

Appendix F. Language for Alternative C

This appendix provides specific plan language for alternative C should this alternative be chosen as the selected action in the record of decision. As described in detail below, under alternatives C, some of the existing language from alternative B (modified) would be supplemented through additions, modifications, or replacements. Accordingly, unless there is an addition, modification, replacement, or other notification noted in this section, alternative C are the same as alternative B (modified).

Alternative C

Alternative C responds to public comments for more lands to be managed in primitive and natural settings with reduced human-related disturbance. This alternative includes:

- retention of old growth direction from the 1987 plan,
- modification of the Anderson Mesa Management Area,
- 7 additional management areas,
- thirteen recommended wilderness areas,
- addition of a guideline regarding livestock grazing in research natural area,
- addition of botanical area adjoining Cottonwood Basin Geological Area,
- modifications to the Recreation and Transportation Suitability Table, and
- addition of a suitability table for recreational shooting (i.e., non-hunting shooting) and snowmobile use.

Alternative C does not include the Inner Basin MA, C.C. Cragin Watersheds MA, and the Lake Mary Watersheds MA found in alternatives B and D.

If alternative C is selected, the following plan changes would be made. The format of some of the following plan components may need to be restructured to be consistent with the rest of the proposed plan, but the content and intent would be retained.

Old Growth

This section identifies the changes that would occur if alternative C is selected and the old growth retention direction from the 1987 plan is incorporated into the proposed plan. Incorporating the old growth retention direction from the 1987 plan would be accomplished by adding some new components and modifying some existing components in the proposed plan. Some of the language from the 1987 plan uses language and terminology that is unclear when removed from the context of the 1987 plan or inconsistent with the remainder of the proposed plan. To resolve these problems, some of the plan language from the 1987 plan has been edited to align them with the proposed plan, while preserving the content and intent of those plan components. In other instances, components in the proposed plan would need to be modified to include new language related to old growth retention. The plan components listed below are labeled as additions (signifying that this is a new component being carried over from the 1987 plan), replacements, or modifications (signifying that this is a component from the proposed

plan that has been edited to include direction from the 1987 plan). The edits to the added and modified plan components have been written in italics.

Changes to TerrERU Section in the Proposed Plan

Addition: new subsection: *Forestwide Forest and Woodland*

Standard

Addition: *Old growth* allocations will consist of landscape percentages meeting old growth conditions and not specific acres.

Guidelines

Addition: All analyses should be at multiple scales—one scale above and one scale below the ecosystem management areas. The amount of old growth *that* can be provided and maintained should be evaluated at the *6th code watershed* level and be based on *ERU*, site capability, and disturbance regimes.

Addition: Old growth compositional, structural, and functional *flow should be created or sustained as much* as possible over time at multiple-area scales. Old growth *function should be developed or retained* on at least 20 percent of the naturally forested area by *forest and woodland ERU* in any landscape *by 6th code watershed*.

Addition: The effects of spatial arrangement on old growth function *should be considered* from groups to landscapes, including de facto allocations to old growth such as goshawk nest sites, Mexican spotted owl protected activity centers, sites protected for species behavior associated with old growth, wilderness, research natural areas, and other forest structures managed for old growth function.

Addition: In allocating old growth and making decisions about old growth management, *current information should be* used to evaluate the relative risks to sustaining old growth function at the *multiple-area* scales, due to natural and human-caused events.

Addition: *Forest and woodland* sites should meet or exceed the structural attributes to be considered old growth in *the Pinyon Juniper Evergreen Shrub, Pinyon Juniper with Grass, Pinyon Juniper Woodland, Ponderosa Pine, Mixed Conifer with Frequent Fire, Mixed Conifer with Aspen, and Spruce Fir ERUs* in the Southwest as depicted in the table *Minimum Criteria for the Structural Attributes Used to Determine Old Growth*.

Addition: Greater density of snags *should be retained* adjacent to meadows, riparian areas, and key water sources to enhance habitat for snag-dependent species.

Management Approach

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Addition: Use information about pre-European settlement conditions *or reference conditions* when considering the importance of various factors.

Addition: Use quantitative models when considering the importance of various factors. These models may include, but are not limited to: Forest Vegetation Simulator, BEHAVE, and FARSITE.

Addition: Areas managed for old growth, bear, and Mexican spotted owls *should* be the same.

Addition: New table.

Table 1. Alternative C Minimum Criteria for the Structural Attributes used to Determine Old Growth

ERU	PJ Types		PP		Aspen	MC Types			SF
Site Capability	Low	High	Low	High	All	Low	High	Low	High
Live Trees in Main Canopy:									
Trees/Acres DBH/DRC	12	30	20	20	20	12	16	20	30
Age (Years)	9"	12"	14"	18"	14"	18"	20"	10"	14"
	150	200	180	180	100	150	150	140*/170**	140*/170**
Dead Trees									
Standing									
Trees/Acre	0.5*	1	1	1	ND	2.5	2.5	3	4
Size DBH/DRC	9"	10"	14"	14"	10"	14"	16"	12"	16"
Height (feet)	8'	10'	15'	25'	ND	20'	25'	20'	30'
Down									
Pieces/Acre	2	2**	2	2	ND	4	4	5	5
Size (Diameter)	9"	10"	12"	12"	ND	12"	12"	12"	12"
Length (Feet)	8'	10'	15'	15'	ND	16'	16'	16'	16'
Number of tree canopies***	SS/MS	SS/MS	SS/MS	SS/MS	SS	SS/MS	SS/MS	SS/MS	SS/MS
Total BA, Square Feet/Acre	6	24	70	90	ND	80	100	120	140
Total Canopy Cover, Percent	20	35	40	50	50	50	60	60	70

*For Pinyon Pine in *Pinyon-Juniper* ERUs: Dead limbs help make up dead material deficit. For *Spruce-Fir* ERU: In mixed corkbark fir and Englemann spruce stands where Englemann spruce is less than 50 percent composition in the stand.

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******For Pinyon Pine in *Pinyon-Juniper ERUs*: Unless removed for firewood or fire burning activities. For *Spruce-Fir ERU*: In mixed corkbark fir and Englemann spruce stands where Englemann spruce is less than 50 percent composition in the stand.

