

## ESTABLISHMENT REPORT

### SANTA BARBARA ASPEN RESEARCH NATURAL AREA

#### Carson National Forest

Taos County

January 4, 1972

## NARRATIVE REPORT

### I. Principal Distinguishing Features

The proposed Santa Barbara Aspen Research Natural Area contains the relatively pure stand of aspen, a part of which is being invaded by corkbark fir. Presumably, the climax timber type was spruce-fir, but no evidence of this type remains today. Topography consists of a more or less uniform slope up from the Middle Fork of the Rio Santa Barbara on a grade near 70%. Soils are derived from the Pennsylvania formation of shale and sandstone of the Jarosa-Encebado-Shale Complex and are 25" to 40" in depth. The timber stand consists mostly of aspen with some corkbark fir. The area is quite inaccessible to motor vehicle travel and grazing is extremely light because of the distance from ranch headquarters and relatively sparse herbaceous vegetation.

### II. Location

The area is not surveyed but according to the protraction diagrams would be located in sections 17, 20, and 21, T. 21 N., R. 13 E., New Mexico Principal Meridian. It is located on the north side of the Middle Fork of the Rio Santa Barbara Canyon some 11 miles airline southeast of Penasco within the Penasco Ranger District of the Carson National Forest. All of the land is in National Forest ownership (see attached map).

### III. Area by Cover Types

The principal cover types are SAF-217 (aspen) on 970 acres and the K-52 (alpine meadow and barren) on 490 acres. In addition, there are 60 acres of rock talus and 20 acres of spruce-fir type. The more common species found are: quaking aspen (*Populus*

tremuloides), corkbark fir (*Abies lasiocarpa* v. *arizonica*), Engelmann spruce (*Picea engelmannii*), Rocky Mountain maple (*Acer glabrum*), willow (*Salix* sp.), ocean-spray (*Holodiscus dumosus*), prostrate juniper (*Juniperus communis*), rose (*Rosa* sp.), dogwood (*Cornus* sp.), blueberry (*Vaccinium* sp.), cinquefoil (*Potentilla* sp.), bracken fern (*Pteridium aquilinum*), peavine (*Lathyrus* sp.), yarrow (*Achillea lanulosa*), nodding brome (*Bromus anomalus*), smooth brome (*Bromus inermis*), downy chess (*Bromus tectorum*), Canadian thistle (*Cirsium canadensis*), Thurber fescue (*Festuca thurberi*), rush (*Juncus* sp.), and sedge (*Carex* sp.).

#### IV. Physical and Climatic Conditions

##### A. Topography

The topography is a relatively uniform slope up from the Middle Fork of the Rio Santa Barbara on a grade of approximately 70%. There are a few relatively level benches, but the acreage is small. Elevations range from approximately 9,500 feet to nearly 11,000 feet above sea level. The drainage is into the Rio Santa Barbara and thence north and west into the Rio Grande via the Rio Pueblo. The aspect is generally south-southwest.

##### B. Climate

Average annual precipitation is between 30" and 40" with a considerable portion coming in the form of snow. The climate is relatively severe with frosts possible any time of year. Summer highs seldom exceed 80° F. and winter lows of a -25° F. can be expected frequently. The growing season is generally from about June 15 to September 1. Some 245 acres are in the Jarosa-Encebado Soil Complex and the remaining 140 acres is Angostura Shale Stony-Land Complex. They are relatively deep-- 30 to 40 inches--with well-developed horizons, especially on the bench land and pockets of gentler slopes.

#### V. Description of Values

##### A. Flora

The proposed research natural area offers an opportunity to study relatively pure aspen stands and the succession to a climax type of different species, apparently corkbark fir and spruce.

B. Geology

There are no known direct values in the area of geology on the proposed research natural area, but the soil types are limited in area.

C. Fauna

Mule deer and elk use the area considerably. It is reasonable to expect other smaller animals are using the area, also.

D. Minerals

There are no known minerals or mineral activity in the area.

E. Recreation

The area is accessible on foot or horseback and Forest Development Trail No. 24 crosses the southwest portion. However, it appears that travelers or campers seldom leave the trail. No heavy impact is anticipated.

F. Water Use

Water production from this area is exceedingly high, probably some of the highest per acre in the Southwest. It is all a part of the Rio Grande Basin and obligated in accordance with the adjudication of long standing. There are no plans to construct storage facilities in this vicinity.

G. Other Uses

The research natural area is a part of the Pecos Wilderness and subject to the uses and regulations on that unit. The attraction for wilderness enjoyment and use are not particularly outstanding in this vicinity, and near natural conditions are not expected to be subject to heavy impacts. As indicated above, camping opportunities are not plentiful because of topography.

H. Recommendation

The Region 3 Research Natural Area Committee recommends that the proposed Santa Barbara Aspen Research Natural Area be established.

