

**ELK HERD UNIT MANAGEMENT PLAN**  
**Elk Herd Unit 1**  
**Box Elder**  
**August 2016**

**BOUNDARY DESCRIPTION**

Box Elder, Tooele, Salt Lake, Davis and Weber counties- Boundary begins at the Utah-Idaho state line and I-15; west along this state line to the Utah-Nevada state line; south along this state line to I-80; east on I-80 to I-15; north on I-15 to the Utah-Idaho state line.

Subunit 1a Grouse Creek: Box Elder County--Boundary begins on the Utah-Idaho state line at SR-42; east on SR-42 to Curlew Junction and SR-30; south and west on SR-30 to the Utah-Nevada state line; north on this state line to the Utah-Idaho state line; east on this state line to SR-42.

Subunit 1b Hansel Mountain: Box Elder County Boundary begins at 12th Street and I-15 in Ogden north on I-15 to the Utah/Idaho state line west along this state line to SR-42 southeast on SR-42 to SR-30 southwest on SR-30 to the Kelton road south along this road to the Great Salt Lake shoreline southeast along this shoreline to the Pacific Causeway near Promontory Point east on this causeway to 12th Street east on this street to I-15 in Ogden.

Subunit 1c Pilot Mountain: Box Elder and Tooele counties- Boundary begins at SR-30 and the Utah-Nevada state line; east along SR-30 to the township line separating Range 15 West and Range 16 West; south along this township line to I-80; west along I-80 to the Utah-Nevada state line; north along this state line to SR-30. This subunit also includes Nevada's Unit 091. Nevada's Unit 091 boundary begins at I-80 and the Utah-Nevada state line, west on I-80 to the Pilot Creek Valley Road, north on Pilot Creek Valley Road to SR-233, east on SR-233 to the Utah state line, south on the state line to I-80.

**LAND OWNERSHIP**

Ownership	Yearlong range		Summer Range		Winter Range	
	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service			30,115	54	5,913	13
Bureau of Land Management	190,324	48	5,459	10	21,528	48
Utah State Institutional Trust Lands	28,082	7	1,553	3	3,447	8
Native American Trust Lands						
Private	182,078	45	18,277	33	13,800	31
Department of Defense						
USFWS Refuge						
National Parks						
Utah State Parks						
Utah Division of Wildlife Resources						
<b>TOTAL</b>	400,484	100	55,404	100	44,688	100

## UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities including hunting and viewing. Consider impacts of the elk herd on other land uses and public interests including private property rights, agricultural crops and local economies. Maintain the population at a level that is within the long-term capability of the available habitat.

Use CWMU's to help manage elk populations and address the complex private/public checkerboard land pattern on the Grouse Creek/Raft River subunits.

Co-manage the Pilot subunit with the State of Nevada to abide by the interstate hunt agreement.

Prioritize habitat restoration and enhancement efforts to stem the loss of grasslands to Juniper and cheatgrass encroachment or conversion.

## UNIT MANAGEMENT OBJECTIVES

### West Box Elder Elk Committee Input

- CWMU's - Maximize the use of elk CWMUs in subunit 1a and 1b to manage elk.
- Crop depredation - Immediate response to all crop damage complaints.
- Elk population objective - 275 animals on subunit 1a. If elk immigrate into the Raft River portion of the unit, have a sub-population objective of 100 animals.

### Habitat

- Increase 1,000 acres of summer range on subunit 1a.
- Increase summer and winter carrying capacity on subunit 1c.

### Population

Target Winter Herd Size

- Subunit 1a** establish population objective at 275 animals at any time of the year.
  - **Subunit 1a Raft River portion:** Allow population to increase up to 100 animals
- Subunit 1b Hansel Mtn.:** This is a private lands/agricultural unit that is not recommended for elk populations. Elk will be hunted opportunistically but no population objective will be set.
- Subunit 1c Pilot Mtn.:** Increase population to achieve 400 animals (computer modeled population).

Bull Age Harvest Composition-

- Subunit 1a and 1c:** Average age of harvested bulls will be maintained at 4.5-5.0 years.

## CURRENT STATUS OF ELK MANAGEMENT

### Habitat

- Habitat conditions: All areas of this desert unit appear to be declining. Cheatgrass invasion and juniper expansion is occurring at a rapid rate.
- Determining population objectives: When looking at population objectives, the Division has taken into account numerous factors which include: 1) depredation issues 2) winter range that is beyond Division control 3) social and political factors 4) current and future range improvements and 5) current range health.

