

## **Population Group Break Out Sessions**

### **Back Ground:**

Managing wild equine populations is complicated and difficult, often resulting in conflicts that can stifle management actions. As wild equine populations continue to grow, there is an increasing need to find common ground and build consensus on population management options. The purpose of this exercise is to review two different scenarios based upon two hypothetical Herd Management Areas. These HMAs are in similar locations but differ in specific characteristics that may impact implementations of population management strategies. Information presented in the previous session has informed participants on what types of population control strategies are available and what the limitations of those methods are. Our goal is to have participants work through the different contraception and gather/removal options and how they may be used in each scenario to provide adequate population control.

### **Objectives:**

- 1- Help participants understand the complexities of managing wild horse populations and how they differ from HMA to HMA.
- 2- Identify potential population management approaches that are more palatable to broader audiences.

## **MODEL MOUNTAIN HMA**

**Location:** The Model Mountain HMA is in the southern portion of the Great Basin. The elevation varies from 5500' in the valley bottom to 8500' at the tallest peak. The HMA is located ~ 70 miles from a metropolitan area with an international airport.

**Size:** 37,006 acres of BLM land.

**Topography/Vegetation:** The HMA supports multiple vegetation types, including grasslands, sagebrush, sagebrush/grasslands, Pinyon/Juniper, mountain fir, and mountain fir/mountain shrub. The Pinyon/Juniper woodland type dominates the HMAs and is very dense with minimal understory forage. Open areas outside the PJ canopy are dominated by big sagebrush with Indian ricegrass, wheatgrass, bluegrass, and squirreltail grass as the primary forage species. Mean precipitation for the HMA is ~13 inches and ranges from 10 inches in the lower elevations and 16 inches in the higher elevations. Temperatures can range from 10 degrees in the winter and well into the 90's by mid-summer. The HMA is characterized by benches along the edges of broad valleys and mountains steep ridges that trace to the peaks of the mountain peaks. The canyons between the ridges are narrow with intermittent streams.

**Water Resources:** Some water is seasonally available in the intermittent streams located in the canyon bottoms, but the primary sources of perennial water are found in 3 spring complexes located on the benches at the mouth of the canyons.

**Horse Behavior:** The horses in the Model Mountain HMA are somewhat habituated to human presence due to the constant presence of people recreating in the area. Because the horses in this area are so approachable, additionally, it is a popular HMA that receives much attention from the public.

**Wildlife:** A portion of the Model Mountain Herd Management Area contains greater sage-grouse brood-rearing habitat. Other animals include kit fox, pygmy rabbit, and burrowing owl. The areas are also known to have robust elk and mule deer populations.

**Recreation:** This area is a popular recreation destination for hikers, mountain bikers, and dispersed camping because it is relatively close to a metropolitan area. Off-road vehicles are also present primarily in the spring and early summer.

### **Population:**

AML: 20 – 50

Actual: 192

Growth rate: 15-20% mean 17.5%

**NEPA:** NEPA will need to be completed before any population management activities begin. NEPA can take anywhere from 1- 10 years, depending on litigation and complications within the process.

## Ecosystem Resistance and Resilience

Index of relative ecosystem resilience to disturbance and resistance to cheatgrass based on underlying soil temperature and moisture regimes

HMA	% Resistance and Class within the HMA		
	LOW	MODERATE	HIGH
Model Mountain	60%	17%	23%

