ELK HERD UNIT MANAGEMENT PLAN
Elk Herd Unit # 14
San Juan
August 2016

BOUNDARY DESCRIPTIONS

Grand and San Juan counties - Boundary begins at the confluence of the San Juan and Colorado rivers; north along the Colorado River to Kane Springs Creek; southeast along this creek to Hatch Wash; southeast along this wash to US-191; south on US-191 to the Big Indian road; east and north on this road to the Lisbon Valley road; southeast on this road to the Island Mesa road; east on this road to the Utah-Colorado state line; south on this state line to the Navajo Indian Reservation boundary; west and south on this boundary to the San Juan River; west along this river to the Colorado River.

This boundary includes two subunits including:

San Juan Bull Elk (limited entry)- Grand and San Juan counties - Boundary begins at the confluence of the San Juan and Colorado rivers; north along the Colorado River to Kane Springs Creek; southeast along this creek to Hatch Wash; southeast along this wash to US-191; south on US-191 to the Big Indian road; east and north on this road to the Lisbon Valley road; southeast on this road to the Island Mesa road; east on this road to the Utah-Colorado state line; south on this state line to US-491; west on US-491 to US-191; south on US-191 to the San Juan River; west on this river to the Colorado River.

San Juan, Montezuma Canyon (any bull) - San Juan County - Boundary begins at the Utah-Colorado state line and US-491; west on US-491 to US-191; south on US-191 to the Navajo Indian Reservation boundary; east on this boundary to the Utah-Colorado state line; north on this state line to US-491.

LAND OWNERSHIP

Estimated Elk Habitat Acreage by Season and Ownership for San Juan Bull Elk

	Yearlong Range		Summer Range		Winter Range		Spring/Fall	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**
Bureau of Land Management	46,750	30	63	<1	254,076	51	4,545	8
National Park Service	0	0	0	0	10,539	2	0	0
Private	96,670	63	452	<1	29,034	6	6,036	11
Utah State Institutional Trust Lands	7,385	5	5	0	25,609	5	543	1
Utah Department of Transportation	0	0	0	0	1	<1	0	0
United States Forest Service	2,824	2	128,584	99	176,199	36	45,047	80
TOTAL	153,629	100	129,104	100	495,457	100	56,171	100

Estimated Elk Habitat Acreage by Season and Ownership for San Juan, Montezuma Canyon

	Yearlong Range		Summer Range		Winter Range		Spring/Fall	
Ownership	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**	**Area (acres)**	**%**
Bureau of Land Management	45,035	44	-	-	5,509	33	-	-
National Park Service	-	-	-	-	-	-	-	-
Private	51,669	51	-	-	10,440	62	-	-
Utah State Institutional Trust Lands	4,640	5	-	-	681	4	-	-
Utah Department of Transportation	-	-	-	-	0.6	<1	-	-
United States Forest Service	-	-	-	-	77	<1	-	-
TOTAL	101,344	100	-	-	16,707.6	100	-	-

UNIT MANAGEMENT GOALS

Manage for a population of healthy animals capable of providing a broad range of recreational opportunities including hunting and viewing. Maintain the population at a level that is within the long-term capability of the available habitat. Consider impacts of the elk herd on other land uses and public interests including private property rights, agricultural crops and local economies. Maintain and protect existing crucial elk ranges sufficient to support the population objectives. Seek cooperative projects to improve the quality and quantity of elk habitat and to minimize conflicts with livestock and other wildlife. Promote enhancement of habitat security and escapement areas for elk.

UNIT MANAGEMENT OBJECTIVES

Population

Target Winter Herd Size - Maintain a winter population of 1,300 elk with no more than 1,000 elk wintering west of highway US-191.

Bull Harvest Age Objective - Maintain a 3-year average bull harvest age of 7.5–8.0 years old on the San Juan Bull Elk limited entry subunit. Manage the San Juan, Montezuma Canyon subunit under a general season any bull hunt strategy.

Habitat

Summer Range - Maintain and improve summer forage availability on the Abajo Mountains and Elk Ridge through aspen regeneration and oakbrush thinning projects. Approximately 15,820 acres will be targeted for treatment over the next 5 years.

Winter Range - Maintain and improve winter foraging areas through browse regeneration and pinyon-juniper removal projects.

CURRENT STATUS OF ELK MANAGEMENT

Population

The elk population on the San Juan unit is currently just below the management objective of 1300 elk. The last helicopter survey was conducted in January 2014, and a total of 894 elk were counted yielding a population estimate of 1200 elk. Antlerless harvest has been maintained at levels sufficient to stabilize elk numbers at the management objective.

Aerial surveys can be beneficial for population estimate trends, but should not be relied on solely for age or sex classification data, given the inherent social behavior of elk during survey sessions, when bulls tend to be by themselves away from large cow groups and often in rugged, hard to survey locations. Observer error is also greater at this time when classifying calves, given their body size at this time. Data from both aerial surveys and summer classification indicate that calf production and bull:cow ratios are good and fairly stable on this unit.

