ELK HERD UNIT MANAGEMENT PLAN
Elk Herd Unit # 8
North Slope
October 2016

BOUNDARY DESCRIPTION

Daggett and Summit counties--Boundary begins SR-150 and the Summit-Duchesne county line at Hayden Pass (summit of the Uinta Mountains); north on SR-150 to the Utah-Wyoming state line; east on this state line to the Utah-Colorado state line; south on this state line to the Green River; west along this river to Flaming Gorge Reservoir; west along the south shoreline of this reservoir to Cart Creek; south along this creek to US-191; south on US-191 to the Uintah-Daggett County line (summit of the Uinta Mountains); west along the summit of the Uinta mountains to SR-150 at Hayden Pass.

This unit will continue to be managed with three subunits. See Appendix A for subunit boundary descriptions.

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 capability of the available habitat to support. This unit will be managed within three subunits (Summit, West Daggett and Three Corners).

Continue habitat projects to improve forage for all wildlife populations. Numerous habitat projects have occurred within this unit over the past decades. Past and proposed projects include: prescribed fires in pinyon-juniper areas, followed by aerial reseeding with forbs, grasses and browse species; mechanical treatment of pinyon-juniper and conifer encroachment in critical browse / grassland areas; and working with land agencies and livestock grazers to improve overall forage conditions for both wildlife and livestock.

UNIT MANAGEMENT OBJECTIVES

Habitat

Enhance forage production on a minimum of 10,000 acres of elk habitat, through direct range improvements to maintain population management objectives.

Continue working with private landowners and federal, state, and local agencies to maintain and protect critical and existing winter range from future losses.

Continue providing improved habitat security and escapement opportunities for elk by working with federal agencies on motorized vehicle travel plans.

Population

Target Winter Herd Size – Manage elk numbers to achieve a target population size of 2,300 wintering elk.

Recent radio telemetry data confirm, under certain conditions, some animals move back and forth across the subunit boundaries. Therefore, the entire unit will be surveyed the same year and the distribution of elk during the trend count will be taken into account when determining if the subpopulations are actually above or below objective.

Subunit numbers are as follows:

Summit (8a) – 300 elk
West Daggett (8b) – 1,300 elk
Three Corners (8c) – 700 elk

In 2016 an elk committee met and discussed the population objective for the Three Corners subunit. It was agreed to recommend an increase of 200 elk for the population objective for a total of 700 wintering elk. The committee will reconvene after the next aerial count to discuss any potential depredation problems that may have arisen. If depredation problems increase, the committee suggested lowering the population back to 500 elk or having targeted cow elk hunts.

Bull Harvest Objective for Limited Entry Subunit - For the Three Corners subunit, maintain a minimum average bull age of a 5.5-6 year-old bull in the harvest.

CURRENT STATUS OF ELK MANAGEMENT

Habitat

Current Status

Unit 8a, North Slope / Summit subunit

The steep slopes on the study sites have high erosion potential. However, the understory, especially the bunch grasses, is dense and vigorous and provides adequate soil stabilization. Browse trends on the unit for the key browse species, mountain mahogany, are stable to slightly up. The sites in this area all show a stable to slightly increasing trend and study sites are in good to excellent condition as of 2015.

Unit 8bc, North Slope / West Daggett and Three Corners subunits

Overall range trend within these subunits has been greatly impacted by a past drought, which has impacted forage production and plant survival. Browse communities at lower elevations, especially sagebrush, suffered die-offs from the sustained drought. However, where these browse die-offs have occurred, perennial native grasses have increased.

The greatest positive impact to this unit occurred from the 2002 Mustang / Dutch John wild fire. The fire area was reseeded and has significantly increased forage from perennial forbs and grasses.

The Utah Division of Wildlife Resources Big Game Range Inventory crew read a total of 10 range trend study sites during 2015. Three sites had improving browse trend, 4 were stable and 3 had declining trends due to drought conditions and/or increases in annual grasses. Overall, the majority of the sites are in good condition. The key browse species are principally Wyoming big sagebrush,

mountain big sagebrush and mountain browse species such as true mountain mahogany. Areas where sagebrush is the key species have remained stable, but recruitment of young plants has generally remained low. The perennial forb understories associated with mountain big sagebrush and Wyoming big sagebrush have stayed low, but have shown stable to upward trends for perennial grasses. Annual grasses, namely cheatgrass, have increased across sites, placing sites at increased risk for fire.

Number of elk on the Unit

When looking at the population objective, the Division has taken into account barriers which include, 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.

In general, summer elk habitat is extensive within this unit; however, the elk population objective is determined by winter range and impacts of elk on private land agriculture and ranching.

One factor in determining the population objectives for the West Daggett and Summit subunits is winter range. During winters with deep snow elk move down to lower elevations. Elk conflict with agricultural and ranching practices on private land. Significant depredation occurs in these areas.

The Three Corners subunit consists of a higher percentage of year-round habitat, and also experiences significant depredation on private land year round.

