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McCain Valley Wildlife Habitat Management Plan



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McCain Valley Habitat Management Plan

A SIKES ACT PROJECT

Prepared By:

U.S. Department of Interior
Bureau of Land Management
Riverside District
El Centro Resource Area

State of California
The Resources Agency
Department of Fish and Game

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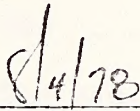
McCain Valley Wildlife Habitat Management Plan

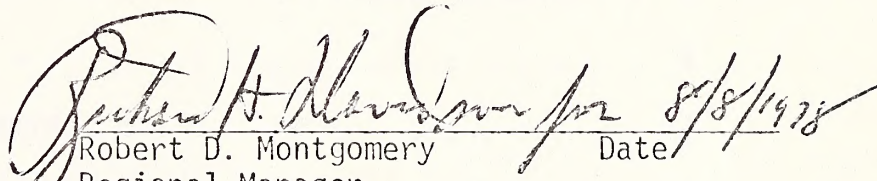
Final Approval

U.S. Department of the Interior
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State of California
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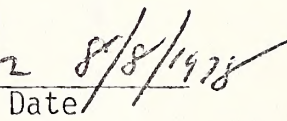

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I. INTRODUCTION

This report defines the Wildlife Habitat Management Plan (HMP) for the area designated as the McCain Valley Wildlife Habitat Area (WHA). The plan was prepared by the El Centro Resource Area, Riverside District, Bureau of Land Management (BLM) in cooperation with the California Department of Fish and Game under the Sikes Act and Public Land Order (PLO) 2460.

A. Location and Land Status

The McCain WHA (Figure 1) is located in the southeast corner of San Diego County, approximately 10 miles (16 km) north of the Mexican Border and 10 miles west of the Imperial County line. The main entrance to the area is from old Highway 80, near Boulevard, California, approximately 70 miles (113 km) east of San Diego and 50 miles (82 km) west of El Centro.

The WHA consists of 76,000 acres (30,400 hectares) of public domain with some intermixed private land. The WHA was divided into three subunits for the South Coast Border Resource Area (former name) Management Framework Plan (MFP):

McCain Valley subunit	38,500 ac* (15,400 ha)
Sawtooth Mountain subunit	34,500 ac* (13,800 ha)
Oriflamme subunit	<u>3,000 ac* (1,200 ha)</u>
Total	76,000 ac* (30,400 ha)

*Including private inholdings

The WHA is bounded on the east by Anza-Borrego Desert State Park and on the west by the Cleveland National Forest (Descanso Ranger District) and four Indian Reservations (Campo, La Posta, Manzanita, and Cuyapaipe) (Figure 2).

B. Biological Features

1. Vegetation

There are six major vegetative associations after Cheatham and Haller (1975), ranging from California mixed chaparral to Sonoran creosote bush scrub (Figure 3). The area is floristically extremely rich, and includes a large number of rare species. More definitive discussion is included in the Appendix to the Environmental Assessment on this plan.

The chaparral was burned by a single wildfire in 1944. High wildfire frequency is an essential component of chaparral ecology; indeed many chaparral species require fire for their existence.

2. Wildlife and Priority Species

Three groups of priority species are identified for specific management in this HMP: (1) peninsular bighorn sheep, (2) small game species, and (3) small mammals and reptiles of high scientific interest.

The peninsular bighorn sheep (Ovis canadensis crennobates) is on the California Department of Fish and Game's list of Rare species (At the Crossroads, 1976). This subspecies occurs on the desert slopes of the Peninsular Ranges from the San Jacinto Mountains south into Mexico. Within the McCain WHA sheep are currently found from Tule Mountain north to Sombrero Peak (Figure 4). It is an isolated population which has been under close study for several years; it numbers about 110 animals (Weaver, 1968; Turner & Jorgensen, 1975; Terry Russi, pers. comm. 1978).

Reproduction in this population has been almost nil in the last several years (Turner & Jorgensen, 1975; Terry Russi, pers. comm. 1978). There are several probable causes. Water is critical during the summer months; the general drought has probably eliminated some water sources. Human intrusion, especially off-road vehicle (ORV) activity in the upper elevational part of the habitat, is extremely disruptive (Terry Russi, unpublished observations). Poaching has been and continues to be a problem. Livestock graze in the upper part of the sheep habitat and occasionally wander lower. There may be competition between livestock and bighorn, but there is conflicting evidence from different ranges (Seegmiller, 1977).

The exact number of sheep is less important than the habitat's potential. The McCain population currently occupies an area of about 40 sq. mi. (104 sq. km), a density of 2.8 per sq. mi. (1.0 per sq. km). There are more than three times this amount of suitable habitat (Fig. 4). (Area figures include adjacent State Park land; sheep now occupy ca. 32 sq. mi. (83 sq. km) of public domain.) Studies in Nevada (McQuincy and Leslie, 1976) have shown that most ranges support 1 to 5 sheep per square mile (0.4 to 1.9 per sq. km) of available habitat, with some ranges supporting 7 per square mile (2.7 per sq. km). Since the McCain subunit is more mesic than most desert ranges (13 in., 330mm/yr.), this area should have a carrying capacity of at least 5 sheep per square mile (2 per square km.), or a total of about 200 within the currently occupied area (including State Park land).

The second class of priority species includes small game species important for their recreational value for sport hunting. In the McCain Valley WHA the principal game species are Gambel's quail (Lophortyx gambelii), California quail (Lophortyx californicus), Mountain quail (Oreortyx pictus), Audubon cottontail (Sylvilagus auduboni), Mourning dove (Zenaidura macroura) and Brush rabbit (Sylvilagus bachmani). Hunting for Mule deer (Odocoileus hemionus) and Black-tailed jackrabbits (Lepus californicus) is of lesser importance.

The third class of priority species includes small mammals and herptiles of unique scientific interest. The McCain Valley WHA supports a great diversity of wildlife species since habitats range from low desert to

chaparral and oak-woodland types. The chaparral-desert transitional area is of particular scientific interest because closely related species of the same genera, such as the desert horned lizard (Phrynosoma platyrhinos) and the coast horned lizard (P. coronatum) can be found living in close proximity to each other. The same situation undoubtedly holds true at the subspecies level. For example, two subspecies of the deer mouse (Peromyscus maniculatus) may occur in the area: the coastal subspecies (P. m. gambelii) and the desert subspecies (P. m. sonoriensis). The scientific value of the presence of closely related species and subspecies in the chaparral desert transition area provides a unique opportunity to study the evolutionary history of small mammals. There are, in addition, a number of reptile species found in Mexico that are extremely limited in distribution in the United States. These include the banded rock lizard (Streptosaurus mearnsi) and the small scaled lizard (Urosaurus microscutatus) whose ranges are primarily in Mexico but extend into a few southern California localities.

There are many other species of wildlife present in the area and it is BLM policy to protect habitat for all of them. However, the above three groups of species are of primary interest and the measures proposed in this HMP will be directed toward preserving, protecting and enhancing habitat for them as well as protecting the habitat of the endangered and threatened plant species.

II. MANAGEMENT OBJECTIVES

The objectives of this plan are:

- A. To protect and rehabilitate the bighorn sheep habitat within the McCain Valley subunit so that it can support a density of 5 sheep per square mile.
- B. To protect and rehabilitate the former sheep range within the Sawtooth subunit so that sheep can re-occupy this range or be successfully reintroduced.
- C. To protect and enhance the habitat of endangered, threatened, or other sensitive or unique plants of the area. (See section IV C.2.)
- D. To enhance the habitats and increase the population densities of California, Gambel's, and mountain quail within the McCain and Sawtooth subunits.
- E. To protect and maintain current wildlife values in the WHA pending preparation of a coordinated activity plan, which will provide:
 1. Guidelines for interim management of the Sawtooth and Oriflamme subunits until inventories and special studies have elucidated management needs.
 2. A description, schedule, and priority listing of necessary wildlife inventories and studies.

3. A schedule for expansion, revision, and updating of the habitat management projects.
4. A schedule for implementation, completion, and evaluation of the plan for the entire McCain Valley Wildlife Habitat Area.
5. A schedule for research and a coordinated fire management plan for the chaparral portion of the WHA with the Forest Service, California Division of Forestry, and Fish and Game.

III. CONSTRAINTS

A. Natural Resources Defense Council (NRDC) Grazing Lawsuit

The court order agreement in the NRDC v. Morton, et al., case prohibits implementation of any AMP or its equivalent after the end of FY '75 (June 30, 1975) prior to the completion of an ES covering such AMP. (BLM WO-IM 77-606). The McCain Valley Range ES is scheduled to be completed in Fiscal Year 1981.

