

**SURVEY FOR DESERT TORTOISE
APN 459-342-15, 16, 17, & 18
CITY OF ADELANTO, CALIFORNIA**

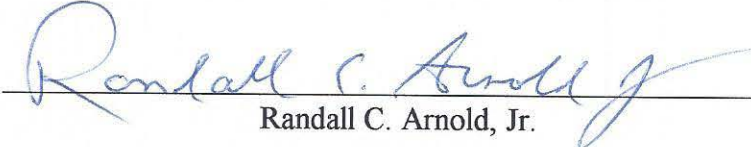
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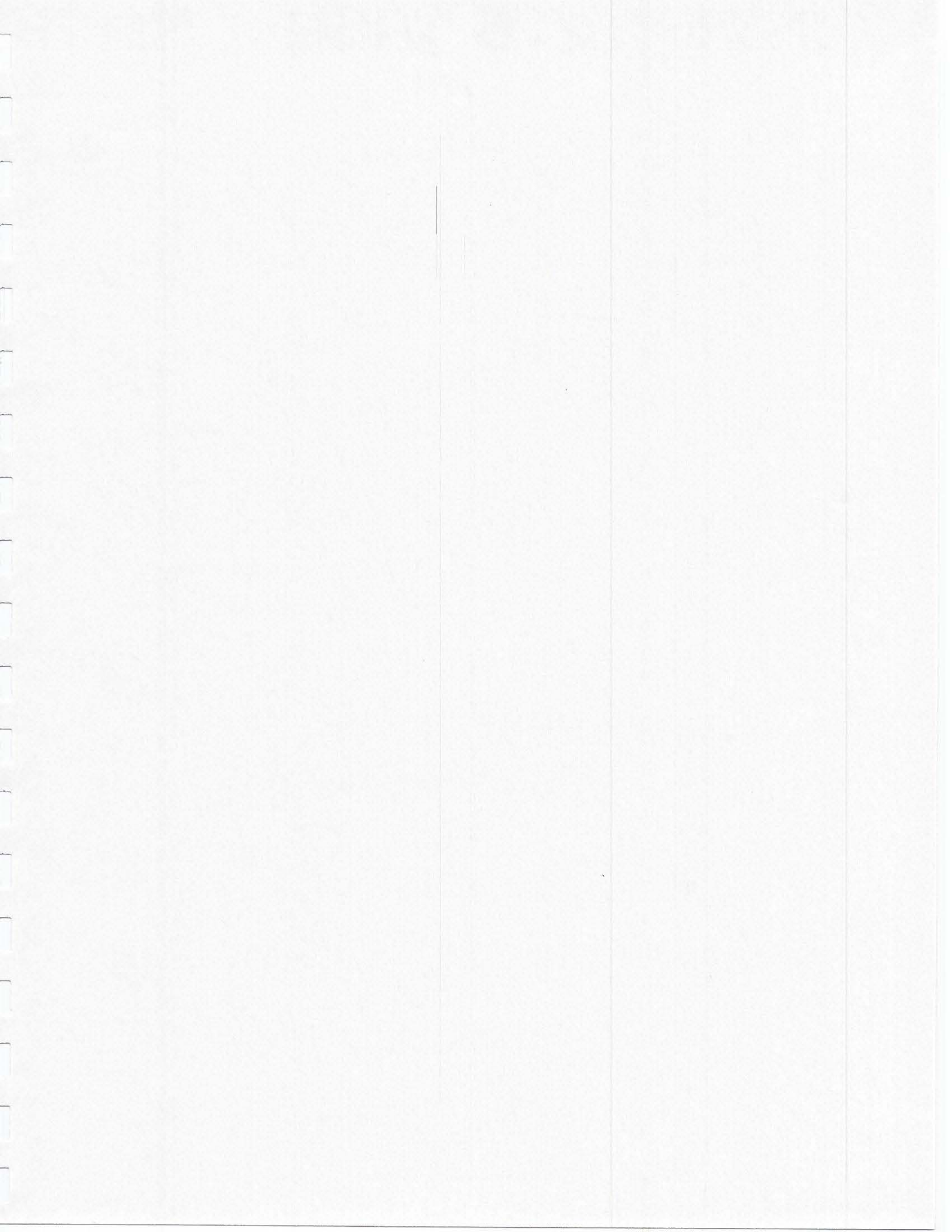
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I certify that this report is a complete and accurate account of the findings and conclusions of the focused survey for the desert tortoise on a parcel (APN 459-342-15, 16, 17, & 18) located in Adelanto, California.



