GREEN RIVER REGION

TABLE OF CONTENTS

ACKNOWLEDEMENTS

The field data contained in these reports is the result of the combined efforts of the Green River Region Wildlife Division personnel including District Wildlife Biologists, District Game Wardens, Terrestrial Habitat Biologist, Green River Wildlife Technician, Wildlife Management Coordinator, Region Supervisor, and all other department personnel that participated in data collection. Gratitude is also extended to the Green River neighboring regions of Pinedale, Jackson, Laramie, and Lander for their assistance in collaboration of data collection efforts. The authors of this report wish to express their appreciation to all those who assisted in data collection.

2023 - JCR Evaluation Form

SPECIES: Pronghorn

PERIOD: 6/1/2023 - 5/31/2024

HERD: PR401 - SUBLETTE

HUNT AREAS: 85-93, 96, 101, 107

PREPARED BY: PATRICK BURKE

	2018 - 2022 Average	2023	2024 Proposed
Population:	38,799	20,500	20,000
Harvest:	2,964	721	750
Hunters:	3,045	814	850
Hunter Success:	97%	89%	88%
Active Licenses:	3,402	813	850
Active License Success:	87%	89%	88%
Recreation Days:	9,553	2,800	2,800
Days Per Animal:	3.2	3.9	3.7
Males per 100 Females	55	50	
Juveniles per 100 Females	55	47	

Population Objective (± 20%) : 48000 (38400 - 57600)

Management Strategy: Recreational

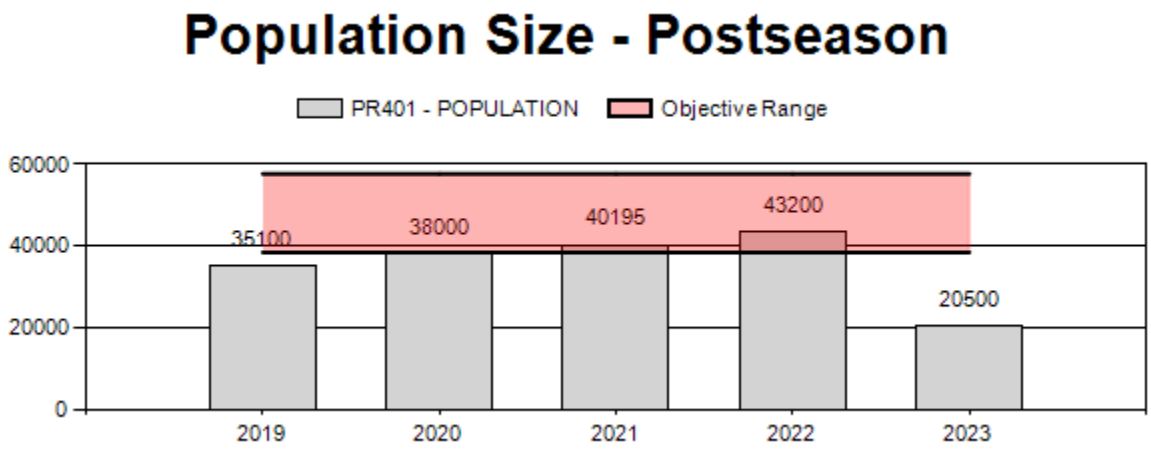
Percent population is above (+) or below (-) objective: -57.3%

Number of years population has been + or - objective in recent trend: 13

Model Date: 02/27/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	5%	.1%
Males ≥ 1 year old:	18%	15%
Proposed change in post-season population:	7%	0%



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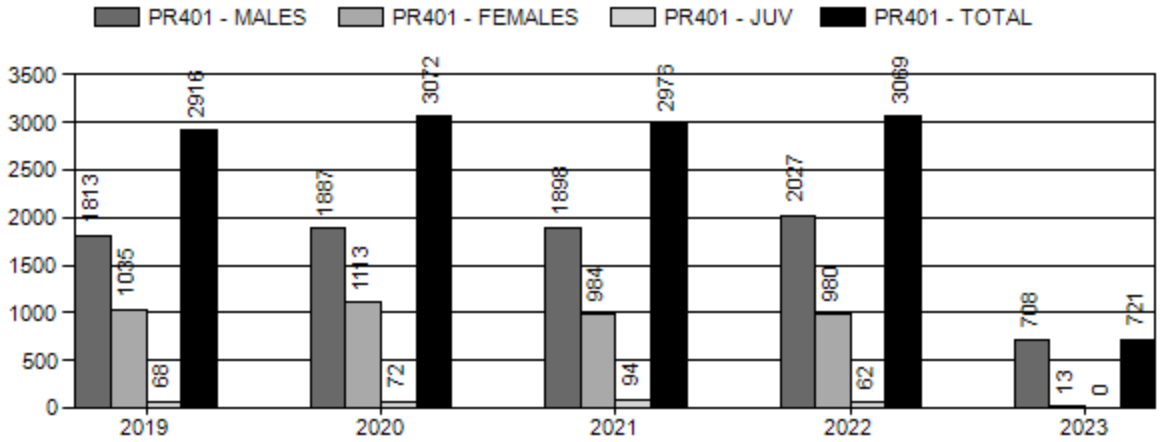
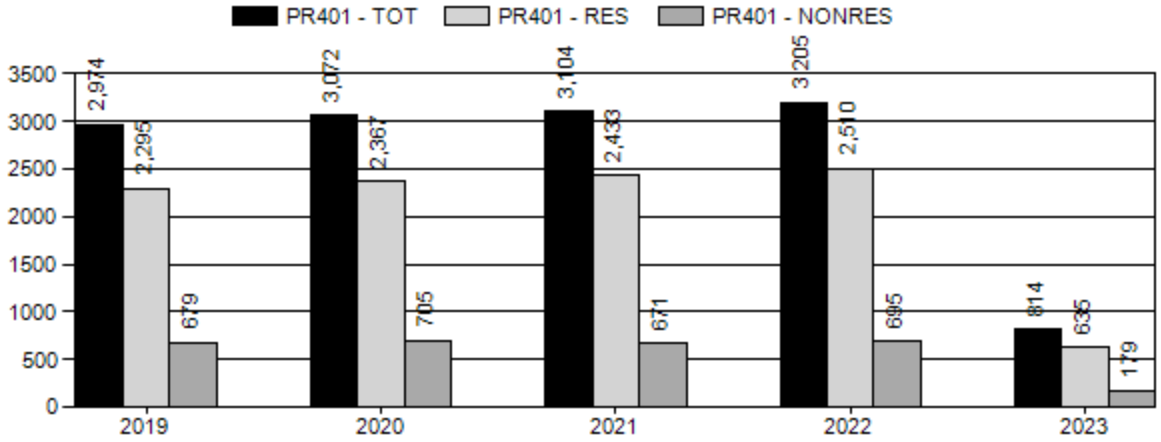


Number of Hunters



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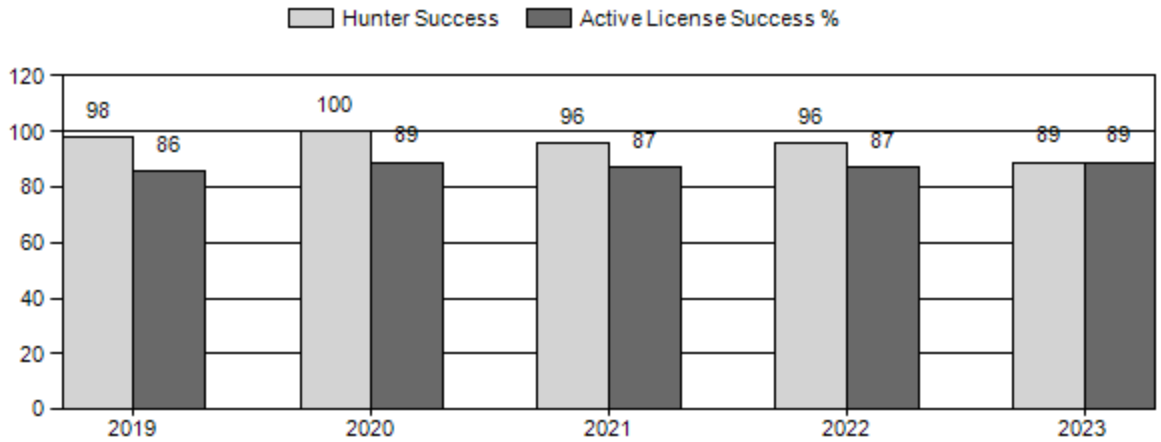

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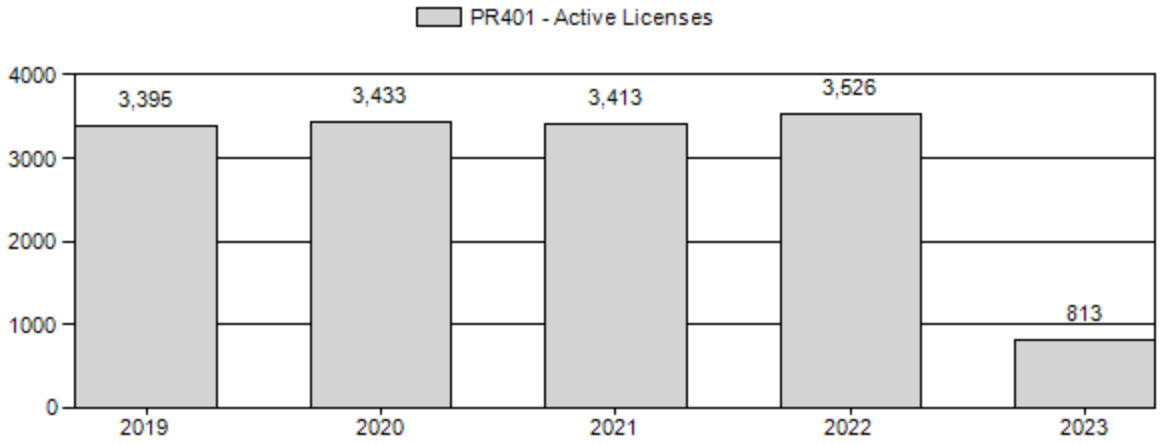
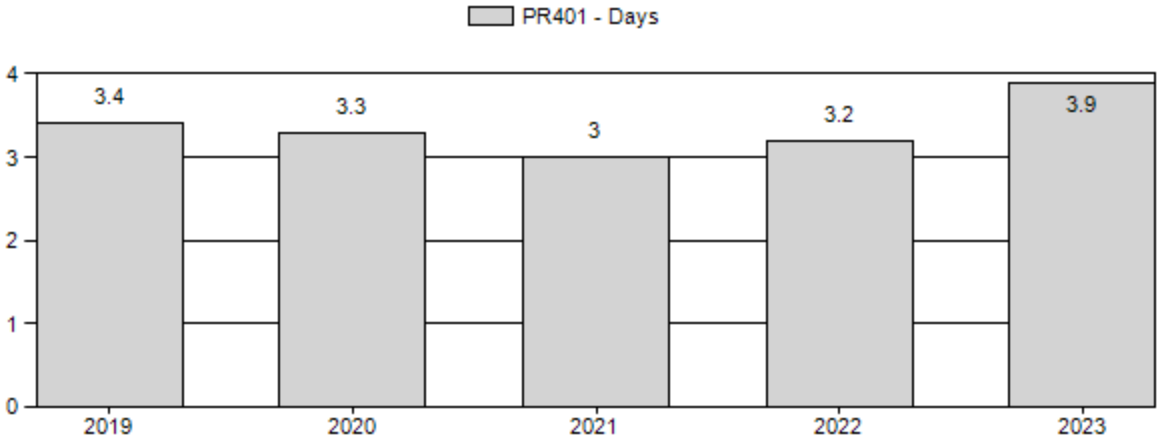
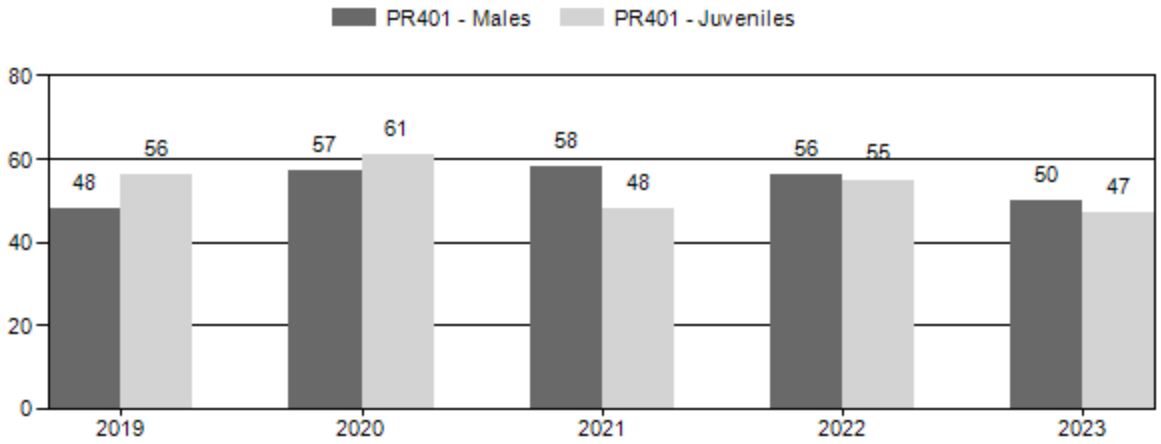


Days Per Animal Harvested



Preseason Animals per 100 Females



2024 Hunting Seasons
Sublette Pronghorn Herd (PR401)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
87	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	20	Any antelope
87	2	Aug. 15	Sept. 9	Sept. 25	Oct. 31	15	Any antelope
88	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	35	Any antelope
89	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	20	Any antelope
89	2	Aug. 15	Sept. 9	Oct. 10	Oct. 31	20	Any antelope
90	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	35	Any antelope
91	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	75	Any antelope
92	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	150	Any antelope
93	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	300	Any antelope
96	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	75	Any antelope
101	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	35	Any antelope
107	1	Aug. 15	Sept. 9	Sept. 10	Oct. 31	75	Any antelope
107	0	Aug. 15	Sept. 9	Aug. 20	Sept. 9	25	Any antelope, muzzleloading firearms and handguns only

2023 Hunter Satisfaction: 79.7% Satisfied, 14.0% Neutral, 6.4% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation:

The 2024 hunting season contained only minor changes from what was offered in the herd unit in 2023. For first change for the 2024 season was the closure of Hunt Area 86, which now makes two of the 13 hunt areas in this herd unit closed in response to the unprecedented winter conditions seen in the herd unit during the 2022-2023 winter. The other change implemented for the 2024 season was a reduction in the number of licenses offered in Hunt Areas 87, 88, and 89. This change was also put in place because of concerns over reduced pronghorn densities due to the 2022-2023 winter. Following that winter, all Type 1 licenses in the herd unit were reduced by 50% to 75% in 2023, and Hunt Area 85 near Jackson was closed completely; also all Type 6 and 7 licenses in the herd unit were removed completely.