B. Wilderness Review

Much of the McCain area was identified as roadless in the Sundesert Nuclear Project Draft Environmental Statement. BLM cannot implement any action in a Wilderness Study Area that would impair its potential wilderness characteristics until the wilderness review is completed.

C. Private Land Access

BLM may not restrict access of a private landowner to his private land without his consent.

IV. PLANNED ACTIONS

A. Rehabilitation of Bighorn Sheep Habitat (McCain Subunit)

1. Grazing Use

Current grazing use will continue unaltered until completion of the Range Environmental Statement in 1981 (See Section III - Constraints). At that time recommendations for modification will be made based on the information gathered in the MFP and land use plan. Ear tagging should be undertaken to determine actual grazing usage in this area and potential competition for forage between cattle and bighorn sheep.

2. Visitor Use Management

All vehicular access will be eliminated from bighorn range (as shown in

Figure 4) by physically blocking roads that lead into this area (Figure 6). The area will be closed to vehicle use and the closure enforced under authority of the Sikes Act (88 Stat. 1369), Executive Order 11989, and according to regulations promulgated under 43 CFR 6290.

Specific actions include:

- a. Case-by-case construction of road barriers on access routes into the bighorn range.
- b. Case-by-case water-barring and ditching of existing roads and trails within the closure area.
- c. Signing and posting of closed roads and trails.
- d. Vigorous patrol and enforcement of closed roads and trails.
- e. Signing and posting of open and closed areas at the entrance to McCain Valley and at all BLM campgrounds in the area. This will be coordinated with the Recreation Activity Management Plan to be finished in FY 1978.
- f. Restoration and revegetation of closed roads, barrier sites, ditches, roads put to bed, and roads water-barred to minimize erosion. This action does not require removal of livestock from the bighorn area. Revegetation will be allowed to occur naturally wherever possible. Seeding may be employed in some areas of severe erosion potential if judged to be feasible.

Wherever legally and physically possible, roads will be closed by permanent barriers that will need little or no maintenance. Sturdy locked gates will be installed across roads leading to private land and to some developed springs. Existing roads in the vicinity of Sacotone Spring, where there is a heavy concentration of mining claims, will not be closed.

An existing undeveloped road from the McCain Valley access road and portions of an existing unimproved road roughly parallel to the access road may be developed as a self-guiding interpretive road. Final location will be determined in the Recreation Activity Management Plan for McCain Valley to be completed in Fiscal Year 1978.

An existing one-mile road which connects Sacotone Springs road with the general area of Tule Mountains will also remain open; this road is used by gem hunters.

Private landowners will not be denied access to their private lands. It may be necessary to close some roads with locked gates and provide landowners with keys and rights-of-way. This problem will be resolved in the RAMP since much of this area is outside critical bighorn area.

3. Land Acquisitions

Private inholdings within the bighorn range will be acquired as time and money permit. Key lands to be acquired are prioritized:

<u>Priority Group</u>	<u>Legal Description</u>	<u>Size</u>
(1)	T 17 S, R 7 E SBM, Sec 2: N 1/2 NW 1/4	80 acres
	T 16 S, R 7 E SBM, Sec. 34: S 1/2 S 1/2	160 acres
	T 16 S, R 7 E SBM, Sec. 33: SE 1/4 SE 1/4	40 acres
	T 16 S, R 7 E SBM, Sec. 33: W 1/2 E 1/2	160 acres
	T 16 S, R 7 E SBM, Sec. 28: SW 1/4 SE 1/4	40 acres
	T 16 S, R 7 E SBM, Sec. 28: E 1/2 SW 1/4	80 acres
	T 16 S, R 7 E SBM, Sec. 28: SE 1/4 NW 1/4	<u>40 acres</u>
	Sub Total	560 acres
(2)	T 16 S, R 7 E SBM, Sec. 16	640 acres
	Sub Total	<u>640 acres</u>
(3)	T 15 S, R 6 E SBM, Sec. 36	640 acres
	TOTAL	<u>1840 acres</u>

4. Designation and Maintenance of Waters

Waters within the bighorn range will be designated by California Department of Fish and Game to limit human activity near these waters. Designation will restrict human activity within either 200 yards (183 m) or 1/4 mile (402 m) of these waters to no more than 30 minutes. A total of 8 springs, 13 guzzlers, and maybe one yet undeveloped water source will be designated. Details will be specified in the Cooperative Agreement implementing this HMP.

All waters (seeps, springs, tanks, etc.) used by bighorn will be maintained (and developed if necessary) to insure that permanent water is available. These waters will be inspected regularly, preferably early each summer.

A water source may be developed in Rockhouse Canyon, T. 16S., R. 7E., Sec. 4 (Sombrero Peak 7 1/2' topo). There are several springs and seeps suitable for development to enhance the water supply. The exact location and method will be determined after on-site consultation with the California Department of Fish and Game and other people who are familiar with the area. Fish and Game will supervise construction.

Tamarisk eradication will be undertaken at all waters within the WHA, using the successful method developed in Death Valley. It consists of cutting stems near ground level and painting the stumps with Silvex herbicide.

5. Surface Protection, Minerals Development

BLM has proposed surface mining regulations for public lands, which would allow continued mineral extraction in an environmentally prudent manner. Implementation would lessen the need for withdrawal of the area from mineral location under the general mining laws, and would allow a case-by-case evaluation of proposed mining activities and allow for stipulations to protect bighorn.

Leasing of minerals such as oil, gas, and geothermal resources is discretionary with the Secretary of Interior. Leasing would not have to be allowed if it would cause deterioration of the environment or adversely impact wildlife in the area.

6. Designation as Area of Critical Environmental Concern

The public lands within the McCain Valley Wildlife Habitat Area shown in Figure 7 are a likely candidate for designation as the McCain Valley Area of Critical Environmental Concern (ACEC) under FLPMA. When criteria and regulations for this designation are adopted, the appropriateness for this area should be examined. The existing designation as the Bow Willow Palms Research Natural Area would then be dropped. The ACEC status will provide better land management regulations and protection than would Natural Area designation. Under the guidance of the ACEC designation, the following actions will or will not be allowed:

a. Motorized transportation. Motorized forms of travel in the candidate ACEC will be restricted to designated roads set out in this HMP.

b. Aircraft. Aircraft will not be allowed to land in the candidate ACEC except on a justified case-by-case basis or for emergency purposes.

c. Motorized equipment. Motorized equipment would not be allowed except on a justified case-by-case basis.

d. Roads. No new roads will be constructed except for sections that may need to be constructed to improve the designated road or allow private access.

e. Construction. Construction of any kind will be prohibited in the candidate ACEC area except for maintenance and construction of wildlife water supplies, fences needed for management or protection of wildlife, or other construction directly benefiting and solely for use by wildlife. No construction will take place without proper environmental clearance.

f. Wildlife. Hunting will be allowed in accordance with appropriate state and Federal rules and regulations.

- g. Non-hunting firearm use. Non-hunting firearm use will be encouraged in areas that will minimize conflict with wildlife values and human safety in the pending Recreation Activity Management Plan.
- h. Water storage projects. Water storage projects will be allowed that are directly beneficial to wildlife.
- i. Rights-of-way. Rights-of-way for utility lines and other purposes may be allowed in the Natural Area by the Authorized Officer under such conditions and restrictions as are deemed necessary to leave the bighorn sheep habitat undisturbed.
- j. Fire control. Wildfires will be controlled as necessary to prevent unacceptable biological damage, loss of life, damage to property or the spread of wildfire to adjacent areas. Nothing in this designation will restrict a fire management plan from being developed and implemented.
- k. Rescue and other emergency operations. In emergency situations involving the health and safety of persons, the use of aircraft or other motorized or mechanical equipment may be permitted.
- l. Visitor use structures and facilities. Foot trails would be allowed only where they do not conflict with bighorn sheep management.
- m. Horseback riding. Horseback riding will be allowed provided that riders supply feed for their animals while in the ACEC.

7. Habitat Rehabilitation

Direct loss of vegetation from off-road vehicle use and grazing will be halted by eliminating the causes. Further habitat deterioration from continuing erosion will be reversed by implementing measures 2a-g above at all severely disturbed sites -- roads, ORV play areas, and overutilized water sources. Restoration does not require prior removal of livestock, except at water sources, where fencing may be necessary. (Water will not be denied to livestock, however.)

Revegetation will be permitted to proceed naturally after physical stabilization and surface preparation has been effected. Seeding may be undertaken in some areas of severe erosion potential if it appears to be feasible.

B. Rehabilitation of Bighorn Sheep Habitat (Sawtooth Subunit)

1. Studies

No projects will be implemented within the subunit until completion of necessary inventories and studies.

