

ESCUDILLA MTN. RNA; Alpine Ranger District

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Gila and Salt River Base Meridian, Apache County, Arizona

Township: T. 6 N., R. 31 E.

Section 6 - Lots 1, 2, 3, 4 & 5,
SE 1/4 NW 1/4,
S 1/2 NE 1/4,
E 1/2 NE 1/4 SW 1/4,
SE 1/4.

Section 7 - Lots 2 & 3,
E 1/2 NE 1/4 NW 1/4,
W 1/2 SE 1/4 NW 1/4,
NE 1/4 SE 1/4 NW 1/4,
N 1/2 NE 1/4,
SE 1/4 NE 1/4,
N 1/2 SW 1/4 NE 1/4,
NW 1/4 NE 1/4 SW 1/4.

Township: T. 7 N., R. 31 E.

Section 31 - Lots 2, 3 & 4,
SE 1/4 NW 1/4,
SW 1/4 NE 1/4,
S 1/2 SE 1/4 NE 1/4,
SE 1/4,
E 1/2 SW 1/4.

ACREAGE: Approximately 909 acres (ForPlan) bounded by natural features, and described by a Meets and Bounds Description. Approximately 1200 acres with linear boundaries as described in the Aliquot Part Description above.

MESSAGE SCAN FOR REGGIE A. FLETCHER

To r.fletcher:r03a
CC d.barber

From: DOUG BARBER:R03F01A

Postmark: Mar 16,94 11:58 AM

Delivered: Mar 16,94 11:54 AM

Subject: Forwarded: AliquotRNAs

Comments:

From: DOUG BARBER:R03F01A

Date: Mar 16,94 11:58 AM

You might want to retain a copy of this in the file in case we ever want to go for mineral withdrawal in the future. Tom Subirge put in a lot of time delineating these boundaries, and I'd hate to lose them.

-----X-----

LEGAL DESCRIPTIONS FOR RECOMMENDED RESEARCH NATURAL AREAS
APACHE-SITGREAVES NATIONAL FOREST

The Research Natural Areas referred to in the Forest Land Management Plan (pg. 203) which are in "recommended" status are: Escudilla Mtn. RNA, Hayground Creek RNA, North Fork of Thomas Creek RNA, and Wildcat Canyon RNA.

In case mineral withdrawal is desired on these respective areas, the following Aliquot Part Descriptions describe each respective RNA. The natural boundaries originally proposed are nearly all included within the Aliquot Part Descriptions. The greater acreage figures reflect additional area surrounding the natural boundaries and extending to the nearest fractional section lines.

JAMES MUTH
Forest Land Surveyor

November 29, 1993



Ready to 4060 Research Facilities

Date: September 26, 1983

Subject: Apache-Sitgreaves Research Natural Area (RNA) Review

To: Don Renton, RNA Committee Chairman

On August 29-September 2, 1983, Earl Alden and Will Moir of the RNA Task Group worked with Gary Davis on the Apache-Sitgreaves (A/S) Forest to review a number of candidate area for inclusion into the Region 3 RNA program. The areas examined were indicated as possibilities by the Forest and its Ranger Districts, and there were some differences in priorities from the Forest and Regional perspective. Since the A/S was the last Forest to be reviewed in Region 3, we had a fair idea of the gaps and deficiencies in the ecosystem representation of our RNA program. We consider the four following areas to have the highest priority in helping fulfill the needed ecosystems in Region 3:

1. North Fork Thomas Creek

This area contains a pristine example of the Picea engelmannii/Senecio cardamine habitat type. The proposed area has a long history (18 years) of watershed and silvicultural research. It was first suggested as a possible RNA in 1973 as byproduct of a forest habitat type contract underwritten by Region 3 and the Rocky Mountain Station. At the time of that proposal, the area was already receiving considerable research. The North Fork was programmed to become a watershed and silvicultural treatment once instrumentation and calibration were completed. This is no longer a problem so far as maintaining the North Fork as a natural area. Today, the Forest Service has a sizeable investment in research here. We feel that maintenance of this pristine stand and its watershed instrumentation will provide numerous future benefits to forest management through research. The Picea engelmannii/Senecio cardamine ecosystem is a very important timber, wildlife, and recreation management concern in the Alpine Ranger District. Such an RNA comprising about 500 acres, more or less, should yield good management returns in future years and in the meantime serve as an old-growth habitat for wildlife management.

2. Escudillo Mountain

A special management unit has been designated by the A/S planners atop Escudillo Mountain. This unit is mostly fenced and withdrawn from the timber base. It contains three mountain parks (or meadows surrounded by forest) which, because of distance from water, have received very light use by livestock over past years. In the aggregate these meadows comprise perhaps 500 acres. We found these meadows generally in excellent condition. The southerly slopes of Profanity Ridge have a Festuca arizonica - Muhlenbergia montana ecosystem; the middle meadow contains appreciable Deschampsia caespitosa in wetter depressions; and the third meadow north of the Lookout is dominated by Festuca thurberi, which to our knowledge is the only such community in Arizona of a type widespread in New Mexico and Colorado.



Collectively these meadow ecosystems span a variety of types within our "mountain bunchgrass" range type. None of these ecosystems are presently within the RNA network to any significant degree. Because of their importance in high elevation grazing programs in the Southwestern Region, the Regional RNA Committee has identified such grassland ecosystems to be one of their critical and priority needs. We strongly recommend this area as an RNA-designate with the Forest Plan. Such designation will be compatible with the area's special management unit prescription.

Boundaries should include the forested areas that adjoin the meadows, since forest-meadow dynamics is both of research and management interest. We suggest that a fence at about the 10,000-foot contour on the south end of this unit (above the watered portions of Toolbox Draw) would effectively exclude livestock.

3. Hay Ground Creek (West Fork Black River tributary).

This area (for proposed boundaries see map) has two strong reasons for recommendation as an RNA. Blue spruce (Picea pungens) has been nationally identified as a gap in ecosystem representation within the RNA program; and Region 3 has indicated need for a representation in Arizona of a blue spruce RNA, since this is one of its major timber management types. The second reason concerns optimal habitat and populations of Allium gooddingii - on the Regional sensitive species list and strong candidate for Federal listing as a threatened and endangered species.

The suggested boundaries include about 330 acres. We feel that there should be at least one mile of stream stretch within the proposed RNA. An optional but desirable inclusion (indicated by the dotted boundary) is suggested for control of water quality about ¼ mile upstream of the main canyon area. Generally, the boundary follows the topographic canyon break. However, the Task Group thought it to be important that at least some upland blue spruce ecosystem be included. We suggest this be accommodated by making some boundary along the road in Section 12.

We point out that this area contains at least three distinctive blue spruce habitat types. The northerly canyon slopes (where Allium gooddingii abounds, along with its streamside habitat) are mostly Engelmann spruce forest with blue spruce as an infrequent seral tree.

4. Wildcat Canyon

A minimally disturbed pinyon-juniper (P-J) woodland that we examined south and east of Wildcat Canyon (section 2 and 11 of R 15 E, T 13 N) addresses one of Region 3's foremost deficiencies in its present RNA program. As previously mentioned in our letter to the A/S (ltr 25 May 1982, 4060) our P-J woodland in the Region is so heavily utilized that location of a satisfactory example for research is extremely difficult. The ecosystem examined is on sandstone and limestone rock. It is a Pinus edulis - Juniperus osteosperma/Cowania mexicana/Bouteloua gracilis habitat type.

ESCUDILLA MOUNTAIN
R.N.A.
APACHE-SITGREAVES NATIONAL FOREST

Beginning at a point on the east line of Section 31, T.7 N., R.31 E., G.S.R.M., from which point the east 1/4 corner of said Section 31 bears South, a distance of 210 feet.

Thence South, along the east line of said Section 31 to the southeast corner of Section 31, which is common with the northeast corner of Section 6, T.6 N., R.31 E., G.S.R.M.

Thence South, along the east line of said Section 6 to the southeast corner of Section 6, which is common with the northeast corner of Section 7, T.6 N., R.31 E., G.S.R.M.

Thence South, along the east line of said Section 7 a distance of 2510 feet, from which point the east 1/4 corner of Section 7 bears South, a distance of 195 feet.

Thence N71° W, a distance of 1655 feet.

Thence N80° W, a distance of 1490 feet.

Thence S10° W, a distance of 1275 feet.

Thence S41° W, a distance of 550 feet.

Thence N87° W, a distance of 600 feet.

Thence N34° W, a distance of 1595 feet.

Thence N80° E, a distance of 1605 feet.

Thence N30° E, a distance of 2780 feet.

Thence N33° W, a distance of 2500 feet.

Thence N63° W, a distance of 1415 feet.

Thence N34° E, a distance of 835 feet.

Thence N10° W, a distance of 1310 feet.

Thence N26° W, a distance of 1550 feet.

Thence N25° E, a distance of 2005 feet.

Thence N74° E, a distance of 1430 feet.

Thence S71° E, a distance of 1510 feet.

Thence S78° E, a distance of 1520 feet to the point of beginning.

The described Escudilla Mountain R.N.A. contains 970 acres more or less.

The intent of this description is to identify the Escudilla Mountain R.N.A., as would be identified by a survey.

The above description was produced from information identified on the USGS Alpine NE Quad Map.

This description was prepared for Forest Service use in the preparation of R.N.A. documents

The above description for the Escudilla Mountain R.N.A., has been reviewed by me for use in an area designation. The legals are acceptable as presented, and no potential problems were noted during my review.

Douglas J. Williams
For Regional Land Surveyor

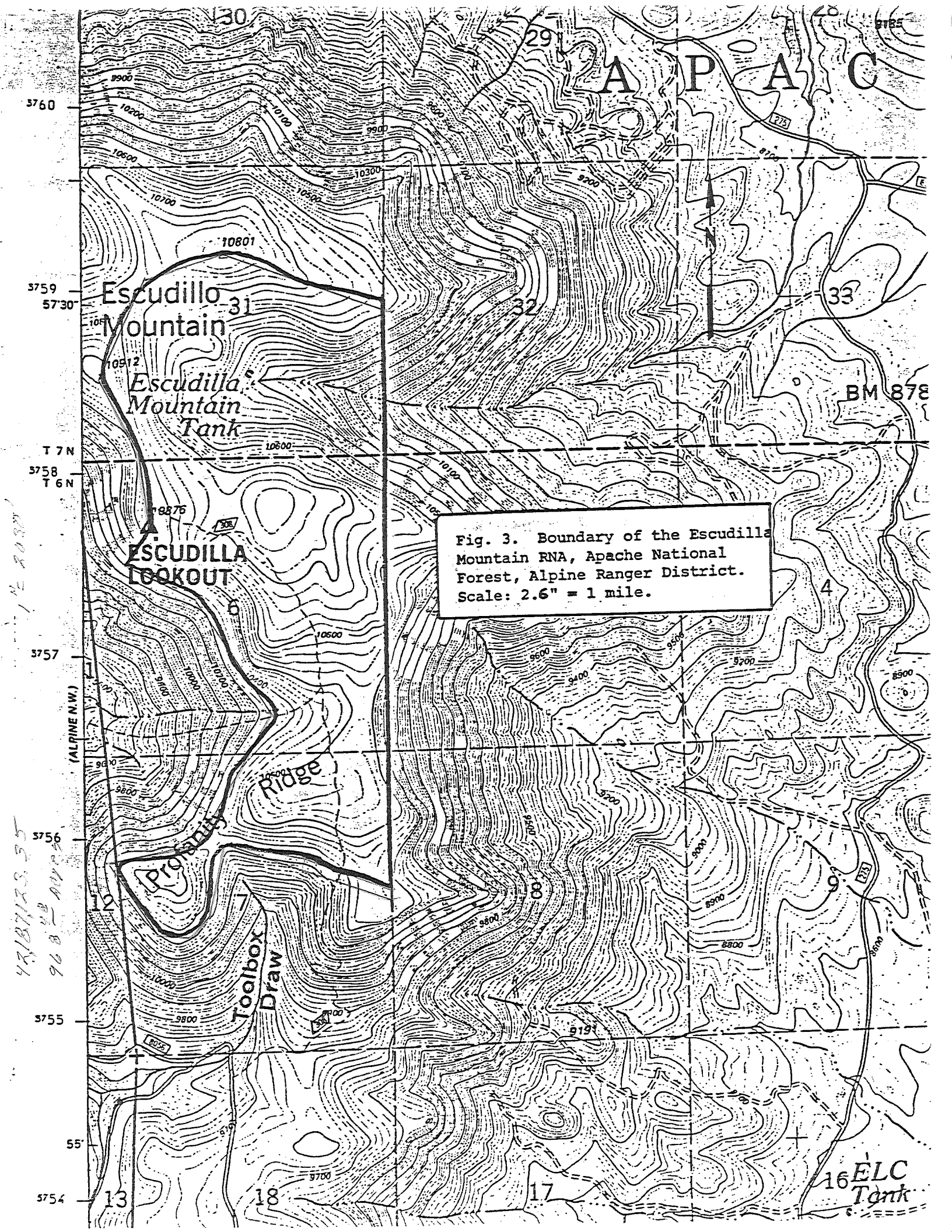


Fig. 3. Boundary of the Escudilla Mountain RNA, Apache National Forest, Alpine Ranger District. Scale: 2.6" = 1 mile.

