

DECISION NOTICE/DESIGNATION ORDER

Establishment of
Picketpost Mountain Research Natural Area

Decision Notice
Finding of No Significant Impact
Designation Order

By virtue of the authority vested in me by the Secretary of Agriculture under regulations at 7 CFR 2.42, 36 CFR 251.23, and 36 CFR Part 219, I hereby establish the Picketpost Mountain Research Natural Area. It shall be comprised of lands described in the section of the Establishment Record entitled "Location."

The Regional Forester has recommended the establishment of this Research Natural Area in the Record of Decision for the Tonto National Forest Land and Resource Management Plan. That recommendation was the result of an analysis of the factors listed in 36 CFR 219.25 and Forest Service Manual 4063.41. Results of the Regional Forester's analysis are documented in the National Forest Land and Resource Management Plan and Final Environmental Impact statement, which are available to the public.

Upper Forks Parker Creek Research Natural Area will be managed in compliance with all relevant laws, regulations, and Forest Service Manual direction regarding Research Natural Areas. It will be administered in accordance with the management direction/prescription identified in the Establishment Record.

I have reviewed the Tonto National Forest Land and Resource Management Plan direction for this Research Natural Area and find that the management direction cited in the previous paragraph is consistent with the LRMP and that a Plan amendment is not required.

The Forest Supervisor of the Tonto National Forest shall notify the public of this decision and will mail a copy of the Decision Notice/Designation Order and amended direction to all persons on Tonto National Forest Land and Resource Management Plan mailing list.

Based upon the Environmental Analysis, I find that designation of Picketpost Mountain Research Natural Area is not a major Federal action significantly affecting the quality of the human environment (40 CFR 1508.27).

This decision is subject to appeal pursuant to 36 CFR Part 217. A Notice of Appeal must be in writing and submitted to:

The Secretary of Agriculture
14th & Independence Ave., S. W.
Washington, D. C. 20250

Any appeal of this decision must include the information required by 36 CFR Part 217.9 including the reasons for appeal. Two (2) copies of the Notice of Appeal must be filed with the Secretary of Agriculture within 45 days from the date of legal notice of this decision. Review by the Secretary is wholly discretionary. If the Secretary has not decided within 15 days of receiving the Notice of Appeal to review of the Chief's decision, appellants will be notified that the Chief's decision is the final administrative decision of the U. S. Department of Agriculture (36 CFR 217.7(a)).

Chief

Date

SIGNATURE PAGE

for

RESEARCH NATURAL AREA ESTABLISHMENT RECORD

Picketpost Mountain Research Natural Area

Tonto National Forest

Pinal, Arizona

Prepared by Andrew Laurenzi Date 4/6/88
Mark H. Cochran, The Arizona Nature Conservancy
Andrew W. Laurenzi, The Arizona Nature Conservancy

Recommended by Larry P. Widner Date 5/5/88
Larry P. Widner, District Ranger,
Globe Ranger District

Recommended by James L. Kimball Date 5-16-88
James L. Kimball, Forest Supervisor,
Tonto National Forest

Recommended by John W. Russell Date 5-24-88
John W. Russell, Chairperson,
Southwestern Research Natural
Area Committee

Recommended by Sotero Muniz Date 6/16/88
Sotero Muniz, Regional Forester,
Southwestern Region

Recommended by Charles M. Loveless Date Sept. 29, 1988
Charles M. Loveless, Station Director,
Rocky Mountain Forest and Range
Experiment Station

ESTABLISHMENT RECORD

for

PICKETPOST MOUNTAIN RESEARCH NATURAL AREA

within

Tonto National Forest
Gila County, Arizona

INTRODUCTION

Picketpost Mountain Research Natural Area (RNA) comprises 1,120 acres (453 hectares) on the Globe Ranger District, Tonto National Forest, in Pinal County, Arizona, on reserved public domain National Forest System land. Most of Picketpost Mountain RNA is minimally disturbed by past or ongoing human activities, and has been under a special use permit to the Boyce Thompson Southwestern Arboretum State Park for several decades.

Picketpost Mountain RNA encompasses Picketpost Mountain, a strikingly distinctive butte rising up from the desert floor about 3 miles west of Superior, Arizona. The northern boundary of Picketpost Mountain RNA borders the Boyce Thompson Southwestern Arboretum State Park.

Land Management Planning. The Regional Guide (USDA Forest Service, 1983) and Tonto National Forest Plan (USDA Forest Service, 1985a) include the Picketpost Mountain RNA. The environmental analysis conducted as part of the Forest planning process supports the recommendation to establish Upper Forks Parker Creek RNA (USDA Forest Service, 1985b).

OBJECTIVES

The objectives for establishment of Picketpost Mountain RNA are as follows:

1. To provide minimally disturbed examples of Sonoran desert scrub communities for research and educational purposes. This purpose is augmented by the proximity of the Boyce Thompson Southwestern Arboretum State Park, which is primarily an educational and research institution.
2. To serve as a baseline area to measure long term ecological changes.
3. To preserve and protect genetic diversity within the Sonoran desert scrub and deciduous broadleaf riparian forest communities.

JUSTIFICATION STATEMENT FOR ESTABLISHMENT OF AREA

Picketpost Mountain RNA was identified primarily as an outstanding example of Sonoran desert scrub vegetation. Additionally, the area supports a small stand of Fremont cottonwood *Populus fremontii*/Goodding willow *Salix gooddingii* riparian forest. The need to include these vegetation types within the Southwestern RNA system has been identified in the Southwestern Regional Guide (USDA Forest Service, 1983).

PRINCIPAL DISTINGUISHING FEATURES

Picketpost Mountain RNA contains excellent examples of several Sonoran desert scrub vegetation types associated with the foothill and piedmont topography found in central Arizona. Along Arnett Creek, an interrupted, perennial stream, is a small stand of Fremont cottonwood-Goodding willow riparian forest, a rare plant community in the southwest. The top of Picketpost Mountain supports semidesert grassland undisturbed by livestock grazing due to topographical barriers, although the prevalence of Lehmann lovegrass *Eragrostis lehmanniana*, a species imported from South Africa, detracts from the natural area value of this isolated mesa.

LOCATION

Picketpost Mountain RNA is near Superior, Arizona, about 60 miles (96.5 kilometers) west of Phoenix. It can be reached via U. S. Highway 60 (Figure

1). From Phoenix, proceed east on either U. S. Highway 60 or the Superstition Freeway (State Highway 360) past Apache Junction to Florence Junction; from Tucson, State Highway 79 (formerly State Highway 89) leads from Oracle Junction to U. S. Highway 60 at Florence Junction. Continue east from Florence Junction 9.9 miles (15.9 kilometers) to Queen Creek. Picketpost Mountain RNA can be accessed by hiking along Arnett Creek to the south and east. Or continue east on U. S. Highway 60 0.7 miles (1.1 kilometers) to the entrance of Boyce Thompson Southwestern Arboretum State Park. Picketpost Mountain RNA can be reached via several trails that originate in the Park. Inquire at Park headquarters for specific directions.

Picketpost Mountain RNA is located within the Globe Ranger District, Tonto National Forest, in Pinal County, Arizona (Figure 2). The area is at 33° 16' North latitude and 111° 08' West longitude. It is within portions of sections 12 and 13 of Township 02 South, Range 11 East, and sections 7, 8, 17, and 18 of Township 02 South, Range 12 East, Gila and Salt River Meridian, Arizona.

The boundaries of Picketpost Mountain RNA are more particularly described as follows:

BEGINNING at the north 1/16 corner of Section 7 only on the range line between Ranges 11 and 12 East, Township 02 South;

THENCE, east on the south line of Lot 1 of said Section 7 approximately 0.23 miles (0.37 kilometers) to the northwest 1/16 corner of Section 7;

THENCE, north on the east line of said Lot 1, approximately 0.125 miles (0.20 kilometers) to the center-north-northwest 1/64 corner of said Section 7;

THENCE, east on the south line of the north 1/2 north 1/2 north 1/2 of said Section 7 for approximately 0.75 miles (1.21 kilometers) to the north-north 1/64 corner of sections 7 and 8;

THENCE, south on the section line of said sections 7 and 8 for approximately 0.45 miles (0.72 kilometers) to the top of a precipice on the south side of a ridge bearing generally northwest and southeast and overlooking Arnett Creek, at a contour elevation of 2,800 feet (853 meters);

THENCE, southeasterly and northeasterly on the top of said precipice for approximately 0.12 miles (0.19 kilometers);

THENCE, north 10° east for approximately 300 feet (91 meters) to the 2,640-foot (805-meter) contour line at the base of said precipice;

THENCE, generally southeasterly on said 2,640-foot (805-meter) contour line at base of the precipice for approximately 0.42 miles (0.68 kilometers);

THENCE, south 55° west across Arnett Creek, approximately 400 feet (122 meters) to the 2,600-foot (792-meter) contour line at the base of the northeast side of Picketpost Mountain;

THENCE, southeasterly on said 2,600-foot (792-meter) contour line for approximately 0.30 miles (0.48 kilometers);

THENCE, south 40° east for approximately 250 feet (76 meters) to the 2,800-foot (853-meter) contour line on the top of a precipice of Picketpost Mountain overlooking Arnett Creek;

THENCE, easterly, southerly, and southwesterly on the 2800-foot (853-meter) contour line of said precipice overlooking first Arnett Creek, then Telegraph Canyon, for approximately 0.72 miles (1.16 kilometers) to a point in a wash, draining east into Telegraph Canyon;