The Sawtooth subunit is under the same Grazing ES schedule as the rest of the McCain WHA. The data gathered for the URA/MFP/ES should provide the necessary information for successful reestablishment of bighorn. A definite allocation of forage will be made for bighorn in the ES.

Natural reestablishment of bighorn sheep into this area is dependent upon having a healthy, expanding population of sheep in the McCain Valley Subunit and in adjacent Anza-Borrego State Park. Reintroduction would require construction of a large enclosure, transplant of animals into it, and release of offspring from these transplanted sheep over a period of years. Natural reestablishment is preferred both ecologically and economically.

2. Grazing Use

All grazing use will be maintained at status quo until completion of the McCain URA/MFP/ES in 1981. Alternatives to major grazing use modification at this time have been precluded by the NRDC lawsuit.

3. Control Of Vehicle Access

No new roads would be allowed to be built into the Sawtooth Subunit until the completion of final land use decisions following the McCain URA/MFP/ES schedule.

4. Designation Of Waters

Once a complete inventory of wildlife water is made, some waters must be designated as wildlife waters as described in Part IV A.4 for the McCain Subunit.

5. Implementation Of Proposed Surface Mining Regulations

Surface protection regulations would prevent unplanned road building and environmental disruption that would adversely affect potential bighorn reintroduction. Upon promulgation, the area should be protected for its potential for bighorn sheep reestablishment. If the regulations are finalized, a withdrawal should be considered as the most viable alternative in the McCain URA/MFP/ES schedule.

6. Designation As An Area Of Critical Environmental Concern

Designation as an ACEC is not called for in this plan until after bighorn can be reestablished in the area. This action must be considered in the McCain URA/MFP/ES schedule. Review of the area for wilderness values would occur as the BLM review process dictates. No recommendation for other land management designation are called for at this time.

C. Protection of Habitat of Endangered, Threatened, Unique and/or Sensitive Species

1. Animals

There are no resident animals in the area on Federal or state lists of Endangered, Threatened, or Rare species other than the bighorn sheep which has been discussed.

There are several species that are being considered for the BLM sensitive list. As defined in BLM Manual 6840, they are:

Leaf-toed gecko	Western spadefoot toad
Unnamed gecko (new species)	Prairie falcon
Coast horned lizard	Desert shrew
Small-scaled lizard	Bobcat
Banded rock lizard	
Granite night lizard	
Orange-throated whiptail	
Granite spiny lizard	
Red diamond rattlesnake	

All the above species shall be given adequate habitat protection. This plan recognizes that certain protection of these species would occur as a secondary benefit from the protective measures called for to implement Objective A, Bighorn Sheep Protection. It is not possible to call for additional land use and habitat management actions without further detailed inventory and study.

a. Inventories

Inventories and studies of all sensitive species, especially those that inhabit the chaparral (extra-ACEC) portion of the McCain subunit, must be completed prior to any plans for habitat protection. Most of these inventories will be accomplished systematically in the McCain URA/MFP/ES schedule.

b. Protective Actions

Most of the unique sensitive species in the McCain subunit are found on the desert slopes area that may eventually be designated as an ACEC. Its designation plus implementation of surface mining regulations and recreational vehicle closures will provide adequate interim protection of these sensitive species. No other restrictive actions are called for in this HMP.

2. Plants

Protection of proposed Endangered and Threatened plants is essential to adequate implementation of this HMP. The following fourteen (14) plants

are listed as rare by the California Native Plant Society (CNPS). Of these, six are listed on the proposed Endangered and Threatened species list by the Fish and Wildlife Service. The plants located within the candidate ACEC are marked by an asterisk.

- *1. *Acalypha californica*
2. *Linanthus bellus*
3. *Berberis higginsae*
4. *Hemizonia floribunda*
5. *Poa atropurpurea*
- *6. *Heuchera brevistaminea*
7. *Limnanthes gracilis* var. *parishii*
8. *Machaeranthera lagunensis*
9. *Celtis reticulata*
- *10. *Bursera microphylla*
11. *Ayenia compacta*
12. *Ipomopsis tenuifolia*
13. *Haplopappus junceus*
14. *Diplacus aridus*

The known locations of these plants are shown on Figure 9.

As with animals, primary protection measures for these plants is considered a secondary benefit of the protection of the bighorn range. Additional inventory is needed to further the extent and total protective needs of these plants.

a. Inventories

Not enough is known about any of these rare plants at this time to make any specific management recommendations. Further studies are needed to determine their distribution and environmental requirements. These species will be given priority in the inventory for the McCain ES.

b. Protective Actions

No additional protective actions are called for at this time. Interim protection would be the same as specified for sensitive animal species.

D. Enhancement of Habitat for Quail

1. Providing free water is a simple means of enhancing arid habitat for quail. There are 13 guzzlers and 48 known springs and seeps in the McCain Valley area (Figure 8). All will be maintained to insure a year-round water supply. Livestock waters will be modified if necessary to make the water accessible to birds.

E. Inventory, Studies, and Research

Necessary biological inventories, studies, and research are outlined here. There are administrative distinctions among those three types of investigation; each is directed toward obtaining a different type of information, requires different levels of expertise, and is funded differently.

1. Inventories

The main objective of inventory is to determine the presence, distribution, and density (or relative abundance) of species in a given area. It includes collation of literature and other existing data sources as well as field surveys. General guidance is given in Manual sections 6602 and 6610.

There is an existing wildlife inventory for the McCain Valley subunit; however, it is short of current standards and needs revision. There are no inventories for the Sawtooth and Oriflamme subunits. All inventories will be conducted/updated for the McCain ES.

Inventory needs should be given higher priority than studies and research.

2. Studies

Studies are investigations designed to provide information on specific topics to aid management decisions. General guidelines are established in BLM Manual, sections 6611-6619, and 6630-6660.

Baseline and trend studies are needed in the McCain WHA to serve two general objectives: (1) to establish long-term habitat and population changes under natural conditions, and (2) to determine effects of management actions (grazing, vehicle closures, water developments, etc.) on the same. Initial studies should be carried out for a 5-year period (Appendix B). Priority should be given to baseline studies over management studies; the two types must be closely coordinated with each other and with initial inventories.

3. Research

Research as used here consists of investigations to collect original information about the ecology of a species or group of species, or interactions between species.

There are four areas where original research is needed to facilitate sound management. In order of priority, they are: (a) rare plants, (b) bighorn sheep, (c) other sensitive wildlife, and (d) desert/chaparral fire ecology.

a. Rare plants. Research is needed to determine the ecology of the 14 known (and undoubtedly more unknown) Rare or Endangered plants in the McCain Valley area. The research should focus on their responses and tolerance to ORV traffic, fire, and grazing.

b. Bighorn sheep. A comprehensive analysis of the bighorn in southern San Diego County is needed to determine food habits and nutrition, movement patterns and home ranges, habitat selection, demography, and limiting factors. The research should focus on interaction with livestock and the necessary conditions for bighorn reestablishment in the Sawtooth subunit.

c. Sensitive species. Very little is known about the ecology of most of the candidate sensitive species. Research is needed to determine whether they should be listed, and if so, to determine crucial habitat.

d. Desert/chaparral fire ecology. The U.S. Forest Service, Pacific Southwest Forest and Range Experiment Station has undertaken a vigorous research program. BLM should encourage this research to focus on problems relevant to public domain management, and ideally, BLM should conduct complementary studies of its own.

V. IMPLEMENTATION AND EVALUATION

These actions are summarized on Forms 6620-3, Habitat Management Plan Progress Report (Appendix C). Below they are listed in order of priority for funding in each fiscal year (FY).

A. Year 1 (FY 78)

<u>ACTION</u>	<u>COST (est.)</u>	<u>AGENCY</u>
1. Visitor Use Management in McCain Subunit		
a. Road closures (barricades or gates) at approximately 50 sites	\$15,000 (1MM)	BLM
b. Put closed roads to bed:	5,000	BLM (with YACC)
--Prepare soil for vegetation (rip up compacted road bed)		
--Stabilize against erosion (water barring, check dams, perhaps some seeding)		
c. Sign and post closed roads (100 signs)	4,000 (1/2MM)	BLM

	<u>COST</u>	<u>AGENCY</u>
2. Patrol and Enforcement		
a. Begin patrol and enforcement of closed area	4,500 (3MM)	BLM CDFG
3. Develop and Maintain Bighorn Water Sources		
a. Develop water source in Rockhouse Canyon	3,000 (1/2MM)	BLM (materials) CDFG (supervision and labor) YACC? (labor)
b. Inspect and maintain other water sources, including tamarisk removal	5,000 (1 1/2MM)	BLM (with YACC labor)
c. Enhance livestock water for other wildlife (install birds ramps, fence some springs from cattle)	2,500 (1MM)	CDFG
d. Designate important water sources	(no cost)	CDFG
4. Construct Range Enclosure		
a. Construct 50-100 acre livestock enclosure to provide baseline for grazing studies (ca 1 1/2 miles of fence for 100 ac.)	4,000 (1/2MM)	BLM
5. Fence Removal		
a. Remove non-functional fences	750 (1/2MM)	BLM (with YACC)
6. Enhancement of Quail Habitat		
a. Same as 3 a-d above	(no additional cost)	
b. (Small game guzzlers will be inspected in FY 79)		
7. Protection of Habitat of Endangered, Threatened, Rare, and Sensitive Species of Animals and Plants. (Other actions taken will adequately protect these values. No additional expenditures should be needed.)		

