

Major Land Resource Area 070A

High Plateaus of the Southwestern Great Plains

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Ecological site keys

Key to the LRU Subsets (Climate Zones) of the Volcanic Plateaus (70A.3)

I. Site is forested or is known to have been forested in the past.

A. Overstory is dominated by “mixed conifer zone” species such as Douglas-fir (*Pseudotsuga menziesii*), white fir (*Abies concolor*), quaking aspen (*Populus tremuloides*), and Engelmann spruce (*Picea engelmannii*) OR site is known to have been dominated by such species prior to major disturbance (e.g. high intensity fire and/or logging). → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

B. All other sites.

1 Overstory dominated by two-needle pinyon (*Pinus edulis*), one-seed juniper (*Juniperus monosperma*), and/or Rocky Mountain juniper (*Juniperus scopulorum*).

i. Any of the following species are present: Douglas-fir (*Pseudotsuga menziesii*), white fir (*Abies concolor*), quaking aspen (*Populus tremuloides*), and Engelmann spruce (*Picea engelmannii*). → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

ii. Rocky Mountain juniper is the dominant tree species, and ponderosa pine is present. → Cool Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

iii. All other sites dominated by pinyon-juniper. → Warm Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

2 Overstory dominated by ponderosa pine and/or Gambel oak, AND no known history of dominance by “mixed conifer zone” species such as: such as Douglas-fir (*Pseudotsuga menziesii*), white fir (*Abies concolor*), quaking aspen (*Populus tremuloides*), and Engelmann spruce (*Picea engelmannii*).

i. Parry's oatgrass (*Danthonia parryi*) covers $\geq 2\%$ of the ground and, if present, concave slope positions such as swales contain quaking aspen. (*Populus tremuloides*). → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

ii. All other sites.

a. Cool Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

II. Site is not forested and has no known history of being forested.

A. Shrubby cinquefoil (*Potentilla fruticosa*) present, and/or Parry's oatgrass (*Danthonia parryi*) covers at least 2% of the ground. → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

B. All other sites.

1 On the site, or on adjacent upland positions that can reasonably be assumed to have escaped heavy continuous grazing, plants from the following list comprise at least 10 percent combined canopy cover: prairie junegrass (*Koeleria macrantha*), fescues (*Festuca* ssp.), timothy (*Phleum* ssp.), pine dropseed (*Blepharoneuron tricholepis*), mountain muhly (*Muhlenbergia montana*), and Kentucky bluegrass (*Poa pratensis*). → Cool Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

2 On the site, or on adjacent upland positions that can reasonably be assumed to have escaped heavy, continuous grazing, the following species comprise less than 10 percent combined canopy cover: prairie

junegrass (*Koeleria macrantha*), fescues (*Festuca* spp.), timothy (*Phleum* spp.), pine dropseed (*Blepharoneuron tricholepis*), mountain muhly (*Muhlenbergia montana*), and Kentucky bluegrass (*Poa pratensis*). → Warm Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)

3 User has reason to believe that the site has been continuously grazed in recent years and/or has experienced significant topsoil loss in post-colonial time, and less-disturbed adjacent sites don't exist.

- i. Site has a slope greater than or equal to 25 percent with a northern aspect (315 to 45 degrees).
 - a. Elevation is 7,500 feet or higher. → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
 - b. Elevation is 6,250 to 7,500 feet. → Cool Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
 - c. Elevation is less than 6,250 feet. → Warm Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
- ii. Site has a slope greater than or equal to 25 percent with a southern aspect (135 to 225 degrees).
 - a. Elevation is 9,000 feet or higher. → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
 - b. 7,750 to 9,000 feet. → Cool Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
 - c. Elevation is less than 7,750 feet. → Warm Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
- iii. Site has a neutral aspect and/or a slope of less than 25 percent.
 - a. Elevation is greater than 8,250 feet. → Cold Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
 - b. Elevation is between 7,000 and 8,250 feet. → Cool Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)
 - c. Elevation is less than 7,000 feet. → Warm Climate Zone ... Key 4 – Ecological Site Key for the Volcanic Plateaus LRU of MLRA 70A (70A.3)