Randall C. Arnold, Jr.

December 9, 1993



NOTICE

Tortoises should not be removed, harassed, or in any way disturbed regardless of the results of this survey. To do so constitutes a violation of state and federal laws. Furthermore, any mitigations included in this report do not constitute authorization for the incidental "take" of the desert tortoise. Authorization for such "take" can only be granted by the California Department of Fish and Game (CFG) and the U. S. Fish and Wildlife Service (USFWS). If tortoises are encountered on the site during construction all activities should cease immediately, and the U.S. Fish and Wildlife Service and California Department of Fish and Game should be notified.

SUMMARY

The property site is located at the corner of Rancho Road and Adelanto Road in Adelanto, California (Figure 1). The site is approximately 20 acres in size and consists of undisturbed land except for a few signs of past human disturbance (e.g. dirt bike trails, dog sign, etc.). Adelanto Road (paved) and Rancho Road (paved) border the site on the east and south respectively. Highway 395 (paved) is located along the western boundary of the site. Undeveloped land borders the property on the north.

A survey was conducted on the site on December 7, 1993 to determine if the state and federally listed desert tortoise (*Xerobates agassizii*) was present or absent on the site. Results of the survey, which are presented in this report, are part of the baseline data necessary for consideration of the proposed land division by the City and other concerned regulatory agencies. No tortoises or tortoise sign (e.g. scats, tracks, carcasses, etc.) were found anywhere on the site or in the undeveloped areas to the north and south during the field surveys. Methodology, plant community descriptions, and other pertinent information are included in this report as required by CFG, USFWS, and the City of Adelanto, California.

METHODOLOGY

Documents prepared by the U.S. Bureau of Land Management (BLM) and U.S. Fish & Wildlife Service (USFWS) were consulted prior to commencement of the survey to determine if desert tortoises have been observed in the general area. Additionally, other survey reports prepared by RCA & Associates for projects in the general area were also reviewed. Following the literature review, the site was visited by R. Arnold on December 7, 1993. Weather conditions consisted of clear skies (0 % cloud cover), wind speeds of 5 MPH, and a temperature of 67 degrees Fahrenheit. No precipitation was recorded during the survey.

Survey protocol requires that 10-yard (30 foot) transects be used when surveying for the desert tortoise. Therefore, transects were walked in a north-south direction until 100 percent of the property had been surveyed for tortoises and tortoise sign (i.e. burrows, tracks, scats, etc.).

