

2013 - JCR Evaluation Form

SPECIES: Elk
 HERD: EL635 - WIGGINS FORK
 HUNT AREAS: 67-69, 127

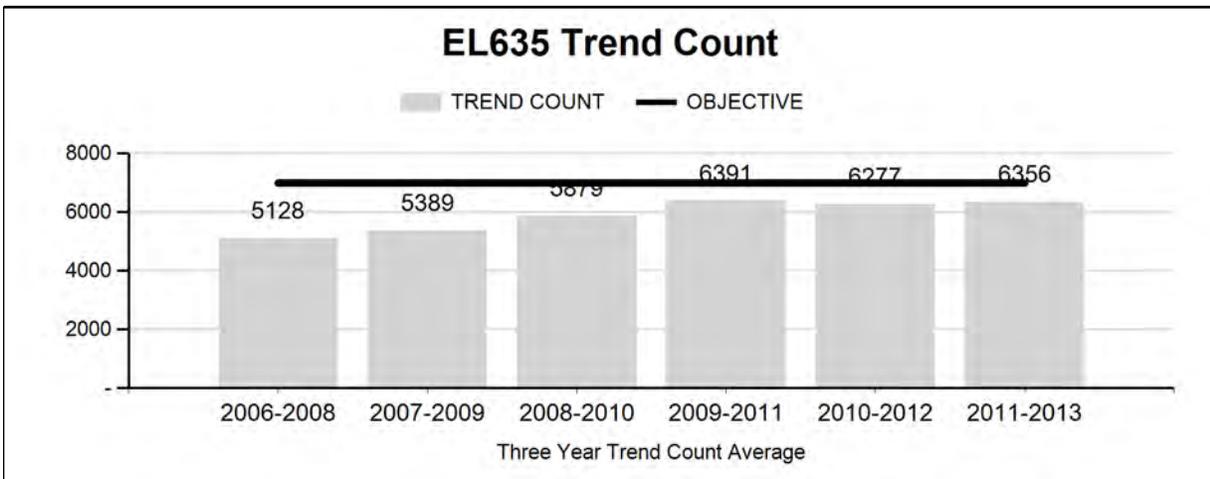
PERIOD: 6/1/2013 - 5/31/2014
 PREPARED BY: GREG ANDERSON

	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Trend Count:	6,089	6,260	5,700
Harvest:	809	1,186	1,150
Hunters:	2,171	2,735	2,800
Hunter Success:	37%	43%	41%
Active Licenses:	2,222	42%	2,900
Active License Percentage:	36%	42%	40%
Recreation Days:	14,317	18,225	19,000
Days Per Animal:	17.7	15.4	16.5
Males per 100 Females:	9	8	
Juveniles per 100 Females	24	24	

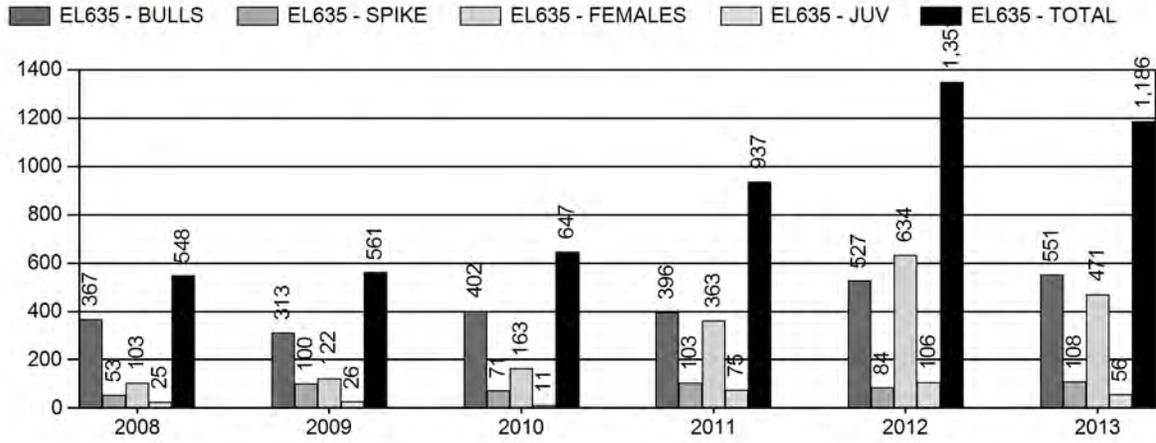
Trend Based Objective ($\pm 20\%$) 7,000 (5600 - 8400)
 Management Strategy: Recreational
 Percent population is above (+) or (-) objective: -10.6%
 Number of years population has been + or - objective in recent trend: 5

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

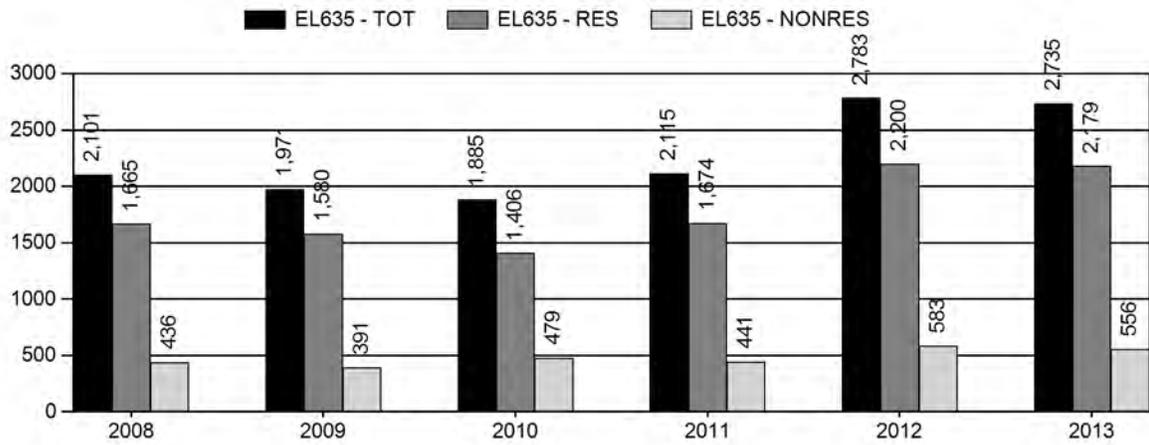
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%



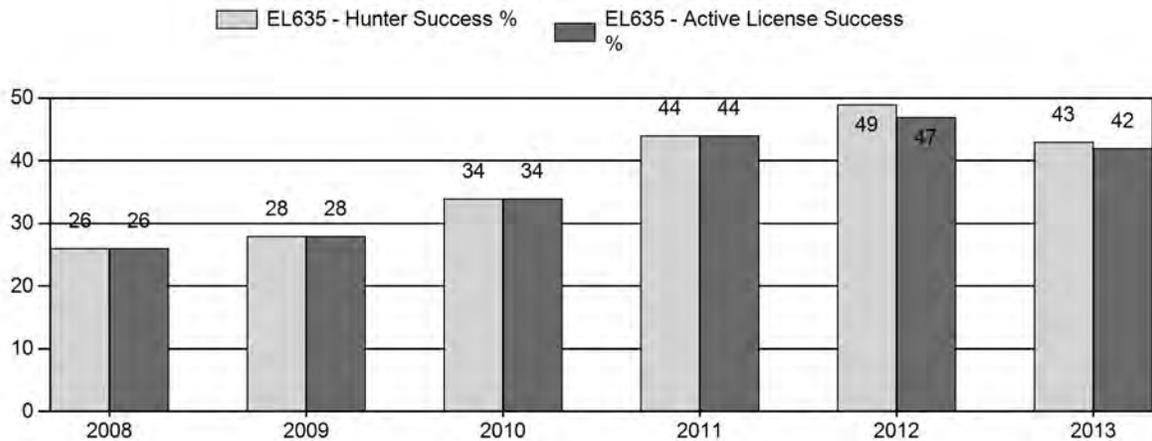
Harvest



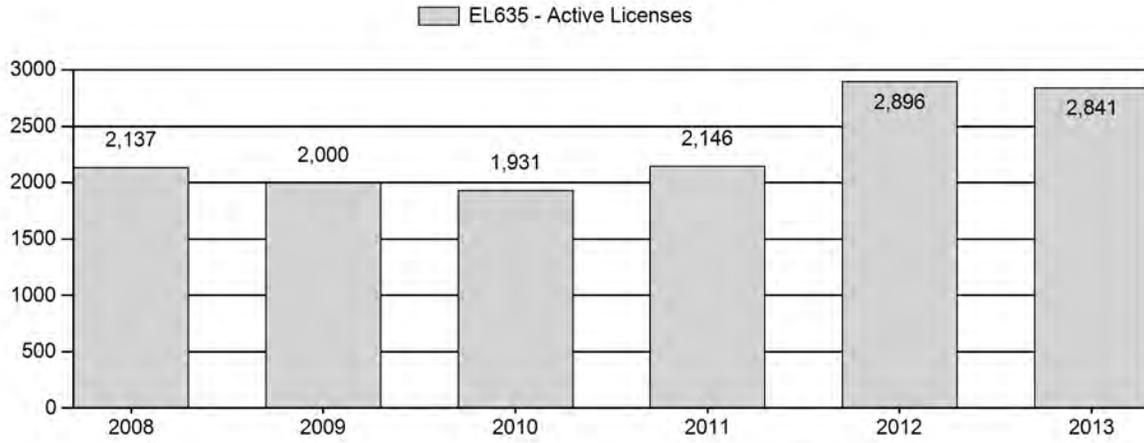
Number of Hunters



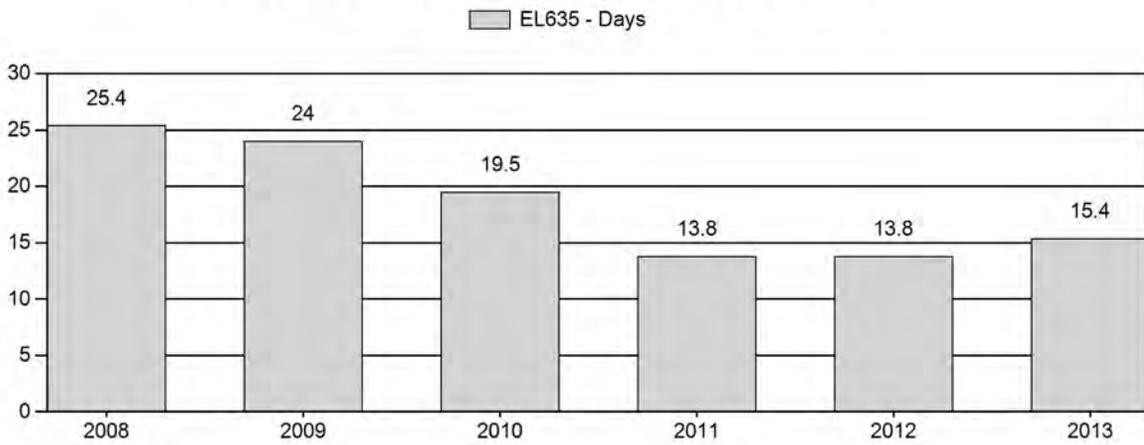
Harvest Success



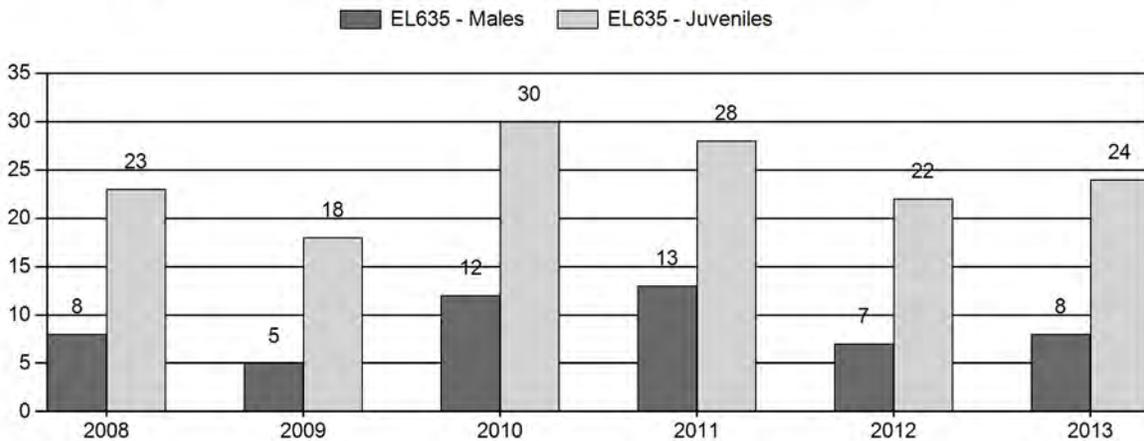
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2008 - 2013 Postseason Classification Summary

for Elk Herd EL635 - WIGGINS FORK

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	7,164	135	31	166	6%	2,089	76%	485	18%	2,740	234	6	1	8	± 1	23	± 1	22
2009	7,899	117	13	130	4%	2,524	81%	456	15%	3,110	168	5	1	5	± 0	18	± 1	17
2010	7,777	276	114	390	8%	3,388	71%	1,019	21%	4,797	346	8	3	12	± 0	30	± 1	27
2011	9,083	202	28	230	9%	1,802	71%	498	20%	2,530	321	11	2	13	± 1	28	± 2	25
2012	0	138	22	160	6%	2,143	77%	463	17%	2,766	0	6	1	7	± 0	22	± 0	20
2013	0	135	23	158	6%	1,881	76%	451	18%	2,490	0	7	1	8	± 0	24	± 0	22

**2014 HUNTING SEASONS
WIGGINS FORK ELK (EL 635)**

Hunt Area	Type	Season Dates		Quota	Limitations
		Opens	Closes		
67		Oct. 1	Oct. 31		General; antlered elk, spikes excluded
	4	Nov. 1	Dec. 15	300	Limited quota; antlerless elk
	6	Nov. 15	Dec. 15	500	Limited quota; cow or calf valid west of the Wiggins Fork and west of the East Fork downstream from the confluence with the Wiggins Fork
67, 68, 69	9	Sep. 1	Sep. 30	125	Limited quota; any elk, archery only
68		Oct. 1	Oct. 31		General; antlered elk, spikes excluded
	6	Nov. 1	Nov. 30	200	Limited quota; cow or calf
69		Oct. 1	Oct. 31		General; any elk
		Nov. 1	Nov. 15		General; antlerless elk
	6	Oct. 1	Nov. 30	75	Limited quota; cow or calf
127		Oct. 1	Oct. 31		General; any elk
		Nov. 1	Dec. 31		General; antlerless elk
Archery 67, 68, 69		Sep. 15	Sep. 30		General; any elk. Limited quota; refer to section 3 of this chapter
127		Sep. 1	Sep. 30		General; any elk

Hunt Area	Type	Quota change from 2013
67	6	+100
68	6	-50
	4	+50
Total	4	+50
	6	+50

Management Evaluation

Current Management Objective: 6,000-7,000

Management Strategy: Recreational

2013 Postseason Population Estimate: ~8,100

2014 Proposed Postseason Population Estimate: unknown

Management Issues

The Wiggins Fork elk herd is managed based on a winter trend count. The objective is to maintain 6,000 to 7,000 wintering elk in the herd unit with a recreational management strategy. Annual trend counts are conducted each January to assess the population. The objective was last reviewed in 2012.

