

ELK HERD UNIT MANAGEMENT PLAN
Elk Herd Unit # 17
Wasatch Mountains
October, 2016

BOUNDARY DESCRIPTION

Carbon, Salt Lake, Summit, Wasatch, Duchesne, Utah counties - Boundary begins at the junction of I-15 and I-80 in Salt Lake City; east on I-80 to US-40; south on US-40 to SR-32; east on SR-32 to SR-35; southeast on SR-35 to SR-87; south on SR-87 to Duchesne and US-191; south on US-191 to US-6; northeast on US-6 to I-15; north on I-15 to I-80 in Salt Lake City.

UNIT MANAGEMENT GOALS

- To manage and sustain a healthy population of elk at the current population objectives.
- To provide a variety of high quality recreational opportunities for viewing and harvesting elk.
- To maintain an elk population consistent with the available range resources.
- To strive for protection of key habitats with continued habitat improvements to mitigate losses by development.
- To continue to provide “spike only” general season as well as “limited entry” elk hunting opportunities. Limited entry hunts will be divided as archery, any weapon, muzzleloader, and multi-season hunt as an opportunity to hunt all three weapon types.

UNIT MANAGEMENT OBJECTIVES

Habitat

Within the next five years, enhance forage production on a minimum of 20,000 acres of elk habitat, through direct range improvements to maintain population management objectives. Pursue protection of an additional 20,000 acres of elk habitat through Conservation Easements, CWMUs, Conservation agreements, etc.

Population

Target Winter Herd Size – 8,400 wintering elk distributed in the following subpopulations:

Wasatch Mountains West	3,400
Currant Creek	3,200
Avintaquin	1,800

Herd Composition - Maintain a three year average age of 5.5-6.0 years of harvested bulls.

Winter aerial counts are scheduled every three years and are dependent upon operating budgets and weather conditions.

Average age and permits for bull elk on Wasatch unit 2005-2015 (age objective 5.5 - 6 yrs).

Year	Harvest Age	Bull Tags*
2005	7.1	216
2006	7.2	236
2007	7.1	287
2008	7.3	360
2009	6.7	432
2010	6.8	509
2011	6.4	603
2012	6.3	652
2013	6.9	655
2014	6.8	703
2015	6.6	733

**public draw bull tags*

CURRENT STATUS OF ELK MANAGEMENT

Habitat

Overall, range conditions for elk are good on this unit. Some wintering areas suffered a sagebrush die off due to the seven year drought that ended in late 2004. Since, 2005 there has been several wet years, which resulted in good grass production that benefited elk. The majority of the Range Trend monitoring sites on this unit are in fair to good condition.

Population Objective

When looking at the population objective for this unit, the Division has taken into account the following factors: 1) depredation issues 2) winter range that is beyond division control 3) social and political factors 4) current range improvements 5) future range improvements and 6) range health. Other factors influencing population objectives are urban encroachment, competition for forage, and over utilization of winter browse in areas of concentrated deer and elk during hard winters.

Land Ownership

The following tables show landownership in relation to habitat type.

RANGE AREA AND APPROXIMATE OWNERSHIP SUB-UNIT 17A

Sub-Unit 17a	Spring-Fall		Summer Range		Winter Range		Yearlong range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	406,817	77	75,006	83	58,373	38	2,221	18
Bureau of Land Management	472	>1	0	0	2,354	2	0	0
Utah State Institutional Trust Lands	669	>1	0	0	2,744	2	0	0
Native American Trust Lands	1,952	>1	768	>1	0	0	0	0
Private	105,054	20	13,737	15	71,081	46	9,523	75
Department of Defense	0	0	0	0	0	0	0	0
USFWS Refuge	0	0	0	0	0	0	0	0
National Parks	235	>1	0	0	0	0	0	0
Utah State Parks	11,917	2	0	0	7,524	5	0	0
Utah Division of Wildlife Resources	431	>1	521	>1	12,015	8	929	7
Water	87	>1	71	>1	0	0	0	0
TOTAL	527,634	100	90,102	100	154,090	100	12,673	100

RANGE AREA AND APPROXIMATE OWNERSHIP SUB-UNIT 17B&C

Sub-Unit 17b&c	Spring-Fall		Summer Range		Winter Range		Yearlong range	
Ownership	Area (acres)	%	Area (acres)	%	Area (acres)	%	Area (acres)	%
Forest Service	79,259	62	65,968	52	24,470	7	20,360	21
Bureau of Land Management	0	0	6,751	5	2,294	>1	8,729	9
Utah State Institutional Trust Lands	21,949	17	3,715	3	6,064	2	2,466	3
Native American Trust Lands	0	0	42	>1	62,970	18	9,107	9
Private	19,372	15	32,019	25	186,467	53	41,745	43
Department of Defense	0	0	0	0	0	0	0	0
USFWS Refuge	0	0	0	0	0	0	0	0
National Parks	0	0	0	0	0	0	0	0
Utah State Parks	0	0	0	0	1,150	>1	0	0
Utah Division of Wildlife Resources	6,135	5	19,273	15	70,780	20	15,244	16
Water	290	>1	0	0	0	0	0	0
TOTAL	127,005	100	127,768	100	354,195	100	97,650	100

Completed and proposed habitat improvement projects

Over the past decades many habitat improvement projects have occurred that benefit elk. These include; both prescribed fire and wild fire, pinyon-juniper chainings, conifer thinning, etc. There are also many proposed projects for the Wasatch unit that will benefit elk. Please see the proceeding tables for lists of projects and acreages.