*******ND is not determined; SS is single-storied; and MS is multistoried

Changes to Pinyon-Juniper ERU Direction in Proposed Plan

Desired Conditions

Modify FW-TerrERU-PJ-DC-5 and FW-TerrERU-PJ-DC-11 with: *In all Pinyon-Juniper ERUs, stands managed for old growth are at least 100 to 300 acres in size and greater than or equal to 330 feet wide or are in closely groups stands that provide contiguous habitat for interior dwelling species. Old growth components include old trees, dead trees (e.g., snags), downed wood (e.g., coarse woody debris), and structural diversity. Old growth structure and snags are generally provided on slopes greater than 15 percent; however, snags may be provided on slopes less than 15 percent if requirements (as shown on table Minimum Criteria for the Structural Attributes Used to Determine Old Growth) for old growth characteristics (e.g., snags, downed logs, and old trees) cannot be met on the steeper slopes. The location of old growth shifts over time as a result of succession and disturbance (tree growth and mortality).*

Addition: In all *Pinyon-Juniper ERUs*, most of the area greater than 15 percent slope is old growth and contains the snag component because it has not been cut and fire has been excluded. Old growth components include old trees, dead trees (snags), downed wood (coarse woody debris), and structural diversity.

Replace FW-TerrERU-PJ-DC-2, FW-TerrERU-PJ-DC-7, FW-TerrERU-PJ-DC-12 with: *For areas outside of old growth stands in all Pinyon Juniper ERUs: Manage for at least an average of 1.0 snags per acre on 40 percent of the pinyon-juniper woodland acres in each 6th code watershed. Snags are at least 9-inches diameter at root collar and at least 10 feet high. For old growth stands: Stands managed for pinyon-juniper old growth follow Table 1 (Alternative C Minimum Criteria for the Structural Attributes used to Determine Old Growth). For old growth stands: The minimum attributes for snags are: 0.5 snags/acre, 9 inches DBH/DRC, 8 feet tall (low sites) to 1 snag/acre, 10 inches DBH/DRC 10 feet tall (high sites). They meet the needs of species that use snags and provide for future downed logs. In old growth stands, minimum attributes for downed logs are: 9 inch diameter at mid-point and 8 feet long for low sites; 10 inch diameter and 10 feet long for high sites; and there are at least 2 downed logs per acre. Coarse woody debris, including large downed logs, is sufficient to maintain or improve long-term soil productivity and provide important wildlife habitat. Minimal total basal area ranges between 70 to 90 square feet per acre depending on site productivity and minimum total canopy cover ranges between 40 and 50 percent.*

Standard

Addition: Allocate no less than 20 percent of the *Pinyon-Juniper ERUs* in each 6th code watershed to old growth as depicted in the table *Minimum Criteria for the Structural Attributes Used to Determine Old Growth*.

Guideline

Addition: At least 20 percent of the area within 1,320 feet zone adjacent to pine stringers should be managed for dense mature or overmature stands of pinyon-juniper.

***Changes to Ponderosa Pine ERU Direction in Proposed Plan
Desired Conditions***

Modify FW-TerrERU-PP-DC-6 with: *In Ponderosa Pine ERU, stands managed for old growth are at least 100 to 300 acres in size. In addition, old growth structure occurs throughout the landscape, generally in small areas as individual old growth components, or as clumps of old growth. Consistent with vegetative characteristics of a frequent, low severity fire regime, old growth is a component of uneven-aged forests, generally comprised of groups of similarly aged trees and single trees interspersed with open grass-forb-shrub interspaces, but occasionally, it occurs in larger even-aged patches where local microsites facilitate less frequent fire regimes. Within group variability may be low but variation among groups is typically high and proportions of patches with different developmental stages may vary depending on site-specific conditions. Old growth components include old trees, dead trees (snags), and dead and downed wood (coarse woody debris including large size classes). Snags and large dead and downed fuels are irregularly distributed across the landscape and may not exist in some patches. The location of old growth components shifts on the landscape over time as a result of succession and disturbance (tree growth and mortality).*

Modify FW-TerrERU-PP-DC-5 with : *For areas outside of old growth stands: The ponderosa pine forest vegetation community is composed predominantly of vigorous trees, but declining trees are a component and provide for snags, top-killed, lightning- and fire-scarred trees, and coarse woody debris (>3 inch diameter), all well-distributed throughout the landscape. Snags, down logs and coarse woody debris are representative of the species within the vegetation community. Ponderosa pine snags are typically 18 inches or greater at DBH and average 1 to 2 snags per acre. There are varying sizes of snags greater than 18 inches dbh. In the Gambel oak subtype, large oak snags (>10 inches) are a well-distributed component. Downed logs (>12 inch diameter at mid-point, >8 feet long) average 3 logs per acre within the forested area of the landscape. Coarse woody debris, including downed logs, ranges from 3 to 10 tons per acre is sufficient to maintain or improve long-term soil productivity and provide cover and food for a variety of species.*

Stands managed for ponderosa pine old growth follow Table 1 (Alternative C Minimum Criteria for the Structural Attributes used to Determine Old Growth). For old growth stands: Using the table Minimum Criteria for the Structural Attributes Used to Determine Old Growth, in old growth stands, minimum attributes for snags are: 14 inches DBH, 15 feet tall (low sites) to 25 feet tall (high sites) and there is at least 1 snag per acre. They meet the needs of species that use

snags and provide for future downed logs. In old growth stands, minimum attributes for downed logs are: 12 inch diameter at mid-point and 15 feet long and there is at least 2 downed logs per acre. Coarse woody debris, including large downed logs, is sufficient to maintain or improve long-term soil productivity and provide important wildlife habitat. Minimal total basal area ranges between 70 to 90 square feet per acre depending on site productivity and minimum total canopy cover ranges between 40 and 50 percent.