## Forage Production

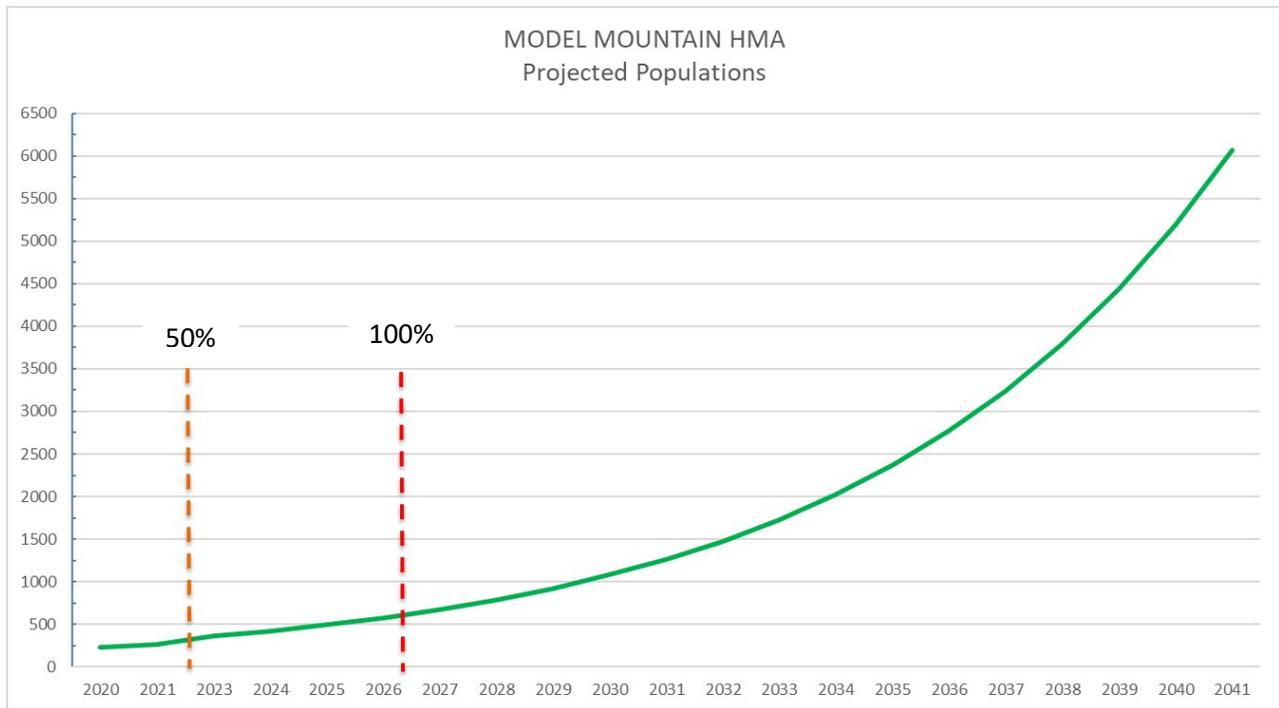
Mean production: 173 #/acre

Total forage: 6,383,751 #/HMA

Available forage: 3,191,876 #HMA (50% utilization)

AUMs @ 50% utilization: 4,256 AUMS (@ 50% utilization) → 284 horses

AUMs using all forage: 6,809 AUMS (use all forage) → 567 horses



## HOPE VALLEY HMA

**Location:** The Hope Valley Herd Management Area (HMA) is located in the heart of the Great Basin. The highest point is over 9,000 feet in elevation, and the lowest points are found in the valley bottoms at approximately 5,000 feet. This HMA is located 350 miles from a major metropolitan area with an international Airport.

**Size:** The area consists of 496,356 acres of BLM land and 6,553 acres of a mix of private and other public lands for a total of 502,909 acres.

**Topography/Vegetation:** Precipitation ranges from approximately 5 to 7 inches on the valley bottoms to 16 to 18 inches on the mountain peaks. Most of this precipitation comes in the form of snow, occurring primarily in the winter and spring, with the summers being quite dry. Temperatures range from greater than 90 degrees Fahrenheit in the summer months to minus 15 degrees or colder in the mountains in the winter. The HMA is characterized by long broad valleys and long narrow, steep mountain peaks covered with heavy pinyon-juniper woodlands.

In general, the vegetation consists of big sagebrush-grass and low sagebrush-grass, montane shrub, salt desert shrub, black sagebrush, winterfat, pinyon-juniper, and montane riparian communities. The foothills and mountain areas are dominated by big sagebrush-grass and low sagebrush-grass types. The primary forage species include bluebunch wheatgrass, Indian ricegrass, Sandberg's bluegrass, and needlegrass.

**Water Resources:** Hope Valley HMA has limited water resources characteristic of most Great Basin rangelands. The primary water source for the HMA is a small stream that runs in the valley bottom and two small spring complexes on the benches; however, the springs are known to dry up in the driest months and during droughts. Even during the average or above-average water years, the springs do not produce enough water to support many horses.

**Horse Behaviour:** The horses on Hope Valley HMA are very skittish and unfamiliar with human presence. This makes it difficult to get closer than ½ to ¼ of a mile from the horses before moving off.

**Wildlife:** The area is known to have sage-grouse in the sagebrush dominated areas as well as supporting populations of pronghorn in the valley bottoms. Mule deer and elk occupy the benches and mountains in the area. Other wildlife that may inhabit this HMA are pygmy rabbits and burrowing owls.

**Recreation:** The area receives few visitors during most of the year. The primary recreation occurs in the fall with hunters pursuing upland game and big game species.

### **Population:**

AML: 150 – 250

ACTUAL: 964

Populations Growth rate: 15-20% mean 17.5%

**NEPA:** NEPA was recently completed to approve the management plan for the Hope Valley HMA. The NEPA approves population management activities for the HMS.

### Ecosystem Resistance and Resilience

Index of relative ecosystem resilience to disturbance and resistance to cheatgrass based on underlying soil temperature and moisture regimes.

HMA	% Resistance and Class within the HMA		
	LOW	MODERATE	HIGH
Hope Valley	95%	4%	1%

### Forage Production

Mean production: 143 #/acre

Total forage: 71688495 #/HMA

Available forage: 35844247 #HMA (50% utilization)

AUMs @ 50% utilization: 38,234 AUMS (@ 50% utilization) → 3,186 horses

AUMs using all forage: 76,468 AUMS (use all forage) → 6,372 horses

