

## 2013 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2013 - 5/31/2014

HERD: EL211 - MEDICINE LODGE

HUNT AREAS: 41, 45

PREPARED BY:  
WOOLLEY/KROGER

	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Population:	4,320	4,200	3,600
Harvest:	633	738	765
Hunters:	1,602	1,692	1,700
Hunter Success:	40%	44%	45%
Active Licenses:	1,620	1,726	1,725
Active License Percent:	39%	43%	44%
Recreation Days:	12,534	12,250	12,200
Days Per Animal:	19.8	16.6	15.9
Males per 100 Females	25	19	
Juveniles per 100 Females	46	40	

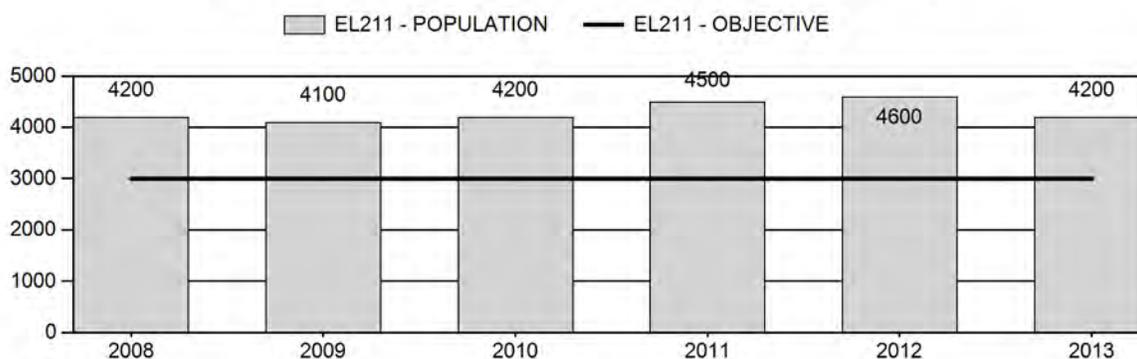
Population Objective:	3,000
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	40%
Number of years population has been + or - objective in recent trend:	10
Model Date:	3/2/2014

**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

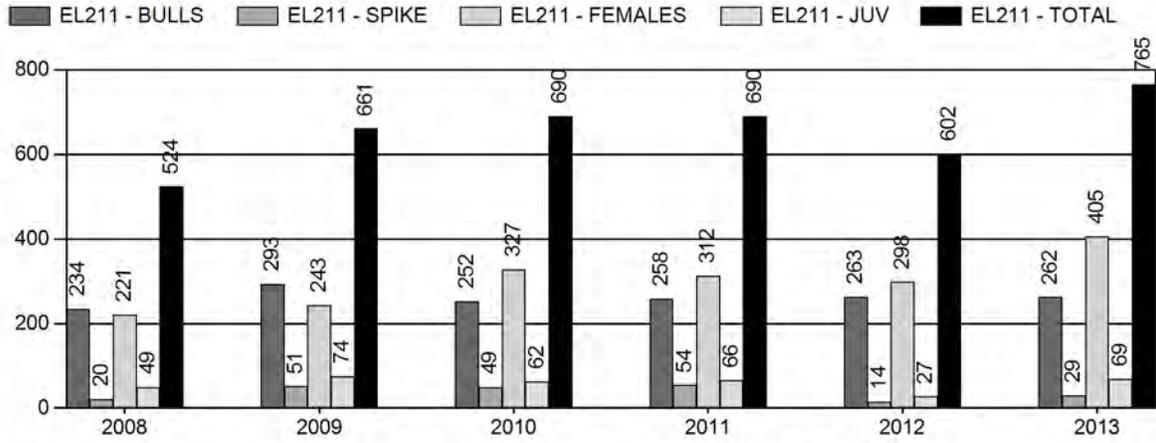
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	14.5%	14%
Males ≥ 1 year old:	30.3%	30%
Juveniles (< 1 year old):	6.5%	7%
Total:	14%	14%

Proposed change in post-season population:	-1%	0%
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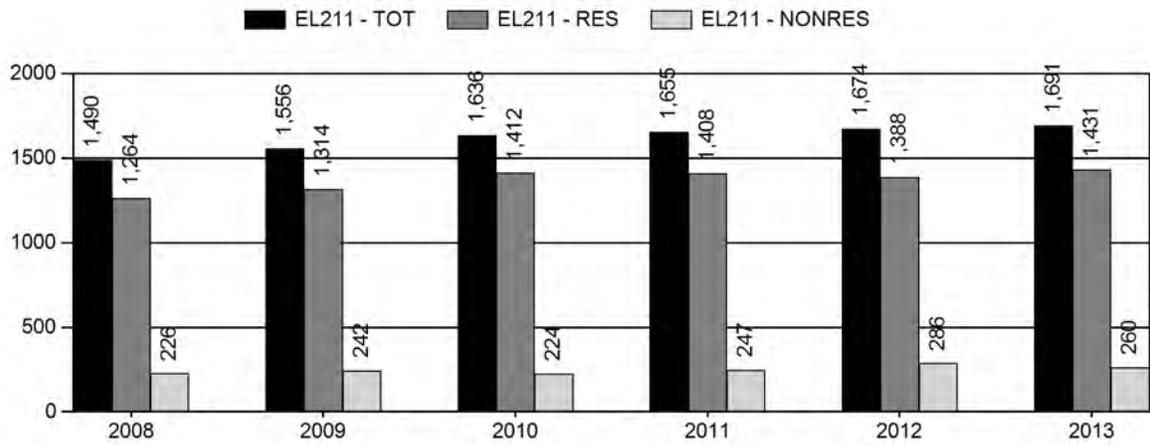
## Population Size - Postseason



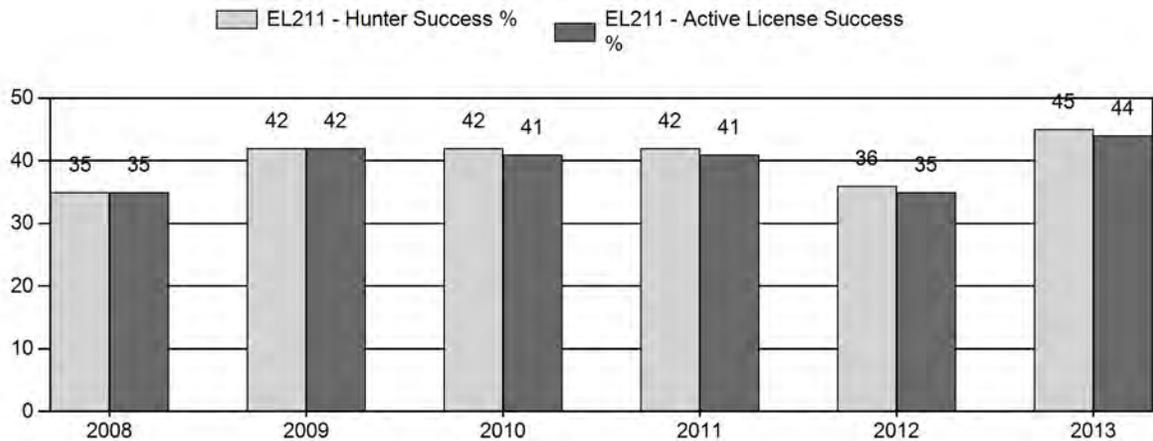
# Harvest



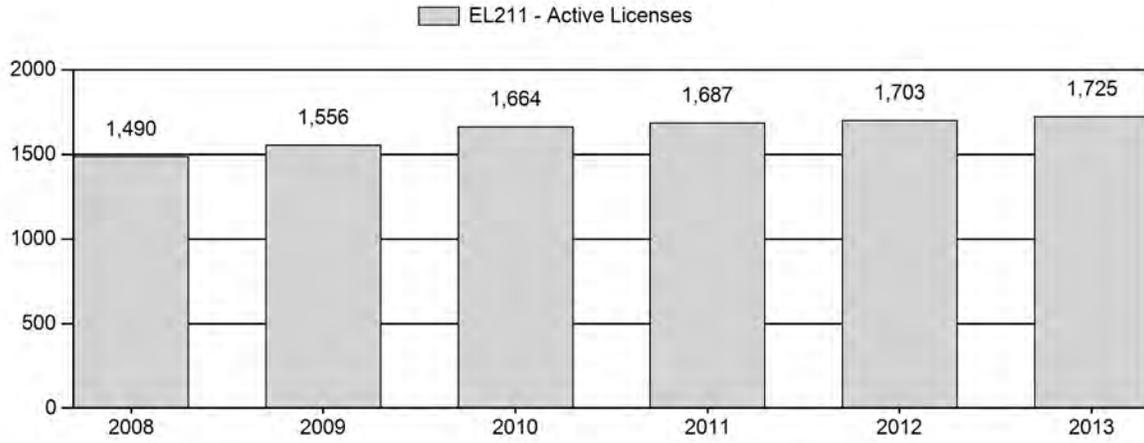
# Number of Hunters



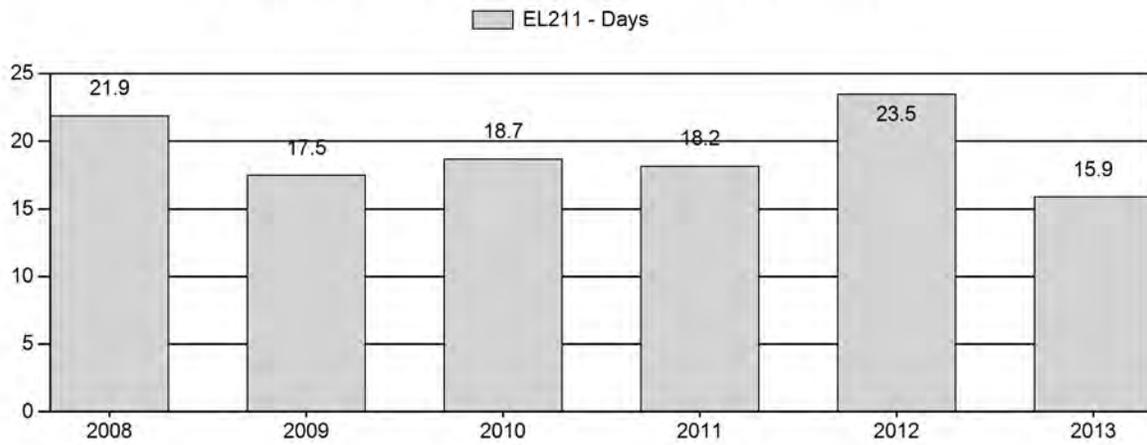
# Harvest Success



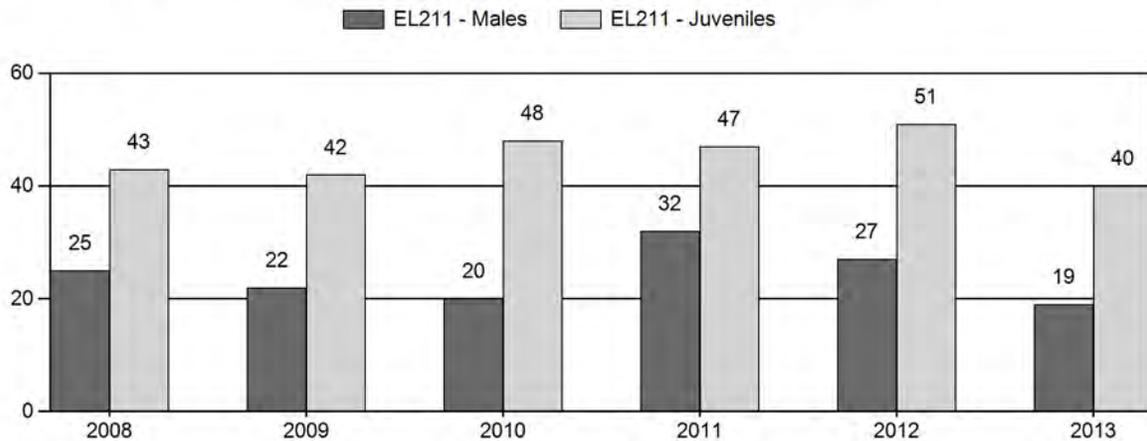
# Active Licenses



# Days per Animal Harvested



# Postseason Animals per 100 Females



## 2008 - 2013 Postseason Classification Summary

for Elk Herd EL211 - MEDICINE LODGE

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			YIng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2008	4,200	151	170	321	15%	1,303	60%	565	26%	2,189	570	12	13	25	± 1	43	± 2	35
2009	4,100	212	207	419	13%	1,914	61%	798	25%	3,131	543	11	11	22	± 1	42	± 1	34
2010	4,200	155	134	289	12%	1,430	60%	684	28%	2,403	506	11	9	20	± 1	48	± 2	40
2011	4,500	245	215	460	18%	1,453	56%	686	26%	2,599	582	17	15	32	± 1	47	± 2	36
2012	4,600	164	177	341	15%	1,251	56%	634	28%	2,226	753	13	14	27	± 2	51	± 2	40
2013	4,200	127	186	313	12%	1,622	63%	641	25%	2,576	614	8	11	19	± 1	40	± 1	33

