

**ELK HERD UNIT MANAGEMENT PLAN**  
**Elk Herd Unit # 20 (Southwest Desert)**  
**August 2016**

**BOUNDARY DESCRIPTION**

Beaver, Iron and Millard counties--Boundary begins at the Utah-Nevada state line and US-6/50; east on US-6/50 to SR-257; south on SR-257 to SR-21; south on SR-21 to SR-130; south on SR-130 to I-15; south on I-15 to SR-56; west on SR-56 to the Lund highway; northwest on this highway to Lund and the Union Pacific railroad tracks; southwest along these tracks to the Utah-Nevada state line; north on this state line to US-6/50. Excludes all CWMUs

**LAND OWNERSHIP**

**RANGE AREA AND APPROXIMATE OWNERSHIP\***

Ownership	SWD WMU Landownership		Yearlong Range	
	Area (acres)	%	Area (acres)	%
Forest Service	55,545	1.7	0	0
Bureau of Land Management	2,602,306	78.1	764,810	84.03
Utah State Institutional Trust Lands	313,722	9.4	89,536	9.84
Native American Trust Lands	0	0	0	0
Private	348,302	10.5	45,543	5.0
Utah Department of Transportation	163	<1	0	0
USFWS Refuge	0	0	0	0
National Parks	0	0	0	0
Utah State Parks	0	0	0	0
Utah Division of Wildlife Resources	10,270	<1	10,259	1.13
<b>TOTAL</b>	<b>3,330,308</b>	<b>100</b>	<b>910,148</b>	<b>100</b>

**UNIT MANAGEMENT GOALS**

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities, including hunting and viewing. Balance elk herd impacts on human needs, such as private property rights, agricultural crops and local economies. Maintain the population at a level that is within the long term support capability of the available habitat.

Maintain and enhance forage and cover habitat through vegetative manipulation, domestic grazing and other management techniques. Manage for increased water distribution which will in turn distribute ungulates. Mitigate against habitat fragmentation, degradation and loss stemming from an increased wild horse population, energy development, roads, increased recreation and other impacts.

**POPULATION MANAGEMENT OBJECTIVES**

Target Winter Herd Size: Manage toward a herd unit computer model elk winter population size of 975. The Southwest Desert elk committee recognizes that the objective of 975 is a low population objective to have on a

unit that is so large. There have been no increases to the elk population objective since 1998. Since that time elk have increased their area of use and a significant portion of the population uses ranges that are north of Highway 21. It has been proposed that upon reaching a minimum of three of five goals listed below, the Southwest Desert elk committee will meet for an evaluation and discussion. If it is found sustainable, the population objective could be increased to the total of 1,200 wintering elk. The herd would be managed for a distribution of 900 wintering elk south of Highway 21 and 300 wintering elk north of Highway 21.

**Goals:**

1. Complete 15,000 acres of additional habitat treatments.
2. Install a minimum of 3 new wildlife guzzlers.
3. Elk population is managed to 975 or below for the next survey cycle.
4. Wild horse numbers have been significantly reduced.
5. Livestock grazing AUM's that have been suspended due to drought or habitat restoration have been reinstated or increased beyond original levels.

**Bull Age Structure:** Maintain a 3-year average bull harvest age of 6.5 - 7 years for all limited entry hunts. Maintain a high success rate on limited entry rifle hunts.

**Recruitment:** Determine annual recruitment and population status of the herd.

**Harvest:** Maintain antlerless harvest that will decrease the population and keep the population at its objective. Use limited entry bull harvest and general season spike bull harvest to provide hunting opportunities and maintain population dynamics.

### **HABITAT MANAGEMENT OBJECTIVES**

- Continue to cooperatively work with the BLM, private landowners and SITLA to implement landscape scale habitat improvements.
- Promote sustainable wildlife, livestock and wild horse grazing practices that minimize negative impacts to plant health and diversity.
- Develop new and protect/improve existing water sources for wildlife and livestock to improve distribution and minimize overutilization in proximity to water sources.
- Remove piñon and juniper tree encroachment into all ranges and vegetative communities. Approximately 3,000 acres per year will be targeted.
- Enhance riparian systems through continued, prescriptive grazing and mechanical or chemical treatments.
- Manage wild horse herds within appropriate management levels to minimize impacts.