Bull harvest on this unit slightly decreased with decreased numbers of permits. Average age of bulls harvested has increased slightly the past 5 years. Harvest results for the San Juan Bull Elk limited entry subunit over the past 5 years are listed below (includes CWMU harvest).

Year	LE Bull Permits	LE Bull Harvest	LE Bull Avg. Age	Spike Bull Harvest	Antlerless Harvest
2011	135	97	7.4	20	104
2012	112	107	7.3	31	125
2013	100	75	7.3	23	132
2014	90	72	8.3	31	174
2015	85	68	8.1	20	107

Habitat

This herd unit is summer range limited, and as such, the number of elk on this unit is primarily determined by trends in annual precipitation on the mountain range. There are 25 permanent range trend study locations on the unit of which 21 are found within elk use areas. Summer ranges and upper elevation winter ranges generally appear to be in good, stable condition according to permanent range trend studies conducted by UDWR in 2014. The upward trend in summer range conditions is primarily due to increases in perennial grasses and forbs. Lower elevation winter ranges showed stable trends in range condition due to decreased browse decadence and increased herbaceous cover. Elk use on these low elevation ranges has been relatively light, particularly in mild winters that have allowed elk to winter at higher elevations. Interagency spring range transects have shown slight increases in utilization by elk. USFS and BLM range assessments of current vegetative trends on the unit have not indicated over utilization by elk.

This unit could most likely support a larger elk population, however, given the current livestock grazing interests, social and political climate, and lower deer population status, the current population management objective is at an acceptable level. Several habitat improvement projects have been completed or are planned by federal agencies, UDWR, and private landowners.

HABITAT PROJECTS COMPLETED AND PROPOSED

Completed Projects – 2012 through 2016		Proposed Projects – 2017 to 2021	
Brushy Basin Habitat Improvement Project Phase 1	790 acres	North Elk Ridge Aspen Restoration - Phase II	60 acres
Peters Point - Phase I	1,940 acres	Mormon Pasture Mountain Wildlife Habitat Improvement Phase I	1,230 acres
Beef Basin – Phase I	1,300 acres	Dark Canyon Phase III	790 acres
Dark Canyon Phase I (formerly Beef Basin Phase 1)	240 acres	Dark Canyon Phase IV	1,100 acres

Johnson Creek Hazard Fuel Project	340 acres	Dark Canyon Phase V	530 acres
Devil Canyon - Phase II Thin and Pile	620 acres	Dark Canyon Phase VI	520 acres
Brushy Basin Habitat Improvement Project - Phase II	570 acres	Dark Canyon Phase VII	930 acres
Drill Hole II prescribed burn	320 acres	Beef Basin Phase II	1,130 acres
Spring Creek Discretionary Seed	17 acres	Beef Basin Phase III	390 acres
North Elk Ridge Aspen Restoration - Phase I	84 acres	Beef Basin Phase IV	740 acres
Peters Canyon II	53 acres	Beef Basin Phase V	900 acres
Dark Canyon Plateau - Phase II	240 acres	North Elk Ridge Aspen/Conifer Mix Prescribed Burn	7,500 acres
Dark Canyon Managed Wildfire	350 acres		
Chimney Park Prescribed Burn	175 acres		
Nizhoni Oak Mastication	130 acres		
North Elk Ridge Ponderosa Pine Thinning	550 acres		

BARRIERS TO ACHIEVING UNIT MANAGEMENT OBJECTIVES

Population

Big Game / Livestock Competition - Resistance of livestock operators to increasing elk herds and concerns of impacts from a large elk population on a struggling deer population. Lack of public understanding of habitat relationships between elk and livestock can also be a concern.

Crop Depredation - Chronic crop depredation problems could result in reducing elk numbers in specific areas. There is continual crop depredation by elk on this unit, primarily during the summer on croplands east of highway US-191. Monetary damages have been significant on crops such as sunflower, corn and beans. These damage problem areas are often adjacent to CWMU units with large elk numbers. Some landowners are reluctant to enroll these properties in CWMUs because they feel that participation in the CWMU program does not adequately compensate them for losses sustained from elk depredation.

Harvest Age Objective - Maintaining high bull numbers to achieve harvest age objective and reduction of antlerless population to achieve population objective. Public resistance to increasing numbers of bull hunting permits to reduce average age of harvest can be a concern.

Landowner Participation in Cooperative Wildlife Management Unit Programs – Resistance of landowners to join CWMU units because of a lack of knowledge of the program or because of inadequate compensation for crop depredation losses.

Habitat

Drought - Impact of prolonged drought to range condition and forage availability.

Limited Summer Range - Amount of quality summer habitat for foraging and reproductive activities is limited and shared with livestock and other big game.

