

Final Report on Burro Removals a Lake Mead NRA (Project No. 2003-NPS-255-2004-15)

INTRODUCTION

Project Description:

Burros are removed from the Lake Mead National Recreation Area (NRA) by a variety of live-capture methods and are transferred to the BLM for adoption through procedures and protocols developed by the BLM's Wild Horse and Burro Program.

Background and Need:

Burro impacts were recognized by park managers at Lake Mead NRA as early as 1936, however, early control measures are unclear. In 1939, it was estimated that there were approximately 400 burros on the NRA. The first documented removal of burros from the Nevada portion of the park took place in 1979. Between 1979 and 1995, at least 1,546 burros were removed from the NRA. Despite these early control efforts, populations continued to grow and impacts to vegetative resources, in particular, were obvious even to casual observers. Hillsides were terraced, large areas were practically denuded of vegetation, springs were fouled and, upon closer inspection, plant species composition was changing as preferred forage species were being eliminated and replaced by less palatable species. By 1994, an estimated 1,600 burros inhabited the NRA.

The Desert Tortoise Recovery Plan, approved on June 28, 1994 states that, "Grazing by cattle, domestic sheep, and feral equids can also affect desert tortoises and their habitats negatively. Livestock can kill desert tortoises and eggs directly by trampling. Grazing can also damage soil crusts, reduce water infiltration, promote erosion, inhibit nitrogen fixation in desert plants, and provide a favorable seed bed for exotic vegetation". It also recommends that, "grazing by feral ("wild") burros and horses" be a prohibited activity on DWMA's in order to reduce or eliminate these problems (USFWS, 1994).

In February of 1995, the National Park Service completed a burro management planning effort with the publication of a final Environmental Impact Statement on Burro Management (EIS). The process of developing this EIS included the publication of a notice of intent in the *Federal Register* on 7/2/92, formal consultation with the USFWS which was initiated on 10/14/92, five public scoping meetings in a variety of locations (St. George, Carson City, Kingman, Phoenix and Henderson) and an analysis of five alternatives. The alternative that was selected, Alternative B: Resource Based Management, identified several areas for total elimination of burro populations and identified other areas where a certain level of use, based primarily upon forage utilization, would be tolerated on NPS lands. This acceptance of burro utilization on park lands was a compromise which recognized BLM's mandate to manage several areas surrounding the park as burro herd management areas.

In the eight years since the completion of the plan, 1561 burros have been captured and removed from the NRA. Although fencing burros out of the park completely was one potential solution examined in the EIS and determined not to be feasible, strategically placed fences have also been installed to protect various areas of the park from immigrating burros. Monitoring of forage utilization has been initiated and the results of those studies have been used to negotiate burro removal objectives with the BLM. Burro populations are at, or very near zero in the six zero use areas identified in the plan and EIS. Overall, populations have been dramatically reduced from the estimated 1600 in 1995 to approximately 300 today.

Management Actions Addressed:

NPS 24 – Manage burro populations under the Burro Management Plan to ensure resources are protected consistent with NPS policies.

NPS 30 – Remove feral animals and uncontrolled domestic animals.

NPS 33 – Protect existing stands of mesquite and catclaw.

NPS 39 – Monitor and protect water sources, including springs, seeps and streams.

Goals and Objectives:

In the short term, goals are to capture and remove, in a safe and humane manner, excess animals from the NRA. In the long term, the goal is to control burro population size, growth, and distribution within a range that minimizes adverse affects on the environment, with particular emphasis on protecting habitats important to various species protected under the Clark County MSHCP.

METHODS AND MATERIALS

Burros are captured by a variety of methods depending on the number of animals in the area, the number targeted for capture, the terrain, food availability, water availability, funding considerations, safety considerations and any other pertinent information to the particular situation. In general six main methods are used:

1. Corral trap – This is the simplest, cheapest and safest method which can be used, but only relatively small numbers of animals can be captured at any given time, the area must be accessible to carry in equipment and haul out animals, baiting must be effective either because of a limited food resource or restricted water supplies, and a person needs to be available for a relatively long period of time to tend the trap. After a period of habituation, in which animals are allowed to come and go from a trap location to access food or water, a spring-loaded gate is installed which allows them to enter, but won't allow them to exit.
2. Helicopter drive trap – In this method, a helicopter is used to herd burros toward a wing trap (i.e. a corral with a funnel shaped opening). As burros approach the trap,

wranglers on horseback assist the helicopter in forcing the animals into the mouth of the trap. Large numbers of animals can be captured via this method at a relatively low cost when densities are fairly high.

