

## Management Area 11 - Retention Visual Quality Objective

### Description

This prescription applies to those areas identified as having a Retention VQO. Refer to the Forest VQO map (in the Final EIS map packet). These areas are scattered throughout the Forest. They typically are found: (1) in the foreground of high visual sensitivity roads, trails, etc., (2) in the foreground or middleground of areas with Variety Class A scenery or (3) areas seen from local communities (USDA Agriculture Handbook #462, National Forest Landscape Management, Vol. 2, Chapter 1). These roads and trails typically receive high levels of public use, or access recreation sites or areas with visually pleasing scenery.

**Table 4-23. Acres Allocated to Retention Visual Quality Objective**

Name	Total Acres
Retention	128,200

### Management Goals

Provide a level of attractive, forested scenery by maintaining the areas in a natural or natural-appearing condition. Manage human activities so they are subordinate to the characteristic landscape. Also manage human activities so they are not evident to the casual Forest visitor.

Manage for a programmed, sustained harvest of wood products in areas that are capable, available, and suitable for timber management.

Maintain stand health, as well as resilience to wildland fire, insect, disease, and other damage.

### Desired Future Condition

The signs of management activities are not apparent. Views from visually important roads and trails appear forested and provide a natural or natural-appearing forest.

Vegetative or ground-disturbing management activities that have been implemented repeat form, line, color, and texture that represent characteristics of the landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc. are not evident to the average Forest visitor.

## Standards and Guidelines

### General

- MA11-1 Designate all management activities to meet a Retention VQO as defined in the USDA Agriculture Handbook #462, National Forest Landscape Management, Vol. 2, Chapter 1.
- MA11-2 Base the assessment of visual conditions on what can be seen, or the "seen areas" as observed from Sensitivity Level 1 and/or Sensitivity Level 2 viewpoints and travelways.

### Wildlife Management

- MA11-3 Manage the area primarily for forested, mid- and late- (3BC to 4BC) seral stage habitat. Management activities should promote the growth of larger diameter conifers with a canopy closure of about 60% where areas are capable of supporting forest types.
- MA11-4 Lands within the Retention Management Area will contribute to the desired level of hardwood and snag densities within a given landscape (see Forest-wide hardwood and snag goals). The actual number of hardwoods and snags to be maintained on a given acre will be dependent on the level of each within the surrounding landscape and the management intent of the other management areas in the landscape.

- MA11-5 Snag densities and large woody components may be reduced in high use road corridors and sites to meet public safety and fuel break needs.

### **Visual Resource Management**

- MA11-6 Meet a Retention VQO immediately upon completion of the project where ever possible and, at the maximum, within 3 years of project completion.

- MA11-7 In some cases because of fire salvage efforts, past management activities and changing management objectives, the existing visual conditions may not currently meet the desired visual goal of Retention. Such areas should be rehabilitated over time to meet Retention VQOs. Rehabilitation may be achieved through alteration, concealment, or removal of obtrusive elements. Such rehabilitation might include:

- 1) Vegetative alterations to eliminate obtrusive edges, shapes, patterns and colors (for example, revegetation of cuts and fills).
- 2) Terrain alterations to blend better with natural slopes.
- 3) Alteration, concealment, or removal of structures containing obtrusive form, texture, color, or light reflective characteristics.
- 4) Alteration, concealment or removal of slash, root wads and debris.
- 5) Revegetation of cut and fill slopes.

In areas needing scenic rehabilitation, new management activities that are undertaken should:

- 1) Be conducted to meet Retention VQOs.
- 2) Be conducted in a way that assures the activity shall not delay the time it would otherwise take to "recover" the area to a Retention visual condition.

- MA11-8 Manage recreational settings to generally achieve semi-primitive and rural natural ROS conditions.

### **Minerals**

- MA11-9 Reasonable mitigation measures should be incorporated in approved plans of operation to meet Retention VQOs.

### **Vegetative Management**

- MA11-1  
0 Schedule marginal yields, compatible with area goals.

- MA11-1  
1 Design the size and shape of the management activity to mimic the surrounding openings, shapes and landscape patterns. Design the shapes to appear natural and not change the existing landscape pattern. Regional unit size limits may be exceeded in some cases to mimi existing openings.

- MA11-1  
2 Design all vegetative management activities to meet Retention VQOs as defined in Agriculture Handbook 462, Visual Management System.

- MA11-1  
3 Salvage of trees killed by wildland fire, pest infestation or other natural processes is permitted consistent with area goals. Salvage and reforestation opportunities are a moderate priority in these areas. Minimize the loss of timber value where possible.

### **Fire Management**

- MA11-1  
4 Use prescribed fire to reduce natural fuel buildups, to treat post-harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

- MA11-1  
5 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

## Management Area 12 - Designated and Recommended Scenic Rivers

### Description

This prescription applies to those Scenic River segments of either designated components of the National WSRs System or rivers recommended in this Forest Plan for inclusion in the National System.

The Scenic classification applies to those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but may be accessible in places by roads.

The corridor boundary for the rivers recommended for scenic designation as part of this planning effort will be maintained at 1/4-mile on each side of the river until a final decision by Congress and management plan is prepared. For designated rivers, the newly established corridor boundaries are identified in Appendix J of the EIS accompanying this Forest Plan.

Although these river segments are classified as Scenic (or recommended for classification), the character of each river may be significantly different. The outstandingly remarkable values for each river are different and thus the management objectives for each river may be different as well. The specific management objectives for each river will be documented in WSR Management Plans. For rivers designated by Congress, these plans must be completed within 3 full fiscal years of approval of the Forest Plan. For rivers recommended in this plan, they must be completed within 3 years of designation by Congress.

**Table 4-24. Acres Allocated to Designated and Recommended Scenic Rivers**

Name	Total Acres	Outstandingly Remarkable Values
Salmon River (SA02)*	2,000	Fisheries
South Fork of Salmon River (SS04)*	1,400	Fisheries
Scott River (SC02)*	2,400	Fisheries
Clear Creek (CL02)	1,700	Cultural, Fish, Geological, Recreation, Scenic, Vegetation, Water Quality (CL02)
Grider Creek (GR02, GR03)	2,300	Wildlife (GR02); Fisheries, Vegetation, Wildlife (GR03)
<b>Total Acres</b>	<b>9,800</b>	
* Scenic River segments already designated.		

### Management Goals

Preserve the Scenic River qualities in a free-flowing condition and protect the rivers and their immediate environments for the benefit and enjoyment of present and future generations.

Protect and enhance the outstandingly remarkable value(s) for which the river(s) are or will be designated, while providing for public recreation and resource uses that do not adversely impact or degrade those values.

Provide recreational use that will not cause adverse impacts to the outstandingly remarkable values of the river areas.

### Desired Future Condition

The river area and its shorelines are largely primitive and undeveloped. The shorelines do not show substantial evidence of human activity, although some discernible developments may be present. The river environment presents an overall natural character. The physical and biological integrity of the aquatic system is maintained. Habitat for anadromous and resident fish species is in good condition, capable of supporting viable populations of indigenous species. Recreation users occasionally meet other individuals.

## Standards and Guidelines

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### General

- MA12-1 These guidelines apply to the extent of the Forest's jurisdiction over Federal lands, Federal scenic or access easements and other interests. They do not apply to privately owned lands. These standards and guidelines shall be used with the USDA-USDI Revised Guidelines (47 Federal Register 39454) and the Land Management Planning Handbook, Chapter 8. These guidelines also govern interim management of study rivers and designated rivers.
- MA12-2 Manage all designated and recommended rivers identified in the Forest Plan according to the 1982 USDA-USDI Revised Guidelines and other applicable policy. The USDA-USDI Guidelines provide guidance on the management of designated rivers or those recommended for inclusion into the National WSRs System.
- MA12-3 Management of the outstandingly remarkable values shall be the driving management intent, consistent with maintaining the scenic character of the river. When the outstandingly remarkable values can be maintained or protected without adversely impacting the river designation, that activity or project may be implemented.

### Water

- MA12-4 Prohibit water supply dams and major diversions. Challenge new applications for water withdrawals if such diversions have a significant impact on the outstandingly remarkable values.
- MA12-5 Oppose all hydro-electric power facilities, unless there is a clear public need for the facility.
- MA12-6 Prohibit flood control dams and levees.

### Visual Resource Management

- MA12-7 Design management activities to meet the Retention VQO within the WSR Corridor. Meet the Partial Retention VQO in the foreground and the middleground beyond the Corridor.

### Recreation Management

- MA12-8 Develop public-use facilities, such as moderate-sized campgrounds, public information centers, and administrative sites along rivers as needed. Developed sites should be screened from the river and be compatible with other identified outstandingly remarkable values.
- MA12-9 Manage and control public use as necessary to protect the outstandingly remarkable values. Consider relocating trails, road closures, and signing to control public use. Trails may be constructed along the river for short distances.
- MA12-10 Manage recreational settings to generally achieve semi-primitive or roaded natural ROS conditions.