THENCE, west on a straight line for approximately 0.33 miles (0.53 kilometers) to the 3,200-foot (975-meter) contour line on the east side of Picketpost Mountain;

THENCE, southwesterly, westerly, and northwesterly on said 3,200-foot (975-meter) contour line generally along the base or precipices, for approximately 1.48 miles (2.38 kilometers) to the base of a precipice on the west side of Picketpost Mountain;

THENCE, northwest along the base of said precipice for approximately 450 feet (137 meters) to the 3,000-foot (914-meter) contour line;

THENCE, generally northerly on the 3,000-foot (914-meter) contour line generally along the base of precipices for approximately 0.74 miles (1.19 kilometers) to a point on a ridge which extends northwest-southeast;

THENCE, northwesterly on said ridge, for approximately 0.09 miles (0.14 kilometers) to a point on the north side of a small knoll, with a shown elevation of 2,918 feet (889 meters), at contour elevation of 2,880 feet (878 meters),

THENCE, northwesterly down a small ridge for approximately 0.29 miles (0.47 kilometers) to the intersection with a small dry wash draining northwest;

THENCE, north 04° west approximately 0.08 mile (0.13 kilometer) to the east side of Arboretum Tank;

THENCE, north 08° west across an unnamed intermittent stream and up a small ridge for approximately 0.16 miles (0.26 kilometers) to a summit with a shown elevation of 2,487 feet (758 meters);

THENCE, north 30° west approximately 0.11 miles (0.18 kilometers) to the intersection with the thread of said intermittent stream;

THENCE, northerly on the thread of said stream for approximately 150 feet (46 meters) to the intersection with the south line of the patented north 1/2 north 1/2 north 1/2 of Section 12, Township 02 South, Range 11 East;

THENCE, east on the south line of said patented land for approximately 0.32 miles (0.51 kilometers) to the north-north 1/64 corner of Section 12 only on the Range line between Ranges 11 and 12 East;

THENCE, south on the section line between sections 12 and 7, for approximately 0.13 miles (0.21 kilometers) to the north 1/16 corner of Section 7 only and the point of beginning.

Lands herein described and topographic features referred to are based on 7.5' United States Geological Survey Quadrangle Sheet PICKETPOST MOUNTAIN, ARIZONA, dated 1948. Picketpost Mountain RNA contains 1,120 acres (453 hectares), more or less.

AREA BY COVER TYPES

Information on cover types was obtained from a field reconnaissance and Crosswhite (1984). Table 1 provides details of surface area of cover types.

Küchler. Picketpost Mountain RNA includes Palo Verde-Cactus Shrub (K-037), Grama-Tobosa Shrubsteppe (K-052), and transition between K-027 and K-031, (K-028) (Figure 4) (Küchler, 1964).

Society of American Foresters. Non-forested vegetation is not classified by SAF cover types (Eyre, 1980).

Habitat types or Plant Associations. Habitat types for desert scrub, semidesert grassland or chaparral vegetation have not been described (Muldavin et al., 1986).

Twelve cover types for the Picketpost Mountain area have been described (Crosswhite, 1984), 10 of which are found in the Picketpost Mountain RNA: semidesert grassland, mountain mahogany-hackberry scrubland, oak scrubland, rosewood scrubland, jojoba scrubland, hopbush and cholla scrubland, buckwheat bush-jojoba scrubland, saguaro-palo verde scrubland, broadleaf forest and mesquite bosque.

PHYSICAL AND CLIMATIC CONDITIONS

Picketpost Mountain is a distinctive butte rising up from the desert floor about three miles west of Superior, Arizona. The mountain mass includes diverse kinds of lavas and tuffs erupted by a number of volcanos at different

times (Crosswhite, 1984). It also includes a number of sedimentary and metamorphic units. Below the north slope of the mountain is Arnett Creek, an Table 1. Estimated Areas of Vegetation Cover Types of the Picketpost Mountain Research Natural Area.

Type ¹	SAF Type ²	Küchler Type ² ³	Surface Area Acres (Hectares)
Palo verde-cactus shrub	None	K-037	804 (325)
Transition between K-027 and K-031	None	K-028	272 (110)
Grama-tobosa shrubsteppe	None	K-052	44 (18)
			1,120 (453)

¹Muldavin et al., 1986

²Eyre, 1980

³Küchler, 1966

interrupted, perennial stream set within a spectacular canyon environment. Picketpost Mountain RNA includes the entire north slope of the mountain where elevations range from 2,400 feet (731 meters) along Arnett Creek to 4,375 feet (1,334 meters) at the top of the mountain (Figure 3). Slopes are very steep and much of the area is dominated by precipitous cliffs and talus debris, especially at the higher elevations.

Average precipitation at Picketpost Mountain RNA is 17.1 inches (43.4 centimeters) per year, with extremes over a 61-year period being 51% and 202% of normal in 1953 and 1978, respectively. Precipitation is distinctly biseasonal with 49% falling in the cool season (late November to March), 7% falling in an arid pre-summer (April to June), and the remaining 44% falling in late summer and fall (July to early November). Snow has occurred 20 years out of 61, the heaviest snowfall yielding 2.25 inches (5.7 centimeters) of water from what was recorded as 4 inches (10.2 centimeters) of snow.

Temperatures have ranged from 19° to 118° Fahrenheit (7.2° to 47.8° Centigrade). An average year will have 345 days without frost, an annual low of 24° Fahrenheit (4.4° Centigrade) and an annual high of 113° Fahrenheit (45° Centigrade). Through the year the average daily minimum temperature is 53.5° Fahrenheit (11.9° Centigrade) and the daily maximum is 84.3° Fahrenheit (29.1° Centigrade). The average summer maximum, 100.8° Fahrenheit (38.2° Centigrade), is about midway between that of Tucson and Phoenix, 98.3° and 102.2° Fahrenheit (36.8° and 39.0° Centigrade), respectively (Frank S. Crosswhite, Boyce Thompson Southwestern Arboretum State Park, pers. comm.).

DESCRIPTION OF VALUES

Flora. A detailed description of the vegetation of Picketpost Mountain has been described by Crosswhite (1984), a portion of which is summarized here:

The top of Picketpost Mountain is a level mesa which supports a semidesert grassland community dominated by several species of perennial grass *Bouteloua* sp., *Aristida* sp., *Hilaria mutica*, with an open overstory of shrubs such as scrub oak *Quercus turbinella*, desert spoon *Dasylyron wheeleri*, and Palmer's agave *Agave palmeri*. Lehmann lovegrass *Eragrostris lehmanniana*, an exotic grass, is one of the more prevalent grasses due to

experimental revegetation efforts in the 1930's. Below the mesatop, the steep north-facing slope of the mountain supports several cover types.

The upper slope is dominated by Interior chaparral (Pase and Brown, 1982), which is present in several fasciations. Scrub oak is common across much of this upper elevational gradient with netleaf hackberry *Celtis reticulata*, mountain mahogany *Cercocarpus betuloides*, and red-berry juniper *Juniperus erythrocarpa* common on the upper slopes, and jojoba *Simmondsia chinensis* and Arizona rosewood *Vauquelinia californica* common on the lower slopes. This latter species is confined to drainages.

The lower slopes of the north face of Picketpost Mountain and the south slopes of Pancho Plateau, which border Arnett Creek to the south and north respectively, are dominated by several fasciations of Sonoran desert scrub. The most common plants include jojoba, hopbush *Dodonea viscosa*, brittlebush *Encelia farinosa*, buckwheat *Eriogonum fasciculatum*, and several species of cacti, *Cereus* and *Opuntia* spp. Sonoran desert scrub cover types appear to be strongly associated with geology and aspect.

The least extensive cover types are found in the riparian corridor and include deciduous broadleaf riparian forest dominated by Fremont cottonwood and Goodding willow on the lower terraces along Arnett Creek and a microphyllus woodland dominated by velvet mesquite *Prosopis velutina*, catclaw *Acacia greggii*, and netleaf hackberry *Celtis reticulata* on the upper flood terraces.

No threatened or endangered species are known from this site. A plant list was compiled from information provided by Frank Crosswhite, Tim Clark, Chris Kline, William Feldman and an Arizona Native Plant Society field trip conducted in the Picketpost Mountain RNA on April 4 and 5, 1987.

Table 2. An Abbreviated Plant List of Picketpost Mountain RNA.