### **CURRENT STATUS OF ELK MANAGEMENT**

#### **Habitat**

**Habitat Conditions:** The current BLM assessment is that habitat is stable on this unit; although it may be declining on a few allotments. Actual forage use by elk on BLM lands is estimated to be less than 10 percent that of livestock. The land ownership of the elk habitat on this unit is largely public land with some of the key areas still being on private lands. There is currently a Landowners Association working with the DWR to address the benefits that elk receive from being allowed on private lands. Tolerance of elk on these and other private rangelands on this unit are one of the factors affecting the population objective of elk on this unit.

**Population Objective:** The population objective is impacted by the following factors: 1) water distribution, 2) horse population that is beyond DWR control, 3) social and political factors, 4) current and future range improvements, and 5) range health and species competition potentials.

**Factors that influence population management:** Drought over the past decade has reduced elk habitat. Piñon and juniper invasion is reducing more beneficial forage production and threatening open and mosaic habitats. Canopy cover is closing in mid elevation mature piñon and juniper communities. This limits and slowly removes valuable perennial understory species. Limited livestock forage competition has occurred during the

drought. Agricultural depredations are generally minimal but do occur.

Habitat improvement projects: Numerous habitat improvement projects have been completed during the past ten years. These include taking advantage of naturally caused wild land fires through reseeding and other more labor-intensive accomplishments. In total, more than 34,000 acres have been completed in the last ten years. In that same time frame, seven 10,000 gallon big game guzzlers have been newly built or rebuilt to expand their capacities. Currently proposed projects total 3,578 acres of habitat restoration and three new big game guzzlers for 2016-17. The Hamlin Valley EA is completed and covers 78,000 acres. It is planned that a minimum of 3,000 acres of improvements be done each year over the next 10 years. BLM is also working on an EA to retreat, old treatments on the unit and a new EA's for Mountain Home and Pine Valley areas. Specific project areas and acreage totals are given below.

### SOUTHWEST DESERT HABITAT PROJECTS COMPLETED AND PROPOSED

Completed Projects – 2006 through 2015			
Project Name	Acres	Project Name	Acres
Mountain Home Habitat Improvement	1218	White Rocks Fire Rehab	4156
Blawn Wash Seeding Restoration	1733	South Hamlin Shrub steppe Habitat Improvement	839
Salt Cabin Reseed	1190	Indian Peaks WMA Lop and Scatter	1511
Bowler Chaining	1376	Chokecherry Shrub steppe Improvement	1181
Paradise Fire- WH	533	Wah Wah Valley Shrub steppe Improvement	1263
Paradise Fire- BB	1294	Spike Hollow Vegetation Enhancement	1628
Paradise Fire- TS	148	Browse Seeding on FY13 Fires	3414
Hamlin Valley Flinspach	903	Hamlin Valley - Sagebrush Restoration Year I	3046
Greens Canyon Lop and Scatter	690	Halls Well	
Paradise TS Green strip	5	Sewing Machine Pass Guzzler	
Butcher MW Green stripping	60	South Wah Wah Guzzler	
Chokecherry Green strip	53	Grey Hills Guzzler	
Indian Peaks Summer Range Lop and Scatter	484	Woods Reservoir Guzzler	
Keel Spring SITLA	1487	South Antelope Guzzler	
Broken Ridge Fire Rehab	6400	Mountain Home West Guzzler	
		<b>Total Acres Treated</b>	<b>34,612</b>