Due to the severity of the 2022-2023 winter and associated low survival estimates from collared does in the herd unit, a line-transect survey was flown in the herd during early June 2023 to determine how this herd had actually fared during that winter and to provide a reliable population estimate for the herd. The results of that survey suggested a herd unit wide, end of biological year population size of 23,650 (18,900 – 29,600) pronghorn on the ground following the 2022-2023 winter, which was significantly smaller than a similar survey flown in 2021 (31,400 (25,700 – 38,400)) had estimated. As well as a whole herd population estimate, density estimates for each of the hunt areas flown during the line-transect surveys were also calculated. The calculated density estimates for each hunt area for the two surveys are listed below. Of interesting note, while the northern hunt areas saw significant declines between the 2021 and 2023 surveys, some of the southern hunt areas actually saw increases in estimated pronghorn densities. This was probably due to pronghorn migrating from the northern units into the southern units trying to escape the more severe winter conditions in the northern portions of the herd unit.

	2021	2023
Hunt Area	Pronghorn per SQ mile	Pronghorn per SQ mile
87	6.63	1.64
88	5.21	1.58
89	4.3	3.92
90	4.6	1.72
91	4.35	2.69
92	3.37	4.23
93	5.68	3.55
96	1.4	2.25
101	1.67	0.84
107	12.34	13.98

The modeled 2023 post-season population estimate for the Sublette herd was 20,550 pronghorn; which is approximately 57% below its objective of 48,000, and is the lowest that this population has ever been estimated. For comparison, the 2022 post-season population estimate for this herd was 43,200 pronghorn, suggesting that the 2022-2023 winter caused this herd to decline by roughly 50%, and took it from being at the lower end of its objective range to being significantly under objective.

Observed buck ratios in 2023 were 50 bucks per 100 does herd unit wide, which puts the observed ratios for this herd within the recreational management criteria for pronghorn herds. Based on model estimates, the average proportion of preseason adult males harvested for the last three years is roughly 20% of the preseason population; with the 2023 estimated proportion of adult bucks harvested being 12%, and the proposed 2024 season being estimated to harvest approximately 15% of bucks older that one year old. It is important to note however that even with the 2023 line-transect survey, the true impact of the 2022-2023 winter on this population will not be fully known for several years and that a conservative approach in regards to harvest should be taken until Subsequent years of data verify the impact that license issuance rates have on the observed buck to doe ratios in this herd.

The observed fawn ratio in the Sublette herd was 47 fawns per 100 does in 2023. This compares to 55 fawns per 100 does seen in 2022, and to a long term average for this herd of 64 fawns per 100 does. The low fawn ratio seen in 2023 was almost certainly a holdover from the impacts of the 2022-2023 winter and the resulting poor body condition of doe pronghorn caused by the severe winter conditions. Given the observed fawn ratio seen in 2023, this herd is expected to roughly maintain its current population size in 2024, and several years of favorable conditions will be necessary for this herd to start recovering.

2.) Population Modeling:

In 2021, WGFD managers began using PopR integrated population models (IPM) to estimate population indices for mule deer and pronghorn. The bio-year 2023 postseason population estimate for this herd unit was 20,600 (CL = 16,450 – 25,500) pronghorn.

It is important to note that the IPM model does have some difficulty reconciling the drastic differences between the 2020 end of bio-year line-transect estimate and the 2022 end of bio-year population estimate obtained from the line-transect surveys, so more years of data may be needed to improve confidence in modeled population estimates.

2023 - JCR Evaluation Form

SPECIES: Pronghorn | PERIOD: 6/1/2023 - 5/31/2024

HERD: PR411 - UINTA-CEDAR MOUNTAIN

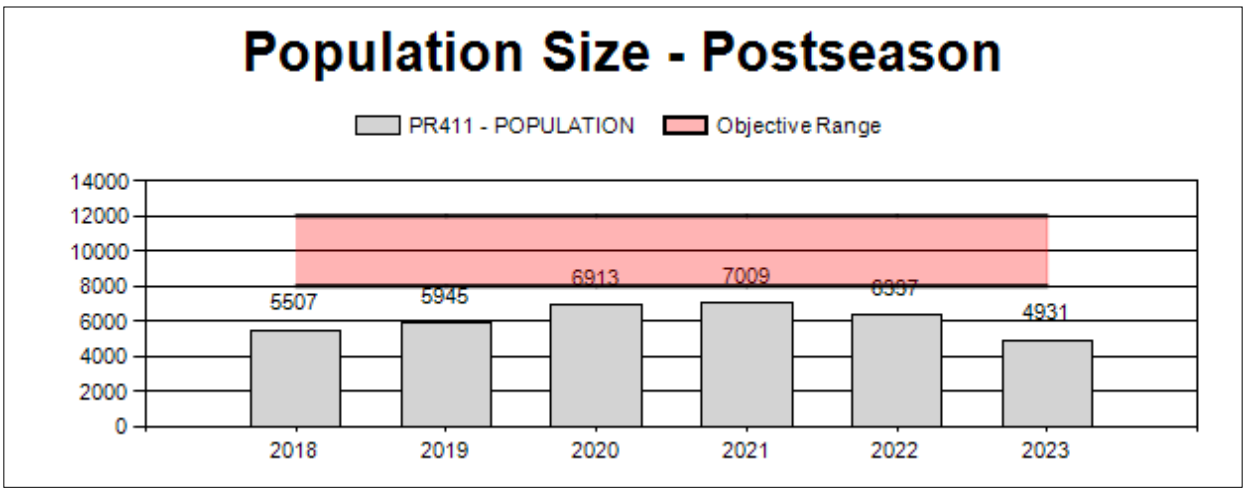
HUNT AREAS: 95, 99 | PREPARED BY: JEFF SHORT

	2018 - 2022 Average	2023	2024 Proposed
Population:	6,342	4,931	5,172
Harvest:	681	393	400
Hunters:	768	438	450
Hunter Success:	89%	90%	89%
Active Licenses:	843	437	450
Active License Success:	81%	90%	89%
Recreation Days:	3,105	1,646	1,600
Days Per Animal:	4.6	4.2	4
Males per 100 Females	53	44	
Juveniles per 100 Females	40	39	

Population Objective (± 20%) :	10000 (8000 - 12000)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-50.7%
Number of years population has been + or - objective in recent trend:	10
Model Date:	02/28/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	2%	2%
Males ≥ 1 year old:	28%	28%
Proposed change in post-season population:	-4%	4.8%



2024 HUNTING SEASONS

Uinta-Cedar Mountain Herd Unit (PR411)

Hunt Area	Hunt Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
95	1	Aug. 15	Sept. 9	Sep. 10	Oct. 31	300	Any antelope
95	7			Aug. 15	Oct. 31	25	Doe or fawn valid on irrigated land
99	1	Aug. 15	Sept. 9	Sep. 10	Oct. 31	125	Any antelope
99	2			Aug. 15	Nov. 30	25	Any antelope valid north and west of Wyoming Highway 410 and west of Uinta County Road 271
99	0			Sep. 1	Oct. 31	25	Any antelope, muzzle-loading firearms only

2023 Hunter Satisfaction: 81.7% Satisfied, 11.8% Neutral, 6.5% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: Conservative seasons are warranted in this herd. Historical harvest pressure to alleviate landowner complaints, coupled with dry summers and difficult winters have resulted in low pronghorn numbers in this herd. The winter of 2022/23 was very severe in the western part of the herd but was much better in the eastern portion. The winter was so severe that all additional doe/fawn licenses were eliminated for the 2023 season. We are currently well below objective. We are continuing moderate harvest for 2024. We propose to add some limited doe/fawn harvest in 2024 to address antelope causing damage on private irrigated lands in Hunt Area 95. However, this is much lower than what was offered historically due to lower landowner complaints and lower numbers of antelope in those areas.

Hunt Area 95 is the least productive area in the herd, but tends to produce the largest bucks and is a favorite of local pronghorn hunters. Hunt Area 99 is historically much more productive and has more private landowner complaints. These license allocation proposals are in an effort to help us in moving this population toward objective while still addressing some depredation. We need more favorable weather conditions to truly benefit this herds fawn recruitment and growth. The minimum male harvest goal of 25% has been met in this herd for several years. We provide a high amount of opportunity in this herd unit.

2.) Management Objective Review: We are maintaining this herd at the current objective and management strategy based on internal discussions and conversations with our constituents. We evaluated and considered population status and habitat data and a change is not warranted at this time. We will review this herd objective again in 2029; however, if the situation arises that a change is needed, we will review and submit a proposal as needed

3.) Winter Severity: We have had four severe winters in this herd in the last seven years (2016-17, 2018-19, 2019-20 and 2022-23). Weather related impacts to pronghorn are less in this area than they are for mule deer. Pronghorn in this herd generally have the ability to migrate to lower elevation flats during severe winters, but this is increasingly challenging. Movements of pronghorn in this area have become more difficult as human development and disturbance impedes movement corridors and annual migrations.

4.) Line Transect Surveys: Population estimates with the Line Transect survey technique are very important for providing adequate data to model antelope herd populations. Without performing these surveys regularly, it is unlikely that the population models can perform reliably. We were able to fly a Line Transect survey in May of 2023. This is an end of bio year 2022 population estimate. Previously we have not had the budget to conduct line transect surveys in this herd since 2014. In the future, we will need to the fly these surveys more often to effectively model this herd. The most recent estimate was 7,727 (CL =5,363-10,936). The SE and confidence interval on the estimate are high. This is due to an effort to be efficient with survey money by reducing sampling intensity. The result was a less precise estimate that is not as useful. In the future, it is advised that we go to a more intense sampling scheme.

5.) Population Modeling: In 2021, WGFD managers began using PopR integrated population models (IPMs) to estimate population indices for mule deer and pronghorn. The 2023 postseason population estimate for this herd unit from the PopR IPM is 4,931 (CL =4,317-5,475) pronghorn. We have some reservations of this model since the most recent Line Transect Survey has such high variance. In the future it will be imperative that we obtain more precise line transect population estimates periodically to check the status of the herd and anchor the model.

2023 - JCR Evaluation Form

SPECIES: Pronghorn

PERIOD: 6/1/2023 - 5/31/2024

HERD: PR412 - SOUTH ROCK SPRINGS

HUNT AREAS: 59, 112

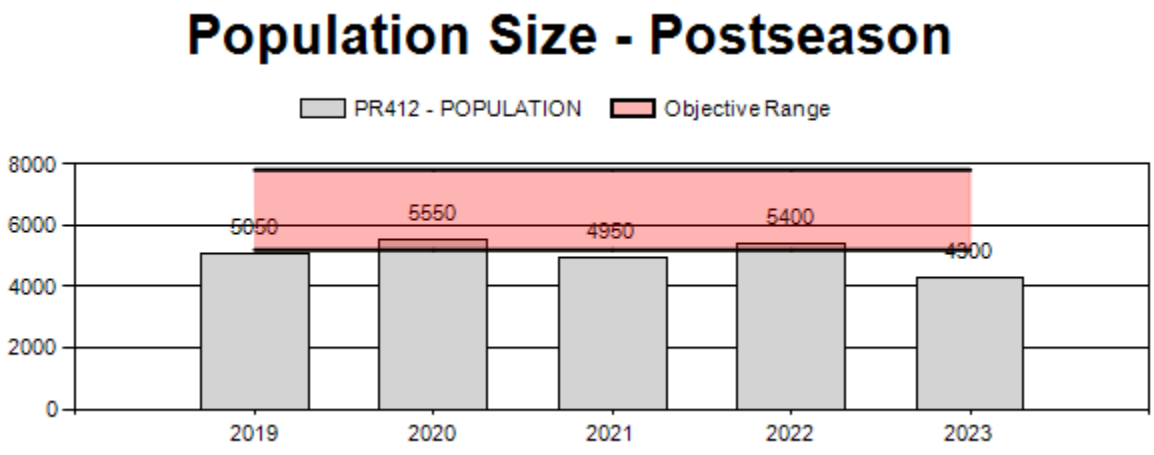
PREPARED BY: PATRICK BURKE

	2018 - 2022 Average	2023	2024 Proposed
Population:	5,460	4,300	4,650
Harvest:	352	126	125
Hunters:	398	143	150
Hunter Success:	88%	88%	83%
Active Licenses:	414	143	150
Active License Success:	85%	88%	83%
Recreation Days:	1,306	395	400
Days Per Animal:	3.7	3.1	3.2
Males per 100 Females	41	33	
Juveniles per 100 Females	38	31	