### Lands Program Management

- MA12-11 Lands within the Scenic River corridors can be considered for acquisition as they become available.
- MA12-12 Work with utility groups to find alternative locations for new transmission lines, gas lines, water lines, etc. Where no reasonable alternative exists, restrict new facilities or additional facilities to the existing rights-of-way.
- MA12-13 Where new rights-of-way are needed, identify the potential impact to the river's outstandingly remarkable values.
- MA12-14 Modify special use permits within scenic river corridors to be consistent with Scenic River objectives. Terminate permits that cannot be modified to meet the goals in the area.

### Minerals Management

- MA12-15 Plans of operation for mineral development within Scenic Rivers should be designed to be

compatible with Scenic river objectives.

### **Transportation and Facilities Management**

- MA12-16 Roads may occasionally bridge the river area and short stretches of conspicuous or longer stretches of inconspicuous and well-screened roads or screened railroads may be allowed.
- MA12-17 Limit concentrations of developments to relatively short reaches of the river corridor. Do not allow new structures that would have a direct adverse effect on the outstandingly remarkable river values.

### **Vegetation Management**

- MA12-18 A wide range of silvicultural treatments may be used to meet Scenic River objectives.
- MA12-19 Schedule marginal timber yields, compatible with area goals.
- MA12-20 Salvage of trees killed by wildland fire, pest infestations or other natural processes is permitted consistent with area resource management goals. Salvage and reforestation efforts are a moderate priority. Minimize the loss of timber value where possible.

### **Fire Management**

- MA12-21 Fire management strategies should normally follow those of the surrounding area. Recognize and incorporate Scenic River values in fire suppression tactics. Prescribed fire may be used to maintain ecological functions if prescribed in a way that maintains the outstandingly remarkable values of the river.

### **Range Management**

- MA12-22 Permit grazing within Scenic River areas. Modify AOIs to be consistent with Scenic River management objectives. Livestock improvements shall meet all management objectives for the area.

## Management Area 13 - Designated and Recommended Recreational Rivers

### Description

This prescription applies to those Recreational River segments of either designated components of the National WSRs System or rivers being recommended for possible inclusion in the National System.

The Recreational classification applies to those rivers or sections of rivers that: (1) are free-flowing, (2) are readily accessible by road or railroad, (3) may have some development along the shorelines and (4) may have undergone some impoundment or diversion in the past.

The corridor boundary for the recommended rivers will be maintained at 1/4-mile on each side of the river until a management plan can be prepared. For designated rivers, the newly established corridor boundaries are identified in Appendix J of the EIS accompanying this Forest Plan.

Although these river segments are either classified or recommended as Recreational, the character of each river may be significantly different. The outstandingly remarkable values for each river are different and thus the management objectives for each river may be different as well. The specific management objectives for each river will be documented in a River Management Plan. For designated rivers, the plan must be completed within 3 full fiscal years of approval of the Forest Plan. For recommended rivers, the plan must be completed within 3 years of designation by Congress.

**Table 4-25. Acres Allocated to Designated and Recommended Recreational Rivers**

Name	Acres of MA 13	Outstandingly Remarkable Values
Klamath River (KL01, KL02, KL03)**	30,100	Fisheries
North Fork Salmon River (NS03)**	5,600	Fisheries
South Fork Salmon River (SS02, SS03**, SS05**)	4,600	Cultural, Fisheries (SS02); Fisheries (SS03, SS05)
Salmon River (SA01**, SA03)**	2,100	Fisheries
Scott River (SC01**, SC03)**	3,700	Fisheries
Wooley Creek (WO03)**	0*	Fisheries
Clear Creek (CL03)	600	Cultural, Fisheries, Geological, Recreation, Water Quality, Wildlife
Elk Creek (EL02, EL03, EL04)	4,200	Cultural, Fisheries, Geological (EL02); Fisheries, Geological (EL03); Fisheries, Wildlife (EL04)
East Fork South Fork Salmon River (ES02, ES03)	3,200	Water Quality(ES02); Fisheries, Wildlife (ES03)
Dillon Creek (DI01, DI02)	3,900	Cultural, Fisheries, Geological, Water Quality, Scenic, Vegetation (DI01); Cultural, Fisheries, Geological, Water Quality (DI02)
North Fork Dillon Creek (ND01)	3,100	Fisheries, Scenic, Vegetation, Water Quality
South Russian Creek (RU02)	1,100	Vegetation, Water Quality
<b>Total Acres</b>	<b>62,200</b>	
* Acres displayed have been rounded to nearest 100 acres. Those Recreational River Areas less than 50 acres show as 0 acres.		
** Recreational River segments already designated.		

## Management Goals

Preserve the Recreational Rivers in a free-flowing condition. Protect the rivers and their immediate environments for the benefit and enjoyment of present and future generations.

Protect and enhance the outstandingly remarkable value(s) for which the river(s) are or would be designated, while providing for public recreation and resource uses that do not adversely impact or degrade those values.

Manage recreation activities to assure that the character and quality of recreation use will not cause adverse impacts on the resource values for which the rivers were designated or recommended.

## Desired Future Condition

The waterway remains generally natural and riverine in appearance. The physical and biological integrity of the aquatic system is maintained. Habitat for anadromous and resident fish species is in good condition, capable of supporting viable populations of indigenous species. The river area may be developed for the full range of agricultural and forestry practices, show evidence of past and ongoing timber harvest, or include some residential, commercial, or similar development.

## Standards and Guidelines

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### General

- MA13-1 These guidelines apply to the extent of the Forest Service's jurisdiction over Federal lands, Federal scenic or access easements and other interests. They do not apply to privately owned lands. These standards and guidelines shall be used with the USDA-USDI Revised Guidelines (47 Federal Register 39454) and the Land Management Planning Handbook, Chapter 8. These guidelines also govern interim management of study rivers and designated rivers.
- MA13-2 Management of the outstandingly remarkable values will be the driving management intent, consistent with maintaining the Recreational character of the river. When the outstandingly remarkable values can be protected or maintained without adversely impacting the river designation, that activity or project may be implemented.

### Water

- MA13-3 Existing low dams, diversion works, riprap and other minor structures should be allowed, provided the waterway remains generally natural in appearance. New structures that adversely impact the outstandingly remarkable values for which the river was established shall be prohibited. New applications for water withdrawal may be challenged if they have a negative impact on outstandingly remarkable values.
- MA13-4 Oppose all hydro-electric power facilities unless there is a clear public need for the facility.
- MA13-5 Prohibit new flood control dams and levees.

### Visual Resource Management

- MA13-6 Design management activities to meet a Partial Retention VQO within the WSR Corridor, in the foreground beyond the Corridor and in the middleground beyond the Corridor. Note: VQOs as designated elsewhere in this document for State Scenic Highways may supersede these VQOs.

### Recreation Management

- MA13-7 Develop public use facilities, such as campgrounds and picnic areas, along rivers as needed. The river area shall be managed for the enjoyment of recreation users as long as those recreational uses do not adversely affect the outstandingly remarkable values for which the river was designated.
- MA13-8 Manage, develop interpretive services, and control public use as necessary to protect the outstandingly remarkable recreational river values.

- MA13-9 Manage recreational settings to generally achieve semi-primitive or roaded natural ROS conditions.

### **Lands Program Management**

- MA13-10 Land uses compatible with area management goals may be permitted. Creation of, or improvements to, existing utility corridors within these areas will be critically evaluated for conformance with the area goals.
- MA13-11 Lands within the Recreational River Corridors can be considered for acquisition as they become available.

### **Minerals Management**

- MA13-12 Permit mineral development within the Recreational River Corridors. Operations within the river corridors should be designed to be compatible with area goals.

### **Transportation and Facilities Management**

- MA13-13 Paralleling roads may be constructed on one or both river banks. Bridge crossings and river access points are acceptable.
- MA13-14 Small communities as well as dispersed or cluster residential developments may be allowed. New structures may be allowed for intensive recreation use.

### **Vegetation Management**

- MA13-15 Lands may be managed for a full range of silvicultural uses, to the extent currently practiced. Timber harvesting would be allowed under standard restrictions to protect the immediate river environment, water quality, scenic, fish and wildlife and other values.
- MA13-16 Schedule moderate timber yields, compatible with area goals.

### **Fire Management**

- MA13-17 Fire management strategies should normally follow those of the surrounding area. Recognize and incorporate the Recreational river values into the fire suppression tactics. Prescribed fire may be used within the management area to maintain the ecological functions, if it maintains the outstandingly remarkable values for which the river was designated.

### **Range Management**

- MA13-18 Permit grazing within Recreational River areas. Modify AOIs to be consistent with Recreational River management goals. Livestock improvements shall meet all management goals for the area.