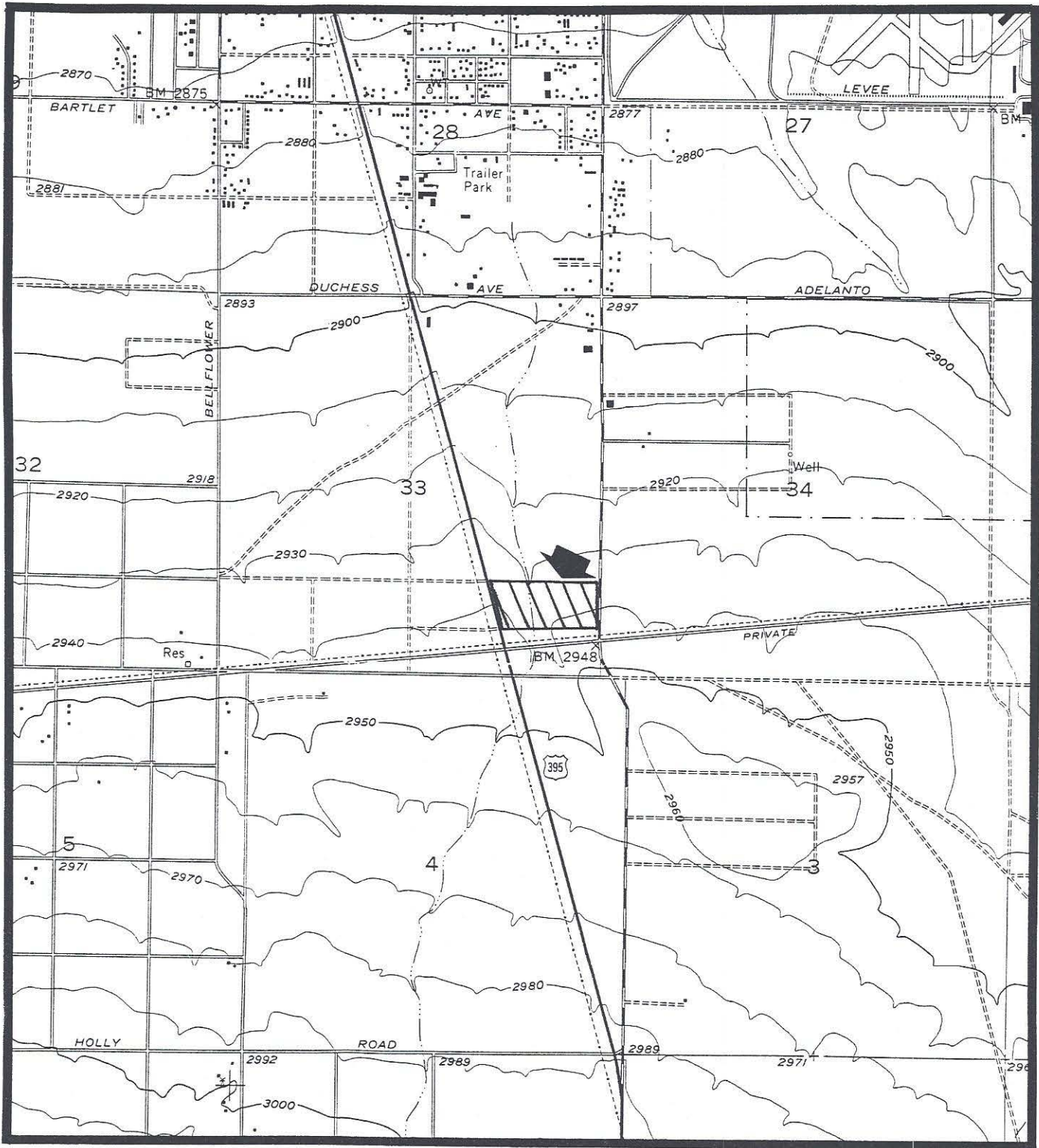


FIGURE 1

LOCATION OF THE PROPERTY SITE

Survey protocol also requires that surveys be conducted in the "Zone of Influence" (i.e. surrounding area) at various intervals (i.e. 100, 200, 400, 800, and 1600 yards). Therefore, "Zone of Influence" surveys were conducted in the undeveloped areas to the north and south. The presence of Adelanto Road and Highway 395 precluded surveys to the east and west.

While conducting the surveys on the site and in the surrounding area, particular emphasis was given to viewing the bases of the perennial bushes since tortoises tend to burrow into small hills and banks such as those at the base of woody plants. Any depressions or suspect burrows were closely scrutinized. Additionally, field notes were taken regarding native plant assemblages on the site in order to evaluate the property for the presence or absence of suitable tortoise foraging habitat. To further document the biological setting of the site, photographs were taken and are included in this report.

This clearance survey was conducted during a time of year when tortoises are in hibernation; however, a methodical search by a qualified biologist will reveal evidence of the presence or absence of tortoises on a site (e.g. burrows, scats, etc.). Furthermore, a survey combined with identification of the habitat on and surrounding a property will allow a biologist to determine if tortoises are likely to occur on a site in the immediate future.

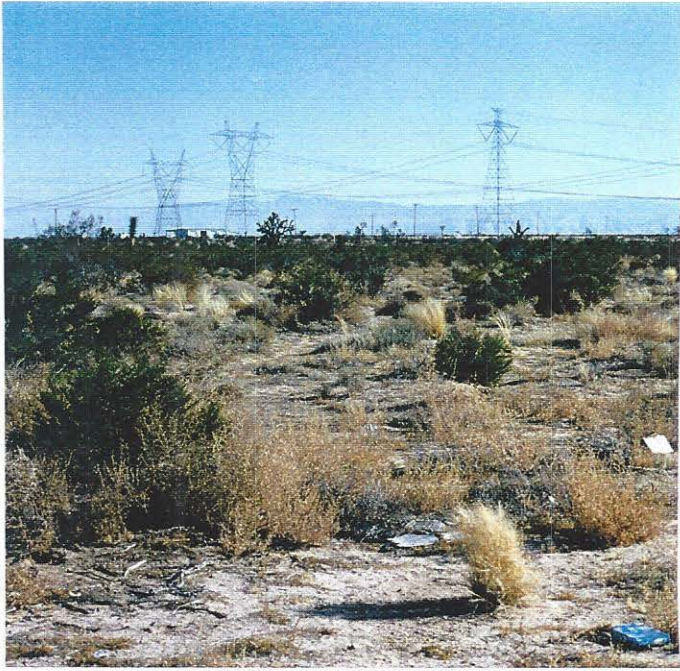
RESULTS - LITERATURE REVIEW

Desert tortoises are known to occur in the general region surrounding the property site; however, the population densities are extremely low based on information from BLM and USFWS. BLM has classified the tortoise habitat in the area as Category 3, indicating a very low probability of encountering tortoises on the site and in the surrounding area. Category 3 areas normally support only a few tortoises per square mile, if any at all, and represent low quality tortoise habitat. Background information on the desert tortoise is provided in Appendix A.

