

2015 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2015 - 5/31/2016

HERD: EL635 - WIGGINS FORK

HUNT AREAS: 67-69, 127

PREPARED BY: GREG ANDERSON

	<u>2010 - 2014 Average</u>	<u>2015</u>	<u>2016 Proposed</u>
Trend Count:	6,124	5,663	5,800
Harvest:	1,040	911	925
Hunters:	2,469	2,679	2,700
Hunter Success:	42%	34%	34%
Active Licenses:	2,548	2,761	2,775
Active License Success	41%	33%	33%
Recreation Days:	16,533	18,865	17,500
Days Per Animal:	15.9	20.7	18.9
Males per 100 Females:	12	10	
Juveniles per 100 Females	26	26	

Trend Based Objective ($\pm 20\%$) 5,500 (4400 - 6600)

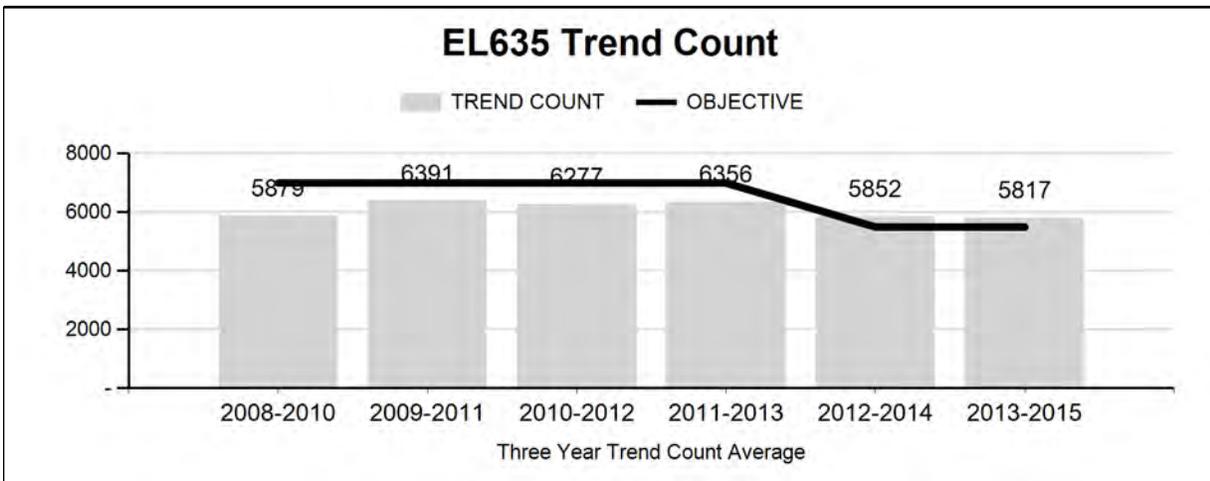
Management Strategy: Recreational

Percent population is above (+) or (-) objective: 3%

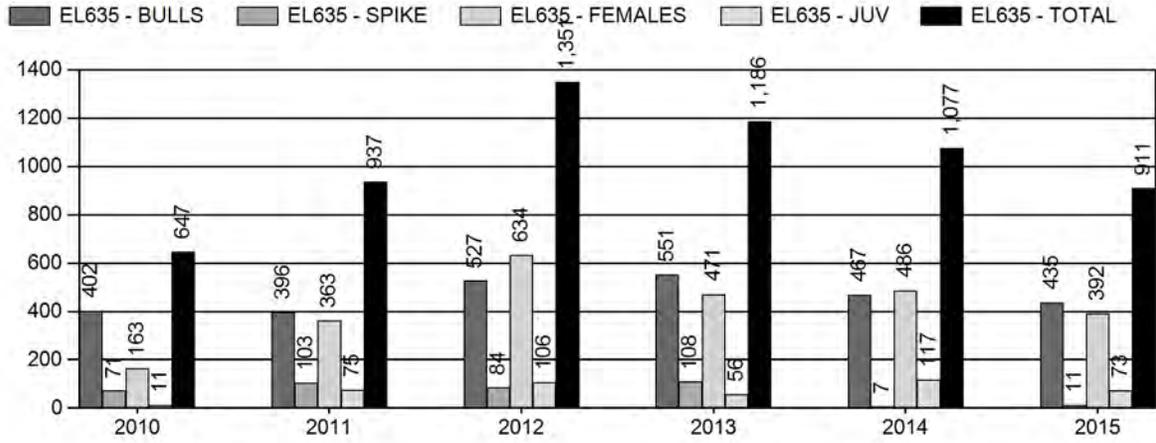
Number of years population has been + or - objective in recent trend: 2

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

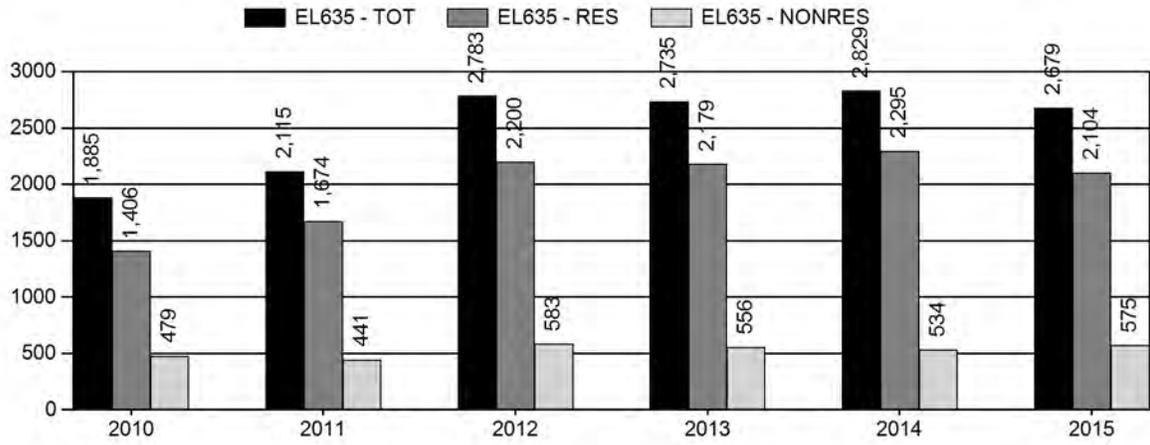
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%



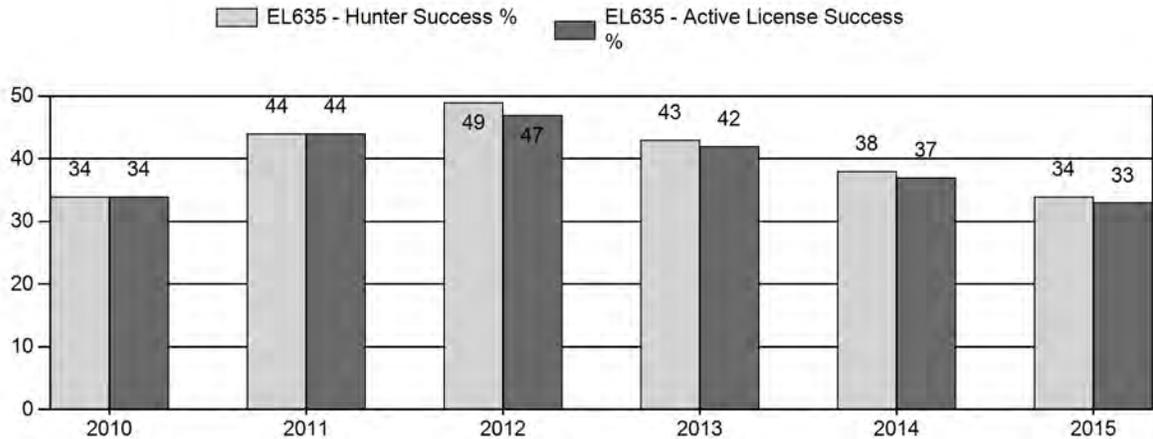
Harvest



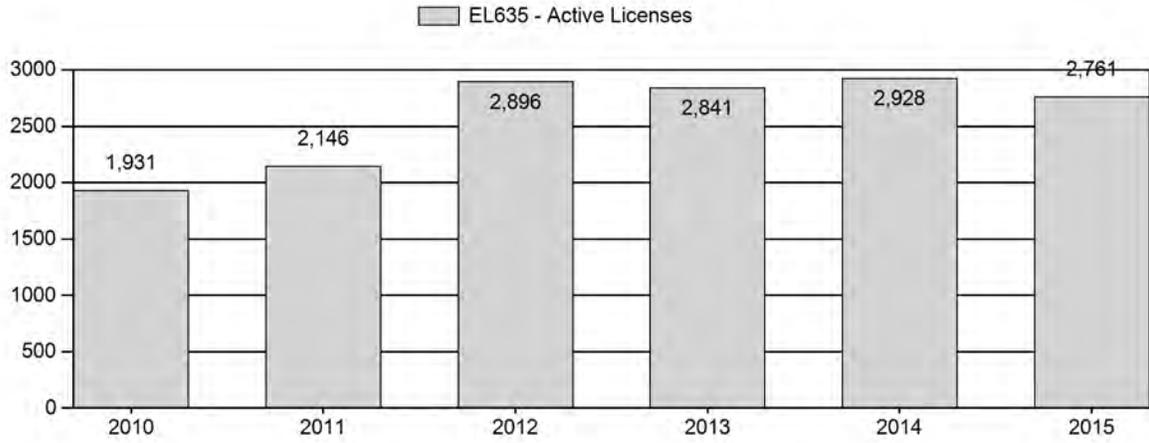
Number of Hunters



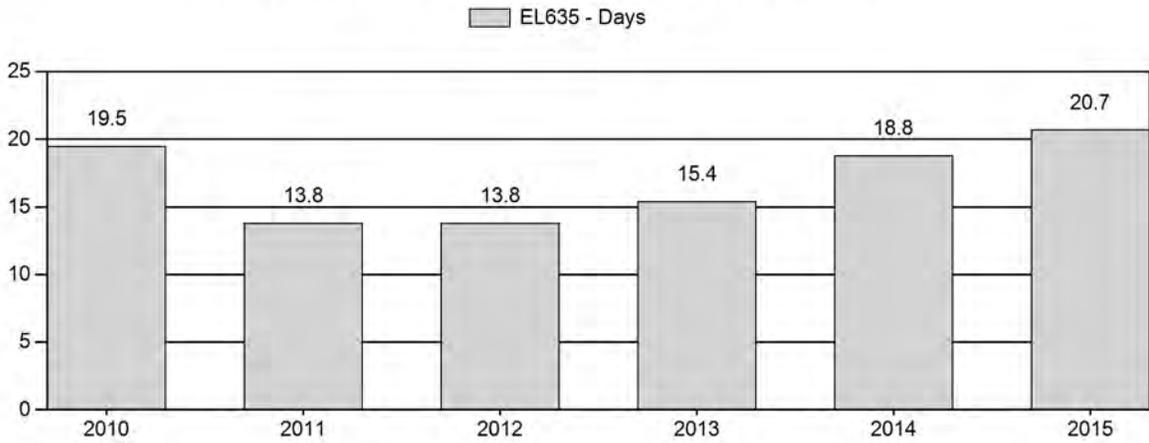
Harvest Success



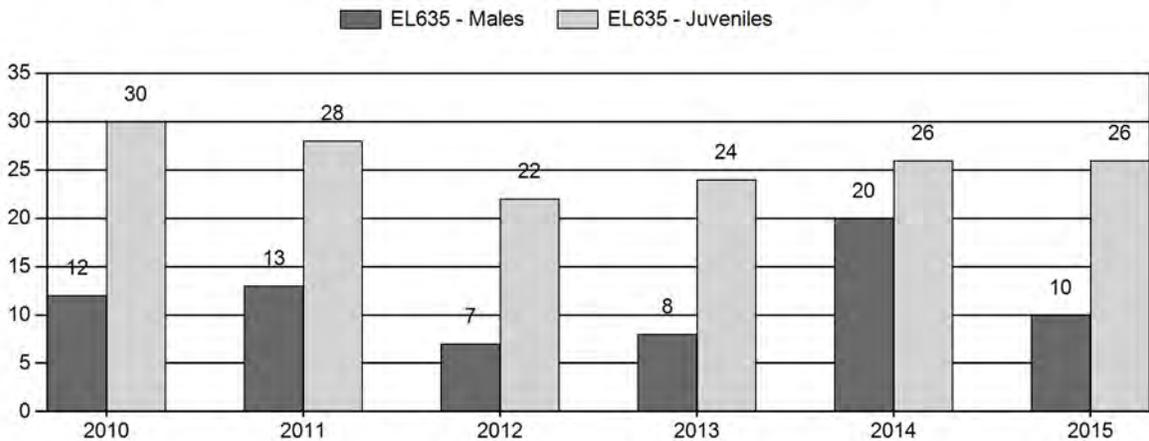
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2010 - 2015 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	%			Yng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
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	0	304	256	560	14%	2,817	69%	720	18%	4,097	0	11	9	20	± 0	26	± 0	21
2015	0	120	166	286	8%	2,741	73%	705	19%	3,732	0	4	6	10	± 0	26	± 0	23

**2016 HUNTING SEASONS
WIGGINS FORK ELK (EL 635)**

Hunt Area	Type	Season Dates		Quota	License	Limitations
		Opens	Closes			
67		Oct. 1	Oct. 31		General	Antlered elk, spikes excluded
	4	Nov. 1	Dec. 15	200	Limited quota	Antlerless elk
	6	Nov. 15	Dec. 15	400	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
	6	Oct. 1	Nov. 30	100	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			Valid in the entire area(s)
127		Sep. 1	Sep. 30			Valid in the entire area(s)

Hunt Area	Type	Quota change from 2015
Total		

Management Evaluation

Current mid-winter trend count management objective: 5,500

Management strategy: Recreational

2016 trend count: 5,663

Most recent 3-Year running average trend count: 5,817

Management Issues

The Wiggins Fork elk herd is managed based on a winter trend count. The trend count management objective has been in place since 2002. The original, 2002, objective sought to maintain 6,000 to 7,000 wintering elk in the herd. The number of elk was determined by multiplying an annual trend count by a constant sightability factor to calculate a population estimate. Over time, the extra step of calculating an estimate confused the public. In response, the objective was reviewed in 2014 and the Department decided to base a new objective on actual trend count numbers eliminating the use of a sightability factor and population estimate. The new objective set in 2014 is to maintain a mid-winter count of 5,500 elk in the herd unit with a recreational management strategy. Annual trend counts are conducted each January to assess the population.

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

Herbaceous vegetation production was quite high throughout the herd unit in both 2014 and 2015. Following 2 years of extreme drought, vegetation production increased significantly in 2014 and remained quite good in 2015. In 2015 production averaged 639 lbs/acre across monitoring sites on elk winter range. This was an increase over 576 lbs/acre in 2014 and 65% greater than the 5-year average of 387 lbs/acre. Although no vegetation monitoring is conducted at high elevation summer range, it appeared vegetation growth was outstanding on summer and transitional ranges as well. Fall weather was warm and dry through much of the hunting season.

The combination of abundant feed and mild, fall weather resulted in elk entering winter in excellent body condition. Snowfall in December forced elk onto low elevation winter ranges. Moderate snow cover through January allowed elk to occupy typical, mid-elevation winter range throughout the winter range complex in the herd unit. After January, temperatures moderated and snow receded.

Field/Harvest Data/Population

Trend counts to estimate the wintering population are conducted each January. 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 followed by a decline to 5,528 in 2014 (Fig. 1). The 2015 count of 5,663 was nearly identical to the 2014 count. Overall, the herd has been fairly stable over the past 5 years and is at objective.