**2014 HUNTING SEASONS**  
**Medicine Lodge Elk Herd Unit (EL211)**

Hunt Area	Type	Dates of Seasons		Quota	Limitations
		Opens	Closes		
41	1	Oct. 15	Nov. 4	375	Limited quota; any elk
	4	Oct. 15	Nov. 4	400	Limited quota; antlerless elk
		Nov. 22	Nov. 30		Unused Area 41 Type 4 licenses
		Dec. 13	Dec. 21		Unused Area 41 Type 4 licenses
	6	Aug. 15	Oct. 14	250	Limited quota; cow or calf valid on or within one (1) mile of irrigated land
		Oct. 15	Nov. 4		Unused Area 41 Type 6 licenses valid in the entire area
		Nov. 22	Nov. 30		Unused Area 41 Type 6 licenses
		Dec. 13	Dec. 21		Unused Area 41 Type 6 licenses
		9	Sep. 1	Sep. 30	125
45	1	Oct. 15	Nov. 4	350	Limited quota; any elk
	4	Oct. 15	Nov. 15	200	Limited quota; antlerless elk
		Nov. 16	Nov. 30		Unused Area 45 Type 4 licenses valid off national forest
	5	Sep. 1	Oct. 9	200	Limited quota; antlerless elk off national forest
		Oct. 10	Nov. 4		Unused Area 45 Type 5 licenses valid in the entire area
	6	Aug. 15	Nov. 30	100	Limited quota; cow or calf valid on or within one (1) mile of irrigated land
9	Sep. 1	Sep. 30	150	Limited quota; any elk, archery only	
<b>Archery:</b> 41, 45		Sep. 15	Sep. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2013
41	6	+100
45	6	+100
Total	6	+200

**Management Evaluation**

**Current Management Objective: 3,000**

**2013 Postseason Population Estimate: 4,200**

**2014 Proposed Postseason Population Estimate: 3,600**

**Herd Unit Issues.** Following a marking study in the early 1980s, this herd unit was formed by combining two pre-existing herds (Trapper-Medicine Lodge and Paintrock-Ten Sleep), due to interchange of elk. The herd unit continues to be managed with hunting licenses valid for either the northern hunt area (41) or the southern area (45). The current population objective (3,000

elk) was first adopted in 1983. Formal reviews (internal) of the population objective and management goals were conducted in 1997, 2001 and 2007.

Human activities in this herd unit are rarely severe enough to affect elk survival and productivity. Bentonite mining and oil/gas development occur on the west side of the herd unit where habitats are not suitable for elk. Farming occurs near elk habitats and elk often forage on irrigated crops or pastures. Antlerless elk hunting seasons are often driven by landowner complaints. Conversely, some landowners lease hunting to outfitters and allow no public access to even hunt cow elk. During the past 10 years, lack of access to large groups of elk on private land has allowed this population to increase.

**Weather.** Climatic factors affect this elk herd more than human-caused factors. Survival and productivity are affected by drought and severe winters, as evident in low calf:cow ratios. Drought impacts elk through reduced production of herbaceous vegetation. Despite drought conditions across most of the state, the Bighorn Mountains received adequate moisture in spring and early summer 2012. There are no transects in this area to monitor vegetative production or utilization. There has not been a severe winter in the Bighorn Basin since the early 1980s. JCRs for the herd unit suggested some winter kill occurred.

**Habitat.** The herd unit contains approximately 1,500 mi<sup>2</sup>. High-elevation summer ranges are mainly sagebrush-grassland and alpine meadows interspersed with aspen, lodgepole pine, and spruce/fir timber stands. The majority of the summer range is public land managed by the U.S. Forest Service. Steep foothills and drainages that serve as winter and spring ranges are covered with juniper, sagebrush, and grasslands. Winter ranges are mainly public land managed by the Bureau of Land Management, interspersed with private land.

**Field Data.** During the driest years of the most recent extended drought (2001-04), calf numbers averaged 34 calves:100 cows. In years with “normal” precipitation (2008-13), 45 calves:100 cows have been observed on average. For 2013, calf:cow ratios were 40:100. High calf:cow ratios suggest this population can quickly increase if harvest does not keep up with production.

Bull:cow ratios can vary depending on if bull groups are located during classification surveys. For example, in 2010, 20 bulls:100 cows were observed and in 2011, 32:100 were observed. Annual bull ratios should not be used to annually adjust hunting licenses; rather short-term (3-5 year) averages probably give a better indication to trends in bull numbers. Sample sizes for classification surveys are calculated based on calf:cow ratios and not bull:cow ratios. Survey effort (flight time) should remain consistent (~4 helicopter hours) so that bull groups can be located and more accurately reflect actual conditions.

Management of hunting seasons allowed bull:cow ratios to increase. These hunt areas changed from general license hunting to limited quota in 1979 and 1983, for the northern and southern hunt areas, respectively. From 1975 to 1984, an average of 9 bulls:100 cows was observed (mostly yearling bulls). Bull ratios began to increase under limited quota hunting (average=13:100 between 1985-1997). When Type 1 licenses were changed from “antlered elk” to “any elk” (1998), yearling and raghorn bulls were passed up by some hunters and allowed to survive longer, subsequently increasing bull:cow ratios again. Bull ratios have increased (except a decline during drought years), averaging 20:100 (1998-2013). Branched antlered bulls have been observed in similar numbers to yearling bulls. Bull ratios may also be increasing since

personnel have been in the area for many years and learned where to find wintering bulls during classification surveys.

**Harvest Data.** Following changes to Type 1 licenses, harvest statistics indicated harvesting an elk became easier. Affects of limited quota hunting began to be noticed in hunter success (increased) and days per harvested animal (decreased) by the late 1980s-early 1990s. Since the change to any elk (Type 1 licenses), those statistics have shown less variability (range between 35-45% hunter success and 15-23 days/harvest). The number of antlerless/cow licenses can mask harvest rates of bulls when overall herd unit results are analyzed for success and effort. The number of antlerless/cow licenses being issued in the herd unit has increased over the past 15 years.

More recently, the number of total licenses offered and number of hunters have increased. The number of elk harvested and hunter effort (days/harvested elk) are dependent upon weather and access to elk herds. In 2013, more licenses were in the field, and as a result elk harvest increased and days/harvest declined. Weather was optimal with snow and colder than average temperatures.

**Population.** This population was monitored using trend surveys until 2008. Classification survey totals were often higher than trend totals, so trend surveys were discontinued. Additionally, flight budgets were reduced, so money for trend surveys have been diverted to classification surveys. Classification and trend survey totals suggest an increasing population since the early 1990s, except for a decline during extended drought (2000-04). Field personnel agree with those trends. The highest count occurred in 2009 with 3131 elk observed. Classification totals may not be accurate representation of the population since flight budgets have not increased at an equal rate with cost (per hour), resulting in decreased effort. Mild weather during early winter allows elk to remain dispersed across larger areas, so groups of elk were probably missed.

POP-II population models for this herd appeared to simulate observed data fairly well and the resulting population estimates followed expected trends. Those models were manipulated to provide a population estimate that was probably lower than actual. Thus, it was not surprising when the spreadsheet models estimated higher populations than POP-II. The spreadsheet model semi-constant juvenile, semi-constant adult [SCJ, SCA] estimated 4300 elk for post-season 2013. The population trend produced by the model also suggested a decreasing population over the past ten years and reflects opinions of field personnel.

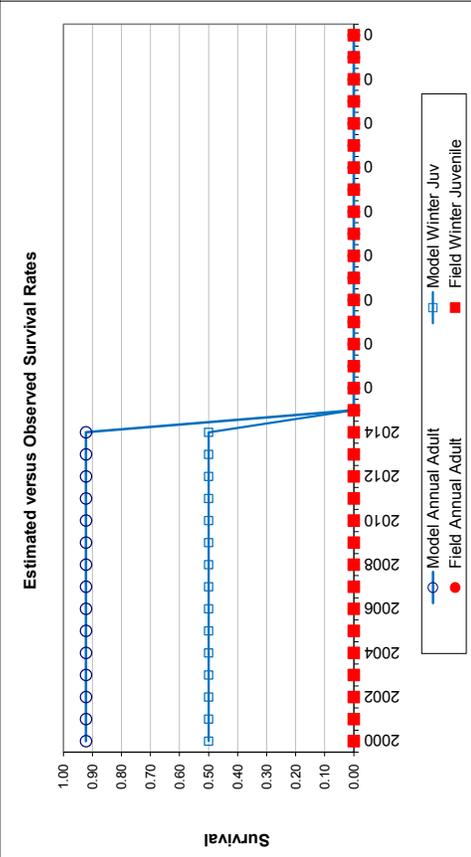
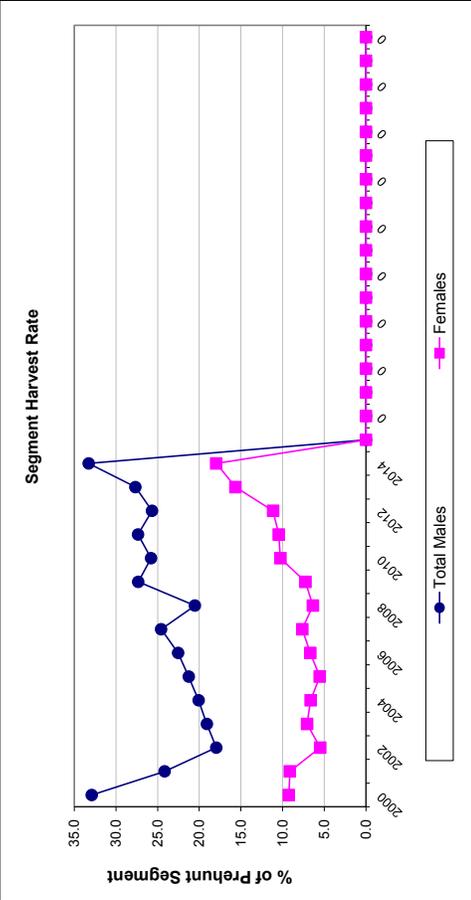
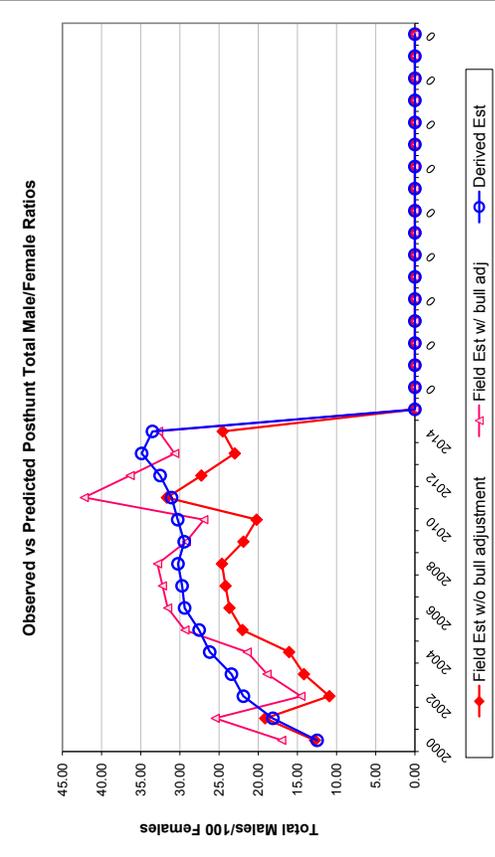
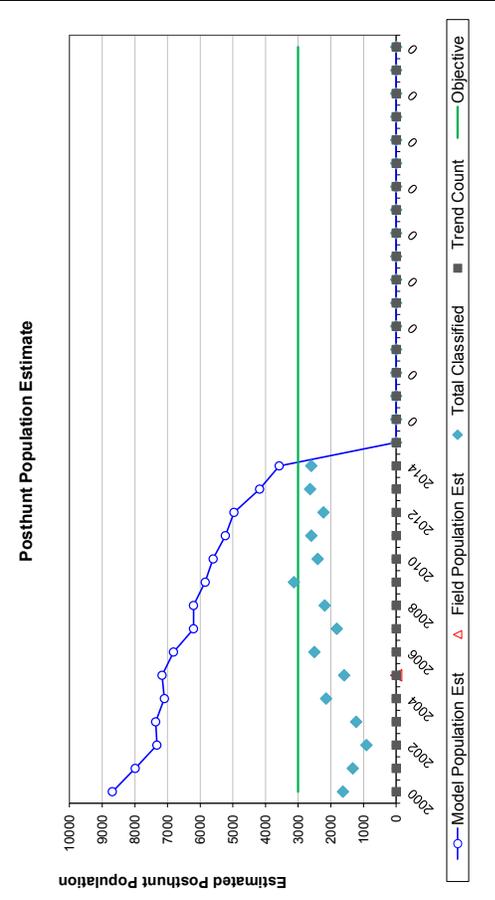
**Management Summary.** Hunting seasons proposed for 2014 should continue driving this population toward objective. Increased antlerless/cow licenses and longer seasons should enable more hunters to harvest female elk. Few landowners have complained about too many elk; usually only if elk concentrate on irrigated crops or pasture. Those elk will be targeted with antlerless/cow licenses. We will increase harvest of females at current levels to ensure the population does not increase.





