Those rivers determined to be suitable and their immediate environment are recommended for designation under the Wild and Scenic Rivers Act of 1968.

Rivers for which suitability has not been determined will require additional analysis. If the analysis finds one or more rivers or segments to be suitable, those will also be recommended for designation under the Act. Until the analysis is completed, no activities should be permitted that would alter the eligibility or potential classification of the stream.

- 1b. Many of the Wild and Scenic River corridors include lands which are actually extensions of other management areas outside of, but adjacent to, the river corridor. Also included are lands having attributes needed to complete other prescriptions such as Special Interest Areas, Developed Recreation Sites, and Visual Emphasis Viewsheds. Where the management direction for these lands is more restrictive than that for the Wild, Scenic, or Recreational River corridor in which they occur, the more restrictive direction applies. These “included” management area prescriptions are considered to be a part of these recommendations for designation under the Act.
2. Cultural resource surveys for identification of significant resources are encouraged. Cultural resources and other features of interest which are not jeopardized by public exposure may be interpreted.

The Visual Quality Objectives and Recreation Opportunity Spectrum Classes assigned to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
Wild River 8D	Preservation	Semi-primitive Non-Motorized
Scenic River NA	Retention	Roaded Natural
Recreational River 6L	Retention	Roaded Natural

## Facility and Site Reconstruction and Construction

Site design and facility selection should be compatible with the assigned ROS or WROS Level:

### Wild River

Along Wild Rivers, recreation sites should be limited to simple comfort and convenience facilities located outside Riparian Reserves.

### Scenic River

Subject to meeting the goals of the Aquatic Conservation Strategy, recreation sites may be established in close proximity to the River, but should be widely spaced, blend with the natural landscape, and be screened from the river.

### Recreation River

Subject to meeting the goals of the Aquatic Conservation Strategy, recreation facilities may be established in close proximity to the river, although extensive development is not required. Site development may still be kept to a minimum with visitor services provided outside the river area.

## Facility and Site Management and Use Administration

1. Recreational off-road vehicles are not permitted in Wild River corridors; they may be permitted in Scenic and Recreation River corridors on designated trails.
2. Guide service and other recreation concessions in keeping with the assigned ROS class may be permitted.

## Wildlife

### *Structural Habitat Improvement and Maintenance*

Structural habitat improvements should utilize native or natural-appearing materials.

## Timber

### *Timber Sale Preparation and Harvest Administration*

1. Firewood cutting for home or commercial use may be permitted where timber has been harvested in Scenic and Recreation Rivers. Gathering firewood for campfire use may be permitted.
2. To minimize visual disturbance, log and debris removal within the foreground of the river should be done by aerial or cable systems, with low ground pressure equipment, or hand piling.
3. Logs and debris should be yarded away from foreground areas as seen from the river, use areas, and major travel routes.

### *Genetic Forest Tree Improvement Program*

Genetic improvement activities in Wild Rivers and Scenic Rivers are limited to select trees.

## **Minerals and Geology**

### *Inventory and Evaluation and Processing of Site Specific Development Proposals*

1. Common mineral material sources should not be developed.
2. A no-surface occupancy stipulation will be encouraged in mineral leases.
3. Prior to, and in some instances after designation under the 1968 Act, rivers are generally subject to mining claim location and mineral exploration. Approved plans will include mitigation and reclamation measures to minimize surface disturbance, sedimentation and visual impairment.
4. New claims and leases are prohibited in Congressionally designated Wild River corridors.

## **Lands**

### *Special Use Management*

1. Utility corridors, dams, diversions and hydroelectric power facilities will be prohibited to the extent of Forest Service authority. Existing facilities may be maintained.
2. Locating new utility lines within Scenic River corridors should be discouraged. Where no reasonable alternative exists, routes should cross, not parallel, the river or be limited to the existing right-of-way.
3. Federal licenses or permits for water resource projects, including dams and transmission lines, will not be recommended unless the project will not have a direct and adverse affect on the Wild or Scenic River character.

### *Landownership*

National Forest lands should be placed in Ownership Category II, Retain.

Other ownerships should be in Category V, Additional Study.

### *Wild and Scenic Rivers Study*

Encourage the participation and cooperation of public and private landholders, particularly in river corridors including other ownerships.