The trend count objective includes sub-objectives for 3 areas in the herd unit. The sub-objectives were set to recognize reasonably well-defined, spatially segregated 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 objective for the past decade. However, the 2015 count for this group was the highest in over 15 years. Given the 2015 count, this herd segment is at the prescribed objective. The other two of the sub-groups (Dunoir/Spring Mtn and South Dubois) have been above objective for the past 7 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. The trend count for this area did decrease in 2015, but it should be noted personnel were unable to fly some of the area due to strong winds during the trend count period. With the lower count in 2015, this herd segment is now at objective. Elk numbers in the Dunoir/Spring Mtn herd segment decreased slightly from 2014 to 2015. The number of elk in this segment did decline over the last several years in response to the liberal cow harvest.

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. Since 2012, recruitment increased annually and the calf/cow ratio was 26/100 in 2015. This was the same as in 2014 and also the same as the 5-year average.

Figure 1. Wiggins Fork Elk trend count

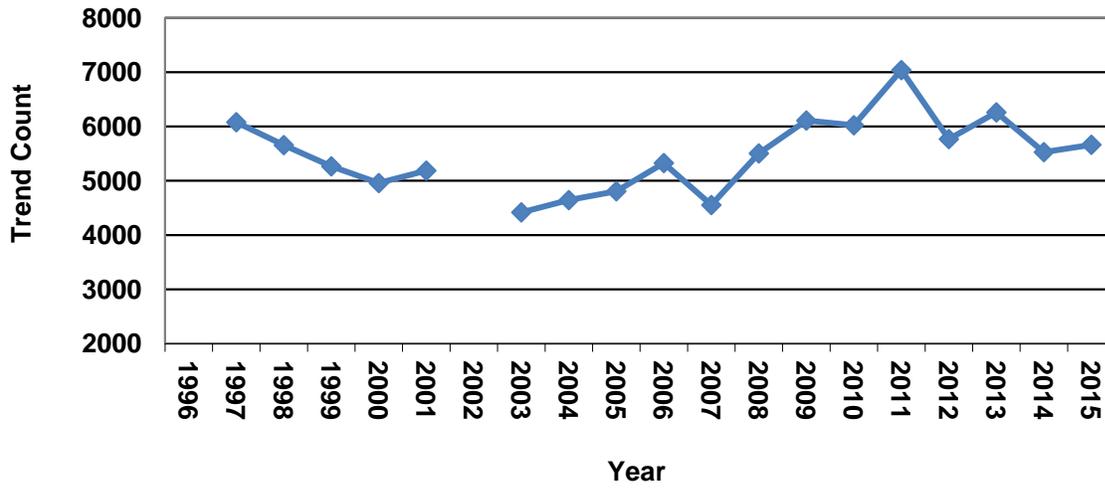
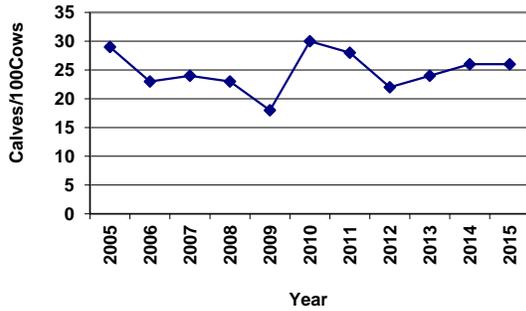


Table 1. Trend count numbers from sub-groups in the Wiggins Fork Elk Herd Unit.

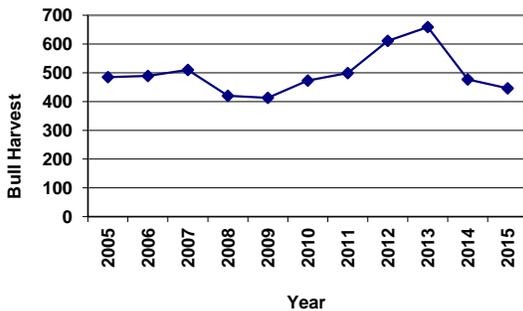
Year	East Fork	Dunoir/Spring Mountain	South Dubois	Wiggins Fork Herd Unit	
	Objective: 2,200 Count	Objective: 2,200 Count	Objective: 1,100 Count	Objective: 5,500 Count	3 Year Average
1998	2154	2457	1046	5657	
1999	2180	2109	977	5266	
2000	1883	2014	1061	4958	5294
2001	2100	1818	1269	5187	5137
2002	nc	nc	nc	nc	5073
2003	1857	1666	895	4418	4803
2004	1832	1601	1211	4644	4531
2005	1669	1807	1331	4807	4623
2006	1623	2297	1406	5326	4926
2007	1478	1634	1441	4553	4895
2008	1294	2620	1590	5504	5128
2009	1457	3186	1467	6110	5389
2010	1930	2704	1389	6023	5879
2011	1765	3680	1594	7039	6391
2012	1834	2580	1354	5768	6277
2013	1713	3022	1525	6260	6356
2014	1620	2551	1357	5528	5852
2015	2118	2497	1048	5663	5817

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



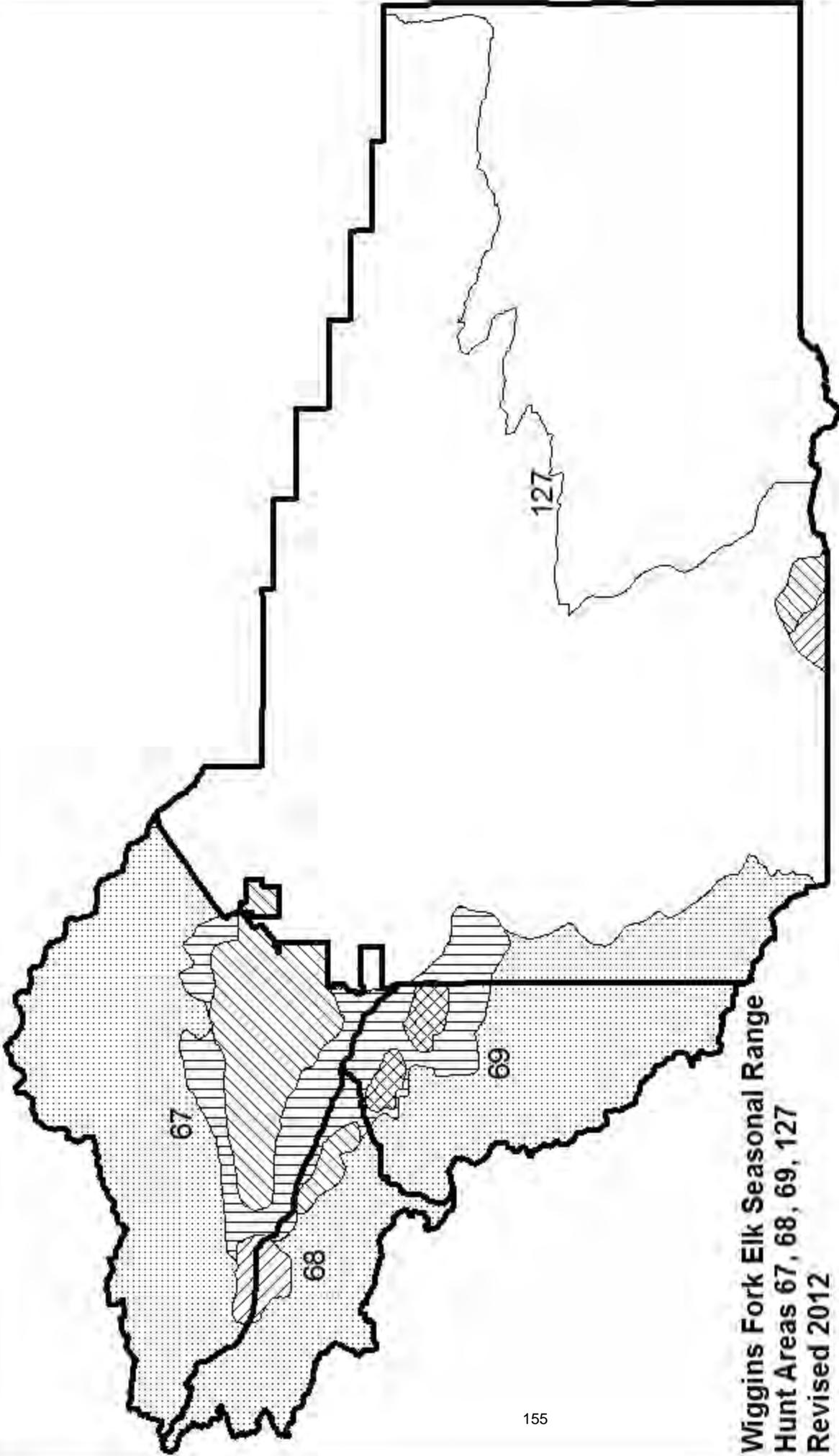
Unfortunately, bull/cow ratio data for this herd are very unreliable. Classification surveys have typically been conducted on the ground throughout the DAU. Since mature bulls generally winter in timber at the fringes of the winter ranges, the number of bulls seen is quite low and mature bull/cow ratios for the herd are not considered accurate. In 2014 and 2015 personnel used aerial trend count video to classify elk. This methodology did yield a significant increase in the mature bull/cow ratio both years. That said the mature bull/cow ratio is still artificially low due to poor sightability. Regardless of the mature bull/cow ratio, bull harvest has not declined over the past 10 years (Fig. 3). Antlered elk harvest in both 2012 and 2013 was unusually high for the herd unit. 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. Likewise, the bull harvest in 2014 and 2015 is certainly more closely tied to more typical hunting conditions throughout the fall. Thus, the precipitous decline in bull harvest from 2013 to 2014 should not be linked to demographic changes.

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



Management Summary

The 2015 trend count indicates the Wiggins Fork elk population is at objective. The population appears to have been stable over the past 4 years. Since the population is at objective and stable, the number of antlerless elk licenses in the herd unit will remain unchanged in 2016.



**Wiggins Fork Elk Seasonal Range
Hunt Areas 67, 68, 69, 127
Revised 2012**

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

2015 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2015 - 5/31/2016

HERD: EL637 - SOUTH WIND RIVER

HUNT AREAS: 25, 27-28, 99

PREPARED BY: STAN HARTER

	<u>2010 - 2014 Average</u>	<u>2015</u>	<u>2016 Proposed</u>
Trend Count:	2,676	2,621	2,600
Harvest:	639	714	750
Hunters:	2,101	2,263	2,000
Hunter Success:	30%	32%	38%
Active Licenses:	2,176	2,300	2,000
Active License Success	29%	31%	38%
Recreation Days:	16,014	17,480	17,000
Days Per Animal:	25.1	24.5	22.7
Males per 100 Females:	27	28	
Juveniles per 100 Females	31	30	

Trend Based Objective (± 20%) 2,600 (2080 - 3120)

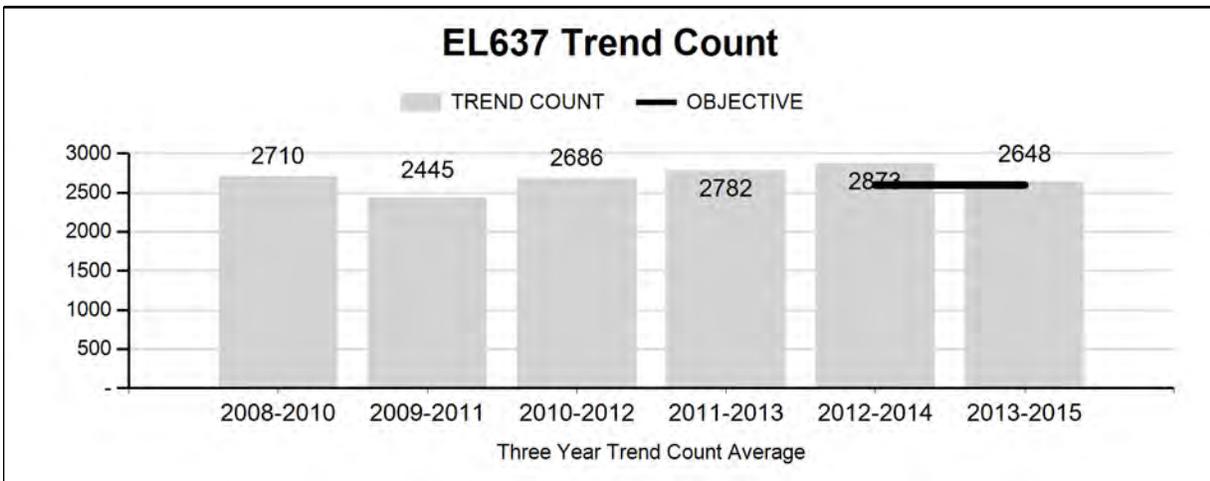
Management Strategy: Recreational

Percent population is above (+) or (-) objective: 1%

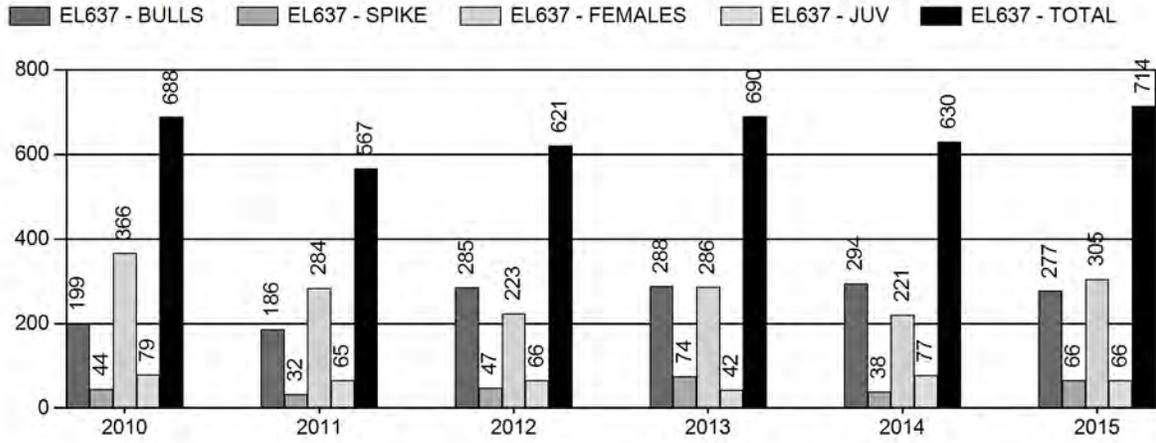
Number of years population has been + or - objective in recent trend: 1

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

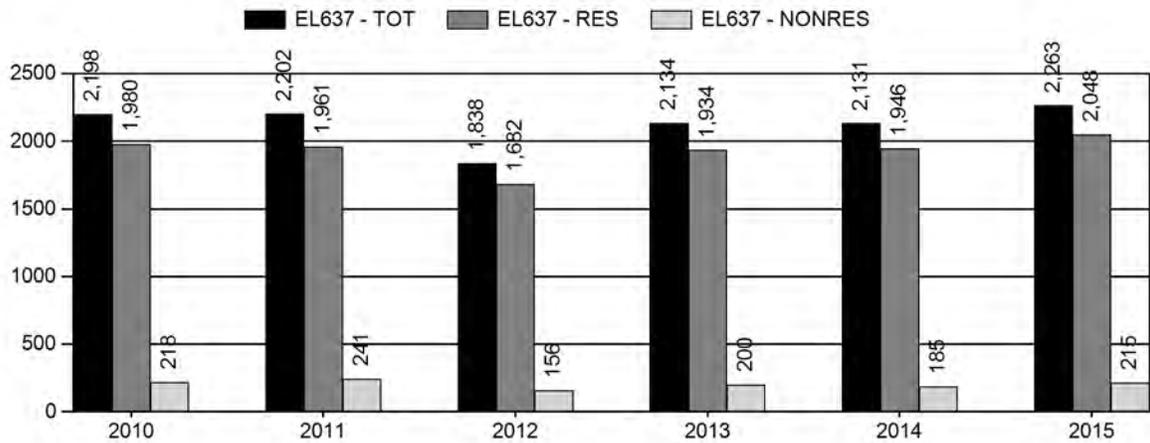
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%