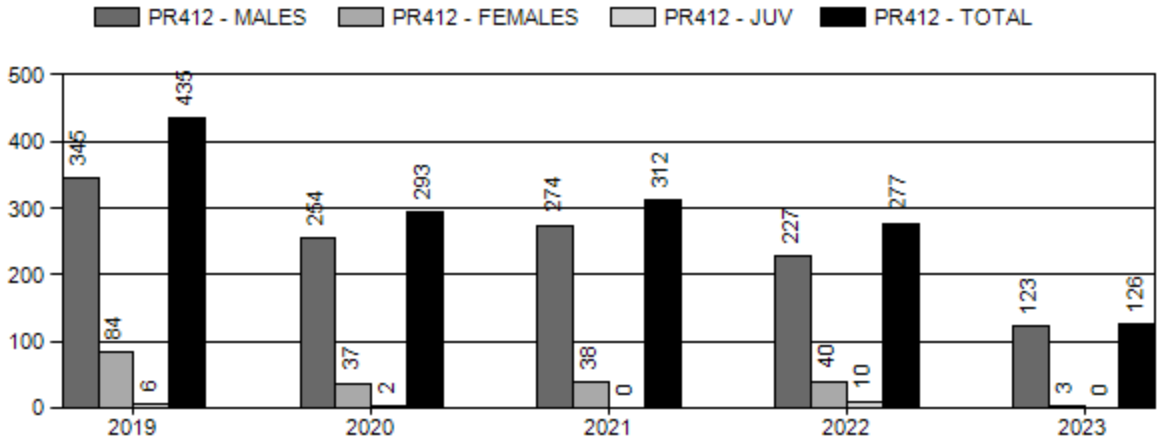
Population Objective (± 20%) :	6500 (5200 - 7800)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-33.8%
Number of years population has been + or - objective in recent trend:	1
Model Date:	02/27/2024

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

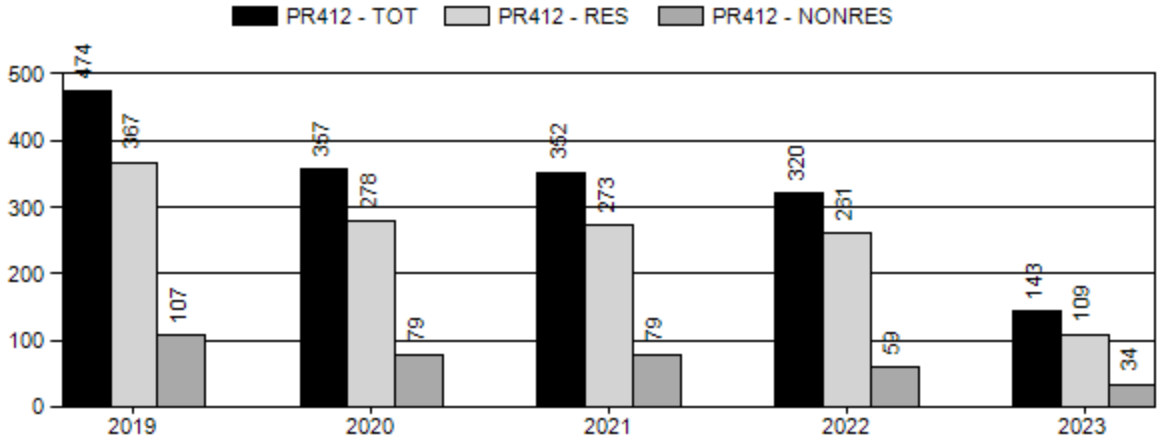
	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	20%	18%
Proposed change in post-season population:	2%	9%



Harvest



Number of Hunters



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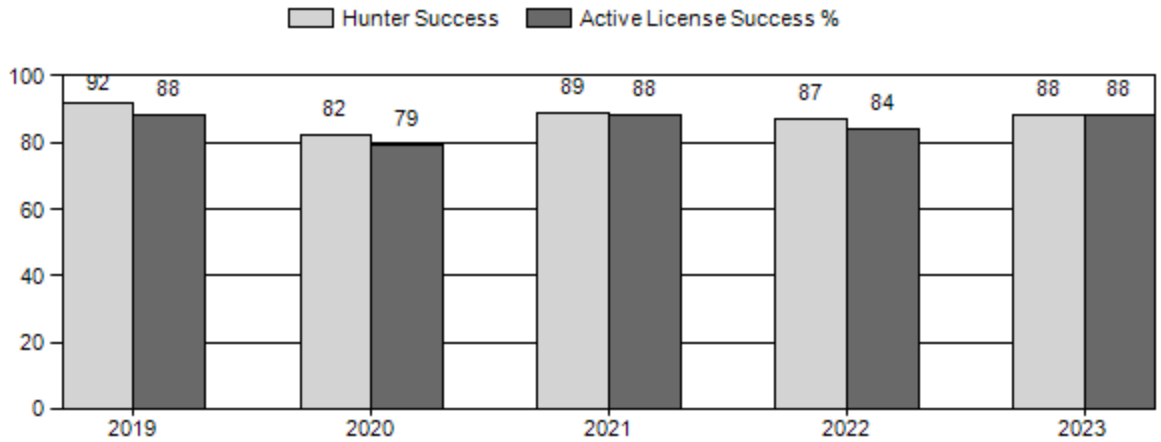
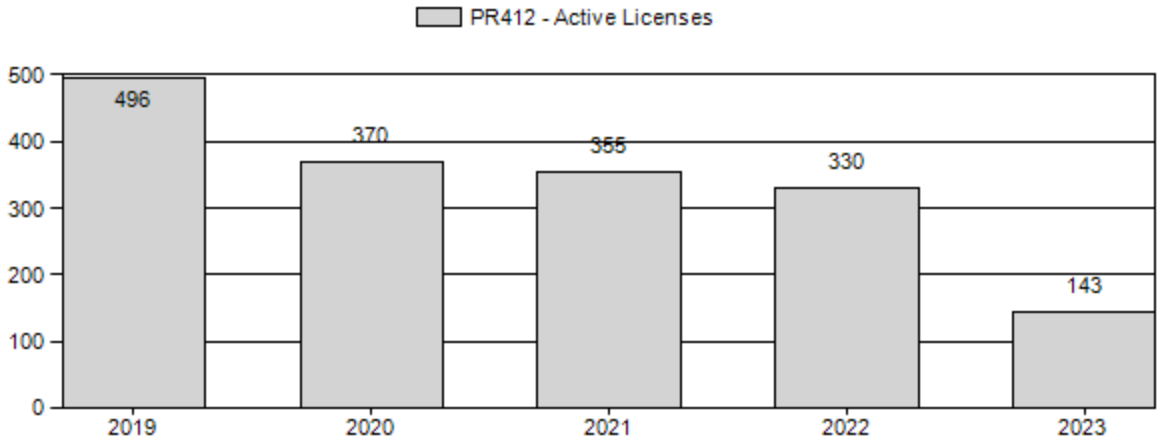
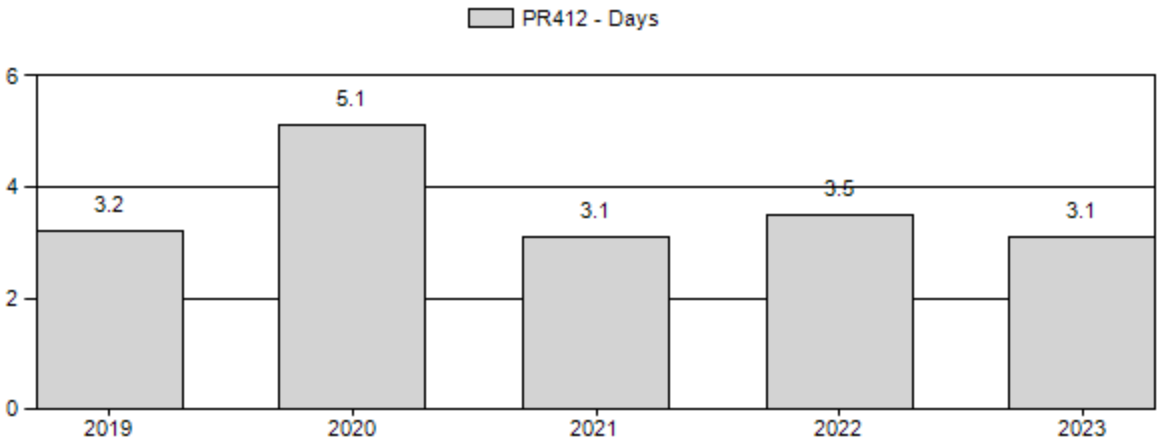


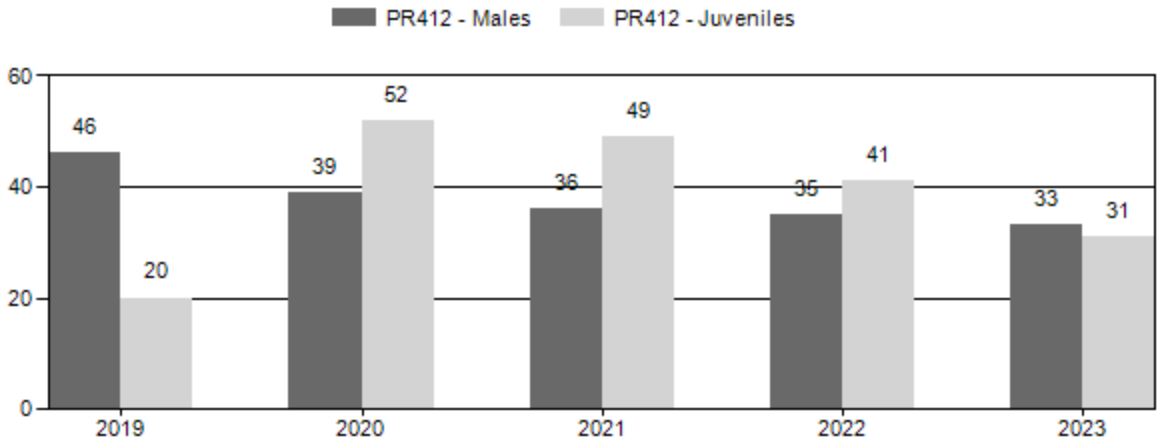
Active Licenses



Days Per Animal Harvested



Preseason Animals per 100 Females



2024 Hunting Seasons
South Rocks Springs Pronghorn Herd (PR412)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
59	1	Aug. 15	Sept. 19	Sept. 20	Oct. 31	125	Any antelope
112	1	Aug. 15	Sept. 19	Sept. 20	Oct. 31	50	Any antelope

2023 Hunter Satisfaction: 81.1% Satisfied, 12.1% Neutral, 6.9% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation:

The 2024 hunting season for the South Rock Springs pronghorn herd maintained an identical conservative season structure to what was offered in the herd unit in 2023. Even before the severe winter of 2022-2023, this population had been modeled to be below its population objective with the population decline largely being driven by low observed fawn ratios. Following extremely low fawn ratios documented in 2019, which caused the population estimate to dip below its objective range, doe harvest was reduced significantly in 2020 and then removed completely following the 2022-2023 winter. Even with that reduction in doe harvest, this herd has been unable to grow back to its objective of 6,500 pronghorn. Before the 2022-2023 winter this population had been estimated at around 5,400 pronghorn; after the 2023 hunting season, the population size was modeled to be only 4,300 pronghorn or roughly 33% under objective. Given the observed fawn ratio of only 31 fawns per 100 does seen in 2023, recovery of this herd will probably take several years of favorable conditions before it again approaches its objective range of 5,200 to 7,800 pronghorn.

Observed buck ratios in the South Rock Springs herd have been at the lower end of the recreational management range, and have been declining for the last several years, with the 2023 observed buck ratio being only 33 bucks per 100 does. Because of this, license numbers for both hunt areas in the herd unit were kept at their conservative 2023 levels for the 2024 hunting season. Following the severe winter of 2022-2023 Type 1 license numbers in the herd unit were reduced by half compared to what had been offered in 2022. The lower overall population estimate following that winter, and the continued decline in observed buck ratios in this herd suggest that this population is not ready for increases in license numbers. This is especially true for HA112, which has been exhibiting lower observed buck ratios than HA59 for several years and has been bringing the overall average for the herd down. According to the South Rock Springs pronghorn IMP model the 2024 season should harvest approximately 18% of bucks older than one year old, and the three year average of bucks older than one year old being harvested in the herd in roughly 19%. However, the declining buck ratios observed since 2019 indicate that the actual harvest rate of adult bucks is significantly higher than what the

model is estimating. Given the projected harvest and fawn recruitment rates, the model predicts that this herd should be near 4,650 pronghorn after the 2024 hunting season.

2.) Population Modeling:

In 2021, WGFD managers began using PopR integrated population models (IPM) to estimate population indices for mule deer and pronghorn. The bio-year 2023 postseason population estimate for this herd unit was 4,300 (CL = 3,200 – 5,700) pronghorn, which is a substantial decline from last year's estimate of 5,400 pronghorn. It is important to note that while the IPM model is estimating a three year average of only 19% of bucks over one year old being harvested, declining observed buck ratios suggest that harvest rate may have been higher than what this population could withstand.