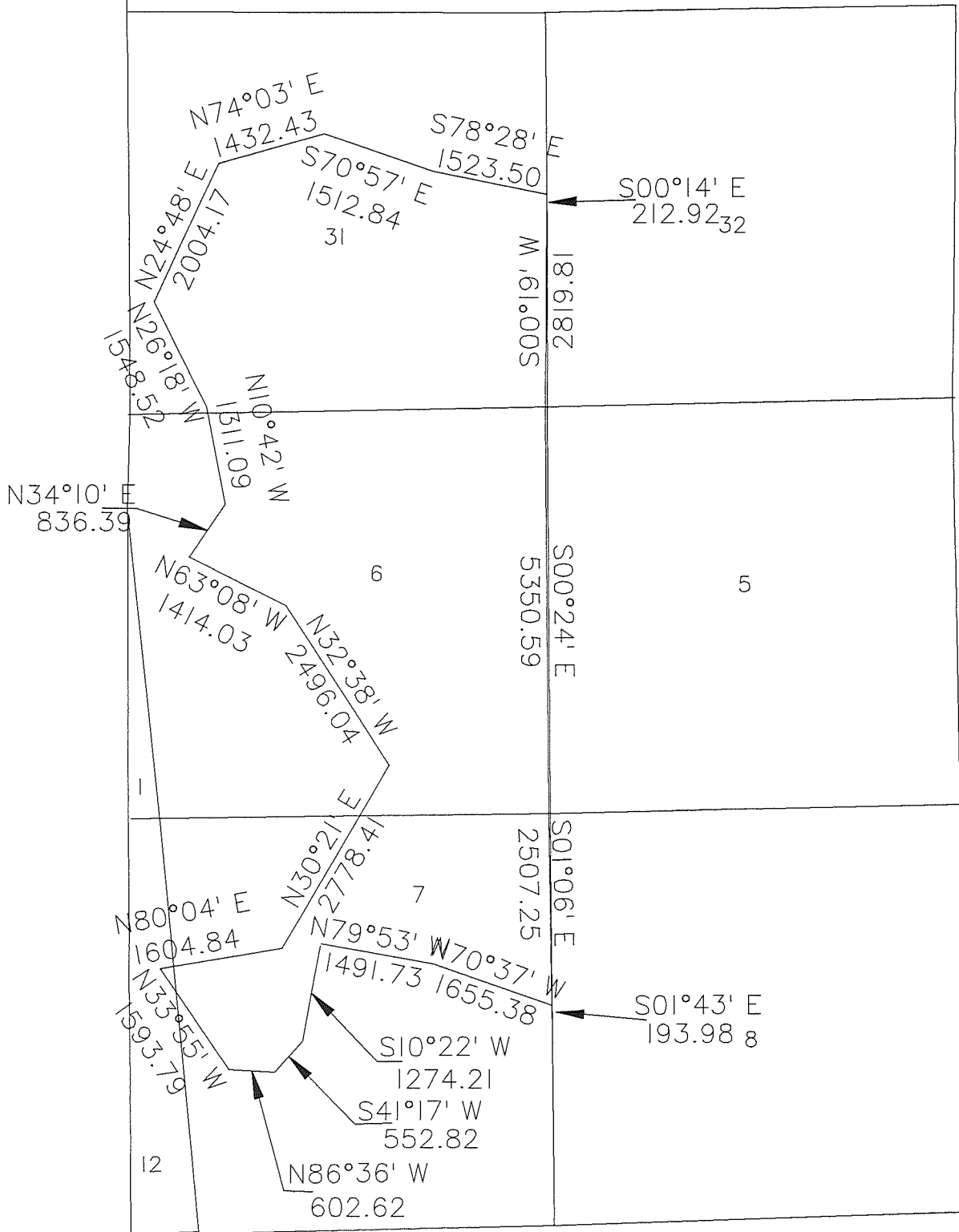
12 2030
42187123.35
968 22 402 25

(ALPINE N.W.)

16 ELC Tank

ESCUDILLA MTN. RNA

968 acres



Scale 2.6" = 1 mile
(1" = 2030')

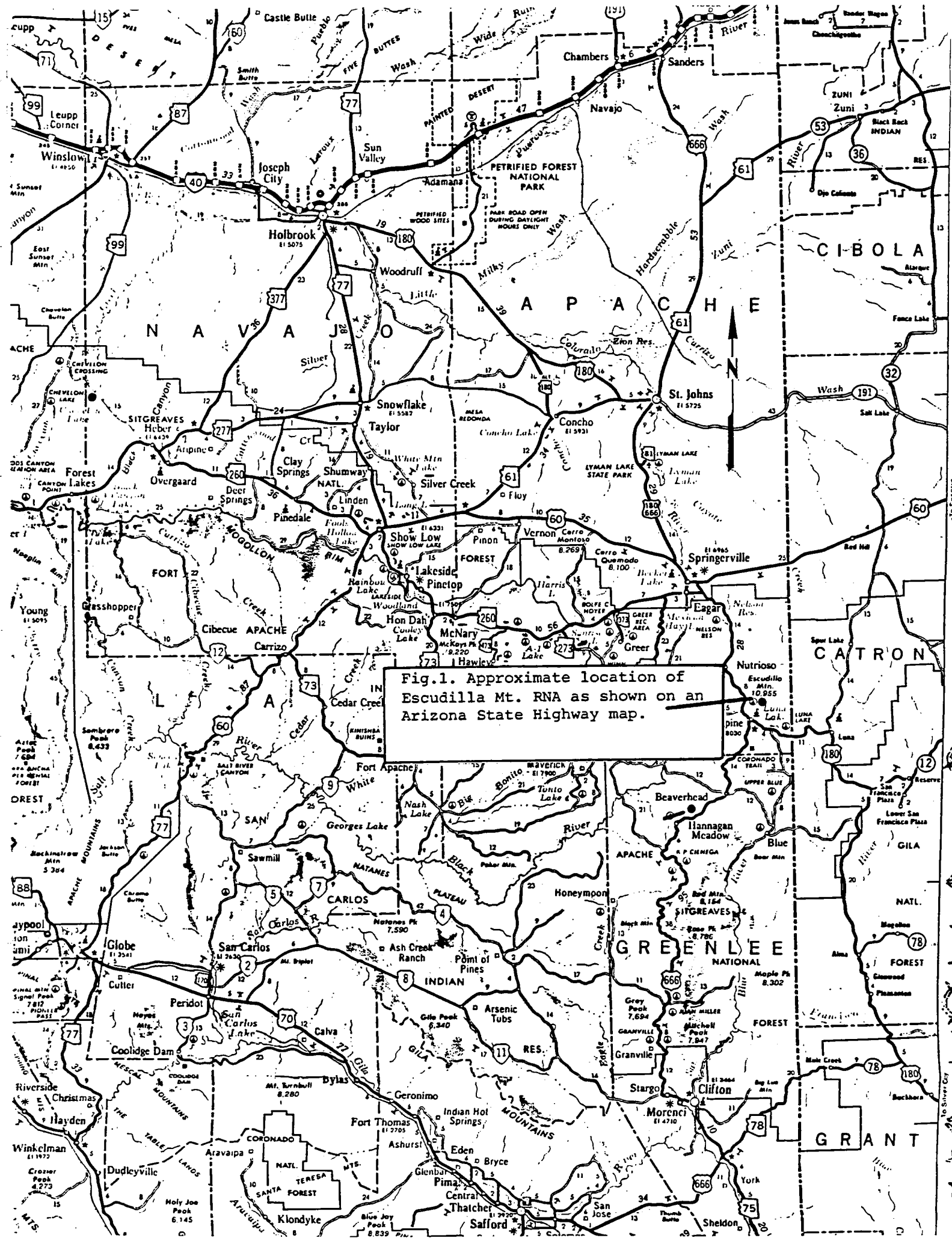


Fig.1. Approximate location of Escudilla Mt. RNA as shown on an Arizona State Highway map.



Fig. 2. Escudilla Mountain RNA on Apache-Sitgreaves National Forest map, Alpine Ranger District.

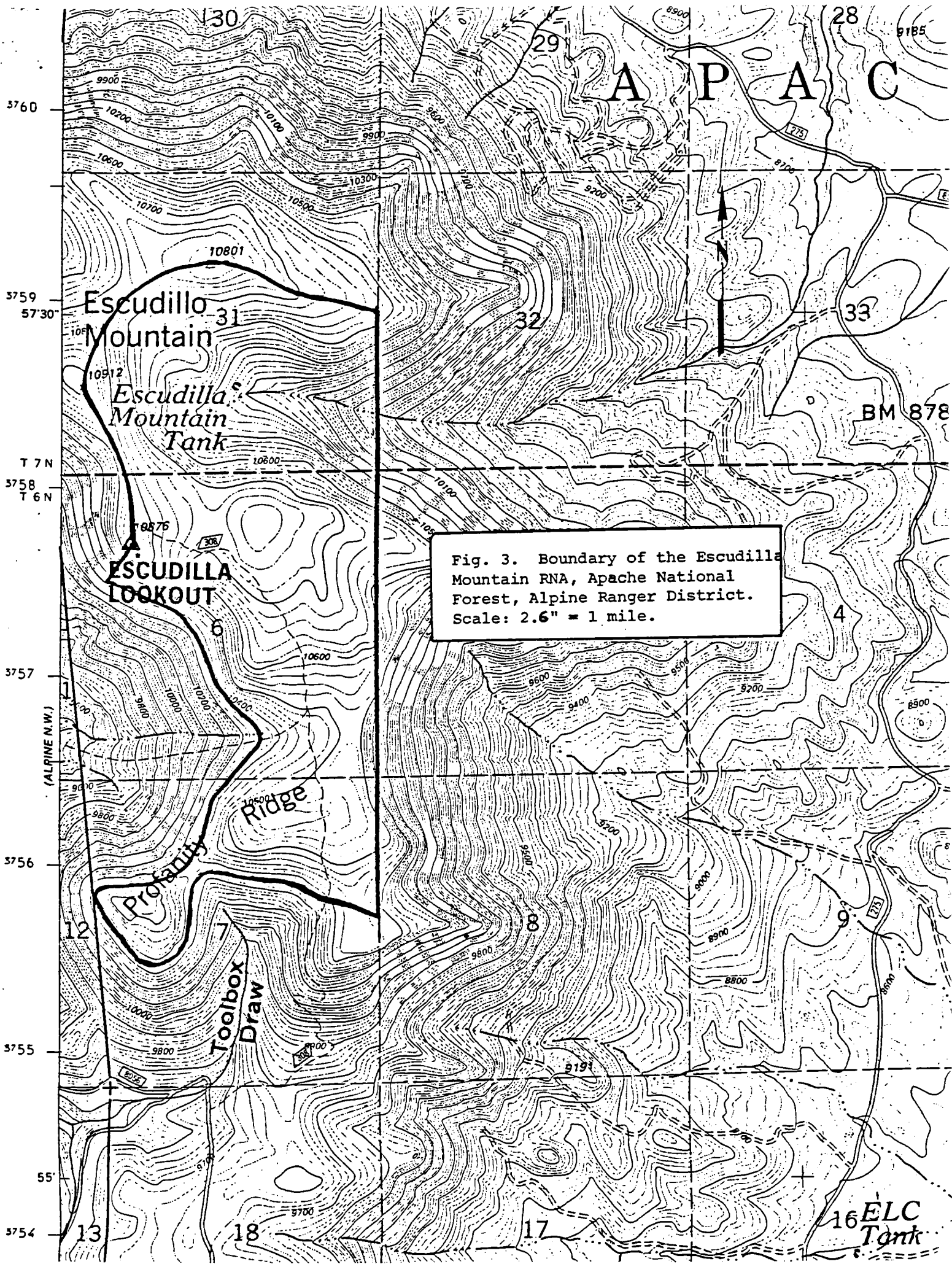





Fig. 3. Boundary of the Escudilla Mountain RNA, Apache National Forest, Alpine Ranger District. Scale: 2.6" = 1 mile.