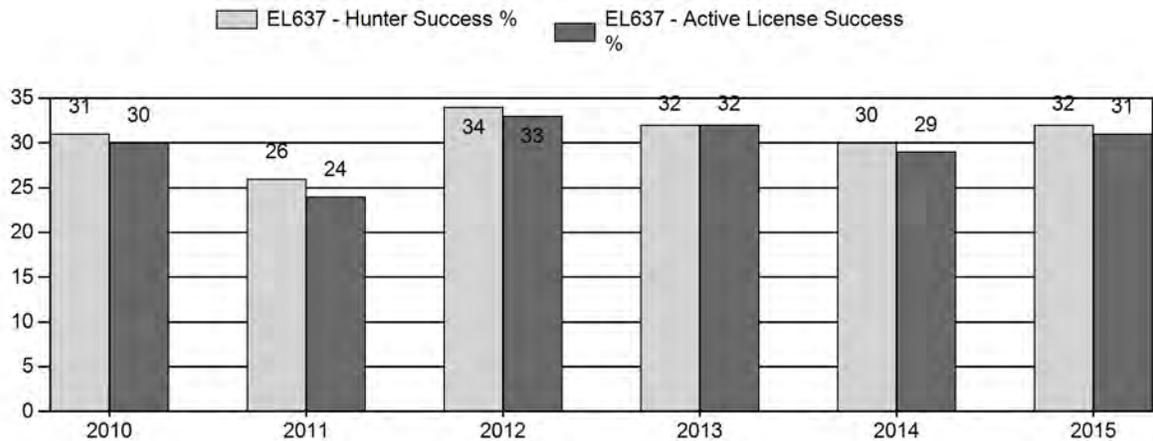
Harvest



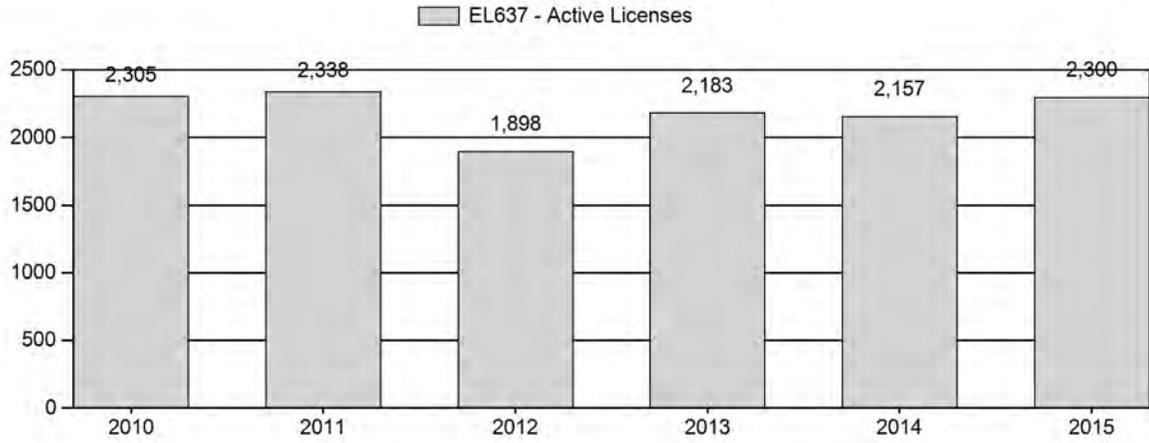
Number of Hunters



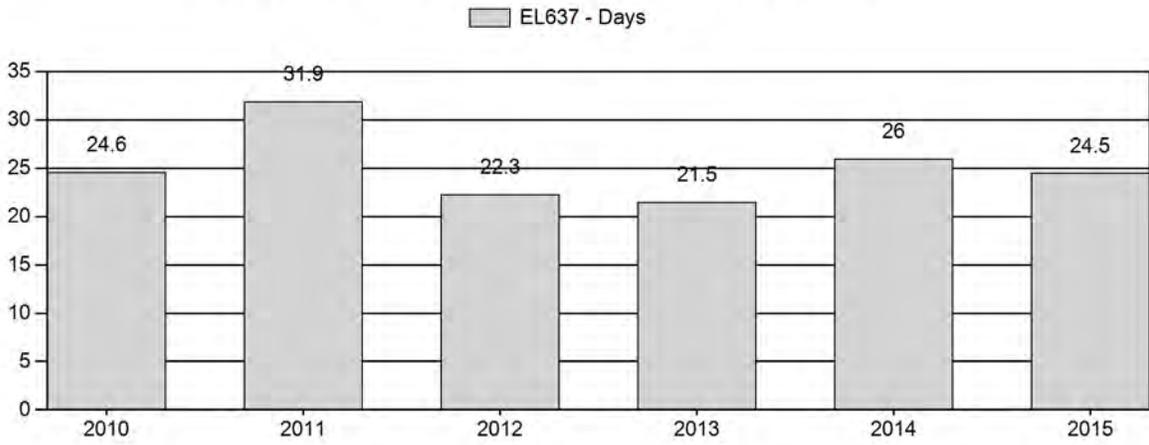
Harvest Success



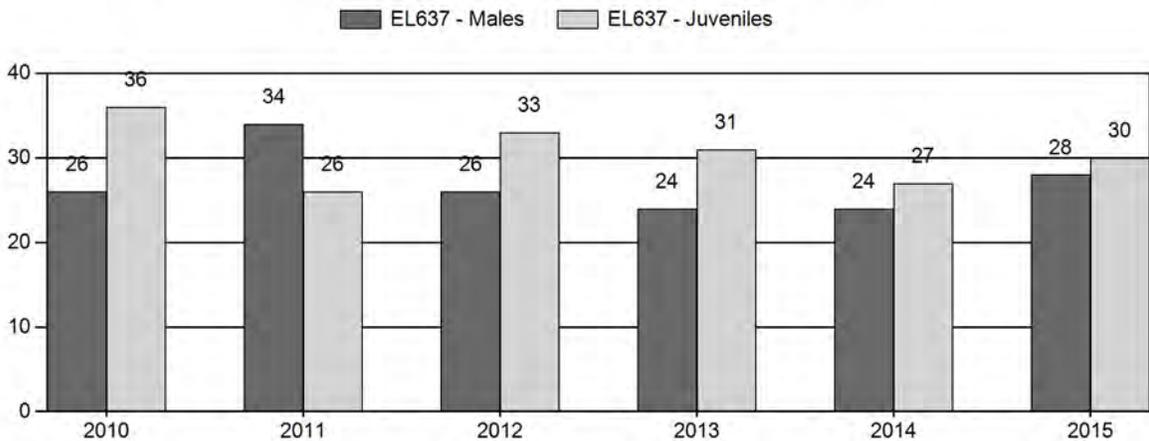
Active Licenses



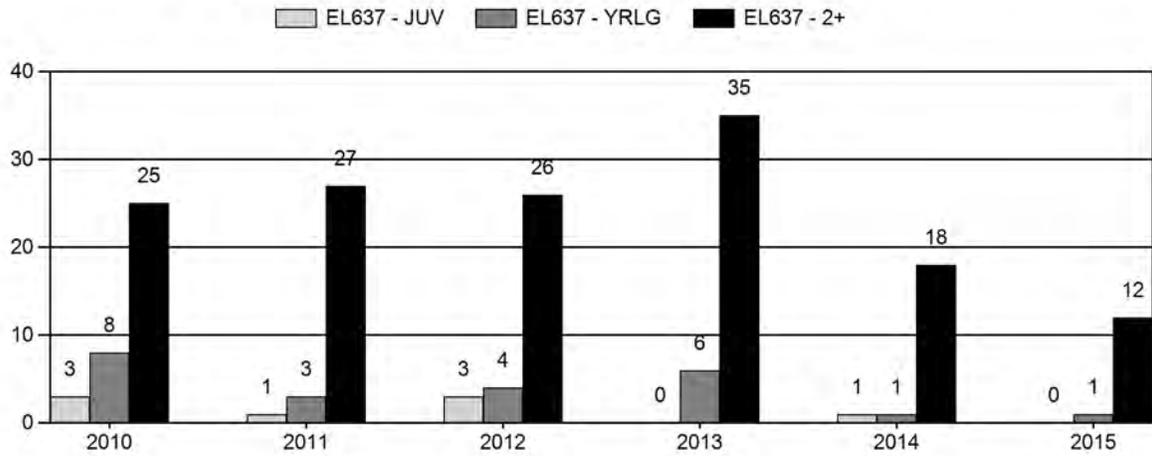
Days per Animal Harvested



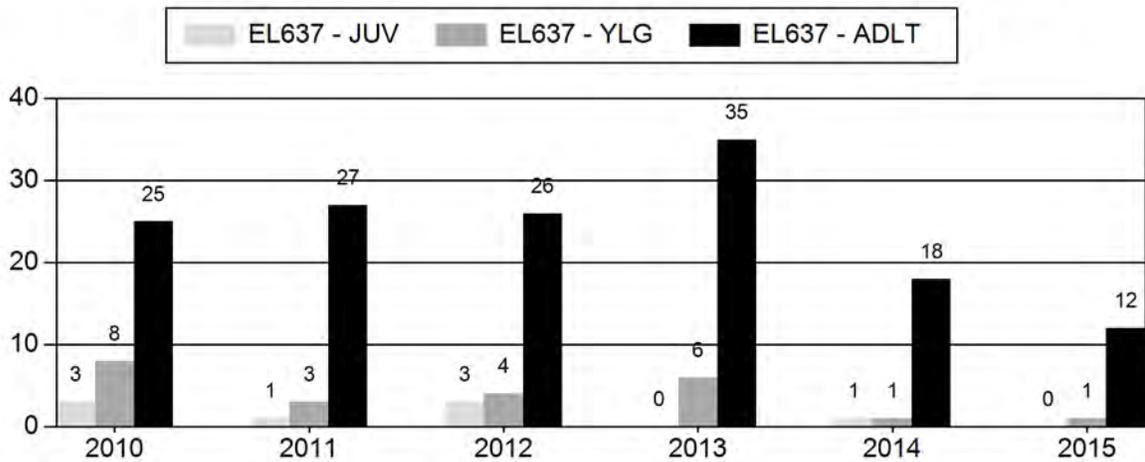
Postseason Animals per 100 Females



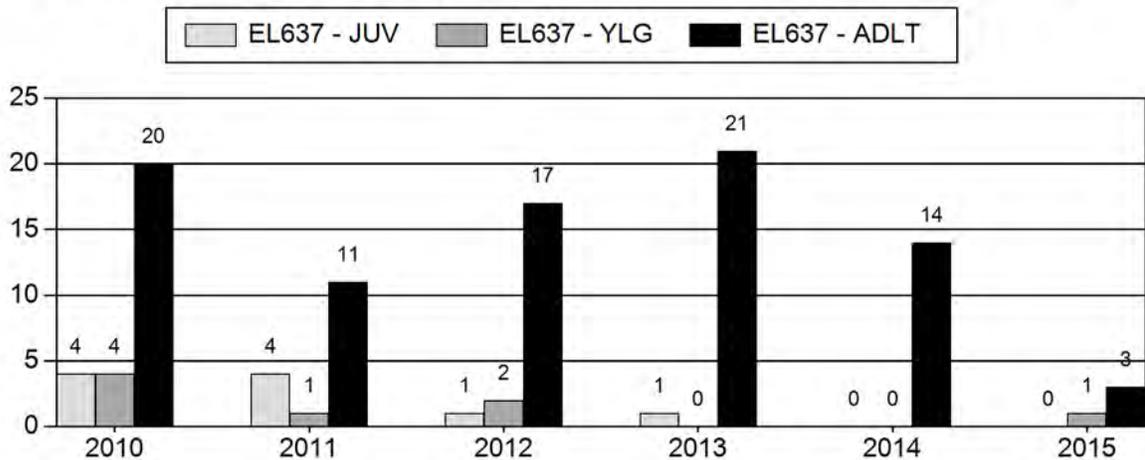
Age Structure of Field Checked Males



Age Structure Data (Field and Laboratory) - Male



Age Structure Data (Field and Laboratory) - Female



2010 - 2015 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
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	0	149	226	375	16%	1,550	66%	420	18%	2,345	0	10	15	24	± 0	27	± 0	22
2015	0	181	288	469	18%	1,650	63%	502	19%	2,621	0	11	17	28	± 0	30	± 0	24

2016 HUNTING SEASONS
South Wind River Elk Herd Unit (EL 637)

Hunt Area	Type	Season Dates		Quota	License	Limitations
		Opens	Closes			
25, 27	1	Oct. 1	Oct. 31	200	Limited Quota	Any elk
25, 27	1	Nov. 1	Nov. 20			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. 7		General	Any elk
28		Oct. 8	Oct. 22		General	Antlered elk
28	4	Nov. 1	Nov. 20	200	Limited Quota	Antlerless elk
99	1	Oct. 1	Oct. 31	175	Limited Quota	Any elk
99	1	Nov. 1	Nov. 20			Antlerless elk
99	4	Oct. 1	Nov. 20	200	Limited Quota	Antlerless elk
Archery		Sept. 1	Sept. 30			Refer to license type and limitations in Section 2

MANAGEMENT EVALUATION

Current Mid-Winter Trend Count Management Objective: 2,600

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

2015 Mid-winter Trend Count: 2,621

Most Recent 3-year Running Average Trend Count: 2,648

Herd Unit Issues/Population

The management objective for the South Wind River Elk Herd Unit was changed in 2014, and is a mid-winter trend count of 2,600 elk, based on a running 3-year average. Trend count data vary due to annual changes in snow depth, light and wind conditions during flights, and condition of habitats each winter. A key factor in our ability to detect elk in winter is the variability and extent of winter habitats, which range from mixed aspen/conifer/sagebrush habitats to open sagebrush/grassland habitats. The 2015 trend count/classification survey was completed in January and February 2016, with a total of 2,621 elk observed. Survey conditions were generally favorable and we believe this to be a good trend count. While some wolf activity has been reported for several years, documentation and public reports of wolves in several portions of the herd unit have substantially increased since fall 2015.

Weather

Precipitation has improved substantially since fall 2013, after a period of intense drought. Precipitation from October 2013 through September 2014 was about average in the South Wind River elk herd unit. Winter 2014-15 had lower than average snowfall, yet precipitation from October 2014 through September 2015 was higher than the 30-year average due to April and May 2015 getting nearly double the average precipitation in Lander. Precipitation in Lander was 140% above average for the first four months of 2016, with record breaking rain falling in the first week of May, which should lead to excellent summer forage conditions.

Habitat

Habitat conditions have greatly improved as a result of increased precipitation, and should result in improved survival over winter 2015-16, which has been fairly mild. Recently developed “Rapid Habitat Assessments” will be implemented for the South Wind River mule deer herd unit to develop a baseline from which to gauge overall habitat condition across the landscapes. These assessments should also be useful for evaluating habitat conditions for South Wind River elk.