2023 - JCR Evaluation Form

SPECIES: Pronghorn PERIOD: 6/1/2023 - 5/31/2024

HERD: PR414 - BITTER CREEK

HUNT AREAS: 57-58 PREPARED BY: PHILIP DAMM

	2018 - 2022 Average	2023	2024 Proposed
Population:	11,248	5,140	5,720
Harvest:	492	153	180
Hunters:	549	216	220
Hunter Success:	90%	71%	82%
Active Licenses:	578	216	216
Active License Success:	85%	71%	83%
Recreation Days:	1,940	837	1,000
Days Per Animal:	3.9	5.5	5.6
Males per 100 Females	59	65	
Juveniles per 100 Females	37	33	

Population Objective (± 20%) : 13000 (10400 - 15600)

Management Strategy: Special

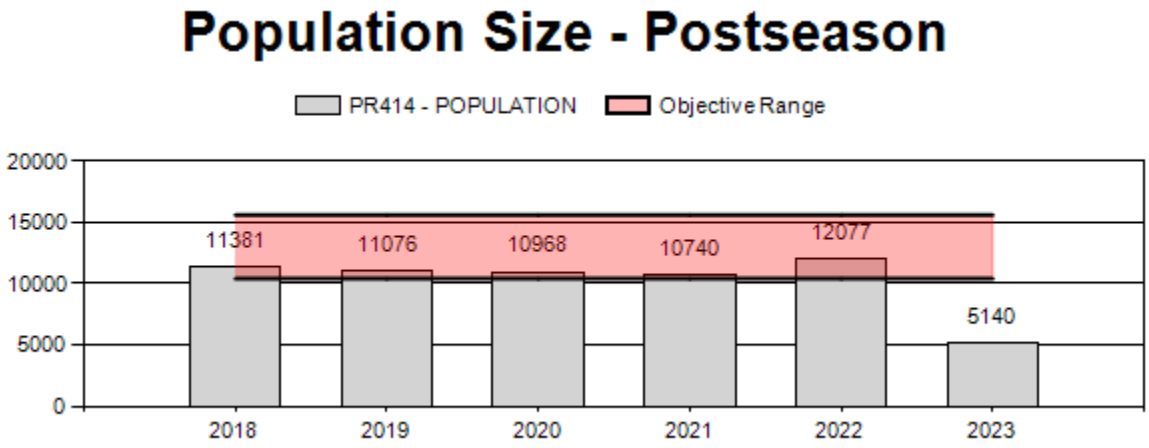
Percent population is above (+) or below (-) objective: -60.5%

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

Model Date: 2/27/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	10%	10%
Proposed change in post-season population:	-51%	11%



2024 Hunting Seasons
Bitter Creek Pronghorn Herd Unit (PR414)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
57	1	Aug. 15	Sep. 19	Sep. 20	Oct. 31	175	Any antelope
57	2	Aug. 15	Sep. 19	Sep. 20	Oct. 31	25	Any antelope valid west of Sweetwater County Road 23S and BLM Road 3310, and north and east of BLM Roads 4411 and 4409.
53, 57	7	Aug. 15	Aug. 31	Sep. 1	Oct. 31	25	Doe or fawn valid south of WY Highway 70 and west of Carbon County Road 601 in HA53; Doe or fawn valid on private land within one (1) mile of Carbon County Road 603 in HA57.
58	1	Aug. 15	Sep. 19	Sep. 20	Oct. 31	50	Any antelope

2023 Hunter Satisfaction: 73% Satisfied, 11% Neutral, 16% Dissatisfied

2023 Management Summary

1.) Hunting Season Evaluation:

After the severe winter of 2022-23, the license quotas for HA57 and HA58 were reduced by about 60% to 200 and 50, respectively, to account for the estimated 60% population decrease. Not surprisingly, satisfaction and success decreased on average for the herd, but HA57 Type 1 license holders were the primary source. Many license holders indicated they did not participate in the hunting season at all, and ones that did found difficulty in locating trophy caliber bucks. Pronghorn in HA58 seemed to fair better than HA57 during winter 2022-23; pronghorn with traditional ranges in HA57 may have migrated west into HA58 during that winter to locate areas with lower snowpack. Essentially no field harvest data were collected in 2023 for the herd due to the low license quotas and difficulty in finding hunters to check.

A new population model (PopR integrated population model) was implemented in 2022 for the Bitter Creek herd. Since the severe winter of 2022-23, past line-transect estimates likely provided no grounding for the model, so low harvest rates/effort seemed to be to main driver for the model to be able to account for that winter. Low fawn ratios may have helped model performance, but fairly normal buck ratios probably didn't. With those caveats, allowing the model the freedom to estimate the greatest number of parameters seemed to align it better with managers' anecdotal observations, along with coarse estimates from the December 2023 mule deer sightability flight and pre-season classifications. Even so, the model was unable to account for the steep decline in the herd in one year; as a result, past years' estimates and predictions for the next couple years weren't able to be used. Post-season model estimates were 5,140 (3,286-

7,223) which not surprisingly was well below the herd objective. A basic extrapolation of observations from the mule deer sightability flight yielded roughly 3,300 pronghorn inhabiting HA57, while HA58 was out of the scope of that flight. If about 1/3 of the herd inhabited HA58, then the sightability data corroborated the model estimate. Due to the reduced prediction ability of the model, the "proposed" calculations in the "Evaluation Form" above were figured with other methods and the model estimates for these were not used.

Pronghorn distribution following winter 2022-23 seemed skewed, with greater numbers of pronghorn than typical being observed in and around northern portions of the Bitter Creek Road during pre-season classifications of 2023. This was perhaps a result of the westward migration of pronghorn to escape deeper snow across most of HA57, and that was corroborated by observations of larger numbers of yearling bucks in that area. Although low densities of pronghorn across the herd are to be expected moving forward, a more normal distribution is also to be expected for 2024 as pronghorn redistribute. Overall, the Bitter Creek pronghorn herd winter ranges received good snow moisture in winter 2023-24; however, warm temperatures kept the snow depths very low. Precipitation during the growing season in 2023 was excellent, so range conditions were prime. As a result of these two factors, overwinter survival should have been excellent, as should have buck horn growth. Fawn productivity in the growing season 2024 should improve, but recent trends indicate it could top out around 50 fawns per 100 does, which is still quite low for maintaining a pronghorn herd. This fawn productivity issue will limit the speed of population recovery substantially.

Fallout from the winter of 2022-23 was evident in nearly all subjective and objective metrics of the Bitter Creek pronghorn herd for the 2023 biological year. Buck ratios (65) were an exception to this; however, fawn ratios (33) were on the low end of the average range (30-50) for this herd. As a result of these metrics and the current lack of pronghorn distribution on publicly accessible areas, Type 1 license quotas for 2024 were proposed to be left unchanged from 2023. These two problems are the reasons why only an estimated 10% of adult bucks were harvested in 2023, and why managers proposed to only harvest an estimated 10% of the adult buck population in 2024. Managers felt that achieving the arbitrary 15% threshold of bucks harvested relative to modeled estimates for both 2023 and 2024 wasn't supported by observations on the ground. In addition, with such low fawn productivity, managers were concerned with long term viability of harvesting larger proportions of the buck population than the proposed. Finally, managers proposed 25 Type 7 licenses for the small areas at the southern end of HA53/HA57 where habitats continued to be affected negatively by altered pronghorn distributions. Forty pronghorn were observed during classifications in 2023 in this relatively small area alone; 75% were does and fawns (Figure 1). These HA57 pronghorn are isolated from the rest of the herd and stand little chance at contributing to improvement in the herd's distribution and number in the future. This lack of past and future contribution was due to the barriers of the innumerable woven wire fences across the river bottom that they refuse to navigate. They also have little desire to emigrate, as they have access to irrigated hay meadows during the growing season and adjacent upland sagebrush during winter.

Feral horse HMAs across the unit continued to be significantly above AML. Horse numbers outside of HMAs were abhorrent as well. Feral horses continued to be observed immediately adjacent to Highway 789, with a couple having attempted to cross recently. These feral horses affected pronghorn distribution and populations through exclusion from water and other

resources and habitat degradation. Feral horse removal did occur in 2021; however, it was apparently restricted to the Adobe Town area and would not result in any measurable effects to pronghorn herd-wide.

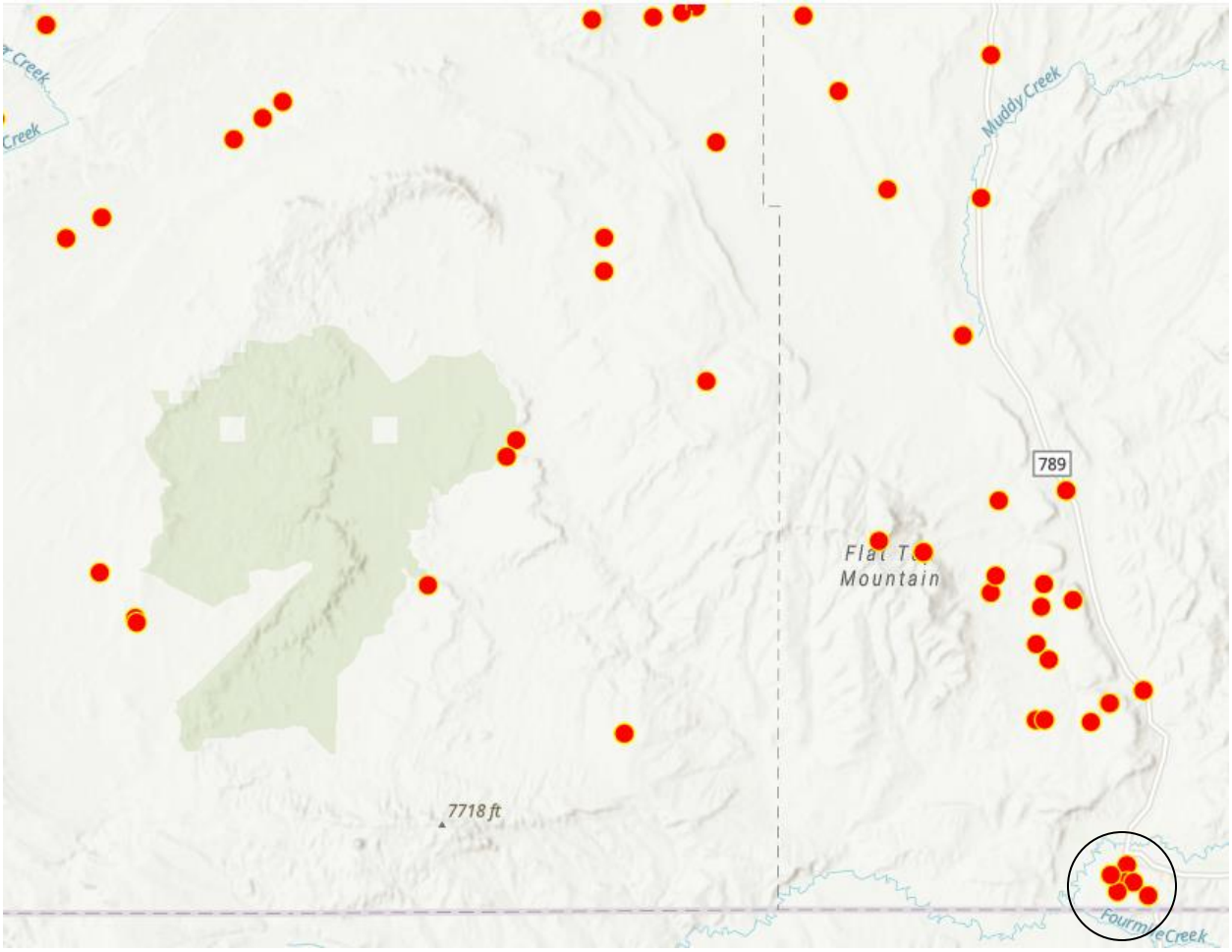


Figure 1. Pronghorn groups observed during August 2023 ground classification of Hunt Area 57 in the Bitter Creek herd; noting higher densities in the far southeast corner where the proposed 57-7 (53-7) license hunt for 2024 would occur.

2023 - JCR Evaluation Form

SPECIES: Pronghorn | PERIOD: 6/1/2023 - 5/31/2024

HERD: PR419 - CARTER LEASE

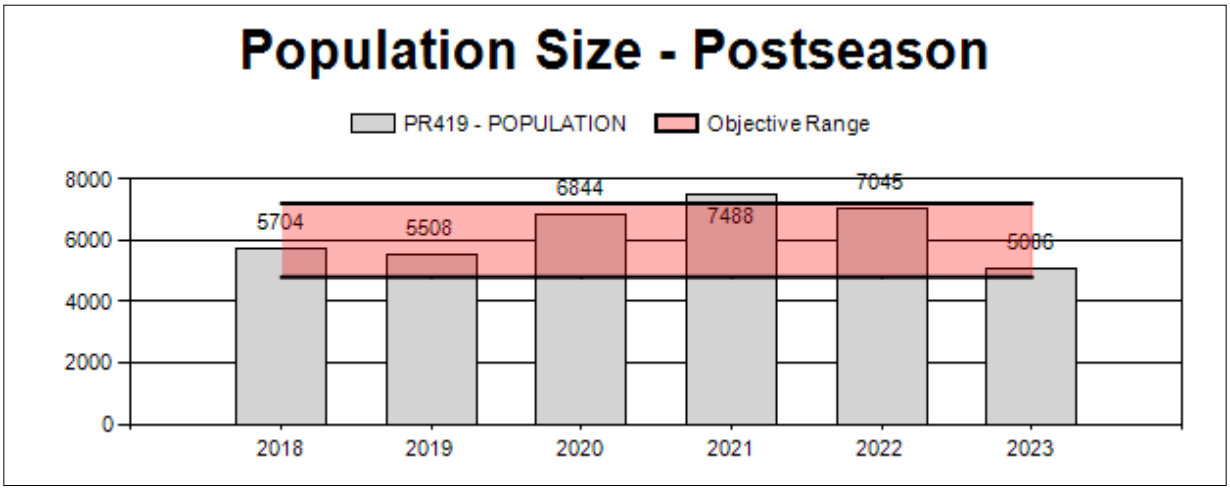
HUNT AREAS: 94, 98, 100 | PREPARED BY: JEFF SHORT

	2018 - 2022 Average	2023	2024 Proposed
Population:	6,518	5,086	5,284
Harvest:	1,280	452	400
Hunters:	1,415	545	500
Hunter Success:	90%	83%	80%
Active Licenses:	1,574	546	500
Active License Success:	81%	83%	80%
Recreation Days:	5,154	2,337	2000
Days Per Animal:	4.0	5.2	5
Males per 100 Females	55	49	
Juveniles per 100 Females	55	48	

Population Objective (± 20%) :	6000 (4800 - 7200)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-15.2%
Number of years population has been + or - objective in recent trend:	0
Model Date:	02/28/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	7%	8%
Males ≥ 1 year old:	27%	27%
Proposed change in post-season population:	-10%	4%



2024 HUNTING SEASONS

Carter Lease Herd Unit (PR419)

Hunt Area	Hunt Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
94	1	Aug. 15	Sept. 9	Sep. 10	Oct. 31	400	Any antelope
98	1	Aug. 15	Sept. 9	Sep. 10	Oct. 31	50	Any antelope
100	1	Aug. 15	Sept. 9	Sep. 10	Oct. 31	100	Any antelope

2023 Hunter Satisfaction: 72.3% Satisfied, 13.8% Neutral, 13.8% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: In this herd unit, we are typically able to provide a significant amount of hunting opportunity due to the productive nature of the habitat. According to a recent line transect survey and the model; we are right at the bottom end of the objective range. Recent dry summers and difficult winters have resulted in low pronghorn numbers in this herd. The winter of 2022/23 was very severe in the western part of the herd but was better in the eastern portion. The winter was so severe that all additional doe/fawn licenses were eliminated for the 2023 season. We are currently well below objective and further reduced harvest in 2024.