The wild fire that occurred in 2002 in the Dutch John and Goslin Mountain area burned approximately 20,000 acres. Much of the area burned was mature pinyon-juniper with very little understory of grasses and forbs. This burn area was successfully reseeded and is producing significantly more forage than before the fire. Elk have been drawn into this area and use it year round.

Land Ownership

RANGE AREA AND APPROXIMATE OWNERSHIP*

	Yearlong range		Summer Range		Winter Range	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**
Forest Service	15946	85	458890	91	89470	46
Bureau of Land Management	0	0	13933	3	40624	21
Utah State Institutional Trust Lands	314	2	4311	1	21903	11
Native American Trust Lands	0	0	0	0	0	0
Private	2268	12	23905	5	41724	21
Department of Defense	0	0	0	0	0	0
USFWS Refuge	0	0	0	0	0	0
National Parks	0	0	0	0	0	0
Utah State Parks	0	0	0	0	0	0
Utah Division of Wildlife Resources	127	1	1075	<1	2545	1
TOTAL	**18655**	**100**	**502114**	**100**	**196275**	**100**

Factors That Influence the Population Objective

Several factors influence the population objective including: agricultural depredation, competition for forage with domestic livestock, over utilization of winter browse in areas of heavy concentration of deer and elk during hard winters.

Some of the winter range in this unit is located in Wyoming where that state also has elk depredation and concerns with elk numbers. Control of the elk once they enter Wyoming is out of DWR's hands.

Elk within this unit are sometimes in conflict with both agriculture and ranching. This is especially relevant on winter range and yearlong elk range, but also concerns over elk use on summer range conflicting with livestock grazing on USFS and BLM lands.

Completed Habitat Improvement Projects

Over the past decades many habitat improvement projects have occurred that benefit elk and livestock. These include prescribed and wild fire, pinyon-juniper chainings, timber sales, conifer thinning, guzzler installation, etc. Five new guzzlers have been installed and five more are currently funded for installation.

Projects completed over the past five years on the North Slope subunits include:

Completed Project	Subunit	Land Agency	Acres	Cooperators	Year
Goslin Mtn/Red Creek PJ Removal	8c	BLM	413	DWR, BLM	2012
Dutch John Gap Browse Maintenance	8c	USFS	60	DWR,USFS	2013
Goslin Fire BAER Supplement	8c	USFS	178	DWR, USFS	2014
HWY 191 Timber Stand Improvement	8c	USFS	283	USFS	2014
Home Mountain Lop & Scatter	8c	BLM, SITLA	900	DWR,BLM, SITLA	2015
Birch Creek PJ Removal	8c	BLM, SITLA	276	DWR,BLM, SITLA	2015
Telephone Hollow Lop & Scatter	8a	DWR	303	DWR, USFS, SITLA	2015
Poison Mountain Lop & Scatter	8a	DWR	290	DWR, USFS	2014
Hoop Lake Lop & Scatter	8a	DWR	550	DWR, USFS	2014
TOTAL			**3,253**		

Proposed Habitat Projects

Following is a partial list of current and proposed habitat enhancement projects on the North Slope subunits. Others may be added as opportunities come up.

Proposed Project	Subunit	Land Agency	Acres	Cooperators	Approx. Year
Bender Mountain PJ Lop & Scatter	8c	BLM, SITLA	2596	BLM, SITLA, DWR	2017
Goslin Mountain PJ Lop & Scatter	8c	BLM, DWR, USFS, SITLA	1213	DWR, BLM, USFS, SITLA	2017
Browns Park Lop & Scatter	8c	BLM, DWR, SITLA	1251	DWR, BLM, SITLA	2016
Cart Creek Vegetation Restoration	8b	USFS	1482	USFS, DWR	2017
Guzzler Replacement	All units	USFS, BLM, DWR, SITLA		USFS, DWR, BLM, SITLA	2017-2020
Stimulate Regeneration in Goshawk Nesting Buffers	8a	USFS	238	USFS, DWR	2017-2018
North Slope Uintas Restoration Prescribed	8a	USFS	2900	USFS	2017

Fires					
Telephone Hollow Lop & Scatter Phase II	8a	USFS	472	USFS, SITLA	2017
Roughneck Vegetation Restoration Phase II	8a	USFS	5548	USFS, SITLA	2016
Hoop Lake Sage Wildlife Habitat Improvement Project	8a	USFS	677	USFS	2011
Roughneck Weed Spraying Phase I	8a	USFS	20,000	USFS	2017
TOTAL			**36,377**		

Population – Current Status (2013)

Winter Trend Counts by subunit			
	Year	**Trend Count**	**Population Estimate**
Three Corners	2004	348	500
West Daggett	2004	716	950
Summit	2004	215	269
Total		**1279**	**1719**
Three Corners	2007	912	1300
West Daggett	2007	863	1150
Summit	2007	228	285
Total		**2003**	**2735**
Three Corners	2013	267	400
West Daggett	2013	1055	1300
Summit	2013	1006	1257
Total*		**2328**	**2957**

Summit (8a) subunit:

Year	Trend Count	Pop Est	Bull Ratio	Calf Ratio	Bull Hunters	Bull Harvest	Cow Permits	Cow Harvest	LO Cow Permits	LO Cow Harvest
11-12	-	340			2478	264	45		20	
12-13	1006	1257	10	34	2445	335	45	20	20	
13-14	-	850			2226	290	90	37	20	15
14-15	-	875			2673	393	130	46	20	13
15-16	-	800			2742	384	158	45	20	16

West Daggett (8b) subunit:

Year	Trend Count	Pop Est	Bulls / 100 Cows	Calves / 100 Cows	Bull Hunters	Bull Harvest	Cow Permits	Cow Harvest	LO Cow Permits	LO Cow Harvest
11-12	-	1100	-	-	1492	199	125	55	42	15
12-13	1055	1300	8	32	1738	213	146	26	95	51
13-14	-	1600	-	-	1428	218	200	62	90	50
14-15	-	1800	-	-	1374	172	197	58	87	53
15-16	-	1700	-	-	1599	246	246	89	112	80

Three Corners (8c) subunit:

Year	Trend Count	Pop Est	Bulls / 100 Cows	Calves / 100 Cows	Bull Permit	Bull Harvest	Bull Ave Age	Cow Permits	Cow Harvest	LO Cow Permits	LO Cow Harvest
11-12	-	550	-	-	50	35	6.0	95	22	30	8
12-13	267	400	144	29	50	32	6.0	65	26	29	5
13-14	-	600	-	-	49	30	6.3	49	20	21	3
14-15	-	600	-	-	45	31	5.9	43	13	39	8
15-16	-	350	-	-	45	25	5.7	32	4	24	4

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Habitat Barriers

- Loss of winter range due to sagebrush die off and resulting cheatgrass expansion.
- Poor range conditions during drought years.
- Reduced quality summer/transitional range due to conifer dominance.
- Conifer and PJ invasion of grasslands and browse areas critical for wildlife
- USFS lack of manpower and funding to conduct NEPA clearances.

Population Barriers

- Conflicts with antlerless hunt season structure and other hunts.
- Difficulty harvesting antlerless elk to maintain populations due to herds staying at difficult areas to hunt.
- Increased use of the Mustang wildfire area by elk from adjacent units.

Other Barriers

- Crop Depredation throughout the unit.
- Elk use on private rangelands throughout the unit.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

Habitat Strategies

Monitoring

Continue to monitor permanent range trend studies located throughout the herd unit.

Conduct cooperative seasonal range rides and surveys to evaluate forage condition and utilization.

Actions to Remove Habitat Barriers

Work cooperatively with the USFS and BLM to utilize prescribed burning, mechanical conifer and PJ removal, and grazing to enhance elk forage quantity and quality.

Utilize antlerless elk harvest to improve or protect forage conditions if and when vegetative declines are attributed to elk over-utilization.

Cooperate with and provide input to land management planning efforts dealing with management affecting habitat security, quality and quantity.

Population Strategies

Monitoring

- Population Size - Utilizing harvest data, aerial trend counts, postseason classification and mortality estimates, a computer model has been developed to estimate winter population size.

- Bull Age Structure - Monitor age class structure of the bull population through the use of checking stations, uniform harvest surveys, field bag checks,

postseason classification and aerial classification. Average age of harvest on the Three Corners limited entry subunit will be determined by tooth age data from bull harvest.

- 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 on the Three Corners subunit. Achieve the target population size by use of antlerless harvest using a variety of harvest methods and seasons. Bull harvest strategies will be developed through the RAC and Wildlife Board process in accordance to the Statewide Elk Management Plan.

Management Actions to Remove Population Barriers

- Continue focused antlerless elk hunts east of Red Creek and around Manila to place pressure on that portion of the elk herd that causes crop and rangeland depredation on private land.

- Continue working with federal agencies and private landowners to monitor elk numbers and elk use of the Mustang wildfire area.

- Implement new private lands only cow hunts to reduce depredation issues in West Daggett.

APPENDIX A

Unit 8a North Slope, Summit Subunit

Summit County--Boundary begins at the Utah-Wyoming state line and SR-150; south on SR-150 to the Summit-Duchesne county line at Hayden Pass; east on this county line to the Burnt Fork drainage bottom; north along this drainage bottom to the Utah-Wyoming state line; west on this state line to SR-150.

Unit 8b North Slope, West Daggett Subunit

Daggett and Summit counties---Boundary begins at the Burnt Fork drainage and the Utah-Wyoming state line; east along this state line to the Flaming Gorge Reservoir west shoreline; southeast along this shoreline to Cart Creek; south along this creek to US-191; south on US-191 to the Uintah-Daggett County line (summit of the Uinta Mountains); west on this county line to the Burnt Fork drainage; north along this drainage to the Utah-Wyoming state line.

Unit 8b North Slope, Three Corners Subunit

Daggett County--Boundary begins at the Flaming Gorge Reservoir west shoreline and the Utah-Wyoming state line; east on this state line to the Utah-Colorado state line; south on this state line to the Green River; west along this river to the Flaming Gorge Reservoir west shoreline; west along this shoreline to the Utah-Wyoming state line.