Figure 4. Kùchler PNV types in the Escudilla Mountain RNA, Apache National Forest, Alpine Ranger District.



-  Fescue - Mountain Muhly Prairie; K-046.
-  Southwestern Spruce-Fir Forest; K-020.
-  Other Subalpine grassland type.

A/S EA and DNDO

DECISION NOTICE AND DESIGNATION ORDER
and
FINDING OF NO SIGNIFICANT IMPACT

Escudilla Mountain Research Natural Area
Apache-Sitgreaves National Forests
Alpine Ranger District
Apache County, Arizona

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 Escudilla Mountain Research Natural Area (RNA). It shall be comprised of 970 acres (393 hectares) of lands in Apache County, Arizona, on the Alpine Ranger District of the Apache-Sitgreaves National Forests, as described in the section of the Establishment Record entitled "Location".

The Regional Forester recommended the establishment of this RNA in the Record of Decision for the Apache-Sitgreaves National Forests Land and Resource Management Plan (Forest Plan) in 1987. 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 Forest Plan and Final Environmental Impact Statement which are available to the public.

The Regional Forester has reexamined the Escudilla Mountain area to ensure the environmental effects of establishing the area as an RNA have not changed since 1985. This analysis is documented in the attached environmental assessment. Based on the analysis in the environmental assessment, it is my decision to adopt Alternative A, to establish Escudilla Mountain as an RNA. Alternative A is selected because it provides long-term protection and recognition of Rocky Mountain montane grassland habitat type. Escudilla Mountain RNA will be managed in compliance with all relevant laws, regulation, and Forest Service Manual direction regarding RNA's and in accordance with the management direction identified in the Forest Plan.

The alternative considered was Alternative B, the "No Action" alternative which would continue management of Escudilla Mountain as a "proposed" RNA. Alternative B was not selected because it would only provide short-term protection of the Escudilla Mountain area. Alternative B is consistent with the Forest Plan. Although the proposed action (Alternative A) is consistent with the management direction, it is not consistent with the land allocation for the Escudilla Mountain area in the Forest Plan. The Apache-Sitgreaves Forest Plan is hereby amended to change the allocation of the Escudilla Mountain area from "Proposed" to Established RNA. This is a non-significant amendment of the Forest Plan (36 CFR 219.10 [f]).

Legal notice of this decision will appear in the Federal Register. The Forest Supervisor of the Apache-Sitgreaves National Forests shall notify the public of this decision and mail a copy of the Decision Notice and Designation Order to all persons on the Apache-Sitgreaves National Forests mailing list.

It has been determined through the environmental assessment that the proposed action is not a major Federal action that would significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed. This determination is based on the following factors (40 CFR 1508.27):

DECISION NOTICE/DESIGNATION ORDER

Decision Notice Finding of No Significant Impact 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 Escudilla Mountain Research Natural Area. The Escudilla Mountain Research Natural Area shall be comprised of lands described in the section of the Establishment Record entitled "Location."

The Regional Forester, Larry Henson, recommended the establishment of the Escudilla Mountain Research Natural Area in the Apache 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. Results of the Regional Forester's analysis are documented in the Apache National Forest Land and Resource Management Plan and Final Environmental Impact Statement which are available to the public.

The Escudilla Mountain 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 Apache National Forest Land and Resource Management Plan (LRMP) direction for this RNA 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 Apache 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 the Apache Land and Resource Management Plan mailing list.

Based on the Environmental Analysis, I find that the designation of the Escudilla 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 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

and simultaneously to the Deciding Officer:

Chief (1570)
USDA, Forest Service
P.O. Box 96090
Washington, D.C. 20090-6090

The Notice of Appeal prepared pursuant to 36 CFR 217.9(b) must be submitted 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 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 217.17(d)).

Chief

Date

SIGNATURE PAGE

for

RESEARCH NATURAL AREA ESTABLISHMENT RECORD

Escudilla Mountain Research Natural Area

Apache National Forest

Apache County, Arizona

Prepared by Andy Laurenzi Date 2/12/88
Mark H. Cochran, The Arizona Nature Conservancy
Andy Laurenzi, The Arizona Nature Conservancy

Recommended by Dean L. Berkey Date 4/22/88
Dean L. Berkey, District Ranger,
Alpine Ranger District

Recommended by Nick W. McDonough Date 4-22-88
Nick W. McDonough, Forest Supervisor,
Apache-Sitgreaves National Forests

Recommended by John W. Russell Date 5-5-88
John W. Russell, Chairman,
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

TITLE PAGE

**Establishment Record for Escudilla Mountain
Research Natural Area within Apache
National Forest, Apache County, Arizona.**

A. INTRODUCTION

The Escudilla Mountain Research Natural Area (EMRNA) occupies 909 acres (368 hectares) on the crest of Escudilla Mountain in extreme east-central Arizona. The RNA is located in the Alpine Ranger District of the Apache-Sitgreaves National Forests in Apache County on reserved public domain National Forest Service land. The RNA is within the Escudilla Wilderness and the Escudilla Demonstration Area, Management Units 13 and 9 respectively (USDA Forest Service, 1987b).

(1) Land Management Planning

The Apache-Sitgreaves National Forests planning documents, the Environmental Impact Statement and Forest Plan (USDA Forest Service, 1987a/1987b), include the EMRNA. The environmental analysis conducted as part of the planning process supports the recommendation to establish this Research Natural Area.

B. OBJECTIVES

The objectives for establishment of this RNA are:

1. To provide representation of Rocky Mountain subalpine grasslands in the Southwest RNA system.
2. To provide opportunities for monitoring long-term ecological changes in subalpine environments in Arizona.

C. JUSTIFICATION STATEMENT FOR ESTABLISHMENT OF AREA

The need for representation of Rocky Mountain subalpine grasslands was identified in the Southwestern Regional Guide (USDA Forest Service, 1983) although Escudilla Mountain was not identified by name. The mountain meadows within the Escudilla Mountain RNA are in good to excellent range condition. Since these meadows are inaccessible and far from water, they have received little livestock use and can be considered minimally disturbed.

D. PRINCIPAL DISTINGUISHING FEATURES

The 909 acres (368 hectares) contain three undisturbed Rocky Mountain subalpine montane grasslands, Toolbox Draw, Bead Springs and Middle Meadow. In aggregate these meadows comprise 200 acres (80 hectares) and include an exceptional diversity of subalpine meadow habitats. One community, the Festuca arizonica/Muhlenbergia montanus is a widespread, heavily used grassland type found throughout the Southwest Region. The Thurber fescue (Festuca thurberi) meadow around Bead Springs may be the only such occurrence in Arizona of a habitat type which is widespread in New Mexico and Colorado and includes an unusual, high elevation ecotype of Festuca thurberi. Surrounding these meadow communities is virgin Engelmann spruce (Picea engelmanni)/subalpine fir (Abies lasiocarpa) forest.

E. LOCATION

The Escudilla Mountain RNA is located in extreme east-central Arizona approximately 7 miles (11.2 km) north of Alpine and 5 miles (8.0 km) east of Nutrioso in Apache County, Arizona. This area is at latitude 33° 56' north and longitude 109° 06' west (Figs. 1 & 2). Specifically the area lies in portions of section 31 of T7N R31E, and sections 6 and 7 of T6N R31E which are included on the USGS Alpine NE topographic quadrangle (Fig. 3). The eastern edge of these three sections forms the eastern boundary of the RNA. The rest of the boundary follows topographic contours and was drawn to include the three mountain meadows on the top of the Mountain. Elevation ranges from a low of ca. 10,000 feet (3,050 m) near the northeast corner to 10,912 feet (3328 m) at the summit of Escudilla Mountain. The RNA contains 909 acres (368 hectares).

The EMRNA can be reached from Springerville by traveling south on US Highway 666/180 for 20.9 miles (33.6 km) to Forest Service Road #56. FS Road #56 ends in 5.1 miles (8.2 km) near the southern end of the RNA. The Toolbox Draw trailhead is marked by a sign and leads north along Toolbox Draw onto Profanity Ridge at the south end of the RNA.

F. AREA BY COVER TYPES

The primary vegetation cover types within the EMRNA are Rocky Mountain subalpine grassland and spruce-fir forest which cover 200 acres (81 hectares) and 709 acres (287 hectares), respectively.

Küchler

The three grassland areas are Fescue-Mountain Muhly Prairie, K-046 (Küchler, 1966). The forested portion of the EMRNA is Southwestern Spruce-Fir Forest, K-020 (Fig. 4).

Society of American Foresters

The forested portion of the EMRNA is Engelmann Spruce-Subalpine Fir, SAF 206 (Eyre, 1980).

Habitat Types or Plant Associations

The Southwestern Region of the USFS has not developed a habitat type classification system for grasslands. Using range survey information provided by Aldon and Barstad (1987), the grassland cover types are best described as Rocky Mountain subalpine grassland, Pine Bunchgrass series, Festuca arizonica association and Festuca thurberi association as proposed by Brown et al. (1980).

Table 1. Estimated areas of vegetative cover types in the EMRNA.

Type	Society of American Foresters Cover Type ¹	Küchler Type ²	Surface Area	
			Acres	Hectares
Engelmann spruce-Subalpine fir forest	SAF 206	K-020	409	106
Subalpine Grassland	None	K-046	200	80
TOTAL			609	186

1 Society of American Foresters Cover Type, Eyre (1980).

2 Küchler Natural Vegetation Type, Küchler (1966).

G. PHYSICAL AND CLIMATIC CONDITIONS

Escudilla Mountain is an isolated mesa on a north-south axis with a maximum elevation of 10,912 feet (3328 m). It is capped by basalt flows of probable Tertiary age that overlie a sequence of Cenozoic rocks. The upper unit of this sequence is a sandstone, in part cross-bedded, and largely derived from volcanic debris. This formation has not been formally named but is possibly an equivalent of the Chuska Sandstone of northeastern Arizona. Below this unit is the Datil Formation, a rock layer that is more widespread to the east in New Mexico. Several outcrops of Paleozoic Limestone, probably equivalent to the Naco Formation, are also present to the northeast of the mountain. These outcrops are probably xenolithic (foreign to the igneous substrate in which they are embedded) in origin (Bill Breed and Scott Imsland, Museum of Northern Arizona -- personal communication in Smith and Bender, 1974).

The origin of Escudilla Mountain is rather unusual. The first stage in its development was the lava flows and volcanics which may have erupted 12 million years ago. These rocks were more resistant to erosion than the surrounding sedimentary rocks so subsequent erosion lowered the surrounding countryside leaving Escudilla Mountain as an isolated mesa (Breed and Imsland, op. cit.).

The nearest weather station (Green and Sellers, 1964) to Escudilla Mountain is at Alpine, 7 miles (11.2 km) to the south. Alpine is nearly 3,000 feet (915 m) lower than Escudilla Peak so weather data from Alpine are not really applicable to Escudilla. However, by interpolation reasonable estimates of climatic conditions on Escudilla may be made (USDA Forest Service, 1986).

Mean annual precipitation on Escudilla Mountain ranges from 27 inches (68.6 cm) to 31 inches (78.7 cm), half of which falls between October 1 and March 31 as snow. Much of the remainder of the average annual precipitation results from daily thunderstorms that form as moist, tropical air from the Gulf of Mexico flows northward across Arizona. Summer temperatures on Escudilla Mountain are cool with highs reaching only to the mid or upper 70's F (20's C) on normal warm days. Summer highs in excess of 85° F (29.4° C) are very uncommon while nighttime lows may drop to the freezing point during the

warmest months. Winters are cold with lows reaching well below 0° F (**) on occasion, Alpine has reached -29° F (-33.9° C) and highs may remain below freezing for several days at a time.