Field Data

Classification flights were conducted in mid-January 2016 with a Bell Jet Ranger 206 helicopter in Areas 25, 27, and 28. Personnel from the Pinedale Region surveyed Area 99 in early-February 2016, also with a Bell Jet Ranger 206 helicopter. A total of 2,621 elk were counted and classified. We have not seen any large groups in the portion Area 25 south of the Sweetwater River in a few years, despite knowledge of expanding elk numbers there. The observed post-season calf/cow ratio of 30J/100F and bull ratio of 28M/100F were near the previous 5-year average.

Harvest Data

Weather during fall 2015 hunting seasons was moderate in the South Wind River Herd Unit, with above average temperatures and below average snowfall. The biggest snow event occurred over the last few days of the November antlerless elk seasons.

Total harvest was above average in 2015, despite complaints from many hunters of low elk numbers and increased wolf activity. Adult bull harvest dropped slightly to 277 adult bulls in 2015, coupled with an increase in yearling bull take with 66 spikes harvested. Antlerless harvest increased to 371 cows and calves, 9% above the previous 5-year average. Based on final harvest survey results, total harvest increased 13% in 2015 to 714 elk. Hunter success rates have remained fairly stable, with the 2015 success rate of 31% equaling the 5-year average. Hunter effort data indicate hunters were better able to find elk compared with the previous 5 years (24.5 days/harvest in 2015 vs. 25.1 days per harvest since 2010).

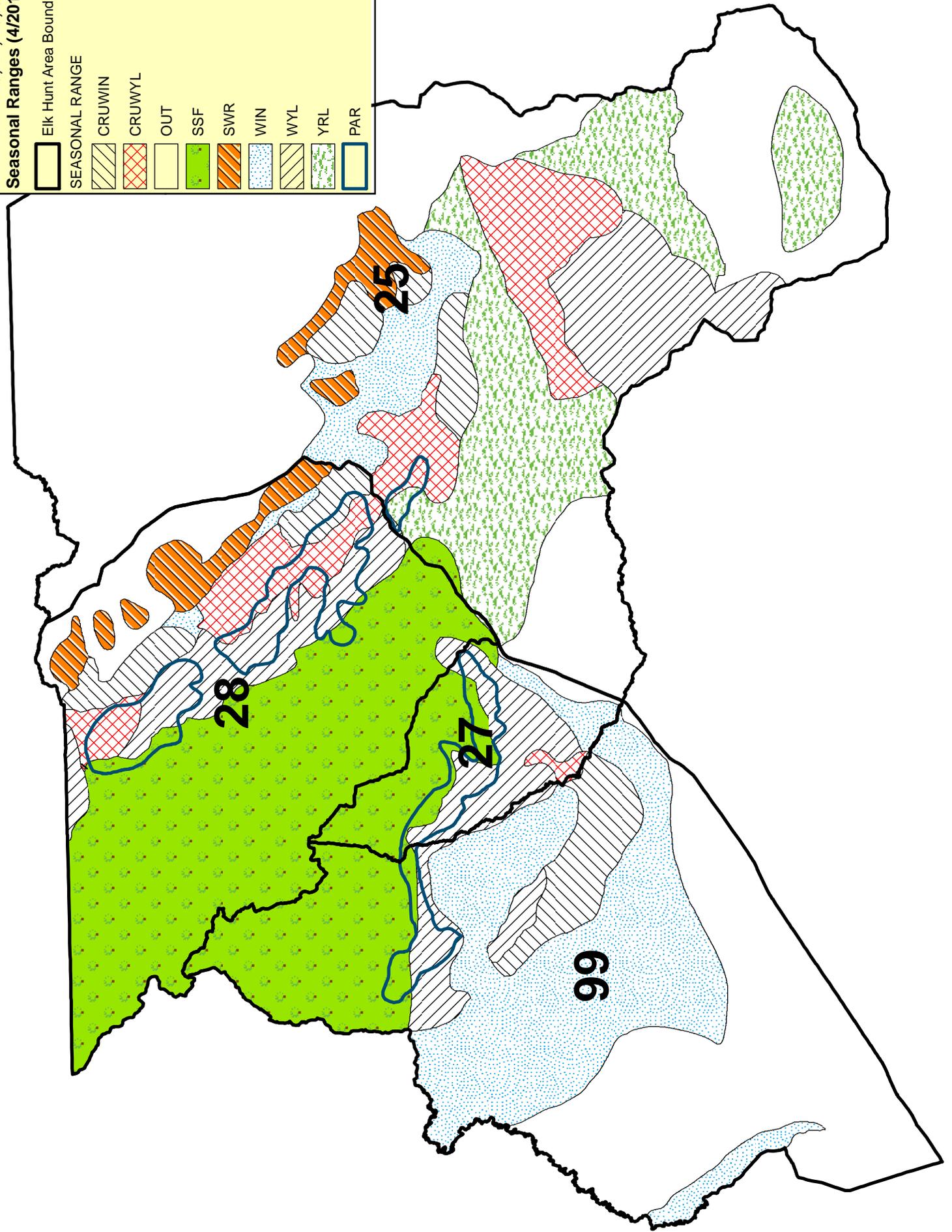
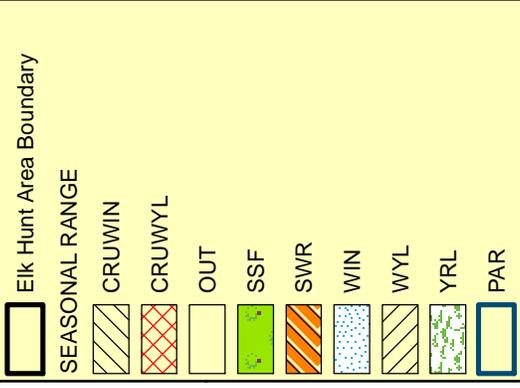
Management Summary

With the 2015 mid-winter and 3-year running average trend counts being almost exactly the same as the objective, the 2016 seasons are designed to maintain this population at the current level. Elk hunters will again be allowed to harvest “any elk” for the first part of the general license season in hunt area 28 (October 1–7), shifting to antlered only for the remainder of the season (October 8–22). This season structure in 2015 resulted in a 14% increase in hunter numbers (which was less than expected) and an increase antlerless harvest, and may have contributed to less pressure on adult bulls and increased spike harvest, which may lead to improved bull quality over time.

Beginning in 2015, the hunt area 25 boundary was extended southerly to encompass the Cyclone Rim area south to the Rocky Crossing Road. This was popular with many hunters and met with few complaints. Seasonal ranges need to be updated to match our understanding of elk use of the extended area.

We expect the 2016 seasons outlined above should result in a harvest of at least 750 elk with a stable to slightly higher cow harvest. If calf recruitment remains near average, this harvest should maintain the population at objective.

South Wind River Elk (EL637)
 Hunt Areas 25, 27, 28, 99
 Seasonal Ranges (4/2016)



2015 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2015 - 5/31/2016

HERD: EL638 - GREEN MOUNTAIN

HUNT AREAS: 24, 128

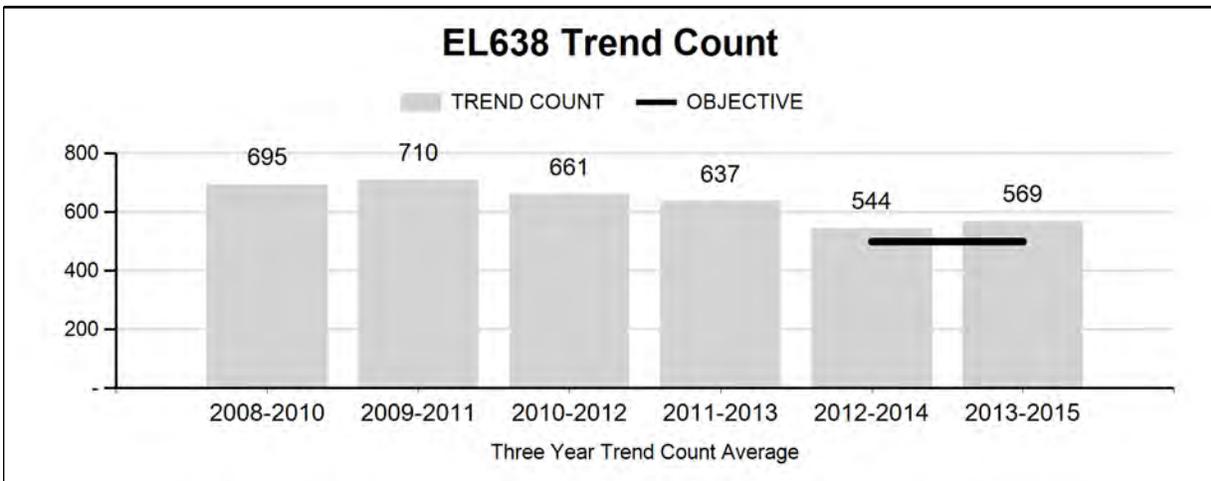
PREPARED BY: STAN HARTER

	<u>2010 - 2014 Average</u>	<u>2015</u>	<u>2016 Proposed</u>
Trend Count:	592	728	600
Harvest:	262	222	250
Hunters:	673	533	500
Hunter Success:	39%	42%	50%
Active Licenses:	679	533	500
Active License Success	39%	42%	50%
Recreation Days:	3,538	3,477	3,400
Days Per Animal:	13.5	15.7	13.6
Males per 100 Females:	39	26	
Juveniles per 100 Females	45	38	

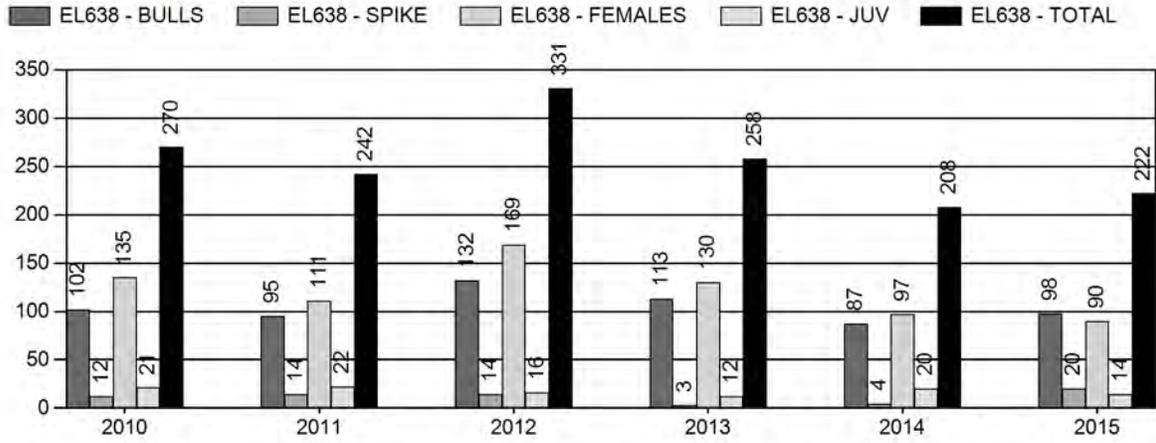
Trend Based Objective (± 20%) 500 (400 - 600)
 Management Strategy: Recreational
 Percent population is above (+) or (-) objective: 46%
 Number of years population has been + or - objective in recent trend: 1

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

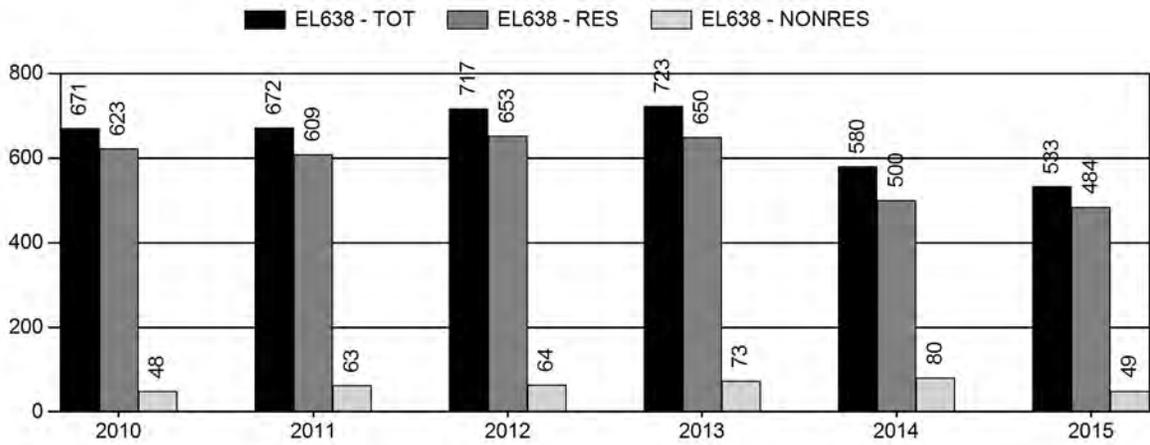
	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%