In hunt areas 98 and 100, we strive to maintain low antelope densities. This is an effort to reduce browse competition for wintering mule deer. The area is a primary winter range for the Wyoming Range mule deer herd. We hunt antelope very aggressively in these hunt areas to try and keep numbers very low. We are seeing reduced hunter success and getting some hunter complaints in Hunt Area 100. In response, we are proposing a reduction in Hunt Area 100 type 1 licenses to improve success and hunter satisfaction. The minimum male harvest goal of 25% has been met in this herd for several years. We provide a high amount of opportunity in this herd unit.

2.) Winter Severity: We have had four severe winters in this herd over a seven year period (2016-17, 2018-19, 2019-20 and 2022-23). Typically, pronghorn are less affected by winter conditions than deer due to their ability and willingness to move to areas of more moderate conditions. Pronghorn in the eastern part of this herd generally have the ability to migrate to lower elevation flats during severe winters, but this is increasingly challenging. These crucial winter range movements become more difficult as human development and disturbance impedes those migration routes. Fencing and highways are particularly problematic especially in the western part of this population during winter.

3.) Line Transect Surveys: Population estimates with the Line Transect survey technique are very important for providing adequate data to model antelope herd populations. Without performing these surveys, it is unlikely that the population models can perform reliably. We were able to fly a Line Transect survey in May of 2021. This is an end of bio year 2020 population estimate. Previously we have not had the budget to conduct line transect surveys in this herd since 2013. In the future, we will need to the fly these surveys more often to effectively model this herd. The most recent estimate was 5,764. The SE and confidence interval on the estimate are high. This is due to an effort to be more efficient with survey money by reducing sampling intensity.

The result was a less precise estimate that is not as useful. In the future, it is advised that we go back to the previous sampling scheme.

4.) Population Modeling: Having a total Herd Unit model is problematic in this herd. This is due to much different harvest regimes and population parameters in Hunt Areas 98 and 100 compared to Hunt Area 94. Additionally, the line transect survey method does not fit well with the rugged terrain and very low animal densities found in hunt areas 98 and 100. The hunt areas are also separated by a highway that is very restrictive to pronghorn movements. For these reasons, we only fly line transect surveys in Hunt Area 94. Even though there are low numbers of antelope in 98 and 100 it makes appropriately modeling the herd unit difficult.

WGFD started using PopR integrated population models (IPM) from Speedgoat in 2022 to estimate populations for pronghorn. A Hunt Area 94 specific PopR IPM is not available from Speedgoat so we have modeled the herd as a whole. We plan to evaluate this model in the future to ensure we are representing the population appropriately. The IPM estimates a herd unit post-season population of 5,086 pronghorn in 2023. We have some confidence in this model since we flew a Line Transect Survey in 2021, however the high SE is a concern. In the future it will be imperative that obtain reliable line transect population estimates periodically to check the status of the herd and anchor any model.

2023 - JCR Evaluation Form

SPECIES: Pronghorn
PERIOD: 6/1/2023 - 5/31/2024

HERD: PR438 - BAGGS

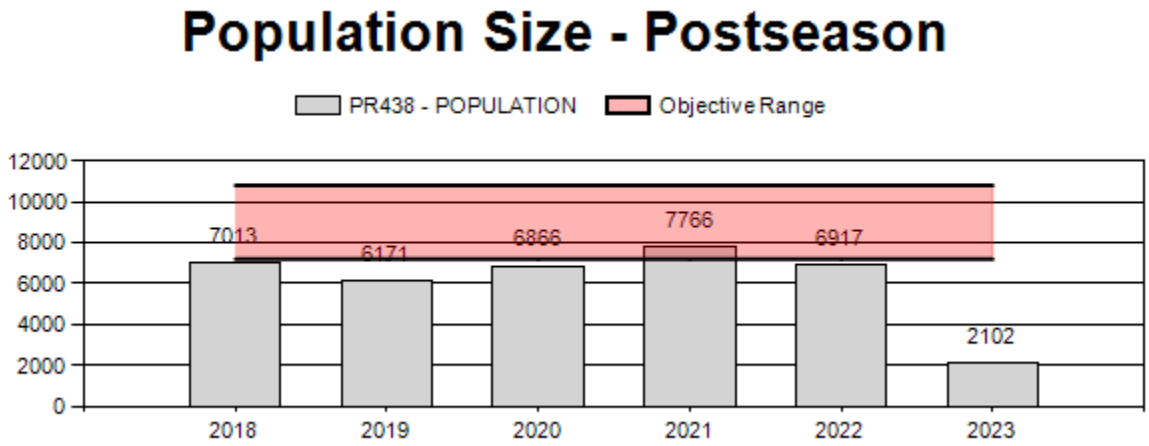
HUNT AREAS: 53, 55
PREPARED BY: PHILIP DAMM

	2018 - 2022 Average	2023	2024 Proposed
Population:	6,947	2,102	2,655
Harvest:	472	38	45
Hunters:	476	55	55
Hunter Success:	99%	69%	82%
Active Licenses:	530	56	56
Active License Success:	89%	68%	80%
Recreation Days:	1,477	153	180
Days Per Animal:	3.1	4.0	4
Males per 100 Females	57	48	
Juveniles per 100 Females	55	40	

Population Objective (± 20%) :	9000 (7200 - 10800)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-76.6%
Number of years population has been + or - objective in recent trend:	2
Model Date:	2/27/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	7%	7%
Proposed change in post-season population:	-68%	26%



2024 Hunting Seasons
Baggs Pronghorn Herd Unit (PR438)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
53	1	Aug. 15	Sep. 19	Sep. 20	Oct. 31	25	Any antelope
53, 57	7	Aug. 15	Aug. 31	Sep. 1	Oct. 31	25	Doe or fawn valid south of WY Highway 70 and west of Carbon County Road 601 in HA53; Doe or fawn valid on private land within one (1) mile of Carbon County Road 603 in HA57.
55	1	Aug. 15	Sep. 19	Sep. 20	Oct. 31	50	Any antelope

2023 Hunter Satisfaction: 75% Satisfied, 6% Neutral, 19% Dissatisfied

2023 Management Summary

1.) Hunting Season Evaluation:

After the severe winter of 2022-23, the license quotas for HA53 and HA55 were reduced to 25 and 50, respectively. In HA53, landowner license applications exceeded the quota; thus, no licenses were available to the general public in that hunt area. Not surprisingly, satisfaction and success in HA53 were quite low. Surprisingly, satisfaction and success in HA55 were quite high, and attributable to higher densities of pronghorn there. Essentially no field harvest data were collected in 2023 for the herd due to the low license quotas, difficulty in finding hunters to check, and many landowner license holders not participating.

A new population model (PopR integrated population model) was implemented in 2022 for the Baggs herd. Since the severe winter of 2022-23, past line-transect estimates likely provided no grounding for the model, so low harvest rates/effort seemed to be to main driver for the model to be able to account for that winter. Low buck and fawn ratios for the Baggs herd may have also helped model performance. With those caveats, allowing the model the freedom to estimate the greatest number of parameters seemed to align it better with managers' anecdotal observations, along with coarse estimates from the December 2023 mule deer sightability flight and pre-season classifications. Even so, the model was unable to account for the steep decline in the herd in one year; as a result, past years' estimates and predictions for the next couple years weren't able to be used. The post-season model estimate was 2,102 (1,415-3,622) which not surprisingly was well below the herd objective. A basic extrapolation of observations from the mule deer sightability flight yielded roughly 700 pronghorn inhabiting HA53 and 1,300 pronghorn inhabiting HA55, which supported the model estimate. Due to the reduced prediction ability of the model, the "proposed" calculations in the "Evaluation Form" above were figured by other methods and the model estimates for these were not used.

Pronghorn distribution following winter 2022-23 was heavily skewed, and that continued through April 2024. The majority of pronghorn inhabiting HA53 were located on private lands, particularly at the southern end and south of the Little Snake River (Figure 1). During winter 2019-20 when snow was deep and crusted over, these pronghorn migrated across the river, over top of many fences, and across Highway 70 to seek areas with lower snowpack and never returned to traditional summer ranges. Densities were higher than desired there in 2023 both in terms of summer range condition for livestock producers and for overlapping crucial mule deer winter ranges. Overall, the Baggs pronghorn herd winter ranges received good snow moisture in winter 2023-24; however, warm temperatures kept the snowpacks very low. Precipitation during the growing season in 2023 was excellent, so range conditions were prime. As a result of these two factors, overwinter survival should have been excellent, as should have buck horn growth. Fawn productivity in the growing season 2024 should be excellent as well.

Fallout from the winter of 2022-23 was evident in nearly all subjective and objective metrics of the Baggs pronghorn herd for the 2023 biological year. Buck ratios (48) were the lowest in about 10 years, and fawn ratios (40) were the lowest since 1997. As a result of these metrics and the current lack of pronghorn distribution on publicly accessible areas, Type 1 license quotas for 2024 are proposed to be left unchanged from 2023. These two problems are the reasons why only about 7% of adult bucks were harvested in 2023, and why managers proposed to only harvest about 7% of the adult buck population in 2024. Managers felt that achieving the arbitrary 25% threshold of bucks harvested relative to modeled estimates for both 2023 and 2024 wasn't supported by observations on the ground. This license allocation of 25 Type 1s in HA53 would likely result in all licenses being allocated to landowners in 2024.

Finally, managers proposed 25 Type 7 licenses for the small areas at the southern end of HA53/HA57 where habitats continued to be affected negatively by the altered pronghorn distributions described above. Over 30% (80 of 266) of pronghorn classified in 2023 were found in this extremely small portion of the hunt area alone; 75% were does and fawns (Figure 1). These HA53 pronghorn are isolated from the rest of the herd and stand little chance at contributing to improvement in the herd's distribution and number in the future. This lack of past and future contribution was due to the barriers of Highway 70 and the innumerable woven wire fences across the river bottom that they refuse to navigate.

Managers thoroughly vetted a concept of trapping and relocating more densely populated pronghorn of the southwest corner of HA53 back up to the north. On review of the literature, successful captures that minimize associated mortality of pronghorn require vast expanses of open range with minimal fences and many groups of pronghorn. These best-case scenarios still seem to result in a mortality rate of around 10%, including direct mortality during captures and capture myopathy in the days following relocation. The layout of this situation in HA53 would not have lent itself to minimizing capture related mortality, as pastures are relatively small, fences are abundant, and groups of pronghorn are not well dispersed or separated. Based on other literature relative to the layout of this portion of HA53, managers estimated 40% capture related mortality would be likely, with the potential to reach levels even higher. In summary, managers did not find that level of mortality to be acceptable and were not comfortable moving forward with a recommendation to proceed with the project.

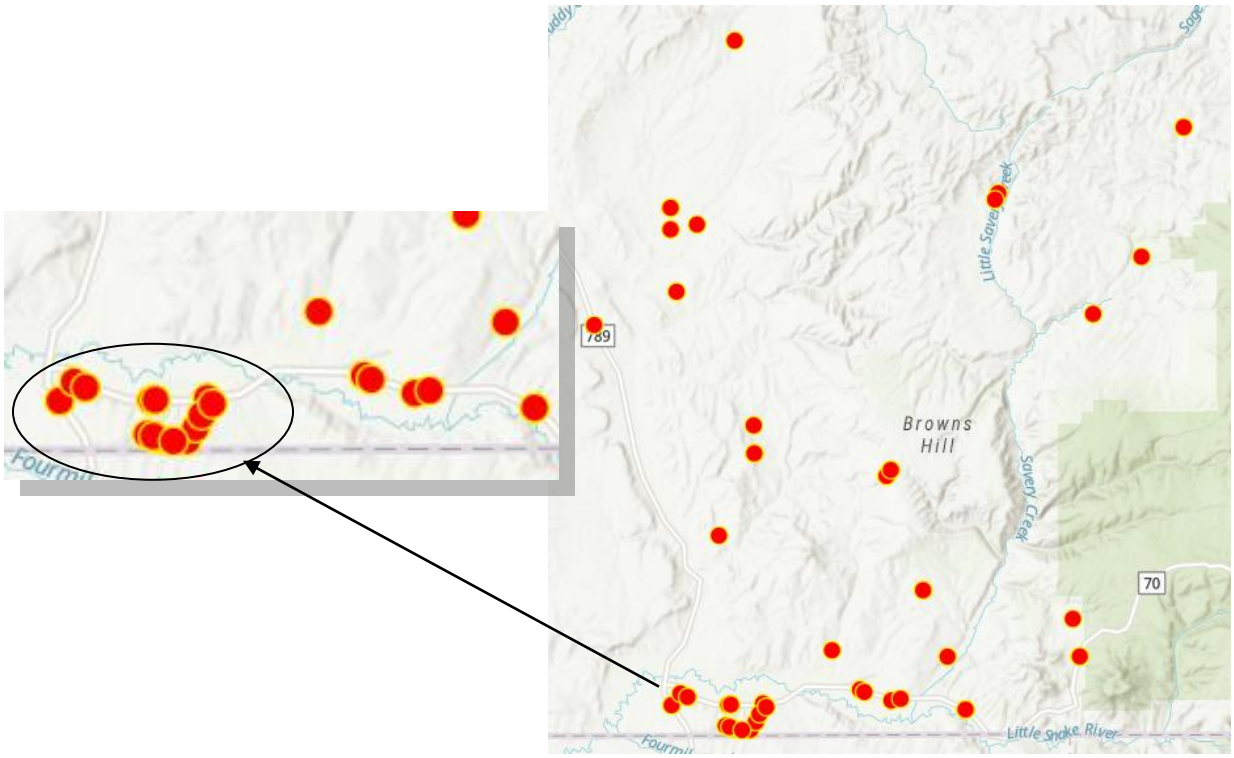


Figure 1. Pronghorn groups observed during August 2023 ground classification of Hunt Area 53 in the Baggs herd; note heavier distribution south of Highway 70 particularly in the southwest corner where the proposed 53-7 (57-7) license hunt for 2024 would occur.