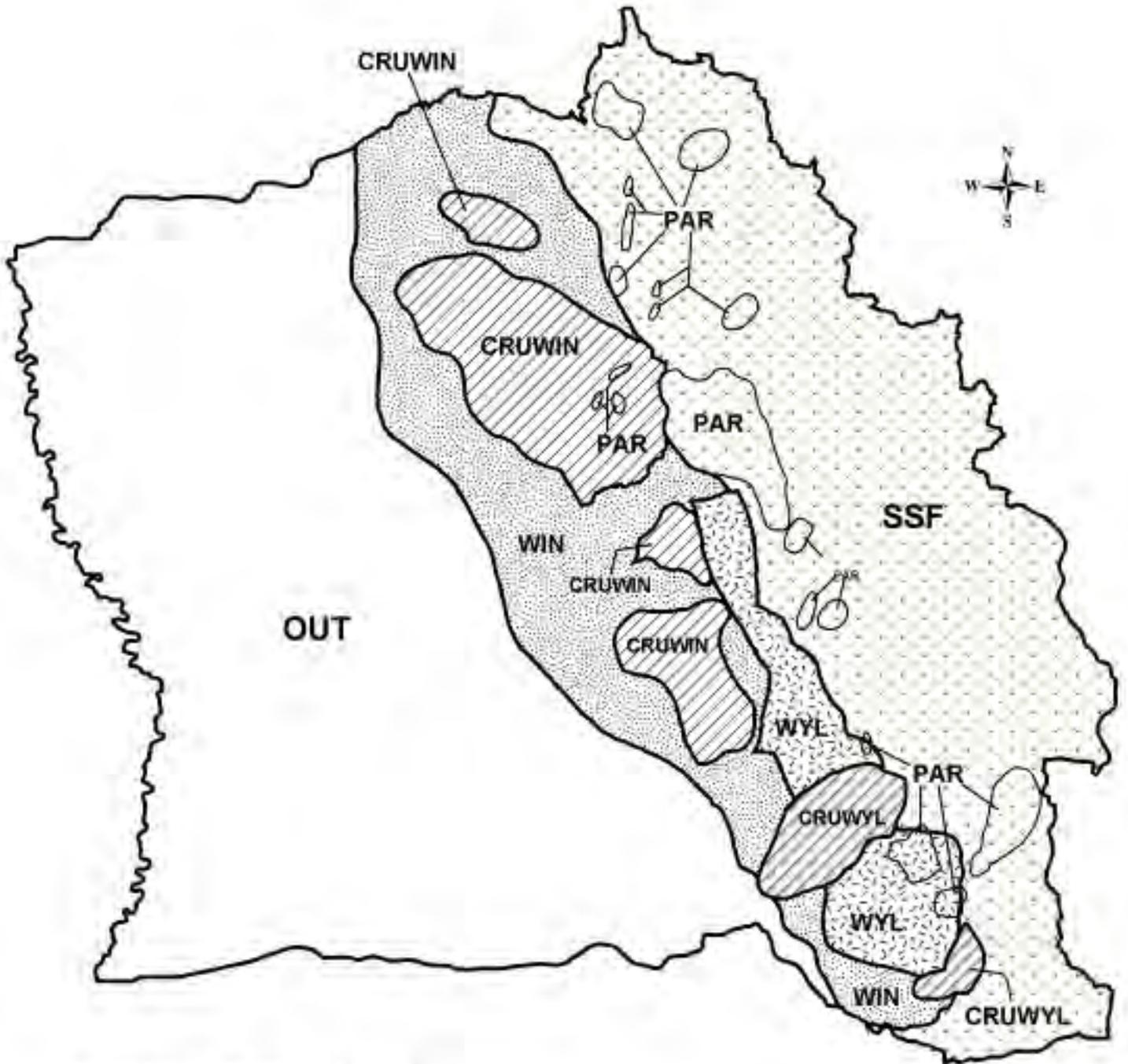


FIGURES



Comments:

END



Elk (E211) -- Medicine Lodge  
 HA 41, 42, 45, 46  
 Revised 10/1999

## 2013 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2013 - 5/31/2014

HERD: EL214 - GOOSEBERRY

HUNT AREAS: 62-64

PREPARED BY: BART KROGER

	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Trend Count:	2,862	2,748	2,600
Harvest:	599	937	1,000
Hunters:	1,110	1,487	1,550
Hunter Success:	54%	63%	65%
Active Licenses:	1,161	62%	1,575
Active License Percentage:	52%	62%	63%
Recreation Days:	6,872	9,225	9,500
Days Per Animal:	11.5	9.8	9.5
Males per 100 Females:	24	15	
Juveniles per 100 Females	30	21	

Trend Based Objective (± 20%) 2,000 (1600 - 2400)

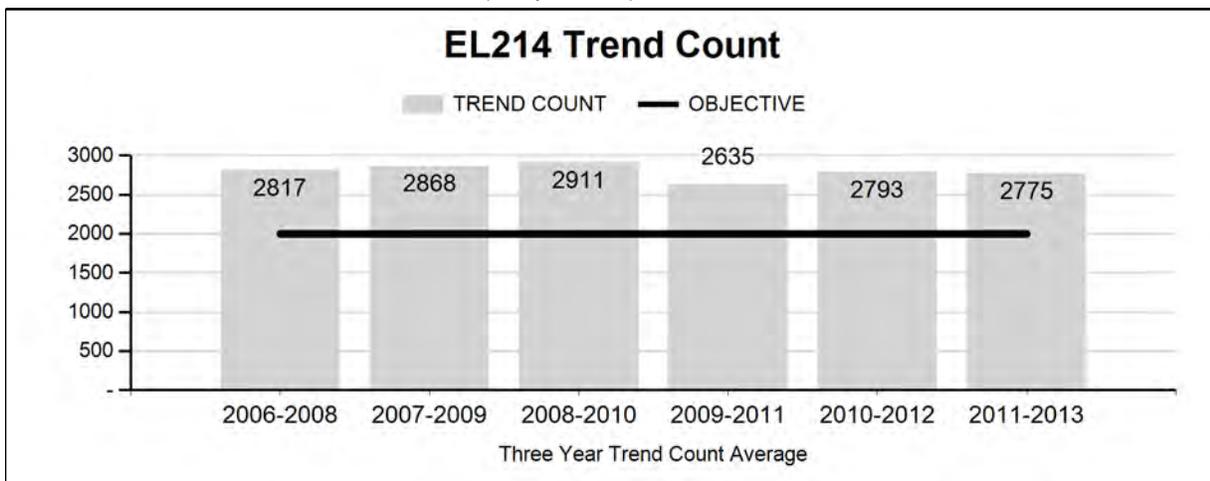
Management Strategy: Special

Percent population is above (+) or (-) objective: 37%

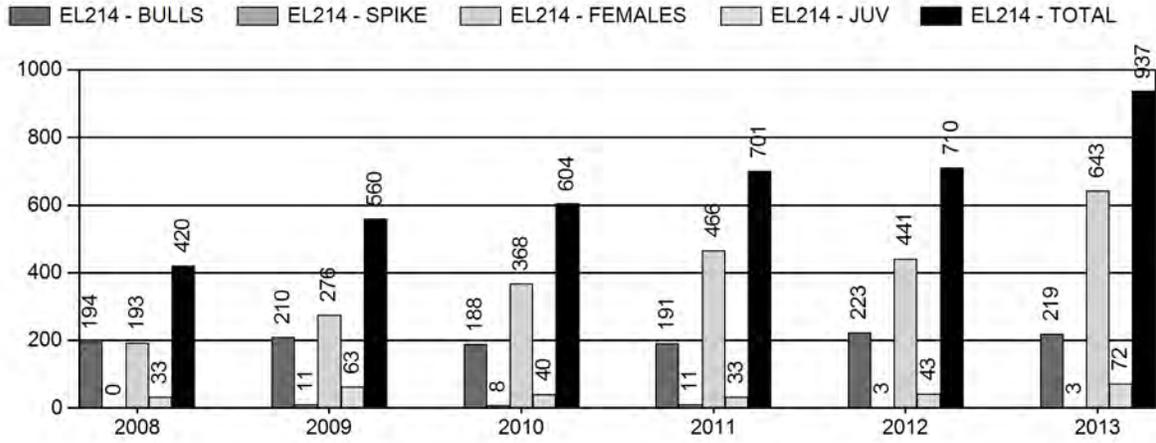
Number of years population has been + or - objective in recent trend: 15

