

# **PLANNING FOR ACQUISITION OF CONSERVATION / MITIGATION LANDS FOR THE MOHAVE GROUND SQUIRREL**

By

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## **INTRODUCTION**

An essential component of any conservation strategy for the state-listed Mohave ground squirrel (*Spermophilus mohavensis*) is the acquisition of key private lands within the range of this species in the western Mojave Desert. This action will not only benefit the Mohave ground squirrel, but will also aid in the conservation of other desert wildlife and plant species.

Although purchase of private lands for Mohave ground squirrel conservation has been underway for some years, there has been no comprehensive plan to ensure that this is done in the most effective way. This process can be greatly improved by identifying the most important areas for conservation and establishing priorities for land acquisition. It is particularly important to develop a plan that has the support of and coordinates the efforts of all 3 DFG regions that have responsibilities for Mohave ground squirrel conservation.

## **MOHAVE GROUND SQUIRREL DISTRIBUTION**

A comprehensive plan for acquisition of conservation lands must be grounded in a clear understanding of the current distribution and status of the Mohave ground squirrel throughout its range. The best way of describing Mohave ground squirrel distribution is that there appear to be a limited number of core areas that support relatively abundant populations, additional areas with lower density populations, and corridors that may provide connections for gene flow between these populations.

## **CORE AREAS**

Four core areas have been identified in the last 5 years, although there may well be others that have not been confirmed. These core areas currently support relatively abundant and widespread Mohave ground squirrel populations and there is evidence that these populations have persisted for at least the past 20-30 years. How do we recognize such a core area? An operational definition could be that the average number of MGS captured

on a standard trapping grid is  $\geq 3$  (relatively abundant), that MGS are present at  $\geq 80\%$  of the sites trapped (widespread), and that there are records going back 20-30 years (persistence).

The four core areas currently recognized are:

1. Coso Range NW to Olancho. Most of the area is within the China Lake NAWS military reservation, with a mixture of BLM, LADWP, and private lands to the west. Inyo County.
2. Little Dixie Wash (from Inyokern SW to Red Rock Canyon State Park). Most of the area is public land managed by BLM, with some private and state ownership as well. Kern County.
3. Edwards Air Force Base east of Rogers Dry Lake. This core area is entirely on the USAF military reservation; the surrounding lands are in private and BLM ownership. Kern County and San Bernardino County.
4. Coolgardie Mesa to Superior Valley. Land ownership was primarily BLM and private; much of the northern portion of this core area now included in the Ft. Irwin Western Expansion Area (WEA). San Bernardino County.

## LOW DENSITY POPULATIONS

There is recent evidence of low density Mohave ground squirrel populations in several other areas. These include:

1. Desert Tortoise Natural Area (DTNA). The DTNA has been managed for wildlife conservation by the Desert Tortoise Preserve Committee (DTPC) for ~30 years; it includes public land (BLM) as well as former private land acquired for mitigation; there is an ambitious program to expand this area by purchase of adjoining private lands, especially to the east.
2. Pilot Knob Allotment. Public land in this area is managed for wildlife conservation by the DTPC under an agreement with BLM; the DTPC owns and manages several parcels of private land here as well.
3. Ridgecrest E to Poison Canyon. Along SR 178 east of Ridgecrest, this area is managed by BLM and China Lake NAWS. There is very little private land.
4. North of Edwards AFB. This area is almost all in private ownership and includes a large mining area (US Borax Corporation).
5. Victorville / Adelanto. The great majority of land here is in private ownership and is being rapidly developed for housing and industrial uses. However, there is some BLM land to the north of Colusa Road toward Shadow Mountain Road and Silver Lakes.

## CORRIDORS

It will be important to maintain adequate corridors of protected habitat linking the core areas and also connecting lower density population centers. The principal corridors are the following:

1. North-South Corridor along US Highway 395 from the Inyokern-Ridgecrest area through Red Mountain to Kramer Junction.
2. East-West Corridor from DTNA through Red Mountain to Pilot Knob Allotment.

Other connections should also be considered:

1. DTNA south to Edwards AFB.
2. Kramer Hills south to Victorville-Adelanto area
3. Edwards AFB south to Saddleback Butte SP

## LAND ACQUISITION PRIORITIES

### CORE AREAS

Private lands within and adjacent to core areas should be considered for acquisition:

1. Coso Range. There is little opportunity for acquisition within this core area since most of the land is managed by U.S. Navy. Inyo County opposes further expansion of public land ownership. Mitigation for Mohave ground squirrel habitat loss in Inyo County should be directed to the purchase of private landholdings in and adjacent to the Little Dixie Wash core area.
2. Little Dixie Wash. Some private parcels E of SR 14 should be acquired and the protected portions of this core area could be extended N toward Inyokern and E toward US Highway 395 by additional purchases of private lands.
3. Edwards Air Force Base. There are major opportunities to purchase private land to the north, east, and south of this core area.
4. Coolgardie Mesa / Superior Valley. There is a great deal of private land that should be purchased in this core area. The U.S. Army is buying land as mitigation for future impacts to Lane Mountain milk-vetch resulting from military training activities in the WEA.