Standard

Addition: *Allocate no less than 20 percent of the Ponderosa Pine ERU in each 6th code watershed to old growth as depicted in the table Minimum Criteria for the Structural Attributes Used to Determine Old Growth.*

Changes to Aspen ERU Direction in Proposed Plan

Addition: *Stands managed for aspen old growth follow Table 1 (Alternative C Minimum Criteria for the Structural Attributes used to Determine Old Growth). In old growth stands, minimum attributes for snags are: 10 inches DBH and density and height are not determined. Minimum attributes for downed logs are not determined. Coarse woody debris, including large downed logs, is sufficient to maintain or improve long-term soil productivity and provide important wildlife habitat. Minimal total basal area is not determined and minimum total canopy cover is 50 percent.*

Changes to Mixed Conifer with Frequent Fire ERU Direction in Proposed Plan
Desired Conditions

Modify FW-TerrERU-MC-MCFF-DC-2: *In MCFF ERU, stands managed for old growth are at least 100 to 300 acres in size. In addition, Old growth structure occurs throughout the landscape, generally in small areas as individual old growth components or as clumps of old growth. Old growth components include old trees, dead trees (snags), downed wood (coarse woody debris). The location of old growth components shifts on the landscape over time as a result of succession and disturbance (tree growth and mortality). Old growth exhibits age-class and structural diversity and is often mixed with groups of younger trees or as individual groups of mostly old trees.*

Modify FW-TerrERU-MC-MCFF-DC -3 with: *In MCFF ERU: For areas outside of old growth areas, Mixed Conifer with Frequent Fire is composed predominantly of vigorous trees, but declining trees are a component and provide for snags; top-killed, lightning-scarred, and fire-scarred trees; and coarse woody debris (greater than 3-inch diameter), all well distributed throughout the landscape. Snags, down logs, and coarse woody debris are representative of the species in this vegetation community. Snags are typically 18 inches and above at d.b.h. and, average 3 snags per acre. Downed logs (greater than 12 in diameter at mid-point and greater than 8 feet long) average 3 per acre within forested areas. Coarse woody debris (greater than 3-inch diameter), including down logs, ranges from 5 to 15 tons per acres to maintain long-term soil productivity and provide wildlife habitat.*

Stands managed for mixed conifer old growth follow Table 1 (Alternative C Minimum Criteria for the Structural Attributes used to Determine Old Growth). *In old growth stands, minimum attributes for snags are: 14 to 16 inches diameter at breast height depending on site, 20 feet tall (low sites) to 25 feet tall (high sites) and there are at least 2.5 snags per acre. They meet the needs of species that use snags and provide for future downed logs. In old growth stands, minimum attributes for downed logs are: 12 inch diameter at mid-point and 16 feet long and there are at least 4 downed logs per acre. Coarse woody debris, including large downed logs, is sufficient to maintain or improve long-term soil productivity and provide important wildlife habitat. Minimal total basal area ranges between 80 to 100 square feet per acre depending on site productivity and minimum total canopy cover ranges between 50 and 60 percent.*

Modify FW-TerrERU-AspMpl-DC-1 with: Where they naturally occur, all age classes of aspen and maple are present in groups or patches and are regenerating and vigorous, *reflecting natural disturbance patterns and processes and at levels similar to or greater than those at the time of Plan approval. These patches collectively contribute to a variable-aged landscape, and are regenerating and vigorous.* A diverse understory comprised of native herbaceous and shrub species has a variety of seral and age classes and is vigorous and regenerating.

Standard

Addition: Allocate no less than 20 percent of the *Mixed Conifer with Frequent Fire ERU* in each 6th code watershed to old growth as depicted in the table *Minimum Criteria for the Structural Attributes Used to Determine Old Growth*.

Changes to Mixed Conifer with Aspen ERU Direction in Proposed Plan

Desired Conditions

Modify FW-TerrERU-MC-MCA-DC-2 with: *In MCA ERU, stands managed for old growth are at least 100 to 300 acres in size. Old growth components include old trees, dead trees (snags), downed wood (coarse woody debris) and structural diversity. Old growth components are generally concentrated in old growth stands and the location of old growth stands shifts on the landscape over time as a result of succession and disturbance (tree growth and mortality).*

Modify FW-TerrERU-MC-MCA-DC-3 with: Mixed Conifer with Aspen is composed predominantly of vigorous trees, but older declining trees are a component and provide for snags; top-killed, lightning-scarred and fire-scarred trees; and coarse woody debris, all well distributed throughout the landscape, *including in aspen stands. For areas outside of old growth stands, number of snags and the amount of downed logs (greater than 12 inch diameter at mid-point and greater than 8 feet long) and coarse woody debris (greater than 3 inch diameter) vary by seral stage (areas inside old growth stands are described in FW-TerrERU-MC-MCA-DC-6).*

Modify FW-TerrERU-MC-MCA-DC-6 with: *For areas outside of old growth areas:* Tree density ranges from 20 to 180 square foot basal area per acre depending upon age, site productivity,

time since disturbance and seral stages of groups and patches. Snags 18 inches or greater at DBH average from 1 to 5 snags per acre, with the lower range of snags of this size associated with early seral stages and the upper range associated with late seral stages. Snag density in general (greater than 8 inches DBH) averages 20 per acre and provide wildlife habitat and future downed logs. Coarse woody debris, including downed logs, varies by seral stage, with averages ranging from 5 to 20 tons per acre for early seral stages; 20 to 40 tons per acre for mid-seral stages; and 35 tons per acre or greater for late-seral stages. Coarse woody debris and logs provide for long-term soil productivity.

Using the table Minimum Criteria for the Structural Attributes Used to Determine Old Growth, in old growth stands, minimum attributes for snags are: 14 to 16 inches diameter at breast height depending on site, 20 feet tall (low sites) to 25 feet tall (high sites) and there are at least 2.5 snags per acre. They meet the needs of species that use snags and provide for future downed logs. In old growth stands, minimum attributes for downed logs are: 12 inch diameter at mid-point and 16 feet long and there are at least 4 downed logs per acre. Coarse woody debris, including large downed logs, is sufficient to maintain or improve long-term soil productivity and provide important wildlife habitat. Minimal total basal area ranges between 80 to 100 square feet per acre depending on site productivity and minimum total canopy cover ranges between 50 and 60 percent. Direction is the same as for MCFF.

Standard

Addition: Allocate no less than 20 percent of the *Mixed Conifer with Aspen ERU* in each 6th code watershed to old growth as depicted in the table *Minimum Criteria for the Structural Attributes Used to Determine Old Growth*.