Scientific name	Common name
TREES:	
<i>Acacia greggii</i>	catclaw acacia
<i>Canotia holacantha</i>	crucifixon thorn
<i>Celtis reticulata</i>	net leaf hackberry
<i>Fraxinus pennsylvanica</i>	velvet ash
<i>Juglans major</i>	Arizona walnut
<i>Plantanus wrightii</i>	Arizona sycamore
<i>Populus fremontii</i>	Fremont cottonwood
<i>Prosopis velutina</i>	velvet mesquite
<i>Salix bonplandiana</i>	Bonpland willow
<i>Salix gooddingii</i>	Goodding willow
<i>Tamarix chinensis</i>	salt cedar
<i>Vauquelinia californica</i>	Arizona rosewood
SHRUBS	
<i>Agave palmeri</i>	agave
<i>Aloysia wrightii</i>	Wright lippa
<i>Ambrosia ambrosioides</i>	canyon ragweed
<i>Ambrosia deltoidea</i>	bursage
<i>Amsonia hirtella</i>	blue star
<i>Atriplex canescens</i>	saltbush
<i>Baccharis salicifolia</i>	seep willow
<i>Baccharis sarathroides</i>	desert bloom

<i>Belaperone californica</i>	chuparosa
<i>Berberis haematocarpa</i>	mahonia
<i>Brickellia californica</i>	brickellia
<i>Calliandra eriophylla</i>	fairy duster
<i>Celtis pallida</i>	desert hackberry
<i>Cercidium microphyllum</i>	foothills paloverde
<i>Cercocarpus betuloides</i>	mountain mahogany
<i>Cereus giganteus</i>	saguaro
<i>Condalia ericoides</i>	graythorn
<i>Crossosoma bigelovii</i>	rhyolite bush
<i>Dalea formosa</i>	feather plume
<i>Dasyllirion wheeleri</i>	desert spoon
<i>Dodonaea viscosa</i>	hopbush
<i>Echinocereous fasciculatus</i> var. <i>boyce-thompsonii</i>	Boyce Thompson hedgehog
<i>Encelia farinosa</i>	brittlebush
<i>Ephedra fasciculata</i>	mormon tea
<i>Ericameria laricifolius</i>	turpentine bush
<i>Eriogonum fasciculatum</i>	
<i>Eriogonum wrightii</i>	
<i>Ferocactus eastwoodiae</i>	compass barrel
<i>Ferocactus wislizenii</i>	fishhook barrel cactus
<i>Fouquieria splendens</i>	ocotillo
<i>Galium stellatum</i> var. <i>eremicum</i>	desert bedstraw
<i>Hymenoclea monogyra</i>	burrobush
<i>Janusia gracilis</i>	
<i>Juniperus erythrocarpa</i>	red berry juniper
<i>Larrea tridentata</i>	creosote bush
<i>Lycium</i> sp.	wolfberry
<i>Mammillaria microcarpa</i>	pincushion cactus
<i>Mammillaria wrightii</i>	Wright pincushion
<i>Nicotiana glauca</i>	tree tobacco
<i>Nolina microcarpa</i>	bear grass
<i>Opuntia bigelovii</i>	teddy bear cactus
<i>Opuntia fulgid</i> var. <i>mammilata</i>	jumping cholla
<i>Opuntia leptocaulis</i>	desert christmas cactus
<i>Opuntia phaeacantha</i>	prickly pear
<i>Psilostrophe cooperi</i>	paper flower
<i>Quercus turbinella</i>	shrub live oak
<i>Rhamnus crocea</i> var. <i>illicifolia</i>	hollyleaf buckthorn
<i>Rhus trilobata</i>	squawbush
<i>Simmondsia chinensis</i>	jojoba

FORBS:

<i>Amsinkia intermedia</i>	coast fiddleneck
<i>Allium macropetalum</i>	wild onion
<i>Anemone tuberosa</i>	
<i>Arabis perennans</i>	
<i>Artemisia ludoviciana</i>	wormwood
<i>Argemone intermedia</i>	prickly poppy
<i>Baileya multiradiata</i>	desert marygold
<i>Calchortus kennedyi</i>	desert mariposa
<i>Castilleja chromsa</i>	paintbrush
<i>Cerastium texanum</i>	
<i>Cheilanthes covillei</i>	
<i>Cheilanthes sinuata</i>	
<i>Cirsium neomexicana</i>	thistle
<i>Claytonia perfoliata</i>	miner's lettuce
<i>Corydalis aurea</i> ssp. <i>occidentalis</i>	
<i>Cryptantha barbigera</i>	popcorn flower
<i>Cryptantha micrantha</i>	purple-rooted cryptantha

<i>Delphinium parishii</i>	larkspur
<i>Dichelostemma pulchellum</i>	brodiaea or blue dicks
<i>Dyssodia pentachaeta</i>	dogweed
<i>Eriastrum diffusum</i>	
<i>Erigeron divergens</i>	spreading fleabane
<i>Erigeron lobatus</i>	fleabane
<i>Erodium cicutarium</i>	filaree
<i>Erysimum asperum</i> var. <i>purshii</i>	western wall flower
<i>Escholtzia mexicana</i>	Mexican gold poppy
<i>Euphorbia melanadenia</i>	prostrate surge
<i>Galium aparine</i>	bedstraw
<i>Gilia flavocincta</i>	
<i>Gilia longiflora</i>	gilia
<i>Graptopetalum rusbyi</i>	
<i>Haplopappus spinulosus</i>	spiny happlopappus
<i>Hibiscus denudatus</i>	
<i>Lesquerella gordonii</i>	Gordon bladderpod
<i>Lesquerella purpurea</i>	purple bladderpod
<i>Lepidium lasiocarpum</i>	pepper grass
<i>Lepidium medium</i>	
<i>Linum texana</i>	Texas toad flax
<i>Lotus rigidus</i>	deer vetch
<i>Lotus tomentellus</i>	deer vetch
<i>Lupinus concinnus</i>	elegant lupine
<i>Lupinus sparciflorus</i>	lupine
<i>Lupinus succulentus</i>	lupine
<i>Marah gilensis</i>	wild cucumber
<i>Marrubium vulgare</i>	horehound
<i>Maurandya antirrhiniflora</i>	snapdragon vine
<i>Melampodium leucanthum</i>	black foot daisy
<i>Melilotus indicus</i>	sweet-clover
<i>Menodora scabra</i>	menoclara
<i>Microseris linearifolia</i>	silver puffs
<i>Mimulus guttatus</i>	monkey flower
<i>Mirabilis bigeloveli</i>	four o'clock
<i>Nama hispidum</i>	nama
<i>Nicotiana trigonophylla</i>	desert tobacco
<i>Notholaena sinuata</i>	wavy cloak fern
<i>Notholaena standleyi</i>	
<i>Oenothera caespitosa</i>	evening primrose
<i>Orthocarpus purpurascens</i>	owl clover
<i>Notholaena sinuata</i>	wavy cloak fern
<i>Penstemon eatoni</i> ssp. <i>exertus</i>	Eaton penstemon
<i>Penstemon microphyllus</i>	beardtounge
<i>Penstemon parryi</i>	parry penstemon
<i>Penstemon pseudospectabilis</i>	mohave beard tongue
<i>Phacelia crenulata</i>	phacelia
<i>Phacelia distans</i> var. <i>australis</i>	wild heliotrope
<i>Phlox tenuifolia</i>	
<i>Pholistoma auritum</i> var. <i>arizonicum</i>	
<i>Phoradendron flavescens</i>	mistletoe
<i>Plantago insularis</i>	wooly plantain
<i>Plantago purshii</i>	pursh plantain
<i>Rorippa nasturtium-aquaticum</i>	water cress
<i>Rumex hymenosepalus</i>	canaigre
<i>Salvia columbariae</i>	chia
<i>Sarcostemma crispum</i>	climbing milkweed
<i>Scutellaria potosina</i>	skull cap
<i>Selaginella arizonica</i>	spike moss
<i>Senecio douglasii</i> var. <i>longilobus</i>	long leaf groundsel
<i>Senecio lemmoni</i>	
<i>Silene antirrhina</i>	sleepy catchfly

<i>Sisymbrium irio</i>	london rocket
<i>Solanum douglasii</i>	nightshade
<i>Sonchus asper</i>	spring sow thistle
<i>Sonchus oleraceus</i>	annual sow thistle
<i>Sphaeralcea ambigua</i> var. <i>rosacea</i>	desert mallow
<i>Stachys coccinea</i>	Texas betony
<i>Triodanis biflora</i>	small venus looking glass
<i>Trixis californica</i>	
<i>Verbena gooddingii</i>	Goodding verbena
<i>Verbena neomexicana</i>	
<i>Verbena plicata</i>	
<i>Veronica anagallis-aquatica</i>	
<i>Vicia exigua</i>	
<i>Zinnia acerosa</i>	desert zinnia

GRASSES AND GRASS-LIKE PLANTS:

<i>Aristida adscensions</i>	six-weeks three-awn
<i>Aristida purpurea</i>	purple three-awn
<i>Aristida ternipes</i>	spider grass
<i>Aristida hamulosa</i>	spider grass
<i>Avena barbata</i>	oats
<i>Bothriochloa barbinodis</i>	cane beardgrass
<i>Bouteloua curtipendula</i>	side oats grama
<i>Bouteloua hirsuta</i>	hairy grama
<i>Bouteloua repens</i>	slender grama
<i>Bromus carinatus</i>	California brome
<i>Bromus mollis</i>	soft chess
<i>Bromus rubens</i>	red brome
<i>Elymus glaucus</i>	blue wild rye
<i>Eragrostis intermedia</i>	plains lovegrass
<i>Festuca eastwoodae</i>	
<i>Hilaria belangeri</i>	curley mesquite
<i>Hilaria mutica</i>	tobosa
<i>Hordeum glaucum</i>	wild barley
<i>Hordeum leporinum</i>	wild barley
<i>Hordeum pusillum</i>	little barley
<i>Lamarkia aurea</i>	golden top
<i>Leptochloa uninervia</i>	Mexican strangletop
<i>Leptochloa dubia</i>	green strangletop
<i>Muhlenbergia rigens</i>	deer grass
<i>Muhlenbergia dumosa</i>	bamboo muhly
<i>Muhlenbergia emeasley</i>	bull muhly
<i>Poa compressa</i>	canada bluegrass
<i>Polypogon monspeliensis</i>	rabbitfoot grass
<i>Sitanion hystrix</i>	squirreltail
<i>Sporobolus cryptandrus</i>	sand dropseed
<i>Sporobolus wrightii</i>	alkali sacaton
<i>Stipa speciosa</i>	desert needlegrass
<i>Vulpia myurosi</i>	foxtail fescue
<i>Vulpia octoflora</i>	six-weeks fescue

Fauna. Table 3 provides an animal list for Picketpost Mountain RNA that was derived from the RUN WILD III computer-stored data base (Lehmkuhl and Patton, 1982) for the Riparian Deciduous Forest biome, Cottonwood-Willow series (223.200), Interior Chaparral biome, *Quercus turbinella* association (323.104) and Sonoran Desert scrub biome, Paloverde-Mixed Cacti series (531.100) for Pinal County, Arizona.