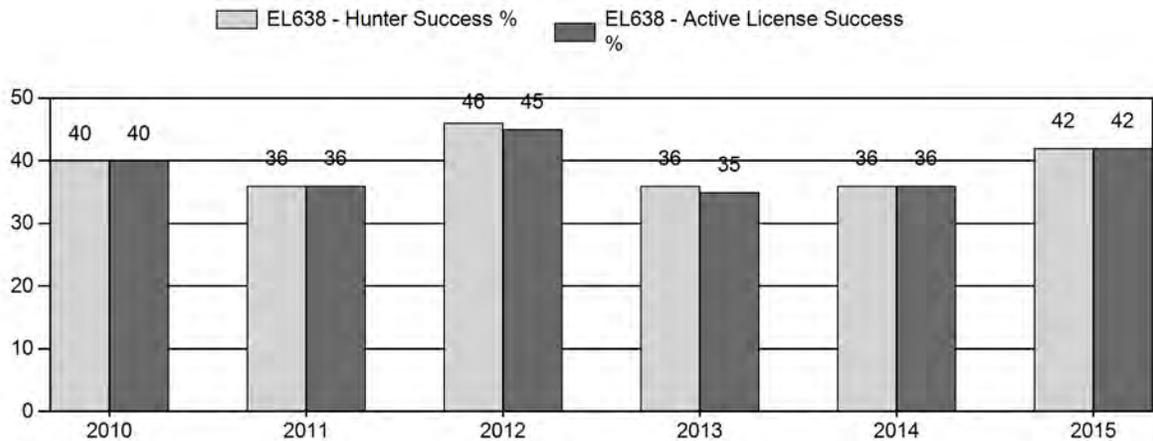
Harvest



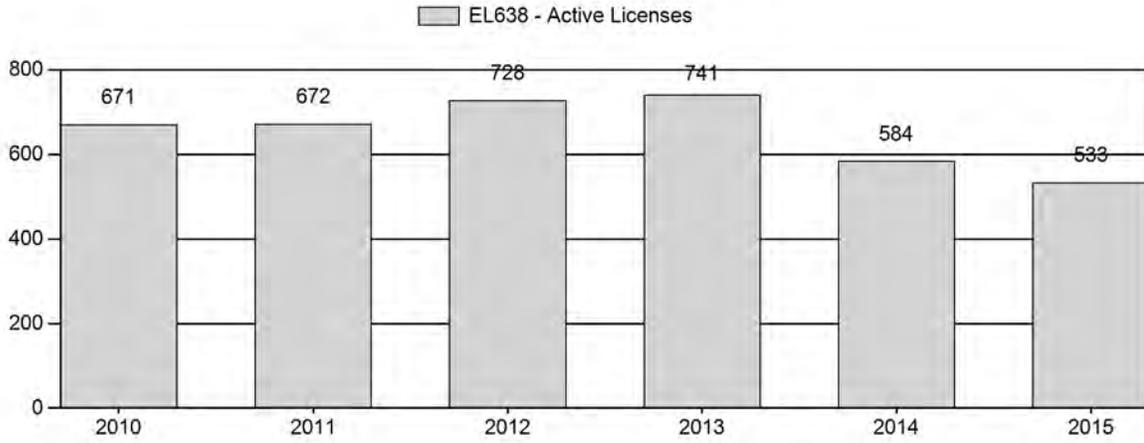
Number of Hunters



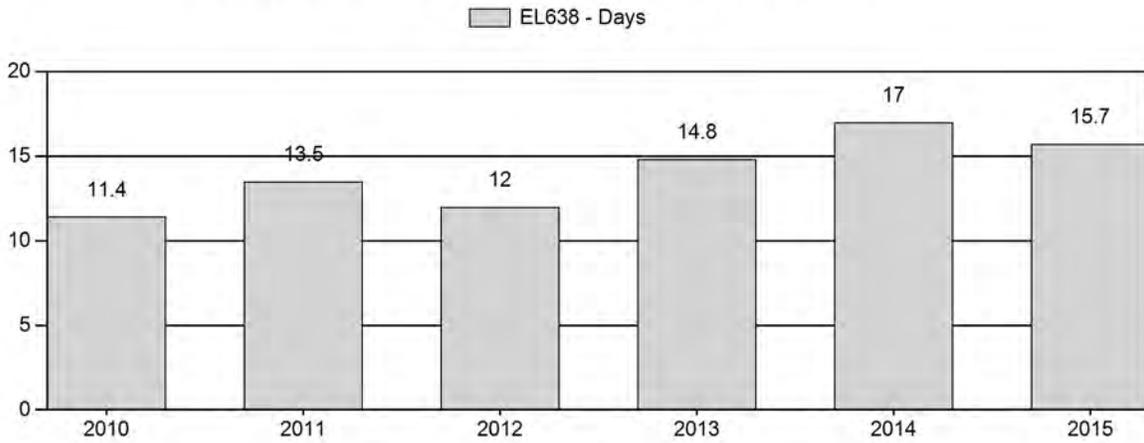
Harvest Success



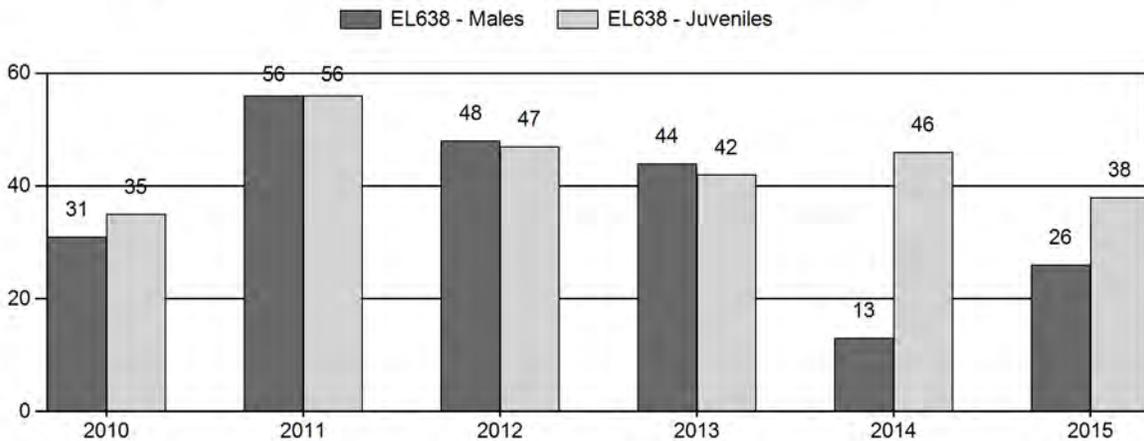
Active Licenses



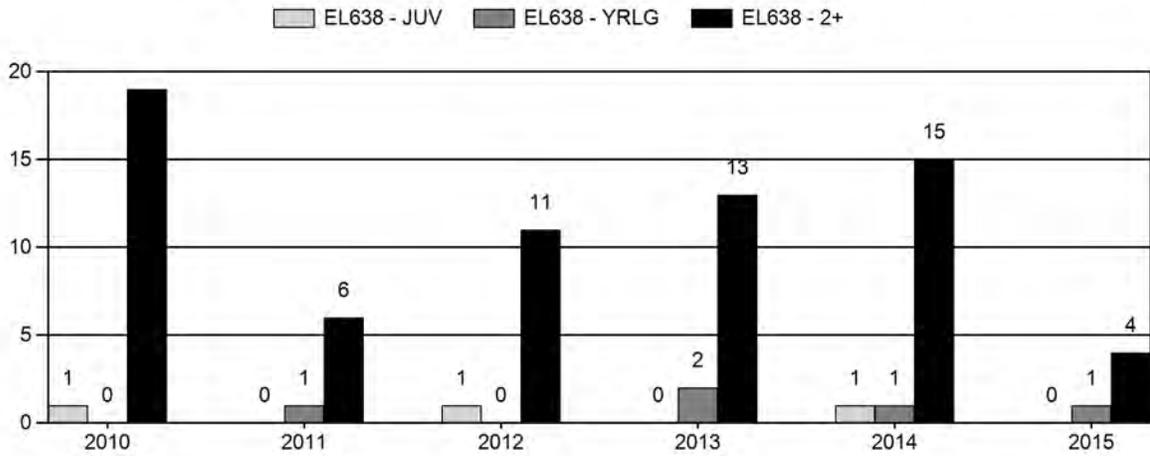
Days per Animal Harvested



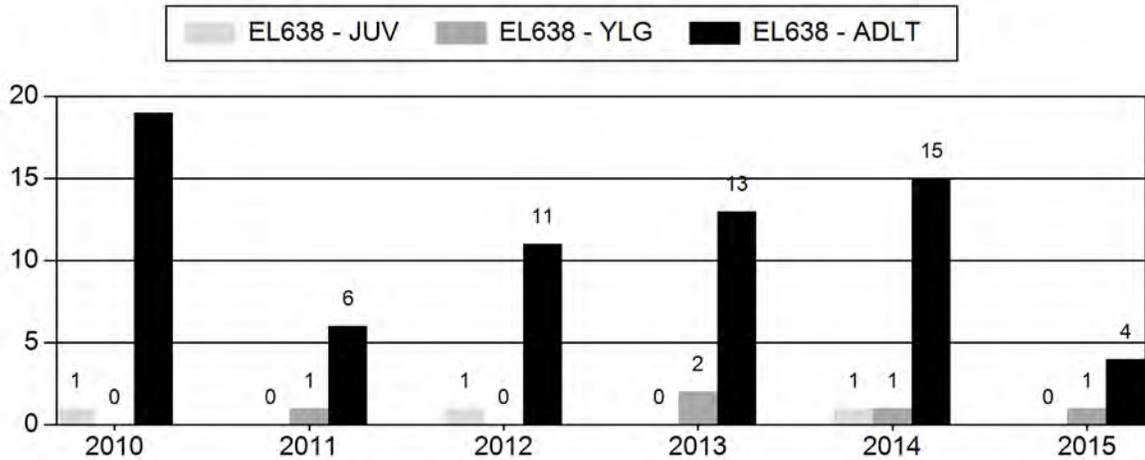
Postseason Animals per 100 Females



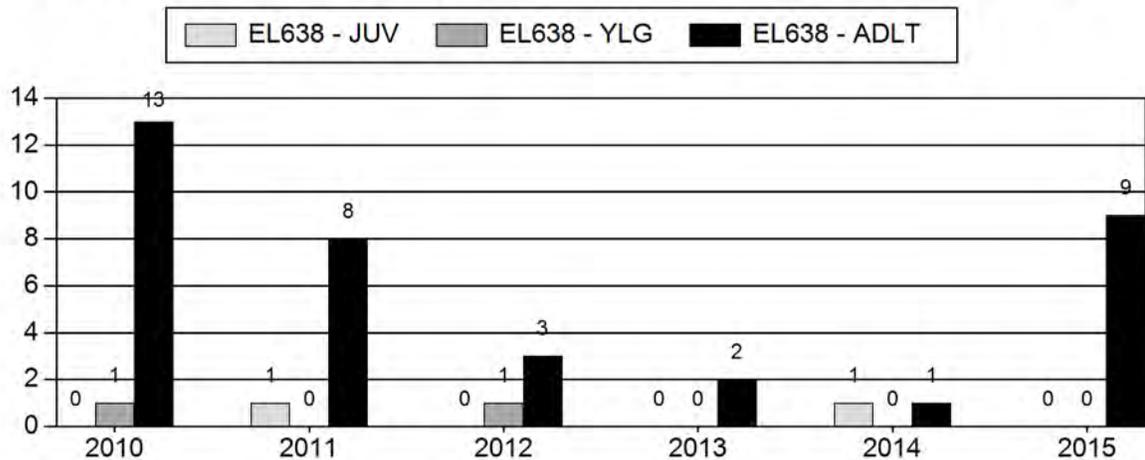
Age Structure of Field Checked Males



Age Structure Data (Field and Laboratory) - Male



Age Structure Data (Field and Laboratory) - Female



2010 - 2015 Postseason Classification Summary

for Elk Herd EL638 - GREEN MOUNTAIN

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
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	0	19	12	31	8%	243	63%	111	29%	385	0	8	5	13	± 0	46	± 0	41
2015	0	73	44	117	16%	444	61%	167	23%	728	0	16	10	26	± 0	38	± 0	30

**2016 HUNTING SEASONS
Green Mountain Elk Herd Unit (EL 638)**

Hunt Area	Type	Season Dates		Quota	License	Limitations
		Opens	Closes			
24	1	Oct. 1	Oct. 14	175	Limited Quota	Any elk
24	1	Nov. 1	Nov. 30			Antlerless elk
24	4	Oct. 1	Oct. 14	50	Limited Quota	Antlerless elk
24	4	Nov. 1	Nov. 30			Antlerless elk
24, 128	5	Nov. 1	Nov. 30	125	Limited Quota	Antlerless elk
128		Oct. 1	Oct. 14		General	Antlered elk
Archery		Sept. 1	Sept. 30			Refer to license type and limitations in Section 2

Hunt Area	License Type	Quota Change from 2015
24, 128	5	+25
Herd Unit Total	5	+25

MANAGEMENT EVALUATION

Current Mid-Winter Trend Count Management Objective: 500

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

2015 Mid-Winter Trend Count: 728

Most Recent 3-year Running Average Trend Count: 569

Herd Unit Issues/Population

The management objective for the Green Mountain Elk Herd Unit was changed in 2014 to a mid-winter trend count of 500 elk, based on a running 3-year average. Trend count data vary due to annual changes in snow depth, light and wind conditions during flights, and condition of habitats each winter. A key factor in our ability to detect elk in winter is the extreme variability and extent of winter habitats, which range from mixed aspen/conifer/sagebrush habitats to open sagebrush/grassland habitats. The 2015 trend count/classification survey was completed in January 2016, with a total of 728 elk observed.

Weather

Precipitation has improved substantially since fall 2013, after a period of intense drought. Precipitation from October 2013 through September 2014 was about average in the Green Mountain elk herd unit. Winter 2014-15 had lower than average snowfall, yet precipitation from October 2014 through September 2015 was higher than the 30-year average due to April and May 2015 getting nearly double the average precipitation in Jeffrey City. Precipitation in Jeffrey City was 80% above average for the first four months of 2016, with another 2.42 inches of rain falling in the first week of May, and should lead to excellent summer forage conditions.

Habitat

Habitat conditions have greatly improved as a result of increased precipitation, and should result in improved survival over winter 2015-16, which has been fairly mild. Recently developed “Rapid Habitat Assessments” will be implemented for the Sweetwater mule deer herd unit to develop a baseline from which to gauge overall habitat condition across the landscapes. These assessments should also be useful for evaluating habitat conditions for the Green Mountain elk herd.

Field Data

The 2015 trend count/classification survey was conducted in January 2016 using a Bell 206 Jet Ranger helicopter, with 630 elk observed in Hunt Area 24, mostly on or near Green Mountain and another 98 elk in Hunt Area 128, for a total of 728 elk; about 46% over the mid-winter trend count objective of 500 elk. The 3-year trend count average of 569 is 13% above objective. More bulls were observed this year than in 2014, but with the lack of snow on and around Green and Crooks Mountains, we believe we missed seeing several bull groups. The resulting post-season calf/cow ratio of 38J/100F is considered good, but is about 16% below the previous 5-year average. The observed bull/cow ratio of 26M/100F was 36% below average but much better than observed in 2014 (13M/100F). Some wind and fog precluded complete surveys around Green Mountain; as such we likely missed a few groups of bulls.

Harvest Data

In 2015, a total 222 elk were harvested in the Green Mountain herd unit, an increase of 14 compared with 2014. Hunter success increased in Area 24 this year, with 62% for the Type 1 any elk season, 41% and 60% respectively for Type 4 and Type 5 antlerless elk hunters (59% overall – the highest since 2006). Changes made to the season structure in 2014 were maintained in 2015, including fewer licenses to reduce hunter crowding and allowing Type 1 and 4 hunters to hunt in November if unsuccessful in October. An unintended error not detected until after Commission approval of the 2015 elk seasons allowed Type 1 hunters to harvest “any” elk in November, versus the intent to allow only antlerless harvest. The result was inconsequential as only 2 more adult bulls were harvested in 2015 compared with 2014, and the total bull harvest was in line with long-term trends. Complaints about hunter crowding were minimal during the 2015 seasons. Along with increased hunter success, the number of days/animal harvested declined in 2015 to 15.7 days/elk killed, but was 2.2 days per animal longer than the previous 5-year average.

Management Summary

In response to numerous public complaints regarding hunter crowding and the early cow/calf season, hunting seasons were adjusted quite dramatically in 2014 to maintain or increase harvest, and reduce hunter crowding. In the recent years, we had nearly doubled license numbers in Area 24 to increase harvest and manage toward objective. Yet, as illustrated in Figure 2, increasing license numbers did not result in similar increases in harvest. To avoid overharvesting bulls in Hunt Area 24 and in response to Type 1 hunter success in 2014 being among the lowest in 10 years, we reduced Type 1 any elk licenses by 25 in 2015. The 2015 post-season bull/cow ratio of 26M/100F is within the “recreational” management range, perhaps in part due to that reduction.