B. Year 2 (FY 79)

<u>ACTION</u>	<u>COST</u>	<u>AGENCY</u>
1. Designate McCain Valley Candidate Area of Critical Environmental Concern	5MM (\$12,500)	BLM
2. Continue and Expand Patrol and Enforcement of:	10MM (15,000)	BLM, CDFG, and other cooperating agencies
a. Road closures		
b. Designated waters		
c. Vandalism		
d. Hunting and shooting regulations		
3. Land Acquisition		
a. Program for exchange, purchase, etc.	4MM (\$10,000)	BLM
4. Inventory		
a. Conduct inventory according to URA/MFP/ES schedule	30MM (\$45,000)	BLM
5. Implement Surface Mining Regulations		
a. Implement enforcement upon promulgation	2MM (\$3,000)	BLM
6. Studies and Research		
(Conduct as funds are available)	?	BLM

C. FY 80 and Beyond

1. Continue URA/MFP/ES Schedule (ES to be completed FY 81)
2. Rehabilitate Sawtooth Subunit for Bighorn (Cannot implement until completion of Grazing ES)
 - a. Modify grazing use as needed.
 - b. Regulate visitor use

- c. Restore damaged and declining lands.
 - d. Maintain and develop water sources.
 - e. Reintroduce bighorn (if necessary).
3. Continue Patrol and Enforcement
 4. Continue Maintenance of Water Sources

VI. COORDINATION WITH OTHER PROGRAMS

Basic coordination with other resource activities has been built into the plan and is coordinated in the San Diego County MFP. All the following resource activities would coordinate this action to the extent that future actions would not adversely affect accomplishment of the objective of this plan.

A. Grazing Management

Grazing uses would continue as status quo until completion of the URA/MFP/ES. Interim management would assure:

1. No increase in present allotments.
2. No new range improvement facilities.
3. No expansion of grazing use into areas presently underutilized.

B. Recreation Management

Recreation management goals are being developed in an activity plan to be written in FY-78. This plan would be written to protect the values specified in this HMP. Basically, a recreation activity plan for all of McCain Valley must address the following issues:

1. Camping use outside of developed campgrounds.
2. Unmanaged vehicle use encroaching on bighorn habitat.
3. Competitive and commercial recreation activities.
4. Adequate law enforcement personnel to patrol all of McCain Valley.
5. Continued hunting uses within the area.
6. Management for nonconsumptive wildlife activities.

C. Watershed Management

All actions required by this plan would be handled to conform to good

watershed management practices as specified in the San Diego MFP.

D. Lands

Assistance and coordination with the lands program is necessary to assure proper handling of normal lands action such as rights-of-way and communication sites and access to private lands.

E. Minerals

Minerals management assistance is required in the proper handling of possible mineral leasing actions. Each potential mineral leasing action must be evaluated on a case-by-case basis in order to stipulate the protection of bighorn habitat and wildlife values are of high priority for this area.

VII. PROVISION FOR REVIEW AND MODIFICATION

The Habitat Management Plan will be reviewed annually to determine if revision or modification is needed because of changes in Bureau policy, land use plans or other factors. Once a year the Area Manager will review progress on implementating the plan and will submit a report to the District Manager indicating:

- A. Progress made on implementing the plan.
- B. Priorities for future implementation, and
- C. Recommended modifications in the plan or schedule.

The District Manager will determine if any recommended modifications are of such a major nature that a new Environmental Assessment Record (EAR) or supplemental EAR is required. Minor changes such as revised cost estimates, modification of schedules, changes in seed mixtures, etc. would not require a supplemental EAR although some of the individual projects may require supplemental EAR's of the Minimal Acceptable Documentation type.

With the concurrence of the District Manager the recommended modifications will be forwarded to the California Department of Fish and Game and any other agencies that are parties to any cooperative agreement on the plan for their information and approval.

Modification of this HMP would occur after the completion of the McCain Grazing URA/MFP/ES update. At that time, the management objectives of this plan must be reevaluated in light of new data in the updated general land use plan (MFP).

VIII. MANAGEMENT EVALUATION




Basic evaluation of the HMP will be completed according to submission of the annual Habitat Management Plan Progress Report. These documents will enable unfinished projects and actions to be carried through into other years. Evaluation Reports for FY-78 actions are included in Appendix C. These evaluation reports include basically those actions summarized as Phase I Implementation.

The effectiveness of obtaining priority consideration of unfunded projects (Phase II Implementation) must also be evaluated. These actions should also be evaluated on a fiscal year basis. Items to be programmed in future fiscal years are included in Appendix C and include all those actions under Phase II Implementation.

McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley Wildlife Habitat Area

McCain Valley Wildlife Habitat Area

-  Oriflamme Subunit
-  Sawtooth Subunit
-  McCain Subunit

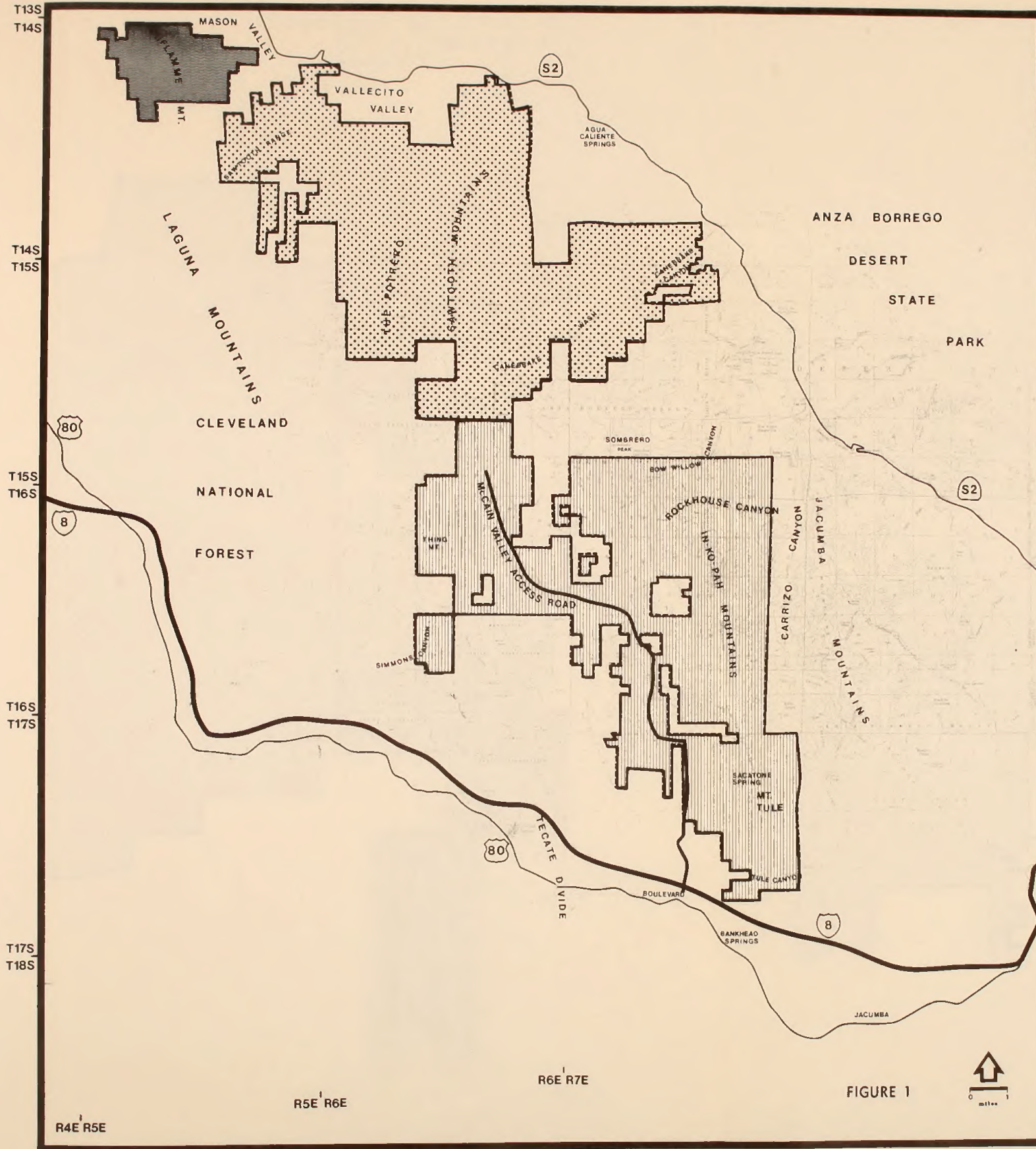


FIGURE 1



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MCCAIN VALLEY WILDLIFE HABITAT MANAGEMENT PLAN

----- Boundary of McCain Valley
Wildlife Habitat Area

Site Location Map: Status of Lands Surrounding McCain Valley Wildlife Habitat Area