Table 3. Abbreviated Animal List for Picketpost Mountain R.N.A.

Common Name	Scientific Name
BIRDS:	
Barn-owl, Common	<i>Tyto alba</i>
Black-hawk, Common	<i>Buteogallus anthracinus</i>
Bushtit	<i>Psaltriparus minimus</i>
Cardinal, Northern	<i>Cardinalis cardinalis</i>
Chat, Yellow-breasted	<i>Icteria virens</i>
Cowbird, Brown-headed	<i>Molothrus ater</i>
Cuckoo, Yelllow-billed	<i>Coccyzus americanus</i>
Dove, Mourning	<i>Zenaida macroura</i>
Finch, House	<i>Carpodacus mexicanus</i>
Flicker, Northern	<i>Colaptes auratus</i>
Flycatcher, Ash-throated	<i>Myiarchus cinerascens</i>
Flycatcher, Brown-crested	<i>Myiarchus tyrannulus</i>
Flycatcher, Vermilion	<i>Pyrocephalus rubinus</i>
Gnatcatcher, Blue-Gray	<i>Polioptila caerulea</i>
Goldfinch, Lesser	<i>Carduelis psaltria</i>
Grosbeak, Blue	<i>Guiraca caerulea</i>
Ground-dove, Common	<i>Columbina passerina</i>
Hawk, Sharp-shinned	<i>Accipiter striatus</i>
Hawk, Zone-tailed	<i>Buteo albonotatus</i>
Hummingbird, Black-chinned	<i>Archilochus alexaandri</i>
Hummingbird, Broad-tailed	<i>Selasphorus platycercus</i>
Jay, Scrub	<i>Apelocoma coerulescens</i>
Junco, Dark-eyed	<i>Junco hyemalis</i>
Kingbird, Cassin's	<i>Tyrannus vociferans</i>
Kingbird, Western	<i>Tyrannus verticalis</i>
Mockingbird, Northern	<i>Mimus polyglottos</i>
Nighthawk, Lesser	<i>Chordeiles acutipennis</i>
Nuthatch, White-breasted	<i>Sitta carolinensis</i>
Oriole, Northern	<i>Icterus galbula</i>
Oriole, Scott's	<i>Icterus parisorum</i>
Owl, Elf	<i>Micrathene whitneyi</i>
Owl, Great Horned	<i>Bubo virginianus</i>
Owl, Long-eared	<i>Asio otus</i>
Phainopepla	<i>Phainopepla nitens</i>
Phoebe, Black	<i>Sayornis nigricans</i>
Phoebe, Say's	<i>Sayornis saya</i>
Poorwill, Common	<i>Phalaenoptilus nuttallii</i>
Pygmy-owl, Northern	<i>Glaucidium gnoma</i>
Roadrunner, Greater	<i>Geococcyx californianus</i>
Shrike, Loggerhead	<i>Lanius ludovicianus</i>
Sparrow, Black-chinned	<i>Spizella atrogularis</i>
Sparrow, Black-throated	<i>Amphispiza bilineata</i>
Sparrow, Rufous-crowned	<i>Aimophila ruficeps</i>
Starling, European	<i>Sturnus vulgaris</i>
Swallow, Northern rough-winged	<i>Stelgidopteryx serripennis</i>
Tanager, Summer	<i>Piranga rubra</i>
Thrasher, Crissal	<i>Toxostoma dorsale</i>
Titmouse, Bridled	<i>Parus wollwberi</i>
Towhee, Abert's	<i>Pipilo aberti</i>
Towhee, Brown	<i>Pipilo fuscus</i>
Towhee, Rufous-sided	<i>Pipilo erythrophthalmus</i>
Vireo, Bell's	<i>Vireo bellii</i>
Vireo, Solitary	<i>Vireo solitarius</i>
Warbler, Black-throated gray	<i>Dendroica nigrescens</i>
Warbler, Lucy's	<i>Vermivora luciae</i>
Warbler, Orange-crowned	<i>Vermivora celata</i>

Woodpecker, Gila
 Woodpecker, Ladder-backed
 Wood-peewee, Western
 Wren, Bewick's
 Wren, Canyon
 Wren, Rock

Melanerpes uropygialis
Picoides scalaris
Contopus sordidulus
Thryomanes bewickii
Catherpes mexicanus
Salpinctes obsoletus

MAMMALS:

Badger
 Bat, American free-tailed
 Bat, Californica
 Bobcat
 Chipmunk, Cliff
 Cottontail, Desert
 Coyote
 Deer, Mule
 Deer, White-tailed
 Fox, Kit
 Jackrabbit, Black-tailed
 Mouse, Brush
 Mouse, Cactus
 Mouse, Deer
 Pipistrelle, Western
 Raccoon
 Ringtail
 Shrew, Desert
 Skunk, Striped
 Skunk, Western spotted
 Squirrel, Harris' Antelope
 Squirrel, Rock
 Woodrat, White-throated

Taxidea taxus
Tadarida brasiliensis
Macrotis californicus
Felis rufus
Tamias dorsalis
Sylvilagus audobonii
Canis latrans
Odocoileus hemionus
Odocoileus virginianus
Vulpes macrotis
Lepus californicus
Peromyscus boylii
Peromyscus eremicus
Peromyscus maniculatus
Pipistrellus hesperus
Procyon lotor
Bassariscus astutus
Notiosorex crawfordi
Mephitis mephitis
Spilogale gracilis
Ammospermophilus harrisi
Spermophilus variegatus
Neotoma bigula

REPTILES & AMPHIBIANS:

Frog, Leopard
 Garter snake, Black-necked
 Kingsnake, California banded
 Lizard, Clark's spiny
 Lizard, Desert spiny
 Lizard, Regal horned
 Lizard, Side-blotched
 Lizard, Tree
 Lizard, Western whiptailed
 Monster, Gila
 Rattlesnake, Western diamondback
 Snake, Sonoran gopher
 Toad, Red-spotted
 Toad, Woodhouse
 Tortoise, Desert
 Whipsnake, Sonoran

Rana yavapaiensis
Thamnophis cyrtopsis
Lampropeltis getulus californiae
Sceloporus clarki
Sceloporus magister
Phrynosoma solare
Uta stansburiana
Urosaurus ornatus
Cnemidophorus tigris
Heloderma suspectum
Crotalus atrox
Pituophis melanoleucus affinis
Bufo punctatus
Bufo woodhousii
Gopherus agassizii
Masticophis bilineatus

FISHES

Dace, Longfin
 Dace, Speckled
 Sucker, Desert
 Sucker, Sonora
 Sunfish, Green
 Topminnow, Gila

Agosia chrysogaster
Rhinichthys osculus
Pantosteus clarki
Catostomus insignis
Lepomis cyanellus
Poeciliopsis occidentalis

Geology. The top of Picketpost Mountain consists of a layer of resistant lava deposited about 18 million years ago. Picketpost Mountain includes diverse types of Tertiary and Cretaceous age volcanics, predominantly lavas and tuffs. It also contains a number of sedimentary, metamorphic, and intrusive units and some PreCambrian schist in the southeast corner of Section 18 (Crosswhite, 1984).

Soils. The top of Picketpost Mountain is a flat mesa consisting of Typic Haplustalfs, fine loamy, mixed thermic (USDA Forest Service, 1986). The surface is primarily gravelly loam. Side slopes are highly variable and strongly influenced by aspect. Overall, soil development is poor on side slopes as much of the area is dominated by exposed bedrock. Soils in the valley plain are Ustochreptic Calciorthids.

Cultural. Within the Picketpost Mountain RNA, two Classic Period prehistoric Hohokam sites and an historic Civilian Conservation Corps work camp are situated along Queen Creek near the northern boundary. Other sites are not recorded within the boundaries defined, as the enclosed area has not been completely surveyed. Adjacent to Picketpost Mountain RNA, along Arnett Creek and Queen Creek, numerous prehistoric surface features and rock shelters have been reported, plus the historic mining/milling town of Pinal (1877-1891), as noted on the map. It is evident that in the immediate vicinity of Picketpost Mountain RNA, extensive and long-term utilization by humans has occurred both historically and prehistorically.

IMPACTS AND POSSIBLE CONFLICTS

Mineral Resources. There are a number of mining claims within or very near Picketpost Mountain RNA. The only claims with operating plans that provide current exploration operations are the Seattle group and these are outside the boundary area. The majority of mining claims are for perlite. Mining claims on record as of this date are:

Seattle claims-Nord Resources
Magic claims 1, 3-5, 7, 10-15, 23, 24 - Nord Resources
Sil-Flo 4-18 - Nord Resources (may be replaced by Magic claims).
Guzman #2 - Guzman Construction

Grazing. Livestock grazing occurs along Arnett Creek, but the rest of the area is restricted by topography.

Timber. Picketpost Mountain RNA has a very low potential for fuelwood cutting due to the lack of desirable species and inaccessibility.