2023 - JCR Evaluation Form

SPECIES: Mule Deer | PERIOD: 6/1/2023 - 5/31/2024

HERD: MD423 - UINTA

HUNT AREAS: 132-133, 168 | PREPARED BY: JEFF SHORT

	2018 - 2022 Average	2023	2024 Proposed
Population:	10,709	5,365	5,355
Harvest:	562	206	200
Hunters:	1,779	785	800
Hunter Success:	32%	26%	25%
Active Licenses:	1,787	785	800
Active License Success:	31%	26%	25%
Recreation Days:	9,253	3,574	3,500
Days Per Animal:	16.5	17.3	17.5
Males per 100 Females	26	25	
Juveniles per 100 Females	59	58	

Population Objective (± 20%) : 20000 (16000 - 24000)

Management Strategy: Recreational

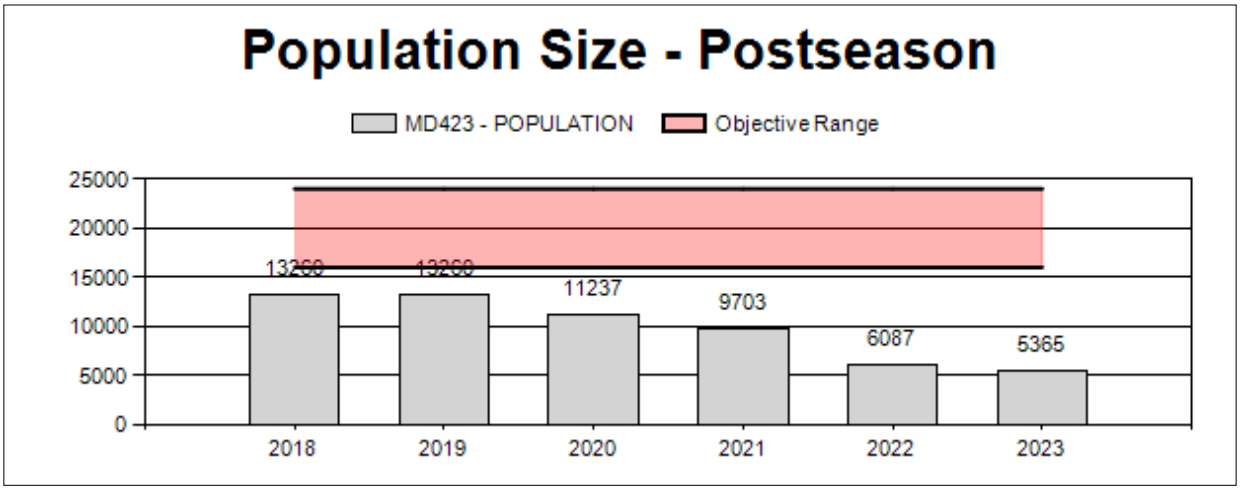
Percent population is above (+) or below (-) objective: -73.2%

Number of years population has been + or - objective in recent trend: 7

Model Date: 02/28/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	23%	28%
Proposed change in post-season population:	1%	1%



2024 HUNTING SEASONS

Uinta Mule Deer Herd Unit (MD423)

Hunt Area	Hunt Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
132	Gen	Sept. 1	Sept. 30	Oct. 1	Oct. 6		Antlered mule deer three (3) points or more on either antler or any white-tailed deer
133	Gen	Sept. 1	Sept. 30	Oct. 1	Oct. 6		Antlered mule deer three (3) points or more on either antler or any white-tailed deer
168	Gen	Sept. 1	Sept. 30	Oct. 1	Oct. 6		Antlered mule deer three (3) points or more on either antler or any white-tailed deer
132, 133, 134, 135, 168	3	Sept. 1	Sept. 30	Oct. 1	Nov. 30	25	Any white-tailed deer

2024 Region K nonresident quota: 200 licenses

2023 Hunter Satisfaction: 30.0% Satisfied, 28.1% Neutral, 42.0% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: The Uinta Herd Unit is managed under the recreational framework where the objective is to provide hunter opportunity and maintain a buck:doe ratio of between 20 and 29 bucks:100 does. Typically, a season that includes 2 weekends with 14 days of general deer hunting opportunity is sought to be offered in this herd unit. However, declining populations due to extreme weather events have moved this herd to a population level well below objective. Due to very low deer numbers, some of the public have pushed for us to have shorter seasons. In response to that, we reduced the season from 14 days to 11 days starting in 2020. After the winter of 2022/23 we reduced the season to 6 days and propose to continue this in 2024. This season will only have two weekend days of hunting opportunity. This season structure is very conservative and population growth is not limited by the antlered only hunting.

Season length changes in this herd unit have not affected harvest or hunter effort. In an analysis of season length data from 2010 to 2020 we found that season length does not correlate with average days hunted, harvest or hunter days. The average hunter hunted for 5.04 days over that period, regardless if the season was 10 days or 14 days. Shorter seasons do create more hunter crowding by forcing those hunters to participate in the hunt over a shorter time instead of spreading out in time when the season is longer. This will be evident in 2024 since we will not offer two full weekends of hunting opportunity.

The buck:doe ratio has rebounded from a low in 2020 and is now within the objective range at 25:100. As buck ratios are within the objective range it warrants removing the point restrictions to avoid any negative genetic influences and to provide more hunter harvest opportunity.

Unfortunately, after another negative weather event during the winter of 2022/23 it is unpopular to get rid of the point restriction at this time. We should push to remove the antler point restriction and lengthen the season when weather and populations become more favorable. Antlerless harvest is not allowed in this herd. Hunting seasons offered for mule deer in this area have no effect on growth of the herd.

The Region K nonresident license quota is at an all-time low. We lowered the quota several times in recent years and again in 2023 to 200. There is a history in this herd of significant public complaints about nonresident hunter numbers. This hunt area is popular with nonresidents in adjacent states and effort is significant through the duration of the season and is noticeable to residents. This is unpopular with local hunters. In recent years several private ranches that allowed public hunting through the WGFD PLPW program have been removed from the program for various reasons. This has reduced the amount of land we have for hunters to recreate in the herd unit. This, along with severe impacts to the deer herd from recent bad winters led us to reduce the nonresident quota.

2.) Management Objective Review: We are maintaining this herd at the current objective and management strategy based on internal discussions and conversations with our constituents. We evaluated and considered population status and habitat data and a change is not warranted at this time. We will review this herd objective again in 2029; however, if the situation arises that a change is needed, we will review and submit a proposal as needed

3.) Chronic Wasting Disease Management: This is a Tier 2 surveillance herd that was last prioritized for CWD sampling in 2019. No positives were found during this surveillance period. Sample collection has been low since 2019 as harvest was reduced due to more conservative hunting seasons and low deer populations. Historically, the herd has had two positive test results from targeted samples both taken within the city limits of Green River on the extreme eastern edge of the herd unit. To date, no CWD management actions have occurred in this herd unit.

4.) Winter Severity: This herd has been commonly experiencing difficult winter conditions for deer survival over the past 7 years. Winter ranges are at high elevations and severe winters can be very detrimental to deer populations. This usually occurs once every three to five years. Prior to the 2016/17 winter, conditions were mild for five straight winters in this herd unit creating a situation where fawn and adult survival was high and populations were able to grow even with relatively low fawn production. The winter of 2016/17 was severe in most areas and the population in the western part of the herd unit declined drastically due to it. A mild winter followed in 2017/18. This helped the herd rebound slightly but in 2018/19 we had another very difficult winter. Then in the winter of 2019/20 we again had very tough winter conditions. Mortality surveys at the LeRoy winter range complex in spring showed high fawn and adult doe mortality over this period. It was also verified in very poor yearling buck:doe ratios in the years following the bad winters. This was very harmful to the population to have three tough winters in the span of four years. Then in the winter of 2022/23, after two mild winters where the deer hared was growing, we experienced a very severe winter and deer mortality that was incredibly high. Adult doe mortality estimates were over 60% in this herd. These conditions were record-breaking and we saw mortality levels that had not been seen before in mule deer management. In reviewing JCR data and old reports, four bad winters that affect deer survival this significantly over a seven year period has not been documented. The 2022/23 winter is one of this worst winters on record and this has had an unprecedented impact to deer numbers and buck recruitment within this herd.

5.) Antler Point Restrictions: Antler point restrictions have been used in Hunt Area 132 since 2007, and a 3-point or more antler restriction has been in place in the entire herd unit since 2014.

This has been at the request of a segment of the public. There are other members of the public that oppose the restriction. The use of antler point restrictions for limited periods can be warranted when an area is below the buck:doe ratio objective or in areas where buck security cover and fawn productivity is lacking. However, many portions of this herd unit do not typically require this type of management based on historically observed buck ratios. Once weather conditions improve for deer survival we need to remove the point restrictions to avoid negative genetic influences and to provide more hunter harvest opportunity.

6.) Population Modeling: In 2021, WGFD managers began using PopR integrated population models (IPM) to estimate population indices for mule deer and pronghorn. The 2022 postseason population estimate for this herd unit from the PopR IPM was 6,087 (CL = 5,533-6,712). This was a significant difference from the previous spreadsheet model estimates that averaged 12,417 over the previous 5 year period. The IPM estimate was also inconsistent with the 2021 PopR IPM estimate of 7,915 (CL = 6,716-9,150) mule deer. This is concerning since the population had not decreased but had grown noticeably from 2021 to 2022. There is also inconsistency on estimates between comparable model runs. We see high Rhat values and inability for the model to come to convergence. The 2023 postseason population estimate for this herd unit from the PopR IPM was 5,365 (CL = 4,675-6,136). This is a decrease from 2022 but not nearly as much as was expected due to winter severity and measured survival data in and around the herd. For these reasons, local managers feel that the new IPM model is not functioning well for this herd. I hope that in the future we will be able to solve these issues. The addition of a sightability population estimate in the next few years may be a big help.

2023 - JCR Evaluation Form

SPECIES: Mule Deer

PERIOD: 6/1/2023 - 5/31/2024

HERD: MD424 - SOUTH ROCK SPRINGS

HUNT AREAS: 101-102

PREPARED BY: PATRICK BURKE

	2018 - 2022 Average	2023	2024 Proposed
Population:	3,190	2,300	2,350
Harvest:	189	140	140
Hunters:	229	157	160
Hunter Success:	83%	89%	88%
Active Licenses:	229	157	160
Active License Success:	83%	89%	88%
Recreation Days:	1,464	986	1,000
Days Per Animal:	7.7	7.0	7.1
Males per 100 Females	28	21	
Juveniles per 100 Females	42	52	

Population Objective (± 20%) : 8500 (6800 - 10200)

Management Strategy: Special

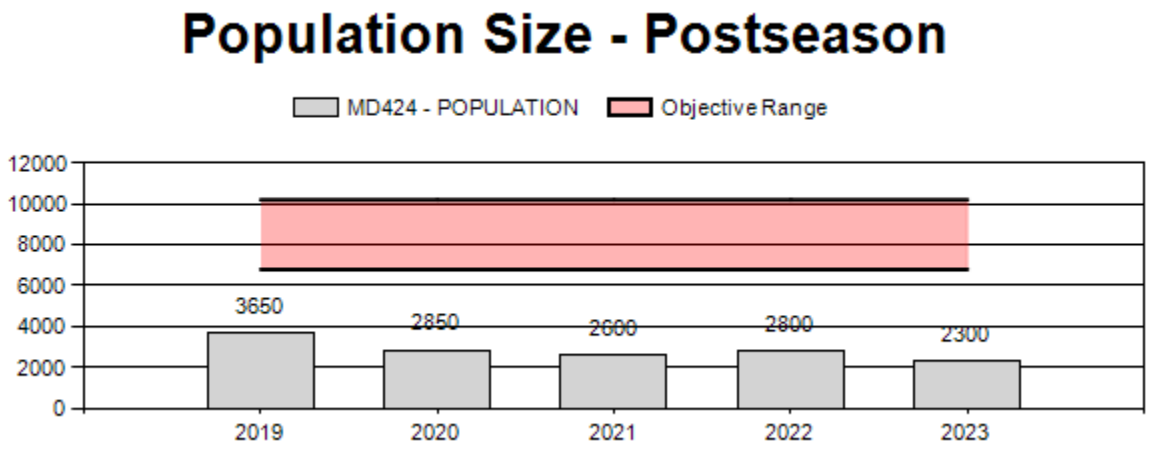
Percent population is above (+) or below (-) objective: -72.9%