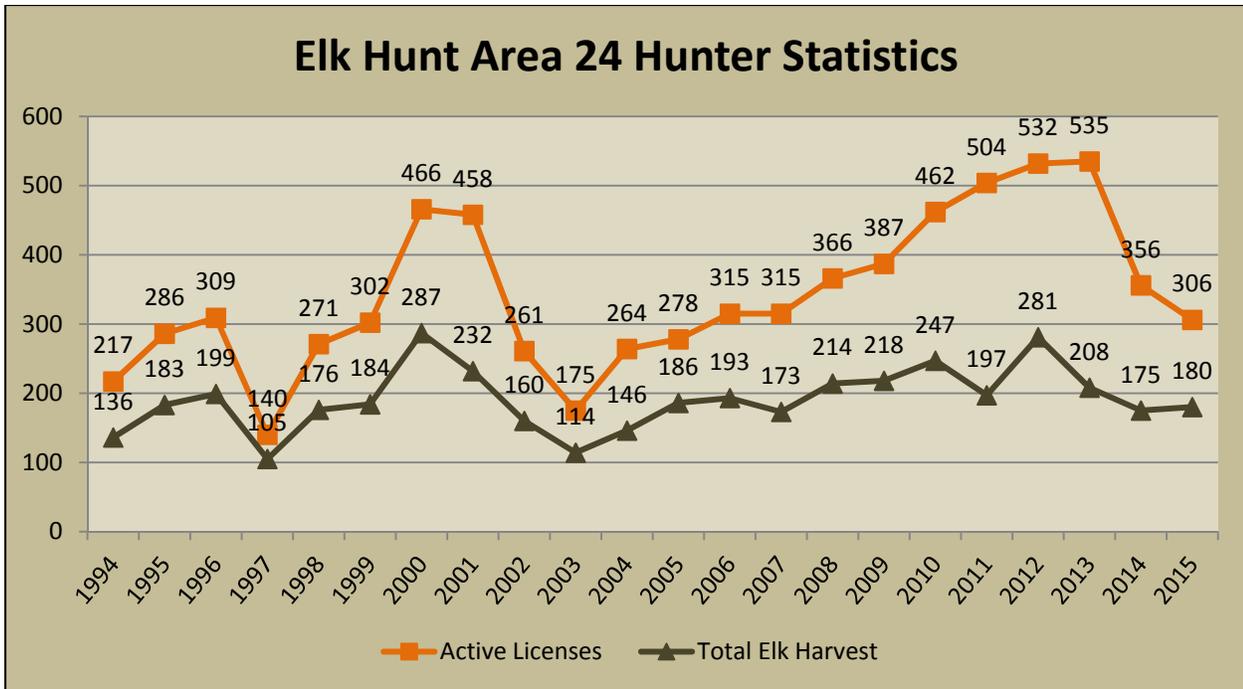


Figure 2. Comparison of elk license numbers and elk harvest trends in Elk Hunt Area 24, 1994-2015.

Nearly 87% of the elk counted in 2015 were in Hunt Area 24. We are refocusing our emphasis on harvesting female elk there by increasing the number of Type 5 licenses to 125 (valid in both Hunt Areas 24 and 128, however few hunters have reported hunting in Hunt Area 128), and not allowing Hunt Area 24 Type 1 and 4 hunters to hunt for antlerless elk in Hunt Area 128 in November as was done the past few seasons. November harvest from Type 1 and 4 hunters seemed quite low in 2015, as per “date of harvest” data provided via harvest surveys. Area 23 (Rattlesnake Elk Herd Unit) hunters will continue to 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. We will maintain the General License season in Hunt Area 128 as an “antlered elk” season again in 2016 in response to observed high hunter densities in portions of the hunt area, which prompted some concerns from area landowners, especially in the west half of the hunt area. We are focusing cow harvest in Area 128 with late-season opportunities as described above. We extended the Hunt Area 24 boundary southerly to encompass the Lost Creek area south to the Osborne Road for the 2015 season. Seasonal ranges need to be updated to match our understanding of elk use of the extended area. The expected 2016 harvest should consist of about 250 elk, mostly from Area 24, and move the herd closer to objective.

**Green Mountain Elk (EL638)
Hunt Areas 24, 128
Seasonal Ranges (Rev. 4/2016)**

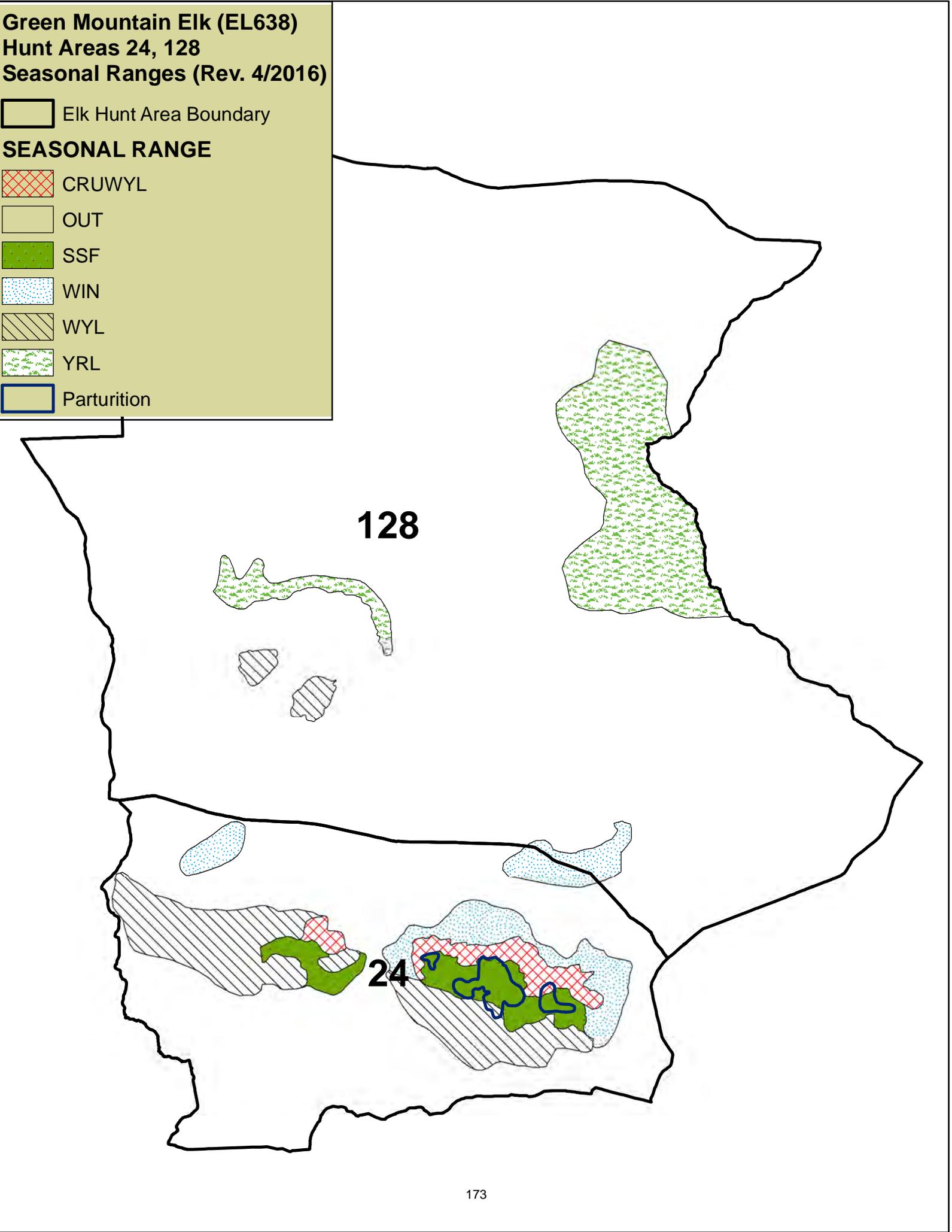
Elk Hunt Area Boundary

SEASONAL RANGE

-  CRUWYL
-  OUT
-  SSF
-  WIN
-  WYL
-  YRL
-  Parturition

128

24



2015 - JCR Evaluation Form

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

PERIOD: 6/1/2015 - 5/31/2016
 PREPARED BY: GREG HIATT

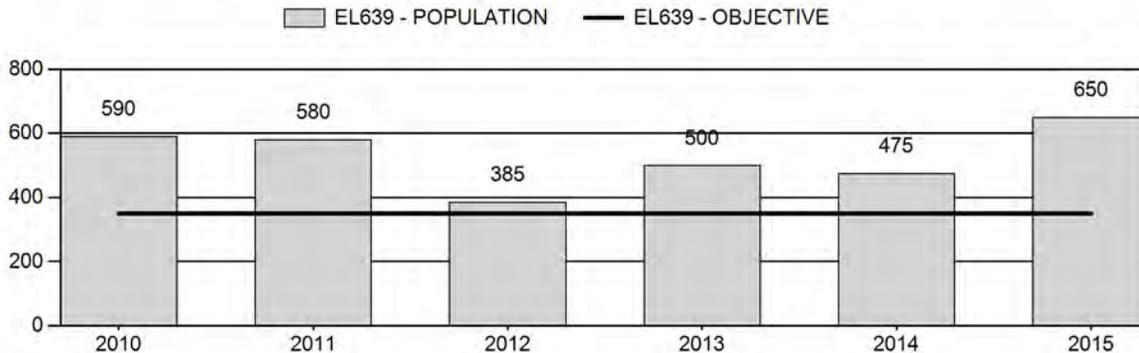
	<u>2010 - 2014 Average</u>	<u>2015</u>	<u>2016 Proposed</u>
Population:	506	650	600
Harvest:	141	104	170
Hunters:	258	199	345
Hunter Success:	55%	52%	49 %
Active Licenses:	266	213	345
Active License Success:	53%	49%	49 %
Recreation Days:	1,794	1,391	3,100
Days Per Animal:	12.7	13.4	18.2
Males per 100 Females	52	56	
Juveniles per 100 Females	35	50	

Population Objective ($\pm 20\%$) : 350 (280 - 420)
 Management Strategy: Special
 Percent population is above (+) or below (-) objective: 86%
 Number of years population has been + or - objective in recent trend: 35
 Model Date: None

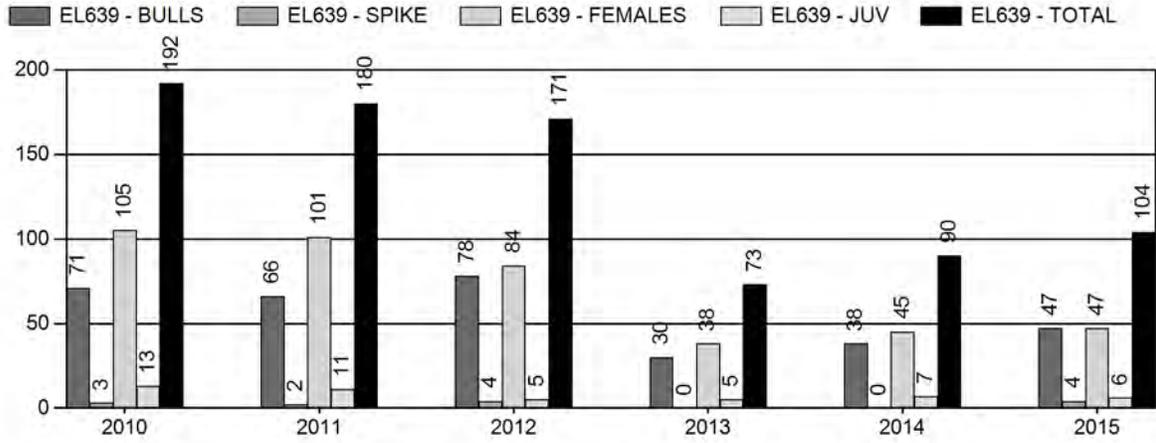
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<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:	-7%	-8%