The Wiggins Fork elk herd occupies the upper Wind River drainage west of the Wind River Reservation (WRR). There is good documentation elk wintering in the herd unit migrate into a number of other northwest Wyoming elk herd units in the summer and early fall. Given the amount of interchange with neighboring herd units, the number of elk present can vary significantly throughout the hunting season. Seasons structured to reduce the elk population generally need to include antlerless elk harvest after mid-November to allow elk to migrate into the herd unit from neighboring areas.

Habitat/Weather

Over the past 2 years, all of the elk winter range in this herd unit has been impacted by severe drought. Vegetation transects monitored to determine the amount of forage available on elk winter range revealed herbaceous vegetation production was approximately 55% of the previous 5 year average. Herbaceous production was even lower than in 2012 which was also a very dry year. Although no vegetation data is collected at high elevation summer range, observations suggest vegetation growth was low on summer range as well. In contrast to the dry spring/summer, precipitation in fall 2013 was unusually high. Of particular note was heavy snowfall at higher elevations in late September and early October. The heavy snows forced elk onto winter range nearly 2 months earlier than normal. The early migration likely put additional pressure on already poor feed resources on winter range.

Field/Harvest Data/Population

The amount of movement between this population and adjacent herd units invalidates the use of a population model. Instead, the objective aims to maintain 6,000 to 7,000 elk on wintering grounds throughout the DAU. Trend counts to estimate the wintering population are conducted each January/February. Trend count numbers declined from 1997 through 2003. From 2004 through 2007, the population appeared to stabilize. Winter count numbers fluctuated year-to-year but did not indicate any consistent population trends. In 2008, personnel counted a significantly higher number of elk (5,504). This was the highest count since 1998. In 2009 and 2010, personnel again counted a significantly greater number of elk; 6,110 and 6,023 respectively (Fig. 1). In 2011 the trend count increased significantly again to 7,039. Following a liberal season in 2012, the trend count declined to 5,768. The count increased again in 2013 by 500 elk to 6,260. Trend count data are used to calculate a population estimate for three herd segments with sub-objectives. Personnel assume 80% sightability for both the East Fork and Dunoir/Spring Mtn segments and 70% sightability for the South Dubois segment. Population estimates are thus produced by dividing trend counts for the East Fork and Dunoir/Spring Mountain segments by .8 and the South Dubois segment by .7. Since trend counts can fluctuate dramatically year-to-year, the population objective is based on a three year running average. Averaging the past three years' population estimates yields a 2013, post-season population of approximately 8,200. The estimate is essentially unchanged from the previous 3 years. The population is currently 17% above the upper objective threshold.

When the new objective range was set in 2002, The Department set sub-objectives for three segments of the herd. The sub-objectives were set to recognize reasonably well-defined spatial segregation of elk groups wintering in the area. The sub-groups include the East Fork, Dunoir/Spring Mountain, and South Dubois groups. While there is a significant amount of interchange, elk from the three groups tend to segregate themselves on winter range and utilize different spring/fall migration routes. Since elk in the three sub-groups are subjected to different demographic influences, sub-objectives were set for each of the three groups (Table 1). One of the sub-groups (East Fork) has been below the lower objective threshold for all but one year in the past decade. Two of the sub-groups (Dunoir/Spring Mtn and South Dubois) have been well above the upper objective threshold for the past 4 years. The South Dubois segment has consistently been above objective for the past decade. Liberal seasons on an annual basis provide the opportunity for significantly greater harvest in this herd segment but lack of hunter desire to harvest cow elk in this rugged area precludes greater harvest. Despite the lack of necessary harvest, the population in this segment has remained fairly stable over the past 5 years. In contrast, elk numbers in the Dunoir/Spring Mtn herd segment increased dramatically for a period after 2007. The 2012 and 2013 hunting seasons were designed to reduce cow numbers in this herd segment. The number of elk in this segment did decline from 2011 to 2012 but subsequently increased again in 2013.

Between 2006 and 2009, recruitment in this herd unit was well below historic levels (Fig. 2). Despite low recruitment between 2006 and 2009, the number of elk counted still increased. In 2010 and 2011 recruitment increased significantly and likely contributed to some of the trend count increase. In 2013, the calf/cow ratio was 24/100 and was essentially the same as the 10 year average for the herd of 25/100.

Figure 1. Wiggins Fork Elk trend count

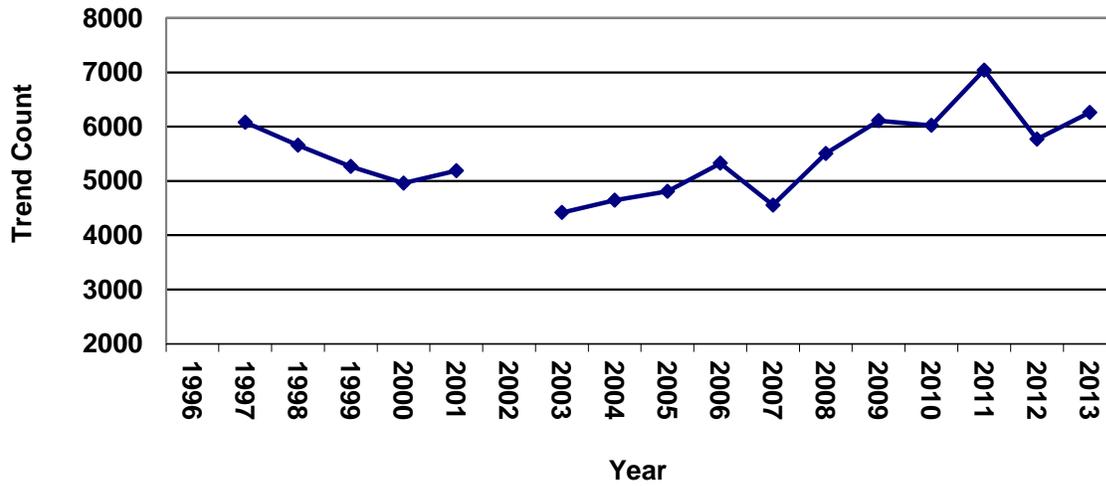
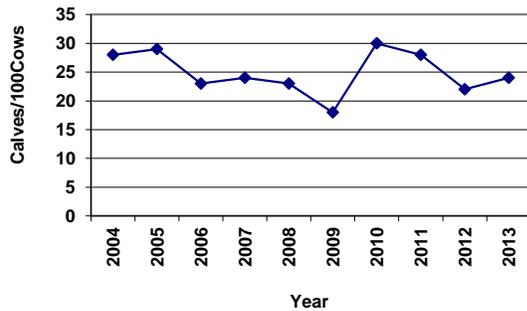


Table 1. Trend count numbers from sub-groups in the Wiggins Fork Elk Herd Unit.

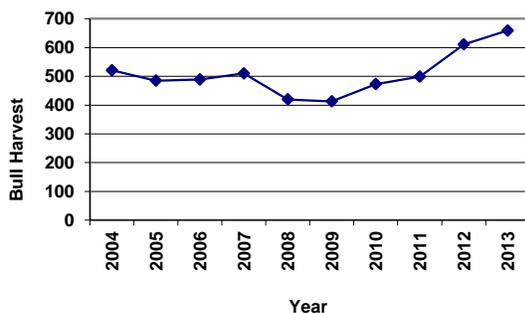
Year	East Fork Objective: 2,400-2,800		Dunoir/Spring Mountain Objective: 2,300-2,700		South Dubois Objective: 1,300-1,500		Wiggins Fork Herd Unit Objective: 6,000-7,000		
	Count	Pop. Estimate	Count	Pop. Estimate	Count	Pop. Estimate	Count	Pop. Estimate	3 Year Average
1998	2154	2693	2457	3071	1046	1494	5657	7258	5454
1999	2180	2725	2109	2636	977	1396	5266	6757	7264
2000	1883	2354	2014	2518	1061	1516	4958	6387	6801
2001	2100	2625	1818	2273	1269	1813	5187	6710	6618
2002	nc		nc		nc		nc		6549
2003	1857	2321	1666	2083	895	1279	4418	5682	6196
2004	1832	2290	1601	2001	1211	1730	4644	6021	5852
2005	1669	2086	1807	2259	1331	1901	4807	6246	5983
2006	1623	2029	2297	2871	1406	2009	5326	6909	6392
2007	1478	1848	1634	2043	1441	2059	4553	5949	6368
2008	1294	1618	2620	3275	1590	2271	5504	7164	6674
2009	1457	1821	3186	3983	1467	2096	6110	7899	7004
2010	1930	2413	2704	3380	1389	1984	6023	7777	7613
2011	1765	2206	3680	4600	1594	2277	7039	9083	8253
2012	1834	2293	2580	3225	1354	1934	5768	7452	8104
2013	1713	2141	3022	3778	1525	2179	6260	8097	8211

Figure 2. Ten year recruitment history in the Wiggins Fork Elk Herd.



Unfortunately, bull/cow ratio data for this herd are very unreliable. Classification surveys are conducted on the ground throughout the DAU. Since mature bulls generally winter in timber at the fringes of the winter ranges, the number of bulls seen is quite low and mature bull/cow ratios for the herd are not considered accurate. Despite the lack of classification data, members of the public and Department personnel suspected the bull/cow ratio in the herd declined concurrently with low recruitment in the mid-2000s. Despite this speculation, bull harvest has not declined over the past 10 years (Fig. 3). Over the past 4 years, bull harvest has increased annually. Antlered elk harvest in both 2012 and 2013 was the highest in the past 20 years. The high bull harvest in 2013 is not indicative of any demographic changes in the population. Instead, the high harvest can be directly linked to environmental conditions. Heavy snows in late September forced elk (including bulls) onto winter range where they were extremely vulnerable to harvest throughout the general, October season. However, 4 consecutive years of increasing antlered elk harvest indicates bull numbers in the population are stable at the very least and have likely increased.

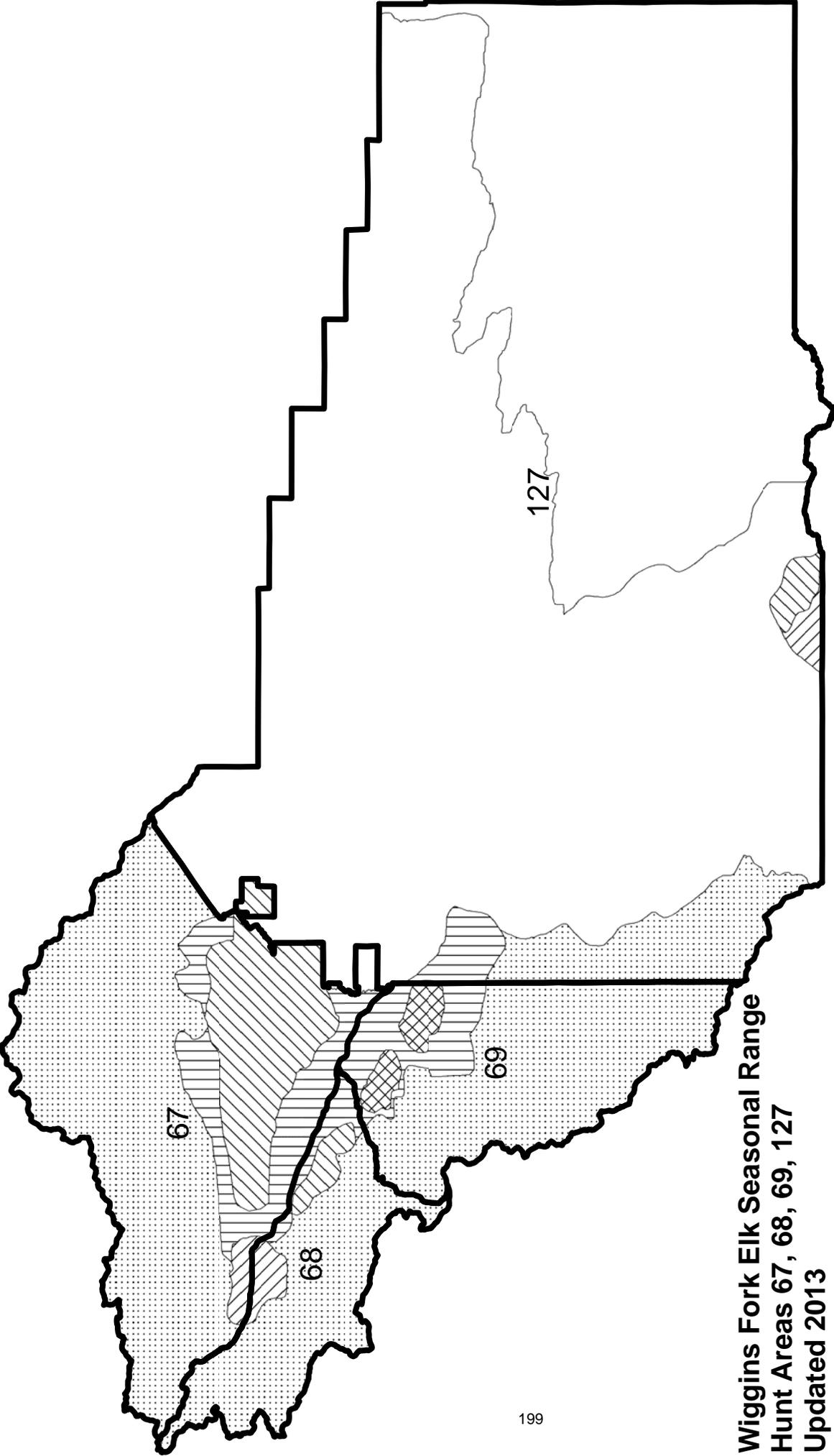
Figure 3. Antlered elk harvest in the Wiggins Fork Elk Herd.



Management Summary

The 2013 trend count indicates the Wiggins Fork elk population remains above the upper end of the objective range set in 2012. The 2013 season was somewhat more conservative than the 2012 season, but nearly as many elk were harvested in 2013 due to increased vulnerability associated with environmental conditions. Despite 2 years of high harvest the trend count

increased from 2012 to 2013. Most of the increase was in the Dunoir/Spring Mtn. segment of the population. In response, Type 6 licenses will be increased by 100 in 2014. These licenses target elk that tend to winter west of the Wiggins Fork. A couple of comments from the 2013 hunt season indicated these elk may have moved east of the Wiggins Fork periodically throughout the hunting season to escape harvest pressure. In response, the season length for Type 4 licenses will be expanded to December 15, the same closing date as the Type 6 licenses. This will maintain a bit of hunting activity east of the Wiggins Fork and not allow elk to settle in an area unavailable to Type 6 license holders. The other significant change for the 2014 season is a spikes excluded limitation in hunt areas 67 and 68. A few members of the outfitting community and hunters requested the limitation believing it will increase opportunity to harvest branch antlered bulls. Although the bull/cow ratio for the herd unit is not deemed accurate, branch antlered bull harvest in 2012 and 2013 were the highest on record for the past 20 years. As such, benefits from this restriction are expected to be marginal. Finally, the season length in hunt area 69 will be reduced by 15 days. While elk numbers remain high in area 69, the general, November hunt season has proven to be an ineffective way to harvest elk but results in a high level of disturbance. Future hunt seasons in area 69 may be structured to see if fewer hunters with Type 6 licenses can effectively harvest as many or more elk than a steady stream of general license hunters in November.