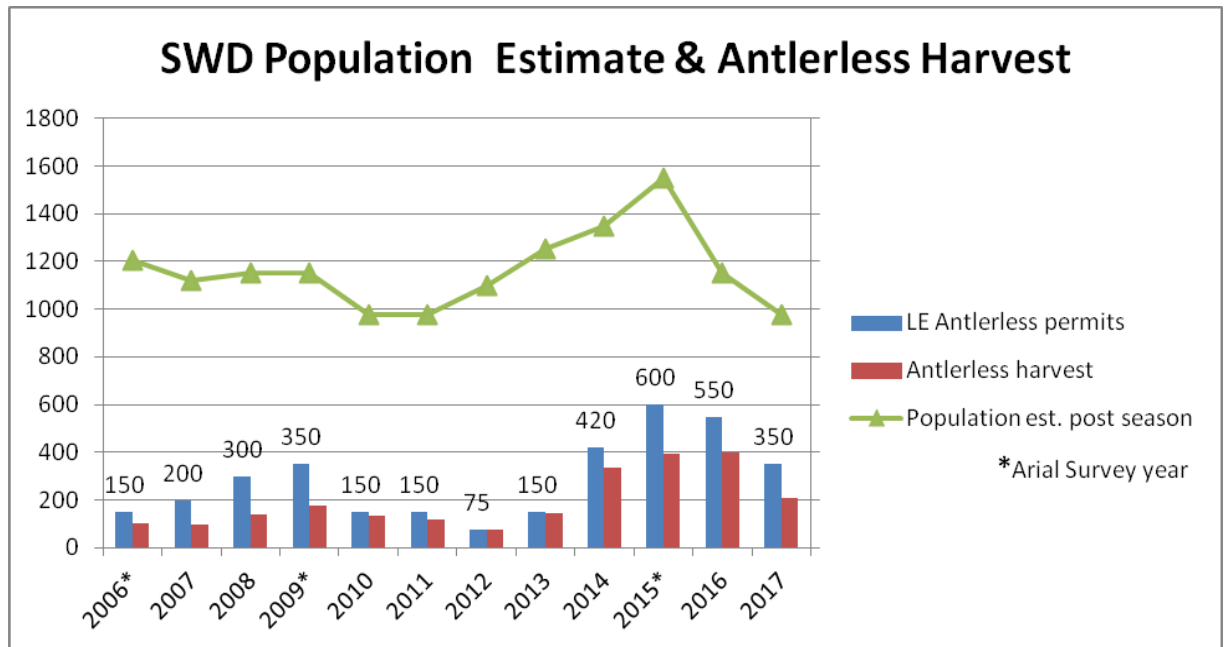
Proposed Projects – 2016 and beyond			
Project Name	Acres	Project Name	Acres
Hamlin Valley Habitat Restoration Project - Sagebrush Restoration Year 1	8441	Mountain Home East Guzzler	
Blawn Mountain Vegetation Enhancement Phase I	1243	Wah Wah Summit Guzzler	
Hamlin Valley Habitat Restoration Project - Sagebrush Restoration Year 2	22992	Headlight Mountain Guzzler	
Hamlin Valley EA remaining area	60,000		
SWD Re-treatment EA	?		
Mountain Home EA	?		