RESULTS - FIELD SURVEY

The site is relatively undisturbed and shows few signs of past human disturbance. The vegetation and wildlife resources observed on the property site and in the surrounding area during the field surveys are discussed below:

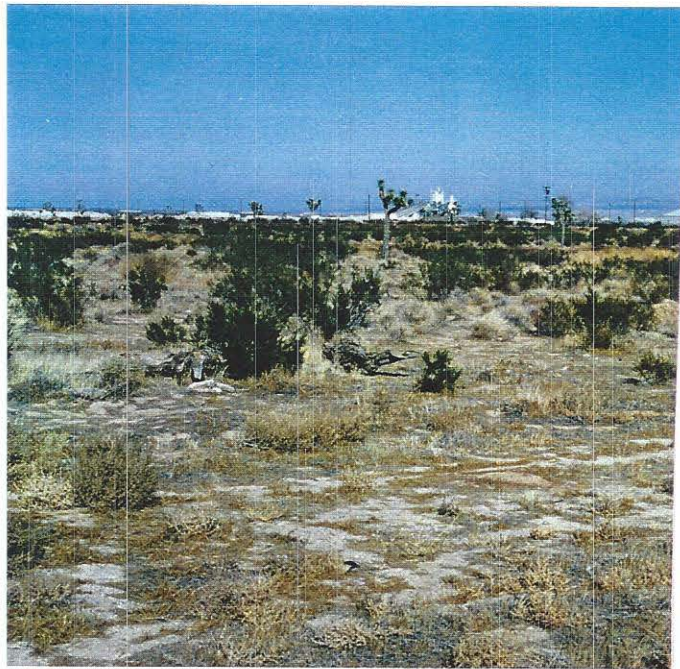
Vegetation: The site supports a creosote bush community typical of the Mojave Desert (Figure 2). The dominant species included creosote bush (*Larrea tridentata*), saltbush (*Atriplex* sp.), sage (*Salvia* sp.), and wild buckwheat (*Eriogonum* sp.). Other species noted during the field surveys included Joshua tree (*Yucca brevifolia*), cholla (*Opuntia* sp.), rabbit brush (*Chrysothamnus depressus*), winterfat (*Eurotia lanata*), and bromus grasses (*Bromus* sp.). Also present were mustard plants (*Brassica tourneforti*), schismus (*Schismus* sp.), Russian thistle (*Salsola iberica*), and fiddleneck (*Amsinkia tessellata*).



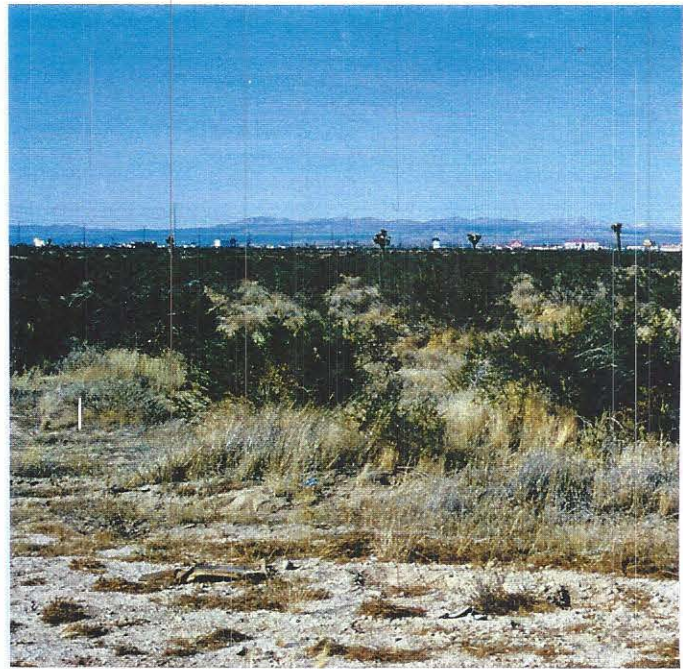
VIEW FROM NORTHWEST CORNER LOOKING SOUTHEAST