Watershed. Picketpost Mountain is in the Queen Creek watershed. The majority of Queen Creek's water is held behind Whitlow Dam, whose purpose is for flood control, approximately 8 miles (12.9 kilometers) downstream, where the water evaporates or sinks into the ground. The only impact is the possibility of eliminating livestock access to water in Arnett Creek.

Recreation Values. Recreation use in this area consists of hunting and hiking, both uses are very light. The hiking results primarily from the Boyce Thompson Southwestern Arboretum State Park, located immediately adjacent to the north edge of Picketpost Mountain RNA. The Park holds a special-use authorization for much of the area as a research area.

Wildlife and Plant Values. Picketpost Mountain contains potential habitat for Arizona hedgehog cactus (Federally-listed as endangered), desert bighorn sheep, and desert tortoise. No adverse impacts are expected from establishment of the RNA. Arnett Creek has been proposed as a sanctuary for

native fish, which would require construction of an artificial fish barrier near the confluence with Queen Creek.

Special Management Area Values. There are no proposed designations for this area. The area is very rugged and generally untouched.

Transportation Plans. There are no system roads into the area. There is a potential for unauthorized ORV use along the private property boundaries on the north edge. The area will be posted and closure devices constructed if necessary. No future transportation needs are expected.

Utility Corridor Plans. There are no plans for any utility corridors.

MANAGEMENT PRESCRIPTIONS

Picketpost Mountain RNA is recommended in Management Area 2E (Appendix 1) of the Tonto National Forest Plan. Management emphasis is to provide opportunities for nondisruptive research and education. Use restrictions will be imposed as necessary to keep the area in an unmodified or natural condition.

Vegetation Management. There will be no harvest of forest products including fuelwood and jojoba. Unplanned ignitions will receive appropriate suppression action. Unplanned ignitions outside the area which threaten the area will be suppressed. Picketpost Mountain RNA will be excluded from livestock grazing.

ADMINISTRATIVE RECORDS AND PROTECTION

Administration and protection of Picketpost Mountain RNA will be the responsibility of the Tonto National Forest. The District Ranger, Globe Ranger District, has direct responsibility.

The Director of the Rocky Mountain Forest and Range Experiment Station, will be responsible for any studies or research conducted in the area, and requests to conduct research in the area should be referred to the Director. The Director will evaluate research proposals and coordinate all studies and research in the area with the District Ranger. Records for Picketpost Mountain RNA will be maintained in the following offices:

Regional Forester, Southwestern Region, Albuquerque, NM
Rocky Mountain Forest and Range Experiment Station, Fort Collins, CO
Tonto National Forest, Phoenix, AZ
District Ranger, Globe Ranger District, Globe, AZ

ARCHIVING

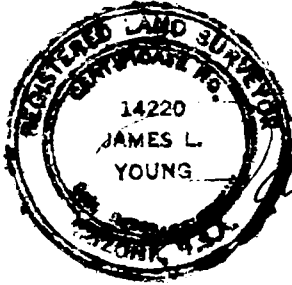
All plant and animal specimens collected in the course of research conducted in the area will be properly preserved and maintained within university or federal agency herbaria and museums, as approved by the Rocky Mountain Station Director.

REFERENCES

Crosswhite, Frank S. 1984. History, geology and vegetation of Picketpost Mountain. Desert Plants 6: 72-127.

- Eyre, R. H., editor. 1980. Forest cover types of the United States and Canada. Society of American Foresters, Washington, D.C.
- Küchler, A. W. 1964. Potential natural vegetation of the coterminous United States. American Geographical Society, Special Publication 36.
- Lehmkuhl, J. F., and D. R. Patton. 1984. Run Wild, Wildlife/Habitat relationships: user's manual for the Run Wild III data storage and retrieval system. USDA Forest Service, Southwestern Region, Wildlife Unit Technical Report.
- Pase, C. P., and D. E. Brown. 1982. 133.3 Interior Chaparral. Pages 95-99 in D. E. Brown, editor. Biotic communities of the American southwest-United States and Mexico. Desert Plants 4(1-4). Special Issue.
- Turner, R. M., and D. E. Brown. 1982. 154.1 Sonoran Desertscrub. Pages 181-221 in D. E. Brown, editor. Biotic communities of the American southwest-United States and Mexico. Desert Plants 4(1-4). Special Issue.
- USDA Forest Service. 1983. Regional guide for the Southwestern Region. USDA Forest Service, Southwestern Region, Albuquerque, New Mexico.
- USDA Forest Service. 1984. Progress report, Research Natural Areas: recommended representations for important ecosystems on National Forest System Land in the Southwestern Region. USDA Forest Service, Southwestern Region, Albuquerque, New Mexico.
- USDA Forest Service. 1985a. Environmental Impact Statement, Tonto National Forest Plan. USDA Forest Service, Southwestern Region, Albuquerque, New Mexico.
- USDA Forest Service. 1985b. Tonto National Forest Plan. USDA Forest Service, Southwestern Region, Albuquerque, New Mexico.
- USDA Forest Service. 1986. Terrestrial Ecosystem Handbook. Appendix B. USDA Forest Service, Southwestern Region, Albuquerque, New Mexico.

I certify the enclosed boundary description of the Picketpost Mountain Research Natural Area was prepared under my direct supervision.



Seal

James L. Young
Forest Land Surveyor

2-18-1993
Date

APPENDIX

The following pages have been reproduced
from the Tonto National Forest Plan.



United States
Department of
Agriculture

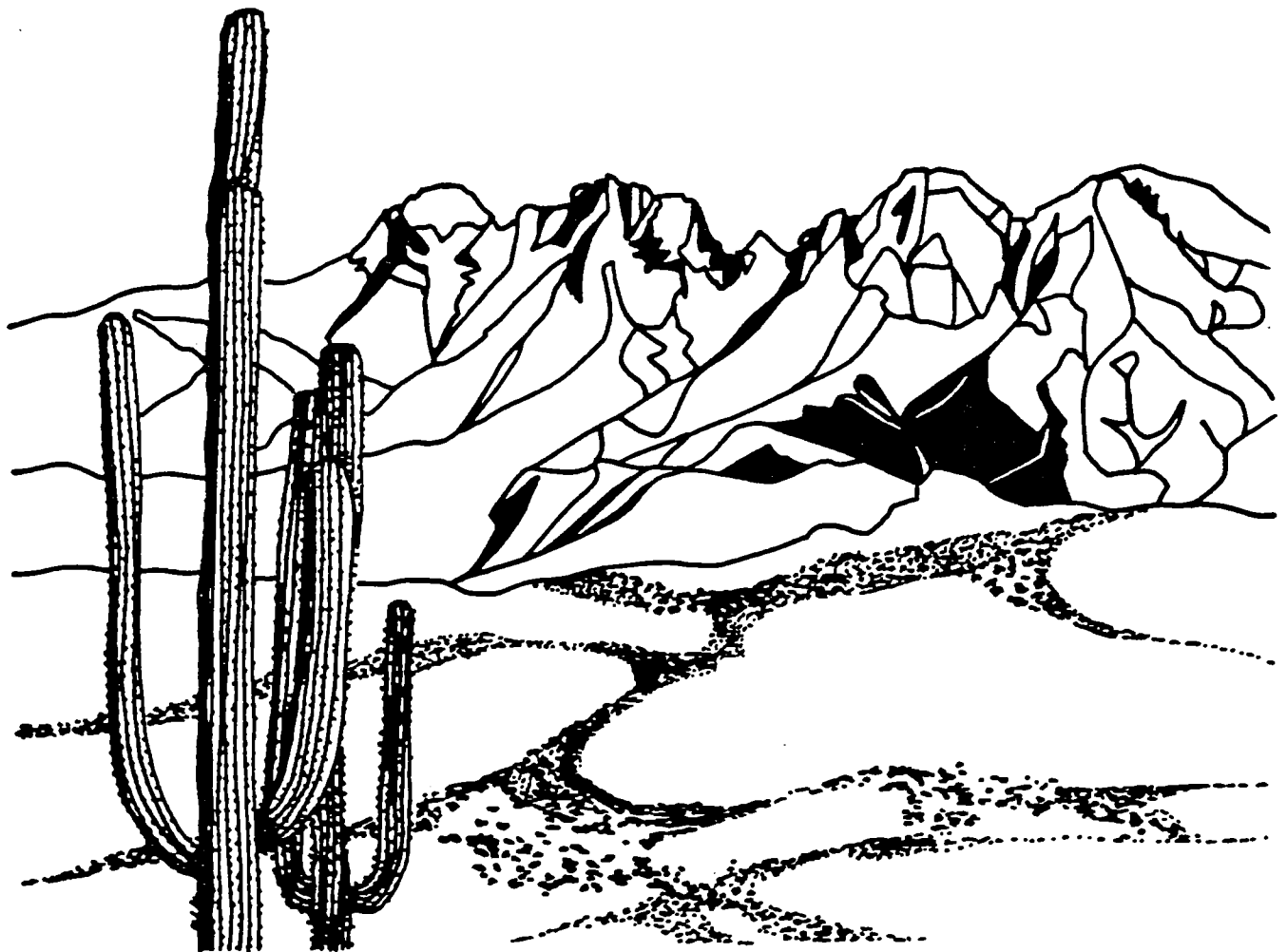
Forest Service

Southwestern
Region

October 1985



Tonto National Forest Plan



Management Prescriptions

MANAGEMENT AREA 2E

Prescription: #12

Description: Picket Post Mountain Research Natural Area located in Sections 7 and 18, Township 2S, Range 12E on the Globe Ranger District. Vegetation consists of 1120 acres of desert type with 43.7% of the area in the 41-80% slope class and 56.3% of the area in the 81%+ slope class. The area is not currently classified as capacity range. Total management area size is 1120 acres.