## Management Area 14 - Winter Range

### Description

Located entirely on the Goosenest Ranger District, this management area encompasses areas identified by the CDFG as important mule deer and pronghorn habitat. Elk habitat within this area occurs west of Highway 97. This management area includes areas supporting grasses, grass-like plants, forbs, and shrubs in various ecological states. Both forested and non-forested sites occur in the area and provide forage and habitat for deer, pronghorn, and domestic ungulates. Much of the area is marginal for timber production. Intensive range management practices and structural improvements have been used to optimize forage production on these lands. Depending on forage conditions and weather patterns, the use of this area and adjacent management areas by big game will vary. Wild horses occupy a portion of this area.

**Table 4 - 26. Acres Allocated to Winter Range**

Name	Total Acres
Winter Range	82,900

### Management Goals

Improve habitat for deer, elk, and pronghorn. Manage to provide high quality habitat as described in the Mule Deer, Elk and Pronghorn Habitat Capability Models (refer to Appendix I of the EIS). Livestock management actions within the area should be designed to maintain or enhance deer and pronghorn habitat as described in the habitat capability models. Consult with CDFG on herd objectives and wildlife use patterns within the area. Determine ecological status of the vegetation as soon as possible. Manage for a status that provides optimum big game winter forage and cover values.

Manage the wild horse herd in an ecological balance with the range, up to the numbers designated in the Herd Management Plan.

### Desired Future Condition

Most of the area consists of well-distributed, patchy mosaics of big game cover and forage habitat. Browse species, particularly bitterbrush and mountain mahogany, are maintained in a young, vigorously growing condition providing high quality nutrition for wintering big game. Ultimately 50 to 80% of the area provides foraging opportunities. Openings in the forest occur so the interior of the opening is no more than 300 yards from an edge of the unit. Pronghorn use openings. Water sources are available and well-dispersed.

Domestic livestock use the area at sustainable levels. Big game winter forage and cover for deer, elk and pronghorn is plentiful.

Big game cover provides protection against winter weather, predation, and reduces the effects of human-caused disturbances, especially from vehicle traffic. Hiding cover is provided along human travel routes. Vehicle traffic is limited at certain times of the year. Ponderosa pine vegetation in many different stages of development and with varying canopy closures provides hiding and thermal cover for wildlife.

Pronghorn habitat is more open than mule deer areas, with less than 40% canopy closure. Forbs and grasses are abundant and support expanding antelope herds during the spring and summer.

## Standards and Guidelines

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### Wildlife Management

- MA14-1 Consult with CDFG on proposed big game habitat improvements. Use the CDFG's McCloud Flats Deer Herd Unit Management Plan to guide project development and design.
- MA14-2 Identify deer and pronghorn use patterns and key use areas. Seasonal restrictions may be applied to activities that interfere with fawning, herd movement or behavior.
- MA14-3 Manipulate forage areas to meet the high habitat condition standards described in the Mule Deer, Elk and the Pronghorn Habitat Capability Models. Application of site-specific habitat objectives should be based on habitat type and predominant big game species use. Project-level activities should be used to accomplish the goals and objectives for improving forage values, developing well-spaced water developments, modifying the percentage of cover and forage habitat in the area and manipulating the age classes of the forage vegetation.
- MA14-4 Important browse species should be manipulated to maintain 25% of the habitat in a younger browse class, 25% in a mid-browse class and 50% in a mature browse class.
- MA14-5 Develop water sources where necessary for wildlife use.

### Visual Resources Management

- MA14-6 Manage these areas to meet the intent of the Forest VQO map. As a minimum, manage the lands within the area to meet a Modification VQO.

### Recreation Management

- MA14-7 Manage recreational settings to generally achieve roaded natural ROS conditions.
- MA14-8 Maintain existing developed recreation sites, trails or other related facilities in their current condition.
- MA14-9 Access may be limited in order to affect the quality of habitat.

### Lands Program Management

- MA14-10 Where opportunities exist, acquire lands to improve the condition of habitat.

### Transportation and Facilities Management

- MA14-11 Develop a transportation management schedule that effectively and efficiently provides the necessary access to the area while meeting the desired road density objectives. Roads, not part of the long-term transportation needs, should be closed, stabilized and returned to a natural state. Gate roads that have only seasonal value to control access into the area.
- MA14-12 Provide vegetative screening along major roads when they occur next to forage habitat.

### Vegetation Management

- MA14-13 A wide range of silvicultural treatments (which may include thinning, planting or crushing) may be designed and implemented to accomplish big game habitat goals and objectives.
- MA14-14 Forage/cover ratios should be consistent with the habitat capability models.
- MA14-15 Schedule no timber harvest from this area. Vegetative manipulations, such as brushing, falling dead snags for public safety, salvaging dead or dying timber and other activities, may occur. Such activities will be consistent with big game management goals.
- MA14-16 Salvage of trees killed by wildland fire, pest infestations or other natural processes is permitted consistent with area goals. Salvage and reforestation opportunities are a high priority in these areas. Minimize the loss of timber value where possible.
- MA14-17 Reforestation efforts should be implemented in a manner to promote winter forage values and

the development of optimum thermal cover.

MA14-18 Activities that favor establishment of undesirable native and non-native species should be avoided.

MA14-19 In areas of juniper encroachment, promote the creation of openings to improve winter forage values.

### **Fire Management**

MA14-20 Prescribed fire may be used to reduce fuel build-ups, improve the vigor and production of forage species and to maintain conditions within stands, conducive to animal movement.

### **Range Management**

MA14-21 Manage existing grazing allotments in a manner consistent with big game management objectives for the area.

MA14-22 Design range improvements so they are complimentary to deer, elk and antelope habitats.

MA14-23 Modify existing fences that restrict big game movement to allow free movement of big game populations.

## Management Area 15 - Partial Retention Visual Quality Objective

### Description

This prescription applies to those areas identified with a Partial Retention VQO. Refer to the Forest VQO map (in the Final EIS map packet). These areas typically are either in the foreground of moderate visual sensitivity roads, trails, etc., or the middleground of high sensitivity roads.

Scattered throughout the Forest, these areas are primarily in the middle distances (1/2 to 3 miles) from selected roads and trails.

Table 4-27. Acres Allocated to Partial Retention Visual Quality Objective	
Name	Total Acres
Partial Retention	188,500

### Management Goal

Provide an attractive, forested landscape where management activities remain visually subordinate to the character of the landscape. Manage human activities so they are subordinate to the character of the landscape.

Manage for a sustained yield of wood products in areas capable, available, and suitable for timber production.

Maintain stand health as well as resilience to wildland fire, insect, disease, and other damage.

### Desired Future Condition

Areas managed to meet a Partial Retention VQO may show evidence of management activities but are visually subordinate to the characteristic landscape in form, line, color, or texture of landscape elements. Views from visually important roads and trails appear forested and provide a nearly natural looking landscape.

Lands capable of growing coniferous vegetation are forested.

## Standards and Guidelines

### General

- MA15-1 Design all management activities to meet a Partial Retention VQO as defined in the USDA Agriculture Handbook #462, National Forest Landscape Management, Vol. 2, Chapter 1.
- MA15-2 Base the assessment of visual condition on what can be seen, or the "seen areas" as observed from Sensitivity Level 1 and/or Sensitivity Level 2 viewpoints and travelways.

### Wildlife

- MA15-3 Manage the area primarily for forested, mid- to late-seral stage (3A, 3BC, 4BC) habitat. Management activities should promote the growth of closed canopy forest with scattered openings due to management activities or natural occurrences where the area is capable of supporting forested types of those seral stages.
- MA15-4 Lands within this management area will contribute to the desired level of hardwood and snag densities within a given landscape (see Forest-wide hardwood and snag goals). The actual number of hardwoods and snags to be maintained on a given acre will be dependent on the level of each within the surrounding landscape, and the management intent within that landscape.

## Visual Resource Management

- MA15-5 Project activities should meet a Partial Retention VQO as soon after project completion as possible, and at the maximum, within 3 years of project completion.
- MA15-6 In some cases, because of fire salvage efforts, past management activities and changing management objectives, the existing visual conditions may not currently meet the desired visual goal of Partial Retention. Such areas should be rehabilitated over time to the Partial Retention visual quality. This should be accomplished in 5 to 10 years. Rehabilitation may be achieved through alteration, concealment, or removal of obtrusive elements. Such rehabilitation efforts might include:
- 1) Vegetative alterations to reduce effects of obtrusive edges, shapes, patterns, and colors (for example, revegetation of cuts and fills).
  - 2) Terrain alterations to blend better with natural slopes.
  - 3) Alteration, concealment, or removal of structures containing obtrusive form, texture, color, or light-reflective characteristics.
  - 4) Alteration, concealment or removal of slash, root wads, and debris.
- MA15-7 In areas needing scenic rehabilitation, any new management activities that are undertaken should:
- 1) Be conducted to meet Partial Retention VQO.
  - 2) Be conducted in a way that assures that the activity shall not delay the period it would otherwise take to "recover" the area to a Partial Retention visual condition.