H. DESCRIPTION OF VALUES

(1) Flora

The three grassland communities which lie within the EMRNA and were described by Aldon and Barstad (1987) as follows:

The south-facing slopes of Profanity Ridge, known as Toolbox Draw, support an Arizona fescue and mountain muhly (Festuca arizonica-Muhlenbergia montana) meadow. This meadow is dominated by Arizona fescue, a sedge (Carex oreocharis), sheep fescue (E. ovina) and mountain muhly with a less dominant component of mutton grass (Poa fendleriana) and a mixture of forbs. The sedge rivals Arizona fescue as the leading dominant.

The middle meadow is a forb-dominated community which contains appreciable amounts of tufted hairgrass (Deschampsia caespitosa) in slight depressions. This meadow is characterized by an Avens species known as "Old-man whiskers" (Geum trifolium) along with Arizona fescue, mutton grass and sheep fescue.

The third meadow, Bead Springs, north of the Escudilla Mountain lookout, is dominated by Thurber fescue (Festuca thurberi), which may be the only such occurrence in Arizona of a habitat type which is widespread in New Mexico and Colorado. Other components of this meadow are Arizona fescue, sheep fescue, tufted hairgrass and Richardson's geranium (Geranium richardsonii).

The open mixed-conifer is dominated by Engelmann spruce and subalpine fir. Large stands of quaking aspen (Populus tremuloides) are interspersed within the spruce-fir community.

Goodding's onion (Allium gooddingii), a Federal Category 1 plant species (USDI Fish and Wildlife Service, 1985), is known from the headwaters of Toolbox Draw. The following plant list was obtained from Aldon and Barstad (1987) for the subalpine meadow portions of the RNA.

Abbreviated Plant List For Escudilla Mountain RNA

Latin Name	Common Name
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GRASSES AND GRASS-LIKE PLANTS

<u>Agropyron subsecundum</u>	bearded wheatgrass
<u>Blepharoneuron tricholepis</u>	hairy drop-seed
<u>Bromus porteri</u>	Porter's brome
<u>Carex oreocharis</u>	sedge
<u>Carex scoparia</u>	sedge
<u>Carex xerantica</u>	sedge
<u>Deschampsia caespitosa</u>	tufted hairgrass
<u>Festuca arizonica</u>	Arizona fescue
<u>Festuca ovina</u>	sheep fescue

Festuca thurberi
Juncus spp.
Koeleria macrantha
Muhlenbergia montana
Poa fendleriana
Sitanion lonifolium

Thurber fescue
rush
June grass
mountain muhly
mutton grass
squirrel tail

HERBS

Achillea lanulosa
Antennaria sp.
Aquilegia chryantha
Allium gooddingii
Arenaria fendleri
Calochortus gunnisonii
Campanula rotundifolia
Castilleja lineata
Cirsium pallidum
Cirsium wheeleri
Delphinium nelsoni
Epilobium sp.
Erigeron formosissimus
Eriogonum sp.
Frasera speciosa
Gentiana parryi
Geranium richardsonii
Geum triflorum
Hackelia floribunda
Helenium hoopesii
Heuchera parviflora var flavescens
Iris missouriensis
Juncus spp.
Lathyrus arizonicus
Linum lewisii
Lithospermum multiflorum
Muhlenbergia montana
Orthocarpus luteus
Pedicularis greyi
Pentaphylloides floribunda
Potentilla hippiana
Potentilla pulcherrima
Psuedocymopterus montanus
Rudbeckia hirta
Smilacina sp.
Solidago sp.
Taraxacum officinale
Townsendia parryi
Tragopogon dubius

western yarrow
pussy toes
columbine
Goodding's onion
sandwort
mariposa
bluebell, harebell
indian paint brush
thistle
thistle
larkspur
willow weed
fleabane
buckwheat
monument plant
gentian
crane's bill
old-man whiskers
stickseed
orange sneezeweed
alum root
Rocky Mountain iris
rush
peavine
blue flax
gromwell, puccoon
mountain muhly
owl clover
lousewort

cinquefoil
cinquefoil
mountain parsley
brown-eyed susan
false Solomon's seal
goldenrod
common dandelion
Townsend's aster
yellow salsify

Valeriana edulis
Vicia americana

thickleaf valeriana
American vetch

(2) Fauna

There are no reported occurrences of threatened or endangered animals within the RNA. No records were derived from the RUN WILD III computer-stored data base (Lehmkuhl and Patton, 1982) for the Montane Grassland Biome Festuca arizonica association (421.102) for Apache County.

(3) Geology

The entire area is capped by Quaternary and Tertiary volcanics flows underlain by sequence of Cenezoic rocks (Arizona Highway Department, 1966).

(4) Soils

Soils at the lower elevations and on southerly aspects of the EMRNA are dominantly Pachic Udic Argiborolls, loamy-skeletal and mixed (USDA Forest Service, 1986c). The somewhat cooler northerly aspects are occupied by Argic Pachic Cryoborolls, loamy-skeletal and mixed. These are moderately deep to deep, well drained soils of relatively high fertility (USDA Forest Service, 1986c).

(5) Lands

All lands within the EMRNA are controlled by the Apache National Forest. No private inholdings are involved.

(6) Cultural

Within the RNA is a water source called Bead Spring, which is a pre-historic shrine. It has been extensively looted over the years.

(7) Other

No other significant natural values which have not already been discussed occur in the EMRNA.

I. IMPACTS AND POSSIBLE CONFLICTS

(1) Mineral Resources

No known mineral resources exist in the RNA.

(2) Grazing

The area will be assigned no grazing capacity. The loss of forage in this is considered insignificant due to the low prior use. New fence will be constructed (about 1 mile [1.6 km]) to exclude cattle from this area entirely.

(3) Timber

Because this area is in a wilderness designation, there will be no impact.

(4) Watershed Values

There will be no impact upon watershed values.

(5) Recreation Values

There will be no change or impact although there may be some potential for conflict with wilderness use by horse parties which will be resolved in the wilderness management planning process.

(6) Wildlife and Plant Values

Because the Thurber Fescue meadow is unique in Arizona, establishment of this RNA will enhance its research value. Establishment of this RNA will help protect the genetic and population diversity of these meadows and old growth spruce-fir ecosystems.

(7) Special Management Area Values

This Congressionally-designated Wilderness will be affected primarily by the addition of a fence. Hikers along the Escudilla Trail will have to pass through the fence via a gate or stile.

(8) Transportation Plans

This RNA is accessed directly by the Escudilla Trail (foot or horse travel only). There will be no impact on transportation plans.

J. MANAGEMENT PRESCRIPTION

The EMRNA is recommended in the Proposed Apache-Sitgreaves National Forests Plan: Management Area 10 (see Appendix). Management emphasis is the protection of the natural ecosystem for research purposes.

(1) Vegetation Management

No vegetative management practices are planned in this management area. The RNA is assigned no grazing capacity and will be fenced as necessary to protect.

K. ADMINISTRATION RECORDS AND PROTECTION

Administration and protection of the EMRNA will be the responsibility of the Apache-Sitgreaves National Forests. The District Ranger, Alpine Ranger District, (P.O. Box 469, Alpine, Arizona 85920) has direct responsibility.

Records for the EMRNA will be maintained in the following offices:
Regional Forester, Southwestern Region, Albuquerque, NM
Rocky Mountain Station, Fort Collins, CO
Apache-Sitgreaves National Forest, Springerville, AZ
District Ranger, Alpine Ranger District, Alpine, AZ

L. ARCHIVING

The Director of the Rocky Mountain Forest and Range Experiment Station, or his designee, will be responsible for any studies or research conducted in the area. Requests to conduct research in the area should be referred to him at 240 W. Prospect Rd., Ft.

Collins, CO 80526-2098. He, or his designee, will evaluate research proposals and coordinate all studies and research in the area with the District Ranger and RNA research coordinator. Plant specimens collected in the course of research in the area will be maintained at the University of Arizona, College of Agriculture herbaria in Tucson, Arizona, or at the Forest Supervisor's office. Animal specimens will be maintained at the Arizona State University, Department of Zoology vertebrate museum in Tempe, Arizona.

M. REFERENCES

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APPENDIX

These pages are reproduced from the
Apache-Sitgreaves National Forests Plan.



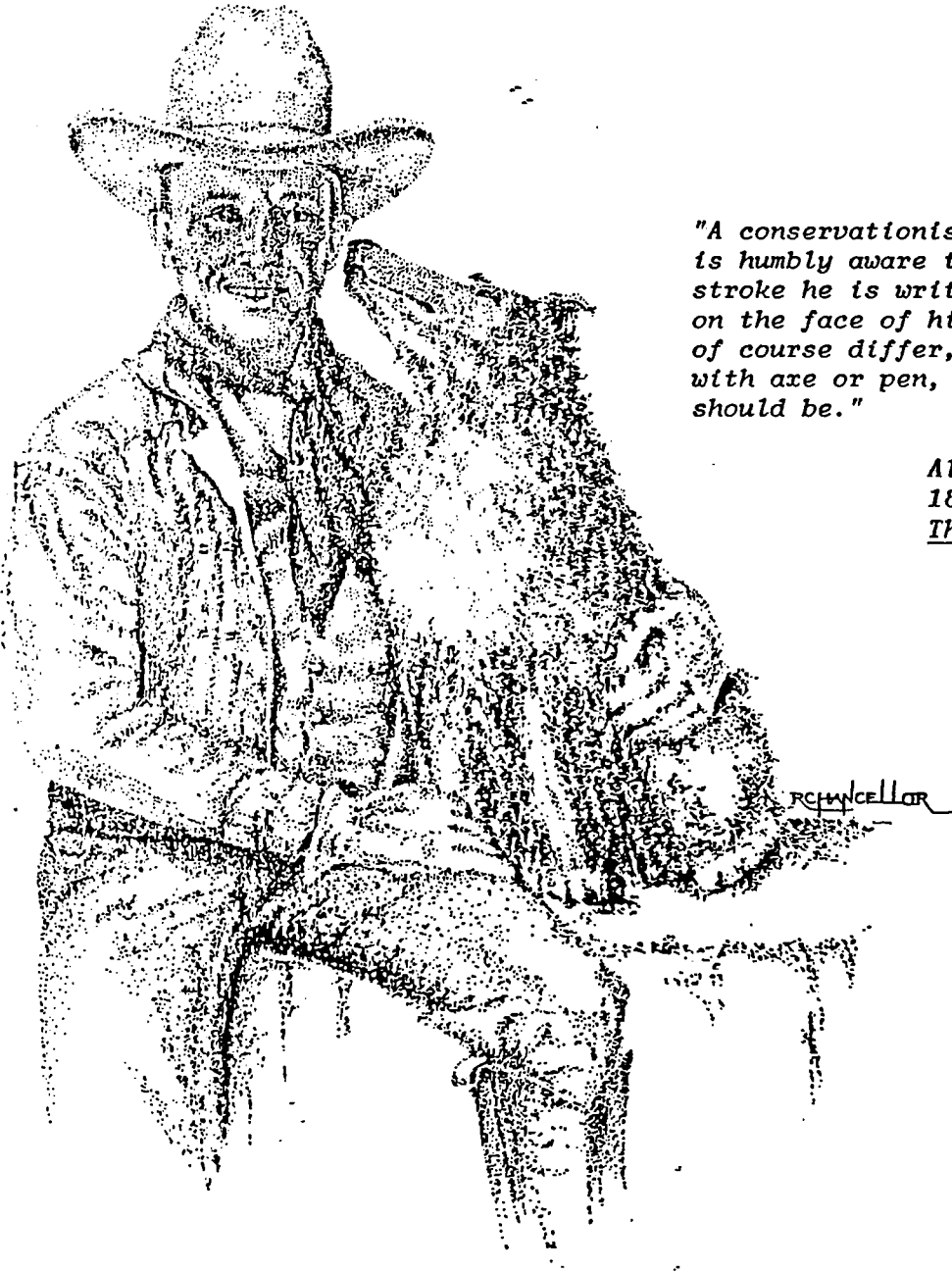
United States
Department of
Agriculture

Forest
Service

Southwestern
Region



Apache-Sitgreaves National Forests Plan



"A conservationist is one who is humbly aware that with each stroke he is writing his signature on the face of his land. Signatures of course differ, whether written with axe or pen, and that is as it should be."