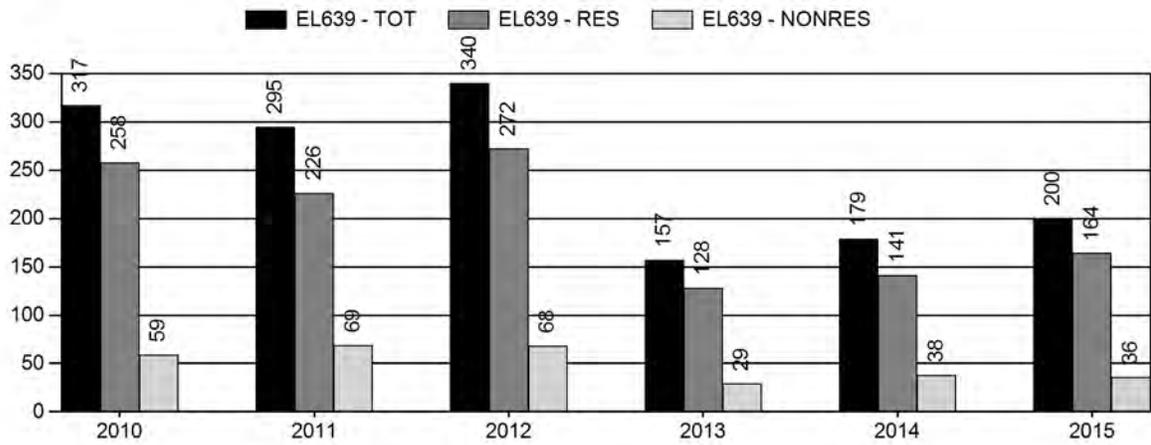
Population Size - Postseason



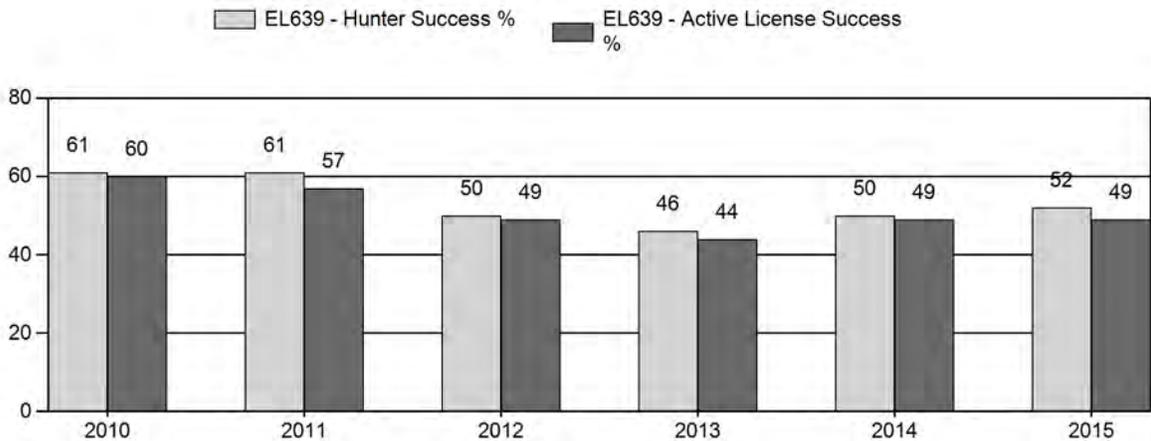
Harvest



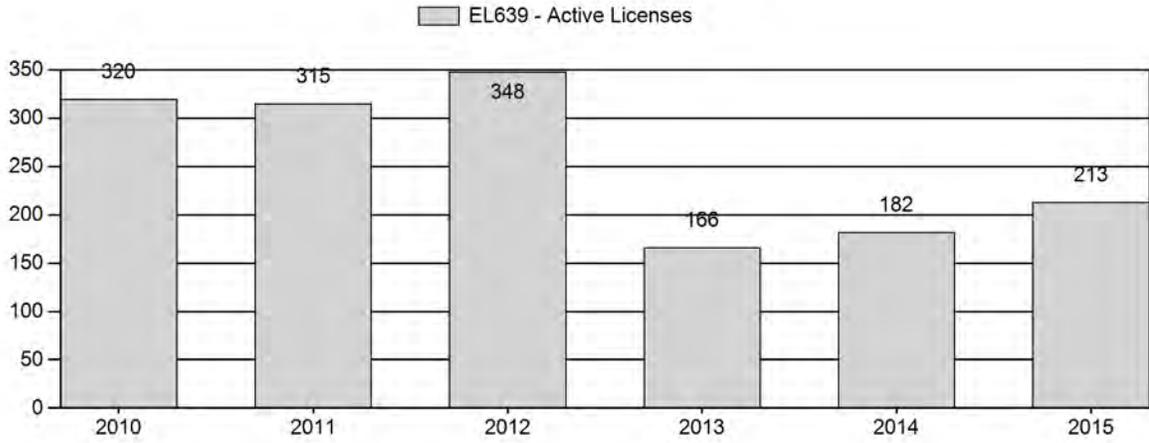
Number of Hunters



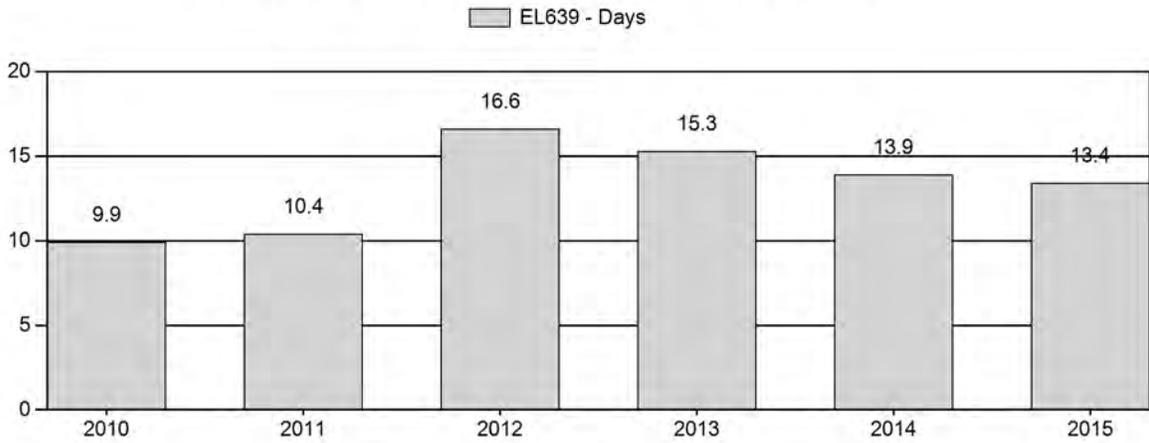
Harvest Success



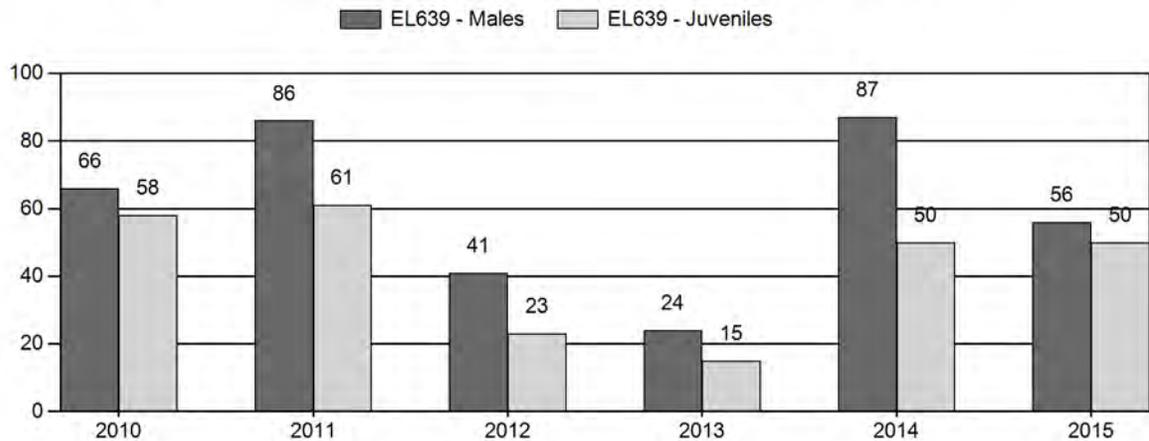
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2010 - 2015 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	%			YIng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
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	475	39	112	151	37%	174	42%	87	21%	412	400	22	64	87	± 5	50	± 3	27
2015	650	55	108	163	27%	291	49%	145	24%	599	0	19	37	56	± 2	50	± 2	32

**2016 HUNTING SEASONS
FERRIS ELK HERD (EL639)**

Hunt Area	Type	Dates of Seasons		Quota	License	Limitations	
		Opens	Closes				
22	1	Oct. 8	Oct. 31	40	Limited quota	Any elk Antlerless elk	
	1	Nov. 1	Jan. 31				
	6	Oct. 8	Oct. 31	25	Limited quota	Cow or calf valid in the Muddy Creek drainage Cow or calf valid in the entire area	
	6	Nov. 1	Jan. 31				
111	1	Oct. 10	Oct. 31	40	Limited quota	Any elk Antlerless elk valid off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area	
	1	Nov. 1	Jan. 31				
	4	Oct. 10	Oct. 31	25	Limited quota	Antlerless elk Antlerless elk valid off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area	
	4	Nov. 1	Jan. 31				
	6	Nov. 1	Jan. 31	150	Limited quota	Cow or calf valid off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area	
	7	Nov. 10	Jan. 31	125	Limited quota	Cow or calf valid off the Wyoming Game and Fish Commission's Morgan Creek Wildlife Habitat Management Area	
	Archery 22, 111		Sep. 1	Sep. 30			Refer to Section 2 of this Chapter

Hunt Area	License Type	Quota change from 2015
22	1	0
	6	0
111	1	+15
	4	0
	6	+25
	7	+125
Herd Unit Total	1	+15
	4	0
	6	+25
	7	+125

Management Evaluation

Current Postseason Population Management Objective: 350

Management Strategy: Special

2015 Postseason Population Estimate: ~650

2016 Proposed Postseason Population Estimate: ~600

Herd Unit Issues

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.

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

Improved precipitation which arrived in the latter half of 2014, following severe drought conditions in 2012 and 2013, continued through 2015. Record precipitation was received in 2015, producing exceptional vegetative growth, improving calf survival. Condition of elk going into the winter is expected to have been excellent. The 2015-16 winter had numerous bitter cold spells, with significant snowfall. Most groups of elk seen during the January trend count were in crucial winter ranges well off the mountain ranges, indicative of heavy snow cover. Milder conditions arrived in mid-February and winter losses are not expected to be above average.

Habitat

While no herbaceous habitat transects are established within occupied habitats of this herd unit, herbaceous forage production appeared to be exceptional due to the increased precipitation. Herbaceous production measured on the Morgan Creek WHMA in the Seminoe Mountains was unusually high. Two shrub transects have been established within this herd unit, primarily to monitor mule deer winter forage. One of these, on the Morgan Creek WHMA, was burned in the 2012 fires and the second was not read in 2015.

Over the past several years the Rawlins BLM has implemented prescribed burns in the Seminoe 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 Seminoe Mountains and the eastern Ferris Mountains burned thousands of acres. These prescribed burns and the recent wildfires should benefit elk as herbaceous forage reclaims burned areas.

The Seminoe Fire burned over 3,800 acres in the Seminoe Mountains including areas within Morgan Creek WHMA. As in other years following the fire, the Rawlins BLM again coordinated and funded aerial application of Plateau® in 2015 to mitigate cheatgrass spread on BLM and WGFD 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 Seminoe 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 and 2014. Without reliable, consistent herd ratios, spreadsheet modeling for this small herd does not work.

Conditions during a helicopter trend count in January 2016 were near ideal, with deep snow cover and most elk being found well off the mountain ranges. All 599 elk counted were also classified, yielding the largest sample since 2009. As with most recent surveys, elk numbers were skewed between the two hunt areas, with only 81 being found in Area 22 and 518 in Area 111, where access is limited to large portions of the area.

Calf production remained high at 50:100 for the second consecutive year, well above the record low ratios recorded in 2012 and 2013. Improved precipitation increased calf production in Area 111, at 50:100, but the ratio in Area 22 was only 45:100, presumably a result of the small sample in that area.

Since most bull groups appear to have been located, as well as all major cow/calf groups, the bull:cow ratio of 56:100 from the 2015 classification sample is probably a realistic estimate of herd composition, and met the special management criterion. Distribution of antlered elk was also skewed, with 80 percent of the elk found in Area 22 being antlered, and only 11 were cows. Sixty percent of the antlered elk were in Area 111, but that area had only 43 percent of the branch-antlered bulls. The spike:cow ratio fell slightly to 19:100, despite high calf production in 2014.

Harvest Data

With the increased quota of Type 1 licenses in Area 22 in 2015, success dropped and the average number of days hunted increased by more than half. In contrast, success for Type 1 hunters in Area 111 rose to 92 percent and days of effort declined. These data suggest many of the bulls seen in the classification survey were in Area 111 during the hunt. Seven percent of the successful Type 1 hunters in Area 22 harvested antlerless elk, and 14 percent took spikes, the highest proportion since 1999. None of the Type 1 hunters in Area 111 chose to do so. Like the classification data, these harvest statistics suggest the supply of bulls in this herd has improved, at least 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. Initial success for hunters with these licenses was high, at 72 percent, but has steadily declined and was only 21 percent in 2013, 25 percent in 2014 and 19 percent in 2015. The average number of days hunted per elk harvested on these licenses began at 5 days in 2010 and has steadily risen, at 11 days in 2015. This license strategy has successfully reduced the number of elk found on these irrigated fields in the fall.

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. Seasons were extended through January to offer hunters opportunity to harvest antlerless elk in early winter when they are often found in winter ranges on accessible public lands. Success for hunters with these licenses had dropped off each year since, yielding only 33 percent success in 2015, despite the extended season. Hunters able to hunt the entire area with Type 4 antlerless elk had slightly better success, at 38 percent.

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. In years when counting conditions were not favorable, estimates of herd size are made using the most recent reliable trend count, adding annual calf production and subtracting harvest for each intervening year. Conditions were ideal during the 2013 winter trend count, when 490 elk were found. Snow cover was less ideal in 2014 and only 412 elk were observed. Ideal conditions during the 2015 count yielded a count of 599 elk, still well above objective and little different from numbers seen in 2009, despite large increases in antlerless license quotas and seasons extended through January. All of the surplus

elk are still in Area 111 where access is limited. A total of 130 elk were found in the Haystack Mountains in the checkerboard in the southern portion of Area 111 where landowners do not allow public access. In Area 22 where most lands are accessible to hunters, elk numbers have been successfully reduced and remain low.

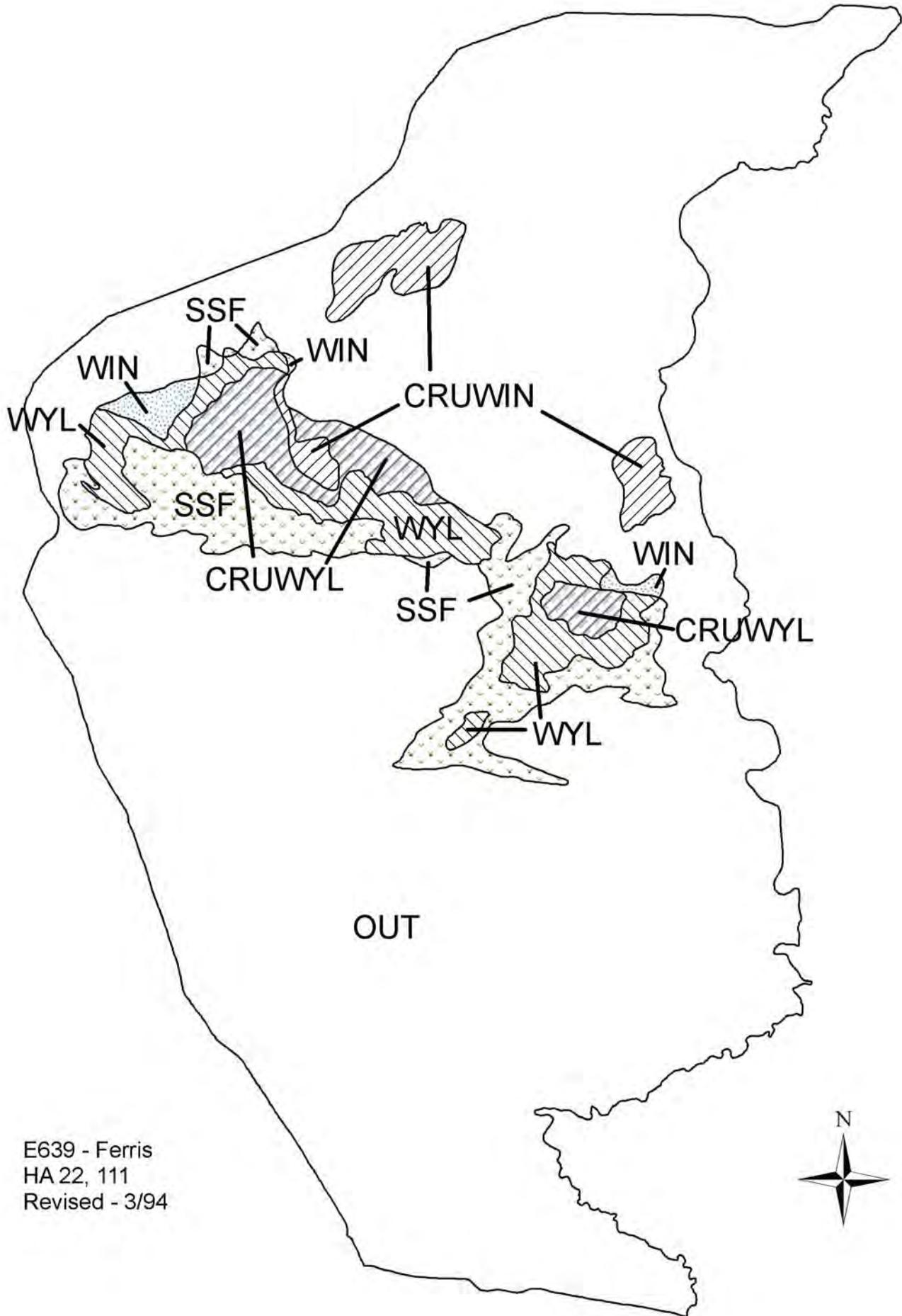
Management Evaluation

License quotas were reduced in 2013 in response to the low 2012 trend count, poor hunter success and low calf production, intended to maintain herd reduction while providing reasonable chances of success for hunters applying for such tags. This was the proper response for Area 22, but elk numbers were still above objective in Area 111 and quotas for that area were increased by 75 in 2014. While the high bull:cow ratio seen in Area 22 is probably skewed by antlerless elk dispersing into wintering areas in Area 111, high hunter success for Type 1 licenses in Area 111 indicates there was a good supply of bulls in that area and the quota for those licenses is increased by 15 in 2016. In addition, the quota for Type 6 licenses in Area 111 was increased by 25. An additional 125 Type 7 licenses were added to attempt to reduce this herd towards objective of 350, with the season for these licenses opening nine days later to reduce crowding.

Expected harvest from the 2016 seasons would be about 170 elk, with roughly 67 percent being antlerless. About 80 percent of the harvest should come from Area 111. Assuming normal calf production and improved hunter success, the herd should be reduced to approximately 600 elk in 2016.

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 the following years 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 the 2016 seasons. Barring changes in access across private lands, elk occupying the Haystack Mountains in checkerboarded lands in Area 111 will continue to be unavailable to most hunters.

With the exception of the new Type 7 licenses in Area 111, all 2016 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 2015 season. Archery seasons coincide with local deer archery seasons and archery seasons in neighboring elk areas.