-  McCain Valley Wildlife Habitat Area
-  Anza Borrego Desert State Park
-  Cleveland National Forest
-  Indian Reservation



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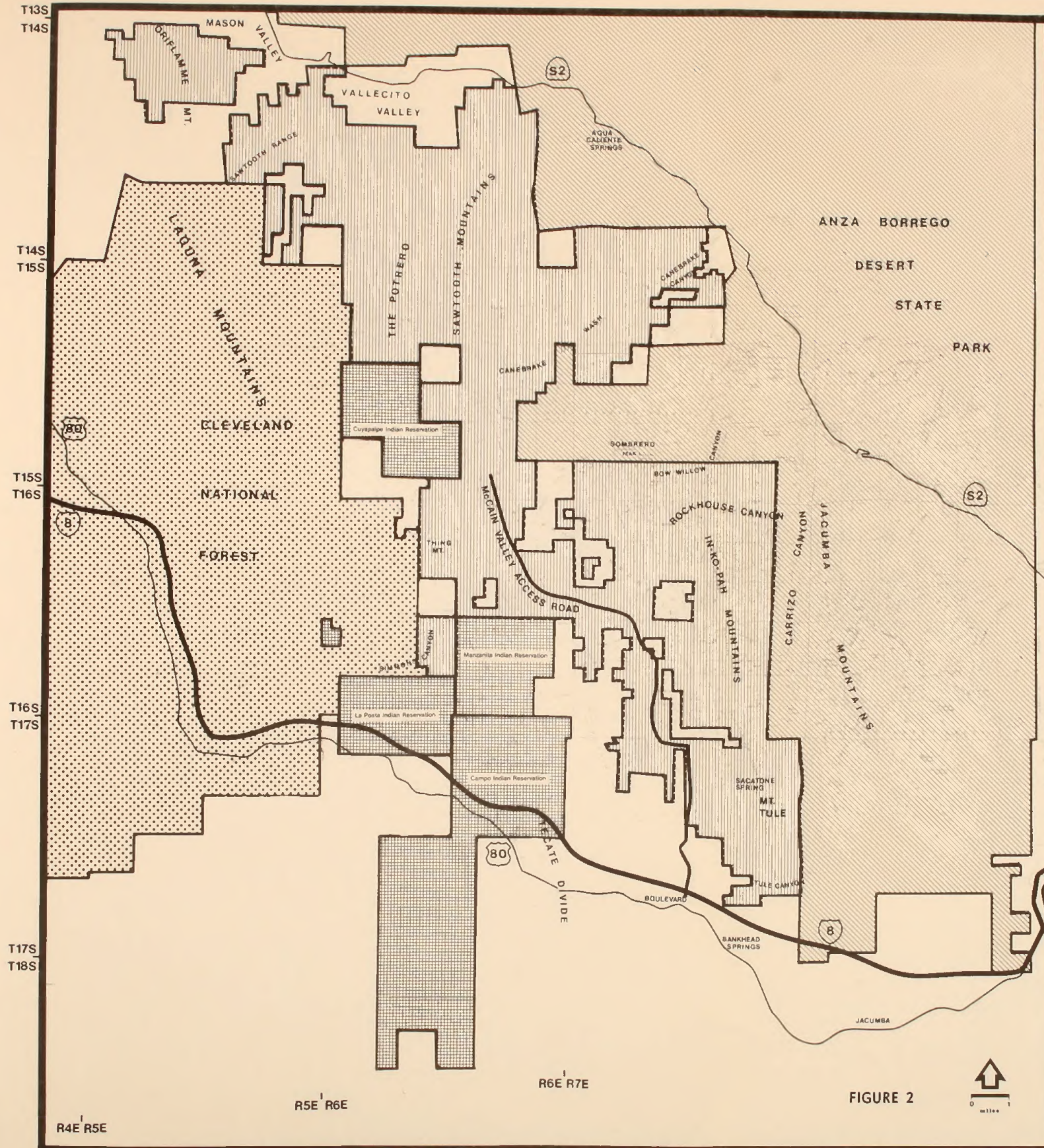


FIGURE 2



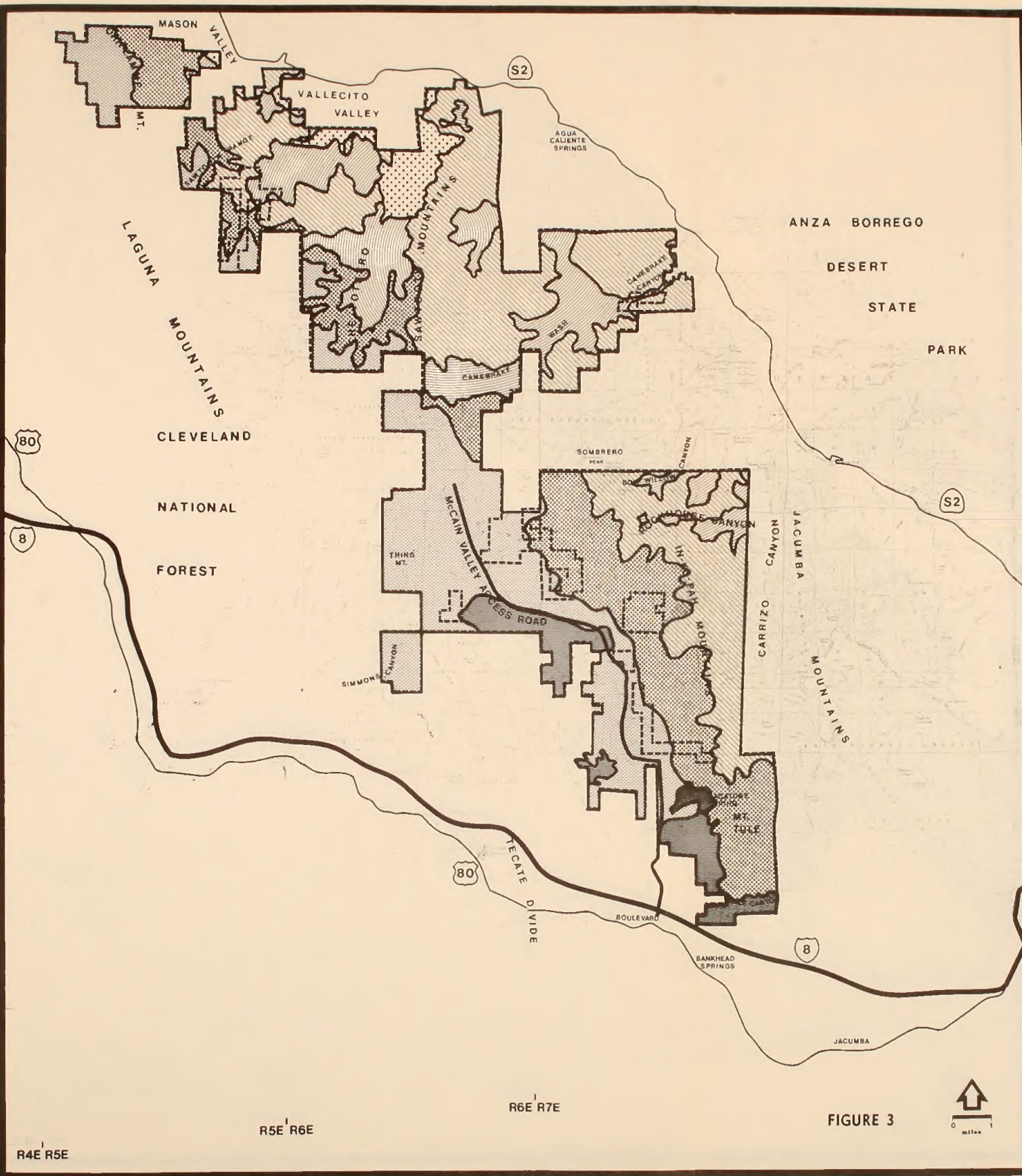
McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley Wildlife Habitat Area

Major Plant Associations

- Chamise Chaparral
- ▨ Californian Mixed Chaparral
- ▩ Semi-Desert Chaparral
- ▧ Sonoran Creosote Bush Scrub
- ▨ Enriched Desert Scrub: Steep and Rocky Sites
- ▩ Enriched Desert Scrub: Alluvial & Moderately Sloped Sites.