1/4/72  
Date

*[Signature]*  
R-3 Natural Area Committee Member

Date

R-3 Natural Area Committee Member

Date

R-3 Natural Area Committee Member

Date

Carson Supervisor

Date

Regional Forester

Date

Director, Rocky Mountain Station

Date

Director, Division of Recreation  
and Lands, W.O.

Date

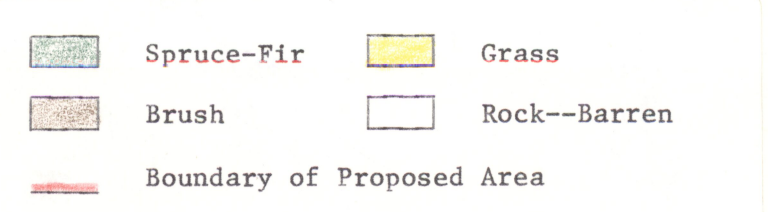
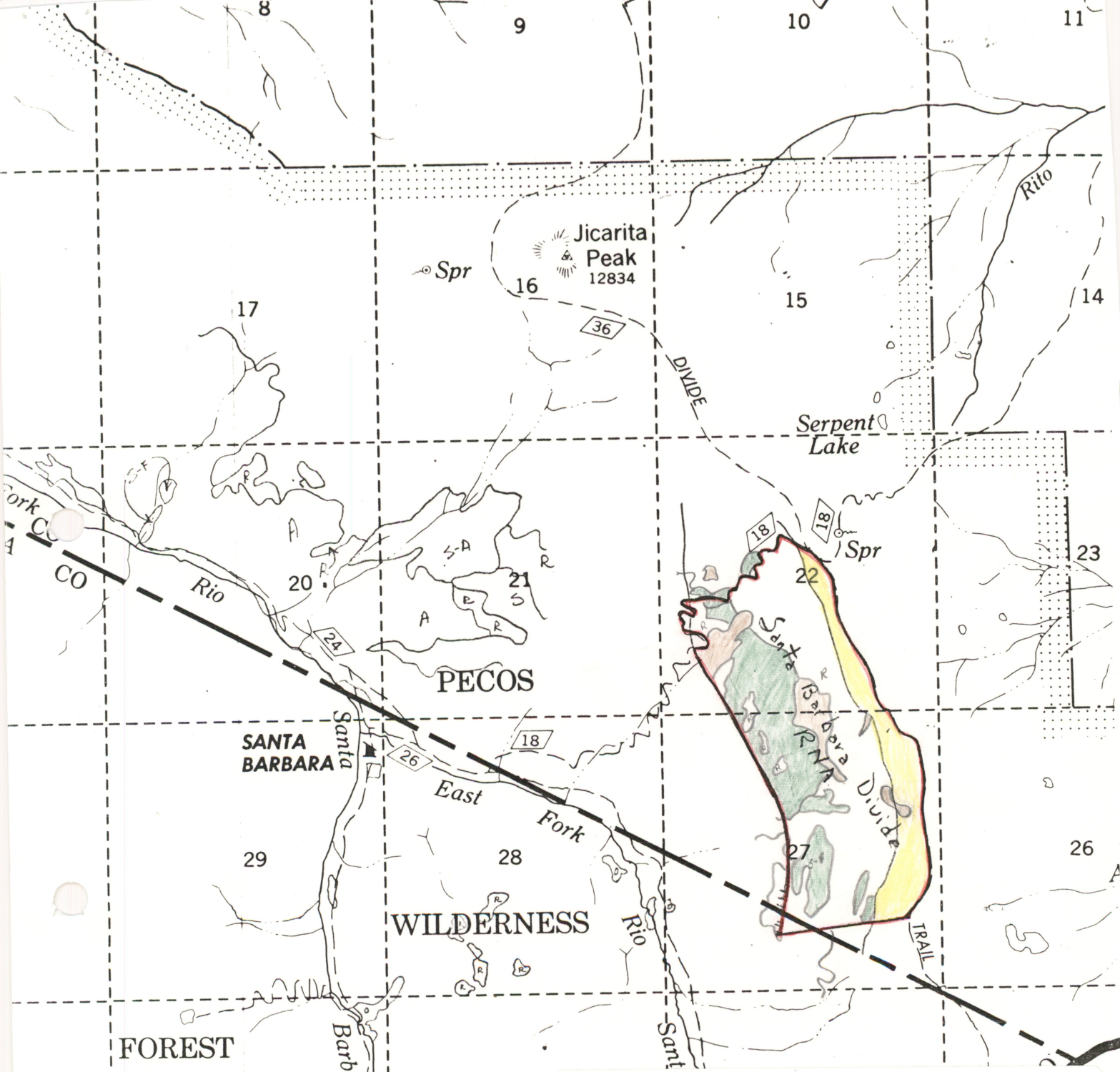
Deputy Chief of Research

