

# Appendix G – Harquahala Herd Area Manageability Analysis

The Harquahala Herd Area is located approximately 18 miles north and 72 miles west of Phoenix, and is 59,405 acres in size. The herd area encompasses 150,561 acres of public land (94.5 percent), 8,060 acres of Arizona State Lands (5 percent), and 782 acres of private land (0.5 percent).

Portions of three wilderness areas, including the Harquahala Mountain Wilderness Area on the north, along with Humming Bird Springs and the Big Horn Mountains Wilderness Areas on the south, are located within the herd area boundaries. Wilderness acres include 20.7 percent, or 33,151 acres of the herd area.

The area, which was first identified as a herd area in the Draft Lower Gila North Grazing Environmental Impact Statement (EIS) in 1982, was based on inventories conducted in 1976 and 1980, utilizing the Lincoln Index Inventory Method. The area was designated as a herd area in the Final Lower Gila North Grazing EIS in September 1982.

In 1999, inventories were jointly conducted by the Arizona Game and Fish Department and the Bureau of Land Management (BLM) utilizing the Simultaneous Double Count Method. The analysis of that data indicates a total herd of less than 50 animals. These were found in two separate groups. One group, representing approximately two-thirds of the current population, was located on the south side of the Harquahala Mountains, and the other one-third was found on the southern end of the Big Horn Mountains. The mountainous areas provide a more dependable source of forage, whereas the areas between these mountains produce only a limited amount of perennial forage. Burros within this herd area are often dependant on forage produced on the privately owned agricultural fields, which are located at the west end of the Harquahala Mountains, especially during periods of drought.

Access to natural occurring water is restricted to two sources of dependable water (except during drought), they're two springs located in Browns Canyon on the south side of the Harquahalas, and Humming Bird Springs in the southern portion of the herd area. Both of these areas are critical to native wildlife species. A proposal to fence Browns Canyon to protect the riparian area from excessive grazing is being considered, and will forwarded as a project as soon as the area has been evaluated via the Arizona Standards for Rangeland Health process. Other water sources in the area are those developed for livestock, including wells, troughs and earthen tanks. The wells and troughs are generally located within livestock handling facilities, such as corrals and traps that are often closed to facilitate livestock management; therefore, not always accessible to wild burros. Also, these wells are only operational during periods of active livestock use, and are not a dependable source of water throughout the year. Earthen tanks are generally accessible, but only contain water during periods of plentiful precipitation.

Field observations confirm that the burros in this area often range far outside the herd area boundary, which indicates the necessity for these animals to seek sustenance (forage and water) in areas other than within the designated herd area.

Although existing research regarding minimum population size varies, it is generally accepted that a population of less than 50 animals is not sufficient to maintain a genetically viable and healthy population over a long-term period.

Therefore, considering all factors, including limited water sources, sparse-foraged vegetation, which resulted in the necessity for the burros to forage outside the herd area and on privately owned farm lands, and grazing damage to riparian areas by a small number of animals - it is recommended that the Harquahala Herd Area not be designated as a Herd Management Area.