Analysis Areas: 5205, 5206

Management Emphasis: Manage to provide opportunities for nondisruptive research and education. Use restrictions will be imposed as necessary to keep areas in their natural or unmodified condition. There will be no harvest of forest products, including fuelwood and jojoba.

Wildfires outside the research natural area which endanger the area will be extinguished in an appropriate manner as will person-caused fires within the area. Unplanned ignitions within the area will receive appropriate suppression action.

Timber Suitability: All acres unsuitable.

<u>Decision Units</u>	<u>Activities</u>	<u>Applicable Analysis Areas</u>	<u>Standards and Guidelines</u>			
DU 1, 2	A03	All	Manage for a VQO of preservation.			
	A15	All	ORV use prohibited. Manage dispersed recreation at low intensity - reduced service level. Post all boundaries.			
	A13, A15	All	Manage ROS Classes (see Appendix E) according to existing inventory as follows: <table border="1"> <thead> <tr> <th><u>ROS CLASS</u></th> <th><u>% of MGMT. AREA</u></th> </tr> </thead> <tbody> <tr> <td>SPM</td> <td>100</td> </tr> </tbody> </table>	<u>ROS CLASS</u>	<u>% of MGMT. AREA</u>	SPM
<u>ROS CLASS</u>	<u>% of MGMT. AREA</u>					
SPM	100					
DU 12	C01	5206	Locate and analyze Peregrine Falcon habitat. Document and correct disturbances to, Peregrine Falcons and their habitat.			
DU 16	D02	All	Manage rangeland at Level A, which excludes area from livestock grazing. Little change expected in Range condition in first decade.			
DU 42	J04	All	Process withdrawals for locatable and leaseable minerals by 1988. Issue no surface occupancy stipulations for leasing activities.			
DU 56	P08, P09	All	Unplanned ignitions will receive appropriate suppression action. Wildfires burning outside which threaten area will be suppressed. Rewrite special use permit with Boyce Thompson Arboretum to update clauses, insure conformity with management area objectives, and to coordinate permitted activities with actual on-the-ground administration.			

DESIGNATION ORDER

By virtue of the authority vested in me by the Secretary of Agriculture under regulations 7 CFR 2.42 and 36 CFR 251.23, I hereby establish the Picketpost Mountain Research Natural Area. The Picketpost Mountain Research Natural Area shall be comprised of the following land: Beginning at the N 1/16 (North one sixteenth) corner of section 7

only on the range line between Ranges 11 and 12 East, Township 2 South;

THENCE, east on the south line of Lot 1 of said Section 7 approximately 0.23 miles to the NW 1/16 corner of Section 7;

THENCE, north on the east line of said Lot 1, approximately 0.125 miles to the C-N-NW 1/64 corner of said Section 7;

THENCE, east on the south line of the N 1/2 N 1/2 N 1/2 of said Section 7 for approximately 0.75 miles to the N-N 1/64 corner of Sections 7 and 8;

THENCE, south on the section line of said Sections 7 and 8 for approximately 0.45 miles to the top of a precipice on the south side of a ridge bearing generally NW and SE and overlooking Arnett Creek, at a contour elevation of 2800 feet;

THENCE, southeasterly and northeasterly on the top of said precipice for approximately 0.12 miles;

THENCE, N 10°E for approximately 300 feet to the 2640-foot contour line at the base of said precipice;

THENCE, generally southeasterly on said 2640-foot contour line at base of the precipice for approximately 0.42 miles;

THENCE, S 55°W across Arnett Creek, approximately 400 feet to the 2600-foot-contour line at the base of the NE side of Picketpost Mountain;

THENCE, southeasterly on said 2600-foot contour line for approximately 0.30 miles;

THENCE, S 40°E for approximately 250 feet to the 2800-foot contour line on the top of a precipice of Picketpost Mountain overlooking Arnett Creek;

THENCE, easterly, southerly, and southwesterly on the 2800-foot contour line of said precipice overlooking first Arnett Creek, then Telegraph Canyon, for approximately 0.72 miles to a point in a wash, draining east into Telegraph Canyon;

THENCE, west on a straight line for approximately 0.33 miles to the 3200-foot contour line on the east side of Picketpost Mountain;

THENCE, southwesterly, westerly, and northwesterly on said 3200-foot contour line generally along the base for approximately 1.48 miles to the base of a precipice on the west side of Picketpost Mountain.;

THENCE, northwest continuing on the base of said precipice for approximately 450 feet to the 3000-foot contour line;

THENCE, generally northerly on the 3000-foot contour line generally along the base of precipices for approximately 0.74 miles to a point on a ridge which extends NW-SE;

THENCE, northwesterly on said ridge, for approximately 0.09 miles to a point on the north side of a small knoll, with a shown elevation of 2918 feet, at contour elevation of 2880 feet, THENCE, northwesterly down a small ridge for approximately 0.29 miles to the intersection with a small dry wash draining NW; THENCE, N 08°W across an unnamed intermittent stream and up a small ridge for approximately 0.16 miles to a summit with a shown elevation of 2487 feet; THENCE, N30°W approximately 0.11 miles to the intersection with the thread of said intermittent stream; THENCE, northerly on the thread of said stream for approximately 150 feet to the intersection with the south line of the patented N 1/2 N 1/2 N 1/2 of Section 12, T.25, R.11E; THENCE, east on the south line of said patented land for approximately 0.32 miles to the N-N 1/64 corner of Section 12 only on the Range line between Ranges 11 and 12 east; THENCE, south on the section line between sections 12 and 7, for approximately 0.13 miles to the N 1/16 corner of Section 7 only and the point of beginning.

Regional Forester, Sotero Muniz, recommended the establishment of the Picketpost Mountain Research Natural Area in the Tonto National Forest Land and Resource Plan. That recommendation was the result of an analysis of the factors listed in 36 CFR 219.25 and Forest Service Manual 4063.41. The results of the Regional Forester's analysis are documented in the Final Environmental Impact Statement for the National Forest Land and Resource Management Plan and the Establishment Record which are available to the public.

The Picketpost Mountain Research Natural Area will be managed in compliance with all relevant laws, regulations, and manual direction regarding Research Natural Areas. The Picketpost Mountain Research Natural Area will be administered in accordance with the management direction identified in the Establishment Record.

The Tonto National Forest Land and Resource Management Plan is hereby amended to be consistent with the management direction identified in the Establishment Record and this designation order. Directions on pages__ of the Tonto National Forest Land and Resource Management Plan are replaced by the directions on pages__ of the Establishment Record. This direction will remain in effect unless amended pursuant to 36 CFR 219.10. This is a nonsignificant amendment of the Tonto National Forest Land and Resource Management Plan.

The Forest Supervisor of the Tonto National Forest shall notify the public of this amendment and will mail a copy of the Designation Order and amended direction to all persons on the Tonto Land and Resource Management Plan mailing list.

Based on the environmental analysis documented in the National Forest Land and Resource Management Plan and the Establishment Record I find that the designation of the Picketpost Mountain

Research Natural Area is not a major federal action significantly affecting the quality of the human environment.

This decision is subject to appeal pursuant to 36 CFR 211.18. A Notice of Appeal must be in writing and submitted to:

Chief
USDA, Forest Service
P.O. Box 96090
Washington, D.C. 20013-6090

The Notice of Appeal must be submitted within 45 days form the date of this decision. Within five days of receipt, the Chief will transmit the Notice of Appeal and a copy of the Designation order to the Secretary of Agriculture for review at the Secretary's discretion. The appeal will be deemed denied if the Secretary takes no action within ten days of receiving the appeal.

Chief

Date



Reply to: 4060 Research Facilities

Date: November 1, 1982

Subject: Proposed Research Natural Area-Tonto N.F.

To: RNA Committee

Enclosed is our report and recommendations upon reviewing the proposed RNA program for the Tonto National Forest. The field review was conducted July 26-30, 1982, by Larry Schmidt, Will Moir, and Dave Stewart plus various district staff of the Tonto National Forest. We feel that Dave Stewart did an outstanding job in preparing for and conducting this review with us. It is clear that the Tonto's staff has good understanding of the Federal Research Natural Area program and the contributions that RNA lands can make to improved forest management.

We sincerely appreciate the efforts of the Tonto's staff in making this a successful review.

LARRY SCHMIDT
RNA Task Group Leader

Enclosure



Picketpost Mountain RNA

Ecosystems: 154.12 Paloverde-Mixed cact;; 223.21 Cottonwood-willow

Picketpost Mountain recommended RNA contains excellent examples of Sonoran desert in many of its varied plant community associations on foothill and piedmont topography. The eastern piedmont, bounded by cliffs along Telegraph Canyon and Arnett Creek, represents the Sonoran desert on gentle upland slopes typical of grazing land within this Region (e.g. the Superior Allotment). Along Arnett Creek is a fine stretch of permanent-flowing desert riparian gallery forest.