3. Helicopter rope - This method is similar to the helicopter drive trap, but rather than herding the burros into a corral, the helicopter herds them toward a location where wranglers on horseback are waiting in ambush. When the burros are herded to the right location, wranglers rope them and lead them to a corral or trailer for loading. This method is quite effective for relatively small to moderate numbers of animals where finding a suitable location for, and/or constructing a wing trap is difficult for some reason.
4. Roping – Wranglers simply go out to an area where burros need to be captured, chase them down on horseback, rope them and lead them back to a location for loading. This is labor intensive and can only effectively capture small numbers of animals.
5. Helicopter net gunning – This method is the same one commonly used for most other ungulate captures in the western U.S. A helicopter is used to find animals for capture and then a net is fired from a specially designed gun to entangle the animal(s). The helicopter then lands, the burro is blindfolded and hobbled, and then it is airlifted on a cable back to a corral and/or trailer. This method is also effective for capturing fairly large numbers of animals, and has the additional advantage that they can be captured in virtually any kind of terrain without first having to locate a suitable trap or ambush location.
6. Hand capture – Occasionally a single burro may be captured by hand. This occurs when an animal is injured, orphaned, entangled, or bogged down in mud.

Regardless of how they are captured, burros captured at Lake Mead NRA are then loaded into trailers and hauled out to a BLM facility for veterinary treatment, branding, and adoption.

RESULTS

During this biennium there were a total of 63 burros removed from the Lake Mead NRA. All 63 were removed from the area identified as the Muddy Mountains Area in Figure 1. The majority of these animals were captured by herding them with a helicopter into a trap. Other methods used this biennium included capturing with a corral trap, and roping.

DISCUSSION

The Desert Tortoise Recovery plan recommends that wild horses and burros should be removed from lands being managed for recovery of desert tortoise populations. Burros, in particular, survive very well in the Mojave Desert ecosystem, but they are not native, and consequently are not adequately controlled by native predators. Without human

intervention, populations increase to the point where habitat for native species, like the tortoise, can become damaged.

The Burro Management Plan (BMP) at Lake Mead NRA finalized in 1995 identified approximately 517,021 acres in seven different areas within the NRA (figure 1) occupied by burros. It outlined a plan to reduce burro numbers throughout the NRA, and to reduce the number of areas being used by burros from seven to three. Acreage being used by burros is planned to be reduced to 137,822 acres and numbers of burros are expected to be reduced from the estimated 1600 at the time the plan was being written to approximately 300.

Since the plan was finalized in 1995, we have captured and removed 1637 burros. This amounts to an average of approximately 164 burros/year over this ten year span. Prior to enactment of the plan, 1546 burros were removed from the park between 1979 and 1995. This translates to a rate of approximately 97 burros/year, but this rate of removal was inadequate to keep up with recruitment rates. Consequently, prior to implementation of the plan, range conditions in many areas of the park suffered from overgrazing by burros. Range conditions in the Mojave Desert are slow to recover after such impacts have been inflicted, but conditions are improving.

Burros captured from Lake Mead NRA have been given veterinary treatment and have been placed in the BLM adoption program. Live removal and adoption isn't the most cost-effective means for burro control, but it is the most humane and politically acceptable alternative available. On neighboring BLM lands, these animals are protected under the Wild Horse and Burro Act, so management actions must be coordinated with BLM with sensitivity toward public opinion and perceptions of the program. Costs per animal removed have also escalated in recent years due to the fact that as numbers of animals are reduced, search times during helicopter round-ups and captures have increased proportionately. This was a predictable and expected outcome of reducing population densities, and should not be seen as a program failure. On the contrary, in the absence of good survey data which could provide reliable population estimates within known confidence limits, rising search times and capture costs are one of the best indicators we have that the program is achieving desired goals (i.e. reduced numbers of burros). Improving range conditions are the next best indicator, but these can be deceiving and difficult to detect during drought conditions and changes are slow to occur even under good conditions in the Mojave Desert.

CONCLUSIONS

Burro numbers are being effectively controlled at Lake Mead NRA in accordance with the Burro Management Plan, EIS Record of Decision and the Clark County MSHCP.

RECOMMENDATIONS

Burro management requires the intervention of man to control numbers. Under the present legal framework which was the result of a planning process subjected to the highest level of scrutiny available under the National Environmental Policy Act (i.e. an EIS), burros from adjacent BLM lands are likely to continue using park lands to some

extent. Since it is in the best interest of conservation to control burro numbers and distribution, Clark County, through its MSHCP planning process, should continue to assist with this effort. There has been some controversy in the past regarding the fact that burros are not totally eradicated and therefore expenditures for their management keep recurring. As long as BLM has a legal mandate to manage for burro herds along the boundaries of the Lake Mead NRA, there will be recurring expenses associated with this situation. Even if it was affordable to fence the entire boundary, there would be a recurrent expense in maintaining that fence, and when the fence was broken, either intentionally or otherwise, burros could enter the park and captures would once again need to occur. Consequently, it should be recognized that this is a legitimate and recurring expense, and that gains made through past efforts, both in terms of habitat improvement and in decreased annual costs to control populations, can be reversed if we fail to persevere.

LITERATURE CITED

USFWS, 1994. Desert tortoise (Mojave population) Recovery Plan. U.S. Fish and Wildlife Service, Portland, Oregon. 73 pages plus appendices.