**Wiggins Fork Elk Seasonal Range
Hunt Areas 67, 68, 69, 127
Updated 2013**

-  CRUWIN
-  CRUWYL
-  OUT
-  SSF
-  WIN
-  WYL

2013 - JCR Evaluation Form

SPECIES: Elk

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

HERD: EL637 - SOUTH WIND RIVER

HUNT AREAS: 25, 27-28, 99

PREPARED BY: STAN HARTER

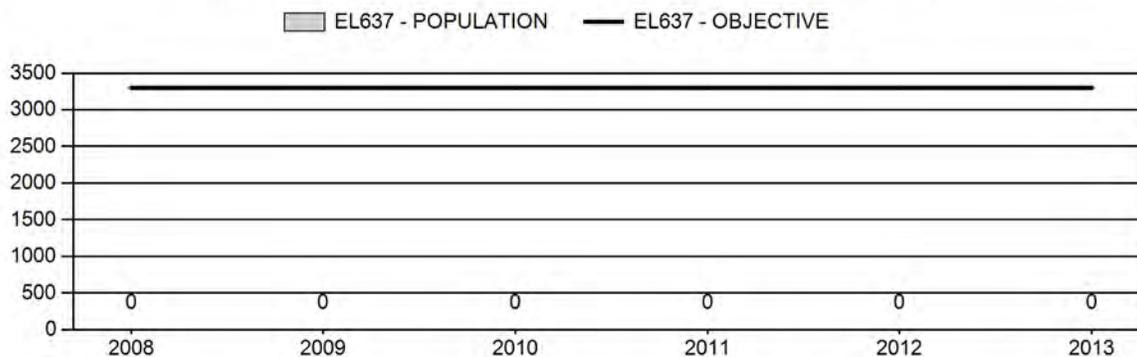
	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Population:	0	N/A	N/A
Harvest:	681	690	700
Hunters:	2,154	2,134	2,000
Hunter Success:	32%	32%	35%
Active Licenses:	2,254	2,183	2,050
Active License Percent:	30%	32%	34%
Recreation Days:	16,165	14,846	14,000
Days Per Animal:	23.7	21.5	20
Males per 100 Females	24	24	
Juveniles per 100 Females	32	31	

Population Objective:	3,300
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	10
Model Date:	None

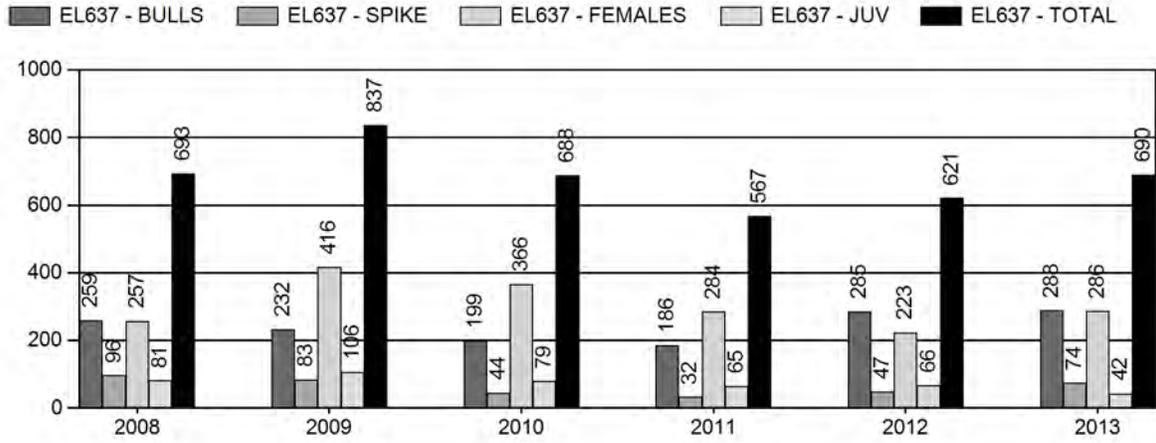
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%

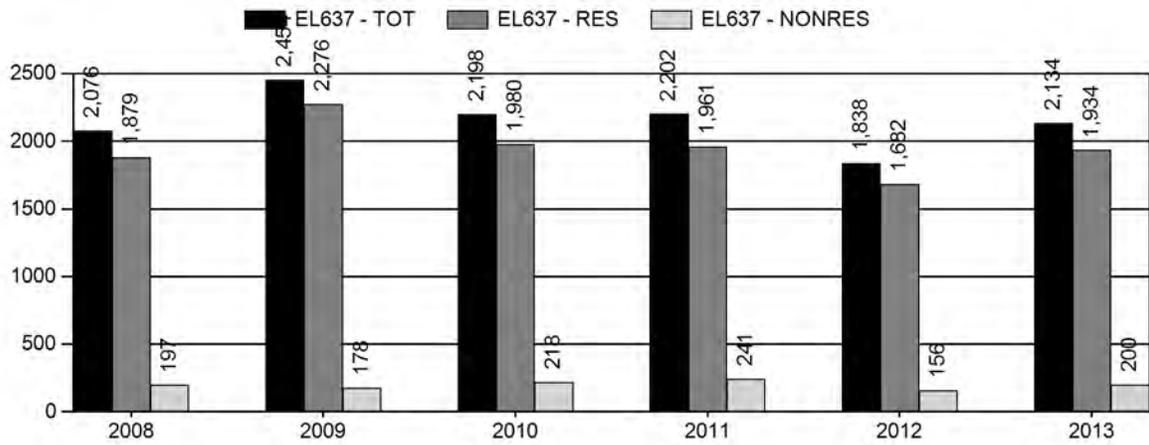
Population Size - Postseason



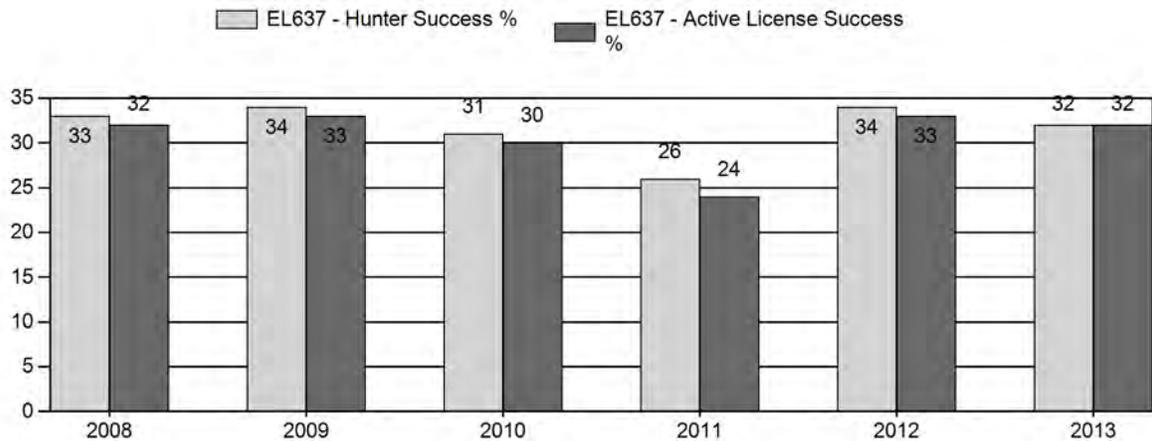
Harvest



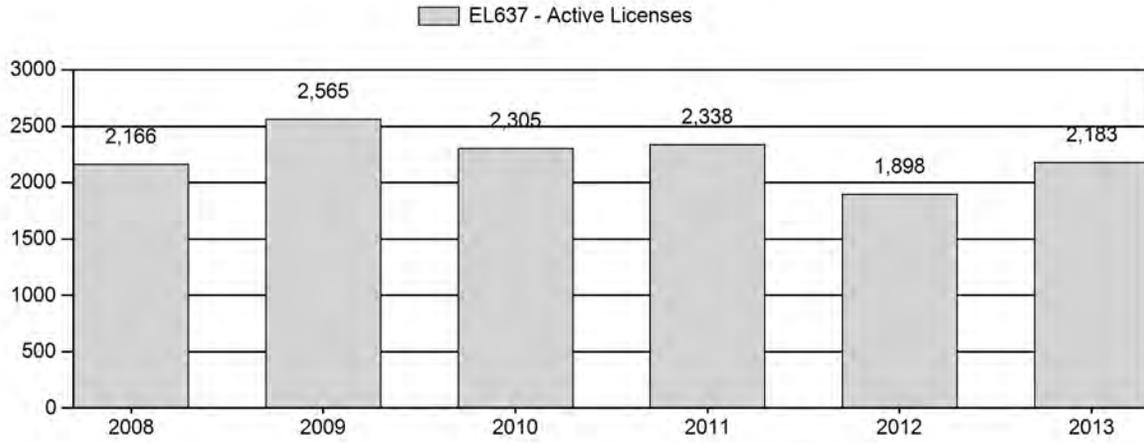
Number of Hunters



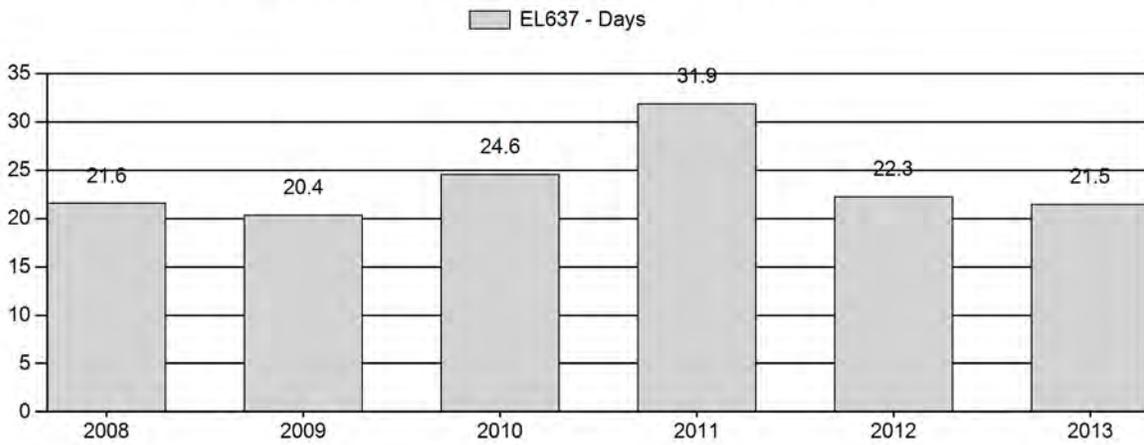
Harvest Success



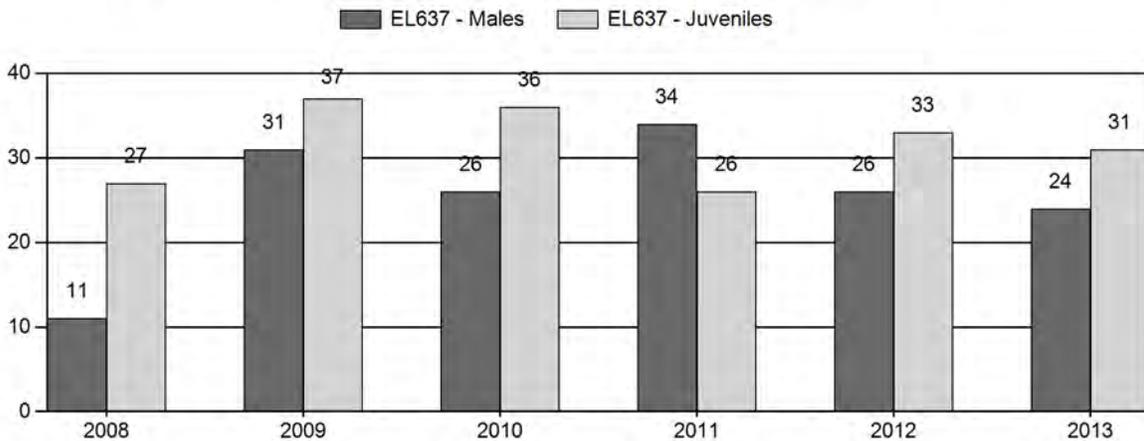
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2008 - 2013 Postseason Classification Summary

for Elk Herd EL637 - SOUTH WIND RIVER

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	0	114	121	235	8%	2,204	73%	597	20%	3,036	290	5	5	11	± 0	27	± 1	24
2009	0	193	263	456	19%	1,460	60%	537	22%	2,453	491	13	18	31	± 1	37	± 1	28
2010	0	174	231	405	16%	1,554	62%	563	22%	2,522	460	11	15	26	± 1	36	± 1	29
2011	0	179	299	478	21%	1,397	62%	365	16%	2,240	0	13	21	34	± 2	26	± 1	19
2012	0	183	356	539	16%	2,066	63%	691	21%	3,296	0	9	17	26	± 1	33	± 1	27
2013	0	165	228	393	16%	1,623	65%	499	20%	2,515	0	10	14	24	± 0	31	± 0	25

**2014 HUNTING SEASONS
South Wind River Elk Herd Unit (EL 637)**

HUNT AREA	TYPE	Season Dates		Quota	LIMITATIONS
		OPENS	CLOSES		
25, 27	1	Oct. 1 Nov. 1	Oct. 31 Nov. 20	200	Limited quota; any elk Unused Area 25, 27 Type 1 licenses valid for antlerless elk
25	4	Oct. 15	Nov. 20	200	Limited quota; antlerless elk
25	6	Nov. 1	Nov. 20	100	Limited quota; cow or calf
27	4	Oct. 1	Nov. 20	100	Limited quota; antlerless elk
28		Oct. 1	Oct. 22		General; antlered elk
	4	Nov. 1	Nov. 20	200	Limited quota; antlerless elk
99	1	Oct. 1 Nov. 1	Oct. 31 Nov. 20	200	Limited quota; any elk Unused Area 99 Type 1 licenses valid for antlerless elk
	4	Oct. 1	Nov. 20	225	Limited quota; antlerless elk

Hunt Area	Type	Quota Change from 2013
25	6	-100
28	4	-100
Total EL637		-200

MANAGEMENT EVALUATION

Current Management Objective: 3,300

Management Strategy: Recreation (15 – 29 bulls/100 cows)

2013 Post-season Population Estimate: No Model

2014 Post-season Population Estimate: No Model

Herd Unit Issues/Population Model

The current management objective for the South Wind River Elk Herd Unit is a post-season population size of 3,300 elk. All attempts to create a spreadsheet model for South Wind River Elk were unsuccessful. All iterations of the Spreadsheet Model result in either unsubstantiated population trends or somewhat reasonable trends with greatly exaggerated population size. Also, the models using variable survival estimates (TSJ/CA and TSJ/CA/MSJ) have almost all juvenile survival estimates at the upper or lower thresholds, leaving doubt as to the model's true ability to estimate this elk population accurately. Also, classification data are often questionable with respect to bull/cow ratios fluctuating widely when bull groups are missed. Since the spreadsheet model is largely dependent on bull/cow ratio trends, this fluctuation creates inadequacies in modeling this population. We are in the process of reviewing the management objective for the South Wind River Elk Herd Unit.