**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

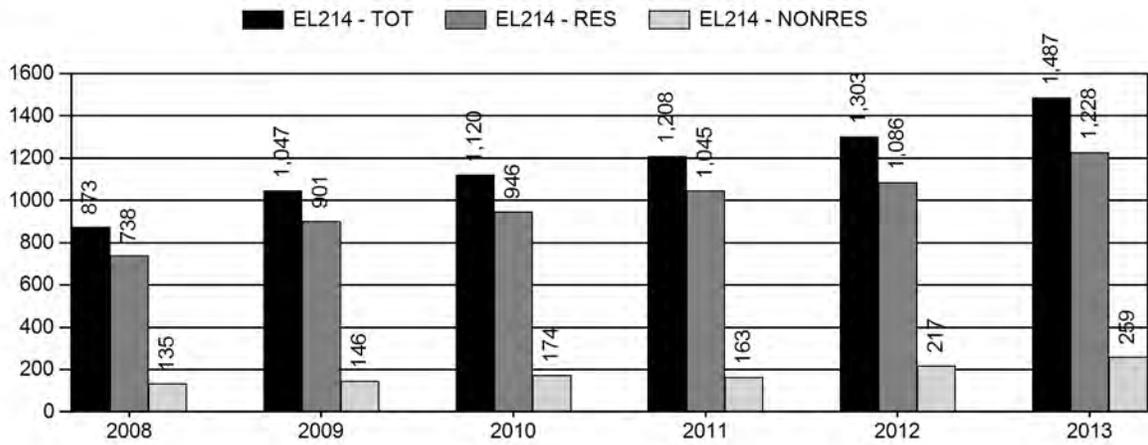
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	17%	17%
Males ≥ 1 year old:	6%	6%
Juveniles (< 1 year old):	3%	3%



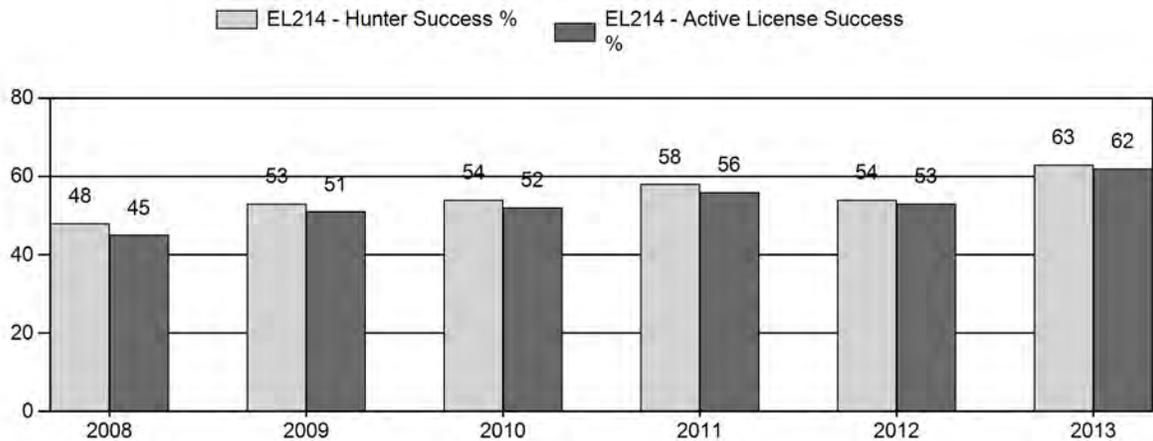
# Harvest



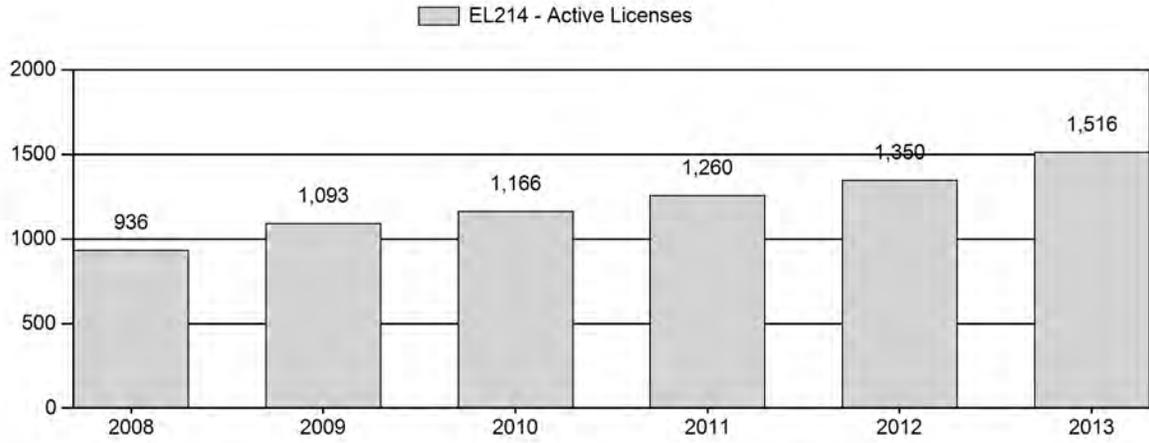
# Number of Hunters



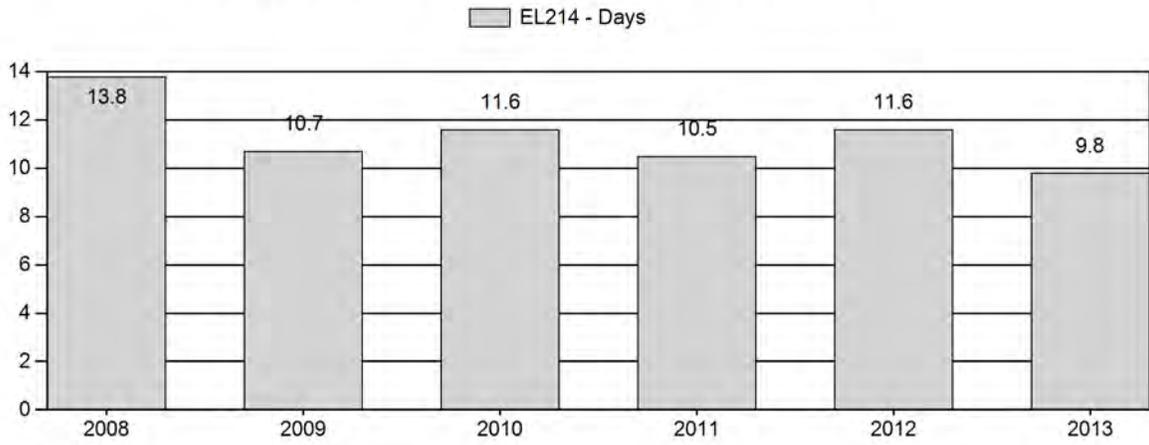
# Harvest Success



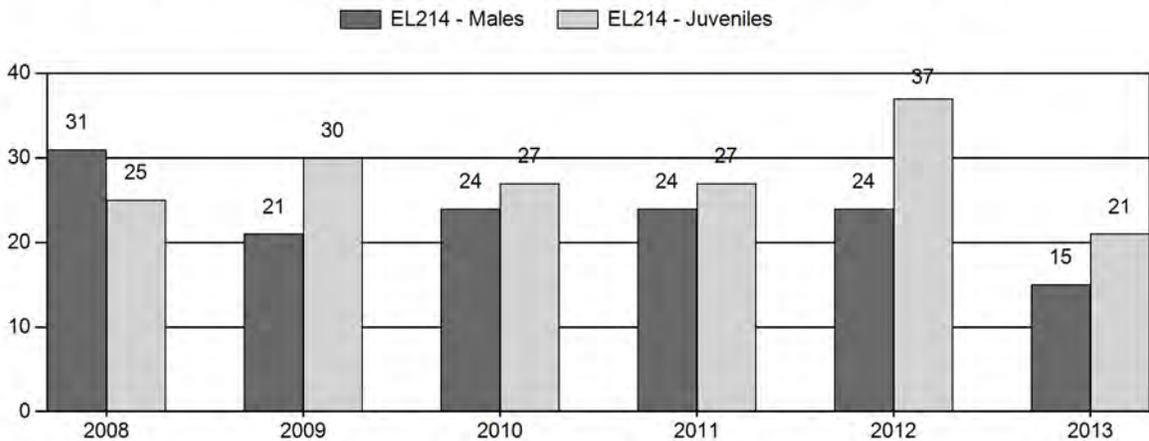
# Active Licenses



# Days per Animal Harvested



# Postseason Animals per 100 Females



## 2008 - 2013 Postseason Classification Summary

for Elk Herd EL214 - GOOSEBERRY

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot Cls	Cls Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2008	4,100	97	237	334	20%	1,072	64%	270	16%	1,676	377	9	22	31	± 2	25	± 2	19
2009	4,100	176	120	296	14%	1,404	66%	421	20%	2,121	357	13	9	21	± 1	30	± 1	25
2010	3,900	184	160	344	16%	1,461	67%	388	18%	2,193	315	13	11	24	± 1	27	± 1	21
2011	3,400	187	196	383	16%	1,611	66%	440	18%	2,434	309	12	12	24	± 1	27	± 1	22
2012	0	221	255	476	15%	1,944	62%	724	23%	3,144	468	11	13	24	± 0	37	± 0	30
2013	0	177	127	304	11%	2,022	74%	422	15%	2,748	0	9	6	15	± 0	21	± 0	18

**2008 - 2013 Trend Count Summary**  
for Elk Herd EL214 - GOOSEBERRY

<b>Year</b>	<b>Count Dates</b>	<b>Flight Time</b>		<b>Number Counted</b>
		<b>Hours</b>	<b>Minutes</b>	
2008	JANUARY 2009	3	30	3,261
2009	JANUARY 2010	3	30	2,671
2010	FEBRUARY 2011	4	35	2,801
2011	JANUARY 2012	4	0	2,434
2012	JANUARY 2013	4	50	3,144
2013	JANUARY 2014	6	40	2,748

**2014 HUNTING SEASONS  
GOOSEBERRY ELK HERD (EL214)**

Hunt Area	Type	Dates of Seasons		Quota	License	Limitations
		Opens	Closes			
62	1	Oct. 1	Oct. 21	125	Limited quota	Any elk
	4	Oct. 1	Oct. 21	75	Limited quota	Antlerless elk
	5	Oct. 22	Dec. 21	200	Limited quota	Antlerless elk, also valid in Area 63
		Dec. 1	Dec. 21			Unused Area 62 Type 1 and Type 4 licenses valid for antlerless elk
63, 64	1	Oct. 1	Oct. 21	200	Limited quota	Any elk Unused Area 63, 64 Type 1 licenses valid for antlerless elk
		Nov. 1	Dec. 21			
63	4	Oct. 1	Dec. 21	200	Limited quota	Antlerless elk
	6	Aug. 15	Oct. 31	400	Limited quota	Cow or calf valid off national forest north of Gooseberry Creek
		Nov. 1	Dec. 21			Unused Area 63 Type 6 licenses valid off national forest
64	2	Nov. 1	Nov. 15	100	Limited quota	Any elk Unused Area 64 Type 2 licenses valid for antlerless elk
		Nov. 16	Dec. 21			
	6	Nov. 1	Dec. 21	200	Limited quota	Cow or calf valid south of and including the Cottonwood Creek drainage
	7	Sep. 1	Nov. 15	400	Limited quota	Cow or calf valid within the Prospect Creek drainage; also valid within the Grass Creek drainage downstream of the Grass Creek/Little Grass Creek confluence.
		Nov. 16	Dec. 21			Unused Area 64 Type 7 licenses valid in the entire area
Archery 62,63,64		Sep. 1	Sep. 30			Refer to Section 3

Hunt Area	License Type	Quota change from 2013
62	6	+50
<b>Total</b>	<b>6</b>	<b>+50</b>

## **Management Evaluation**

**Current Mid-Winter Trend Count Objective:** 2,000

**Management Strategy:** Special

**2013 Mid-Winter Count:** 2,748

**Most Recent 3-year Running Average Trend Count:** 2,775

### **Herd Unit Issues**

This population appears to have remained fairly stable the past 8 years, with only a slight upward trend in the late 2000's. This trend reflects field personnel and landowner perceptions of elk densities and trends, as well as when calf ratios began to increase. Hunter access to private lands, potential damage issues, brucellosis and large predator influences will continue to be major issues in managing this elk herd. The herd objective and management strategy were last revised in 2012. Efforts to develop and implement management ideas that result in more harvest and improved hunter success have and will continue to be major concerns with this elk herd.