VIEW FROM NORTHEAST CORNER LOOKING SOUTHWEST



VIEW FROM SOUTHWEST CORNER LOOKING NORTHEAST



VIEW FROM SOUTHEAST CORNER LOOKING NORTHWEST

FIGURE 2

Wildlife: Black-tailed jack rabbits (*Lepus californicus*) and desert cottontail rabbits (*Sylvilagus auduboni*) were observed throughout the site and in the surrounding area. Coyotes (*Canis latrans*) and gray fox (*Urocyon cinereoargenteus*) also occasionally traverse the site as indicated by scats found on the site. Numerous rodent burrows were also observed and may be utilized by various rodent species such as Merriam's kangaroo rat (*Dipodomys merriami*) and white-tailed antelope ground squirrels (*Ammospermophilus leucurus*). Other species known to occur in the general area, but not observed on the site, include the Mojave rattlesnake (*Crotalus scutulatus*), side-blotched lizard (*Uta stansburiana*), and western whiptail lizard (*Cnemidophorus tigris*).

Birds noted during the survey included the morning dove (*Zenaidura macroura*), Gambel's quail (*Callipepla gambelii*), horned lark (*Eremophila alpestris*), and northern mockingbird (*Mimus polyglottus*). Also observed during the survey were Brewer's blackbirds (*Euphagus cyanocephalus*), ravens (*Corvus corax*), starling (*Sturnus vulgaris*), and sage sparrow (*Melospiza melodia*).

Desert Tortoise: No tortoises or tortoise sign were observed on the site or in the surrounding area during the field surveys (Table 1 and Appendix B). The property site is located in an area classified as Category 3 habitat where tortoise population levels are expected to very low with only a few tortoises per square mile, if present at all.

CONCLUSIONS AND MITIGATIONS

Desert tortoises do not occur on the property site or within the immediate area as determined by field surveys conducted on December 7, 1993. As discussed above, tortoise population levels in the general region are expected to be very low based on BLM and USFWS data, and it is very unlikely that tortoises will move onto the site in the near future. Furthermore, the site is bordered by two major roads (i.e. Highway 395 and Adelanto Road, and there are several existing developments in the general area further reducing the likelihood that tortoises will utilize the property.

TABLE 1

M/D/Y
 Date 12-7-93
 Transect No. 1-44
 State California
 County San Bernardino
 City Adelanto
 Recorder R. Arnold
 Address -
 Project Name -
 Type of Project -
Land Division
 Quad Name Adelanto
 Scale 1:24000
 Site Name -
 T 6N R 5W Sec 33
 1/4 Sec SE 1/4 Sec SE
 UTM Zone -
 Northing -
 Easting -
 Parcel No. 459-342-15,16,17,18

DESERT TORTOISE HANDBOOK 1992:

FORM FOR PRESENCE-OR-ABSENCE AND CLEARANCE SURVEYS

Project Site Zone of Influence | | - ft from Project Site
 Transect Length: 660 ft Width: 30 ft Other - ft Time -
 Weather: Airtemp at: 5 cm 67 °F Surface - °C Cloud cover 0 %
 Rainfall 0 in Wind speed 5 MPH Rainfall in last 30 days 0 in
 Land Form (e.g., mesa, bajada, wash) desert plain
 % Slope: high - low x Aspect N Elevation 2930 ft
 Soils sandy alluvial
 Vegetation: dominant perennials creosote, saltbush, ephedra
 dominant annuals Fillonack, schismu
 Adjacent Land Use: up to 1 mi undeveloped & developed
 Soils sandy alluvial soil
 Vegetation creosote bush community

TOTAL NUMBER OF

Corrected Sign	Live Tortoises Adult/Juv.	Shelter Sites Pallet/Burrow/Den Active/Inactive ¹	Scats ²	Shell Remains ³
<u>0</u>	A= <u>0</u> J= <u>0</u>	<u>0</u>	A= <u>0</u> J= <u>0</u> Unk= <u>0</u> M= <u>0</u> F= <u>0</u> Unk= <u>0</u>	

Tracks	Eggshell Fragments	Drinking Sites	Courtship Rings	Other	Neotoma Middens w/sign	Middens w/o sign
<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

SIGNS OF HUMAN DISTURBANCE - NUMBER AND TYPES SEEN

Tire Tracks	Human Footprints	Dog Sign	Trash	Dump Sites	Shotgun/Rifle Shells	Blading	Ravens	Other
<u>1</u>	<u>0</u>	<u>3</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>

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- 1990 Desert Tortoise Density Category Designation Maps. Maps obtained from Ray Bransfield, U.S.F.W.S. biologist, Laguna Niguel office, Laguna Niguel, CA.