## Recreation Management

- MA15-8 Manage recreational settings to generally achieve semi-primitive or roaded natural ROS conditions.

## Minerals

- MA15-9 Reasonable mitigation measures should be incorporated in approved plans of operations to meet Partial Retention VQOs.

## Vegetative Management

- MA15-10 Design all vegetative management activities to meet Partial Retention VQOs as defined in Agriculture Handbook 462, Visual Management System.
- MA15-11 Schedule moderate timber yields, compatible with area goals.
- MA15-12 Use silvicultural treatments compatible with area goals. Depending on conditions, either even-aged or uneven-aged silvicultural treatments may be compatible with the management objectives for these areas.
- MA15-13 Timber salvage (wood fiber objectives) of trees killed by wildfire, pest infestation or other natural processes should be implemented in a manner consistent with maintaining the resource management goals of the area. Minimize the loss of timber value where possible.
- MA15-14 The salvage, reforestation, and rehabilitation of sites within this management area deforested by fire, pest infestations, etc. should be a moderate priority.

## Fire Management

- MA15-15 Use prescribed fire to reduce natural fuel buildups, to treat post harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.
- MA15-16 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

## Management Area 16 - Forage

### Description

Located entirely on the eastern portion of the Goosenest Ranger District, the Forage Management Area encompasses areas identified by CDFG as transitory mule deer habitat. CDFG has also identified a portion of this area as being important habitat for pronghorn. This management area includes areas supporting grasses, grass-like plants, forbs, and shrubs. Both forested and non-forested sites occur in the area and provide forage and habitat for deer, pronghorn, and domestic ungulates. Much of the area has marginal timber productivity. Intensive range management practices and structural improvements have been used to optimize forage production on these lands. Depending on forage conditions and weather patterns, the use of this area and adjacent management areas by big game will vary. Wild horses occupy a portion of this area.

**Table 4 -28. Acres Allocated to Forage**

Name	Total Acres
Forage	54,700

### Management Goals

Improve habitat for deer and pronghorn. Manage to provide high quality habitat as described in the Mule Deer and Pronghorn Habitat Capability Models (refer to Appendix I of the EIS), commensurate with the time of use by deer. Livestock management actions within the area should be designed to maintain or enhance deer and pronghorn habitat as described in the habitat capability models. Consult with CDFG on herd population objectives and wildlife use patterns within the area. Determine ecological status of the vegetation as soon as possible. Manage for a status that provides optimum forage and cover values. Maintain ecosystem health.

Manage the wild horse herd in an ecological balance with the range, up to the numbers designated in the Herd Management Plan.

Manage for a programmed, sustained harvest of wood products where appropriate and consistent with wildlife habitat goals.

### Desired Future Condition

Most of the area consists of well-distributed, patchy mosaics of vegetation suitable for big game cover and forage habitat. Browse species, particularly bitterbrush and mountain mahogany, are vigorously growing in varying age classes and provide high quality nutrition for big game. Ultimately, 50 to 80% of the area provides foraging opportunities. Pronghorn use openings. Water sources are available and well-dispersed.

Domestic livestock use the area. Forage utilization levels provide the optimum level of forage and cover for deer and pronghorn.

Big game cover is sufficient and provides protection against weather, predation and reduces the effects of human-caused disturbances, especially from vehicle traffic. Continuous hiding cover along human travel routes is maintained where potential exists. Vehicle traffic is limited at certain times of the year. Relatively dense canopies in ponderosa pine, or mixed conifer stands of various ages, provide for wildlife hiding and thermal cover. Vegetation is thrifty, vigorous, and resilient to environmental factors, such as wildland fires and insect and disease attacks.

Pronghorn habitat is more open than mule deer areas with less than 40% canopy closure. Abundant forbs and grasses support expanding pronghorn herds during the spring and summer.

## Standards and Guidelines

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### Wildlife Management

- MA16-1 Consult with CDFG on proposed big game habitat improvements. Use the CDFG's McCloud Flats Deer Herd Management Plan to guide project development and design.
- MA16-2 Identify deer and pronghorn use patterns and key use areas. Seasonal restrictions may be applied to activities that interfere with fawning, herd movement or behavior.
- MA16-3 Manipulate forage areas to meet the high habitat condition standards described in the Mule Deer and the Pronghorn Habitat Capability Models. Application of site-specific habitat objectives should be based on habitat type and predominant big game species use. Project-level activities should be used to accomplish the goals and objectives for improving forage values, developing well-spaced water developments, modifying the percentage of cover and forage habitat in the area and manipulating the age classes of the forage vegetation.
- MA16-4 Important browse species should be manipulated to maintain 25% of the habitat in an younger browse class, 25% in a mid-browse class and 50% in a mature browse class.
- MA16-5 Develop water sources where necessary for wildlife use.

### Visual Resource Management

- MA16-6 Manage these areas to meet the intent of the Forest VQO map. As a minimum, manage the lands within the area to meet a Modification VQO.

### Recreation Management

- MA16-7 Manage recreational settings to generally achieve roaded natural or rural ROS conditions.
- MA16-8 Maintain existing developed recreation sites, trails or other related facilities in their current condition.
- MA16-9 Access may be limited in order to affect the quality of habitat.

### Lands Program Management

- MA16-10 Where opportunities exist, acquire lands to improve the condition of habitat.

### Transportation and Facilities Management

- MA16-11 Develop a transportation management schedule that effectively and efficiently provides the necessary access to the area while meeting the desired road density objectives. Roads that are not part of the long-term transportation system should be closed, stabilized, and returned to a natural state. Gate roads that have only seasonal value to control access into the area.
- MA16-12 Provide vegetative screening along major roads when they occur next to forage habitat.

### Vegetation Management

- MA16-13 A wide range of vegetative treatments (which may include salvage, thinning, planting or crushing) may be designed and implemented to accomplish big game habitat goals and ecosystem health.
- MA16-14 Forage/cover ratios should be consistent with the habitat capability models.
- MA16-15 Vegetative manipulations or timber harvest units should be designed so the center of the unit is no more than 300 yards from the vegetation (hiding cover) at the edge of the unit.
- MA16-16 Schedule marginal timber yields compatible with area goals.
- MA16-17 Salvage of trees killed by wildland fire, pest infestations or other natural processes is permitted consistent with area goals. Salvage and reforestation opportunities are a moderate priority in these areas. Minimize the loss of timber value where possible.
- MA16-18 Reforestation efforts should be implemented in a manner to promote forage use and the

development of optimum thermal cover.

MA16-19 Activities that favor the establishment of undesirable native and non-native species should be avoided.

MA16-20 In areas of juniper encroachment, promote the creation of openings to improve winter forage values.

### **Fire Management**

MA16-21 Prescribed fire may be used to reduce fuel buildups, improve the vigor and production of forage species and to maintain conditions within stands, conducive to animal movement.

### **Range Management**

MA16-22 Manage existing grazing allotments in a manner consistent with area goals.

MA16-23 Design range improvements so they are complimentary to deer and pronghorn habitats.

MA16-24 Modify existing fences where necessary to allow free movement of big game populations.



## Management Area 17 - General Forest

### Description

Scattered throughout the Forest, these areas make up about 11% of the Forest land base. They are lands that are capable, available, and suitable to be managed for a host of resource conditions, including structural component and commercial outputs. They currently support a variety of vegetation including shrubs, hardwood species, and various tree species in varying sizes and densities. They are areas where timber outputs, consistent with Forest-wide management goals, are of a high priority.

**Table 4-29. Acres Allocated to General Forest**

Name	Total Acres
General Forest	262,000

### Management Goals

Provide a programmed, non-declining flow of timber products, sustainable through time. These levels may vary from year to year, based on ecological processes. Maintain conifer stocking levels and high growth rates commensurate with the capability of the site to produce wood fiber. Intensively manage young regenerated stands to maximize growth potential.

Maintain stand health, as well as resilience to wildland fire, insect, disease, and other damage. Emphasize salvage and restoration from catastrophic events. Reforest capable, but currently non-stocked, lands.

Emulate ecological processes and stand and landscape patterns where possible. Within harvest units, maintain appropriate structure, composition, and ecological functioning of the area.

Provide for snags and hardwood habitat to help maintain viable populations of wildlife species that require these structural components.

Meet the VQOs. Achieve less modified visual conditions when possible.

Develop a transportation system to transport Forest commodities efficiently to available markets.

Where possible, adjust planting levels to reduce pre-commercial thinning and fuel hazard costs in the future.