Changes to Spruce Fir ERU Direction in the Proposed Plan

Desired Conditions

Modify FW-TerrERU-SF-DC-2 with: *In Spruce Fir ERU, stands managed for old growth are at least 100 to 300 acres in size.* Old growth characteristics generally occur over large areas as stands or patches where old growth components are concentrated. Old growth components include old trees, dead trees (snags), downed wood (coarse woody debris) and structural diversity. The location of old growth components shifts on the landscape over time as a result of succession and disturbance (tree growth and mortality).

Modify FW-TerrERU-SF-DC-3 with: Spruce Fir is composed predominantly of vigorous trees, but older declining trees are a component. Declining trees are well-distributed throughout the landscape, *including in aspen*, and provide for snags; top-killed, lightning-scarred and fire-scarred trees; and coarse woody debris. Number of snags and the amount of downed logs (greater than 12 inch-diameter at mid-point and greater than 8 feet long) and coarse woody debris (greater than 3-inch diameter) vary by seral stage.

Modify FW-TerrERU-SF-DC-7 Tree density ranges from 20 to 250 square foot basal area per acre, depending upon disturbance and seral stages of the groups and patches. *For areas outside of old growth stands:* Snags 18 inches or greater at DBH range from 1 to 3 snags per acre, with the lower range of snags this size associated with early seral stages and the upper range associated with late seral stages. Snag density in general (greater than 8-inches DBH) averages 20 per acre with a range of 13 to 30 and provides habitat for wildlife species and future downed logs. Coarse woody debris, including downed logs, averages vary by seral stage, ranging from 5 to 30 tons per acre for early seral stages; 30 to 40 tons per acre for mid-seral stages; and 40 tons per acre or greater for late-seral stages and provide for long-term soil productivity. Stands managed for spruce-fir old growth follow Table 1 (Alternative C Minimum Criteria for the Structural Attributes used to Determine Old Growth). *In old growth stands, the minimum attributes for snags are: 12 to 16 inches diameter at breast height depending on site, 20 feet tall (low sites) to 30 feet tall (high sites) and there is at least 3 to 4 snags per acre. They meet the needs of species that use snags and provide for future downed logs. In old growth stands, minimum attributes for downed logs are: 12 inch diameter at mid-point and 16 feet long and there are at least 5 downed logs per acre. Coarse woody debris, including large downed logs, is sufficient to maintain or improve long-term soil productivity and provide important wildlife habitat. Minimal total basal area ranges between 120 to 140 square feet per acre depending on site productivity and minimum total canopy cover ranges between 60 and 70 percent.*

Standard

Addition: Allocate no less than 20 percent of the Spruce Fir ERU in each 6th code watershed to old growth as depicted in the table *Minimum Criteria for the Structural Attributes Used to Determine Old Growth*.

Pine Belt Management Area

Characteristics of the Pine Belt Management Area in alternative C

Approximate acres: 500,290 of which 457,189 (91%) is National Forest System land

Special Areas may overlap

Designated Wilderness

Fossil Springs Wilderness
Kendrick Mountain Wilderness
Munds Mountain Wilderness
Sycamore Canyon Wilderness
West Clear Creek Wilderness
Wet Beaver Wilderness

Wild and Scenic Rivers (designated)

Fossil Creek (Wild)

Recommended Wilderness

Deadwood Draw
East Clear Creek
Railroad

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas

G A Pearson Research Natural Area
Red Mountain Geological Area

Terrestrial Ecological Response Units*

Great Basin Grassland
Interior Chaparral
Montane Subalpine Grassland
Pinyon Juniper with Grass
Pinyon Juniper Evergreen Shrub
Pinyon Juniper Woodland
Ponderosa Pine
Mixed Conifer with Frequent Fire
Mixed Conifer with Aspen

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Tin Can **Wild and Scenic Rivers (eligible)**

East Clear Creek (Scenic)
Oak Creek (Recreational)
West Clear Creek (Wild)
West Fork Oak Creek (Wild)
Wet Beaver Creek (Wild)

Inventoried Roadless Areas

East Clear Creek

National Trails and Scenic Roads

Arizona National Scenic Trail
General George Crook National Recreation Trail
Oak Creek Canyon Scenic Road
Route 66 All-American Road
San Francisco Peaks Scenic Road

Spruce Fir

Riparian Areas

Wetlands
Springs

Riparian Ecological Response Units*

Cottonwood Willow Riparian Forest
Gallery Coniferous Riparian Forest
Mixed Broadleaf Deciduous Forest
Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

See also Suitable Uses in Chapter 4

Adjoins Anderson Mesa, Blue Ridge, East Clear Creek, Flagstaff Neighborwoods, Jack's Canyon, Long Valley, Oak Creek Canyon, Pine Grove, Red Rock, San Francisco Peaks, Verde Valley, and Volcanic Woodlands Management Areas

Desired Conditions for Pine Belt Management Area

Insert the following desired condition as part of alternative C:

Canyons and steep slopes in this MA provide solitude and more primitive nonmotorized recreation opportunities. These areas also provide low disturbance wildlife habitat.

San Francisco Peaks Management Area

Characteristics of the San Francisco Peaks Management Area in alternative C

Approximate acres: 60,898 of which 58,919 (97%) is National Forest System land

Special Areas may overlap

Designated Wilderness

Kachina Peaks Wilderness

Wild and Scenic Rivers (designated): None

Recommended Wilderness

Abineau

Wild and Scenic Rivers (eligible): None

Inventoried Roadless Areas: None

National Trails and Scenic Roads

Terrestrial Ecological Response Units*

Montane Subalpine Grassland
Pinyon Juniper with Grass
Pinyon Juniper Woodland
Ponderosa Pine
Mixed Conifer with Frequent Fire
Mixed Conifer with Aspen
Spruce Fir

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Arizona National Scenic Trail	Alpine Tundra
San Francisco Peaks Scenic Road	Riparian Areas
Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas	Wetlands
Fern Mountain Botanical Area	Springs
San Francisco Peaks Research Natural Area	Riparian Ecological Response Units*
See also Suitable Uses in Chapter 4	Montane Willow Riparian Forest
	*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins Flagstaff Neighborwoods, Fort Valley/Mt. Elden, Pine Belt, and Volcanic Woodlands Management Areas

Desired Conditions for San Francisco Peaks Management Area ***Insert the following desired conditions as part of alternative C***

The Inner Basin area of the San Francisco Peaks provides a sustainable mix of dispersed and developed recreational opportunities in balance with functioning watershed, soil, and vegetative conditions.