Habitat improvements & protections on the Wasatch unit from 2006 to 2016.

Project Name/Description	Agency	Acres	Cooperators
Coyote Draw PJ lop & scatter	DWR	1,220	DWR
Cut Off Road PJ lop & scatter	DWR	415	DWR
East Side Hwy 208 anchor chaining	DWR	450	DWR
Golden Stairs anchor chaining	DWR	185	DWR
Grey Wolf Mtn anchor chaining	DWR	600	DWR
Horse Ridge PJ treatment	DWR	700	DWR
Lake Canyon aerator treatment & seeding	DWR	600	DWR
Lake Canyon PX conifer burn	USFS	500	USFS, DWR
Lower Red Creek – sagebrush seeding	DWR	600	DWR
Lower Red Creek Dixie Harrow	DWR	325	DWR
Rabbit Gulch anchor chaining	DWR	190	DWR
Rabbit Gulch PJ lop & scatter	DWR	1,400	DWR
Rabbit Gulch PJ lot & scatter	DWR	1,100	DWR
Rabbit Gulch sec 9 PJ anchor chaining	DWR	180	DWR
Sandwash/Sink Draw Cons. Easement	DWR	4,000	DWR, RMEF, SFWH, LIP
Sandwash/Sink Draw Cons. Easement	NRCS	5,000	NRCS, DWR
Santaquin Draw anchor chaining	DWR	1,800	DWR
Skitzzy Canyon anchor chaining	DWR	730	DWR
Stink Draw seeding	DWR	500	DWR
Strawberry River prescribed burn	DWR	4,000	DWR, BOR
Strawberry River property acquisition	BOR	1,700	BOR, CUPMC, DWR
Trout Creek sagebrush treatment	USFS	200	USFS, DWR
Two Bar Ranch PJ thinning & lop & scatter	DWR	1,300	DWR
Wallsburg Fire break seeding	DWR	100	DWR
Wallsburg shrub planting	DWR	500	DWR, SFWH
Wildcat Canyon property acquisition	BOR	1,700	BOR, CUPMC, DWR
Horse Ridge lop & scatter	DWR	500	DWR
Tabby Mt. Santiquin Draw chaining	DWR	238	DWR
Tabby Mountain lop & scatter	DWR	600	DWR
Wallsburg fire break treatment	DWR	100	DWR
Wallsburg shrub planting	DWR	500	DWR, SFW
Sheep Creek phase 1	USFS	500	DWR, SFW,MDF,Utah Bowman
Sheep Creek phase 3	USFS	790	DWR,SFW,MDF,FFSL,Safari Club, Utah Bowman
Wallsburg knapweed control phase 1	DWR	932	DWR,MDF,SFW,RMEF,Utah Bowman, Wasatch Co.,ESMF
Wallsburg knapweed control phase 2	DWR	830	DWR,MDF,SFW,RMEF,Utah Bowman, Wasatch Co.
Wallsburg knapweed control phase 3	DWR	603	
Bartholomew Canyon vegetation treatment	USFS	1,000	USFS,DWR
South Strawberry sagebrush treatment	USFS	310	USFS,DWR
Springdell south vegetation treatment	USFS	2,500	USFS,DWR
Wheeler fire rehab.	DWR	220	DWR,Wasatch Co.,Private Landowner
Billies Mountain	USFS	1,000	DWR,Rocky Mtn.Power,SFW,RMEF,NWTF
Cascade weed treatment	USFS	2,175	DWR,NWTF
Tank Hollow habitat improvement	USFS	1,700	DWR,MDF,SFW
Foothill road closer	USFS	750	DWR,National Forest Foundation, NRCS
TOTAL		45,243	

Proposed habitat projects on unit 17. Others may be added as need/opportunities arise.