### Desired Future Condition

The mosaic of healthy forest stands is comprised of a variety of vegetative species. The composition of individual stands varies considerably depending on forest type and seral stage development. Although openings with hardwoods, shrubs, grasses and forbs are apparent, forest stands consist primarily of conifers. In some areas, the conifer component of the vegetation is sparse (due to vegetative manipulations or natural conditions). All areas maintain some structural components of older stands. Some areas support mature forest stands. The oldest stands are between 80 and 120 years old. Generally, this portion of the forest has younger trees than the surrounding areas. Stand sizes vary with topography and the landscape pattern of surrounding areas.

Regeneration openings have clumps of green trees on at least 15% of the area. Existing seed tree and shelterwood stands retain their residual trees (3 to 12 trees/acre) for structural diversity. Stocking control maintains healthy, vigorously growing stands.

Reforestation, timber harvesting, and stand tending activities are commonplace. A network of roads provides access throughout these areas.

Habitat for species that use early and mid-seral stages is abundant.

## Standards and Guidelines

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### Biological Diversity

- MA17-1 Manage the area to provide habitat for early and mid-seral species while retaining some older structural components in each stand. Provide forest openings.

### Visual Quality Management

- MA17-2 Manage these areas to meet the intent of the Forest VQO map. As a minimum, manage the lands within the area to meet a Maximum Modification VQO.

### Recreation Management

- MA17-3 Develop recreation sites compatible with area goals. Allow OHV use.  
MA17-4 Manage recreational settings to generally achieve roaded natural or rural ROS conditions.

### Transportation and Facilities Management

- MA17-5 Develop a transportation network that effectively and efficiently allows the transport of commodities to available markets. The system should be economical, safe and environmentally sensitive.  
MA17-6 Maintain surplus or infrequently used roads in a self-maintaining condition (Level 1) to reduce watershed and wildlife impacts and to reduce road maintenance costs.

### Vegetation Management

- MA17-7 Schedule moderate yields, compatible with area goals.  
MA17-8 Promote conifer growth and control stocking to provide sustainable future timber yields. Implement intermediate treatments to maintain or improve growth and yield where economically feasible.  
MA17-9 Non-stocked lands should be reforested as soon as possible.  
MA17-10 Salvage trees killed by wildfire, pest infestations or other natural processes consistent with the area goals. Salvage and reforestation efforts are a high priority. Minimize the loss of timber value where possible.  
MA17-11 Silvicultural practices may include the following: site preparation, genetic tree improvement, reforestation, seedling protection, release and weeding, precommercial thinning, fertilization and commercial thinning.  
MA17-12 Where possible, design and implement timber management activities that mimic patterns created by wildland fires.  
MA17-13 Stand treatment should be prioritized by where the greatest increase in conifer growth and yield can be obtained or where the presence of disease and insect problems jeopardize meeting resource objectives.  
MA17-14 Where existing or potential insect and disease problems jeopardize meeting resource objectives, implement aggressive, cost-effective suppression strategies. Prevention activities to minimize adverse impacts to stocking levels (including specific monitoring programs, stump removal, stocking controls, salvage and sanitation efforts) shall be a high priority.

### Fire Management

- MA17-15 Use prescribed fire to reduce natural fuel buildups, to treat post harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.  
MA17-16 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

### Range Management

- MA17-17 Utilize these areas as transitory range when opportunities become available.

## Goosenest Adaptive Management Area

### Description

- \* The Goosenest Adaptive Management Area (AMA) is located on the eastside of the Forest. AMAs are landscape units designated to encourage the development and testing of technical and social approaches to achieving desired ecological, economic, and other social objectives.
- \* The purpose is to explore localized approaches that may achieve the conservation objectives. These approaches rely on the experience and ingenuity of resource managers and communities rather than traditionally derived and tightly prescriptive approaches that are generally applied in management of forests.
- \* Monitoring is essential to the success of any plan and to an adaptive management program. Hence, development and demonstration of monitoring and training of the workforce are technical challenges and should be emphasized.
- \* Key features of AMAs include:
  - Opportunities for development and demonstration of monitoring protocols and new approaches to land management that integrate economic and ecological objectives based on credible development programs and watershed and landscape analysis.
  - Opportunities for education, including technical training, to qualify local community residents for employment in monitoring and other management programs.
  - Innovation in community involvement including approaches to implementation of initial management strategies and perhaps, over the longer term, development of new forest policies.
  - Innovation in developing adequate and stable funding sources for monitoring, research, retraining, restoration and other activities.
  - Innovation in integration of multi-ownership watersheds among Federal agencies, State and Federal agencies and private landowners.
  - Innovation in agency organization and personnel policies might include individual certification requirements, and modification of recruitment and promotion procedures to encourage local longevity among the Federal workforce.
- \* Each Adaptive Management Area will have an interdisciplinary technical advisory panel, including specialists from outside government agencies that will provide advice and support to managers and local communities involved with this effort.

<b>Table 4-30. Acres of Adaptive Management Area</b>	
<b>Adaptive Management Area</b>	<b>Total Acres</b>
Goosenest	161,500

### Management Goals

- \* The overall objective is to learn how to manage on an ecosystem basis in terms of both technical and social challenges, and in a manner consistent with applicable laws.
- \* The primary technical objectives of the AMAs are development, demonstration, implementation, and evaluation of monitoring programs and innovative management practices that integrate ecological and economic values. (Refer to Attachment A of the ROD for FSEIS for a partial listing of technical topics.)

- \* The primary social objective of AMAs is the provision of flexible experimentation with policies and management.
- \* The specific goal for the Goosenest AMA is the development of ecosystem management approaches including use of prescribed burning and other silvicultural techniques for management of pine forests, including objectives related to forest health, production and maintenance of late-successional forest and riparian habitat, and commercial timber production.
- \* The AMA is intended to contribute substantially to the achievement of well-distributed late-successional habitat outside of reserves, retention of key structural elements of late-successional forest on lands subjected to regeneration harvest, and restoration and protection of riparian zones as well as provision of a stable timber supply.

## Desired Future Condition

- \* The desired future condition for the AMA will be determined through the adaptive management process.

## Process

- \* **Role of Agency** - The Forest will facilitate collaborative efforts, partnerships, mutual learning, and innovation. It will provide staff work to the process of managing the AMA. This could include providing meeting places, meeting facilitation and expert analysis. Agency scientists are expected to provide scientific design of monitoring and experiments, though the decision is reserved for the Federal land manager.
- \* Although the agency has a facilitation role, the Forest retains the authority and responsibility to make decisions and the regulatory agencies retain the authority and responsibility to regulate. Nothing in these guidelines is intended to change those authorities or responsibilities.
- \* **Local Community** - Specific community roles with public agencies and subject matter experts (such as the technical advisory panels) will include helping find innovative ways to set objectives, develop plans, implement projects and monitor accomplishments. For example, Subtitle G of the 1990 Farm Bill gives criteria to identify "natural resource dependent communities" which may be used if appropriate when identifying local communities.
- \* **Participation in Adaptive Management Areas** - Although the emphasis is on the participation of people who are actively involved with that geographic location, nothing in these guidelines should be construed to suggest that the interests of people living outside "local communities" should not be considered in making agency decisions. Participation will be self identifying, to the extent possible. Experiments to address how this might happen are encouraged.
- \* **Project Development and Implementation** - Specific project planning must:
  - Involve the public early.
  - Coordinate with overall activities within the province.
  - Begin some projects as soon as practicable to respond to and facilitate public interest and involvement.
  - Begin some projects prior to completing an entire watershed analysis.
  - Begin watershed analysis as soon as possible.
  - Develop early plans and projects with the best available information.
  - Identify needs for improved inventory.
  - Proceed simultaneously with activities and AMA planning.
  - Assign priority status to watershed restoration projects that can be completed quickly.
  - Begin projects in nonsensitive sections of the AMA.
- \* **AMA Plan** - The AMA will have a plan. An individual public, interagency approach to planning will be developed for the AMA. Development of a broad plan that identifies general objectives and roles, and provides flexibility should be the goal. Such a plan could be used in competing for financial resources,

garnering political support, providing a shared vision and identifying experiences to be tracked.