Number of years population has been + or - objective in recent trend: 11

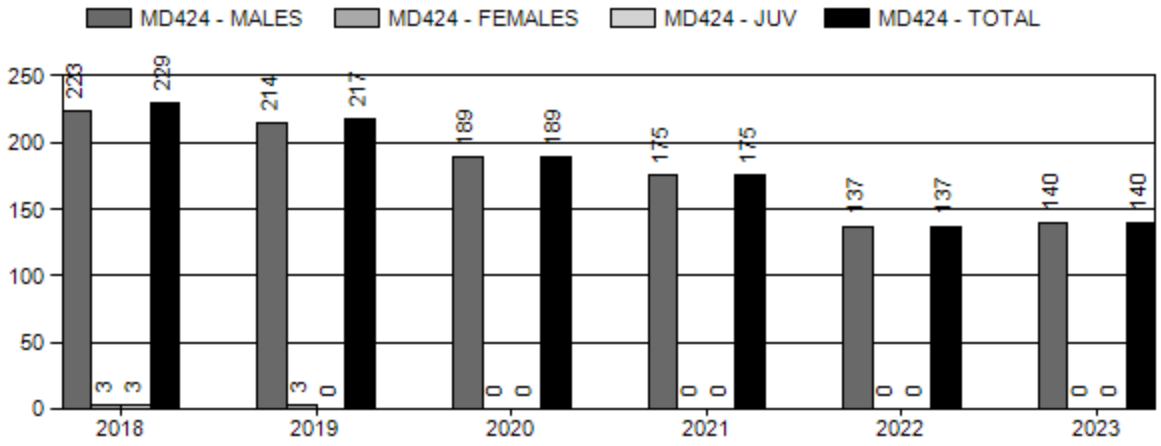
Model Date: 02/27/2024

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

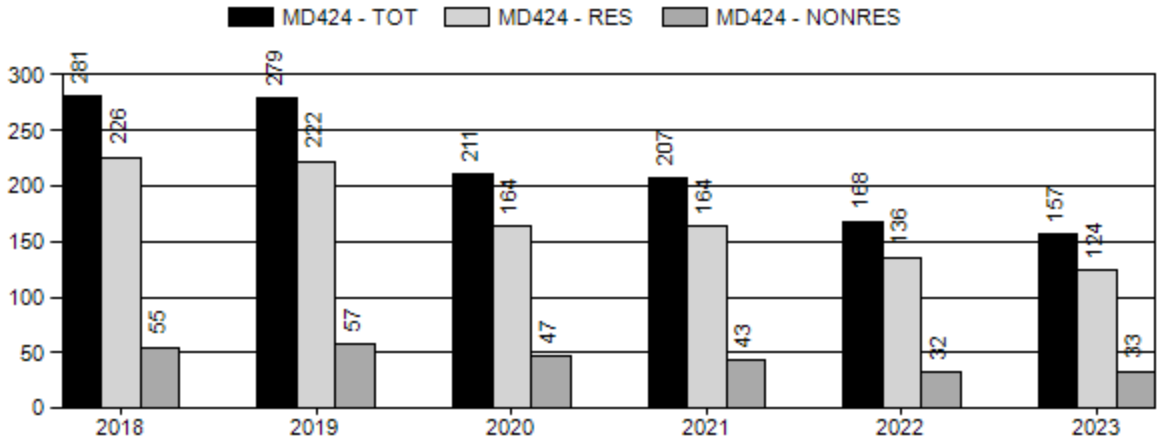
	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	25%	27%
Proposed change in post-season population:	-4%	2%



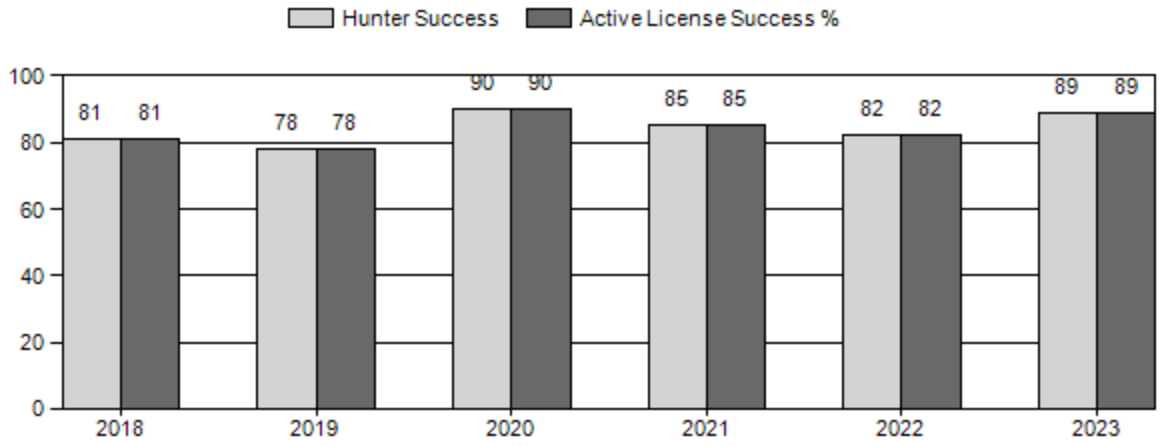
Harvest



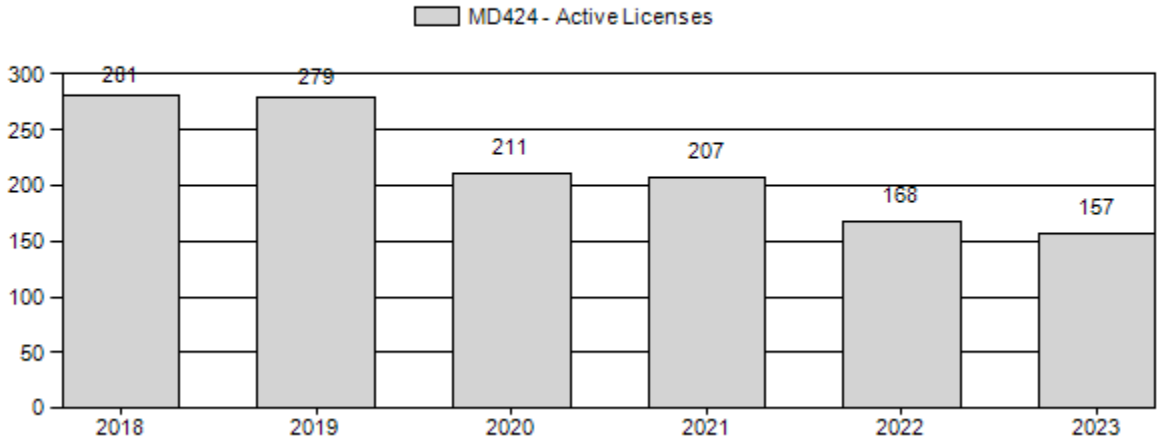
Number of Hunters



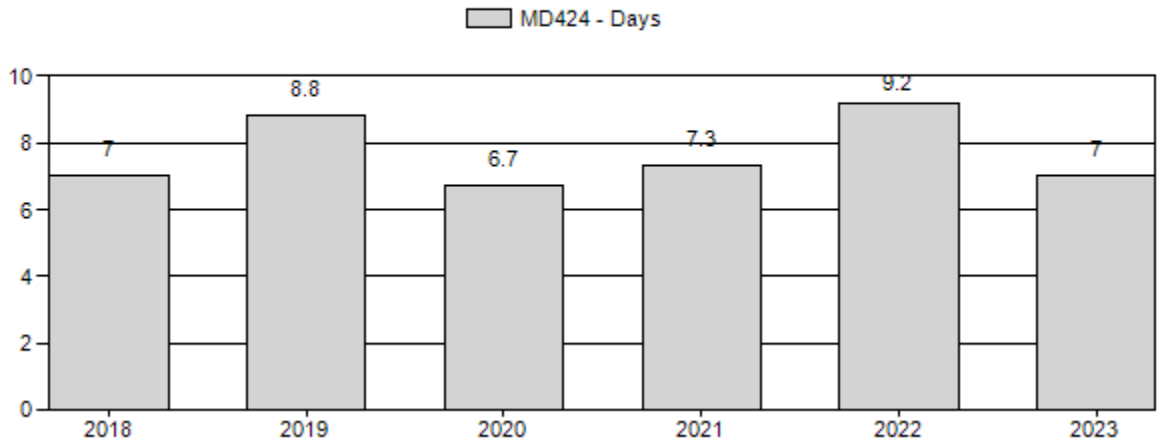
Harvest Success



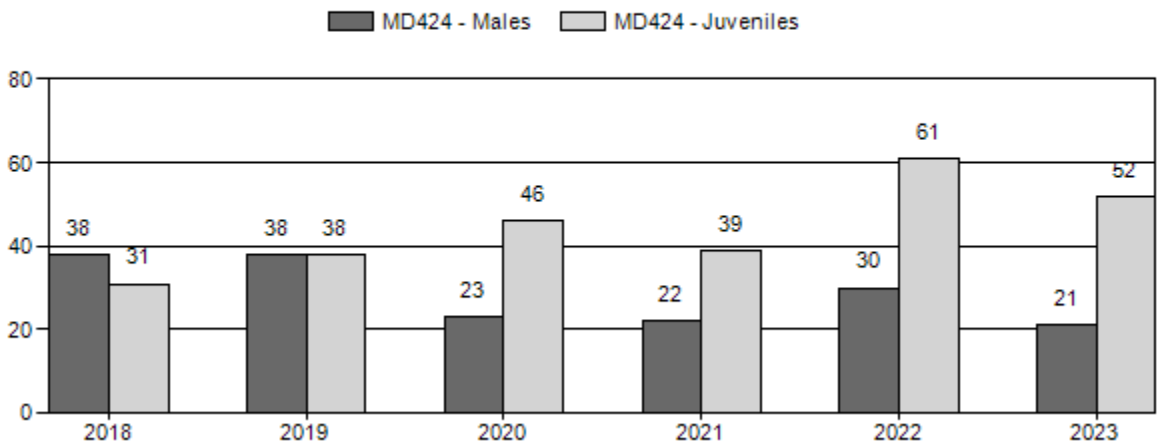
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2024 Hunting Seasons
South Rock Springs Mule Deer (MD424)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
101	1	Sept. 1	Sept. 30	Oct. 15	Oct. 31	25	Antlered deer
102	1	Sept. 1	Sept. 30	Oct. 15	Oct. 31	150	Any deer

2023 Hunter Satisfaction: 70.2% Satisfied, 11.9% Neutral, 17.9% Dissatisfied

2024 Management Summary

1) Hunting Season Evaluation:

The 2024 hunting season for the South Rock Springs mule deer herd maintained the same conservative seasons for both hunt areas in the herd unit that has been seen for the last several years. Starting in 2020, a lower number of licenses was offered in the herd unit due to observed fawn ratios in 2016, 2018, and 2019 that were all significantly below the normal fawn ratio for this population. Those years of lower fawn recruitment resulted in the pool of bucks hunters typically select for being reduced beginning in 2020, and continuing for several years. Buck fawns born during the first year that those low fawn ratios were observed would have become 5 year-olds in 2021, which is a known age class that is selected for based on hunter submitted tooth samples. While observed fawn ratios for the last several years have been below what is probably needed to maintain the population, the observed fawn ratio in 2022 was 61 fawns per 100 does; and in 2023 the observed ratio was 52 fawns per 100 does, which are both drastic improvements over recent observed ratios. These are the highest fawn ratios that has been observed in 10 years, and gives optimism for this herd being able to regain some of the ground it's lost over the last decade.

Observed buck ratios following the 2020 and 2021 hunting seasons declined considerably from what was observed in the years prior, dipping below the minimum threshold of 30 bucks per 100 does for a special management herd. However, the observed buck to doe ratio in 2022 did however climb back to the minimum special management buck ratio of 30 bucks per 100 does. A classification flight conducted in December 2023 resulted in an observed buck to doe ratio of 21 bucks per 100 does, which would be well below the buck ratio objective for this herd. It should be noted though that weather conditions during the time period of that flight were very mild, which resulted in deer being widely distributed, which made data collection difficult. Therefore, the 2023 observed buck ratio should be viewed with some caution as it may not represent the true buck to doe ratio for this herd. While overall deer numbers may be down and buck ratios are not as high as what's desired by the public; hunters were still able to select for older age class bucks, with the average age of harvested bucks, based on hunter submitted tooth samples, in 2023 being 5.5 years old, which is down just slightly form the 5.7 years old average seen in 2022.

2) Chronic Wasting Disease Monitoring & Management:

The South Rock Springs mule deer herd is a Tier 3 surveillance herd. To date, no meaningful CWD prevalence data is available within this herd unit and no CWD management actions have occurred. This herd has not been prioritized for CWD surveillance because of the herd's small size and low number of licenses issued in the herd unit, it would not be possible to obtain an adequate number of samples in the herd to determine CWD prevalence.

3) Population Modeling:

In 2021, WGFD managers began using PopR integrated population models (IPM) to estimate population indices for mule deer and pronghorn. The bio-year 2023 postseason population estimate for this herd unit was 2,300 (CL = 1,800 - 2,900) mule deer. While diagnostic metrics suggest good model convergence, several other metrics suggest that the model is having a hard time fitting the observed data, such as the model often having unrealistically high or low fawn survival estimates. Also, the model estimates that approximately 30% of the buck population is harvest annually, which is not supported by the average age of harvested bucks, which was typically above 5 years old. If 30% of the bucks over 1 year old were being harvested annually, it is unlikely that the average age of harvested bucks would be anywhere near that high.