APPENDIX A

BACKGROUND INFORMATION ON THE DESERT TORTOISE

BACKGROUND INFORMATION ON THE DESERT TORTOISE

The desert tortoise is the largest reptile in the arid southwestern United States. It historically occupied a range that included a variety of desert communities in southeastern California, southern Nevada, western and southern Arizona, southwestern Utah, and through Sonora and northern Sinaloa, Mexico. Today populations are largely fragmented and studies indicate a steady and dramatic decline over most of its former range. Additionally, because tortoises have long been prized as pets, collecting of wild tortoises has further reduced the population. Wildlife biologists estimate that between 1880 and 1970, five to eight million tortoises were taken from the desert by collectors.

Recently, a highly contagious respiratory disease has infected tortoise populations, primarily in the western Mojave Desert region. While the disease seems to be most widespread in the western Mojave, cases have been documented in numerous widely scattered areas throughout the wider Mojave range of the tortoise. In one area of the western Mojave, the infection rate among individual tortoises increased from 9 to 52 percent based on surveys conducted between 1988 and 1989. Isolated cases are believed to have the potential to cause widespread infection over a short time period.

Given the continued habitat loss and the rapid decline in numbers of tortoises brought about by the disease, the U.S. Fish and Wildlife Service exercised its emergency authority and determined tortoise populations north and west of the Colorado River to be an endangered species under the Endangered Species Act of 1973, as amended. The emergency rule was published in the Federal Register on August 4, 1989, and remained in effect until April 1, 1990. On April 2, 1990, the U.S. Fish and Wildlife Service officially listed the desert tortoise as a threatened species under the Endangered Species Act of 1973, as amended.

APPENDIX B
ZONE OF INFLUENCE SURVEY FORMS

ZONE OF INFLUENCE

100 & 200 YDS

M/D/Y
 Date 12-7-93
 Transect No. 100 & 200 YD.
 State CALIFORNIA
 County SAN BERN.
 City ARLANTO
 Recorder R. ARNOLD
 Address _____
 Project Name _____
 Type of Project _____
LAND DIVISION
 Quad Name ARLANTO
 Scale 1:24000
 Site Name _____
 T 6N R 5W Sec 33
 1/4 Sec _____ 3/4 Sec _____
 UTM Zone _____
 Northing _____
 Easting _____
 Parcel No. 459-342-15, 16, 17 & 18

DESERT TORTOISE HANDBOOK 1992:

FORM FOR PRESENCE-OR-ABSENCE AND CLEARANCE SURVEYS

Project Site | | Zone of Influence |X| 300-600 ft from Project Site
 Transect Length: 100-300 ft Width: 30 ft Other _____ ft Time _____
 Weather: Airtemp at: 5 cm 67°F Surface _____ °C Cloud cover 0 %
 Rainfall 0 in Wind speed 5 mph Rainfall in last 30 days 0 in
 Land Form (e.g., mesa, bajada, wash) Desert Plain
 % Slope: high _____ low X Aspect _____ Elevation 2930-2950 ft
 Soils SANDY Alluvial
 Vegetation: dominant perennials creosote bush, ephedra, saltbush
 dominant annuals Fiddleneck, Schismus
 Adjacent Land Use: up to 1 mi Undeveloped & developed
 Soils SANDY Alluvial
 Vegetation creosote bush community

TOTAL NUMBER OF

Corrected Sign	Live Tortoises Adult/Juv.	TOTAL NUMBER OF Shelter Sites Pallet/Burrow/Den Active/Inactive ¹	Scats ²	Shell Remains ³
0	A=0 J=0	0	0 M=0 F=0 Unk=0	A=0 J=0 Unk=0

Tracks	Eggshell Fragments	Drinking Sites	Courtship Rings	Other	Neotoma w/sign	Middens w/o sign
0	0	0	0	0	:	0

SIGNS OF HUMAN DISTURBANCE - NUMBER AND TYPES SEEN

Tire Tracks	Human Footprints	Dog Sign	Trash Sites	Dump Sites	Shotgun/ Rifle Shells	Blading	Ravens	Other
	1	4	0	0	0	0	1	0