Weather/Habitat

Drought conditions were extreme to exceptional for most of the past two years, beginning with minimal snowfall in winter 2011-12 and continuing with almost no precipitation during spring and summer 2012. In April 2013, a series of several late winter/early spring snow storms produced over 50" of snow through early May (the equivalent of nearly 4" precipitation) in Lander, with more snow reported in Sinks Canyon (up to 78") and other locations along the east slope of the Wind River Range. These storms were extremely helpful in lessening the effects of drought, yet they only helped change the drought status from Extreme to Severe. Drought returned in summer 2013, with only 0.34 inches of precipitation recorded in Lander from June 1 to September 1. This reduced forage production in herbaceous and browse species across the herd unit, although some improvement over 2012 conditions was noted. Thus, some elk observed in the mid-winter classification surveys appeared thinner than normal. Rain and snow returned to the area in September and October 2013, with as much as 300% of normal precipitation recorded in Lander with warm temperatures between early storms. This led to improvement in vegetation condition, primarily grasses. In spite of fairly mild winter conditions in 2013-14, some winter mortality is expected due to the poor condition of winter range habitats following long-term drought.

Field Data

Classification flights were conducted in late February with a Bell Jet Ranger 206 helicopter in Areas 25, 27, and 28, with personnel from the Pinedale Region covering Area 99 in mid-February with a Bell 47 Soloy helicopter. A ground survey on Sheep Mountain in Area 25 was done in March following a report of about 600 elk in the area, however only 245 could be classified. A total of 2,515 elk were classified out of a total trend count of 2,870. This was nearly 800 fewer elk classified than in 2012, but with lower than normal snowfall, combined with a mid-February chinook, snow cover was the least observed in 10 years, creating problems in locating elk groups in all hunt areas. We believe we missed a few groups of elk, especially bulls, in Area 28 since lighter snow cover allowed elk to travel well into summer/transitional habitats on the Shoshone National Forest. Yet, the 1,852 elk observed in Area 28 were nearly identical to last year's record high sample. This total again included nearly 1,000 elk on Red Canyon WHMA, some of which likely crossed Highway 28 from Area 25. Fewer elk were classified in Area 25 this year, with several groups of adult bulls found, but only one group of cows, calves, and spikes observed (Sheep Mountain). We flew several transects across areas where elk are traditionally located, but with almost no snow in the majority of Area 25, we were unable to locate groups of elk which were likely in the hunt area, as evidenced by the group of 600 elk on Sheep Mountain where we made several aerial passes to look for elk. Elk in Areas 27 and 99 were again scattered this winter, leading to fewer elk observed in these 2 areas than normal. The observed post-season calf/cow ratio of 31J/100F and bull ratio of 24M/100F were about average.

Harvest Data

Weather during fall 2013 was quite variable in the South Wind River Herd Unit. Rainfall in early September along with heavy snows in late-September and early-October created major shifts in elk distribution, with elk at much lower elevations during the hunting season than usual.

Female harvest rose above average in 2013, partly due to early snows forcing elk into accessible areas, especially in Area 28. Bull harvest also increased in 2013, likely a result of the early snows. Based on harvest survey results, total harvest increased 11% in 2013 to 690 elk, a little above average. Hunter success rates have remained fairly stable, with the 2013 success rate of 32% equaling the 10-year average. Hunter effort data indicate slight improvement in 2013 over the previous 10 years (21.5 days/harvest in 2013 vs. 22.9 days per harvest since 2003). These harvest statistics indicate this elk population has stabilized.

Management Summary

Public meetings have been held in December each of the past 3 years, in addition to traditional season setting meetings held in March. Several changes to recent hunting seasons were made to increase elk harvest in managing toward the current objective, provide appropriate hunting opportunities, and where deemed appropriate to accommodate public concerns expressed at these meetings regarding hunter crowding. For 2013 elk hunting seasons, we made changes to address concerns about over-crowding and increase cow harvest. We added a new antlerless season for Area 27 not tied to Area 25, with 100 Type 4 licenses valid only in Area 27. To increase female harvest in Area 25, we shifted the opening date in application information for Type 6 licenses to November 1 to create a 3rd opening date and reduce crowding for the Type 1 and Type 4 seasons. These changes were mostly successful, with the exception of those licenses valid only in November having much lower success rates.

While considering options for future management objectives, there seems to be overall support for the current number of elk, from hunters and land managers. In anticipation of an alternative objective of a mid-winter trend count near the current number of elk, we foresee less need to amplify cow harvest and a shift to maintain this population where it stands. Therefore, for the 2014 seasons, we made only a few changes to the hunting season structure, with reductions of 100 Type 6 licenses in Area 25 and 100 Type 4 licenses in Area 28. These reductions are also the result of lower success in the November Area 25 hunts in 2013, leading to lower hunter satisfaction during these seasons.

We expect the 2014 seasons outlined above should result in a harvest of at least 700 elk with a stable cow harvest. If calf recruitment is near average, this harvest should stabilize or slightly reduce the population following the 2014 season.

2013 - JCR Evaluation Form

SPECIES: Elk

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

HERD: EL638 - GREEN MOUNTAIN

HUNT AREAS: 24, 128

PREPARED BY: STAN HARTER

	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Population:	0	N/A	N/A
Harvest:	280	258	250
Hunters:	656	723	580
Hunter Success:	43%	36%	43%
Active Licenses:	658	741	580
Active License Percent:	43%	35%	43%
Recreation Days:	3,209	3,816	3,500
Days Per Animal:	11.5	14.8	14
Males per 100 Females	36	44	
Juveniles per 100 Females	40	42	

Population Objective:	500
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	6
Model Date:	None

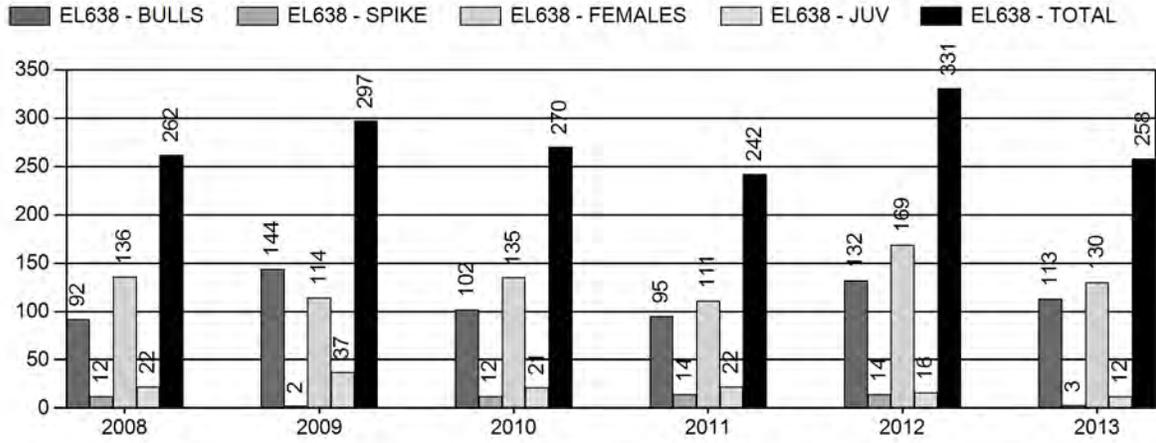
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%

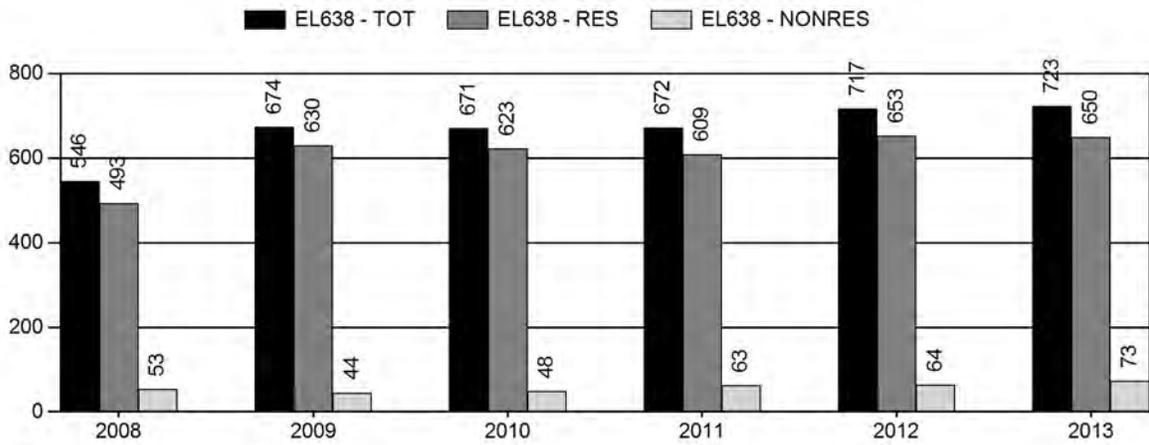
Population Size - Postseason



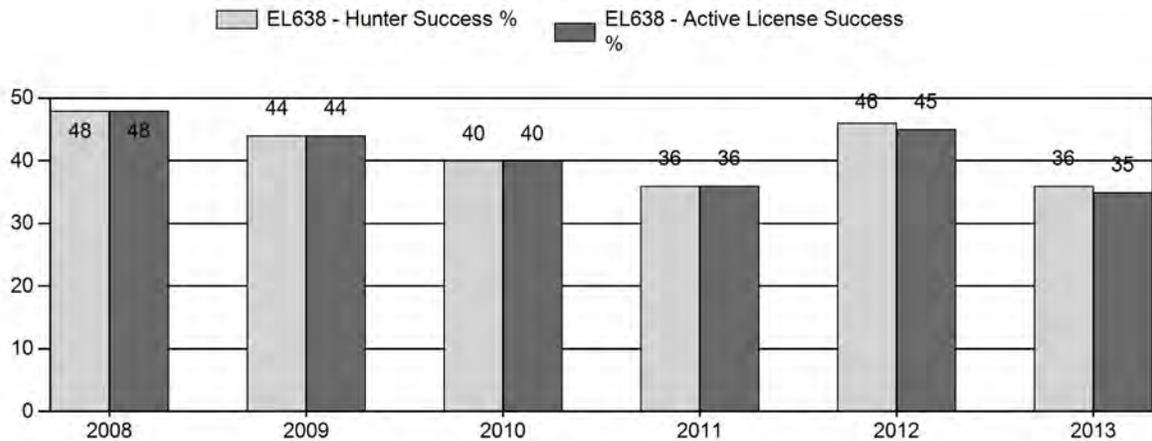
Harvest



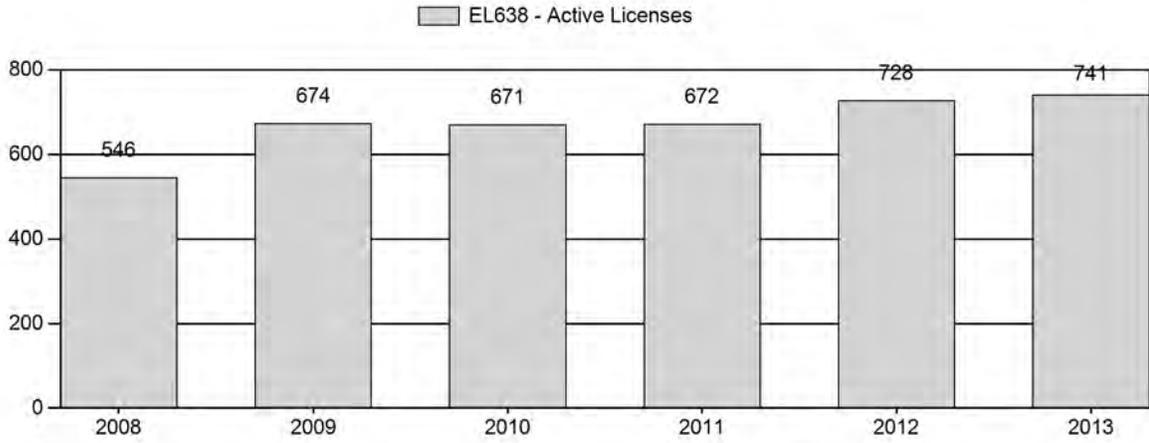
Number of Hunters



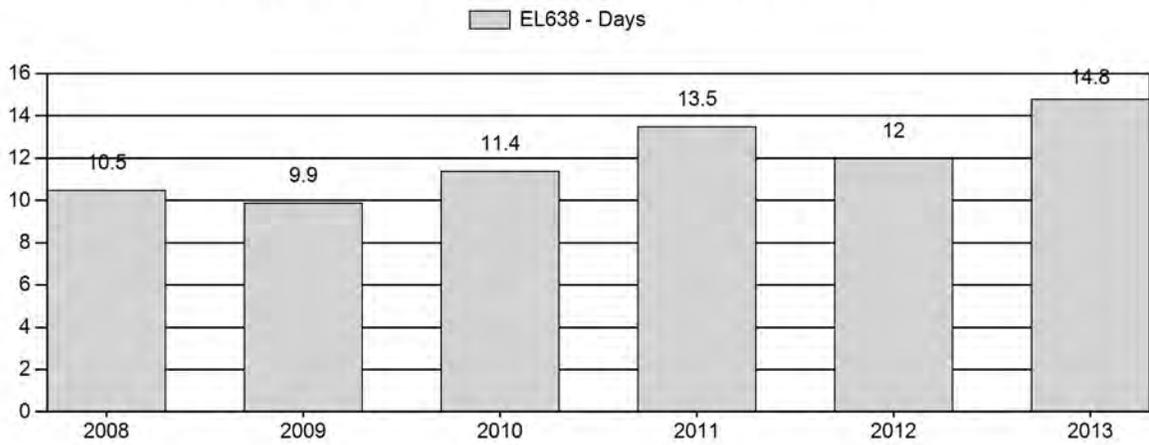
Harvest Success



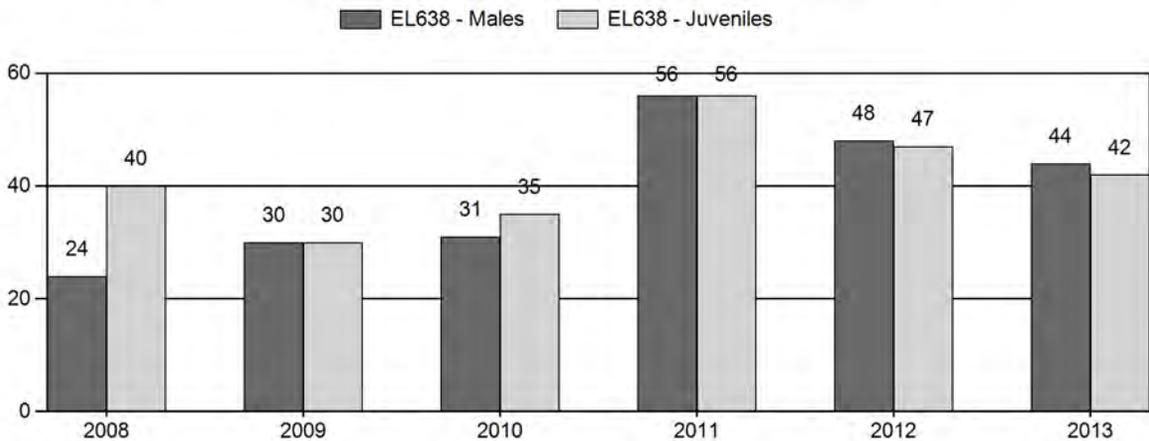
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2008 - 2013 Postseason Classification Summary

for Elk Herd EL638 - GREEN MOUNTAIN

Year	Post Pop	MALES				FEMALES		JUVENILES		Tot CIs	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	0	45	46	91	15%	374	61%	151	25%	616	0	12	12	24	± 0	40	± 0	32
2009	0	55	96	151	19%	503	63%	149	19%	803	0	11	19	30	± 0	30	± 0	23
2010	0	61	62	123	18%	401	60%	141	21%	665	0	15	15	31	± 0	35	± 0	27
2011	0	47	127	174	26%	313	47%	176	27%	663	0	15	41	56	± 0	56	± 0	36
2012	0	49	111	160	24%	336	51%	158	24%	654	0	15	33	48	± 0	47	± 0	32
2013	0	41	99	140	24%	319	54%	135	23%	594	0	13	31	44	± 0	42	± 0	29