**-Subunit 1a:** The West Box Elder Elk Committee recommended 275 animals after reviewing the above information. The summer and winter populations are constantly straddling the border with Nevada. Movement of 100 plus animals every week is common.

**-Subunit 1b:** This is a private lands/agricultural unit that is not recommended for elk populations. Elk will be hunted opportunistically but no population objective will be set.

**-Subunit 1c:** In 2000, this unit experienced a winter migration of 200-250 elk out of a population that was at the 400 objective. These elk appeared to move into the north Montello (Nevada) population and never returned. The 1980's objective of 400 animals was based on an AUM allotment that required the elk to utilize feed that was on steep hillsides and thus not used by livestock. No livestock AUMs were lost during the process of "finding" approved feed for a new elk herd. Winter feed may be limiting and it is recommended that close scrutiny occur in winter as this unit approaches objective.

#### HABITAT PROJECTS COMPLETED AND PROPOSED

Completed Projects – 2012 through 2016		Potential Projects – 2017 and beyond	
Pole Creek Bullhog	1,619 acres	Pilot Mtn P/J Removal	
North Grouse Creek Bullhog	1,066 acres	Keg Springs Juniper Removal	
Grouse Creek Bullhog ph.II	1,031 acres	Red Butte Juniper Removal	
Grouse Creek Bullhog ph.III	705 acres	Kimbell Creek Juniper and Water	
West Grouse Creek Bullhog ph.II	1,079 acres		
West Grouse Creek Bullhog ph.III	950 acres		
<b>Project total acreage</b>	<b>6,450 acres</b>		

#### Population Dynamics

##### **-Subunit 1a:**

**-Population status:** This area currently winters approximately 100 animals. This is essentially the same number as 10 years ago, however; the summer peak average population has more than doubled (300 to 400). It appears that quite a few of Utah's summering elk, winter in Nevada. The Utah winter distribution is as follows: 10-20 elk on the southern Grouse Creek range, 75 -100 on the Goose Creek drainage (Nevada/Idaho border area) and 80 in the Kilgore Basin/Nevada line area. The Nevada population is currently above objective. Routine discussions of management and populations take place with the Nevada Division of Wildlife. The Nevada portion of this area currently supports 1,700 elk. The Grouse Creek Subunit appears to occupy the easternmost edge of their range.

-An aerial elk/moose survey will begin during the winter of 2016-17 to assess the wintering population in sub-unit 1a. These surveys should repeat every 3 years.

**- Harvest:** The 5 CWMUs currently issue 28 bull permits and 35 antlerless permits annually. There are 15 bull and 45 antlerless Limited Entry public land tags as well as a general season spike only hunt. For the CWMU and Limited Entry hunts, the past 5 year average yearly harvest has been 30 bulls at 5.42 years of age. Age structure is based on various sample sizes (4-25). One additional CWMU will also begin hunting elk in 2016 (Cotton Thomas).

##### **-Subunit 1b:**

**-Population status:** This is a private lands/agricultural unit that is not recommended for elk populations and currently numbers about 125 animals. Beginning in the late 1980's Idaho had a growing elk population that started

wintering near Snowville, after going around an Idaho wildlife drift fence. The fence was removed in the mid 1990's and 200-300 elk started crossing I-84 to winter on the southern end of the Hansel Mountain range. Several elk stayed during the summer. When the summer population reached 20+ DWR initiated several hunts to attempt to eliminate this population. An open bull season was started along with free and fee antlerless tags to landowners and a public antlerless hunt. The public antlerless hunt was expanded in 2016 to include the area from I-15 west to Hwy 30. The average number of antlerless elk harvested over the last five years is 15 elk. The summer resident population has tripled over the last 15 years. The annual winter influx makes this population even harder to manage. Numerous elk damage discussions have taken place with concerned smaller acreage landowners and all landowners are still content to maintain the population with free/fee mitigation tags. This has slowed the growth down considerably. The elk spend most of the summer and fall on 2-3 landowners with nightly jaunts off the property for water, alfalfa, or corn.

**-Harvest:** An any bull hunt occurs on this subunit, and bull harvest is increasing. This equals about 37 bulls annually (5 year average).

**-Subunit 1c:**

**-Population status:** There are approximately 300 elk on this subunit. This population is slowly increasing. Cow/calf ratio's averaged above 40 with an increasing trend.

-Aerial helicopter surveys occur every other year on this unit with Utah and Nevada scheduling and paying for the flight every other survey. Utah will schedule and pay for the 2016 survey and Nevada will be responsible for the 2018 survey. These surveys are conducted in mid-August in conjunction with a big-horn sheep survey.