*Aldo Leopold
1887-1948
The Sand County Almanac*

REYNOLDS

MANAGEMENT AREA 10

Analysis Areas: 92, 94, 230, 240, 270

Research Natural Areas

Acres: 2,550

This area includes the following research natural areas:

<u>Status</u>	<u>Name</u>	<u>Type</u>	<u>Acres-Acres</u>
Existing	Phelps Cabin	Montane Grassland	312
Recommended	Thomas Creek	Mixed Conifer	500
Recommended	Escudilla Mtn.	Spruce Montane grassland	909
Recommended	Wildcat	Pinyon Juniper	513
Recommended	Hayground	Blue Spruce/ Allium Goodingii	316

Management Emphasis:

Emphasis protection of the natural ecosystem for research purposes.

Timber Suitability Land Classification

Total National Forest Land	2,550
Not Capable, Available, or Suitable	2,550
Not Appropriate	0
Suitable	0

No vegetative management practices are planned in this management area.

<u>Program Components</u>	<u>Activities</u>	<u>Applicable Analysis Areas</u>	<u>Standards and Guidelines</u>
	A01	ALL	<u>Recreation</u> Prepare a dispersed use implementation plan with the objective of identifying the recreation attractions and means to discourage use.
	A08		Implement the plan. Do not encourage recreation use in these areas.

<u>Program Components</u>	<u>Activities</u>	<u>Applicable Analysis Areas</u>	<u>Standards and Guidelines</u>
D2	D01	ALL	<u>Range</u> Range resource planning and inventory. RNA's are assigned no grazing capacity. RNA's are fenced to protect them as necessary.



Without **Stress** my
life would be empty.

Reggie,
here are the copies of
the fax I sent.

Annie

12393 © 1992 ARGUS

Phone'd Tom Subirge 10/15/93 before fixing
descriptions. Tom now has 2 alternatives, to use
these or the 1/4 1/4 section options as per
the Forest Service's advice (which would make
management of the watersheds more difficult + change
rips + boundaries. He was to check with
Bellell + get back to me on choice. He felt
this was a high priority.
R.G.

9/15/93

Please FAX this
material to Tom Subirge
A/S S.O.

Please do not write or mark on
these sheets. TKS Reggie.

Southwestern Region
USDA Forest Service
517 Gold Avenue, SW
Albuquerque, NM 87102



To:

A-S
Unit

Tom Subrige
Person

From:

R3-R0-Range Management
Unit

Reggie Fletcher
Person

Number of pages to follow: 12

Remarks:



ESCUDILLA MOUNTAIN
R.N.A.
APACHE-SITGREAVES NATIONAL FOREST

Beginning at a point on the east line of Section 31, T.7 N., R.31 E., G.S.R.M., from which point the east 1/4 corner of said Section 31 bears South, a distance of 210 feet.

Thence South, along the east line of said Section 31 to the southeast corner of Section 31, which is common with the northeast corner of Section 6, T.6 N., R.31 E., G.S.R.M.

Thence South, along the east line of said Section 6 to the southeast corner of Section 6, which is common with the northeast corner of Section 7, T.6 N., R.31 E., G.S.R.M.

Thence South, along the east line of said Section 7 a distance of 2510 feet, from which point the east 1/4 corner of Section 7 bears South, a distance of 195 feet.

Thence N71° W, a distance of 1655 feet.

Thence N80° W, a distance of 1490 feet.

Thence S10° W, a distance of 1275 feet.

Thence S41° W, a distance of 550 feet.

Thence N87° W, a distance of 600 feet.

Thence N34° W, a distance of 1595 feet.

Thence N80° E, a distance of 1605 feet

Thence N30° E, a distance of 2780 feet.

Thence N33° W, a distance of 2500 feet.

Thence N63° W, a distance of 1415 feet.

Thence N34° E, a distance of 835 feet.

Thence N10° W, a distance of 1310 feet.

Thence N26° W, a distance of 1550 feet.

Thence N25° E, a distance of 2005 feet.

Thence N74° E, a distance of 1430 feet.

Thence S71° E, a distance of 1510 feet.

Thence S78° E, a distance of 1520 feet to the point of beginning.

The described Escudilla Mountain R.N.A. contains 970 acres more or less.

The intent of this description is to identify the Escudilla Mountain R.N.A., as would be identified by a survey.

The above description was produced from information identified on the USGS Alpine NE Quad Map.

This description was prepared for Forest Service use in the preparation of R.N.A. documents

The above description for the Escudilla Mountain R.N.A., has been reviewed by me for use in an area designation. The legals are acceptable as presented, and no potential problems were noted during my review.

Douglas J. Williams
For Regional Land Surveyor

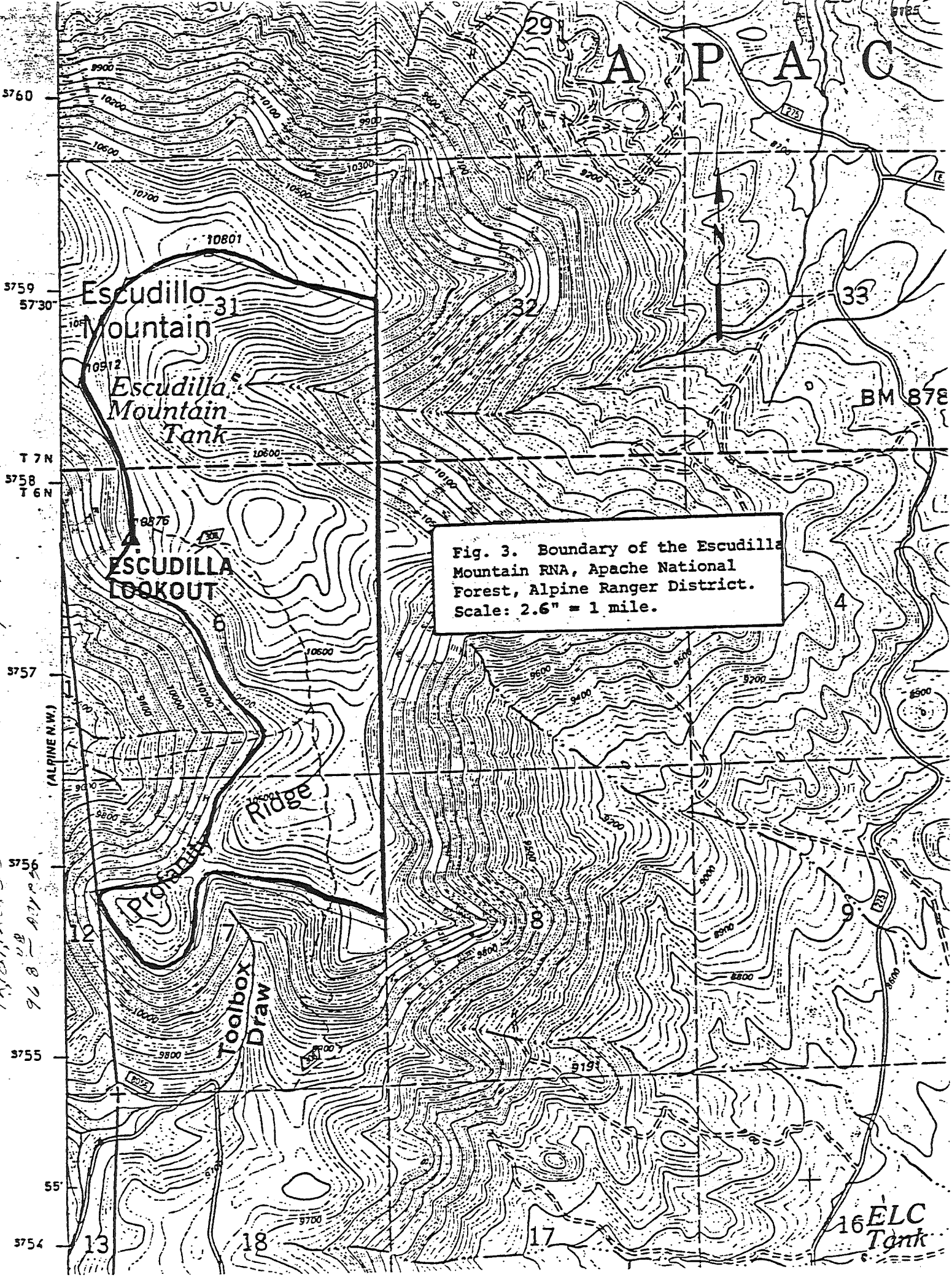
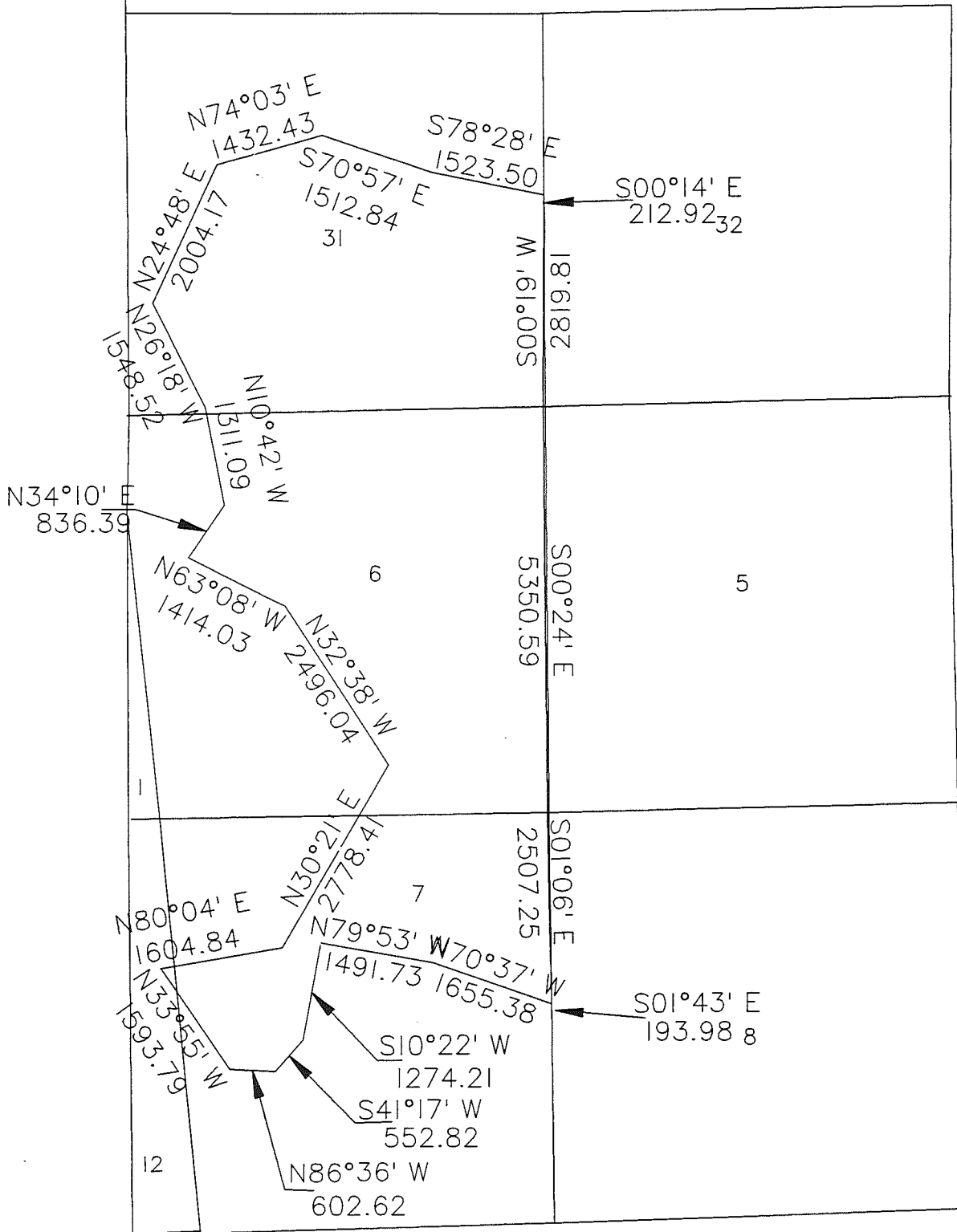


Fig. 3. Boundary of the Escudilla Mountain RNA, Apache National Forest, Alpine Ranger District. Scale: 2.6" = 1 mile.