**2014 HUNTING SEASONS
Green Mountain Elk Herd Unit (EL 638)**

HUNT AREA	TYPE	Season Dates		Quota	LIMITATIONS
		OPENS	CLOSES		
24	1	Oct. 1	Oct. 14	200	Limited quota; any elk Unused Area 24 Type 1 licenses valid for antlerless elk, also valid in Area 128
		Nov. 1	Nov. 30		
	4	Oct. 1	Oct. 14	50	Limited quota; antlerless elk Unused Area 24 Type 4 licenses, also valid in Area 128
		Nov. 1	Nov. 30		
24, 128	5	Nov. 1	Nov. 30	100	Limited quota; antlerless elk
128		Oct. 1	Oct. 14		General; any elk

Hunt Area	Type	Quota Changes from 2013
24	1	-25
	5	-100
	6	-100
	1 & 5	-125
	6	-100
Total EL638		-225

MANAGEMENT EVALUATION

Current Management Objective: 500

Management Strategy: Recreation (15 – 29 bulls/100 cows)

2013 Post-season Population Estimate: No Model

2014 Post-season Population Estimate: No Model

Herd Unit Issues/Population

The current management objective for the Green Mountain Elk Herd Unit is a post-season population size of 500 elk. All attempts to create a spreadsheet model for Green Mountain Elk were unsuccessful. All iterations of the Spreadsheet Model result in either unsubstantiated population trends or somewhat reasonable trends but exaggerated population size. Also, models using variable survival estimates (TSJ/CA and TSJ/CA/MSJ) have almost all juvenile survival estimates at the upper or lower thresholds, leaving doubt as to the model's true ability to estimate this elk population accurately. Also, classification data are sometimes questionable with respect to bull/cow ratios, which fluctuate widely if bull groups are missed. We are in the process of reviewing the management objective for the Green Mountain Elk Herd Unit.

Weather/Habitat

Drought conditions were extreme to exceptional for most of the past two years, beginning with minimal snowfall in winter 2011-12 and continuing with almost no precipitation during spring and summer 2012. In April 2013, a series of several late winter/early spring snow storms produced heavy snow through early May in Jeffrey City, with more at higher elevations such as Green Mountain and Beaver Rim. These storms were extremely helpful in lessening the effects of drought, yet they only helped change the drought status from Extreme to Severe. Drought returned in summer 2013, with only 0.2 inches of precipitation recorded in Jeffrey City from June 1 to September 1. This reduced forage production in herbaceous and browse species across the herd unit, although some improvement over 2012 conditions was noted. Rain and snow returned to the area in September and October 2013, with nearly 300% of normal precipitation recorded in Jeffrey City with warm temperatures between early storms. This led to improvement in vegetation condition, primarily grasses. In spite of fairly mild winter conditions in 2013-14, some winter mortality is expected due to the poor condition of winter range habitats following long-term drought.

Field Data

Classifications were attempted in early-December 2012 using a Bell 206 Jet Ranger helicopter while classifying mule deer. However, due to light snow cover outside of timbered areas, fewer elk were observed in traditional wintering areas, primarily on Crooks Mountain. A mid-February flight resulted in better detection of elk, but it still seemed elk groups were missed. The reported classification data include mostly December data, with a few groups from Crooks Mountain added that were widely separated from each other spatially and overlap between time periods seemed improbable. The resulting post-season calf ratio declined slightly to 42J/100F and the observed bull/cow ratio was 44M/100F, with both ratios at or above average.

Harvest Data

258 elk were harvested in 2013, a decline from 2012, but about the average of the past 10 years. Hunter success was lower in Area 24 this year, with 50% for the Type 1 any elk season, 16% and 36% respectively for Type 4 and Type 5 antlerless elk hunters. Some of this reduction was due to early, heavy snows in September and October impeding hunter access.

A number of changes to the season structure were in place the past 2 hunting seasons, after numerous complaints about hunter over-crowding were heard during seasons and at public meetings in 2011 and 2012. We created a Type 6 season in late-August (100 total licenses). These Type 6 hunters enjoyed 59% success in 2012 but only 34% in 2013, with days per harvest at 17.1 days in 2013 more than double that of 2012. This season preceded archery season, and we heard numerous complaints from archery hunters and others in October and November seasons. In 2012, later seasons saw good harvest and hunter statistics, but all hunts were less successful in 2013. In addition, we reduced the number of Area 24 Type 5 licenses back to 200, but allowed them to be used the entire month of November in both Areas 24 and 128. Access to Green and Crooks Mountains was excellent in November 2013, with almost no snow related travel problems. Yet, fewer cow elk were harvested in November regardless of hunter numbers. Conditions in 2013 didn't compel hunters to hunt in Area 128, with only 13 people harvesting 3 elk. Harvest statistics, especially success rates, indicate hunters met with difficulty in finding elk for various reasons, warmer August weather for Type 6 hunts, early winter storms affecting the October seasons, and the possibility elk left Area 24 during part or all of the 2013 seasons. While the

number of elk observed during classification surveys decreased slightly in 2013, harvest levels of 2013 were likely only a small part of the reason for the decline, as was the lower calf/cow ratio.

Management Summary

In response to numerous public complaints regarding hunter crowding and the early cow/calf season, the 2014 hunting seasons have been adjusted quite dramatically to maintain or increase harvest, but with far less crowded conditions. In the past 10 years, we have nearly doubled license numbers in Area 24 in response to concerns about being over objective. Yet, as illustrated in Figure 1, increasing license numbers has not resulted in similar increases in harvest.

In 2011, a record number of bulls along with a record bull/cow ratio was observed, prompting increases in Type 1 licenses in 2012 and 2013. However, in 2013, the number of adult bulls was 43% lower than in 2011 and the adult bull/cow ratio was also 41% lower than in 2011. To avoid severely overharvesting bulls and in response to Type 1 hunter success in 2013 being the lowest in over 10 years, we have reduced Type 1 any elk licenses by 25 in 2014. We believe this will still reduce bull numbers toward “recreational” management levels.

To address hunter crowding concerns from the public, we are reducing the number of Type 5 licenses by 100, but allowing Type 1 and 4 hunters who are not successful in October to hunt for antlerless elk in November in both Hunt Areas 24 and 128. Similarly, some Area 23 (Rattlesnake Elk Herd Unit) hunters will have the ability to hunt in Area 128 from mid-November to mid-December, mostly targeting elk that move off the Rattlesnake Hills into the Gas Hills/Beaver Rim area. Anticipated harvest levels should continue to reduce the population. The expected 2014 harvest should consist of at least 250 elk, mostly from Area 24.

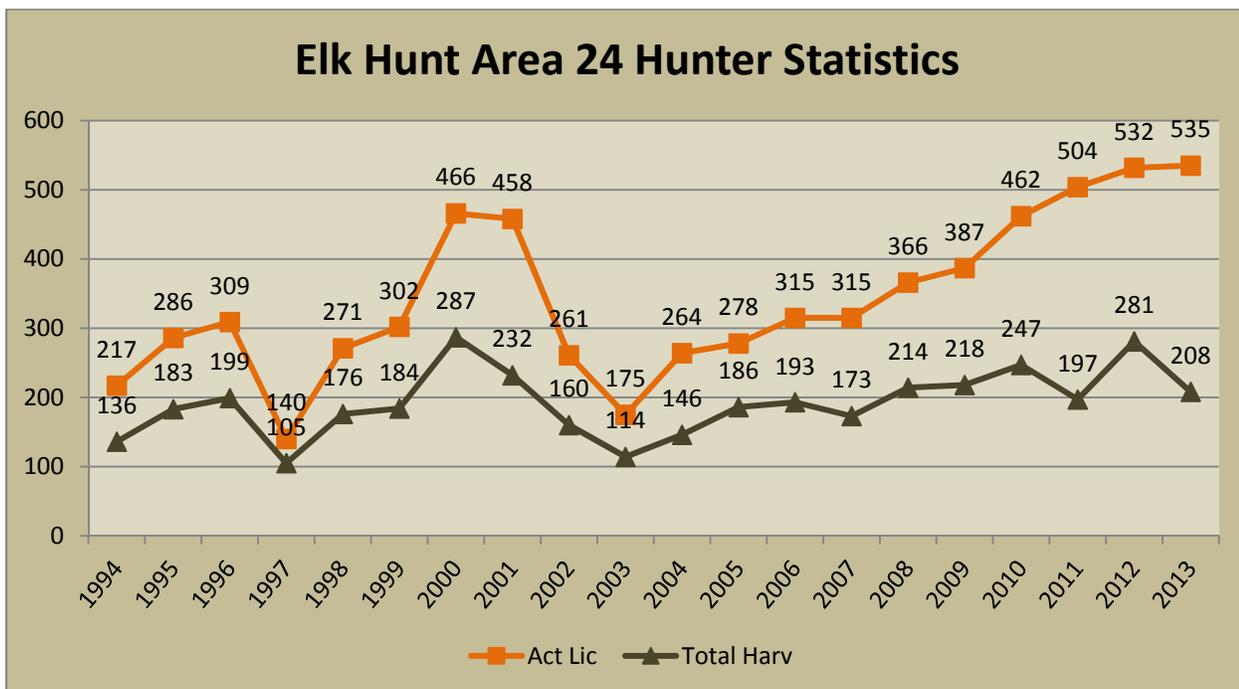
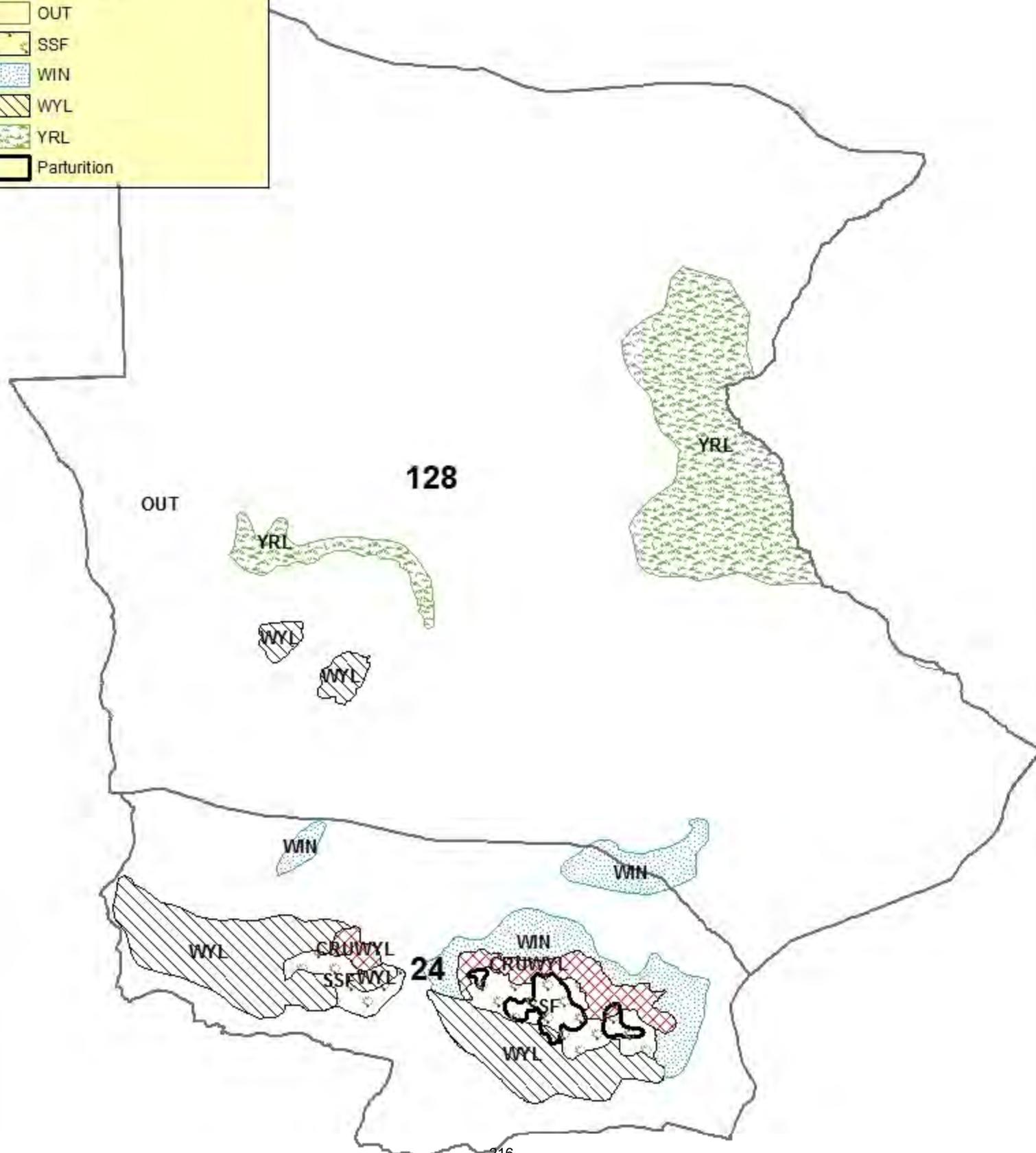


Figure 1. Comparison of elk license numbers and elk harvest trends in Elk Hunt Area 24, 1994-2013.