## **Facilities**

### *Transportation Planning and Inventory*

1. Roads should not be permitted in Wild River corridors.

2. In Scenic River corridors, roads may occasionally cross or come near the river, but they should be infrequent and inconspicuous.
3. Roads are generally permitted in Recreation River corridors.
4. Roads and other facilities are also limited due to the “included” prescriptions described under Standards and Guidelines, Recreation, No. 1(b).

### *Road Operation*

Roads accessing developed recreation sites within Scenic and Recreation River corridors should be managed to accommodate passenger car traffic.

Local roads not required for a specific recreational objective should be closed using the Eliminate or Prohibit traffic management schemes or decommissioned.

Major through roads should be managed using the Encourage traffic management scheme.

## **Protection**

### *Fire Management*

Heavy equipment should not be used in the foreground as seen from the river.

### *Fire Suppression*

1. The Fire Suppression Strategy, Control, should be used.
2. In Wild River Corridors use suppression techniques which result in the least possible evidence of human activity.

### *Pest Suppression and Prevention*

Strategies which protect the Wild, Scenic, or Recreation character of these areas and avoid the degradation of water quality should be used to suppress the outbreak of pests. <FP -IV-112]

# Wildlife Special

## Management Area Category I

Includes Management Area IL [FP IV-126>

### **Goal**

Sustain or enhance a limited and significant habitat to support dependent wildlife.

### **Description of Lands Where This MAC is Applied**

Distinctive habitats such as marshes, caves, and mineral licks. These habitats are generally fragile, limited in size, uncommon, and important to numerous species of wildlife. They require a separate MAC because they do not clearly meet the criteria for other wildlife MACs.

### **Desired Future Condition**

Management activities are not evident in most of the area; there are few or no roads, and signs of other activities are minimal. Vegetation is generally the product of natural succession, although some enhancement of habitat may have occurred; e.g., planting of browse species. Vegetation ranges from natural openings through stands of mature and old-growth timber. Recreational activities which entail high densities of users will not be encouraged. Some hunting and fishing, however, may occur. These areas may be of particular interest to naturalists.

### **Standards and Guidelines**

The following direction applies to all management areas in MAC I, unless otherwise indicated.

### **Recreation**

#### *Planning and Inventory*

1. Opportunities for viewing, photographing, interpreting wildlife, cultural, biological and other features, should be evaluated and may be permitted when it is determined they would not result in harassment to wildlife. Generally, development or management which concentrates recreational activity should not be permitted.
2. The Visual Quality Objectives and Recreation Opportunity Spectrum classes applied to these Management Areas are:

<b>Management Prescription</b>	<b>VQO</b>	<b>ROS</b>
IL	Retention	Roaded Natural

### *Facility and Site Trail Reconstruction and Construction*

Other than trails, recreation facilities should not be built.

### *Use Administration*

Recreational off-road vehicles, including oversnow machines, should not be permitted.

## **Range**

### *Administration*

Grazing will not be permitted.

## **Timber**

### *Firewood Cutting*

Firewood cutting, except for campfire use, should not be permitted.

### *Genetic Forest Tree Improvement Program*

Genetic improvement activities should be limited to select trees.

## **Minerals And Geology**

### *Development Proposals*

1. Common mineral material sources should not be inventoried or developed.
2. Where reasonable and practical, exploration should be conducted in a manner which does not adversely affect wildlife. It should take into account wildlife cycles such as migration and calving.
3. Plans for exploration or development will minimize disturbance to wildlife. Transportation and other facilities should be designed to minimum standards and be obliterated and rehabilitated when the project terminates.

## **Lands**

### *FERC License and Permits*

Recommendations for exploration and project permits should minimize disturbance to wildlife and habitat.

### *Withdrawals, Modifications and Revocations*

Subject to a determination of values, including mineral values, some or all of the area should be withdrawn from mineral entry if required to protect the habitat.

### *Landownership Planning*

All lands will be placed in Ownership Category II, Retain or Acquire.

## Facilities

### *Transportation Planning*

New roads and other facility construction should not be permitted. Existing roads should be decommissioned if not required for through traffic.

Local roads that remain open should not be managed for public travel in passenger cars. Seasonal closures of roads should be applied where needed to protect wildlife values.

## Protection

### *Pest Suppression and Prevention*

Pest suppression and prevention should be undertaken when outbreaks threaten wildlife objectives within the area and when adjacent areas are seriously threatened. Biological methods should be favored and suppression efforts should concentrate on the perimeter. <FP IV-128]