4718712.3
 968
 28
 21
 24
 25

ESCUDILLA MTN. RNA

968 acres



Scale 2.6" = 1 mile
(1" = 2030)

HAYGROUND CREEK
R.N.A.
APACHE-SITGREAVES NATIONAL FOREST

Beginning at the south 1/4 corner of Section 18, T.5 N., R.28 E., G.S.R.M.,
Thence West along the south line of said Section 18 a distance of 170 feet.
Thence N47° W, a distance of 3550 feet to the West 1/4 of said Section 18.
Thence North, along the west line of said Section 18, a distance of 1600 feet, from which point the northwest corner of Section 18 bears North, a distance of 900 feet.
Thence N60° W, a distance of 1600 feet.
Thence N66° W, a distance of 1130 feet.
Thence North, a distance of 980 feet.
Thence S76° E, a distance of 2520 feet, to a point on the west line of Section 7, T.5 N., R.28 E., G.S.R.M.. From which point the northwest corner of said Section 18 bears South a distance of 720 feet.
Thence S54° E, a distance of 1200 feet, to a point on the north line of said Section 18. From which point the northwest corner of Section 18 bears West a distance of 990 feet.
Thence S46° E, a distance of 1515 feet.
Thence S07° W, a distance of 710 feet.
Thence S27° E, a distance of 560 feet.
Thence S62° E, a distance of 1650 feet.
Thence South, a distance of 950 feet.
Thence S28° E, a distance of 1000 feet, to a point on the south line of said Section 18.
Thence West along the south line of said Section 18 a distance of 1330 feet to the point of beginning.

The described Hayground Creek R.N.A. contains 310 acres more or less.

The intent of this description is to identify the Hayground Creek R.N.A., as would be identified by a survey.

The above description was produced from information identified on the Big Lake Quad Map.

This description was prepared for Forest Service use in the preparation of R.N.A. documents

The above description for the Hayground Creek R.N.A., has been reviewed by me for use in an area designation. The legals are acceptable as presented, and no potential problems were noted during my review.

Douglas J. Williams
For Regional Land Surveyor

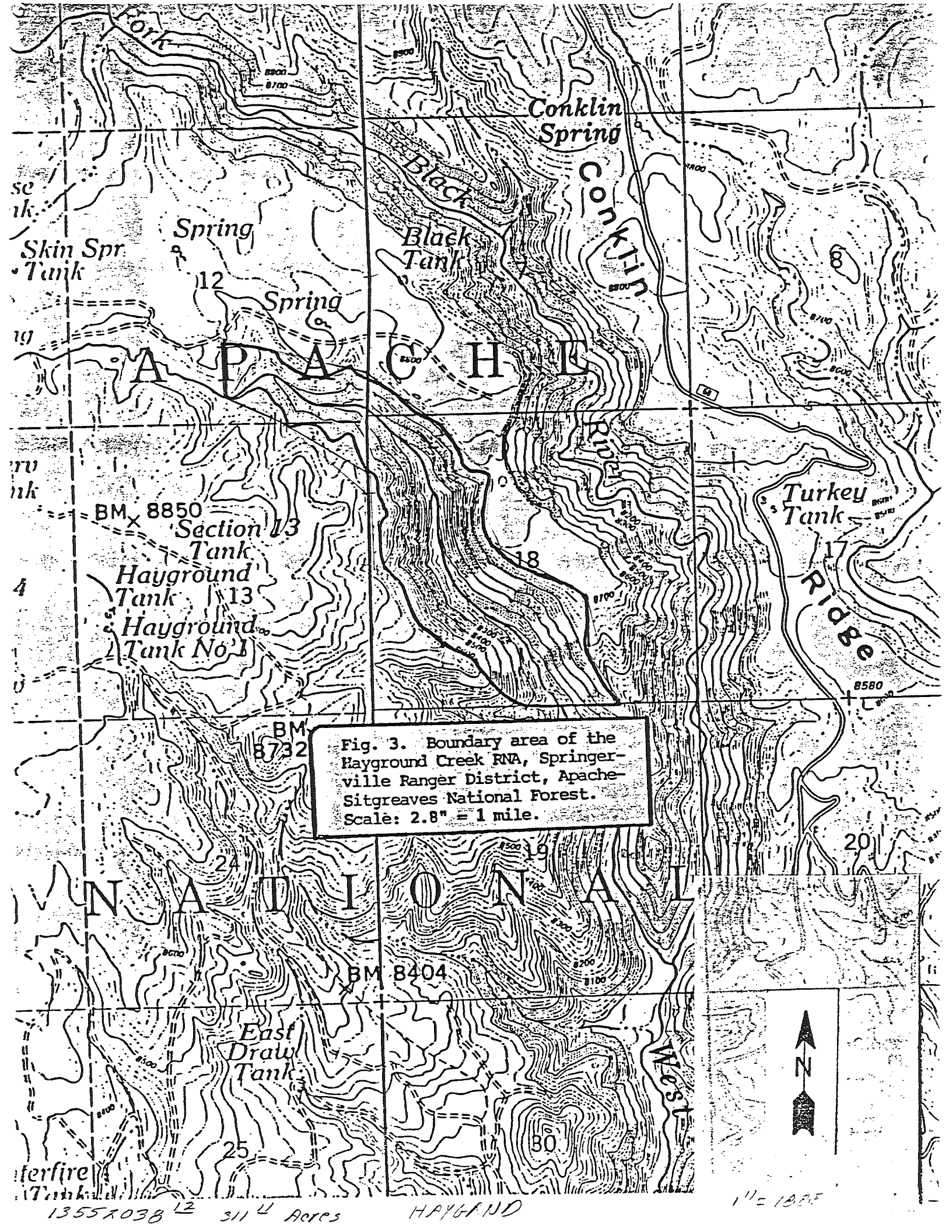


Fig. 3. Boundary area of the Hayground Creek RNA, Springer-ville Ranger District, Apache-Sitgreaves National Forest. Scale: 2.8" = 1 mile.

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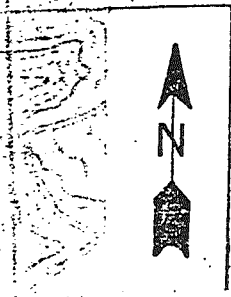
APACHE
 BM 8850
 Section 13
 Tank
 Hayground
 Tank 13
 Hayground
 Tank No. 1

Conklin Spring
 Black
 Black Tank
 CONKLIN

Turkey Tank
 17
 RIBBE
 8580

BM 8732
 24
 25
 East Draw Tank
 13557038 12
 311 1/2 Acres

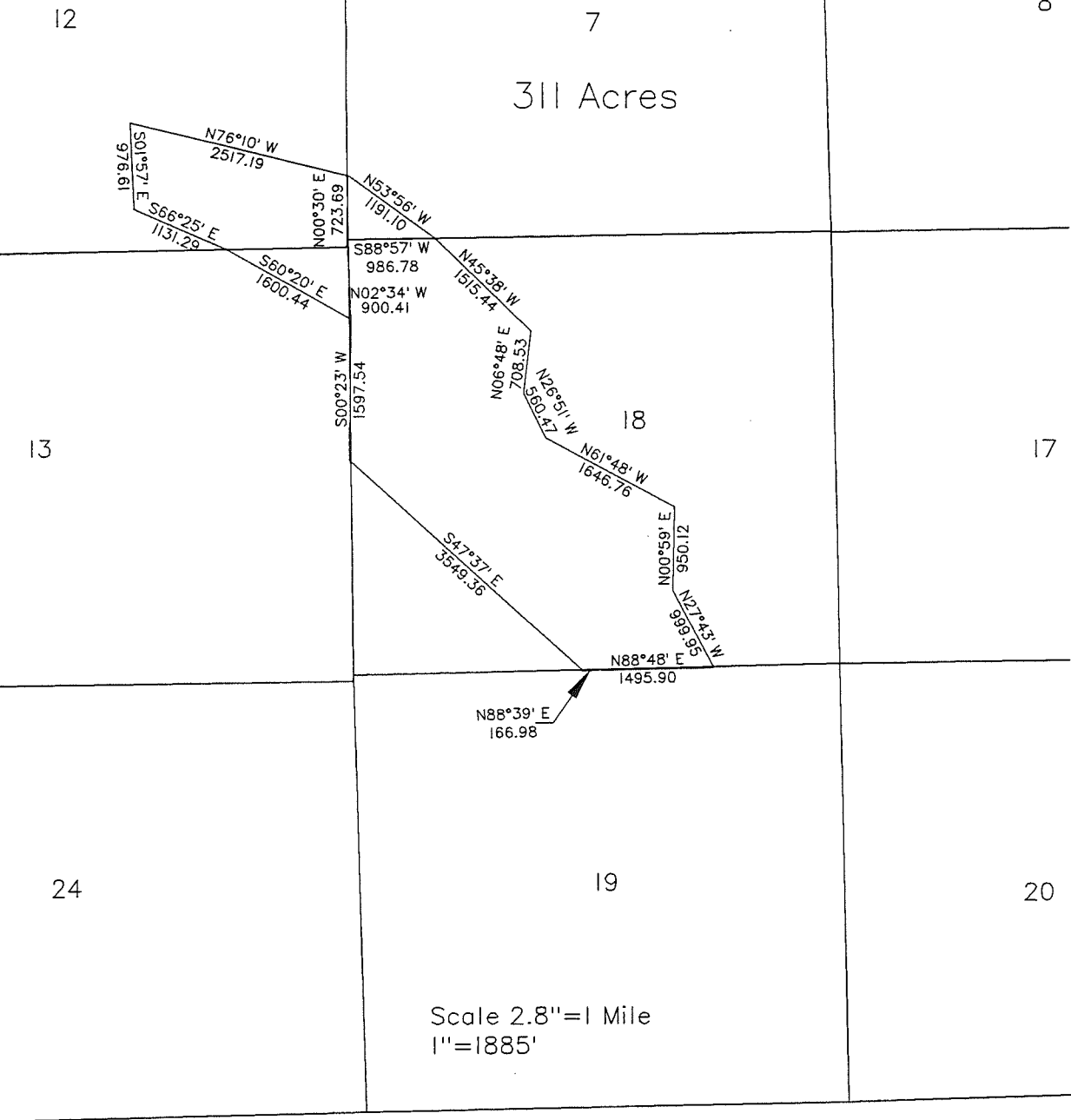
NATIONAL
 BM 8404
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 WEST



1" = 1000'

HAYGROUND

HAYGROUND CREEK RNA



NORTH FORK
of the
THOMAS CREEK R.N.A.
APACHE-SITGREAVES NATIONAL FOREST

Beginning for reference at the summit of an unnamed peak identified by an elevation of 9265, on the USGS Hannagan Meadow NE Quad Map, within Section 19, T.3 1/2 N., R.30 E., G.S.R.M.

Thence S28°W, a distance of 1750 feet to a point on a summit.
Thence S40°W, a distance of 2500 feet.
Thence S45°W, a distance of 880 feet.
Thence S66°W, a distance of 610 feet to a point on a summit.
Thence South, a distance of 1600 feet.
Thence S10°W, a distance of 720 feet to a point on a summit.
Thence West, a distance of 2080 feet.
Thence N55°E, a distance of 3240 feet to a point on a summit.
Thence N34°E, a distance of 1500 feet to a point on a ridge.
Thence N46°E, a distance of 2090 feet.
Thence N37°W, a distance of 2000 feet to a point on a ridge.
Thence N79°W, a distance of 2140 feet to the point of beginning.

The described North Fork of the Thomas Springs R.N.A. contains 550 acres more or less.

The intent of this description is to identify the North Fork of the Thomas Creek R.N.A., as would be identified by a survey.

The above description was produced from information identified on the USGS Hannagan Meadow NE Quad Map.

This description was prepared for Forest Service use in the preparation of R.N.A. documents

The above description for the North Fork of the Thomas Creek R.N.A., has been reviewed by me for use in an area designation. The legals are acceptable as presented, and no potential problems were noted during my review.