Green Mountain Elk (EL638)
HA 24, 128
 Revised January 2012

 ELK Hunt Area Boundaries
Elk Seasonal Range
RANGE
 CRUWYL
 OUT
 SSF
 WIN
 WYL
 YRL
 Parturition



2013 - JCR Evaluation Form

SPECIES: Elk
 HERD: EL639 - FERRIS
 HUNT AREAS: 22, 111

PERIOD: 6/1/2013 - 5/31/2014
 PREPARED BY: GREG HIATT

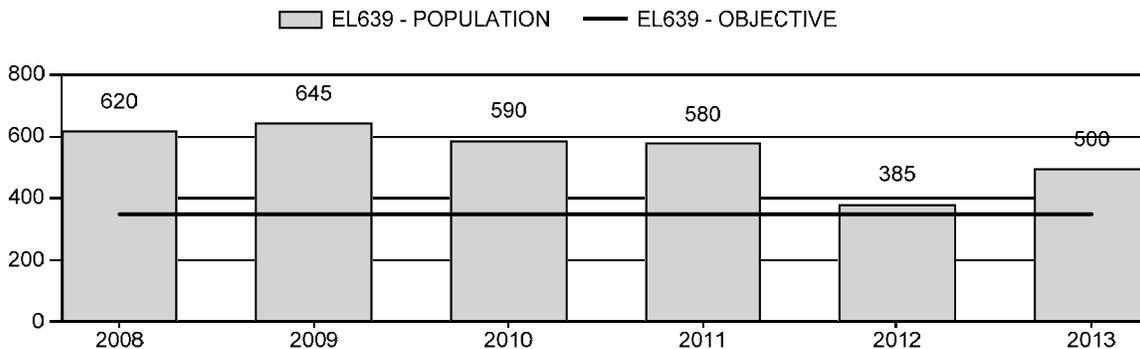
	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Population:	564	500	485
Harvest:	158	73	105
Hunters:	288	157	225
Hunter Success:	55%	46%	47%
Active Licenses:	296	166	225
Active License Percent:	53%	44%	47%
Recreation Days:	1,939	1,116	1,735
Days Per Animal:	12.3	15.3	16.5
Males per 100 Females	59	24	
Juveniles per 100 Females	47	15	

Population Objective: 350
 Management Strategy: Special
 Percent population is above (+) or below (-) objective: 43%
 Number of years population has been + or - objective in recent trend: 0
 Model Date: None

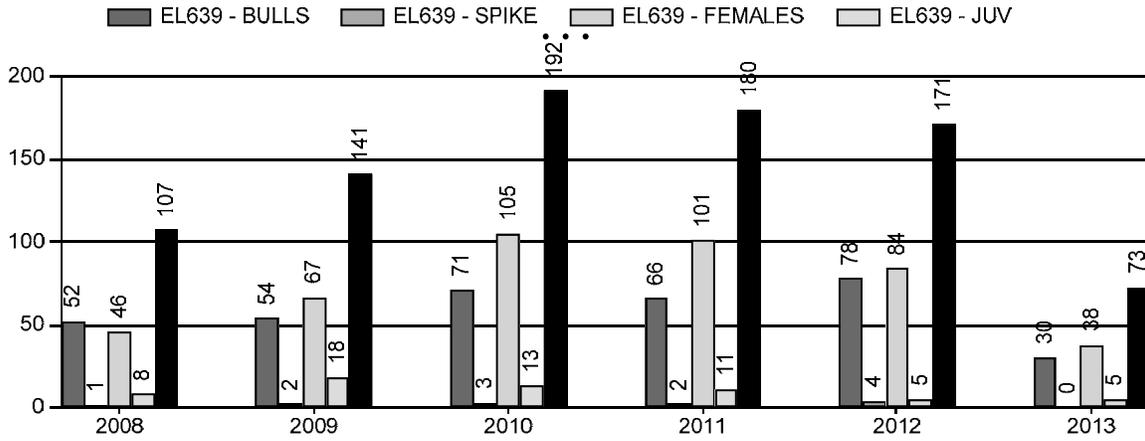
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females \geq 1 year old:	0%	0%
Males \geq 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	-5%	-3%

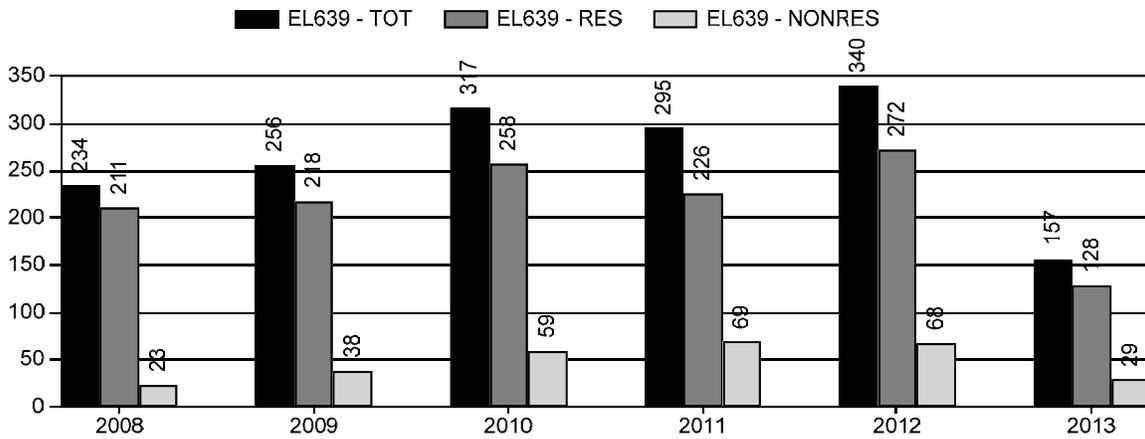
Population Size - Postseason



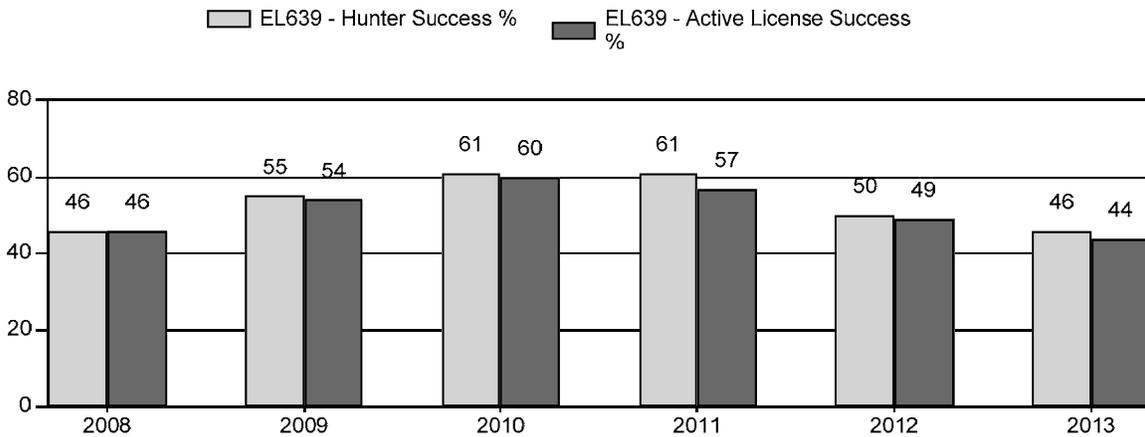
Harvest



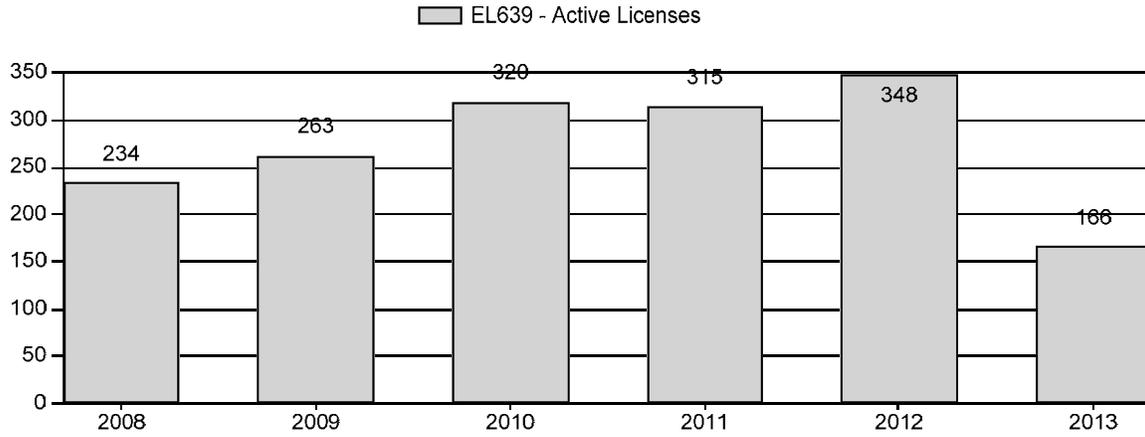
Number of Hunters



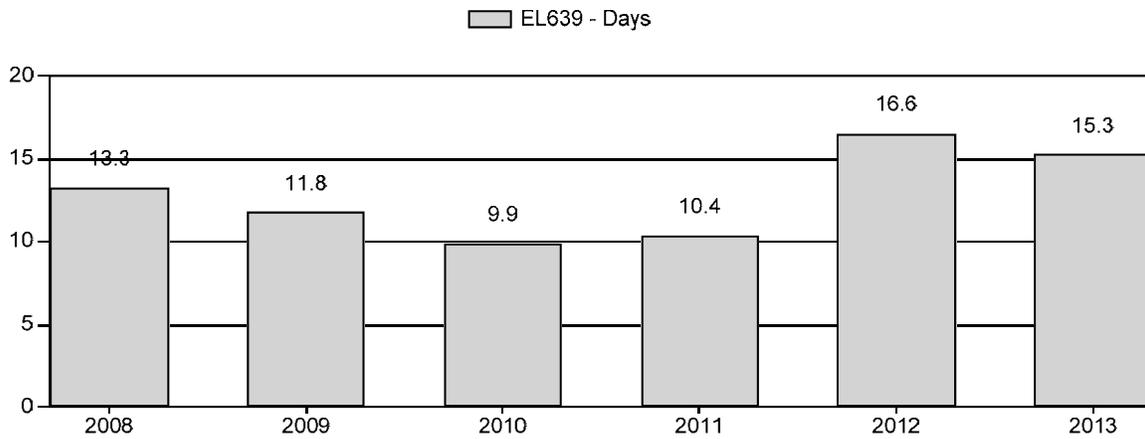
Harvest Success



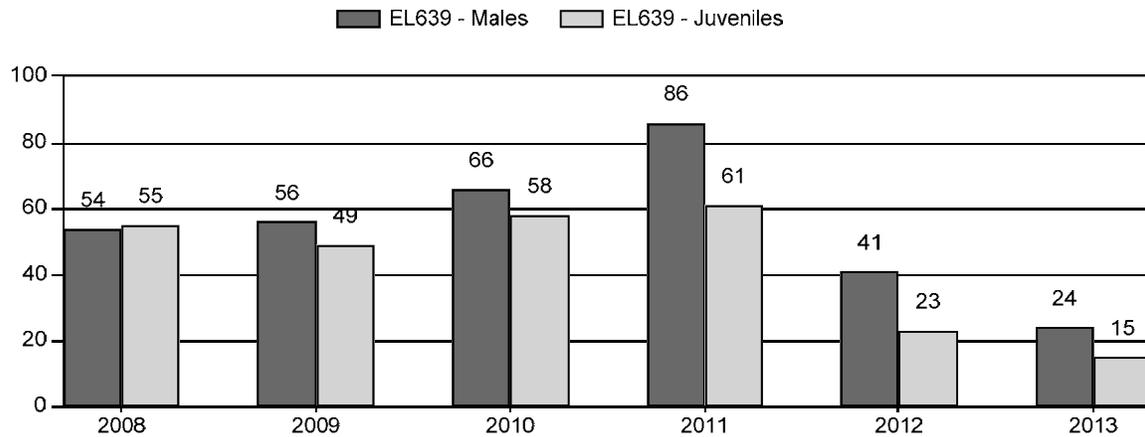
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2008 - 2013 Postseason Classification Summary

for Elk Herd EL639 - FERRIS

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	620	19	42	61	26%	112	48%	62	26%	235	406	17	38	54	± 0	55	± 0	36
2009	645	56	116	172	27%	305	49%	150	24%	627	416	18	38	56	± 0	49	± 0	31
2010	590	25	53	78	29%	119	45%	69	26%	266	432	21	45	66	± 9	58	± 8	35
2011	580	23	87	110	35%	128	41%	78	25%	316	474	18	68	86	± 10	61	± 8	33
2012	385	25	50	75	25%	182	61%	42	14%	299	237	14	27	41	± 3	23	± 2	16
2013	500	34	49	83	17%	353	72%	54	11%	490	176	10	14	24	± 1	15	± 0	12

**2014 HUNTING SEASONS
FERRIS ELK HERD (EL639)**

Hunt Area	Type	Dates of Seasons		Quota	Limitations
		Opens	Closes		
22	1	Oct. 8 Nov. 1	Oct. 31 Jan. 31	25	Limited quota; any elk Unused Area 22 Type 1 licenses valid for antlerless elk
	6	Oct. 8 Nov. 1	Oct. 31 Jan. 31	25	Limited quota; cow or calf valid in the Muddy Creek drainage Unused Area 22 Type 6 licenses valid in the entire area
111	1	Oct. 10	Oct. 31	25	Limited quota; any elk
	4	Oct. 10 Nov. 1	Oct. 31 Jan. 31	25	Limited quota; antlerless elk Unused Area 111 Type 1 and Type 4 licenses valid for antlerless elk in that portion of Area 111 off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area
	6	Nov. 1	Jan. 31	125	Limited quota; cow or calf valid in that portion of Area 111 off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area
Archery 22, 111		Sep. 1	Sep. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2013
22	1	0
	6	0
	7	-25
111	1	0
	4	0
	6	-25
	7	+100
Total	1	0
	4	0
	6 & 7	+50

Management Evaluation

Current Management Objective: 350

Management Strategy: Special

2013 Postseason Population Estimate: ~500

2014 Proposed Postseason Population Estimate: ~485

The management objective for the Ferris Elk Herd Unit is a post-season population objective of 350 elk. The management strategy is “special” management, with bull:cow ratios allowed to exceed 30:100 and the proportion of branch-antlered bulls expected to exceed 66 percent of the antlered harvest. The population objective and management strategy were last publicly reviewed in 2012. All affected major landowners strongly endorsed keeping the population objective of 350 elk.

Herd Unit Issues

Access is a major issue with this herd unit. While there are large blocks of accessible, public land, refugia created by several large ranches that are either closed to hunting or greatly limit hunter numbers have prevented harvest from most of the elk in this herd unit, particularly in Area 111. As license quotas are increased to reduce elk numbers to objective, the lack of hunter access to these animals leads to over-harvest of public land areas while still preventing the harvest necessary to reach the population objective.

Weather

Severe drought in 2012, with almost no precipitation throughout the spring and summer, was followed by three severe late winter blizzards in April 2013. The 2013 summer was again exceptionally dry, reducing forage availability for the 2013-14 winter and delaying recovery of vegetation in two large wildfires in 2011. Precipitation increased in the fall, providing for some herbaceous plant growth. The 2013-14 winter had numerous bitter cold spells, and high winds, but those winds also exposed forage on most winter ranges. Losses may still be above average because of the below normal body condition of animals going into the winter.