Currently, this herd unit supports two Hunter Management Areas (Pitchfork and Absaroka Front), and one large Walk-in-Area. The Pitchfork and Absaroka Front HMA's have been in place for over 15 years, and continue to provide hunter access in areas 62, 63 and 64. Hunting season structures, particularly antlerless and cow/calf seasons have become very liberal over the past 10 years. License quotas and season lengths have increased dramatically, with most antlerless and cow/calf hunting seasons being 3-4 months long. Because this herd is being managed under special management, hunters expect and demand bull numbers and quality remain favorable. Type 1 & 2 seasons are managed conservatively to maintain good bull quality and hunter satisfaction. The 2013 hunter satisfaction survey revealed over 80% of all hunters in this herd unit was either satisfied or very satisfied with the overall quality of their hunt.

### **Weather**

Winter conditions the past 3 years have been mild, with mostly low snowpack and normal temperatures, resulting in good over winter survival. However, the dry summer conditions in 2012 and 2013 appeared to influence elk distribution due to decreased forage production. Because of this, some damage issues on private land were reported. Overall, forage production was down in this herd unit in 2013, both on summer and winter range. Fall precipitation was well above normal throughout this herd unit, which should result in good spring green up.

### **Habitat**

Numerous prescribed and wild fires have burned throughout this herd unit over the past 2 decades, particularly in areas 62 and 63. These fires have certainly improved forage quality and quantity for the herd. However, with long-term drought conditions persisting, more elk are being forced to private irrigated crop fields. Two sagebrush transects were established in this herd unit in 2004 (Appendix C). Transect locations include Grass Creek and Wagonhound Bench. Sagebrush leader growth in 2013 for both the Grass Creek and Wagonhound transects was about 2.0cm. This growth is down about 25% compared to the long-term average. Winter utilization is usually around 10%, but is shared with wintering pronghorn and deer.

### **Field Data**

Based on mid-winter trend counts, this elk herd increased from about 2400 elk to 2800 elk between the years 2005 and 2010. Since 2010, this trend has remained mostly stable with a 2013 3-year average of 2775. These trends are supported by improving calf ratios, which steadily improved from 15:100 in 2005 to 37:100 in 2012; however in 2013 calf ratios dropped to 21:100 cows. Harvest statistics further support these trends in elk numbers.

**Harvest Data**

Overall, total harvest of elk in this herd unit has increased by over 100% since 2008. For the most part, hunter success has remained stable with an average of about 54%, while hunter numbers have increased by 75%. Hunter effort (11-12 days/harvest) has remained mostly stable despite increased hunter numbers. These harvest statistics, along with recent trends in calf ratios and winter counts, also reflect field personnel and landowner perceptions of elk densities and trends.

**Population**

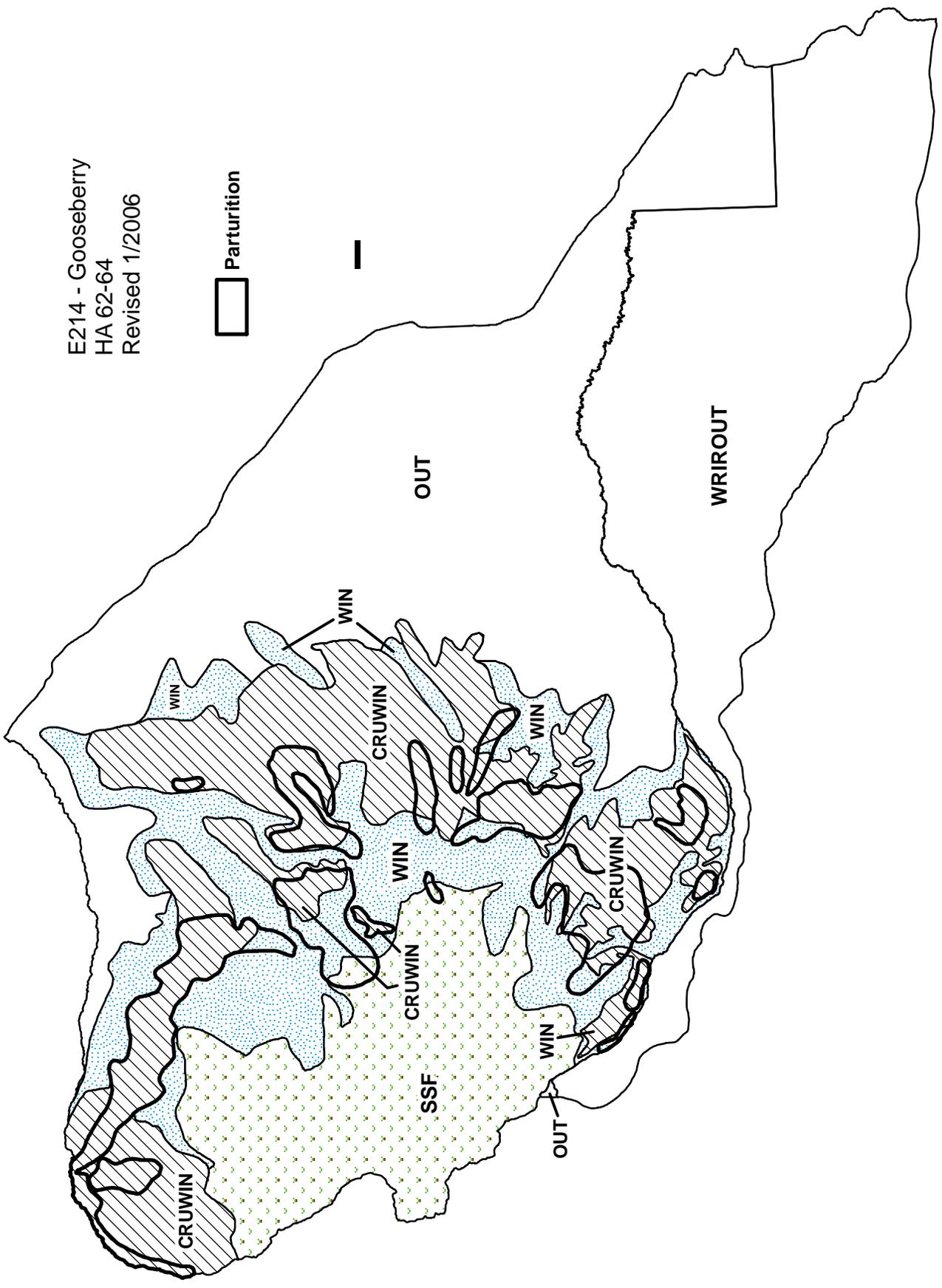
Current trends for this elk herd appear to be mostly stable. Mid-winter trend counts have varied in recent years, from a high of 3,261 elk in 2008 to a low of 2,432 elk in 2011, but on average have been around 2,800 elk. For the most part, field personnel feel elk numbers are mostly stable, with variations in elk distribution caused by hunting pressure, reduced forage and to some extent large predators.

**Management Summary**

For the 2014 season, the Area 63 Type 6 license quota will increase by 50. Currently, hunter densities appear adequate, and landowner tolerance for hunter densities is mostly acceptable. Bull harvest and quality, along with hunter satisfaction remains favorable. Season lengths will continue to run until late December in all hunt areas to allow for optimum hunter opportunity. The early Type 7 season in area 64 will again address potential damage concerns on hay meadows and native rangeland along Grass Creek. With a 2014 projected harvest of about 1000 elk, we expect declines in this population to occur, which should help push this elk herd slowly toward our winter trend count goal.

E214 - Gooseberry  
HA 62-64  
Revised 1/2006

Parturition





## 2013 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2013 - 5/31/2014

HERD: EL216 - CODY

HUNT AREAS: 55-56, 58-61, 66

PREPARED BY: DOUG MCWHIRTER

	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Trend Count:	5,406	5,726	5,000
Harvest:	1,359	1,620	1,700
Hunters:	2,728	3,092	3,200
Hunter Success:	50%	52%	53%
Active Licenses:	2,868	3,252	3,400
Active License Percentage:	47%	50%	50%
Recreation Days:	17,525	19,030	19,000
Days Per Animal:	12.9	11.7	11.2
Males per 100 Females:	23	38	
Juveniles per 100 Females	31	24	

Trend Based Objective ( $\pm 20\%$ ) 4,400 (3520 - 5280)

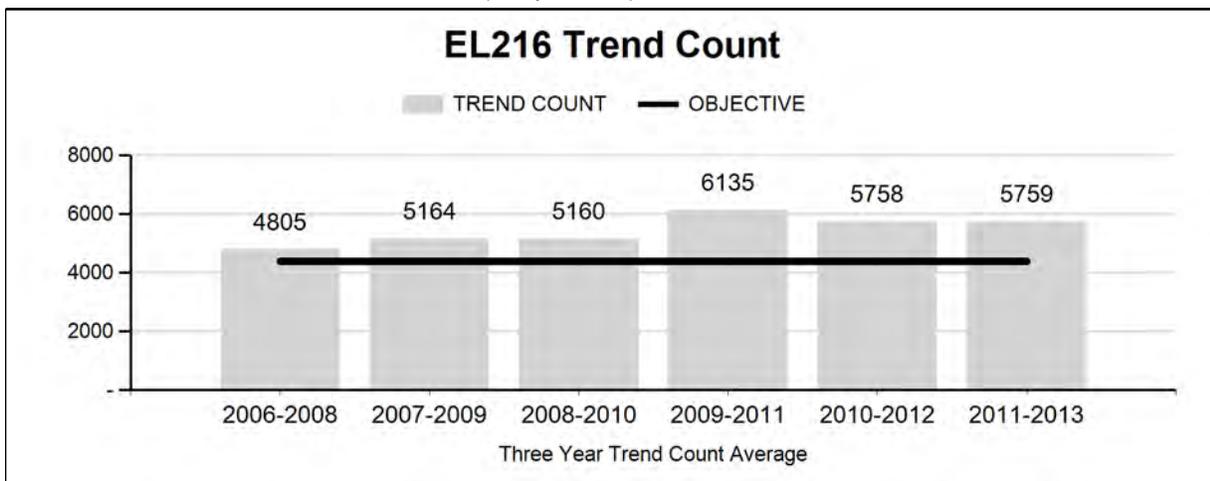
Management Strategy: Special

Percent population is above (+) or (-) objective: 30%

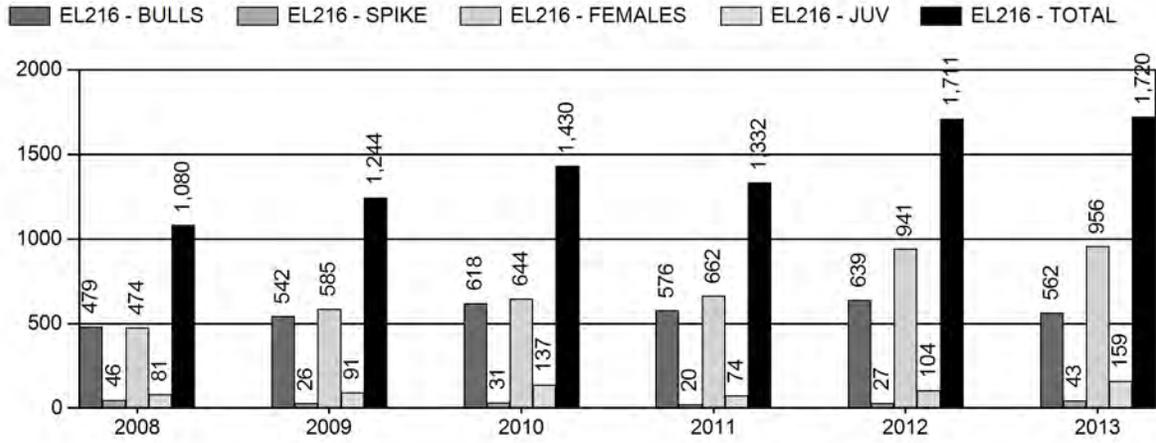
Number of years population has been + or - objective in recent trend: 20