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FIGURE 3

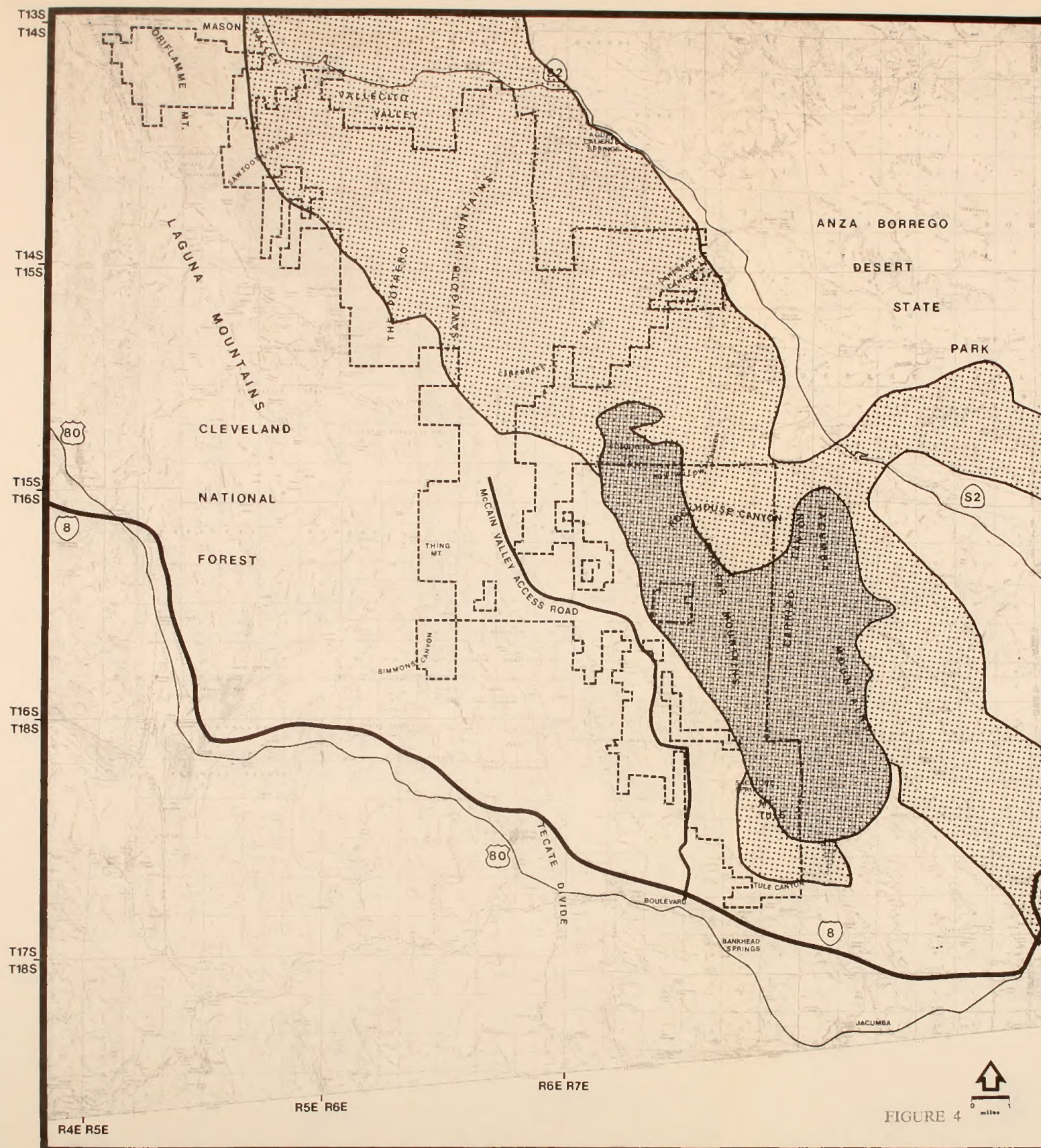


McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley Wildlife Habitat Area

Bighorn Sheep Distribution

-  Existing Sheep Habitat
-  Historic Sheep Habitat



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R6E R7E



FIGURE 4



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McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley Wildlife Habitat Area

