

**MOUNTAIN GOAT UNIT MANAGEMENT PLAN**  
**Mount Dutton**  
**Wildlife Management Unit #24**  
**August 2019**

**BOUNDARY DESCRIPTION**

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Garfield and Piute counties: Boundary begins at US-89 and SR-62; south on US-89 to SR-12; east on SR-12 to the Widtsoe-Antimony road; north on the Widtsoe-Antimony road to SR-22; north on SR-22 to SR-62; west on SR-62 to US-89.

**LAND OWNERSHIP**

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Land ownership and approximate area of modeled mountain goat habitat  $\geq 8,000$  ft elevation for the Mount Dutton unit.

<b>OWNERSHIP</b>	<b>AREA (Acres)</b>	<b>PERCENT OWNERSHIP</b>
U.S. Forest Service	99,390	99%
SITLA	603	<1%
BLM	238	<1%
Private	55	<1%
<b>Total</b>	<b>100,286</b>	<b>100%</b>

**UNIT MANAGEMENT GOALS**

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- 1) Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing.
- 2) Balance mountain goat herd impacts with other uses such as authorized livestock grazing and local economies.
- 3) Maintain the population that is sustainable within the available habitat as determined by acreage delineated from actual mountain goat utilization.

**HISTORY AND CURRENT STATUS**

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Mountain goats were naturally established on the Mt Dutton Wildlife Management Area (WMU) #24, and observations occurred since at least the early 2000s. It is suspected that these goats dispersed from the adjacent Tushar population on the Beaver WMU #22. In 2011, up to seven different goats were reported on the unit with observations on Mt Dutton, Lost Creek, Marshall Meadows, Pearson Peak, and Showalter. In July 2012, one nanny and two kids were observed by Utah Division of Wildlife Resources (UDWR) biologists near the radio tower on Mt Dutton (Image 1).

Additionally, deer and elk hunters had reported seeing several mountain goats during their hunts on Mt Dutton through these years. Future movements between the Mt Dutton and Beaver goat populations are highly likely and should be considered advantageous to promote genetic diversity.

Image 1: Mountain goats on Mt Dutton in July 2012.



Following this natural establishment of mountain goats on Mt Dutton, UDWR started augmenting this population to increase wildlife diversity in the area. Two separate augmentation efforts occurred; one in 2013 and one in 2015. In 2013, Twenty-five mountain goats were captured on the Ogden, Willard Peak unit in northern Utah and released near Cottonwood Peak. In 2015, twenty-one mountain goats were captured on Willard Peak and released on both Cottonwood Peak and Mt Pierson.

These efforts have expanded the public's opportunities for hunting and viewing in this area. The mountain goat population has increased to the extent that hunting is now an available management tool on Mt Dutton. The first hunt occurred in 2017 and currently in 2019, UDWR offers two hunter's choice mountain goat permits for this unit. This unit was most recently surveyed in August of 2019. A total of thirty adults and nine kids were counted, producing an estimated abundance of approximately fifty-six total mountain goats.

## **ISSUES AND CONCERNS**

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Native Status: The native status of mountain goats is discussed in detail in the current Utah Mountain Goat Statewide Management Plan. The following is an excerpt from

this plan: “A number of records exist that document the historical presence of mountain goats in Utah prior to reintroduction efforts that began in 1967. An analysis of available information is included as an appendix to this document (Appendix A). However, there are not as many documented records as with some other wildlife native to Utah, which has led to some controversy about their native status. Regardless of the controversy, they are certainly native to the Northern Rocky Mountains and neighboring states to Utah. UDWR’s position is that mountain goat habitat exists in Utah and that mountain goats are a valuable part of our wildlife resource diversity and are a legitimate part of our modern Utah faunal landscape.”

Interspecific Competition and Disease Concerns: Much of the Mt Dutton WMU was greatly improved for ungulates by the 78,000 acre Sanford fire in 2002, which promoted high forage productivity. Interactions of mountain goats with other ungulates may occur seasonally, but due to their specific habitat requirements, mountain goats do not seem to impact these other species.

Dietary overlap between livestock and mountain goats does not appear to be an adverse factor on Mt Dutton. Similarly, mule deer and elk using alpine habitat interact with mountain goats; but as with livestock, adverse impacts are not observed due to habitat quality and quantity, as well as the spatial and temporal differences in habitat use. Where seasonal altitudinal migration occurs, the areas frequented by mountain goats are unavailable to livestock, deer, and elk due to the ruggedness of the terrain utilized by mountain goats. Observations of mountain goats currently on Mt Dutton are in areas too steep for most other ungulates including livestock to access. Additionally, there are few disease transmission concerns amongst livestock and mountain goats.

Non-Consumptive Use: There is great public interest in mountain goat viewing opportunities as has been demonstrated on other mountain goat management units within Utah. On the adjacent Tushar Mountain range, an average of approximately 100 people annually attend the UDWR sponsored “mountain goat-viewing day” which generally occurs at the beginning of August. The increase of tourism for mountain goat viewing on Mt Dutton is very likely given the proximity of national parks, monuments, and other outdoor attractants found in Garfield County and the surrounding areas.

Sensitive Plants: Rydberg’s Milkvetch (*Astragalus perianus*) is a sensitive plant species that occurs within modeled mountain goat habitat on Mt Dutton. Vegetative monitoring will occur as determined by the coordination from UDWR and USFS to evaluate any adverse impacts to sensitive plants from goats.