Douglas J. Williams
For Regional Land Surveyor

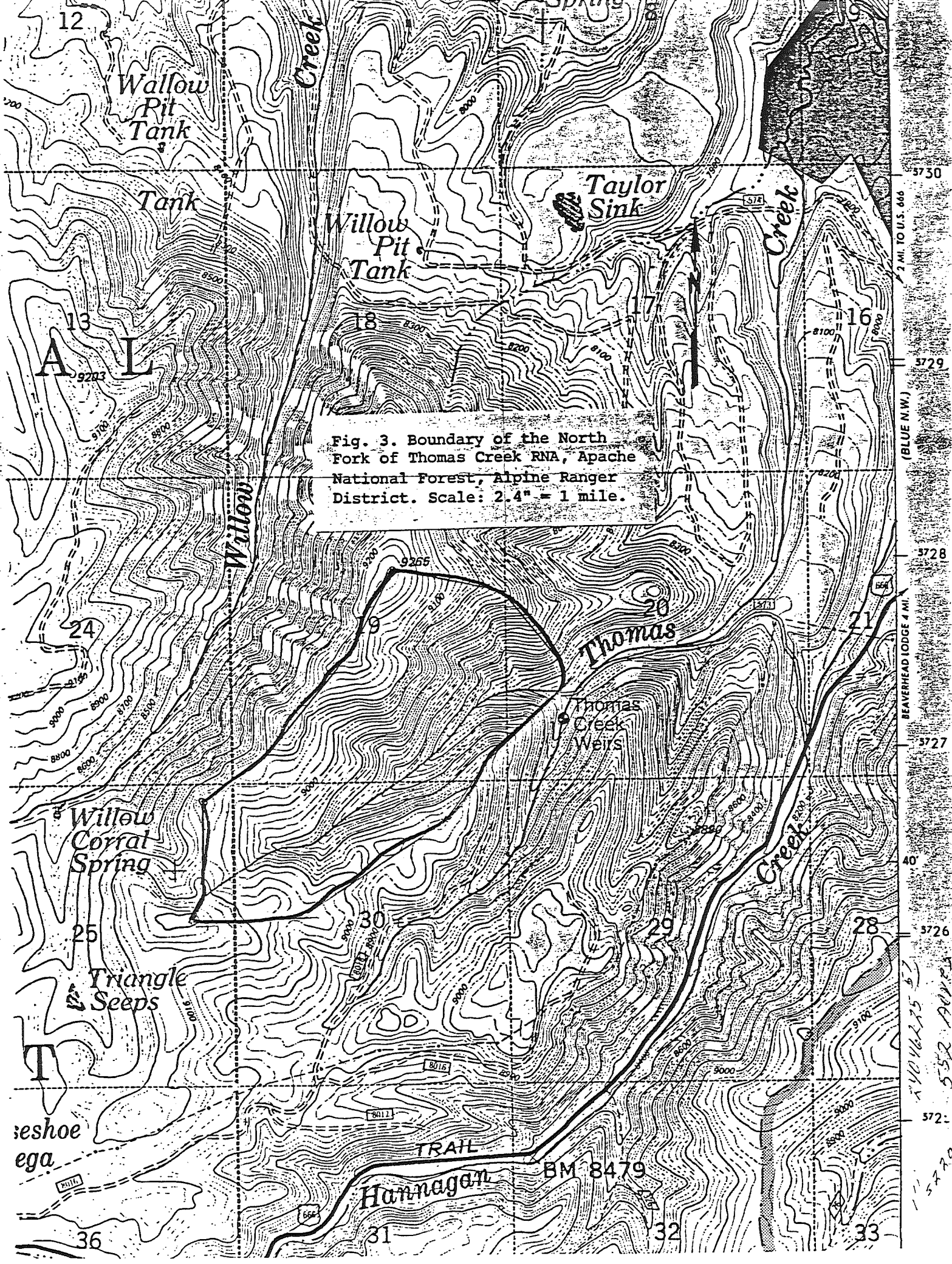


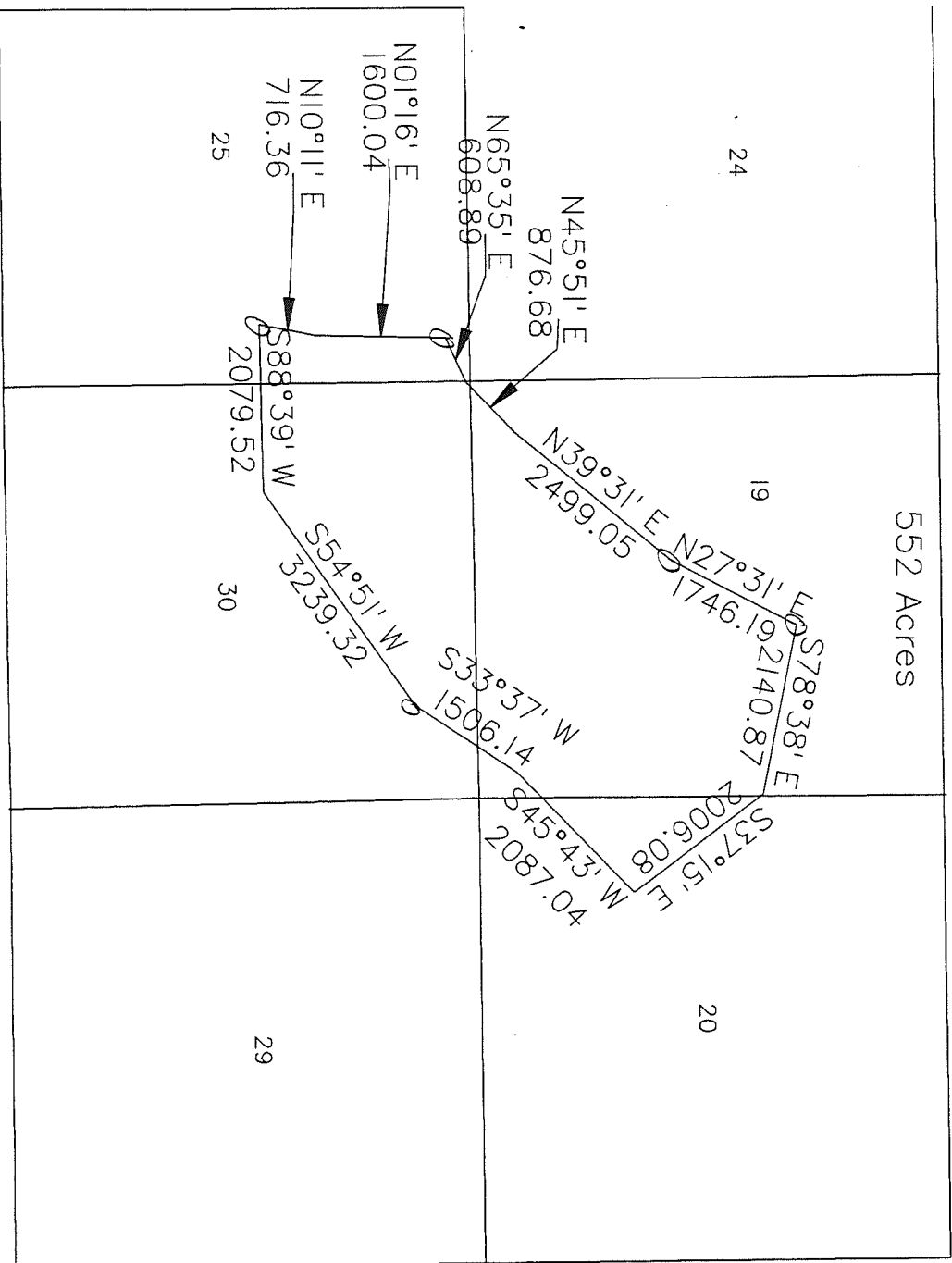
Fig. 3. Boundary of the North Fork of Thomas Creek RNA, Apache National Forest, Alpine Ranger District. Scale: 2.4" = 1 mile.

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110 VILLAS
552 AVENUE
57708

NORTH FORK of
THOMAS CREEK RNA

552 Acres



Scale 2.4" = 1 mile
(1" = 2200')

WILDCAT CANYON
R.N.A.
APACHE-SITGREAVES NATIONAL FOREST

Beginning at a point on the east line of Section 2, T.13 N., R.15 E., G.S.R.M., from which point the east 1/4 corner of said Section 2 bears North, a distance of 200 feet.

Thence South, along the east line of said Section 2 a distance of 1030 feet.

Thence S40°W, a distance of 1300 feet, to a point on a trail.

Thence S75°W, a distance of 1180 feet, to a point on Forest Road 504.

Thence S47°W, a distance of 4330 feet, to a point bearing East, a distance of 235 feet from the west 1/4 corner of Section 11, T.13 N., R 15 E., G.S.R.M..

Thence N72°W, a distance of 2245 feet.

Thence N16°W, a distance of 1180 feet.

Thence N38°E, a distance of 2960 feet.

Thence N16°E, a distance of 1235 feet.

Thence N49°E, a distance of 1660 feet.

Thence S19°E, a distance of 1970 feet.

Thence N68°E, a distance of 2685 feet.

Thence S73°E, a distance of 1050 feet to the point of beginning.

The described Wildcat Canyon R.N.A. contains 545 acres more or less.

The intent of this description is to identify the Wildcat Canyon R.N.A., as would be identified by a survey.

The above description was produced from information identified on the USGS Potato Wash South Quad Map.

This description was prepared for Forest Service use in the preparation of R.N.A. documents



The above description for the Wildcat Canyon R.N.A., has been reviewed by me for use in an area designation. The legals are acceptable as presented, and no potential problems were noted during my review.

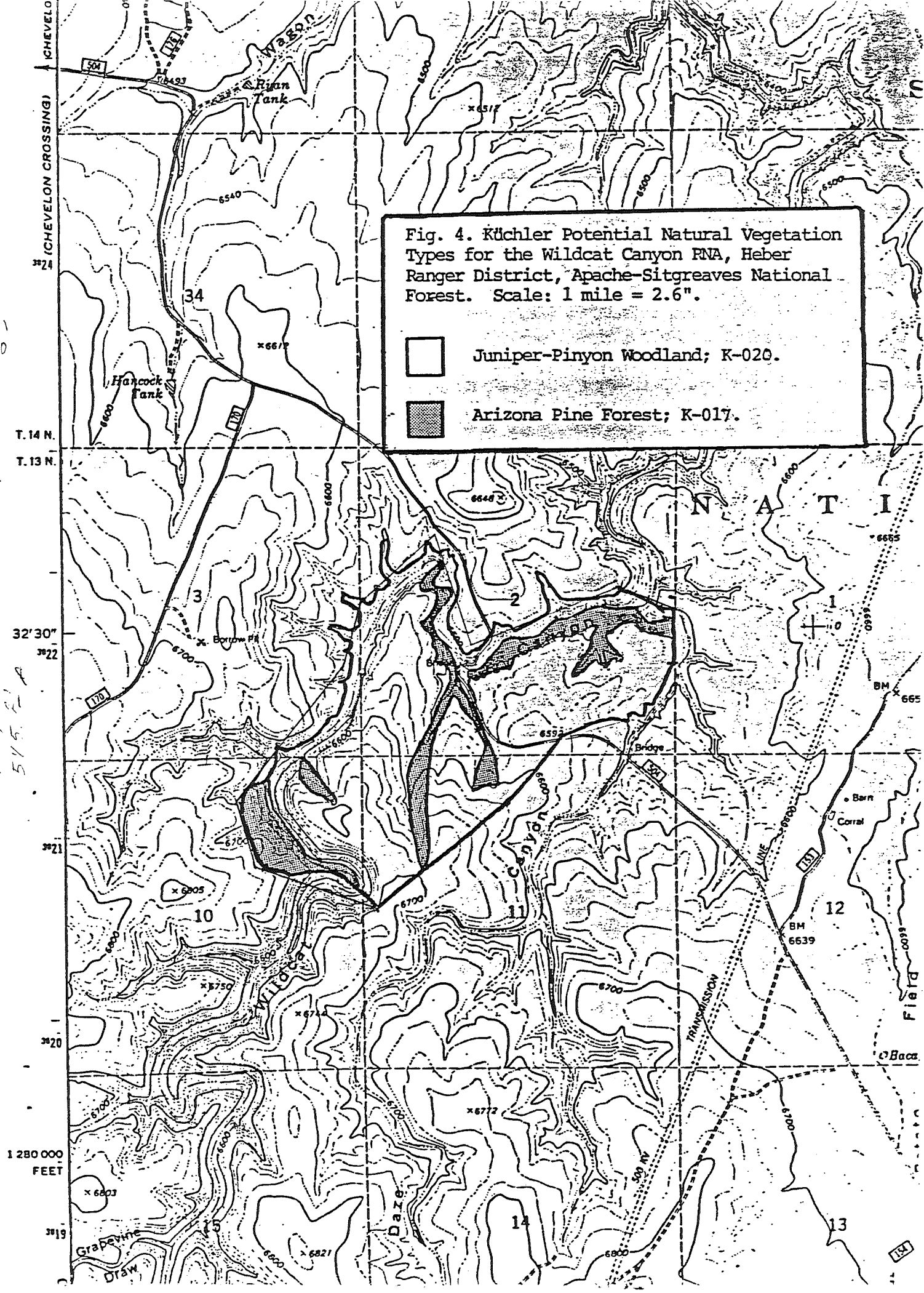
Douglas J. Williams

For Regional Land Surveyor

15-7030-1
3374936 62
515 FA

Fig. 4. Kuchler Potential Natural Vegetation Types for the Wildcat Canyon RNA, Heber Ranger District, Apache-Sitgreaves National Forest. Scale: 1 mile = 2.6".