Proposed Project	Agency	Acres	Cooperators
SITLA Tabby Mtn Block Acquisition/Easement	DNR	28,000	DNR, DWR, SFWH, RMEF, MDF, etc.
Sandwash sagebrush restoration	DWR	92	DWR
Buck Knoll anchor chaining	DWR	400	DWR, B.B.C., Berry P.
Blacktail Mountain west PJ treatment	DWR	440	DWR
Reservation Ridge burn	BLM	85	BLM, DWR
Sheep Creek phase 4	USFS	1,427	DWR,FFSL,MDF,RMEF,Safari Club,SFW,Utah Bowman
Trout Creek reentry	USFS	200	DWR
Wallsburg shrub planting	DWR	500	DWR,SFW
Skitzzy lop & scatter	DWR	390	DWR
Price Canyon burn	BLM	4,000	DWR, BOR
Blacktail Mountain east PJ treatment	Ute Tribe	1,400	Ute Tribe, DWR
Weeint Hollow anchor chaining	Ute Tribe	2,000	Ute Tribe, DWR, B.B.C.
\$1200 ridge Prescribed burn	USFS	1,200	USFS, DWR
Reservation Ridge thinning	USFS	1,000	USFS, DWR
Indian Canyon Prescribed burn	USFS	500	USFS, DWR
Reservation Ridge – Tub Ridge burns	USFS	4,000	USFS, DWR
TOTAL		45,634	

Population status

The last aerial census was taken in February 2013. The following are the results for each subunit:

Wasatch West 17a- 2,862 elk counted, 80% sightability, population estimate 3,434

Currant Creek 17b- 2,992 elk counted, 80% sightability, population estimate 3,740

Avintaquin 17c- 1,396 elk counted, 80% sightability, population estimate 1,745

Wasatch Mountains Unit Total- 7,250 elk counted, 80% sightability, total unit population estimate 8,919

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat

- Loss of winter range due to development.
- Loss of winter range due to sagebrush die off and resulting cheatgrass expansion.
- Poor range conditions during drought years.
- Conifer and PJ invasion of grasslands and browse areas critical for wildlife.
- Loss of winter range due to expanding oil & gas development.
- Private lands where hunting is limited, resulting in elk refuges.

Population

- Difficulty in harvesting antlerless animals due to elk behavior, refuge areas on private and Ute tribal lands, and rugged terrain.
- Some sportsman resistance to increasing limited entry bull harvest to meet bull age objective.

Other Barriers

- Agricultural Depredation - Elk on privately owned crops and rangelands. Elk numbers may have to be maintained at levels below the stated objective if excessive levels of crop depredation or forage consumption on private rangelands occur.
- Weather Extremes - Periodic climatic extremes, especially severe winters or long term drought conditions, can cause great fluctuations in overall population size, sex ratios, and age structure.
- Other Mortality Causes - Occasionally, other sources of elk mortality such as unlawful

harvest, highway mortality, winter loss, and disease.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

Habitat

Monitoring

- Continue to monitor permanent range trend studies located throughout the winter range.
- Conduct annual habitat assessment surveys.
- Continue to develop and implement Habitat Management Plans for each of the DWR Wildlife Management Areas on the unit.

Actions to Remove Habitat Barriers

- Cooperate with USFS & BLM to re-institute natural fire interval in conifer zone to recover lost elk habitat.
- Cooperate with USFS, BLM, & Ute Tribe to increase vegetative understory and reduce Pinyon/Juniper invasion of the sagebrush steppe zone to increase winter forage to reduce depredation on private property.
- Pursue Conservation Easements on critical parcels of private property to protect important elk habitat.
- Implement habitat enhancement & watershed initiative projects when opportunities arise, including those listed in this plan.
- Participate with landowners by providing seed, labor or machinery to implement improvements on private rangelands that will benefit wildlife.
- Cooperate with USFS, BLM, and local governments to prepare access management plans to enhance wildlife habitats, range conditions and escape opportunities for elk. Such plans may emphasize a mix of permanent and seasonal road closures and vehicle type restrictions.

Population

Monitoring

Population Size

- Utilizing harvest data, preseason classification, and mortality estimates, a population model has been developed to estimate winter population size. This model is supplemented with data from aerial trend counts conducted every three years when weather and budgets permit.
- Use new GPS collar study to better understand seasonal elk movements and movements between management units.

Bull Age Structure

- Average age of elk will be determined by tooth age data from limited entry harvest.
- CWMUs on the unit will also submit teeth for aging and will comply with unit age objectives specified in the Utah Statewide Elk Plan.

Harvest

- The primary means of monitoring harvest will be through the statewide uniform harvest survey and the mandatory harvest reporting for the limited entry hunts. Target population size will be maintained through the use of antlerless harvest using a variety of harvest methods and seasons; including private lands only permits, and any other legal hunting strategies.

- Trap and transplant is another tool that may be used to address severe depredation situations, conflicts in high human population areas, and elk distribution issues on the unit.
- Bull harvest level will be developed through the RAC and Wildlife Board process to achieve the average age of 5.5-6.0 years.
- Maintain an archery only area in Salt Lake County along with an extended archery area in the Summit County portion of this unit where any bull elk may be harvested during the general season spike elk hunt and the extended hunt period.

Management Actions to Remove Population Barriers

- Target depredation hunts to address elk herds that habitually move into agricultural or urban areas.
- Cooperate with private landowners to fence haystacks in winter depredation areas.
- Cooperate with UDOT to pursue funding to reduce elk/vehicle collisions.
- Cooperate with Ute Tribe to ensure hunting pressure occurs on tribal lands on subunit 17c to increase antlerless harvest for population control on that subunit.