Steep slopes and other hard to access areas in the Inner Basin area of the San Francisco Peaks provide solitude and more primitive nonmotorized recreation opportunities. These areas also provide low disturbance wildlife habitat.

Replace MA-Peaks-DC-5 in modified alt B with the following desired condition as part of alternative C:

The Waterline Road (Forest Road 146), Forest Road 6437, and the portion of Forest Road 553 from Lockett Meadow to the Waterline Road provide access for the City of Flagstaff to operate and maintain the Inner Basin municipal water supply and associated infrastructure.

Insert the following standard as part of alternative C

Recreational livestock use such as horses, pack stock, mules, or llamas are not permitted in the Inner Basin area above the watershed cabin.

Insert the following guidelines as part of alternative C

Limit vehicle access on the Waterline Road (Forest Road 146), Forest Road 6437, and the portion of Forest Road 553 from Lockett Meadow to the Waterline Road to City and Federal vehicles necessary to administer the area.

The Waterline Road (Forest Road 146) above the gate should be managed as a nonmotorized recreation corridor to limit motorized intrusion into the Kachina Peaks Wilderness.

Vegetation treatments in the Inner Basin area should only be planned when needed by other resources, or to control significant insect or disease outbreaks.

Dispersed recreation in the Inner Basin area should be limited to day-use foot, or bicycle traffic only.

Insert the following management approach as part of alternative C

Continue to work with City of Flagstaff to minimize impacts to forest resources and to rehabilitate impacted areas.

Flagstaff Neighborwoods Management Area

Characteristics of the Flagstaff Neighborwoods Management Area in alternative C

Approximate acres: 113,254 of which 58,267 (51%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

East Clear Creek (Scenic)

Leonard Canyon (Recreational)

Inventoried Roadless Areas: None

National Trails and Scenic Roads

Arizona National Scenic Trail

Route 66 All-American Road

San Francisco Peaks Scenic Road

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas

Elden Environmental Study Area

G A Pearson Research Natural Area

Griffith Springs Environmental Study Area

Old Caves Crater Environmental Study Area

Terrestrial Ecological Response Units*

Great Basin Grassland

Montane Subalpine Grassland

Pinyon Juniper with Grass

Pinyon Juniper Woodland

Ponderosa Pine

Mixed Conifer with Frequent Fire

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

Gallery Coniferous Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

See also Suitable Uses in Chapter 4

Adjoins Anderson Mesa, Fort Valley/Mt Elden, Pine Belt, San Francisco Peaks, Volcanic Woodlands, and Walnut Canyon Management Areas

Desired Conditions for Flagstaff Neighborwoods Management Area

Insert the following desired conditions as part of alternative C:

Canyons and steep slopes in this MA provide solitude and more primitive nonmotorized recreation opportunities. These areas also provide low disturbance wildlife habitat.

Walnut Canyon Management Area

Characteristics of the Walnut Canyon Management Area in alternative C

Approximate acres: 25,137 of which 22,336 (89%) is National Forest System land

Special Areas may overlap

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Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible): None

Inventoried Roadless Areas: None

National Trails and Scenic Roads

Arizona National Scenic Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Great Basin Grassland

Montane Subalpine Grassland

Pinyon Juniper with Grass

Pinyon Juniper Woodland

Ponderosa Pine

Riparian Areas

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins Anderson Mesa, Flagstaff Neighborwoods, and Pine Belt Management Areas

Desired Conditions for Walnut Canyon Management Area

Insert the following desired conditions as part of alternative C:

Canyons and steep slopes in this MA provide solitude and more primitive nonmotorized recreation opportunities. These areas also provide low disturbance wildlife habitat.

Anderson Mesa Management Area

Under alternative C, the boundary has been modified.

Characteristics of the Anderson Mesa Management Area in alternative C

Approximate acres: 262,261 of which 257,338 (98%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

East Clear Creek (Scenic)

Leonard Canyon (Recreational)

Inventoried Roadless Areas

Padre Canyon

National Trails and Scenic Roads

Arizona National Scenic Trail

Route 66 All-American Road

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Great Basin Grassland

Montane Subalpine Grassland

Pinyon Juniper with Grass

Pinyon Juniper Woodland

Ponderosa Pine

Mixed Conifer with Aspen

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Gallery Coniferous Riparian Forest

Montane Willow Riparian Forest

Mixed Broadleaf Deciduous Riparian Forest
*These ERUs were generated using forest-level data
and need to be validated at the project level.

Adjoins East Clear Creek, Flagstaff Neighborwoods, Jack's Canyon, Long Valley, Pine Belt, Volcanic Woodlands, and Walnut Canyon Management Areas

General Description: *Roads on the boundaries of the Anderson Mesa MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.*

Desired Conditions for Anderson Mesa Management Area
Remove desired conditions that are part of alternative B (modified).

Insert the following desired conditions as part of alternative C:

In the Anderson Mesa MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly. Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen are present and properly functioning, adding value to both habitat diversity and scenic integrity.

The watersheds that support Mormon, Young's, Padre, and Anderson Canyons are protected and restored.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

In the Anderson Mesa MA, Mexican spotted owl, Northern goshawk, mountain lion, Abert's squirrel, pronghorn, cinnamon teal, aquatic macro-invertebrates, mule deer, Gunnison prairie dog and associated community, migratory wetland birds, Yellow-breasted chat, and the Lincoln sparrow are emphasized and able to find properly functioning and restored habitats.

Pine stringers, grasslands, wetlands, and the Pinyon Juniper ERUs are important habitat features in this MA. The understory is diverse and provides hiding cover for pronghorn fawns. Forbs and shrubs provide forage for mule deer and pronghorn.

Canyons and steep slopes in this MA provide solitude and more primitive nonmotorized recreation opportunities. These areas also provide low disturbance wildlife habitat.

Guidelines for Anderson Mesa Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Roads that provide public access should be limited in order to minimize impacts from motorized vehicle traffic to wildlife species and habitats emphasized in this MA.

Through future projects and other actions, public road density throughout this MA should not exceed an average of 1 mile of road per square mile.¹

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approach for Anderson Mesa Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

¹ Road density should be based on the ratio between roads open to public access and acres of Forest Service-managed lands for Anderson Mesa MA. This ratio should be calculated at the MA level not at the site specific and project level scales.