Predation: Predation will be monitored on any GPS collared goats, but can often be difficult to assess. Cougars are likely going to be the main predator of mountain goats on Mt Dutton; however current resident mountain goats do not appear to be limited by cougars. If predation becomes a limiting factor, predator control work will be administered within the guidelines of the DWR predator management policy and the authorized plan of the administering land management agency. Predator reduction work already occurs in conjunction with livestock losses, and therefore any additional work

that may be done would be mutually beneficial to both livestock and other big game species.

## POPULATION MANAGEMENT

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Manage for an optimal population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Maintain a population that is sustainable within the available habitat.

Mountain goats in the Mt Dutton unit will be managed on a long-term basis to not exceed the densities found in wild populations of Southeastern Alaska (6.0 goats/sq. mile). We modeled potential mountain goat habitat on Mt Dutton using a simplified GIS analysis approach as described by Gross et al. (2002). Mountain goats are highly associated with escape terrain, which has been defined as slopes from  $>25^\circ$  (Varley 1994) to  $>33^\circ$  (Gross et al. 2002). On Mt Dutton, we used slopes  $>30^\circ$  as potential mountain goat escape terrain. Gross et al. (2002) found that applying a 258 m (846ft) buffer to escape terrain correctly classified 87% of active mountain goat habitat. We applied a 258m buffer to all slopes  $>30^\circ$  on Mt Dutton and calculated potential habitat  $>8,000$  ft in elevation resulting in 157 square miles of suitable habitat. This elevation was chosen based on observations of goats currently occupying Mt Dutton. A map of the occupied modeled goat habitat across Mt Dutton above 8,000 ft is provided in Figure 1.

Unit	Population Objective	Square Miles of Mountain Goat Habitat	Mountain Goats per Square Mile
Cache/Ogden/East Canyon	700	150	4.67
Uinta Mountains	1500	990	1.52
Wasatch & Central Mtns	875	412	2.12
Beaver	175	261	0.67
La Sal Mountains	200	91	2.20
Mount Dutton	125	157	0.79

Table 1. Summary of mountain goat population densities for each unit in Utah based on modeled habitat  $\geq 8000$  ft elevation.

1) Target Summer Herd Size: Achieve a target population objective of up to 125 total mountain goats (summer helicopter count) on the unit at all elevations.

### Population Management Strategies:

a. Monitoring: Aerial and/or ground classification of current resident mountain goats will be conducted annually to determine kid recruitment, population status, billy/nanny ratios, and range distribution. UDWR will census the entire unit every 1-3 years.

b. Harvest: Regulated hunting for billy and/or nannies will be recommended annually as needed to meet management objectives. Nanny hunts or transplants will be the primary methods for maintaining the total population objective.

## **HABITAT MANAGEMENT**

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1) Livestock Grazing: Support and encourage regulated livestock grazing on all identified mountain goat habitat within approved grazing allotments.

2) Vegetation: Actively participate in the development and execution of proposed habitat restoration projects and monitoring efforts with agencies and other groups to improve wildlife habitat and increase forage.

3) Habitat Monitoring: As mountain goat distribution expands on Mt Dutton, UDWR and USFS should coordinate habitat monitoring efforts on areas utilized by goats. UDWR will seek opportunities to add a permanent range trend transect that will be read every 5 years by the UDWR range trend crew. If concerns are generated about adverse impacts to the habitat by goats, UDWR may initiate annual habitat monitoring to aid in goat management decisions.

### **Habitat Management Strategies:**

a. Cooperation with land management agencies to monitor vegetation changes caused by mountain goats and determine how forage vegetation dynamics are affecting mountain goat populations. Use Division range trend data to monitor habitat. Develop additional range trend transect that may be used to monitor habitat specifically used by goats.

b. Recommend range improvement and restoration projects when deemed necessary. Maintain and/or enhance forage production through direct range improvements throughout the unit. Support timber management practices designed to improve habitat for wildlife and livestock.

c. Encourage and aid land management agencies and private landowners in identifying and eradicating invasive plant species.

e. Encourage the maintenance and development of water sources throughout the unit. Focus on providing water sources in remote areas or on abandoned / sources such as old water trough's, ponds, and tanks that can benefit both livestock and wildlife.

## **RECREATION MANAGEMENT**

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### **Recreation Management Objectives:**

Provide high quality opportunities for hunting and viewing of mountain goats.

1. Harvest: Recommend hunter's choice permits to harvest 5-25% of the counted adult population.

2. Non-consumptive Use: Seek opportunities to expand the goat viewing outreach programs to Mt Dutton to promote these newly inhabited areas. A kiosk placed near areas frequented by goats should be created to promote these goat-viewing opportunities. An appropriate place for a kiosk should be coordinated with USFS.

## **LITERATURE CITED**

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- Brandborg, S. M. 1955. Life history and management of the mountain goat in Idaho. State of Idaho Department of Fish and Game Wildlife Bulletin 2:1-142.
- Gross, J. E., M. C. Kneeland, D. F. Reed, and R. M. Reich. 2002. GIS-Based habitat models for mountain goats. *Journal of Mammalogy* 83:218-228.
- Varley, N. C. 1994. Summer-fall habitat use and fall diets of mountain goats and bighorn sheep in the Absaroka Range, Montana. *Biennial Symposium of the Northern Wild Sheep and Goat Council* 9:131-138.

Figure 1: Currently occupied and modeled suitable mountain goat habitat on the Mt Dutton unit.