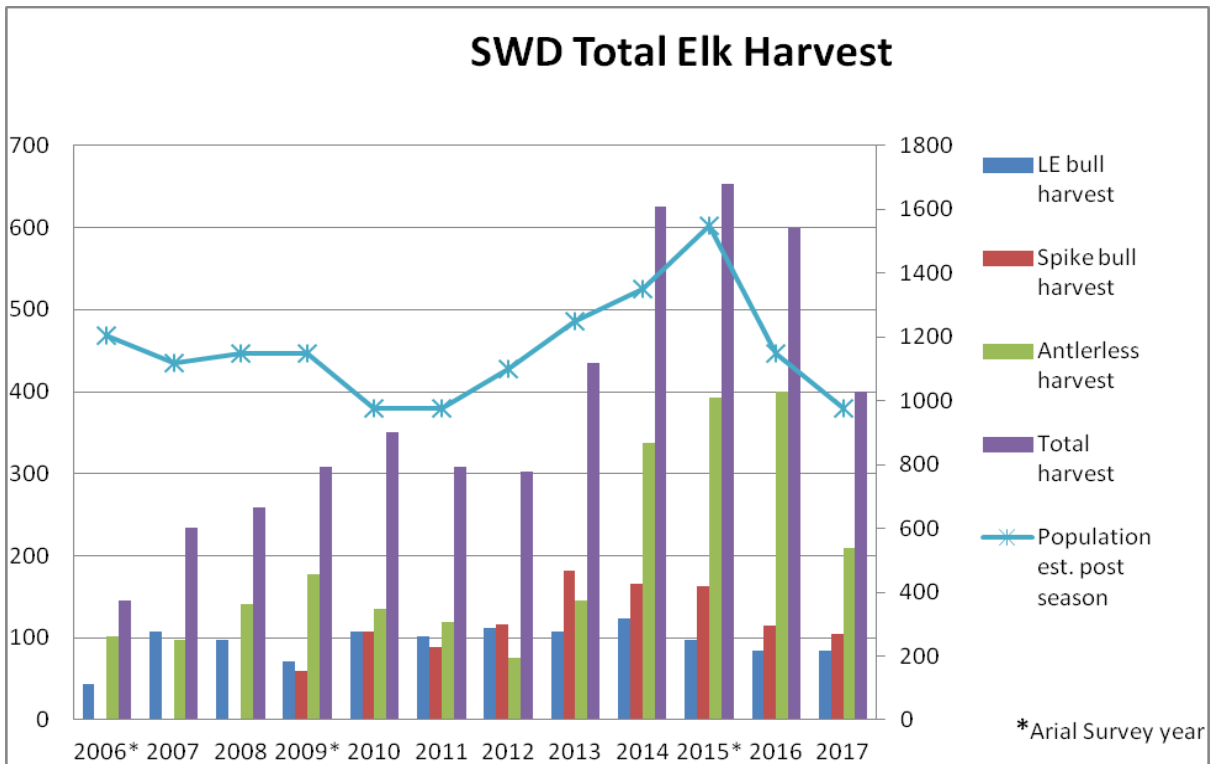
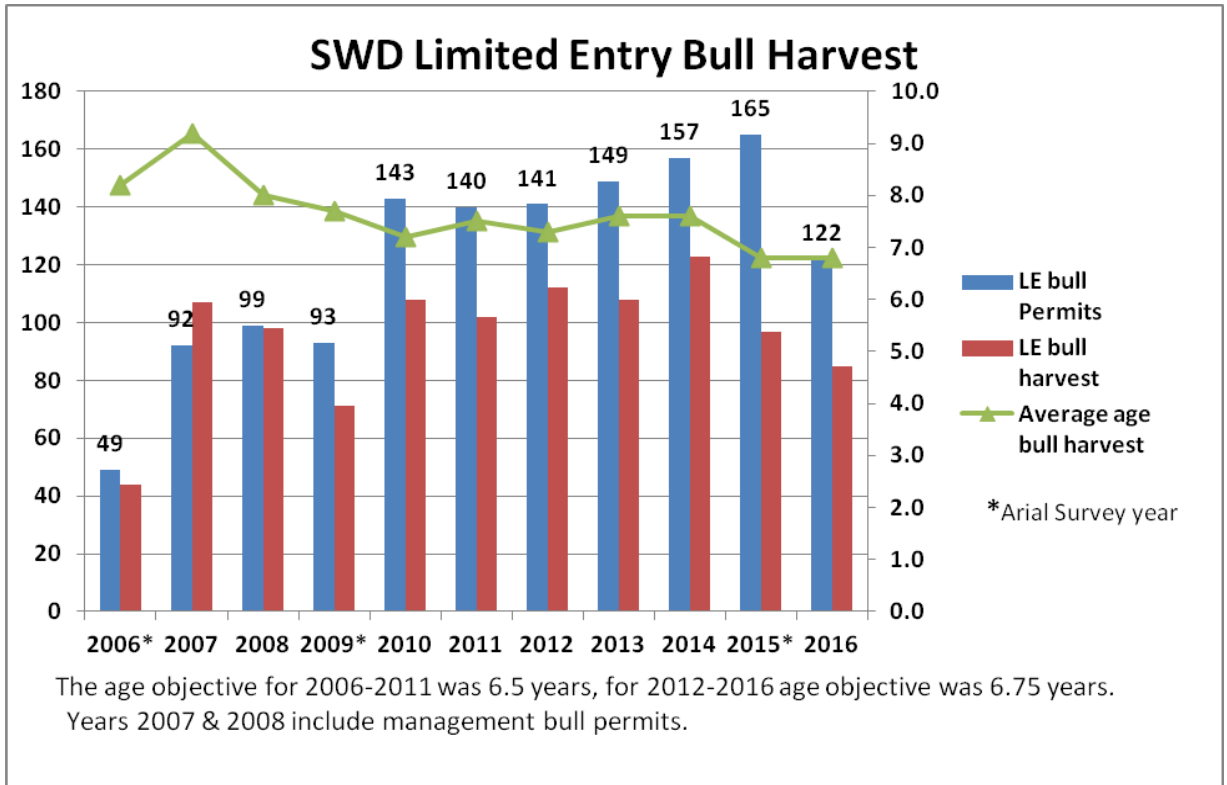
**Population**

Graph 1. Is a summary of Southwest Desert elk population trend for the past ten years and projection of the population to post season 2017.