Pine Grove Management Area

General Description: Roads on the boundaries of the Pine Grove MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.

Characteristics of the Pine Grove Management Area in alternative C

Approximate acres: 13,601 of which 13,601 (100%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible): None

Inventoried Roadless Areas: None

National Trails and Scenic Roads

Arizona National Scenic Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Great Basin Grassland

Montane Subalpine Grassland

Ponderosa Pine

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Lies within Pine Belt Management Area.

Insert the following desired conditions as part of alternative C:

Desired Conditions for Pine Grove Management Area

In the Pine Grove MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly.

Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

In the Pine Grove MA, Mexican spotted owl, northern goshawk, mountain lion, and the Abert's squirrel are emphasized and able to find properly functioning and restored habitat. This MA also offers protection for the Upper Lake Mary watershed.

Guidelines for Pine Grove Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Public motor vehicle access should not be provided to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. Roads within this MA should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Pine Grove Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

Long Valley Management Area

Characteristics of the Long Valley Management Area in alternative C

Approximate acres: 176,462 of which 176,462 (98%) is National Forest System land

Special Areas may overlap

Designated Wilderness

West Clear Creek Wilderness

Wild and Scenic Rivers (designated): None

Terrestrial Ecological Response Units*

Great Basin Grassland

Montane Subalpine Grassland

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Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

East Clear Creek (Scenic)

West Clear Creek (Wild)

Inventoried Roadless Areas: None

National Trails and Scenic Roads

Arizona National Scenic Trail

General George Crook National Recreation Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas

Rocky Gulch Research Natural Area

See also Suitable Uses in Chapter 4

Pinyon Juniper Evergreen Shrub

Pinyon Juniper Woodland

Ponderosa Pine

Mixed Conifer with Frequent Fire

Mixed Conifer with Aspen

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Mixed Broadleaf Deciduous Forest

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins Anderson Mesa, Blue Ridge, and Pine Belt Management Areas

Jack's Canyon Management Area

General Description: Roads on the boundaries of the Jack's Canyon MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.

Characteristics of the Jack's Canyon Management Area in alternative C

Approximate acres: 16,968 of which 16,968 (100%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible): None

Inventoried Roadless Areas

Jacks Canyon

Lower Jacks Canyon

National Trails and Scenic Roads

Arizona National Scenic Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Great Basin Grassland

Pinyon Juniper with Grass

Pinyon Juniper Woodland

Ponderosa Pine

Riparian Areas

Springs

Riparian Ecological Response Units*

Gallery Coniferous Riparian Forest

Mixed Broadleaf Deciduous Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins Anderson Mesa and Pine Belt MAs.

Desired Conditions for Jack's Canyon Management Area

Insert the following desired conditions as part of alternative C:

In the Jack's Canyon MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly. Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Jack's Canyon MA offers long-term protection of river and stream corridors. Habitat for the Mexican spotted owl, northern goshawk, black bear, mountain lion, Abert's squirrel, and pronghorn are emphasized.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

Guidelines for Jack's Canyon Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Roads that provide public motorized access should be limited in order to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. In

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Jack's Canyon MA, public motorized access should be provided on and limited to roads that access developed sites, trailheads, and interpretive sites. Roads that do not provide this access or connectivity should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Jack's Canyon Management Area **Insert the following Management Approach as part of alternative C**

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

East Clear Creek Management Area

Characteristics of the East Clear Creek Management Area in alternative C
Approximate acres: 43,591 of which 41,735 (96%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness

Barbershop

East Clear Creek

Wild and Scenic Rivers (eligible)

East Clear Creek (Scenic)

Leonard Canyon (Recreational)

Barbershop (Wild)

Inventoried Roadless Areas

Barbershop Canyon (Wild)

East Clear Creek (Scenic)

National Trails and Scenic Roads

Arizona National Scenic Trail

See also Suitable Uses in Chapter 4

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

Terrestrial Ecological Response Units*

Montane Subalpine Grassland

Pinyon Juniper Woodland

Ponderosa Pine

Mixed Conifer with Frequent Fire

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

**These ERUs were generated using forest-level data and need to be validated at the project level.*

Adjoins Anderson Mesa, Blue Ridge, Hospital Ridge, Limestone Pasture, Second Chance, and Pine Belt Management Areas

Remove MA-EastClr-DC-3 in alternative B (modified) as part of alternative C.

Management Approaches for East Clear Creek Management Area

Coordinate with the Salt River Project, National Forest Foundation, Town of Payson, and the Bureau of Reclamation, U.S. Fish and Wildlife Service, Arizona Game and Fish Department, Arizona Elk Society, the local community, and other stakeholders to proactively improve the health and resiliency of the watersheds associated with C.C. Cragin Reservoir.

Second Chance Management Area

General Description: *Roads on the boundaries of the Second Chance MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.*

Characteristics of the Second Chance Management Area in alternative C

Approximate acres: 1,444 of which 1,444 (100%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

East Clear Creek (Scenic)

Leonard Canyon (Recreational)

Inventoried Roadless Areas

Jacks Canyon

Lower Jacks Canyon

Padre Canyon

National Trails and Scenic Roads

Arizona National Scenic Trail

Route 66 All-American Road

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

Terrestrial Ecological Response Units*

Ponderosa Pine

Riparian Areas: None

Riparian Ecological Response Units*: None

**These ERUs were generated using forest-level data and need to be validated at the project level.*

See also Suitable Uses in Chapter 4

Lies within the East Clear Creek Management Area.

Desired Conditions for Second Chance Management Area

Insert the following desired conditions as part of alternative C

In the Second Chance MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly.

Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

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Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen and big tooth maple are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

Within the Second Chance MA, the watersheds that support Leonard Canyon and East Clear Creek, including the headwaters, are protected and restored.

In the Second Chance MA, northern Goshawk is emphasized and able to find properly functioning and restored habitat. The Upper Clear Creek watershed, native vegetation, and soils of this headwater region are protected and properly functioning within the boundaries of the MA.