**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

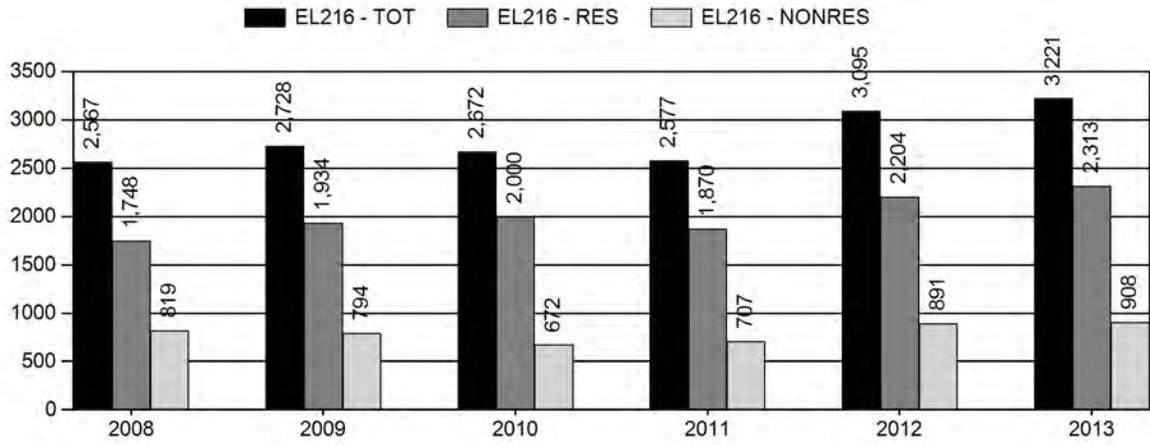
	<u>JCR Year</u>	<u>Proposed</u>
Females $\geq 1$ year old:	N/A%	N/A%
Males $\geq 1$ year old:	N/A%	N/A%
Juveniles ( $< 1$ year old):	N/A%	N/A%



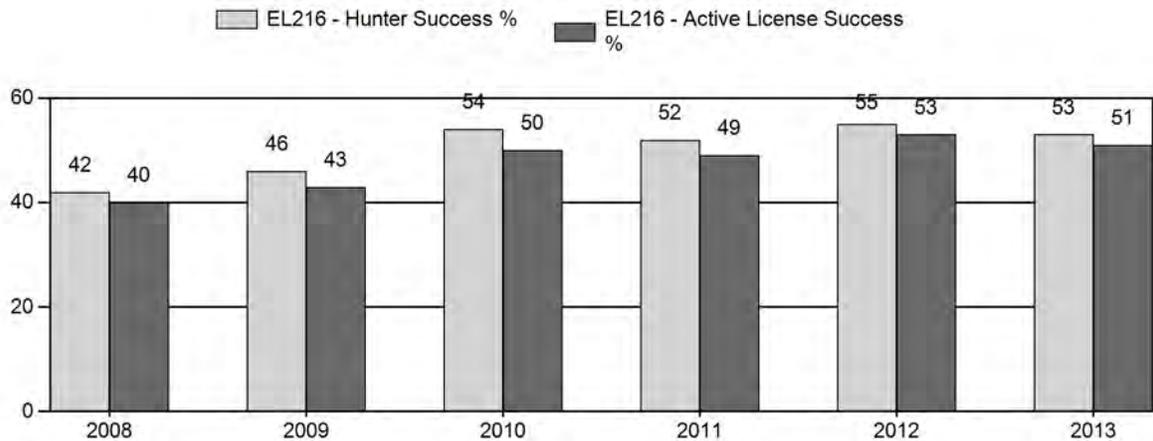
# Harvest



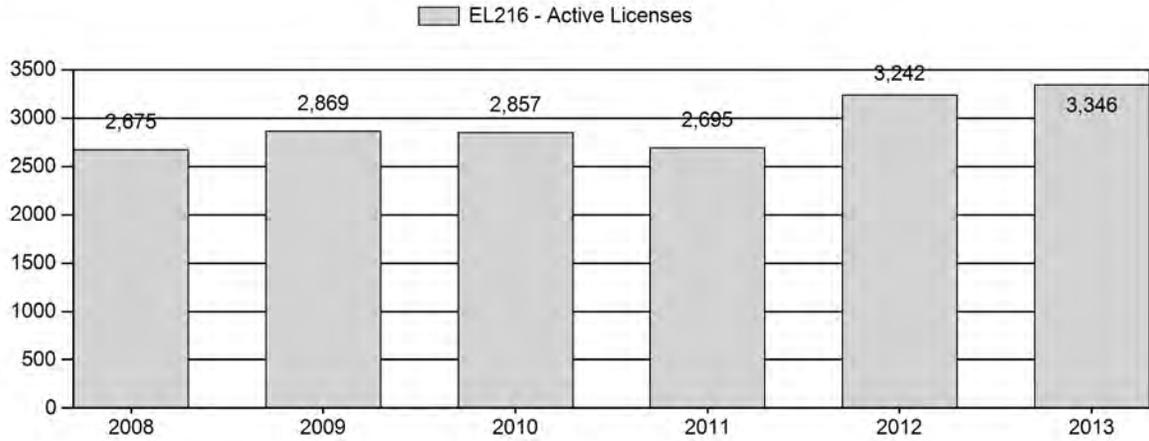
# Number of Hunters



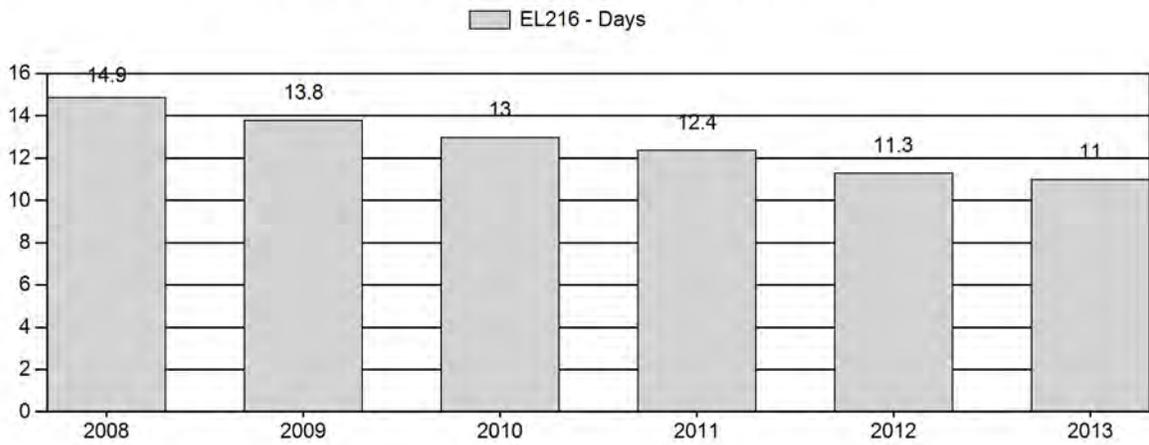
# Harvest Success



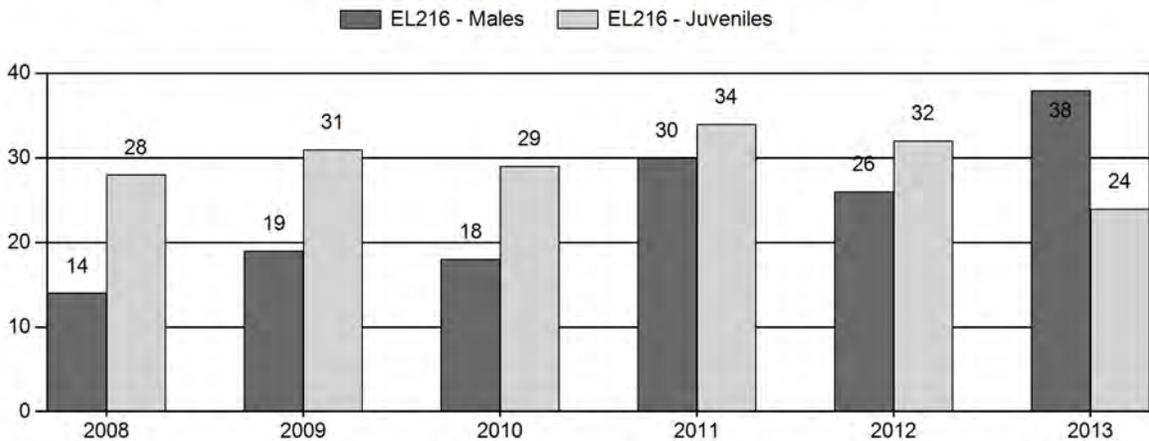
# Active Licenses



# Days per Animal Harvested



# Postseason Animals per 100 Females



## 2008 - 2013 Postseason Classification Summary

for Elk Herd EL216 - CODY

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot CIs	CIs Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2008	7,900	149	149	298	10%	2,069	70%	589	20%	2,956	285	7	7	14	± 1	28	± 1	25
2009	8,100	213	253	466	13%	2,400	66%	749	21%	3,615	284	9	11	19	± 1	31	± 1	26
2010	8,000	375	335	710	12%	3,878	68%	1,135	20%	5,723	372	10	9	18	± 1	29	± 1	25
2011	8,000	582	755	1,337	18%	4,490	61%	1,519	21%	7,346	370	13	17	30	± 0	34	± 0	26
2012	0	262	397	659	16%	2,561	63%	815	20%	4,035	388	10	16	26	± 0	32	± 0	25
2013	0	333	860	1,193	24%	3,130	62%	740	15%	5,063	377	11	27	38	± 0	24	± 0	17

**2014 HUNTING SEASONS  
CODY ELK HERD (EL216)**

Hunt Area	Type	Dates of Seasons		Quota	Limitations
		Opens	Closes		
55	1	Oct. 1	Oct. 21	50	Limited quota; any elk, spikes excluded
	9	Sept. 1	Sept. 30	25	Limited quota; any elk, archery only, spikes excluded
56		Oct. 1	Oct. 14		General license; antlered elk, spikes excluded
		Oct. 15	Oct. 21		General license; antlered elk valid within the Washakie Wilderness and North Absaroka Wilderness, spikes excluded
	1	Dec. 1	Dec. 20	10	Limited quota; any elk
	4	Nov. 1	Nov. 15	100	Limited quota; antlerless elk valid in the South Fork of the Shoshone River drainage
		Nov. 16	Dec. 21		Unused Area 56 Type 4 licenses valid in the entire area
	5	Nov. 1	Dec. 21	50	Limited quota; antlerless elk valid off national forest
	6	Nov. 16	Dec. 21	100	Limited quota; cow or calf valid in the South Fork of the Shoshone River drainage
9	Sep. 1	Sep. 30	30	Limited quota; any elk, archery only, spikes excluded	
58	1	Oct. 1	Nov. 30	35	Limited quota; 35 licenses any elk
	4	Oct. 1	Dec. 21	100	Limited quota; antlerless elk
	6	Oct. 1	Dec. 21	300	Limited quota; cow or calf
59		Oct. 1	Oct. 14		General license; any elk, spikes excluded
		Oct. 15	Oct. 21		General licenses; any elk within the Washakie Wilderness, spikes excluded
	1	Nov. 1	Nov. 15	10	Limited quota; any elk
	6	Nov. 1	Dec. 21	375	Limited quota; cow or calf
	7	Oct. 1	Oct. 31	25	Limited quota; cow or calf valid in the Boulder Creek drainage upstream from and including the Castle