- \* For the Goosenest AMA to make timely contributions to the objectives of this Forest Plan and to the community, it is absolutely critical that initiation of activities not be delayed by requirements for comprehensive plans or consensus documents beyond those required to meet existing legal requirements for activities. Development of such documents can proceed simultaneously with other activities. Initial involvement of user groups and communities would emphasize how the strategy and plans should be implemented.
- \* The AMA plan should address or provide:
  - A shared vision of the AMA, (for example, the kind of knowledge the participants hope to gain).
  - Identification of the desired future conditions may be developed in collaboration with communities, depending on the area.
  - Learning that includes social and political knowledge, not just biological and physical information.
  - A strategy to guide implementation, restoration, monitoring and experimental activities.
  - A short-term (3 to 5 year) timber sale plan and long-term yield projections.
  - Education of participants.
  - A list of communities influenced by the AMA projects and outputs.
  - An inventory of community strategies, and resources and partners being used.
  - Coordination with overall activities within the province.
  - A funding strategy.
  - Integration of the community strategies and technical objectives.
- \* AMA plans need to be based on information about historical, current and desired future conditions of the biophysical, social, and economic aspects of the area. The plans will rely largely on existing information. The area assessment will be a concise working document.
- \* **Management Review** - Initial direction and continuing review should be provided by the Regional Interagency Executive Committee. It is important that the interagency coordination involve both the regulatory and management agencies, and that the regulatory agencies participate in planning and regular review processes.
- \* **Monitoring and Research** - The learning opportunity provided by the AMA will be enhanced if clear, measurable goals and objectives are set, monitored and conveyed into the planning of projects or into the appropriate component of the AMA plan or Forest Plan. Shared synthesis of monitoring results will help provide a multiple-perspective assessment on whether social and ecosystem goals are being met, help identify problems to avoid in subsequent projects, and help gain consensus on what data gaps exist and what changes to the monitoring and research programs are needed.
- \* Monitoring and research, with careful experimental design, will be conducted in the AMA. Research in forest ecology and management as well as social, biological and earth sciences may be conducted. Each AMA will have an interdisciplinary technical advisory panel that will provide advice to managers and the local communities involved with this effort. The technical advisory panels will provide advice and information on the appropriateness of the project.
- \* Direction and review are provided by the Regional Interagency Executive Committee, through the Regional Ecosystem Office. This review will help assure that plans and projects developed for the AMA will be both scientifically and ecologically credible. It will assure that new, innovative approaches are used, that the laws and the goals of the plan are met, and that validation monitoring is incorporated.
- \* The Regional Ecosystem Office will facilitate and coordinate the implementation of the AMA program. Federal agencies are expected to use the AMA to explore new ways of working internally and externally.
- \* **Legal** - All activities must comply with existing laws such as Endangered Species Act, National Environmental Policy Act, National Forest Management Act, Forest Land Policy and Management Act,

Federal Advisory Committee Act, National Historic Preservation Act, Clean Water Act, Clean Air Act and treaty rights. Management and regulatory agencies should work together to determine ways to expedite management while ensuring compliance, to improve cooperation through planning and on-the-ground consultation, and to avoid confrontation.

## **Hierarchy of Standards and Guidelines**

- \* Management activities in the AMA will be conducted to achieve the objectives described in the Forest Plan. Standards and guidelines for LSRs must be followed when they occur within AMAs and management around these areas will be designed to reduce risk of natural disturbances. Unmapped LSRs are specified for spotted owl activity centers and for certain Protection Buffers.
- \* Flexibility is provided to meet objectives for RRs. Standards and guidelines of the Forest Plan need to be considered during planning and implementation of activities within AMAs and they may be modified in AMA plans based on site-specific analysis. Otherwise, standards and guidelines are to be developed to meet the objectives of the AMA and the overall strategy. Coordination with the Regional Ecosystem Office through the Regional Interagency Executive Committee is required.

## **Standards and Guidelines**

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### **Biological Diversity**

- \* AMA-1 Provide for "old growth" fragments in watersheds where little remains. Less than 15% of Federal forest land in fifth field watershed in late-successional forest should be considered as a threshold for analysis. A proposal to modify such stands should only be implemented following an analysis that considers the ecological function of the remaining late-successional forest and its location in the landscape.
- \* AMA-2 Forest-wide standards and guidelines provide specific measures for CWD, GTR and snag retention in the matrix (regulated land). The intent of the measures must also be met in the AMA, but specific standards and guidelines are not prescribed for these areas.

### **Riparian Management**

- \* AMA-3 Riparian protection in AMAs should be comparable to that prescribed for other Federal land areas. However, flexibility is provided to achieve these conditions, if desired, in a manner different from that prescribed for other areas and to conduct bonafide research projects within riparian areas.
- \* AMA-4 At the same time, any analysis of RR widths must also consider the contribution of these reserves to other, including terrestrial, species. Watershed analysis should take into account all species that were intended to be benefited by the prescribed RR widths. Those species include fish, mollusks, amphibians, lichens, fungi, bryophytes, vascular plants, American marten, red tree voles, bats, marbled murrelets, and northern spotted owls. The specific issue for spotted owls is retention of adequate habitat conditions for dispersal.

### **Wildlife**

- \* AMA-5 Unmapped LSRs within the AMA will be managed according to the standards and guidelines for such reserves except as provided elsewhere in this section. Management of these areas will comply with the standards and guidelines for LSRs and management around these areas will be designed to reduce the risk of natural disturbances.

- \* AMA-6 Provide protection for caves, mines, and abandoned wooden bridges and buildings that are used as roost sites for bats. Conduct surveys of crevices in caves, mines and abandoned wooden bridges and buildings for the presence of roosting bats, including fringed myotis, silver-haired bats, long-eared myotis, long-legged myotis, and pallid bats. For the purposes of this standard and guideline, caves are defined as in the Federal Cave Resources Protection Act of 1988. If bats are found, identify the species using the site and determine for what purpose it is being used by bats. As an interim measure, timber harvest is prohibited within 250 feet of sites containing bats. Protection the site from destruction, vandalism, disturbance from road construction or blasting, or any other activity that could change cave or mine temperatures or drainage patterns. The size of the buffer, and types of activities allowed within the buffer, may be modified through the standards developed for the specific site. Retention of abandoned bridges or buildings must be made contingent on safety concerns.
- \* AMA-7 When Townsend's big-eared bats are found occupying caves or mines on Federal land, the appropriate agency should be notified, and management prescriptions for that site should include special consideration for potential impacts on these species.

### **Vegetation Management**

- \* AMA-8 The AMA will produce timber as part of its program of activities consistent with these standards and guidelines. The rates and methods of harvest will be determined at the AMA level. The AMA management team will develop a strategy for ecosystem management as part of the AMA plan to guide implementation, restoration, monitoring and experimental activities involving timber sales. The strategy should contain a short-term (3 to 5 year) timber sale component and an assessment of long-term outputs of timber.
- \* AMA-9 The intent of the Forest-wide standards and guidelines for regulated land (matrix) for CWD and for green tree and snag retention must be met in AMAs, but specific standards and guidelines are not prescribed for the AMA.
- \* AMA-10 Modify site treatment practices, particularly the use of fire and pesticides, and modify harvest methods to minimize soil and litter disturbance. Site treatments should be prescribed which will minimize intensive burning, unless appropriate for certain specific habitats, communities or stand conditions. Prescribed fires should be planned to minimize the consumption of litter and CWD. Minimize soil and litter disturbance that may occur as a result of yarding and operation of heavy equipment, and reduce the intensity and frequency of site treatments. Soil compaction, and removal or disturbance of humus layers and CWD, may impact populations of fungi and arthropods.

### **Fire Management**

- \* AMA-11 Actively explore and support opportunities to research the role and effects of fire management on ecosystem functions. Cooperation across agency and ownership boundaries should be emphasized.
- \* AMA-12 Standards and guidelines in the Forest Plan for hazard reduction should be followed until approved AMA plans are established. Fire management experts will participate on the local Interdisciplinary Technical Advisory Panel on all AMAs.
- \* AMA-13 While management of AMAs is intended to be innovative and experimental, wildfire suppression actions should use accepted strategies and tactics, and conform with specific agency policy.
- \* AMA-14 Site treatments should be prescribed which will minimize intensive burning, unless appropriate for certain specific habitats, communities or stand conditions. Prescribed fires should be planned to minimize the consumption of litter and CWD.

### **Social**

- \* AMA-15 Technical and scientific training of a local workforce should be an educational priority of the AMA Program. Formal schooling and field apprenticeship might provide the workforce needed to help implement ecosystem management, particularly in the area of monitoring. This program might be based on collaborations among local community colleges, State universities, and the agencies.



## Orr Lake Management Unit

### Description

The Orr Lake Management Unit is located on the eastside of the Forest, on the Gooseneck Ranger District and adjacent to the Gooseneck Adaptive Management Area. It includes 4,562 acres of formerly private land around Orr Lake, acquired by the Forest in 1997. It also includes an additional 1,054 acres of adjacent National Forest System land. Encompassed within the Orr Lake Management Unit is 226 acres of private land; 76 acres of a railroad fee strip, and 150 acres of an isolated parcel of private land.

The area contains about 1,500 acres of riparian and wetland habitat, including 80 acre Orr Lake. Butte Creek, a perennial fish-bearing stream, meanders through the property. Many irrigation ditches exist throughout the property, diverting water from Butte Creek for the original purpose of irrigating livestock pasture. Riparian and pre-1914 appropriative water rights have been used to maintain the pastures and Orr Lake.

The vegetation types consist of sedges, rushes, irises, willows, and aspens in the wetter areas. The uplands contain ponderosa pine, juniper, mountain mahogany, basin big sagebrush, and rabbitbrush.