Guidelines for Second Chance Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Public motor vehicle access should not be provided to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. Roads within this MA should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Second Chance Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

Blue Ridge Management Area

Characteristics of the Blue Ridge Management Area in alternative C

Approximate acres: 36,129 of which 36,006 (99%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

East Clear Creek (Scenic)

Barbershop Canyon (Wild)

Inventoried Roadless Areas: None

National Trails and Scenic Roads

Arizona National Scenic Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Montane Subalpine Grassland

Ponderosa Pine

Mixed Conifer with Frequent Fire

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Cottonwood Willow Riparian Forest

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins East Clear Creek, Pine Belt, and Long Valley Management Areas.

General Description: *Roads on the boundaries of the Blue Ridge MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.*

Desired Conditions for Blue Ridge Management Area

Insert the following desired conditions as part of alternative C:

In the Blue Ridge MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly.

Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

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Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen and big tooth maple are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Within the Blue Ridge MA, the watersheds that support Leonard Canyon and East Clear Creek, including the headwaters, are protected and restored.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

In the Blue Ridge MA, Little Colorado spinedace, northern and Chiricahua leopard frogs, beaver, Mexican spotted owl, northern goshawk, black bear, mountain lion, Abert's squirrel, mule deer, elk, forest-dependent birds, and turkey are emphasized and able to find properly functioning and restored habitat.

Guidelines for Blue Ridge Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Roads that provide public motorized access should be limited in order to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. In Blue Ridge MA, public motorized access should be provided on and limited to roads that access developed sites, trailheads, and interpretive sites, roads that provide recreation access to the C. C. Cragin Reservoir, and improved and maintained roads providing connectivity from State Highway 87 to the Rim Road (FR 300). Roads that do not provide this access or connectivity should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Blue Ridge Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

Limestone Pasture Management Area

General Description: Roads on the boundaries of the Limestone Pasture MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.

Characteristics of the Limestone Pasture Management Area in alternative C

Approximate acres: 2,423 of which 2,423 (100%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

Leonard Canyon (Recreational)

Inventoried Roadless Areas: None

National Trails and Scenic Roads: None

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Ponderosa Pine

Mixed Conifer with Frequent Fire

Riparian Areas

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Lies within East Clear Creek Management Area

Desired Conditions for Limestone Pasture Management Area

In the Limestone Pasture MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly.

Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen and big tooth maple are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

Within the Limestone Pasture MA, the watersheds that support Leonard Canyon and East Clear Creek, including the headwaters, are protected and restored.

In the Limestone Pasture MA, Black bear, mountain lion, northern goshawk, and Abert's squirrel are emphasized and able to find properly functioning and restored habitat. The Upper Clear Creek watershed, native vegetation, and soils of this headwater region are protected and properly functioning within the boundaries of the MA.

Guidelines for Limestone Pasture Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Public motor vehicle access should not be provided to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. Roads within this MA should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Limestone Pasture Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

Hospital Ridge Management Area

General Description: Roads on the boundaries of the Hospital Ridge MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.

Characteristics of the Hospital Ridge Management Area in alternative C

Approximate acres: 5,026 of which 5,026 (100%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Wild and Scenic Rivers (eligible)

Leonard Canyon (Recreational)

Inventoried Roadless Areas: None

National Trails and Scenic Roads

General George Crook National Recreation Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Terrestrial Ecological Response Units*

Ponderosa Pine

Mixed Conifer with Frequent Fire

Montane Subalpine Grassland

Riparian Areas

Wetlands

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins East Clear Creek and Knoll Lake Management Areas.

Desired Conditions for Hospital Ridge Management Area

Insert the following desired conditions as part of alternative C:

In the Hospital Ridge MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly. Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen and big tooth maple are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and

hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

Within the Hospital Ridge MA, the watersheds that support Leonard Canyon and East Clear Creek, including the headwaters, are protected and restored.

In the Hospital Ridge MA, Little Colorado spinedace, Mexican spotted owl, northern goshawk, black bear, mountain lion, and Abert's squirrel are emphasized and able to find properly functioning and restored habitats.

This MA provides protection for the health and functioning of the Upper Clear Creek watershed, West and Middle Leonard Canyons, and adjoining riparian ecosystems.

Guidelines for Hospital Ridge Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Public motor vehicle access should not be provided to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. Roads within this MA should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Hospital Ridge Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

Knoll Lake Management Area

General Description: *Roads on the boundaries of the Knoll Lake MA and those listed in desired conditions provide access and are excluded from motor vehicle traffic restrictions.*

Characteristics of the Knoll Lake Management Area in alternative C

Approximate acres: 2,607 of which 2,607 (100%) is National Forest System land

Special Areas may overlap

Designated Wilderness: None

Wild and Scenic Rivers (designated): None

Recommended Wilderness: None

Terrestrial Ecological Response Units*

Mixed Conifer with Frequent Fire

Riparian Areas

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Wild and Scenic Rivers (eligible)

Leonard Canyon (Recreation)

Inventoried Roadless Areas: None

National Trails and Scenic Roads

General George Crook National Recreation Trail

Research Natural Areas, Botanical and Geological Areas, Environmental Study Areas: None

See also Suitable Uses in Chapter 4

Springs

Riparian Ecological Response Units*

Montane Willow Riparian Forest

*These ERUs were generated using forest-level data and need to be validated at the project level.

Adjoins East Clear Creek and Hospital Ridge Management Areas.

Desired Conditions for Knoll Lake Management Area

In the Knoll Lake MA, the ecological integrity of watersheds, headwater environments, native vegetation, and soils is intact and functioning properly.

Streams and perennial waters support identified designated beneficial uses.

Springs, streams, and wetlands are protected and restored.

Old growth in the Ponderosa Pine and Mixed Conifer ERUs is protected during management activities. Old growth stands and riparian corridors found within this MA provide biologically significant cores and corridors for wildlife and fish through the landscape.

Wildlife habitats are properly functioning and the understory provides sufficient habitat and cover for wildlife.

Natural fire regimes are established in appropriate soil and vegetation types. Fire management mimics natural fire processes.

Evidence of past logging is negligible and few roads are present.

Stands of aspen and big tooth maple are present and properly functioning, adding value to both habitat diversity and scenic integrity.

Recreation activities are predominantly low-disturbance and non-motorized and include wildlife watching, birding, fishing, hunting, horseback riding, mountain-biking, and hiking. Recreation does not negatively impact soil conditions, hydrologic flow, or habitat connectivity.