					Creek drainage
	9	Sept. 1	Sept. 30	25	Limited quota; any elk, archery only, spikes excluded
60		Sept. 20	Oct. 22		General license; any elk, spikes excluded
	9	Sept. 1	Sept. 30	20	Limited quota; any elk, archery only, spikes excluded
61	1	Oct. 1	Oct. 31	150	Limited quota; any elk valid within the Washakie Wilderness, also valid in that portion of Area 62 within the Washakie Wilderness south of Avalanche Creek.
	2	Oct. 15	Nov. 15	50	Limited quota; any elk
	4	Oct. 15	Dec. 21	100	Limited quota; antlerless elk
	6	Sept. 1	Nov. 14	1000	Limited quota; cow or calf valid north of and including the Rawhide Creek drainage
		Nov. 1	Nov. 14		Unused Area 61 Type 6 licenses also valid within the Washakie Wilderness
		Nov. 15	Dec. 21		Unused Area 61 Type 6 licenses valid in the entire area, also valid in Area 66, and that portion of Area 58 within the Dry Creek drainage
66		Sept. 1	Sept. 30		General license; any elk
		Oct. 1	Dec. 21		General license; antlerless elk
	6	Sept. 1	Dec. 21	250	Limited quota; cow or calf elk
Archery 55, 58, 61		Sept. 1	Sept. 30		Refer to Section 3 of this Chapter
56, 59		Sept. 1	Sept. 30		General license; any elk, spikes excluded, limited quota license refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2013
56	4	+50
56	5	-50
58	4	-50
58	6	+50
66	6	+100
<b>Total</b>	<b>4</b>	<b>0</b>
	<b>5</b>	<b>-50</b>
	<b>6</b>	<b>+150</b>

### Management Evaluation

**Current Mid-Winter Trend Count Objective: 4,400**

**Management Strategy: Special**

**2013 Mid-Winter Trend Count: 5,726**

**Most Recent 3-year Running Average Trend Count: 5,759**

### **Herd Unit Issues**

Most of the Cody Herd Unit is characterized by migratory elk, but substantial numbers of non-migratory elk are found in all areas. Calf productivity varies across this herd unit, but not as dramatically as that seen in the Clarks Fork Herd Unit. Damage situations do exist where overabundant elk overlap with private lands. Elk in areas with good productivity that reside at least seasonally on mixed ownership require liberal management, while those herd segments with poor productivity requires conservative management.

### **Weather**

Weather conditions during the 20132 biological year were characterized by near normal spring-summer moisture, and quite severe winter conditions, with heavy snowfall and extended periods of extremely cold temperatures.

### **Habitat**

One herbaceous vegetation transect is monitored on Carter Mountain. Herbaceous production in 2013 at this site on the southeast face of Carter Mountain was near the long-term average of 363 lbs/acre.. Herbaceous utilization at this site during the 2012/2013 winter was slightly higher than average at 57%.

### **Field Data**

Classification surveys in 2013 yielded a calf:cow ratio of 24:100 (range 17:100 – 44:100), while the most recent 10-year (1993-2012) average calf:cow ratio is 26.9 calves:100 cows (range 15:100 – 40:100). The 2013 surveys produced a yearling bull:cow ratio of 11:100 (range 1:100 – 25:100), while the average yearling bull ratio is 9.5 yearling bulls:100 cows over the 1993-2012 period (range 5:100 - 16:100).

## **Harvest**

Bull harvest in 2013 was down from previous years, and largely a result of season alterations. At 1,115, the antlerless elk harvest was the highest recorded in this herd unit.

## **Population**

Because past efforts to create population reliable simulation models have not proved successful, in 2012 the Cody Elk Herd Unit switched to a Mid-Winter Trend Count based population objective. Trend count objectives are based on 3-year running averages on a hunt area, multiple hunt area basis. The Trend Count Objective for Hunt Areas 55 & 56 is 1,150 elk, while the actual trend count average in this area is 1,293. Management efforts will be directed at maintaining elk numbers at this level. The Trend Count Objective for Hunt Areas 58 & 59 is also 1,150 elk, while the actual average trend count here is 1,527 elk. Management direction for this area is to continue to reduce elk numbers. The Trend Count Objective for Hunt Area 61 is 2,100 elk, while the actual average trend count here is 2,845 elk. Management direction for this area is to continue to significantly reduce elk numbers. Hunt Area 66 has no Trend Count Objective and management efforts here are to minimize elk numbers as much as possible.

In total, the Trend Count Objective for the entire Cody Elk Herd Unit is 4,400 elk, while the average 3-year trend count average is 5,759. Management efforts will continue to reduce elk numbers to meet this objective, with emphasis on Area 61, and to a lesser degree Area 58 and 59.

## 2013 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2013 - 5/31/2014

HERD: EL217 - CLARKS FORK

HUNT AREAS: 50-54, 65, 121

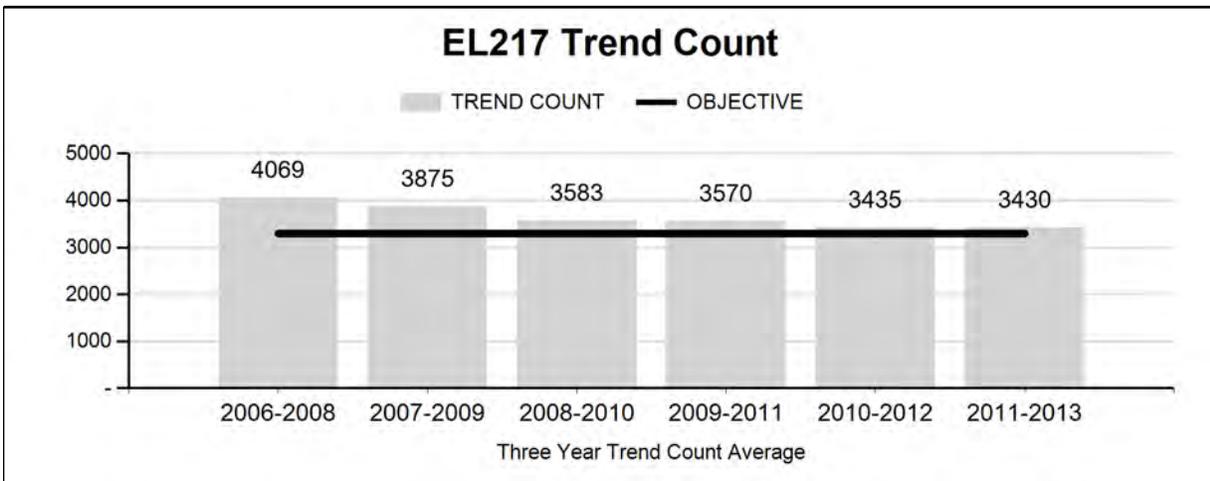
PREPARED BY: DOUG MCWHIRTER

	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Trend Count:	3,533	3,372	3,300
Harvest:	514	443	500
Hunters:	1,286	1,011	1,000
Hunter Success:	40%	44%	50%
Active Licenses:	1,365	1,074	1,100
Active License Percentage:	38%	41%	45%
Recreation Days:	9,821	7,613	7,500
Days Per Animal:	19.1	17.2	15
Males per 100 Females:	16	20	
Juveniles per 100 Females	24	27	

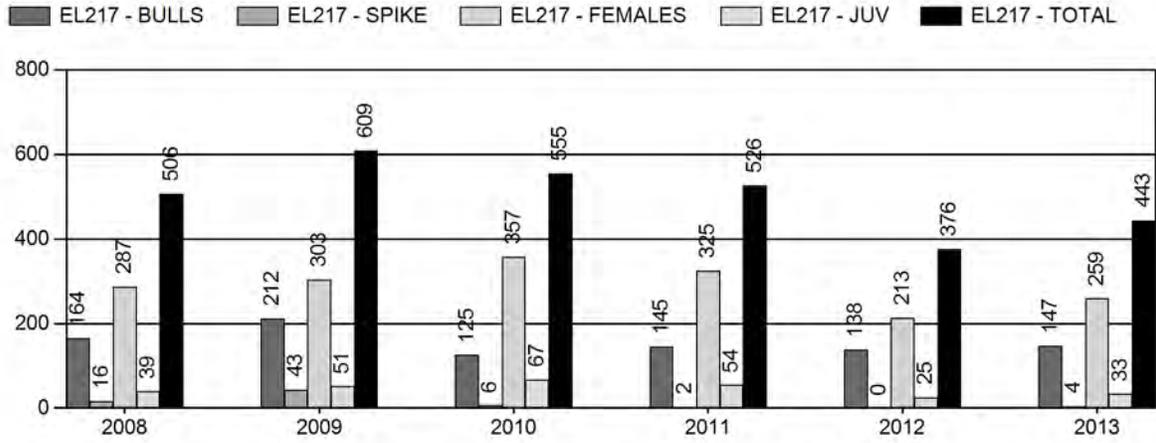
Trend Based Objective (± 20%) 3,300 (2640 - 3960)  
 Management Strategy: Special  
 Percent population is above (+) or (-) objective: 2%  
 Number of years population has been + or - objective in recent trend: 20

**Proposed harvest rates (percent of pre-season estimate for each sex/age group):**

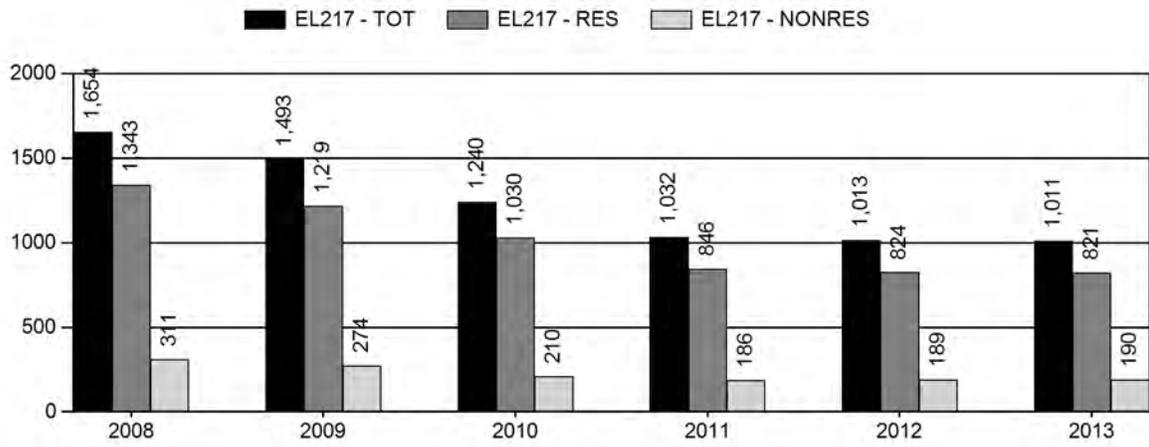
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	N/A%	N/A%
Males ≥ 1 year old:	N/A%	N/A%
Juveniles (< 1 year old):	N/A%	N/A%