Most of the 5,823-foot Orr Mountain is in the Management Unit (150 acres of the mountain is private land). A Forest Service lookout station is located at the top of the mountain. The meadows along Butte Creek range in elevation from about 4,430 to 4,670 feet. Orr Lake is at an elevation of 4,643 feet.

Included within the Orr Lake Management Unit are Management Areas 5 (Special Habitat), 10 (Riparian Reserves) and 14 (Winter Range).

Table 4-31. Acres of Orr Lake Management Unit	
Name	Total Acres
Orr Lake Management Unit	5616

In general, Standards and Guidelines for applicable Management Areas apply to the Orr Lake Management Unit, as do the Forestwide Standards and Guidelines. Standards and Guidelines for individual species for which there is no suitable habitat will not apply, e.g. anadromous fish, marbled murrelet. The following is a list of species of special concern that have been or may be found in the Orr Lake area:

### T&E Species

Bald eagle (*Haliaeetus leucocephalus*)

### R5 Forest Service Sensitive Species

Northern goshawk (*Accipiter gentilis*)

Willow flycatcher (*Empidonax traillii*)

Greater sandhill crane (*Grus canadensis tabida*)

Great gray owl (*Strix nebulosa*)

Pallid bat (*Antrozous pallidus*)

Townsend's big-eared bat (*Corynorhinus townsendii*)

Cascade frog (*Rana cascadae*)

Northwestern pond turtle (*Clemmys marmorata marmorata*)

Columbia yellow-cress (*Rorippa columbiae*)

Baker's globemallow (*Iliamna bakeri*)

## Management Goals

Manage the Orr Lake Management Unit as a special area within the Klamath National Forest, with an emphasis on fish and wildlife resources.

Manage for productive and resilient wetland, riparian, aquatic and upland ecosystems.

Provide and enhance habitat for Federal and State listed TE&S species.

Enhance quality and temporal distribution of wetland and streamside hardwood habitat to benefit water and riparian associated birds, including waterfowl, bald eagles, willow flycatcher, greater sandhill cranes, and neotropical migrant birds.

Enhance big game habitat to meet high quality habitat conditions

Manage for a productive recreational fishery, including fishing for a variety of native and non-native species, while retaining viable components of wild fish populations that are compatible with habitat conditions.

Enhance recreational opportunities as long as they complement protection and management of wetland, riparian, aquatic, and upland ecosystems, and wildlife habitat needs.

Manage vegetation and grazing to be compatible with wildlife, fisheries, and recreation objectives.

Use a water budget to provide guidance for water management in the Orr Lake area, including diversions for wetlands projects, while assuring minimal impacts to downstream resources.

## Desired Future Condition

The Orr Lake Management Unit supports a diverse and productive wetland, riparian, and upland ecosystem. Butte Creek and Orr Lake have sustainable fisheries. Wetland and riparian habitats will be restored for maximum wetland and wildlife habitat. Some wetlands will be actively maintained through a structure and ditch system drawing water from Butte Creek. Riparian areas will display a variety of vegetative characteristics with diverse and dense woody and herbaceous vegetation. Riparian vegetation provides stable channels, shading for improved water temperatures, filtration of sediments, capture, and slow release of water to stream channels, and important wildlife habitat. Water tables in meadow areas are at or near the surface, and streams maintain themselves through normal channel processes. Wetland and upland vegetative communities represent a range of seral types. Optimal ratios of forage to cover will be present on suitable big game habitat. A variety of wildlife species will be present. The transportation system provides motor vehicle access as needed for recreation and administration but much of the area is accessible only on foot or non-motorized vehicle. Existing roads cause minimal impact to riparian and wildlife resources. Facilities are present to provide recreation opportunities, including wildlife viewing and fishing, but cause minimal resource impacts. Domestic livestock grazing and silvicultural treatments will occur but only as a tool to meet other objectives.

Desired future conditions are also presented for each Vegetation Community. Descriptions and desired future conditions for each vegetation community are as follows:

### JUNIPER UPLAND

#### *Description*

Western juniper dominates the overstory on 500 acres of the rocky, southern and western slopes of Orr Mountain. Understory shrubs are limited by shallow soils and include sagebrush, bitterbrush, rabbitbrush, and scattered mountain mahogany. The herbaceous understory is abundant, dominated by native bunchgrasses and a smaller percentage of annual and perennial forbs. Bluebunch wheatgrass, Thurber's needlegrass, western needlegrass, and Idaho fescue are the common grasses on many sites. This plant community is important winter range habitat for mule deer.

*Desired Future Condition*

Juniper provides wildlife hiding cover but does not totally dominate the type. Site production in native grass and shrub communities is near potential. Cover to forage ratios are optimum, consistent with winter range goals, and are in a mosaic pattern across the landscape.

**PINE/JUNIPER UPLAND***Description*

This type contains a number of seral plant communities collectively referred to as Eastside Pine. It is the most common vegetation community across the Orr Lake Management Unit, covering over 3,500 acres across the area. Ponderosa pine is the dominant tree in most stands though juniper is common and increasing. White fir and incense-cedar become prevalent on the high elevation, north slopes of Orr Mountain. Mountain mahogany and manzanita occur on the steeper, rocky, cooler slopes of Orr Mountain while basin big sagebrush, bitterbrush, and currant are common understory shrubs on the lower slopes and flatter sites with deep, sandy loam soils. Bitterbrush is sparse, hedged, and decadent on many sites, whereas sagebrush is more abundant than historically due to its lesser palatability for livestock and wildlife.

Older seral stage pine can be found in some areas but it is not common. Large, old pine trees are nearly absent from the slopes of Orr Mountain due to a wildfire in 1929 and recent logging.

This vegetation community provides big game winter range and forage habitat. Mature ponderosa pine provide nesting habitat and perch trees for a pair of bald eagles. With more late-successional characteristics, this type will provide habitat for mature pine association species such as white-headed woodpecker, brown creeper, and pygmy nuthatch and may provide habitat for northern goshawk and great gray owl.

*Desired Future Condition*

The area contains a mix of seral stages including a substantial component of mature pine plant associations with adequate large diameter pine, coarse woody debris, and open stands of bitterbrush and native bunchgrass in the understory but few junipers. Suitable waterfowl nesting cover occurs adjacent to water.

**SAGEBRUSH/GRASS UPLANDS***Description*

This type primarily occurs west of Orr Lake between Butte Creek and Dead Steer Flat although small patches occur in the stream terraces south of Butte Creek, near Bray, and along the margins of Kegg Meadows. In total this type occupies about 440 acres. Basin big sagebrush dominates the vegetation although young junipers are also present in many locations. Green and gray rabbitbrush are common, whereas currant, bitterbrush, and other shrubs are sparse in this type. The herbaceous understory is composed mostly of a number of perennial and annual grasses and forbs such as Kentucky bluegrass, cheatgrass, Missouri iris, lupine, cinquefoil, and the common dandelion. Native bunchgrasses such as Idaho fescue, bluebunch wheatgrass, and prairie junegrass are present but in limited quantity, and not at their potential.

This type provides big game forage habitat, and perhaps some waterfowl nesting adjacent to Butte Creek. An increase in the percentage of bunchgrasses would increase the organic content of the soil and the soil's moisture holding capacity, therefore increasing big game forage potential.

*Desired Future Condition*

The area contains a mosaic of early to mid seral grass and sagebrush steppe plant communities, including dense stands of native bunchgrasses intermixed with stands of shrubs such as basin big sagebrush and bitterbrush. Intermittent channels, the water table, and soil water holding capacity are at potential with highly productive sedge and grass vegetation along stream channels. Suitable waterfowl nesting cover occurs adjacent to water. Management activities strive to reduce non-native, invasive plant species to restore more natural plant communities.

## **OPEN WATER AND PERMANENT WETLAND (Orr Lake)**

### *Description*

Orr Lake is about 80 acres in size, about half as emergent marsh (permanent wetland) at the south end of the lake and half as open water. The emergent marsh vegetation consists primarily of cattails and tules (bulrush). The open water portion of the lake contains a significant amount of aquatic vegetation, primarily yellow pond-lily and pondweed.

This area provides nesting habitat for marsh-associated birds, and nesting, brood-rearing, and foraging habitat for migratory waterfowl. Other bird species that forage at Orr Lake include the local bald eagle pair, occasional osprey, non-breeding white pelicans, and migrating tundra swans. The open water portion of the lake is the primary draw to the area for recreationists who visit the lake for boating, fishing, camping, and wildlife viewing.

### *Desired Future Condition*

Open water acreage provides a diverse angling experience with both warm and cold water fisheries. Water depths are adequate for all uses and the ratio of open water to wetland vegetation is optimal. Habitat is provided for over-water nesters, waterfowl, and bald eagles. Impacts from recreational activities and roads are minimal.