E639 - Ferris
HA 22, 111
Revised - 3/94

2015 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2015 - 5/31/2016

HERD: EL643 - SHAMROCK

HUNT AREAS: 118

PREPARED BY: GREG HIATT

	<u>2010 - 2014 Average</u>	<u>2015</u>	<u>2016 Proposed</u>
Population:	86	N/A	N/A
Harvest:	56	24	60
Hunters:	93	61	110
Hunter Success:	60%	39%	55 %
Active Licenses:	98	65	110
Active License Success:	57%	37%	55 %
Recreation Days:	485	381	700
Days Per Animal:	8.7	15.9	11.7
Males per 100 Females	0	0	
Juveniles per 100 Females	0	0	

Population Objective ($\pm 20\%$) :	75 (60 - 90)
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

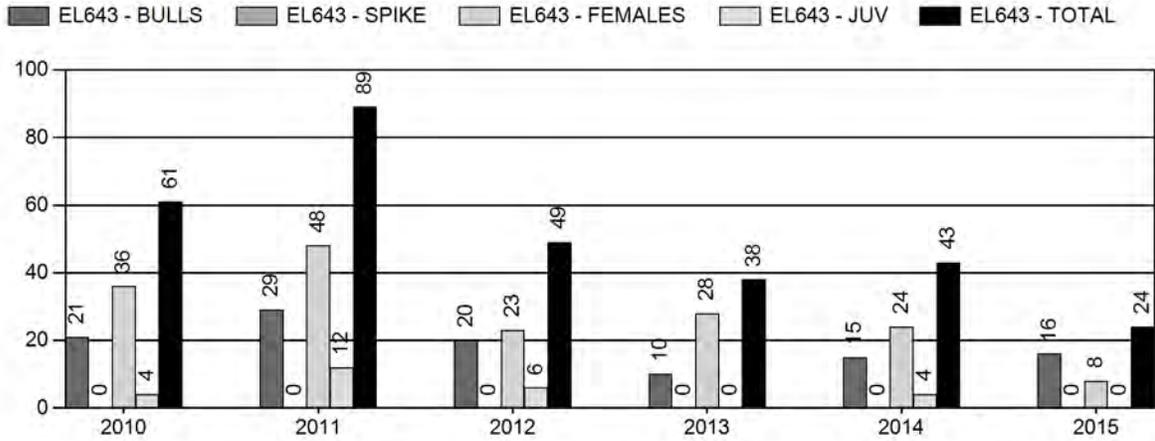
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	<u>JCR Year</u>	<u>Proposed</u>
Females ≥ 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%

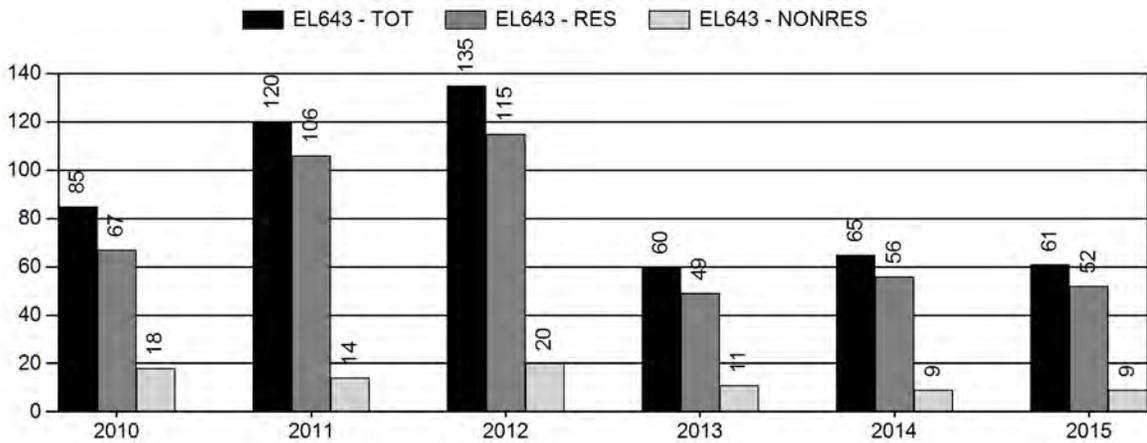
Population Size - Postseason



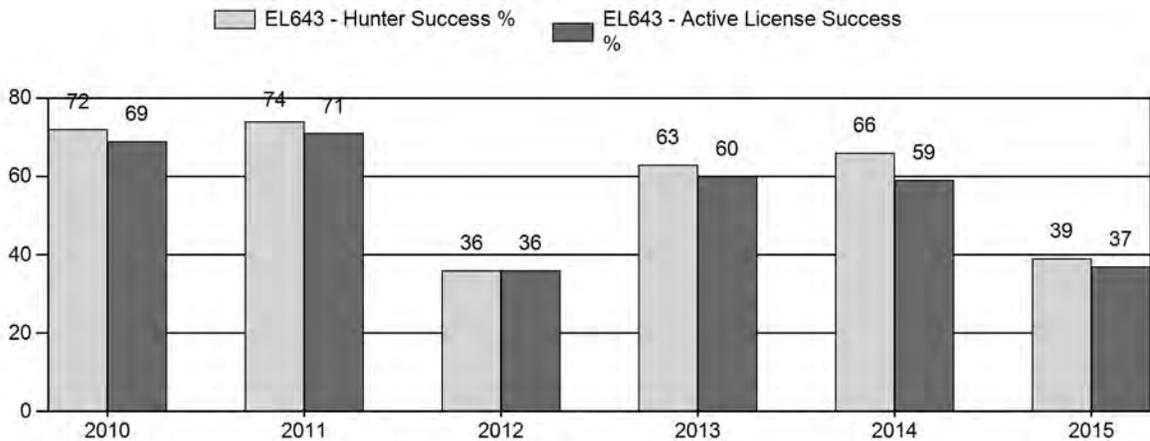
Harvest



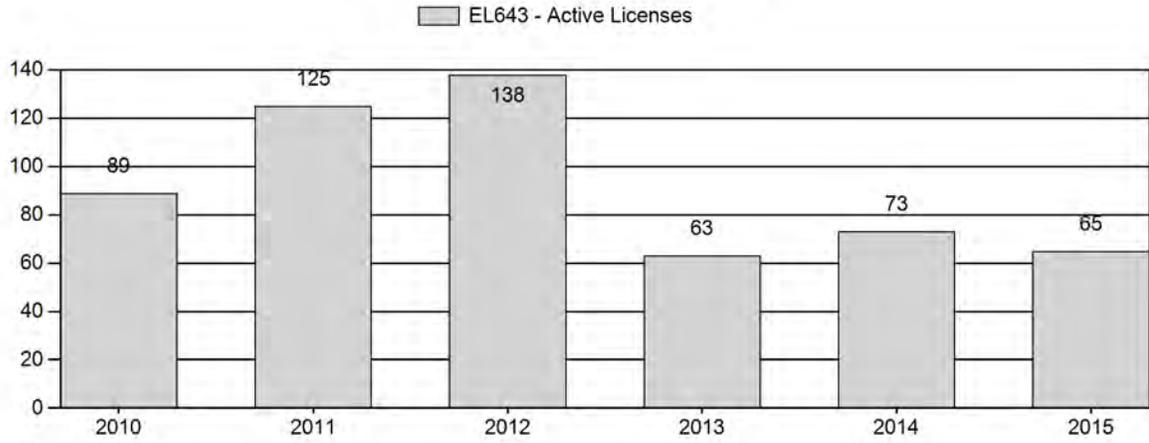
Number of Hunters



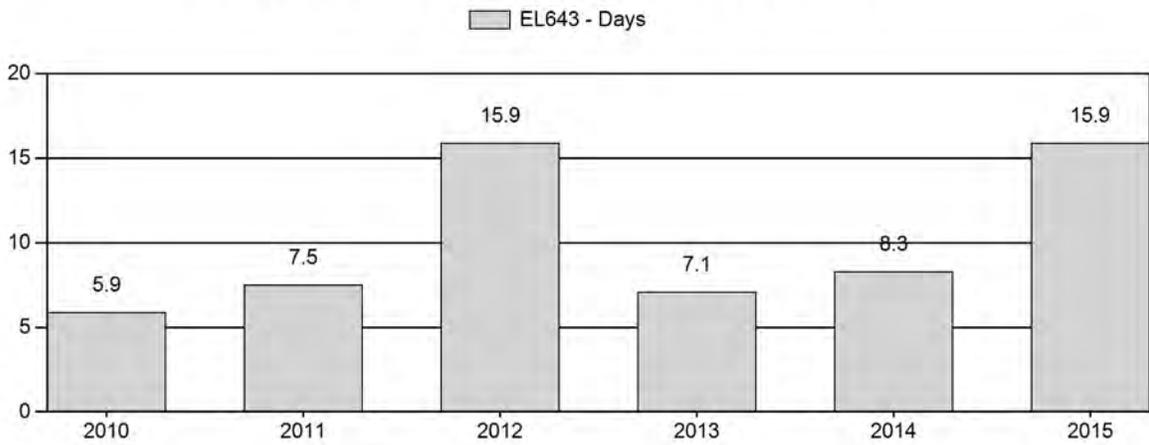
Harvest Success



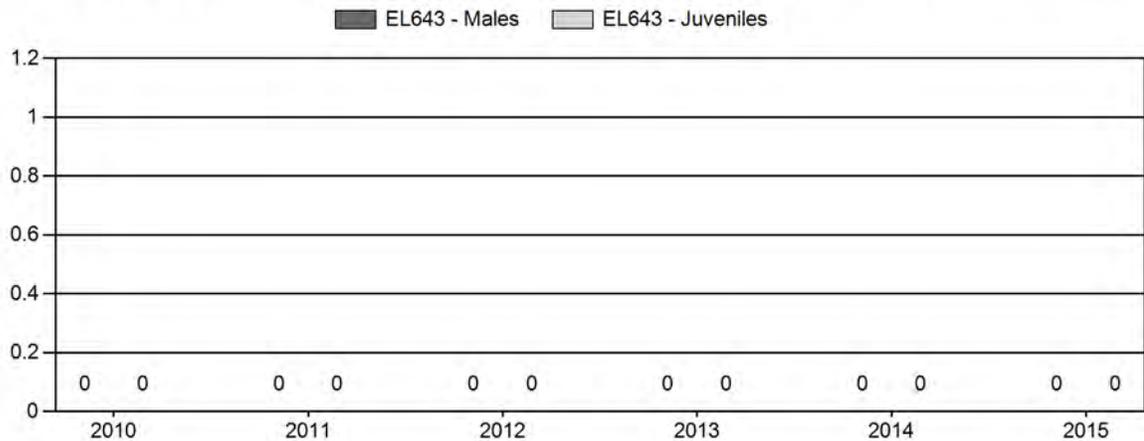
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2010 - 2015 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	%			YIng	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
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	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	±0	0	±0	0
2015	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	±0	0	±0	0

**2016 HUNTING SEASONS
SHAMROCK ELK HERD (EL643)**

Hunt Area	Type	Dates of Seasons		Quota	License	Limitations
		Opens	Closes			
118	1	Oct. 22	Nov. 12	25	Limited quota	Antlered elk
	4	Oct. 22	Nov. 30	25	Limited quota	Antlerless elk; also valid in that portion of Area 100 east of the Bar-X Road (Sweetwater County Road 21) and south of the Luman Road (Sweetwater County Road 20)
	6	Oct. 1	Nov. 30	75	Limited quota	Cow or calf valid south of the Mineral X Road (Sweetwater County Road 63 and BLM Road 3206); also valid in that portion of Area 100 east of the Bar-X Road (Sweetwater County Road 21) and south of the Luman Road (Sweetwater County Road 20)
Archery 118		Sep. 1	Sep. 30			Refer to Section 2 of this Chapter

Hunt Area	License Type	Quota change from 2015
118	1	0
	4	0
	6	+50
Herd Unit Total	1	0
	4	0
	6	+50

Management Evaluation

Current Postseason Population Management Objective: 75

Management Strategy: Recreation

2015 Postseason Population Estimate: N/A

2016 Proposed Postseason Population Estimate: N/A

Herd Unit Issues

The management objective for the Shamrock Elk Herd Unit is a post-season population objective of 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 2015. Change to a landowner and hunter satisfaction objective was proposed in 2015 and was met with resistance by landowners who prefer management be committed to a fixed number of elk. A new trend count management objective is currently being reviewed.

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

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 portion of Area 100. This shift into Area 100 was noted again in 2014 and 2015, but may have been due to hunting pressure from cow/calf hunters rather than weather or drought.

A cow elk died of lichen toxicity just a few miles into Area 100 in September of 2012, presumably induced into consuming lichen as a result of extremely poor forage conditions that year. At least eight elk died of lichen toxicity in the eastern portion of Area 100 during the 2015-16 winter. No incidences of lichen toxicity in elk were noted in this herd, however roughly 150-200 elk wintering along the border between Areas 118 and 100 were reported to have left orange and red urine stains, indicative of lichen consumption, during both the 2014-15 and 2015-16 winters.

Weather

Following severe drought in 2012 and 2013, improved precipitation arrived in the latter half of 2014 and continued through 2015. Record precipitation in 2015 produced high calf crops in neighboring herds and is expected to have occurred in this herd as well. Condition of elk going into the 2015-16 winter is expected to have been excellent. The 2015-16 winter had numerous bitter cold spells, with significant snowfall, but milder conditions arrived in mid-February. Winter losses are not expected to be above average.

Habitat

While no herbaceous habitat transects are established within this herd unit, herbaceous forage production appeared exceptional due to record precipitation in 2015. Only one shrub transect has been established near this herd unit, on the Chain Lakes WHMA, but was not read in 2015.

Habitat losses to uranium development increased with the 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 significantly due to low oil and gas prices.

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. Increased precipitation during 2015 improved calf production in neighboring herds and production in this desert herd probably increased 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 large numbers of elk were reported to have moved into southeastern portion of Area 100. Success improved when license quotas were reduced beginning in 2013, but success for Type 1 hunters was still below the long-term average. Success fell for all three license types in 2015, to record lows for the Type 4 and Type 6 hunters. At only 11 percent success for Type 4 hunters and 27 percent for Type 6 hunters, success in 2015 was lower than in the muzzleloader/archery hunt held in 1984. Again, many hunters attributed the low numbers of elk in Area 118 to movement west into the southeast portion of Area 100.

As would be expected with poor hunter success, the average number of days hunted per elk harvested increased in 2015, for all three license types. The effort required to harvest an antlerless elk on a Type 6 license more than doubled. The days of effort required for hunters with Type 4 licenses to harvest rose to an incredible record high of 63.5 days, almost seven times the 2014 average. Not surprisingly, hunter satisfaction fell to 33 percent from a five-year average of 62 percent.

Because of poor success, harvest in 2015 was almost half that of 2014, despite license quotas remaining unchanged. Even with low elk numbers, none of the Type 1 holders reported having to harvest a spike or antlerless elk.

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 had been a concern.

Localized movement of elk westward into Area 100 from the southwest portion of Area 118 cannot explain the difficulty hunters had finding elk to harvest in the entire area in 2015. Harvest statistics indicate increased harvests in recent years have reduced elk numbers across the herd unit.

Management Evaluation

Harvest from the 2016 season is expected to be about 60 elk, with roughly three-quarters 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 beginning in 2013, which encompasses most private lands within the checkerboard. A similar delineation for the Type 6 licenses is used in 2016.

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 was 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 for the Type 1 and Type 4 seasons was returned to the traditional third week of October beginning in 2014, avoiding overlap with the general license deer hunt in the same area. Closing date for the Type 4 season is extended to the end of November to match the opportunity available to the Type 6 hunters. The archery season uses standardized dates and is comparable to those in neighboring areas.

To address the problem of elk dispersing into the southeastern portion of Area 100, Area 118 Type 4 and Type 6 licenses will also be valid in the southeastern corner of Area 100, bounded by the Bar-X and Luman Roads. This strategy will also allow for a test of the boundary change between these two herd units that was proposed in 2014. To prevent those elk residing along the herd unit boundary from avoiding harvest by moving east into Area 118, hunters with Area 100 Type 6 licenses will also be able to hunt in that portion of Area 118 south of the Mineral X Road and west of the Riner Road. The opening dates for the Area 118 Type 1 and Type 4 seasons are advanced by one day to synchronize with the Area 100 Type 6 season.

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