Existing and Proposed Fences

- Existing Fences
- ~~~~~ Proposed Fences

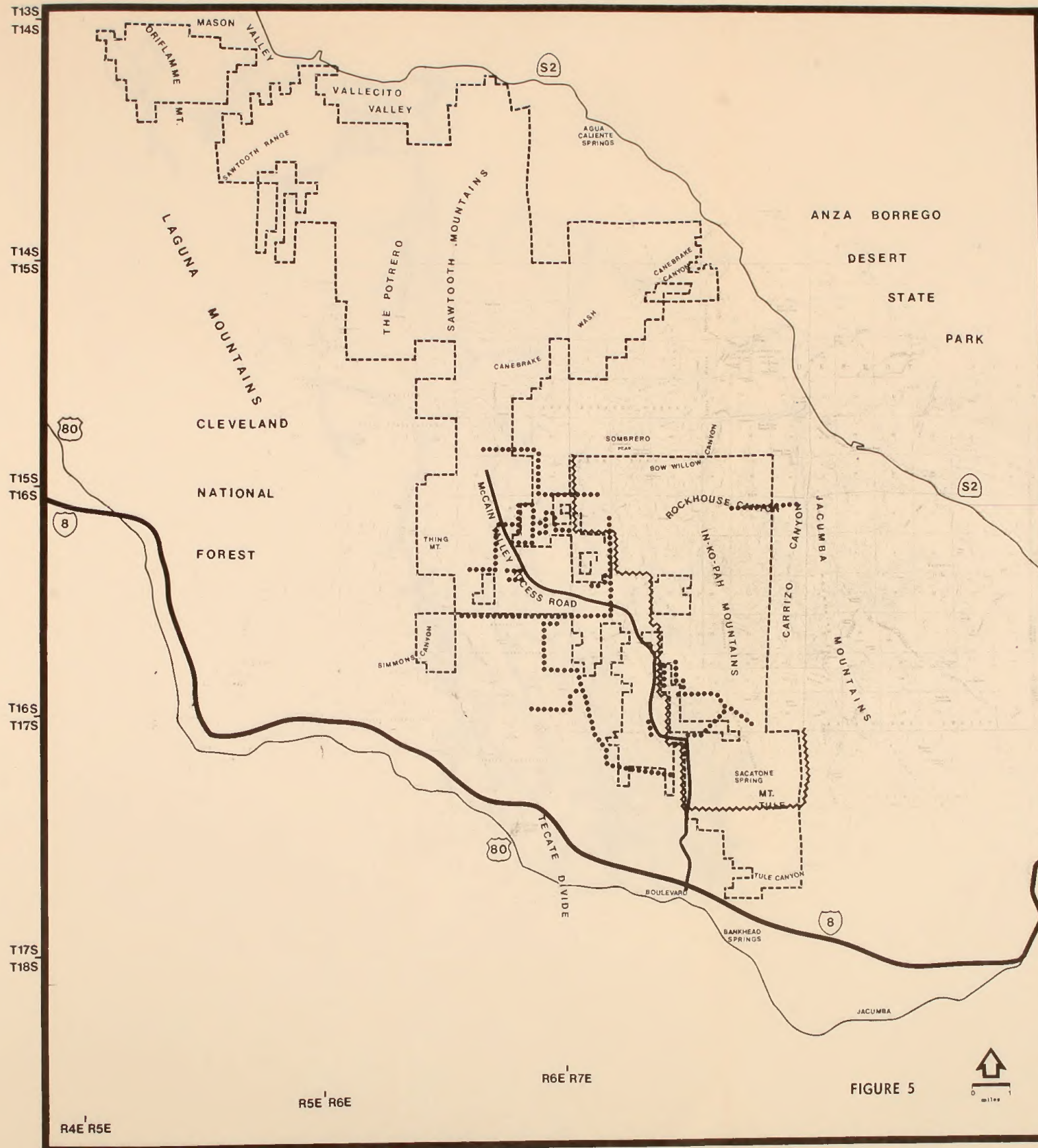


FIGURE 5



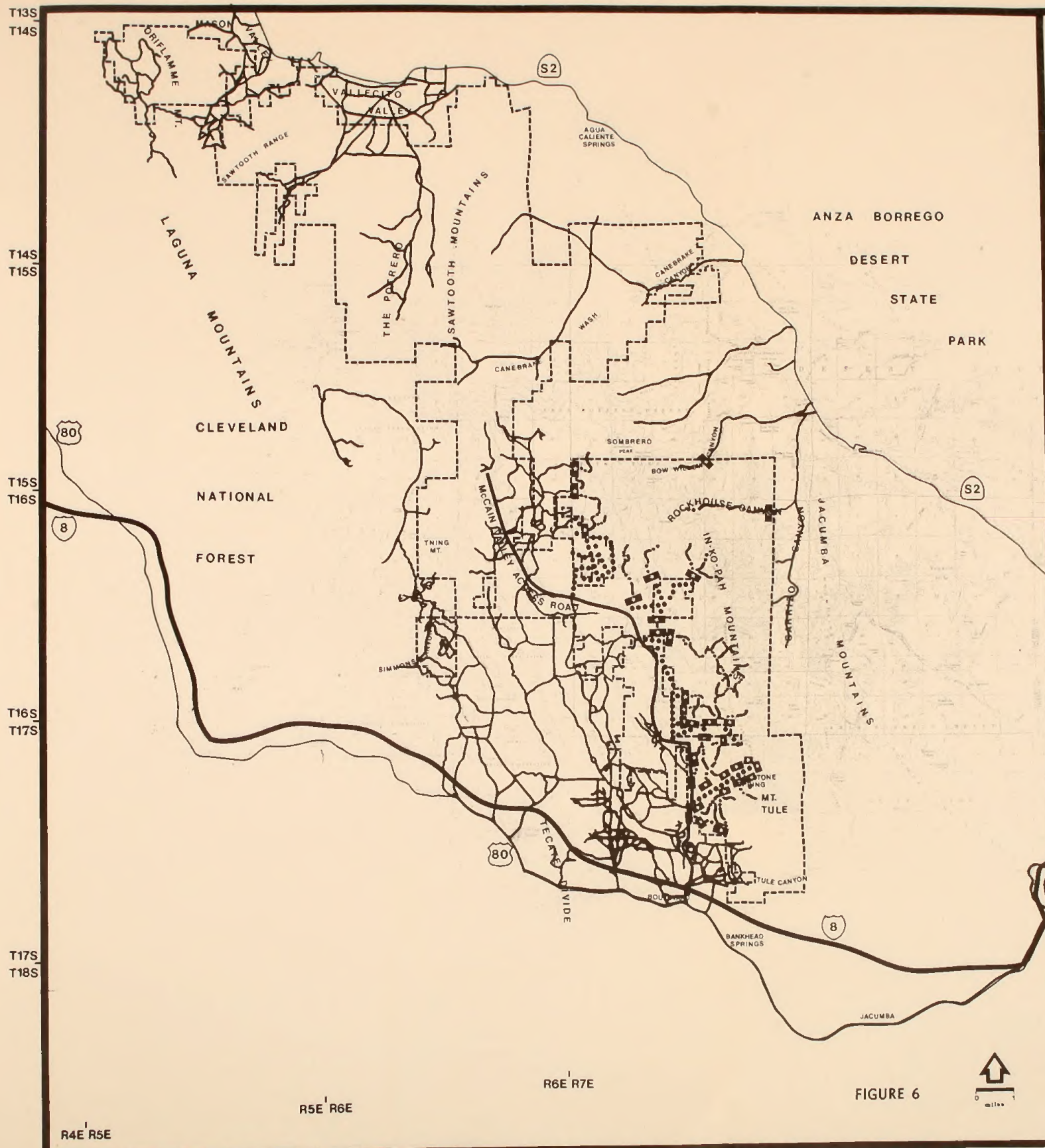
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McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley Wildlife Habitat Area

Existing Roads and Proposed Road Designations

- Roads to be left Open Within Natural Area
- Roads to be Closed Within Natural Area
- Roadblocks to be Constructed.
- Roads to Remain Open Outside Natural Area.



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FIGURE 6



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McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley Wildlife Habitat Area

Proposed Natural Area

▨ Boundary for Proposed Natural Area



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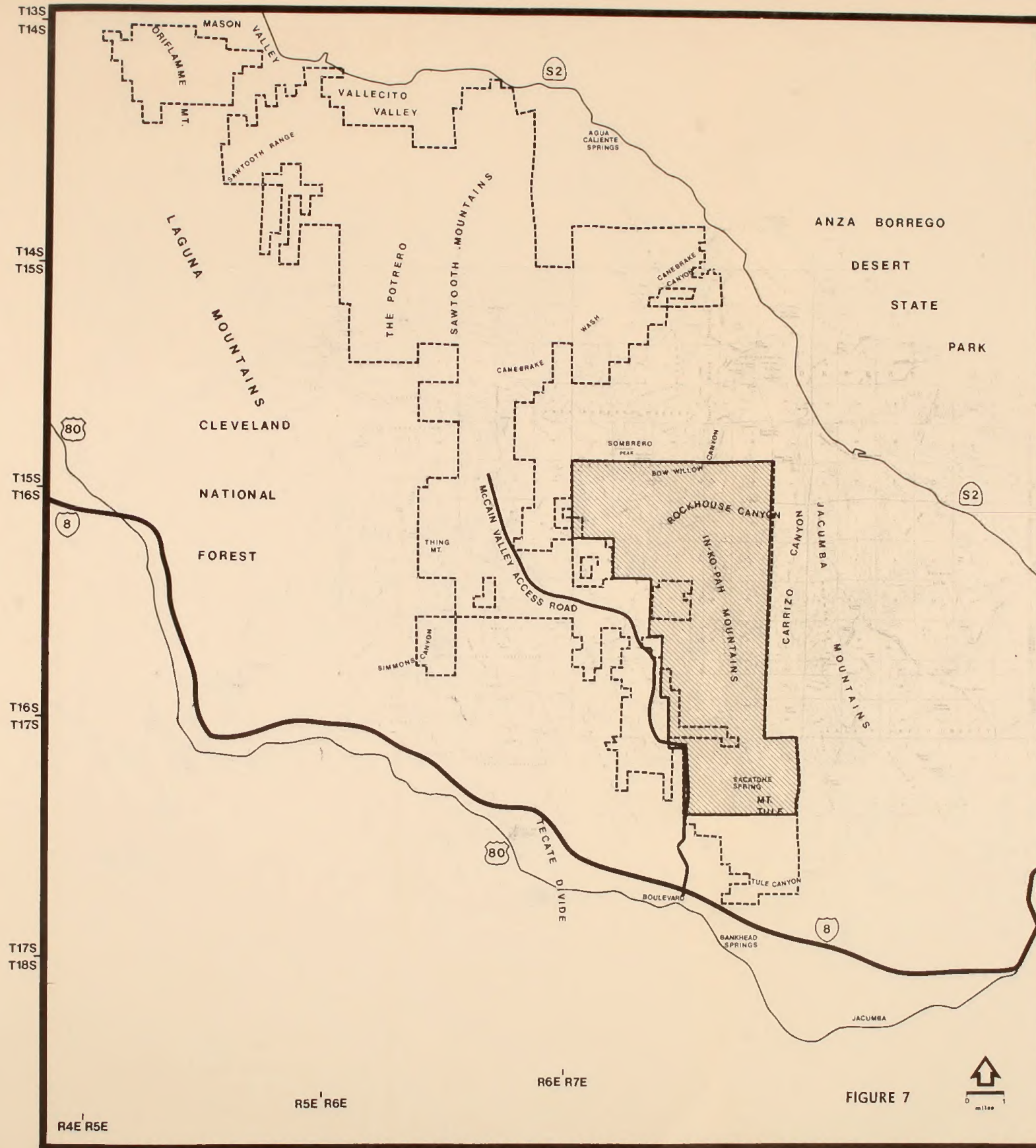


FIGURE 7



McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley
Wildlife Habitat Area

Wildlife Water Sources

- ↓ Permanent Spring
 - Seasonal, Historical or
 - Unconfirmed Spring
 - Existing Gallinaceous
 - Guzzler