## **MEADOW**

### *Description*

This type is dominated by a variety of broad-leaved, water-dependant sedges including aquatic, beaked, and Nebraska sedge. Baltic rush is also a significant component of this type. A sedge/rush community occupies about 160 acres along the main channel and diversion channels of Butte Creek and in the very wet areas south of Orr Lake. Some scattered willows are present in this type but at low densities. Generally there is potential for a much higher density of willows than currently occur.

The meadow vegetation type provides waterfowl nesting and brood-rearing habitat, sandhill crane foraging, and big game forage. Meadow-associated birds, like snipe and savannah sparrow, also use this type. A higher density of willows would provide more habitat for willow flycatcher and other riparian shrub associated songbirds.

### *Desired Future Condition*

The area supports diverse meadow vegetation that contains highly productive late seral wetland plant communities (including hardwoods) maintained by a hydrologically functioning system and active water management. The water table is maintained within the rooting zone during the growing season. Dense vegetation provides stability to the stream channels. Streams provide a cold water fisheries, diverse fishing opportunities, and high quality water. Wild iris, water lily, and other wildflowers provide attractive seasonal displays.

## **HARDWOOD STREAMSIDE VEGETATION**

### *Description*

This type includes the willow/sedge (85 acres) and pine/hardwood/grass (50 acres) communities. The willow/sedge community is dominated by older stands of Geyers, Pacific, and lemon willow with an understory of sedges, grasses and forbs. It is found along Butte Creek in the Orr and Kegg Meadows area. The pine/hardwood/grass type occurs along Butte Creek between the Kegg Meadows and as narrow strips adjacent to Orr Lake and Dead Steer Flat. Pine and western juniper currently dominate the overstory. Riparian hardwoods, including quaking aspen, alder, black cottonwood, and a variety of willow, are well distributed along the creek and next to Orr Lake. The frequency and age class distribution of the hardwoods suggest that they were the dominant vegetation on many sites along Butte Creek historically, and have apparently been suppressed by the pine and juniper. Fire suppression, past grazing practices, and the shade intolerance of the identified hardwoods have all contributed to the decline of these species.

The willow/sedge type provides habitat for several neotropical migratory bird species including yellow warbler and willow flycatcher. The riparian trees provide habitat for other neotropical migratory birds including northern oriole, Wilson's warbler, yellow warbler, and warbling vireo. The streamside vegetation also provides stable streambanks for Butte Creek and diverse fisheries habitat.

Aspen and the other identified riparian dependant hardwood species of the pine/hardwood/grass type are highly valued for wildlife habitat, esthetics, livestock forage, and special forest products. Stands of aspen provide important foraging, nesting, breeding, and resting sites for a wide variety of mammals and birds. A good distribution of age classes is desirable and indicates a healthy stand of aspen. Elk make use of aspen year-round, however it is especially important forage in the winter. Aspen stands are also important habitat for deer, rabbits, small rodents, beaver, and a diverse array of birds. Birds identified as using aspen habitat include grouse, mourning dove, western wood pewee, red-breasted sapsucker, and the red-breasted nuthatch.

#### *Desired Future Condition*

A diverse willow/sedge community is contained within meadows that are highly productive and maintained by a hydrologically functioning system. Dense stands of quaking aspen are found along Butte Creek as it flows between the Kegg meadows. Small stands of large ponderosa pine and a few older junipers occur in the overstory along the riparian corridor and in the upland transition. The water table in the riparian zone is maintained within the rooting zone during most of the growing season supporting scattered stands of black cottonwood, a variety of willow, and alder. Dense understory vegetation including sedges, rushes, aquatic grasses, and flowering forbs provide stability to the stream channels and create an attractive setting. Streams provide a cold water fisheries, diverse fishing opportunities, and high quality water.

### **SEASONAL WETLAND**

#### *Description*

This type includes approximately 720 acres of transition between the wet meadows and uplands, in Dead Steer Flat, the southern portion of Orr Meadow and in Upper and Lower Kegg Meadow. It consists of herbaceous plant communities that are dominated by Baltic rush and those dominated by a mix of Baltic rush, iris, and Kentucky bluegrass. A variety of other grasses and forbs are significant within this community. They include Timothy, redtop, meadow barley, clover, common dandelion, and cinquefoil. The soils of this type are wet early in the growing season and typically dry later in the summer months.

This habitat type provides some waterfowl nesting and brood-rearing habitat, particularly where there are some small open water areas. This type also provides important early-season foraging habitat for waterfowl and shorebirds. Greater sandhill cranes, common snipe, and savannah sparrow are known to use this habitat type and it provides spring and summer forage for big game.

#### *Desired Future Condition*

The Southside Meadow is a mosaic of diverse emergent marsh vegetation, short grass, and open water, which supports waterfowl brood rearing. Water levels may fluctuate depending on season and year but are actively controlled in some areas through water control structures. Dense vegetation provides sediment filter and high nesting productivity. Big game forage is provided.

The areas of Upper and Lower Kegg Meadow support diverse meadow vegetation that contains highly productive late seral wetland plant communities (including hardwoods) maintained by a hydrologically functioning system and active water management. High quality big game forage is provided. The water table is maintained within the rooting zone during the growing season. Dense vegetation provides stability to the stream channels. Streams provide a cold water fisheries, diverse fishing opportunities, and high quality water.

Dead Steer Flat supports a diverse, seasonally wet herbaceous community, which includes Baltic rush, spikerush, and a variety of flowering wetland forb species. Site production and species diversity is near potential. Big game forage is provided.

## **Standards and Guidelines**

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These standards and guidelines supplement the Forestwide and Management Area STANDARD AND GUIDELINES (Special Habitat, Riparian Reserves, and Winter Range), which apply to the Orr Lake Management Unit.

### **Other Agency Cooperation**

- ORR-1 Cooperate with the CDFG, Rocky Mountain Elk Foundation, and Ducks Unlimited in the management of the Orr Lake Management Unit, as per the Memorandum of Understanding between the Forest and these agencies.

### **Riparian Management**

- ORR-2 Provide a productive recreational fishery in Orr Lake and in the portion of Butte Creek downstream of the lake. Manage for a native and desired non-native cold water fishery in the Butte Creek stream system upstream of the lake.
- ORR-3 Manage existing diversions to maintain wetlands habitat. Minimize impacts to fisheries by maintaining flows in Butte Creek as determined by a water budget for the area. Diversions that no longer serve a wetlands purpose should be dismantled and abandoned.
- ORR-4 Provide and maintain fish passage at all diversions of existing and potential fish bearing streams except where it is desirable to limit the range of non-native or introduced fish species. Operating diversions should have screening to minimize fish entrainment into ditch systems.
- ORR-5 Reconstruct or construct and maintain water control structures (diversions and levies) as needed to provide a balance of wetlands and stream habitat. Consider opportunities to create wetlands habitat, including seasonal wetlands, or enhance and develop open water habitat suitable for waterfowl and other water-associated birds.
- ORR-6 Water level and vegetation manipulation are appropriate activities to maintain desired conditions in Orr Lake. Vegetation removal should be done as needed to maintain open water for fishing and boating but should not adversely affect the resource values of the surrounding wetlands.

### **Wildlife**

- ORR-7 Waterfowl habitat management will emphasize spring migration and nesting species.
- ORR-8 Use management practices such as planting, fencing, removal of competing vegetation, and control of livestock grazing timing and intensity to enhance and increase woody riparian vegetation (aspen, cottonwood and willow) along Butte Creek and in other locations with the potential to support these species.

### **Vegetation Management**

- ORR-9 Use a full range of silvicultural treatments to achieve desired conditions, including burning, mechanical treatment, managed firewood cutting, seeding, grazing, and commercial timber harvest.

### **Visual Quality Management**

- ORR-10 Manage the 44N30X road (the primary access to Orr Lake) as a Moderate Sensitivity Road, offering near natural appearing scenery (Partial Retention) in the road foreground. Manage the Orr Lake Management Unit to display scenery that meets the intent of the updated Forest VQO map.

### **Recreation Management**

- ORR-11 Manage recreational settings to generally achieve Roaded Natural or Semi-Primitive, Motorized ROS conditions.
- ORR-12 Manage recreation use at Orr Lake to minimize impacts to wildlife habitat (including the bald eagle use areas) and other resource values.

## **Range Management**

- ORR-13 Livestock grazing will not be programmed (there will be no expected livestock output from year to year) in the Riparian Reserves or Special Habitat Management Areas of the Orr Lake Management Unit. Livestock grazing may be allowed in these Management Areas to acquire desired vegetative characteristics necessary to meet wildlife and aquatic objectives specifically identified in a project assessment. Livestock grazing may occur in the Winter Range management area when it is consistent with big game management objectives. Intensive management activities, such as burning and seeding may also be done to meet wildlife objectives of the Winter Range Management Area.