Approximately 250,000 acres of Sonoran desert occur on National Forest lands, mostly in the Tonto N.F. (Terrestrial Ecosystem Survey). This comprises a wide span of environments, whose gradients ranging from hyperthermic (near Granite Reef) through the entirety of the thermic temperature regimes, result in a broad diversity of desert vegetation. This recommended RNA contains examples of such desert vegetation near the limiting cold temperature boundary of the Saguaro cactus distribution. Because of the varied topography and soils, the numerous microenvironments around Picketpost Mountain display many Sonoran desert communities within a relatively small acreage. The flat summit of Picketpost Mountain, about 4300 feet elevation, is essentially steppic rather than desertic (gradient 28 of Terrestrial Ecosystem Survey).

The ecosystems within the proposed boundary (see map) contribute to Region 3's Sonoran desert requirement along this portion of the Sonoran environmental gradient. Since these major ecosystems are not yet represented within the Southwest's natural area system, Picketpost Mountain as an RNA-designate addresses one of our critical deficiencies.

Some further reasons for designation as a research natural area are:

1. Most of the area is minimally disturbed by past or ongoing activities of man (or his livestock). A major acreage has been under a non-grazing special use permit to the Boyce Thompson Arboretum.

2. The area is ideal for research and educational purposes as an adjunct function and purpose of the Boyce Thompson Arboretum.

3. Public interest in this area as a gene pool for Sonoran flora (especially cacti) and fauna is high.

4. There is a minimum of land use conflicts with the research natural area designation. Although active mining activities border much of the area, there are no claims or proposals within the suggested boundary. Much of the steep topography is also beyond any ordinary livestock grazing practicality.

For all the above reasons, the Research Natural Area Task Force recommends Picketpost Mountain as a RNA.

Supplemental Information. Boyce Thompson Arboretum has vegetation and geologic maps of the area. Their professional staff would be excellent cooperators for stewardship and management of the area consistent with objectives of the Federal Research Natural Area policies.

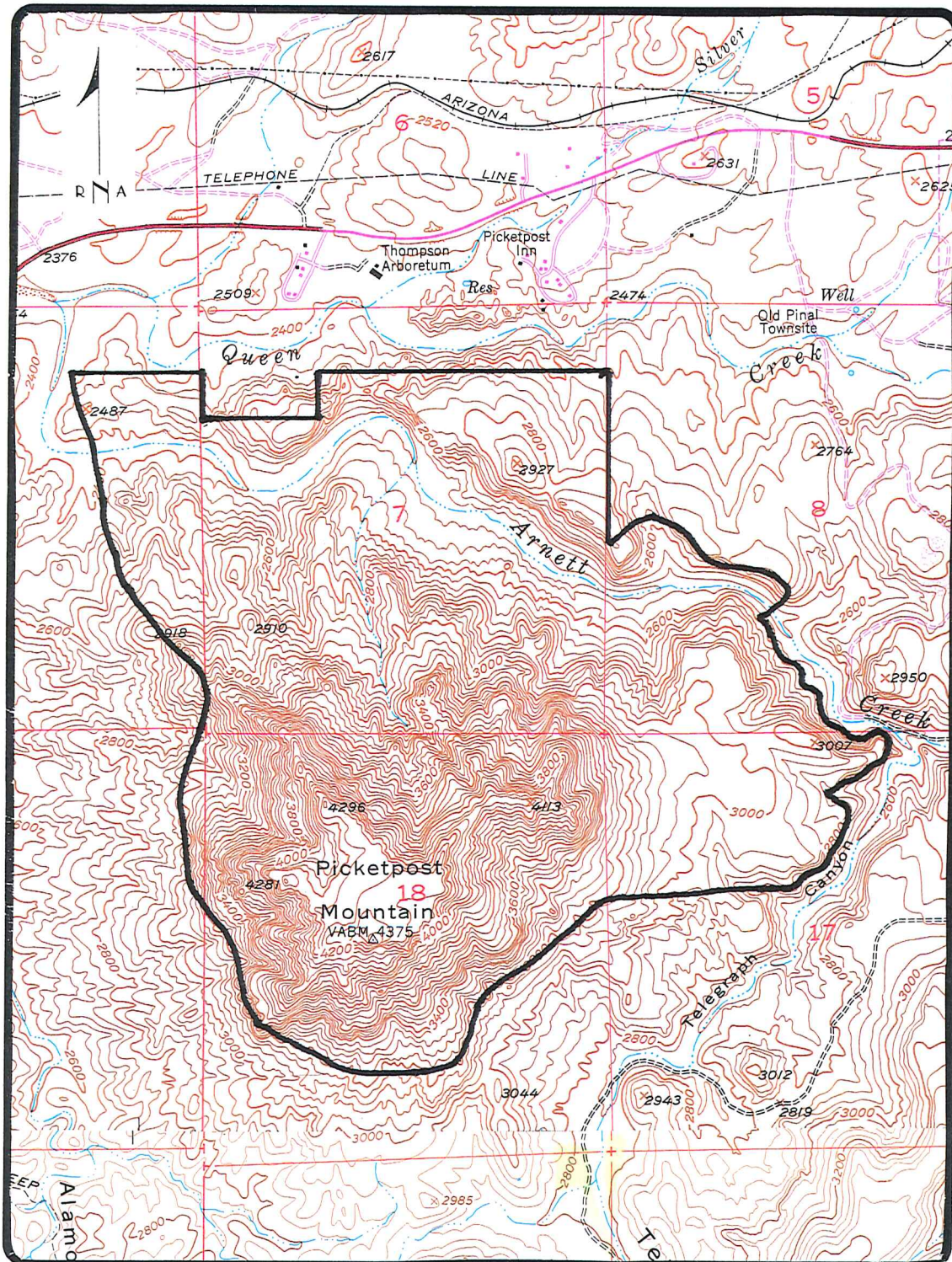


Figure 3. Boundary map of Picketpost Mountain Research Natural Area, Arizona, with elevations shown in feet. Scale: 2.64 inches=1 mile (42 millimeters=1 kilometer).

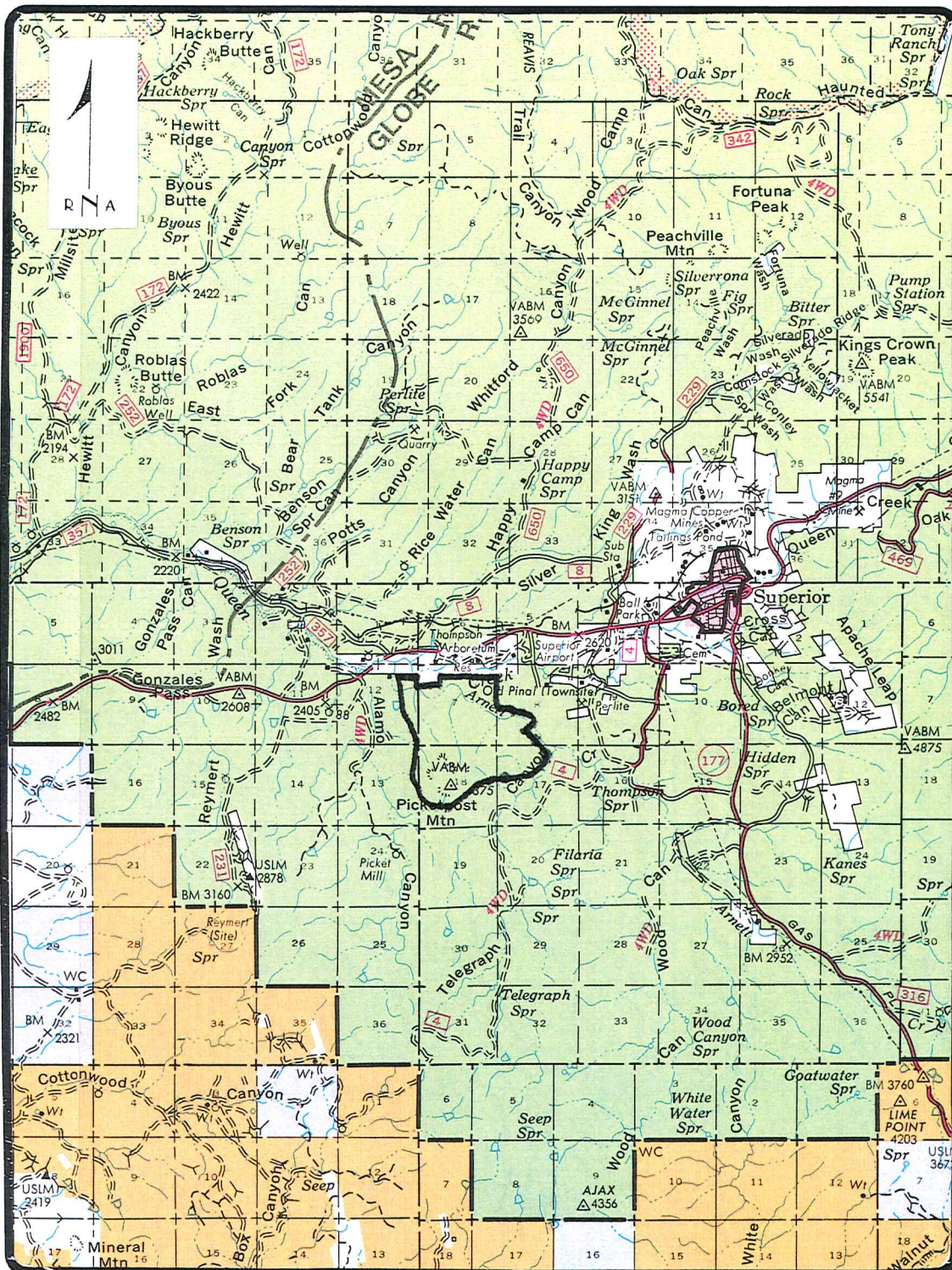


Figure 2. Vicinity map of Picketpost Mountain Research Natural Area, Arizona, showing recommended access. Scale: 1 inch=2 miles (1 centimeter=1.27 kilometers).