ORDER

By virtue of the authority vested in me by Regulation U-4 of the Regulations of the Secretary of Agriculture, I hereby designate as the Santa Barbara Aspen Research Natural Area the lands described in the preceding report by the Region 3 Research Natural Area Committee dated January 4, 1972; said lands shall hereafter be administered as a Research Natural Area, subject to the said Regulations and instructions thereunder.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Chief, Forest Service



T 21 N  
T 20 N





PARALLEL

Little Jicarita Peak (3)

5 4 3 2

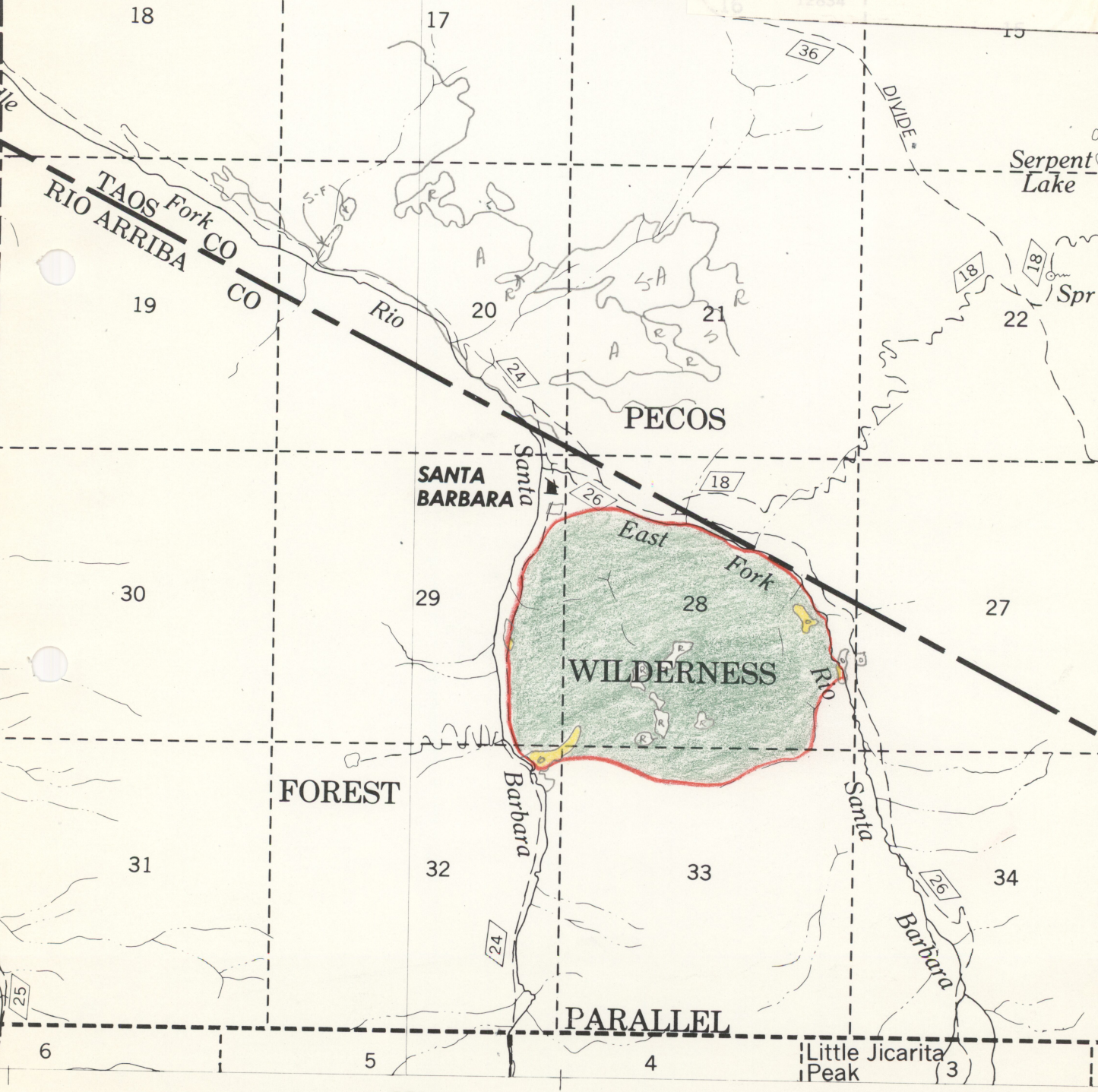
35'

R.13 E.

-  Boundary of Proposed Area
-  Grassland
-  Spruce-Fir
-  Rock

 Spr

NATIONAL



R.13 E.







Santa Barbara Divide - South end of proposed area just beyond second finger of timber.



Santa Barbara Divide - Looking southeast from lower edge of area near northwest corner.



Santa Barbara Research Natural Area



Looking down Middle Fork toward Santa Barbara Aspen Research Natural Area.



Santa Barbara Aspen Research Natural Area.



Santa Barbara Aspen Research Natural Area.



Santa Barbara Aspen Research Natural Area.