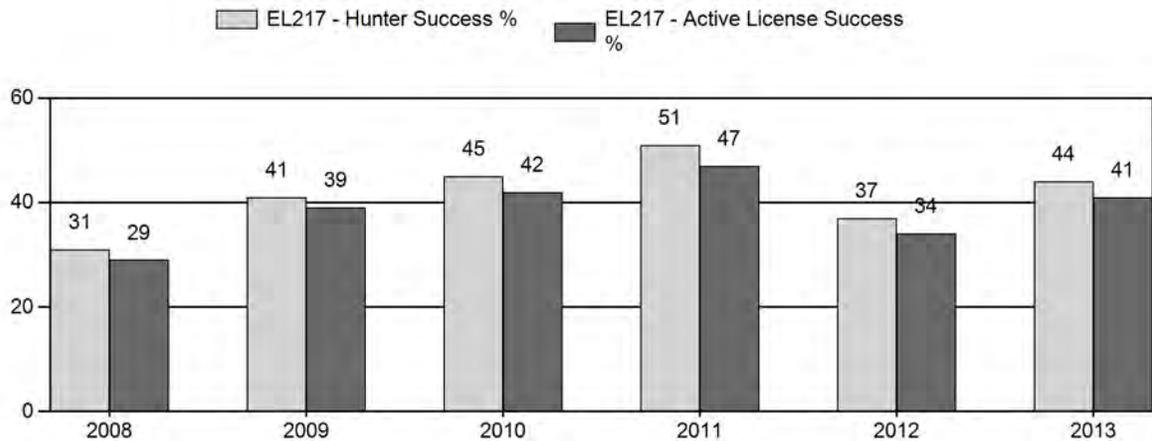
# Harvest



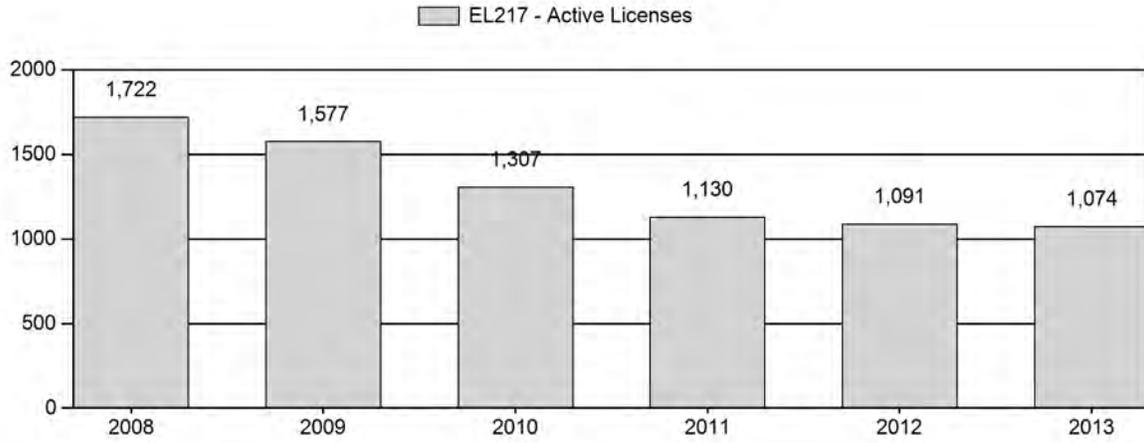
# Number of Hunters



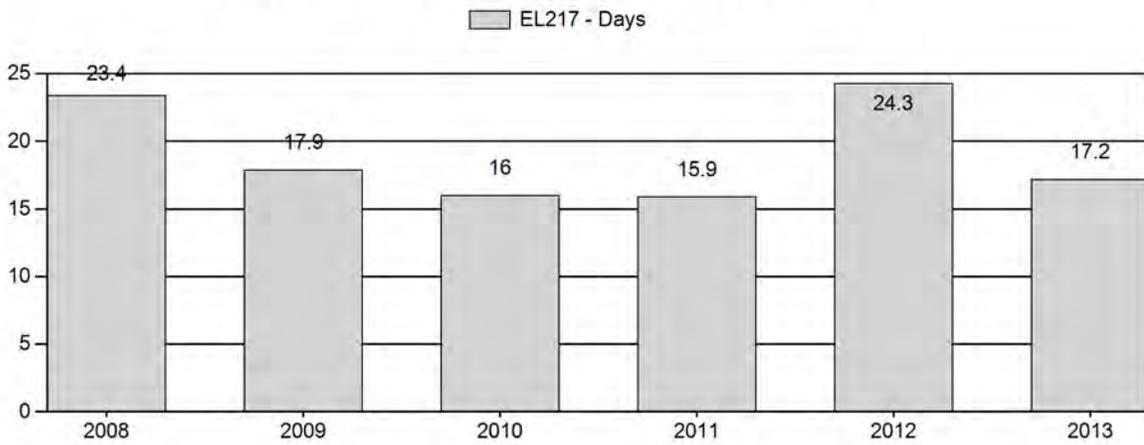
# Harvest Success



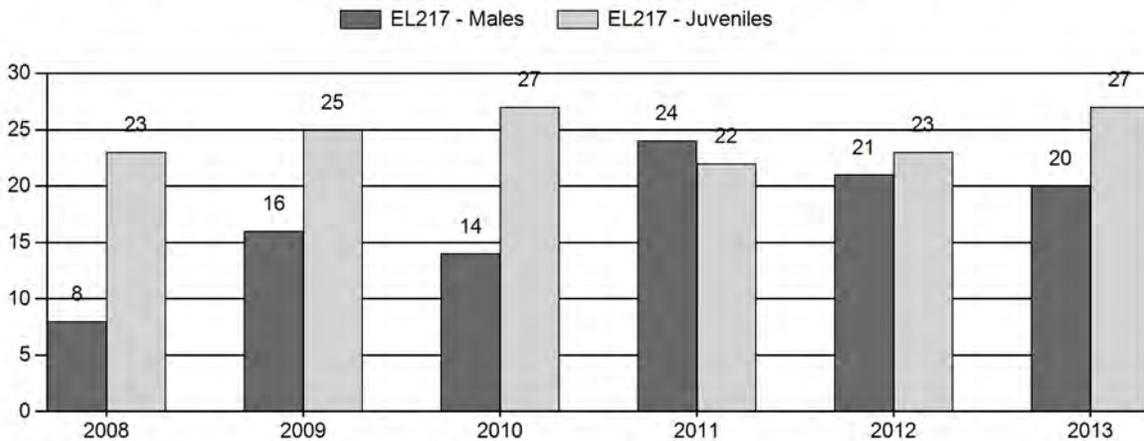
# Active Licenses



# Days per Animal Harvested



# Postseason Animals per 100 Females



## 2008 - 2013 Postseason Classification Summary

for Elk Herd EL217 - CLARKS FORK

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot CIs	CIs Obj	Males to 100 Females				Young to		
		Ylg	Adult	Total	%	Total	%	Total	%			Ylng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2008	4,622	139	68	207	6%	2,695	76%	621	18%	3,523	283	5	3	8	± 0	23	± 1	21
2009	4,388	205	224	429	11%	2,738	71%	673	18%	3,840	283	7	8	16	± 0	25	± 0	21
2010	4,238	153	97	250	10%	1,782	71%	476	19%	2,508	369	9	5	14	± 1	27	± 1	23
2011	3,931	204	376	580	17%	2,379	68%	524	15%	3,483	283	9	16	24	± 0	22	± 0	18
2012	3,896	127	355	482	14%	2,331	69%	541	16%	3,354	287	5	15	21	± 0	23	± 1	19
2013	0	149	307	456	14%	2,252	68%	607	18%	3,315	366	7	14	20	± 0	27	± 0	22

**2014 HUNTING SEASONS  
CLARKS FORK ELK HERD (EL217)**

Hunt Area	Type	Dates of Seasons		Quota	Limitations
		Opens	Closes		
51	1	Oct. 1	Oct. 31	140	Limited quota; any elk
	4	Nov. 16	Dec. 15	125	Limited quota; antlerless elk
	9	Sept. 1	Sept. 30	70	Limited quota; any elk, archery only
53	1	Oct. 1 Nov. 1	Oct. 31 Nov. 30	25	Limited quota; any elk Unused Type 1 licenses valid in the Shoshone River drainage
	2	Nov. 1	Nov. 30	75	Limited quota; any elk valid in the Shoshone River drainage
	4	Oct. 1	Dec. 15	50	Limited quota; antlerless elk
	6	Nov. 1	Dec. 21	200	Limited quota; cow or calf elk valid in the North Fork Shoshone drainage
	9	Sept. 1	Sept. 30	25	Limited quota; any elk, archery only
54	1	Oct. 1	Nov. 30	50	Limited quota; any elk south of the Clarks Fork River
	2	Oct. 1	Oct. 31	25	Limited quota; any elk north of the Clarks Fork River
	4	Sept. 1	Oct. 31	50	Limited quota; antlerless elk
	6	Nov. 1	Nov. 30	200	Limited quota; cow or calf elk
	7	Dec. 1	Dec. 21	200	Limited quota; cow or calf elk
	9	Aug. 15	Sept. 30	35	Limited quota; any elk; archery only
Archery 54		Sept. 1	Sept. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2013
	1	-95
	2	+100
	4	-50
	5	-50
	6	0
	7	0
	9	+5
<b>Total</b>	<b>1-2</b>	<b>+5</b>
	<b>4-5</b>	<b>-100</b>
	<b>6-7</b>	<b>0</b>
	<b>9</b>	<b>+5</b>

### **Management Evaluation**

**Current Mid-Winter Trend Count Objective: 3,300**

**Management Strategy: Special**

**2013 Mid-Winter Trend Count: ~3,372**

**Most Recent 3-year Running Average Trend Count: ~3,430**

### **Herd Unit Issues**

Much of the Clarks Fork Herd Unit is characterized by migratory elk in the Sunlight Basin and Crandall Areas, while substantial numbers of non-migratory elk are found in along the Absaroka Front and Beartooth Face. Migratory elk exhibit poor productivity, while non-migratory elk have much higher productivity. Consequently, damage situations arise with non-migratory elk and require liberal management, while poor productivity requires conservative management of migratory elk.

To better manage migratory and non-migratory elk and simplify hunting regulations, hunt area boundaries were re-configured in 2014. To encompass migratory elk, the western portion of Area 50 and Area 52 were added to Area 51. Similarly, to encompass non-migratory elk the eastern portion of Area 50, the eastern portion of Area 12, and Area 65 were added to Area 54. To better define the semi-migratory elk in the Rattlesnake Creek, Trout Creek, and Dead Indian Creek drainages, the western portion of Area 121 and the Elk Creek drainage of Area 52 were added to Area 53. This change allows for more direct management of migratory and non-migratory elk and reduces complexity by eliminating 4 hunt areas and 4 license types.

### **Weather**

Weather conditions during the 2013 biological year were characterized by near normal spring-summer moisture, and quite severe winter conditions, with heavy snowfall and extended periods of extremely cold temperatures.

### **Habitat**

Herbaceous vegetation transects are monitored on upland vegetation types in Sunlight Basin, both on the Sunlight Wildlife Habitat Management Area (WHMA) and on adjacent US.S Forest Service lands. Herbaceous production on most sites during 2013 in Sunlight Basin was generally near the most recent 8-year average, although two of five sites were substantially below average (range 175 lbs/ac – 500 lbs/ac). Herbaceous utilization at these sites during the 2012-2013 winter was variable, with Little Bald Ridge receiving lighter use

than normal (only 50% utilization) and Sunlight Basin receiving more or less average use. Use levels continue to be high on Riddle Flat and Teepee Gulch, with utilization exceeding 80%.

### **Field Data**

Classifications in 2013 yielded a calf:cow ratios of 21:100 for migratory elk and 33:100 for non-migratory elk. The most recent 10-year (1993-2012) average calf:cow ratio of migratory elk is 14.0 calves:100 cows (range 11:100 – 16:100), while the average calf:cow ratio of non-migratory elk is 34.3 calves:100 cows (range 26:100 – 43:100). Yearling bull:cow ratios in 2013 were 5:100 for migratory elk, and 8:100 for non-migratory elk. The most recent 10-year (1993-2012) average yearling bull:cow ratios were 4.2 yearling bulls:100 cows for migratory elk (range 3:100 - 6:100), while non-migratory elk averaged 11.2 yearling bulls:100 cows (range 7:100 – 14:100). Hence the need for conservative management of migratory elk and liberal management of non-migratory elk.

### **Harvest Data**

Bull harvest was among the lowest recorded in this herd unit, but is largely due to intentional reductions in the harvest of migratory bull elk (through conversion to limited quota hunting) and poor success in other areas.

Harvest of antlerless elk dropped in almost all areas in this herd unit in 2013, even though aggressive efforts to harvest antlerless elk continued in most areas. The antlerless harvest obtained in 2013 was the lowest since 1987.

### **Population**

We will continue with the current management structure for migratory elk (which consists of conservative bull seasons, with little antlerless harvest), while continuing to target non-migratory elk in with abundant and lengthy antlerless licenses. The 2014 seasons should result in post-season 2014 population closer to the objective of 3,300 observed elk on winter range.