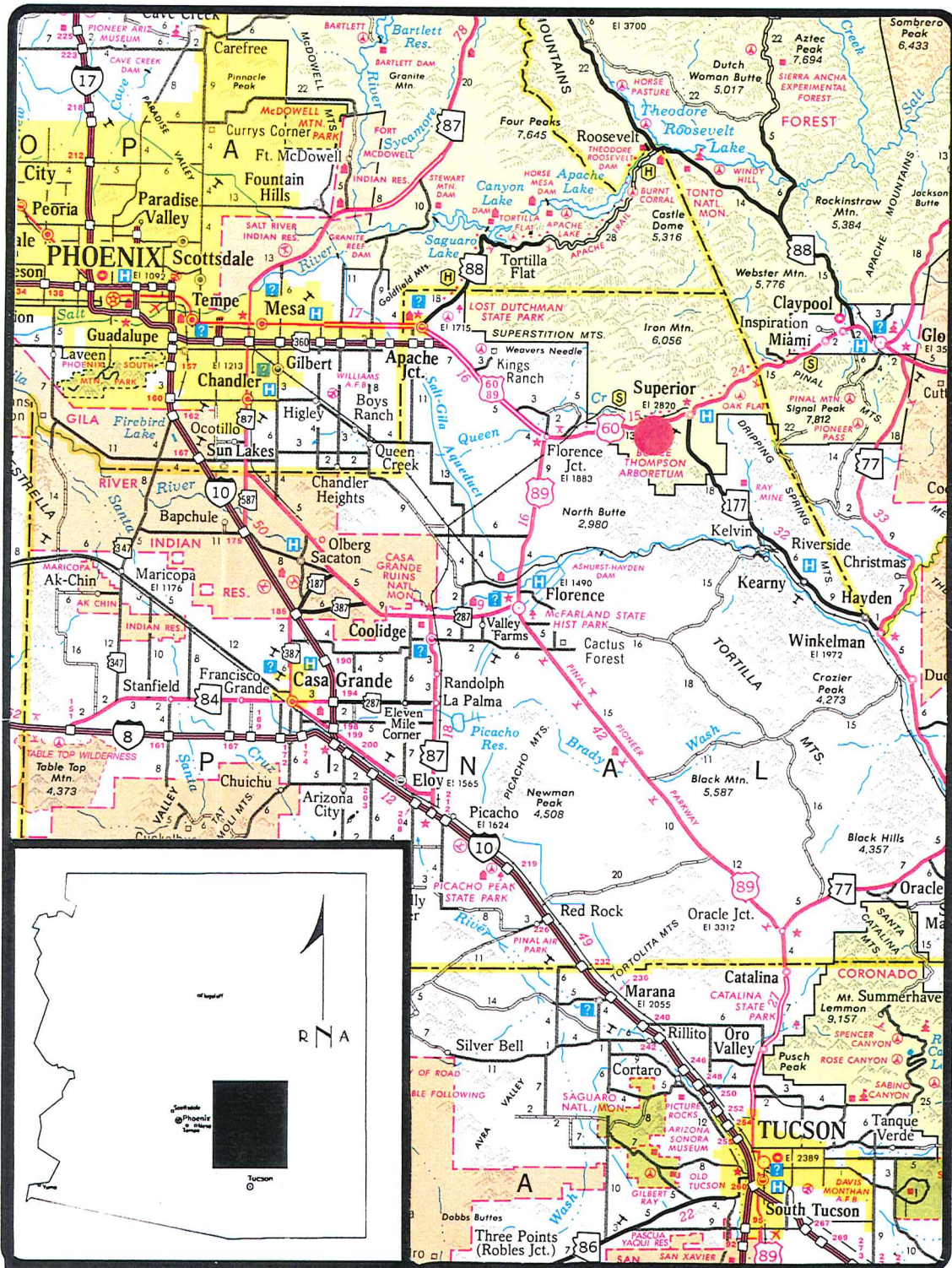



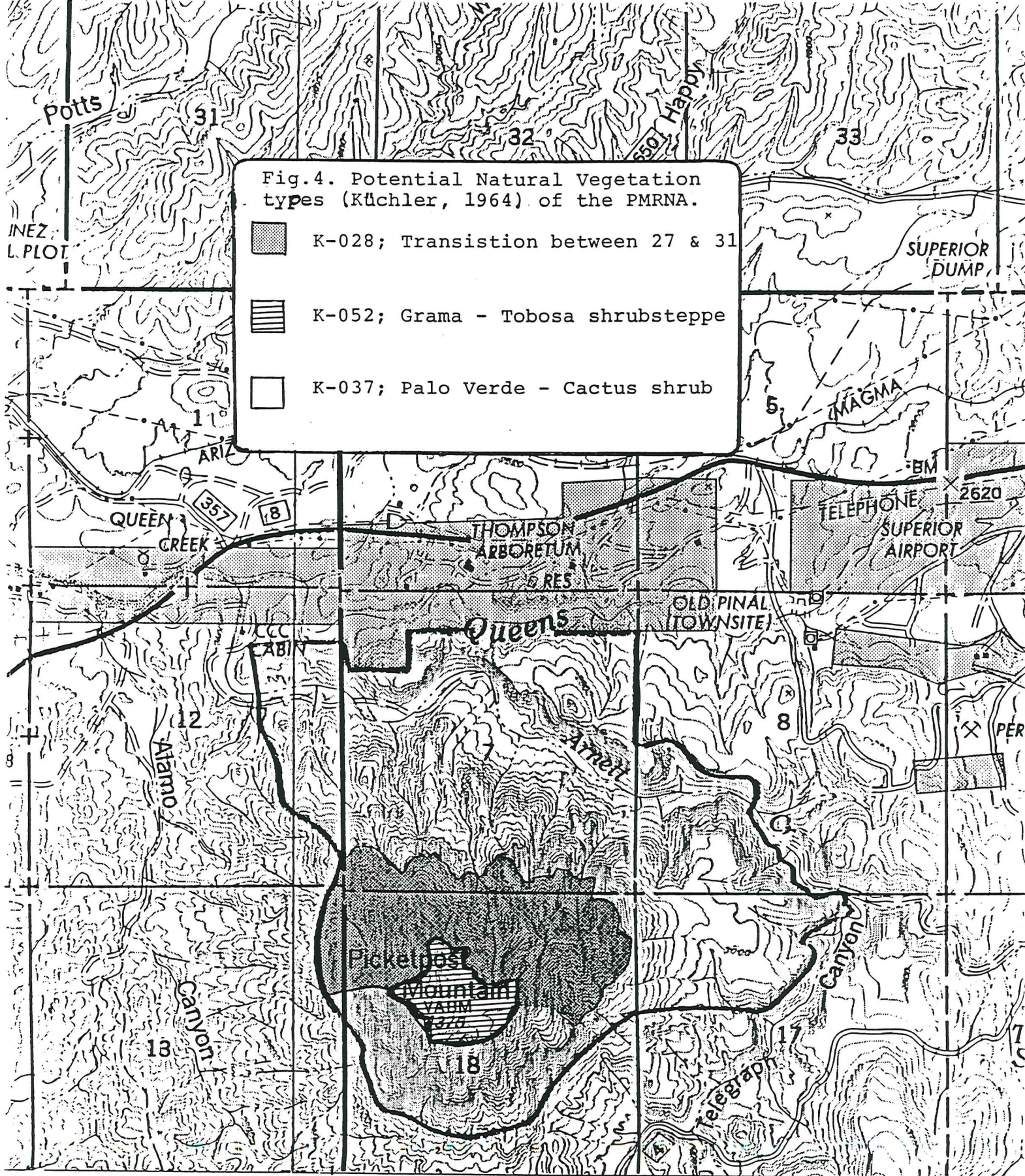


Figure 1. General location of Picketpost Mountain Research Natural Area, Arizona, showing nearby cities. Scale: 1 inch=16 miles (1 centimeter=10 kilometers).

Fig.4. Potential Natural Vegetation types (Küchler, 1964) of the PMRNA.

-  K-028; Transition between 27 & 31
-  K-052; Grama - Tobosa shrubsteppe
-  K-037; Palo Verde - Cactus shrub



USDA FOREST SERVICE	Photographer	Date Submitted
PHOTOGRAPHIC RECORD See FSM 1643.52)	Headquarters Unit	Location

Initial Distribution of Prints and Form 1600-1:

WO RO DIV. FOREST DISTRICT PHOTOGRAPHER Date _____

INSTRUCTIONS: Submit to Washington Office in quadruplicate. Permanent numbers will be assigned and the forms will be distributed as follows; (1) Washington Office; (2) RO or Station; (3) Forest or Center and; (4) Photographer.

Photograph Number	Selected for W.O. Photo Library	Date of Exposure	Location (State, Forests District, County)	Concise Description of View
(1)	(2)	(3)	(4)	(5)
1			Picketpost Mountain RNA	Picketpost Mountain from the North. Picketpost is isolated in the center background. Photo by Reggie Fletcher 4/14/80.
2				Typical rugged Sonoran desert community of picketpost RNA. Photo by Andy Laurenzi 4/87.
3				Picketpost Mountain Photo by Andy Laurenzi 4/87.
4				Arnett Creek - Photos by Andy Laurenzi, 4/87