Habitat

While no herbaceous habitat transects are established within this herd unit, herbaceous forage production is expected to have been low again in 2013 due to continued drought. Two browse transects have been established in this herd unit, but one was burned by fire in 2012 and the other was not read in 2013.

Over the past several years the Rawlins BLM has implemented prescribed burns in the Seminole and Ferris Mountains, partly to address conifer encroachment while also rejuvenating decadent mountain mahogany and bitterbrush stands. In the summer of 2012, two large wildfires in the Seminole Mountains and the eastern Ferris Mountains burned thousands of acres. These prescribed burns and the recent wildfires should benefit elk.

The Seminole Fire burned over 3,800 acres in the Seminole Mountains including areas within Morgan Creek WHMA. As in 2012, the Rawlins BLM again coordinated and funded aerial application of Plateau® in 2013 to mitigate cheatgrass spread on BLM and WGF D managed areas within the fire perimeter. The wildfire enveloped several previously planned prescribed burns, although not with the desired prescriptions.

Plans for additional prescribed fires in the Seminole Mountains, particularly on the Morgan Creek WHMA, have been accelerated to take advantage of the secure fire breaks provided by the 2012 wildfire.

Field Data

Obtaining reliable classification samples from small populations is difficult because, statistically, the majority of the population must be included in the sample to have any confidence in the resulting ratios. Ratios collected for this herd are further skewed because elk in this herd are not distributed randomly among the winter bands. Missing any of a handful of bachelor bull herds will significantly under-estimate bull:cow ratios. Failure to classify even one of the large cow/calf bands will greatly over-estimate bull:cow ratios, as happened in 2011. Without reliable, consistent herd ratios, spreadsheet modeling for this small herd does not work.

Conditions during a helicopter trend count in December 2013 were nearly ideal, and all 490 elk counted were also classified, yielding the largest sample since 2009. As expected because of the lack of hunter access to much of Area 111, the majority of the elk (425) were found in that area. Calf production was at a record low of only 15:100, following the previous record low of 23:100 in 2012. Continued drought reduced calf survival in both hunt areas, at 13:100 in Area 22 and 16:100 in Area 111.

Since a majority of the herd was classified, the bull:cow ratio from the 2013 classification sample was probably the most reliable estimate since 2009. The 2013 ratio of 24:100 was well below the minimum criterion for special management, the lowest ratio in eight years, and less than half the previous five-year average. This supports the belief high bull:cow ratio seen in 2011 was skewed by the small sample size that year and the following increase in licenses in 2012 was excessive. Bull:cow ratios were similar between the two areas, at 23:100 in Area 22 and 26:100 in Area 111. Both areas failed to meet the special management criterion. The ratio of branch-antlered bulls:cows was less than a third of the previous five-year average, and this ratio in Area 111 was almost half that found in Area 22.

The spike:cow ratio was only 10:100, the lowest in five years, a result of the low calf production in 2012. No spikes were seen in Area 22 where the calf crop was only 10:100 in 2012. This ratio will likely be low again in 2014 because of this year's poor calf production.

Harvest Data

Success for hunters with Type 1 licenses remained high in Area 22 in 2013, at 68 percent, but dropped to the lowest success in 16 years in Area 111, at only 54 percent. The proportion of antlerless elk taken on these licenses fell slightly, to 6 percent. The average number of days hunted per elk harvested off this license type was within the normal range for Area 22, but rose

to a record high for Area 111. Like the classification data, these harvest statistics suggest the supply of bulls in this herd has been significantly reduced, particularly in Area 111.

Beginning in 2010, Type 6 licenses in Area 22 were restricted to the Muddy Creek drainage for the first portion of the 5-week season to address damage concerns on irrigated hayfields. Success for hunters with these licenses was high, at 72 percent, but declined to 62 percent in 2011, 38 percent in 2012 and only 21 percent in 2013. The average number of days hunted per elk harvested on these licenses rose to 19.2 days in 2012 and 21 days in 2013. This license strategy has successfully reduced the number of elk found on these irrigated fields in the fall, despite the drought conditions.

Hunters with the late Type 7 cow/calf licenses in Area 22 fared no better, with only 22 percent success in 2013, despite a two-month season. As shown by the trend count data, increased harvests have successfully reduced elk numbers in Area 22 where hunters have good access.

To address a problem of inadequate harvests resulting from poor license sales, most of the antlerless licenses in Area 111 were converted into reduced price cow/calf licenses beginning in 2009. To address crowding issues in the Seminole Mountains and to direct harvest to the segments of the herd protected by ranches with limited access during the fall hunt, those cow/calf licenses were not valid on the Morgan Creek WHMA. Success for hunters with these licenses had dropped off each year since, but rose to 61 percent success in 2013 with the extended season. Hunters with the late Type 7 tags enjoyed 48 percent success

Population

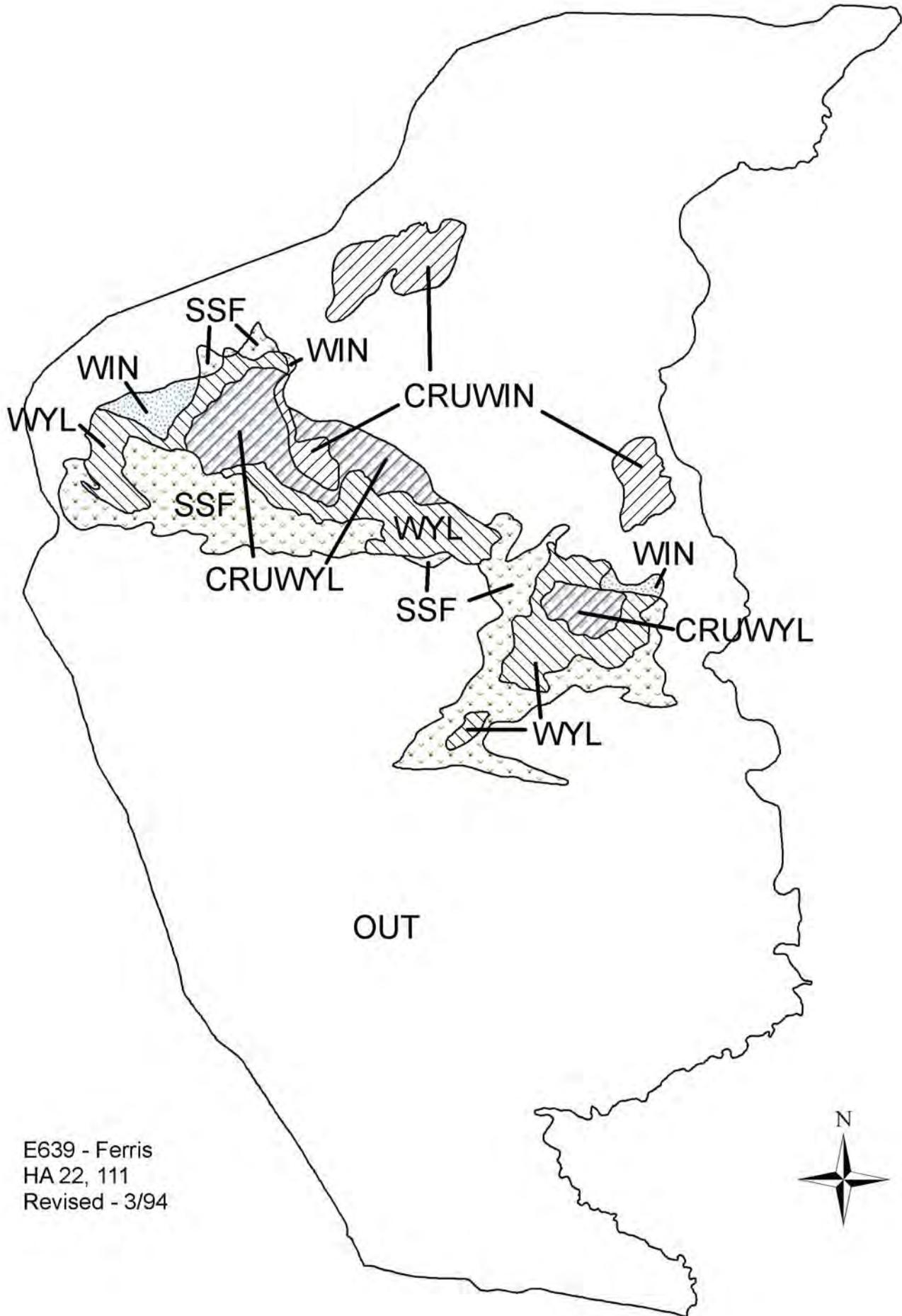
Past efforts to model this herd using standardized values for some parameters in POP-II failed, as did recent efforts to employ spreadsheet modeling. As a result, population estimates and harvest recommendations have been based on winter trend counts, applying estimates of annual calf production and harvest for years when counting conditions are not favorable. A trend count with good conditions in January 2013 found only 299 elk in the two hunt areas, but did not include an additional band of ~70 elk on the north side of the Seminole Mountains. A similar sized band found a week later, only 5-6 miles distant, was presumed to be the same elk, but the increased count in December 2013 suggests it was not. Based on the 2013 count of 490 elk, the herd is still well above objective, but reduced by more than 20 percent from high numbers seen four years ago. All of the surplus elk are in Area 111 where access is limited, with numbers in Area 22 dropping to a record low.

Management Evaluation

License quotas were reduced in 2013 in response to the low 2012 trend count with all quotas set at minimal numbers, intended to slow herd reduction while providing reasonable chances of success for hunters applying for such tags. While this was the proper response for Area 22, elk numbers are still above objective in Area 111. Recommended license quotas for 2014 are again reduced for Area 22, but increased by 75 for Area 111. Expected harvest from the 2014 seasons would be about 105 elk, with roughly 70 percent being antlerless. Almost 80 percent of the harvest should come from Area 111.

Comments from several major landowners indicated they want elk harvested from this herd, but do not want public hunters on their lands. This herd offers an unusual opportunity where large portions of summer/fall habitats are on private lands with limited or no public access, but many winter ranges are on accessible public lands. Hence a strategy was initiated with an emergency regulation in 2012 and continued in 2013 to allow hunters to pursue antlerless elk as late as January, where most of the elk are expected to be on public land. The intent is to achieve harvest of the reproductive segment of most of the elk herd, not just the segments which are publicly available in the fall. This same strategy is repeated in 2014 seasons. Elk occupying the Haystack Mountains in checker-boarded lands in Area 111 will continue to be unavailable to most hunters.

All 2014 license types are consistent with the application booklets. Opening dates in both areas are consistent with the application booklets. Closing dates are the same as in the 2013 season. Archery seasons coincide with local deer archery seasons and archery seasons in neighboring elk areas.



2013 - JCR Evaluation Form

SPECIES: Elk

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

HERD: EL643 - SHAMROCK

HUNT AREAS: 118

PREPARED BY: GREG HIATT

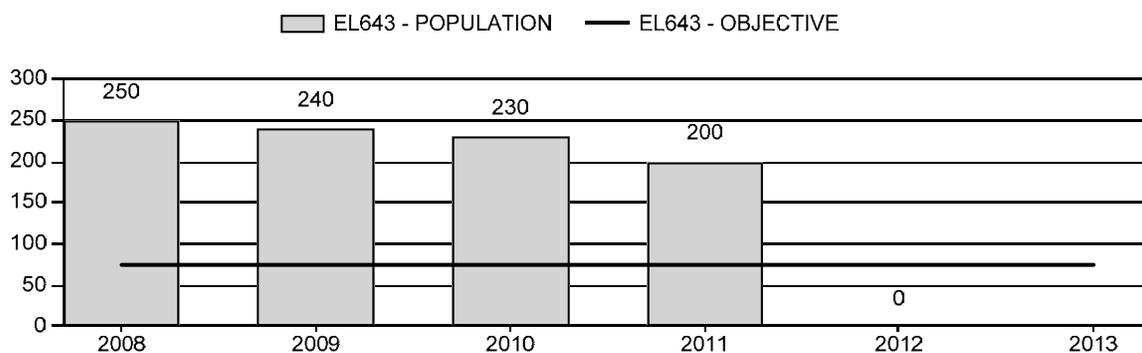
	<u>2008 - 2012 Average</u>	<u>2013</u>	<u>2014 Proposed</u>
Population:	184	N/A	N/A
Harvest:	65	38	45
Hunters:	102	60	70
Hunter Success:	64%	63%	64%
Active Licenses:	106	63	70
Active License Percent:	61%	60%	64%
Recreation Days:	500	270	350
Days Per Animal:	7.7	7.1	7.8
Males per 100 Females	0	0	
Juveniles per 100 Females	0	0	

Population Objective:	75
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	0
Model Date:	None

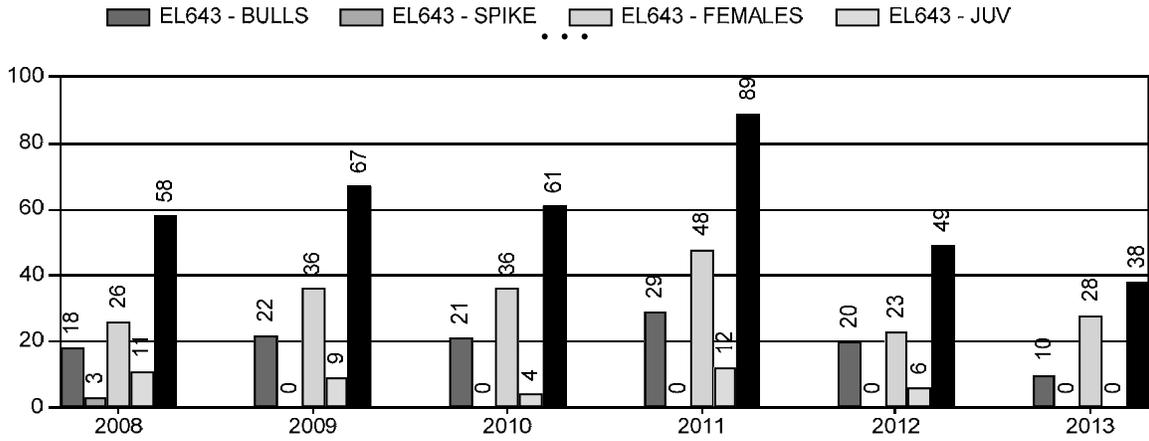
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females \geq 1 year old:	0%	0%
Males \geq 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%