 - Proposed Bighorn Sheep
 - Guzzler
- (Numbers & Letters Refer to
Spring Names Listed in
Table Page



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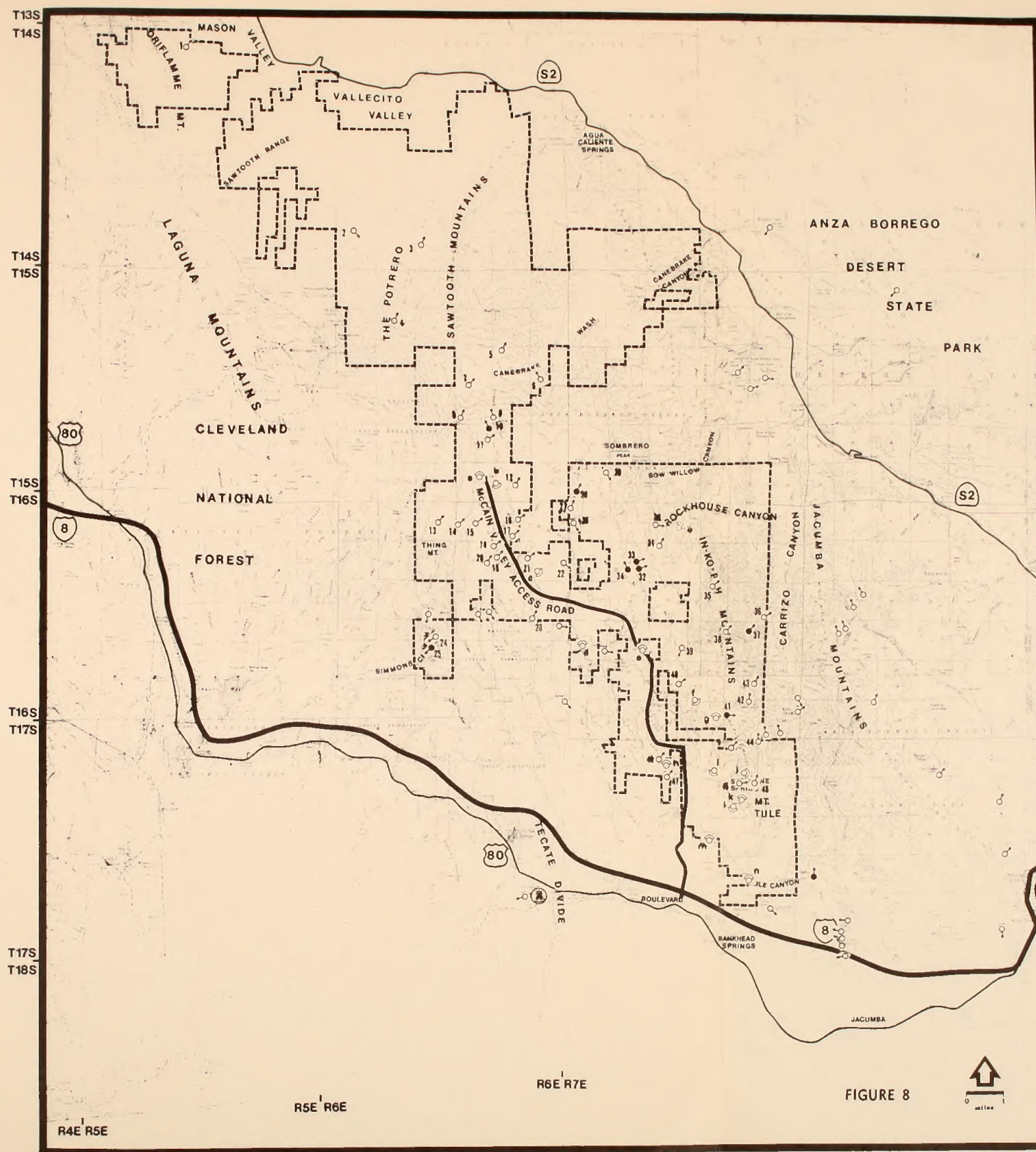


FIGURE 8



McCain Valley Wildlife Habitat Management Plan

----- Boundary of McCain Valley
Wildlife Habitat Area

Known Localities of
Rare and/or
Endangered Plant
Species as Listed by
California Native Plant
Society (1974)

●	Collection or Observation After 1945	▲	Collection before 1945	●	Location precisely known
○		△		○	Location not precisely known

Plant Species

1. *Acalypha californica*
2. *Linanthus bellus*
3. *Berberis higginsae*
4. *Hemizonia floribunda*
5. *Poa atropurpurea*
6. *Heuchera brevistaminea*
7. *Limnanthes gracilis* var. *parishii*
8. *Machaeranthera lagunensis*
9. *Celtis reticulata*
10. *Bursera microphylla*
11. *Ayenia compacta*
12. *Ipomopsis tenuifolia*
13. *Haplopappus junceus*
14. *Displacus aridus*



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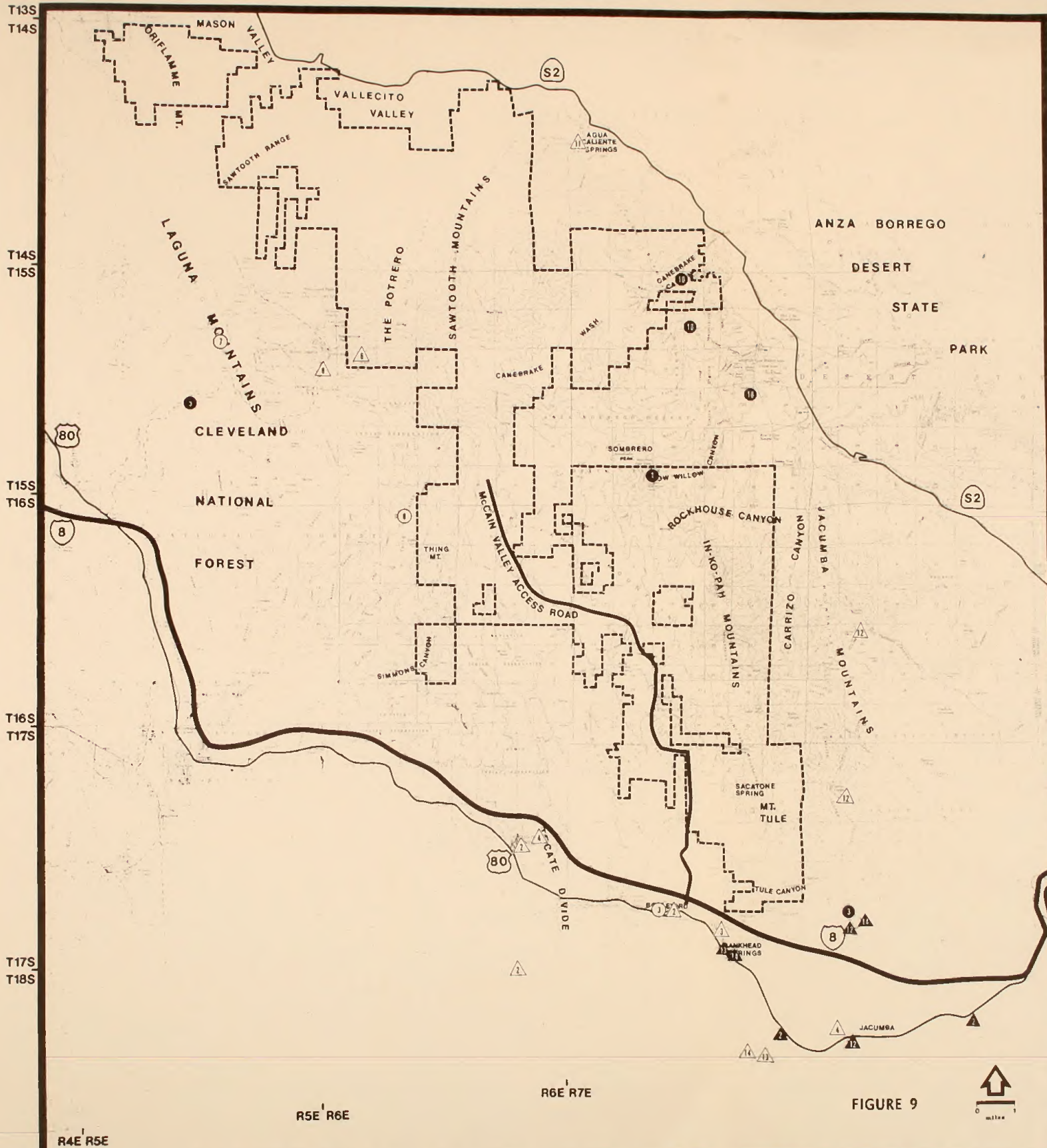


FIGURE 9



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