**-Harvest:** The past 5 year average annual bull harvest has been 3 bulls with an age of 6.25, and the average age of harvested bulls is increasing (3 yr average is 6.5). The age objective of this unit was reduced in 2015 to match subunit 1a at 4.5-5.0 years. Increased numbers of bull permits will be required to lower the ages of harvested bulls toward objective.

To coordinate hunt timing with Nevada, the bull elk hunt on this unit will be recommended to start the 2nd Saturday in September and run for three weeks.

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

### **West Box Elder Elk Committee Input**

-CWMU's: The Grouse Creek Subunit elk population would be eliminated if CWMUs were not used to manage the population. Currently 6 CWMU's help manage 80% of the elk and the associated crop depredation issues.

-Crop depredation: Landowners will not be expected to tolerate elk following into a pattern of causing sustained measurable damage to crops.

-Population: Increases allowed by immigration only.

### **Habitat**

**-Subunit 1a:** The majority of the current late August/September population winters in Nevada. There are around 80 elk that winter on the Kilgore Basin on the Nevada/Utah border. This area also winters several hundred deer. The small eastern Grouse Creek Range population appears to have very limited

summer habitat. Currently there is only one small group of 20-30 elk that rarely depredate, and they live on rangeland. This area is an un-grazed BLM allotment. Summer crop depredation occurs by almost the entire population.

**-Subunit 1b:** This is a private lands/agricultural unit that is not recommended for elk populations. Elk will be hunted opportunistically but no population objective will be set.

**-Subunit 1c:** Winter feed appears to be limiting. Summer habitat changes such as increased cheatgrass and low mountain grass production may have forced elk into crop depredation circumstances. Very little crop damage occurred in the 1980's and 1990's but during and following this last drought all cropland has elk depredation beginning in June. An average of 24 elk per day are on the TL Bar Ranch cultivated fields from June to November (3 years data).

### **Population**

- The age objective of harvested bulls on Subunit 1c was reduced to 4.5-5.0 years to match subunit 1a.

### **Other Barriers**

-Crop Depredation is a huge problem in the Grouse Creek and Hansel Mountain Subunit and is an increasing problem in the Pilot Mountain Subunit.

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

### **West Box Elder Elk Committee Input**

-CWMU'S Subunit 1a: Maintain and enhance the existing CWMU's, and pursue ways to address the remaining elk that are depredate on cropland.

### **Actions to Remove Elk Committee Barriers**

-Recommend no additional losses for elk management in the CWMU program. This includes the 6 current CWMU's, their acreage requirements, percent splits and the use of additional public/private checkerboard properties to manage this elk population as mandated.

-Continue to encourage and support the damage control technicians to promptly respond and address elk damage complaints.

### **Habitat**

-Monitoring: Continue to monitor permanent range trend studies located throughout the winter range.

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

-Encourage and support the habitat section in enhancement of summer and winter range conditions on subunits 1a and 1c:

-1a: Continue working with the landowners on potential habitat improvement projects. Elk winter range will be enhanced, and haystack depredation may decline.

-1c: Work with the BLM on all wildfire reseeding on the wilderness study area. This should help increase winter carrying capacity and limit summer crop damage. Continue working with landowners on the potential projects.

### **Population**

#### **Monitoring:**

**-Population Size** - The majority of elk on Subunit 1a winter in Nevada and are surveyed by Nevada during their annual winter flight. The population is

monitored using harvest data, aerial trend counts and classification, preseason classification, and survival estimates. Constant discussion with Nevada regarding their population computer model and management has been occurring. The Utah proportion of this overall elk population is around 10-15%. Subunit 1c is also co-managed with Nevada and is shared 50:50. Continue every other year aerial summer survey on unit 1c in conjunction with Nevada and start and continue winter aerial survey on units 1a every 3 years.

**-Bull Age Structure** - Monitor age class structure of the bull population through the use of uniform harvest surveys, limited entry tooth aging, and aerial classification.

**-Harvest** - The primary means of monitoring harvest will be through the statewide uniform harvest survey. Achieve the target population size through antlerless harvest using a variety of harvest methods and seasons. Bull harvest strategies will be developed through coordination with Nevada, and the RAC and Wildlife Board process.

**Actions to Remove Population Barriers**

Continue annual proactive meetings and mailings for landowners affected by depredating elk. The last ten years of proactive fee/free mitigation permit mailings and meetings have removed most depredating population barriers.