Within the Knoll Lake MA, the watersheds that support Leonard Canyon and East Clear Creek, including the headwaters, are protected and restored.

In the Knoll Lake MA, Little Colorado spinedace, Mexican spotted owl, northern goshawk, black bear, mountain lion, and Abert's squirrel are emphasized and able to find properly functioning and restored habitats.

The East Clear Creek watershed and East Leonard Canyon ecosystem are protected and properly functioning within the boundaries of the MA.

Guidelines for Knoll Lake Management Area

Insert the following guidelines as part of alternative C:

There should be no net increase in the area of motorized dispersed camping corridors designated within this MA. The purpose is to limit soil, vegetation, and noise disturbances to wildlife species and habitat emphasized within this MA.

Roads that provide public motorized access should be limited in order to minimize impacts from vehicle traffic to wildlife species and habitats emphasized in this MA. In Knoll Lake MA, public motorized access should be provided on and limited to roads that access developed sites, trailheads, and interpretive sites. Roads that do not provide this access or connectivity should be managed for administrative use or decommissioned.

To avoid impacts to wildlife and associated habitats, large group recreation events and large commercial tours within this MA should not be permitted except in developed sites. This does not apply to activities in support of research.

Management Approaches for Knoll Lake Management Area

Insert the following Management Approach as part of alternative C

Collaborate with interested groups to monitor the wildlife species and habitat emphasized in this management area.

Recommended Wilderness Areas

In addition to the recommended wilderness areas in alternative B (modified) (Abineau, Strawberry Crater Addition, and Davey's), alternative C includes ten additional recommended wilderness areas (Barbershop, Black Mountain, Cedar Bench, Cimarron-Boulder, Deadwood Draw, East Clear Creek, Hackberry, Railroad Draw, Tin Can, and Walker Mountain).

Changes to Research Natural Area Direction in the Proposed Plan

Guideline

Replace SA-RNABotGeo-G-4 with: *Livestock grazing should be excluded from research natural areas unless grazing supports or would not affect the area's research purpose.*

Cottonwood Basin Botanical Area

This botanical area has been incorporated into alternative B (modified).

Changes to Glossary in the Proposed Plan

Addition: Allocation - *The assignment of management prescriptions to particular land areas to achieve the goals and objectives of an alternative.*

DRAFT

Recreation and Transportation Suitability

Under alternative C, Table 2 was modified to add suitability determinations for the seven additional management areas, as well as the modified Anderson Mesa MA. Alternative C also makes suitability determinations for recreational shooting and snowmobile use. Table 3 displays those suitability determinations. Recreational shooting is target shooting, not shooting for hunting.

Unlike alternative B (modified), alternative C retained the determination that mechanized travel in botanical and geological areas would not be suitable.

Table 2. Alternative C Recreation and Transportation Suitability

Recreation Opportunity Spectrum (ROS) ,Special Areas, and select Management Areas	New Motorized Areas	Permanent Roads	Temporary Roads	Motorized Trails	Mechanized Travel	Non-Motorized Travel
Urban, Rural, and Roaded Natural ROS	Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
Semi-Primitive Motorized ROS	Not Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
Semi-Primitive Nonmotorized ROS	Not Suitable	Not Suitable	Suitable	Not Suitable	Suitable	Suitable
Primitive ROS	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Suitable	Suitable
Designated and Proposed Research Natural Areas	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Suitable
Botanical and Geological Areas	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Suitable
Environmental Study Areas	Not Suitable	Not Suitable	Suitable	Not Suitable	Suitable	Suitable
Recommended Wilderness	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Suitable	Suitable
Wilderness	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Suitable

Appendix F. Forest Plan Language for Alternative

Recreation Opportunity Spectrum (ROS) ,Special Areas, and select Management Areas	New Motorized Areas	Permanent Roads	Temporary Roads	Motorized Trails	Mechanized Travel	Non-Motorized Travel
Eligible or Designated Wild and Scenic River – Recreation and Scenic	Not Suitable	Suitable	Suitable	Suitable	Suitable	Suitable
Eligible or Designated Wild and Scenic River – Wild	Not Suitable	Not Suitable	Not Suitable	Not Suitable	Suitable	Suitable
<i>Anderson Mesa, Blue Ridge, Hospital Ridge, Limestone Pasture, Second Chance, Knoll Lake, Pine Grove, and Jack's Canyon Management Areas</i>	<i>Not Suitable</i>	<i>Suitable</i>	<i>Suitable</i>	<i>Not Suitable</i>	<i>Suitable</i>	<i>Suitable</i>

¹ Table changes based on alternative C guidance are noted in bolded italics.

Table 3. Alternative C Recreational Shooting¹ and Snowmobile Use Suitability

Recreation Opportunity Spectrum (ROS) and Special Area Designations	Recreational Shooting	Snowmobile Use
Urban and Rural ROS	Suitable	Suitable
Roaded Natural ROS	Suitable	Suitable
Semiprimitive Motorized ROS	Suitable	Suitable
Semiprimitive Nonmotorized ROS	Suitable	Not Suitable
Primitive ROS	Suitable	Not Suitable

Appendix F. Forest Plan Language for Alternative

Recreation Opportunity Spectrum (ROS) and Special Area Designations	Recreational Shooting	Snowmobile Use
Recommended Research Natural Area	Not Suitable	See ROS
Research Natural Area	Not Suitable	See ROS
Botanical and Geological Areas	Not Suitable	See ROS
Recommended Wilderness	Suitable	See ROS
Wilderness	Suitable	See ROS
Eligible or suitable wild and scenic river	Suitable	See ROS
<i>Anderson Mesa, Blue Ridge, Hospital Ridge, Limestone Pasture, Second Chance, Knoll Lake, Pine Grove, and Jack's Canyon Management Areas</i>	Not Suitable	See ROS
Walnut Canyon MA	Not Suitable	Not Suitable
Sedona Neighborwoods MA	Not Suitable	See ROS
Flagstaff Neighborwoods MA	Suitable ²	See ROS
Long Valley MA	Not Suitable	See ROS

¹ Recreational shooting refers to target shooting; it does not include shooting for hunting.

Appendix F. Forest Plan Language for Alternative

² Parts of the Flagstaff Neighborwoods in proximity to private property may not be suitable for recreational shooting. This determination should be made through project-level NEPA.

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