### LOW DENSITY POPULATIONS

Some of the areas that support low density Mohave ground squirrel populations include extensive private lands that should also be considered for acquisition:

1. Desert Tortoise Natural Area (DTNA). Expansion of the DTNA by purchase of adjoining private lands should be encouraged; however, much of this area has been degraded by livestock grazing and OHV activities. The conservation value of these lands is low, but can be enhanced over time by natural recovery as well as possible restoration efforts.
2. Pilot Knob Allotment. Public land in this area is managed for wildlife conservation by the DTPC under an agreement with BLM; the DTPC owns and manages several parcels of private land here as well. There is no private land within the Allotment that should be acquired.

3. Ridgecrest E to Poison Canyon. Along SR 178 east of Ridgecrest, this area is managed by BLM and China Lake NAWS. There is very little private land here.
4. North of Edwards AFB. This area is almost all in private ownership and includes a large mining area (US Borax Corporation). There are opportunities for acquiring private land that supports higher quality Mohave ground squirrel habitat.
5. Victorville / Adelanto. The great majority of land here is in private ownership and is being rapidly developed for housing and industrial uses. However, there is some BLM land to the north of Colusa Road toward Shadow Mountain Road and Silver Lakes. Acquisition of key parcels of private land that are contiguous with BLM land could help to provide protection for a possible surviving Mohave ground squirrel population in the southern part of the range.

## CORRIDORS

There are opportunities for land acquisition in some of the corridors that connect existing core areas and areas that support lower density populations.

1. North-South Corridor. The northern portion of this major corridor that stretches along US 395 from Ridgecrest to Kramer Junction is comprised mainly of public land managed by the BLM. There are some parcels of private land in the eastern portion of Fremont Valley that should be considered for acquisition. However, south of the Atolia mining district, this corridor passes through ~14 miles of “checkerboard” land where the acquisition of up to 50 sections of private land would be beneficial for conservation management.
2. East-West Corridor. This corridor extends eastward from the DTNA past Atolia and the Cuddeback Lake basin to the Pilot Knob Allotment. The planned expansion of the DTNA eastward by purchase of private land north of the Randsburg-Mojave Road will provide conservation benefits. To the east of Atolia and north of Cuddeback Lake, there are several parcels of private land that could be acquired to secure the eastern portion of this corridor.
3. A corridor extending south from the DTNA to Edwards AFB could be constructed by acquisition of private land that is interspersed here with existing blocks of BLM land.
4. A connection from the proposed DFG Mitigation Bank area east of Edwards AFB (Kramer Hills) south and east toward Victorville and Adelanto should be considered. There is the possibility that a low density Mohave ground squirrel population exists east of US 395 between Shadow Mountain Road and Colusa Road. If this can be confirmed, a corridor should be secured by purchase of private land between Buckhorn Wash and Shadow Mountain Road.
5. The MGS Conservation Area as defined in the West Mojave Plan includes a corridor extending from Edwards AFB south to Saddleback Butte State Park. This corridor consists almost entirely of private land. If Mohave ground squirrel populations could be confirmed to occur at or near Saddleback Butte State Park or in the connection north to Edwards AFB, it would be desirable to purchase private land here.

## RANKING OF LAND ACQUISITION PRIORITIES

The following acquisition projects are listed in order of proposed priority:

1. Purchase private land around the northern, eastern, and southern boundaries of EAFB. The first emphasis here should be on acquiring property around Kramer Junction and then expanding out from there. It may be possible to enter into a partnership with the USAF since they have need for a buffer zone of undeveloped land. These areas have been suggested for purchase as a DFG Mitigation Bank.
2. Purchase existing private lands within the Little Dixie Wash core area and expand the conservation area north toward Inyokern and east toward US 395.
3. Purchase remaining private land within the Coolgardie Mesa / Superior Valley core area. Coordinate with US Army to make acquisitions that will provide complete protection for habitat in this region.
4. Purchase private land along US 395 between Boron AF Station and Atolia to secure the southern portion of the North-South Corridor.
5. Purchase private land east of California City between the DTNA and Edwards AFB to provide an additional connection for the DTNA Mohave ground squirrel population.

New information regarding possible Mohave ground squirrel populations in the Victorville-Adelanto area or in the Saddleback Butte area would lead to consideration of new acquisition strategies for those areas.