Graph 2. Has the limited entry bull permits for the past 10 years and the average age of bull's harvested trend.

Graph 3. Is a summary of all elk harvest on the Southwest Desert and projected harvest to reach the current objective of 975 wintering elk.





## **BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES**

### **Habitat**

- Drought impacts to rangeland forage condition and abundance.
- Limited summer range.
- Pinion and juniper invasion into sagebrush, mountain browse and aspen communities.
- The maturation of pinion and juniper forests resulting in closed canopies. This reduces perennial understory vegetation and limits forage availability and diversity.
- Crop depredation could become a barrier but is not at this time.
- Wild horse impacts on forage potential and destruction of natural water sources.

### **Population**

- Distributing antlerless harvest across the unit to treat localized issues and problems.
- Equitable elk distribution across the herd unit.
- Preliminary data from GPS collared elk is confirming that the suspected winter migration from Nevada into Utah that has artificially increased the wintering populations.

## **STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES**

### **Habitat**

#### **Monitoring**

- Continue to monitor long term rangeland conditions and health through the permanent range trend sites.
- Annually inspect rangeland vegetative community impacts and health through habitat assessment surveys that include ocular field assessments and range rides.
- Monitoring of water sources during drought years.

#### **Actions to Remove Habitat Barriers**

- Cooperate with land management agencies to establish natural fire policies that will allow wild fires to burn in beneficial and non threatening areas.
- Continue to cooperate with land management agencies to effectively reseed and/or rehabilitate wildfires to benefit elk and other wildlife.
- Continue with the aggressive juniper, pinion and other conifer treatment projects that target areas of invasion into sagebrush, mountain browse and aspen communities.
- Develop projects to improve vegetative diversity and perennial understory health in closed canopy pinion and juniper forests.
- The goal has been set to complete a minimum of 3,000 acres of habitat improvements each year.
- Improve existing water catchments and look for opportunities to improve water distribution.
- Work with landowners and associated agencies to limit the impacts and control the population of wild horses within the Southwest Desert.

### **Population**

#### **Monitoring**

**Population Size:** Aerial helicopter surveys are conducted every three years. Effort will be made to cooperatively time with the Nevada Department of Wildlife and data shared to better understand elk population distribution and numbers. These flights and a computer population model program are utilized to track and evaluate the elk herd distribution and annual winter population estimates. Inclusive to these efforts, annual herd classification will be conducted as warranted and possible to estimate herd productivity during non flight years.

Bull Age Structure: Harvested bull ages will be monitored annually through cementum annuli lab analysis of hunter-submitted central incisor teeth. Herd composition classification every three years, annual ground classification and computer modeling will be used to monitor population dynamics.

Harvest: The primary means of monitoring harvest will be through the statewide uniform harvest survey. Population size will be achieved through utilizing a variety of harvest methods and seasons. Elk distribution inequities across the herd unit may also be treated through selective public antlerless harvest and hunt areas. Bull harvest numbers will be developed through the RAC and Wildlife Board process to achieve harvested bull age management objectives.

Migration: GPS collars have been deployed on cow elk in several areas along the Utah/Nevada state line to monitor movement of elk between the two states. . It is planned that this study will be expanded to improve the sample of elk wintering in Utah.

### **Management Actions to Remove Population Barriers**

Depredation: Antlerless hunts will continue to be the principle means of limiting cropland depredation. Mitigation permits and vouchers will also be used. An active landowner's association receives limited entry bull permits.

Interagency Cooperation: The increasing demands for all natural resource use within the Southwest Desert mandate close association and cooperation between all resource management agencies. While good cooperation and communication is established, this effort will be a priority and will include private landowners, BLM, SITLA, the public land grazers and sportsmen.

Elk Population and Distribution: The Southwest Desert herd and the actual optimum population objective will be determined by factors including, but not limited to, water distribution, horse populations, social and political factors, current and future range improvements, range health, and potential species competition. Efforts to encourage elk to more uniformly utilize herd unit resources will include antlerless hunts, habitat improvements to rangeland vegetative communities, as well as water development.

Migration: Communicate with Nevada Department of Wildlife on the timing of antlerless hunts and try to coordinate hunting seasons so that elk are not being pushed back and forth across state lines and finding refuge.