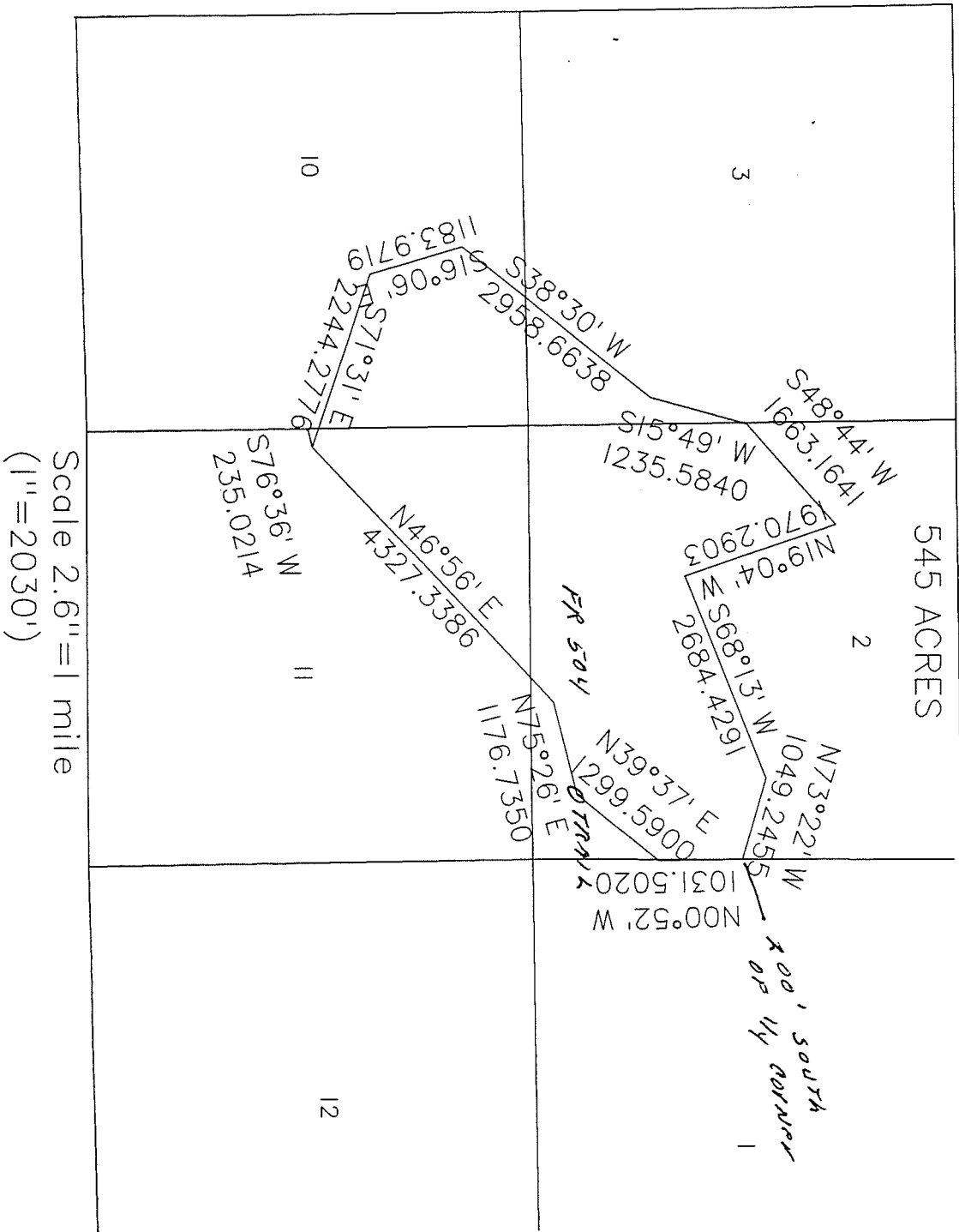
-  Juniper-Pinyon Woodland; K-020.
-  Arizona Pine Forest; K-017.



1 280 000
FEET

WILDCAT CANYON RNA

545 ACRES



Scale 2.6" = 1 mile
(1" = 2030')

MESSAGE SCAN FOR REGGIE A. FLETCHER

To r.fletcher:r03a

From: DOUG BARBER:R03F01A

Postmark: Mar 16,94 11:17 AM

Delivered: Mar 16,94 11:14 AM

Subject: RNA EA's and DN's

Comments:

The only backup material I have that I didn't get from you is the letter from G&F, which I'll send under separate cover. To save mailing time, here they come on the DG.

-----X-----

DECISION NOTICE AND DESIGNATION ORDER
and
FINDING OF NO SIGNIFICANT IMPACT

Escudilla Mountain Research Natural Area
Apache-Sitgreaves National Forests
Alpine Ranger District
Apache County, Arizona

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 Escudilla Mountain Research Natural Area (RNA). It shall be comprised of 970 acres (393 hectares) of lands in Apache County, Arizona, on the Alpine Ranger District of the Apache-Sitgreaves National Forests, as described in the section of the Establishment Record entitled "Location".

The Regional Forester recommended the establishment of this RNA in the Record of Decision for the Apache-Sitgreaves National Forests Land and Resource Management Plan (Forest Plan) in 1987. 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 Forest Plan and Final Environmental Impact Statement which are available to the public.

The Regional Forester has reexamined the Escudilla Mountain area to ensure the environmental effects of establishing the area as an RNA have not changed since 1985. This analysis is documented in the attached environmental assessment. Based on the analysis in the environmental assessment, it is my decision to adopt Alternative A, to establish Escudilla Mountain as an RNA. Alternative A is selected because it provides long-term protection and recognition of Rocky Mountain montane grassland habitat type. Escudilla Mountain RNA will be managed in compliance with all relevant laws, regulation, and Forest Service Manual direction regarding RNA's and in accordance with the management direction identified in the Forest Plan.

The alternative considered was Alternative B, the "No Action" alternative which would continue management of Escudilla Mountain as a "proposed" RNA. Alternative B was not selected because it would only provide short-term protection of the Escudilla Mountain area. Alternative B is consistent with the Forest Plan. Although the proposed action (Alternative A) is consistent with the management direction, it is not consistent with the land allocation for the Escudilla Mountain area in the Forest Plan. The Apache-Sitgreaves Forest Plan is hereby amended to change the allocation of the Escudilla Mountain area from "Proposed" to Established RNA. This is a non-significant amendment of the Forest Plan (36 CFR 219.10[f]).

Legal notice of this decision will appear in the Federal Register. The Forest Supervisor of the Apache-Sitgreaves National Forests shall notify the public of this decision and mail a copy of the Decision Notice and Designation Order to all persons on the Apache-Sitgreaves National Forests mailing list.

It has been determined through the environmental assessment that the proposed action is not a major Federal action that would significantly affect the quality of the human environment; therefore, an environmental impact statement is not needed. This determination is based on the following factors (40 CFR 1508.27):

A. Context.

Although this is an addition to the national system of RNA's both short-term and long-term physical and biological effects are limited to the local area.

B. Intensity.

1. There are no known effects on public health and safety.
2. There are no known effects on historic or cultural resources, actual or eligible National Register of Historic places sites, Park lands, prime farmlands, wetland, wild and scenic rivers. Effects on ecologically critical areas are minimal.
3. Effects on the human environment are not uncertain, do not involve unique or unknown risks, and are not likely to be highly controversial.
4. The action is not likely to establish a precedent for future actions with significant effects.
5. There are no known cumulative effects.
6. The proposed action would not adversely affect an endangered or threatened species or its critical habitat.
7. The proposed action is consistent with Federal, State, and local laws and requirements for the protection of the environment.

This decision is subject to appeal pursuant to 36 CFR 217. Two (2) copies of the Notice of Appeal must be in writing and submitted to:

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

The Notice of Appeal prepared pursuant to 36 CFR 217.9(b) must be submitted 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 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 217.17 [d]).

Chief

Date

ENVIRONMENTAL ASSESSMENT

ESCUDELLA MOUNTAIN RESEARCH NATURAL AREA Apache-Sitgreaves National Forests, Alpine Ranger District Apache County, Arizona

Proposed Action

The proposed action is to establish the Escudilla Mountain Research Natural Area (RNA), and to manage it according to the direction provided in the Land and Resource Management Plan (Forest Plan) for the Apache-Sitgreaves National Forests. The Escudilla Mountain RNA was proposed for establishment and management direction was provided in the Forest Plan in Management Area 10, Research Natural Areas, pages 203 and 204. The proposed action, formal designation of the RNA by the Chief of the Forest Service, will amend the Forest Plan.

Purpose and Need for Action

The purpose of establishing the Escudilla Mountain RNA is to contribute to a series of RNA's designated to "illustrate adequately or typify for research or education purposes, the important forest and range types in each forest region, as well as other plant communities that have special or unique characteristics of scientific interest and importance" (36 CFR 251.23). Escudilla Mountain RNA contributes to this series of RNA's by providing an example of Rocky Mountain montane grasslands, as discussed in the Regional Guide, page 3-9. An evaluation by the Regional RNA Committee, pursuant to direction in Forest Service Manual (FSM) 4063.04b), of the need for RNA's identified this habitat type as suitable for inclusion in the national network. Establishment of the Escudilla Mountain RNA provides the long-term protection and recognition of Rocky Mountain montane grasslands.

The Escudilla Mountain area was identified in the Forest Plan as a "proposed" RNA based on the relatively undisturbed conditions of the Rocky Mountain montane grasslands in the area at that time. Comments received from interested and affected members of the public supported establishment of an RNA in the area. Site conditions and public concerns have been reviewed, and no important changes have occurred.

Conditions and environmental effects of designation are the same as described on pages 171 and 216 of the EIS for the Forest Plan and pages 3-7 through 3-12 of the Regional Guide. Site specific conditions and effects are as follows:

- The mountain meadows within the area are inaccessible and far from water, so they have received little livestock use.
- No known significant mineral resources exist within the area.
- Recreation use is light and mostly limited to existing trails.
- The area is entirely within the Escudilla Mountain Wilderness.

Designation of alternate RNA's for protection was considered during Forest Plan development (Public Comments and Forest Service Response to DEIS, pages 66, 74, 402). A Region-wide study of potential RNA's was conducted as input to the Regional Guide, and Escudilla Mountain was determined at that time to provide the most appropriate site for inclusion in the national network for protection of this habitat type.

Alternatives and Environmental Consequences

Alternative A, Proposed Action

Alternative A would designate a 970 acre area as the Escudilla Mountain RNA. Escudilla Mountain "proposed" RNA was estimated to be 909 acres in the Forest Plan; more precise measurement sets acreage at 970 as described on page of the attached Establishment Record. Management of the area emphasizes protection of the natural ecosystem for research purposes. There are no planned vegetative management practices. Recreation use will be limited to dispersed recreation at a low intensity and reduced service level. The area is assigned no grazing capacity.

There are no adverse or irreversible environmental effects of Alternative A. The Escudilla Mountain RNA is already being managed as a "proposed" RNA under the Forest Plan. No change in existing management would occur. The area is within the Escudilla Wilderness, and it receives minimal use. There are no significant cumulative effects of establishing the RNA

Alternative B, No Action

Under this alternative, the Escudilla Mountain RNA would not be formally designated at this time. The area would continue to be managed as a "proposed" RNA according to direction in the Forest Plan, pages 203 and 204, and the recommendation would be revisited when the Forest Plan is revised. There are no significant cumulative effects of this alternative. Some research opportunities may be foregone due to the delay in establishing the RNA. No change in on-the-ground management should occur because of the Wilderness status of the area.

Agencies and Persons Consulted

In the process of updating information to determine whether or not conditions had changed since adoption of the Forest Plan, the State Natural Heritage Program, Nature Conservancy, Arizona Cattlegrowers Association, Arizona Game and Fish Department, and the range permittee were contacted. Only one comment was received, from the Arizona Game and Fish Department, which supported RNA designation.