Habitat Loss – Plant succession changes in important summer areas (conifer encroachment in aspen stands) and winter areas (pinyon-juniper invasion in mountain brush-sagebrush communities) reduces forage for elk. Lack of browse regeneration and invasion of annual grasses on lower elevation winter ranges also impact habitat quality.

Other Barriers

Elk Distribution - Congregation of large elk herds on some areas may result in excessive utilization and could displace deer herds to less productive ranges.

Land Resource Activities - Impacts from habitat fragmentation and disturbance as a result of energy development and timber management activities. Recent implications of a new "Bear's Ears National Monument" could impact elk habitat on this unit, depending on the designation results. A change in landownership and management could potentially cause a reduction in habitat projects on the unit, causing less desirable vegetative communities and potentially distributing elk into lower quality areas.

Predation - The San Juan Unit has healthy black bear and cougar populations. Black bears are known to take elk calves and cougars will prey on all ages of elk. With that said, predation does not appear to have a significant impact on elk survival rates on this unit.

Illegal Harvest - Extent of illegal harvest on this unit is unknown, but because of the unit's reputation for trophy-quality animals, the potential for illegal activities is elevated. Illegal harvest of mature bulls has the potential to affect the availability of limited entry permits.

Disease - Chronic wasting disease has been documented in deer and elk on the adjacent La Sal Mountain range and in deer on the Abajo Mountains.

STRATEGIES FOR REMOVING BARRIERS AND REACHING UNIT MANAGEMENT OBJECTIVES

Population Monitoring

Population Size - The population is monitored using harvest data, aerial trend counts and classification, preseason classification, and survival estimates. Investigate and incorporate research findings on differential sightability of cow-calf groups, spike bulls, and mature bulls during aerial surveys.

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

Harvest - The primary means of monitoring harvest will be through the statewide uniform harvest survey. The target population size will be achieved through antlerless harvest using a variety of harvest methods and seasons.

Management Actions to Remove Population Barriers

Big Game/Livestock Competition - Continue to work with land management agencies and public grazing operators, as well as private landowners to assure that proposed population objectives

are reasonable and attainable. Antlerless harvest through limited entry, private-lands-only (PLO), antlerless control and mitigation permits will be the primary strategy utilized to achieve and maintain population objectives and to address specific habitat concerns and depredation problems. Keep public informed of deer and elk population trends and incorporate elk management strategies that have minimal impacts to the deer population. Educate the public about habitat and dietary overlap between elk and livestock.

Crop Depredation - Work with private landowners to make sure depredation is maintained within tolerable levels and will not become a limiting factor. Utilize depredation hunts, fencing and other actions where appropriate to reduce/mitigate crop depredation. Consider other options for attaining antlerless harvest east of highway US-191 such as reciprocal agreements on CWMUs. The CWMUs have recently participated in compensating landowners for crop damages adjacent to their units. The southeast portion of this unit is being managed under general open bull and liberal antlerless harvest strategies to alleviate depredation problems in this area. Antlerless removal on the CWMUs has been increased over the past 5 years to address these depredation situations.

Harvest Age Objective - Continue public relations to provide information on effect of changing permit numbers in relation to average age of harvested bulls. Continue spike-only bull hunts to increase hunting opportunities.

Habitat Monitoring

Habitat Condition and Trend – Continue analysis of trends in habitat condition through permanent range trend studies, pellet transects, and field inspections. Land management agencies will similarly conduct range monitoring to determine vegetative trends, utilization and possible forage conflicts. Range trend studies will continue to be conducted by DWR to evaluate elk habitat health and trend. Conduct range utilization studies in areas of perceived conflicts to evaluate competition between elk and livestock.

Management Actions to Remove Habitat Barriers

Limited Summer Range - Work with public land management agencies to develop specific vegetative objectives to maintain the quality of important elk use areas. Respond to any range deterioration concerns and address documented excessive forage utilization. Continue to investigate and develop habitat projects on summer range to improve forage availability for both elk and cattle.

Habitat Loss - Cooperate with federal land management agencies and private landowners in carrying out habitat rehabilitation projects such as reseedings, controlled burns, water developments etc. on public and private lands to maintain or increase forage quantity and quality. Completion of habitat projects to improve forage availability for both elk and cattle would allow potential increases in the elk population.

Management Actions to Remove Other Barriers

Elk Distribution - Utilize antlerless harvest in specific areas when necessary to target elk concentrations impacting range conditions and/or important deer areas.

Land Resource Activities - Continue to coordinate with land management agencies and energy development companies in planning and evaluating resource uses and developments that could impact habitat quality. Work to develop and administer access management plans for the purposes of habitat protection and escape or “security” areas.

Predation - Maintain hunting seasons to control bear and cougar populations. Maintain high quality summer habitats to protect important calving areas (see “Management Actions to Remove Habitat Barriers”).

Illegal Harvest – Implement action plans to focus law enforcement efforts in areas where illegal bull harvest has been documented.

Disease - Continue testing of suspect animals to detect presence of CWD in the elk population.