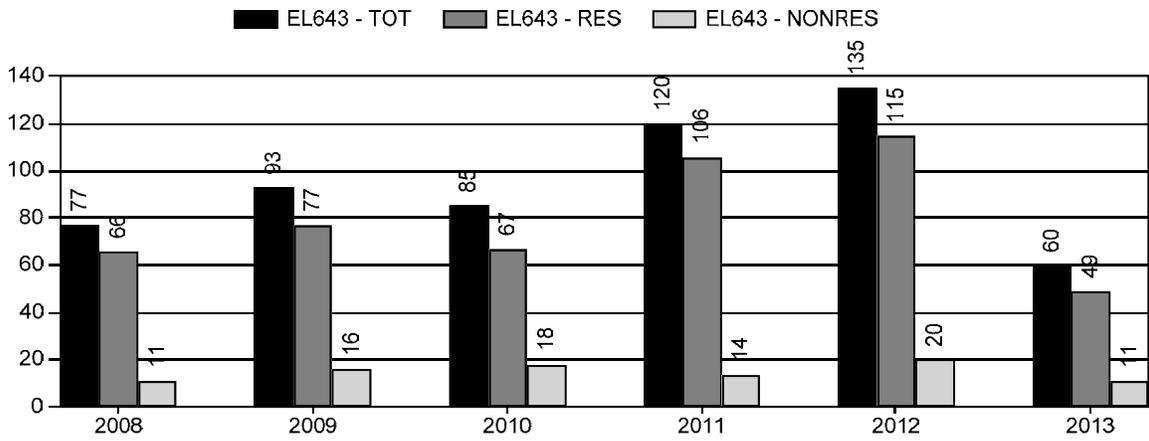
Population Size - Postseason



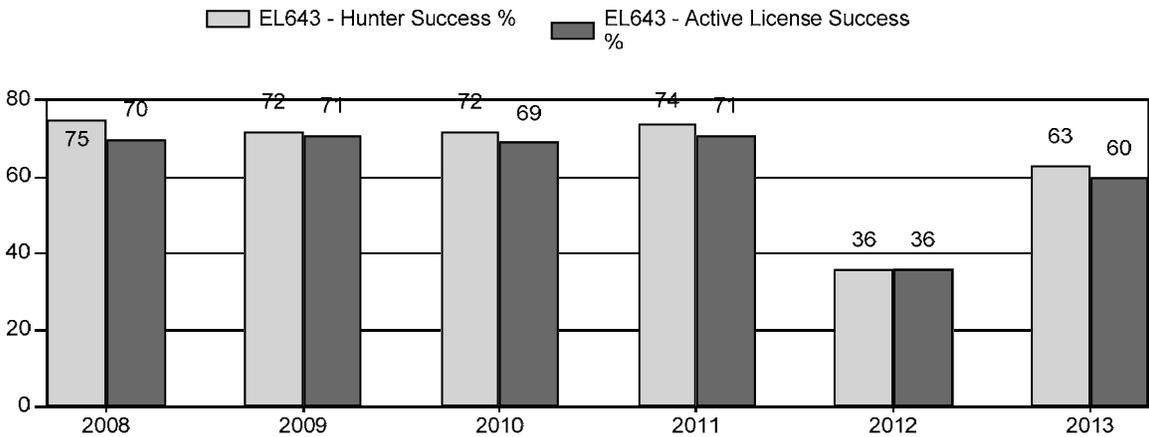
Harvest



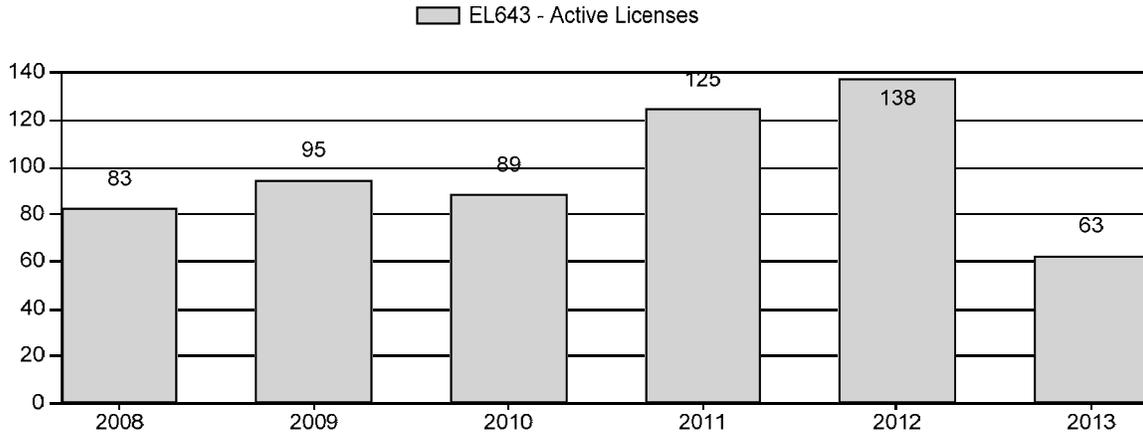
Number of Hunters



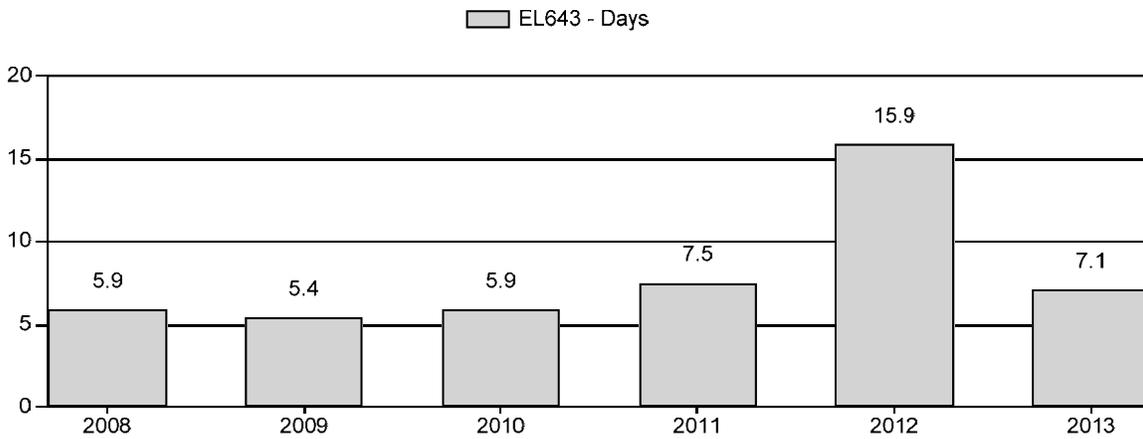
Harvest Success



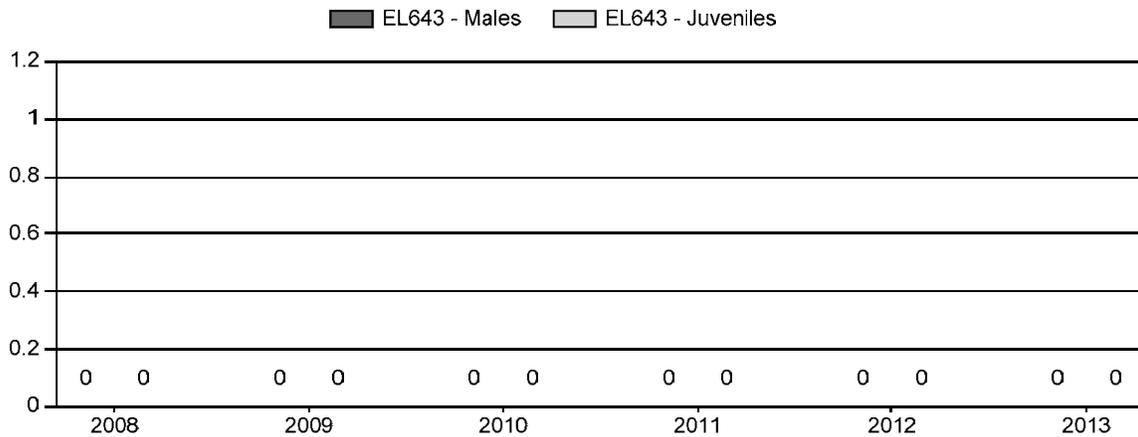
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2008 - 2013 Postseason Classification Summary

for Elk Herd EL643 - SHAMROCK

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	250	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2009	240	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2010	230	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2011	200	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2012	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2013	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0

**2014 HUNTING SEASONS
SHAMROCK ELK HERD (EL643)**

Hunt Area	Type	Dates of Seasons		Quota	Limitations
		Opens	Closes		
118	1	Oct. 23	Nov. 12	25	Limited quota; antlered elk
	4	Oct. 23	Nov. 12	25	Limited quota; antlerless elk
	6	Oct. 1	Nov. 30	25	Limited quota; cow or calf valid south of the Mineral X Road (Sweetwater County Road 63 and BLM Road 3206)
Archery					
118		Sep. 1	Sep. 30		Refer to Section 3 of this Chapter

Hunt Area	Type	Quota change from 2013
118	1	0
	4	0
	6	0
Total	1	0
	4 & 6	0

Management Evaluation

Current Management Objective: 75

Management Strategy: Recreation

2013 Postseason Population Estimate: N/A

2014 Proposed Postseason Population Estimate: N/A

The management objective for the Shamrock Elk Herd Unit is a post-season population objective of only 75 elk. The management strategy is recreational management. This objective and management strategy were first established in 1984, when elk were found almost exclusively in the southeastern quarter of the herd unit, and were last publicly reviewed in 1994.

Herd Unit Issues

This herd consists of bands of elk scattered in open sagebrush desert with three main areas of concentration in the southeast, southwest and the northeast corners of the herd unit. Observations have documented movement of bands of elk between these three concentration areas, as well as into Area 100 to the west, leading to confusion on the actual numbers of elk in the population. Aerial trend counts have been attempted, but often failed to find elk in all three areas simultaneously. Snow cover is rarely adequate for good visibility of elk from an aircraft. Classification samples have been too small and inconsistent to allow for a reliable herd model to

guide management. As a result, license quotas have been based upon harvest statistics and simple assumptions of annular herd growth and harvest.

Weather

Severe drought in 2012, with almost no precipitation throughout the spring and summer, was followed by three severe late winter blizzards in April 2013. The 2013 summer was again exceptionally dry, reducing forage availability for the 2013-14 winter. Precipitation increased in the fall, providing for some herbaceous plant growth. The 2013-14 winter had numerous bitter cold spells, and high winds, but those winds also exposed forage on most winter ranges. Losses may still be above average because of the below normal body condition of animals going into the winter.

These bands of elk are highly mobile, and observations before and during the 2012 hunt suggested a significant number of elk from the southwestern portion of the herd may have moved west into more mesic habitats in the eastern edge of Area 100, but this did not appear to occur in 2013. Similarly, body condition of harvested elk checked in the field in 2013 was improved over the poor conditions seen in 2012. No incidences of elk feeding on toxic lichen were noted in 2013, where one was found nearby in Area 100 in 2012.

Habitat

While no herbaceous habitat transects are established within this herd unit, herbaceous forage production is expected to have been low due to continued drought. Only one shrub transect has been established near this herd unit, on the Chain Lakes WHMA, but was not read in 2013.

BP America transferred ownership of two water wells on Chain Lakes WHMA to WGFD. Developed with funds provided by WWNRT, these solar wells provide additional water sources for wildlife and help disperse domestic livestock that graze Chain Lakes WHMA. Elk were found by hunters and two bulls harvested near one of these wells in 2013.

Habitat losses to uranium development increased with opening of the *Ur in situ* uranium mine near the center of the herd unit, but is not in or near crucial elk ranges. Habitat losses to gas development have slowed due to low gas prices and demand for drilling rigs in the Bakken fields.

Field Data

All classification samples for this herd have been statistically inadequate and no posthunt classification data were collected again this year. Dispersal of these elk in small bands across hundreds of square miles of sagebrush makes both aerial and ground classifications prohibitively expensive. Continued drought during 2013 reduced calf production in neighboring herds and production in this desert herd was presumably low as well.

Harvest Data

Hunter success is typically quite high in this herd unit due to the open terrain and limited cover, but was exceptionally poor in 2012, when license quotas had been increased. Quotas were reduced in 2013, but success for bull hunters remained low at 50 percent, the lowest in ten years.

Success for Type 4 “antlerless elk” hunters, who could hunt the entire area, rose to 76 percent, within the normal range for this type. Success for cow/calf hunters, limited to the southern half of the area, was 68 percent success, typical for these licenses. This was the first year these hunters were free to hunt the entire south half, rather than just the southeastern corner.

The average number of days hunted per elk harvested returned to normal levels in 2013, for all three license types, after record highs in 2012. Elk were certainly more available for harvest in 2013, but it is not known if elk numbers had increased this year, or if large numbers had moved into eastern Area 100 in 2012.

Harvest in 2013 was almost 50 percent above expected because of improved hunter success. Antlerless harvest in 2013 was nearly identical to that of 2012, despite having less than half as many licenses.

Population

While initially found only in the southeastern portion of the herd unit, over the past 20 years elk have expanded into most portions of Area 118, at least for some seasons of the year. Numbers increased as well, with Department personnel being able to confirm at least 270 elk in this area prior to the 2010 hunting season. Harvests were increased, and the herd was estimated at about 200 elk following the 2011 hunt. Harvest from Type 6 licenses was most effective at reducing elk numbers in the southeast corner where elk use of private lands has been a concern. Antlerless and cow/calf license quotas were increased again in 2012, by 26 percent.

Localized movement of elk westward into Area 100 cannot explain the difficulty hunters had finding elk to harvest in the entire area in 2012, nor those restricted to the southeastern corner. Increased harvests in recent years, coupled with what was presumably a poor calf crop in 2012, have reduced elk numbers across the herd unit.

Management Evaluation

Expected harvest from the 2014 season would be about 45 elk, with roughly two-thirds being antlerless elk. In previous years, cow/calf licenses were restricted to the southeastern portion of the area to address landowner concerns about elk numbers on private lands close to Rawlins. This strategy was successful, and the restricted area for those Type 6 licenses was expanded to include all of the hunt area south of the Mineral X Road in 2013, which will encompass most private lands within the checkerboard. A similar delineation is proposed in 2014.

Opening date in this hunt area has been in the third week of October since it was reopened to hunting in 1992. Recently, there have been years when significant numbers of elk moved west out of the southwestern portion of this herd unit into Area 100 before or during hunting season, reducing harvests. In an attempt to compensate for this movement, the opening date for this area was synchronized with Area 100 in 2011 and 2012, on Oct 15. The attempt failed, with a large number of elk still moving west in 2012. There simply is not enough hunting pressure in the eastern end of Area 100 to shift elk back into Area 118. Complaints about the earlier opening date were received from nearly every hunter contacted, most being upset about crowding due to the season opener coinciding with that for the deer season. Others commented on the lack of a Department presence in the field on opening day, and subsequent poor hunting behavior (chasing with vehicles, herd shooting) by some participants. Opening date in 2014 is returned to the

traditional third week of October and avoids overlap with the general license deer hunt in the same area. To maintain the extra days of hunting opportunity provided in 2011 and 2012, the 2013 season is extended to Nov. 12. The archery season uses standardized dates and is comparable to those in neighboring areas.

The population objective of 75 elk adopted for this herd unit in 1984 may have been appropriate when elk were only resident in the checkerboard, primarily in the southeast corner near Rawlins. With increased elk numbers in the habitats shared with Area 100 to the west and expansion of the population into mostly public lands north of the Mineral X Road, it may be reasonable to consider a different objective, particularly since collection of adequate data to model the herd is unlikely with current budgetary restraints. To address concerns over elk use on private lands, a commitment to restrain elk numbers within the checkerboard may be beneficial. Realigning herd unit and hunt area boundaries with Area 100 to the west may also improve management of elk in this portion of the Red Desert.

E643 - Shamrock
HA 118
Revised - 5/88