2023 - JCR Evaluation Form

SPECIES: Mule Deer | PERIOD: 6/1/2023 - 5/31/2024

HERD: MD427 - BAGGS

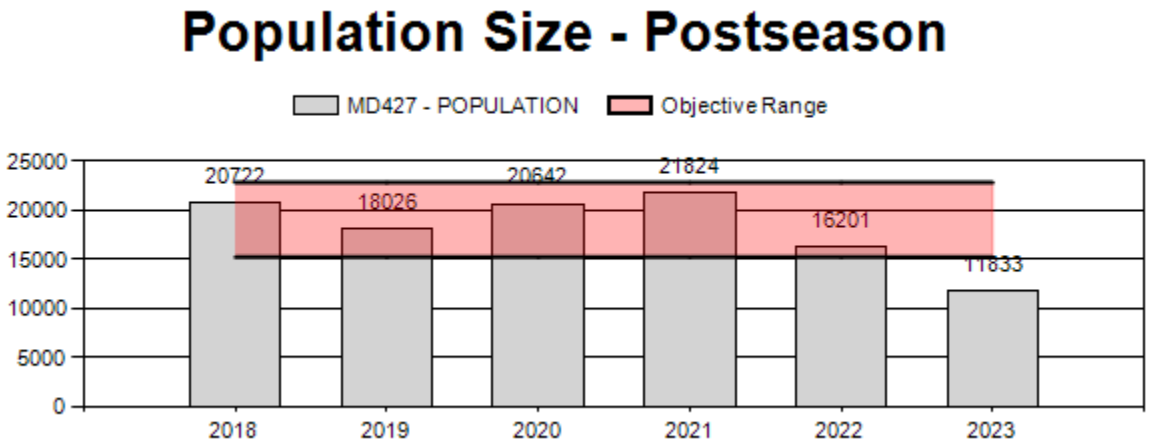
HUNT AREAS: 82, 84, 100 | PREPARED BY: PHILIP DAMM

	2018 - 2022 Average	2023	2024 Proposed
Population:	19,483	11,833	15,200
Harvest:	1,473	321	650
Hunters:	3,014	1,358	2,000
Hunter Success:	49%	24%	32 %
Active Licenses:	3,087	1,357	2,000
Active License Success:	48%	24%	32 %
Recreation Days:	15,525	7,056	14,000
Days Per Animal:	10.5	22.0	21.5
Males per 100 Females	27	18	
Juveniles per 100 Females	63	41	

Population Objective (± 20%) :	19000 (15200 - 22800)
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	-37.7%
Number of years population has been + or - objective in recent trend:	1
Model Date:	2/27/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	22%	34%
Proposed change in post-season population:	-18%	16%



2024 Hunting Seasons
Baggs Mule Deer Herd Unit (MD427)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
82		Sep. 1	Sep. 30	Oct. 1	Oct. 6	General	Antlered mule deer or any white-tailed deer
82		Sep. 1	Sep. 30	Oct. 1	Oct. 8	General youth only	Antlered mule deer or any white-tailed deer
82, 100	8	Sep. 1	Sep. 30	Nov. 1	Jan. 15	25	Doe or fawn white-tailed deer valid on private land
84	1	Sep. 1	Sep. 30	Oct. 1	Oct. 14	25	Antlered mule deer or any white-tailed deer
100		Sep. 1	Sep. 30	Oct. 1	Oct. 6	General	Antlered mule deer four (4) points or more on either antler or any white-tailed deer
100		Sep. 1	Sep. 30	Oct. 1	Oct. 8	General youth only	Antlered mule deer or any white-tailed deer

2024 Region W nonresident quota: 600 licenses

2023 Hunter Satisfaction: 23% Satisfied, 30% Neutral, 47% Dissatisfied

2023 Management Summary

1.) Hunting Season Evaluation:

After the severe winter of 2022-23 and the subsequent extreme reductions in mule deer hunting opportunity in the Baggs herd (5-day hunt with only one weekend day for HAs 82 and 100), hunter participation, total harvest, and success dropped to the lowest recorded for the herd. In 2023, 1,358 hunters harvested 321 mule deer bucks for a 24% success rate. Harvest had not been close to that low since 1985 when 1,922 hunters harvested 552 bucks for a success of 29%. Non-resident participation also dropped to an all-time low for the herd at 450 (Region W quota was 600), with the next closest year's participation numbering in the 600s. Warm, dry weather in early October has become a repeating trend, and also contributed to lower harvest for hunters that did participate. Not surprisingly, managers received many complaints and satisfaction corresponded well with poor success, as has been typical for this herd. However, due to the severe winter in the year prior, hunters were generally more understanding of the hunting conditions than they normally would be. HA100 hunters observed a 4-point antler restriction along with the 5-day season. With extremely low deer densities and no migration inducing weather during the hunting season, success and harvest were even lower than HA82. Although, a handful of mature bucks were still harvested from that area. Success was better in HA84 at 42%, but still quite low for a limited quota full-priced license. Mature Class III bucks continued to be difficult to find relative to several years ago; although, one of the two bucks field checked in 2023 was a Class III.

The buck ratio observed in the December 2023 classification (18 bucks per 100 does) was the third lowest on record for the Baggs herd. However, the adult buck (at least 2.5 years old) component of that ratio was identical to the last two years (15), meaning the lower buck ratio was perhaps entirely due to the lack of yearling buck recruitment resulting from mortality during the winter of 2022-23. The yearling buck ratio was 3, the second lowest recorded for the herd. This yearling buck ratio was supported by change-in-ratio data collected at the highway underpasses with trail cameras during spring and fall migrations. These data indicated a minimum of 80% overwinter fawn loss for at least that portion of the herd. These overwinter fawn loss estimates were supported by collar data for an adjacent herd in Colorado. The proportion of Class III bucks (>25" spread) was 11%, which was fairly high for the herd (10-year average of 9%); however, this proportion was skewed high due to the lack of yearling bucks contributing to total numbers. Fawn ratios observed during the flight were 41 fawns per 100 does, the lowest ever recorded for the herd and uncommonly low for a migratory mule deer herd after a severe winter. These low fawn ratios were likely due to does being in poor condition after the severe winter; but interestingly, managers in the adjacent herd in Colorado observed the typically high post-severe winter fawn ratios. Anecdotally from observations on winter ranges, managers observed more fawns of smaller size than usual; smaller fawns mean lower survival. Also, managers observed one set of stillborn twins, which may have been a larger issue across the herd.

Additional funding was supplied to the Baggs herd to complete a ground based population estimate call sightability in December 2023, the first estimate of its kind in herd history. Sightability methods involved sampling a portion of the herd's winter and transition ranges and collecting covariates along the way to estimate how many deer were missed within the areas sampled. Once the number of deer missed within the sample was calculated, those estimates were extrapolated to the un-sampled area. The flight lasted about 6 full days; about 80% of high- (crucial winter ranges) and 10% of low- (other winter/transition ranges) density mule deer areas were sampled during this effort (Figure 1). Observers documented 1,089 groups of mule deer numbering from 1 deer to 40 deer. Most mule deer were observed in high density areas (6,097) compared to lows (283); 6,380 mule deer were documented in total. The estimate for the high-density areas was reasonable at 9,033 (7,819-10,247). However, the estimate for the low-density areas seemed questionably high to managers at 3,339 (1,328-5,350). The low-density portion of the estimate was tricky, as early winter was fairly light for snow and proportionally more deer were distributed in higher elevation areas that would be typically considered low-density.

A new population model (PopR integrated population model; IPM) was implemented in 2022 for the Baggs herd. The sightability estimate was extremely timely, not just in providing additional information to managers on numbers and distribution, but also in grounding the IPM directly after the severe winter of 2022-23. In addition to the sightability estimate, the model presumably was informed by low fawn ratios, low harvest, and high effort. Allowing the model to estimate the greatest number of parameters seemed to align it better with managers' anecdotal observations and perhaps, more importantly, the sightability estimate. Even so, the model was unable to account for the steep decline in the herd in one year; as a result, previous years' estimates were inaccurate, as were predictions for the next couple years. The improvements in the IPM's performance in 2023 over 2022 seemed directly tied to the sightability estimate. In future years, model performance may decline without more frequent and intensive data inputs

like a sightability estimate or survival data from collaring mule deer. With those caveats stated, post-season model estimates were 11,833 (9,997-13,827) which, not surprisingly, was well below the herd objective of 19,000. This estimate was comparable to the sightability estimate at 12,372. Due to reduced prediction ability of the model, the "proposed" calculations in the "Evaluation Form" above were figured by other methods and the model estimates for these were not used.

Although Baggs herd-wide growing season precipitation data was modeled below average for 2023 (Figure 2), anecdotal observations countered that. Though all seasonal ranges exhibited good growth, transition and winter ranges in particular were well above average and remained "green" into late summer. Crucial mule deer forage shrubs exhibited excellent leader growth, and winter range forage conditions through the 2023-24 winter were phenomenal. Overall, the Baggs herd winter ranges received good snow moisture in winter 2023-24; however, warm temperatures kept the snowpacks very low. As a result of these two factors, overwinter survival should have been excellent, and fawn productivity in the growing season 2024 would be excellent.

2024 Hunting Season Proposal

The below concepts of antler point restrictions and more can be found discussed in great detail in "A critical review of mule deer antler point regulations, application, and effectiveness" by Zornes et al. and published to the Wyoming Game and Fish Department's website (https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Mule%20Deer%20Initiative/MULEDEER_ANTLERPOINTREGS_REVIE0006790.pdf).

Applying antler point restrictions (APRs) in the year following severe winters might temporarily increase buck ratios by inflating the yearling buck component (e.g. Baggs herd in 2021); however, bucks that are recruited into the adult age classes were destined for mediocrity. The condition of a doe when a fawn is *in utero* plays the largest role in the size of a buck's body and antlers for its entire life. Given the genetic ability for large antlered bucks in the Baggs herd, this concept is supported in that the average age of harvested adult bucks has only varied slightly from year to year (4.0-4.6), no matter how the average spread (16" to 20") or average number of points changed (6 to 8 total points). The average age of 4.6 in 2017 is somewhat of an outlier, with the rest being 4.0-4.3.

Assuming the above theory and the interest of hunters' desire for larger bucks: for a Baggs herd specific example, an antler point restriction (APR) was correctly applied during the hunting season two and three years (2012 and 2013) after the severe winter of 2010-11 (not 2011). This condition was when fawn productivity (64 and 78) and yearling buck ratios (12 and 17) were excellent (Figure 3). When fawn productivity spikes and subsequent yearling buck ratios are high two years after a severe winter, APRs can be applied and be effective. This flush of high quality deer likely contributed to the quality hunting season of 2017, where fawns born in 2012 and 2013 were 4.5 and 5.5 years old.

A crucial component that is missed the majority of the time in the discussion of the effectiveness of APRs is the "off" years in between when APRs are implemented. Regardless of the timing of the APR as it relates to winter severity and fawn productivity, these "off" years are crucial to

recruitment of bucks into the Class II and III size classes because harvest pressure on average is shifted from all bucks with larger antler qualities (e.g. a 2.5 year old 4x4, or a 5.5 year old 4x4) to older bucks with smaller antler qualities (e.g. a 3.5-4.5 year old 3x3). Seasons without APRs allow time for yearling bucks recruited during APR seasons to mature, while older, smaller bucks are being harvested at higher rates. They help fill the lag between when yearling bucks are recruited and when they become mature during the next APR. This lag time may falsely lend credence to the seeming immediate effectiveness of the APR at times. An illustration of this issue occurred in 2017 and 2018 when adult bucks became vulnerable to harvest due to early October snowstorms. Harvest was very high, despite 4 and 3-point antler restrictions, respectively, which were supposed to recruit bucks into future hunting seasons. Hunters may have falsely attributed these current year APRs to high success, but the APRs during 2012 and 2013 were the ones that produced the mature bucks in 2017 and 2018. In some cases due to outside environmental conditions, APRs have less success. Two above average winters in terms of severity in 2018-19 and 2019-20 that followed the buck population being essentially high graded in 2017 and 2018 led to the seeming lack of success of the APRs from those years. I.e., large improvements to the hunt and deer quality in 2021 and 2022 weren't observed, only incremental ones (Class III ratios had increased to 12% by post-hunting season of 2022).

If left in regulation too long, APRs degrade overall antler quality. Continuing the APR into 2023 was a mistake due to its duration (3 years) and extremely low yearling buck ratios, but public perception and social factors led to that decision. Counter to the above examples where APRs were correctly applied two years after a severe winter, applying the APR in 2024 would be a mistake, given fawn ratios in 2023 were the lowest on record for the herd at 41. Anecdotal observations of fawns from 2023 on winter ranges indicate smaller body sizes; recruitment of these into the buck population should not be a priority for those desiring larger antlered bucks. Due to low productivity and poor body condition, very few will actually survive out of the yearling class, regardless of hunting season structures.

Due to these considerations, managers proposed to remove the APR for the 2024 hunting season in HA82. An argument was made that we don't have any bucks to spare, but consistent adult buck ratios over the last three years provide some counter-support. Without an APR in 2024 and keeping the extremely short season would still lead to the older, larger antlered bucks being maintained for future years. Reinstating an APR in 2025 would be extremely prudent, as does during winter of 2023-24 were likely in the best condition of their lives. Larger fawns would be birthed in 2024 leading to higher survival rates and more, large antlered bucks in future. Although no APR in 2023 could temporarily reduce adult buck ratios, managers believed it was necessary to get good buck age class structure in the herd back on track.

The four point or better restriction would still apply for HA100 due to long term drought and low productivity of deer in that HA. This segment of the herd lacks the fawn productivity necessary for these fluctuating APRs to be effective. A four point restriction and relatively short season was likely the only way to reasonably maintain a general license structure in HA100. For similar reasons, the HA84 quota was proposed to be maintained at 25 licenses.

2.) Mule Deer Initiative Habitat Information: In 2015, Department personnel initiated the Rapid Habitat Assessment (RHA) methodology to survey important mule deer habitats. This

method strives to capture large-scale habitat quality metrics to better understand how the habitat is providing for the current population of mule deer. The overall result of this effort is to provide a standardized habitat component for discussions about how mule deer objectives should or should not be adjusted based on the general concept of carrying capacity. In 2023, WGFD personnel surveyed ten RHAs in the Baggs herd unit, totaling 1,332 acres. For the Baggs mule deer herd unit, WGFD personnel completed six rangeland assessments (1,181 acres), two riparian assessments (43 acres), and two aspen assessments (107 acres). These data will provide population managers and the public with documentation of the current state of mule deer habitat conditions in Baggs.

Significant Events

The Little Snake River Conservation District (LSRCD), BLM, Carbon County Weed and Pest, and WGFD continue to plan and implement habitat projects across the herd unit. LSRCD, NRCS, and WGFD treated approximately 647 acres of mountain big sagebrush with a Lawson aerator as part of Phase II of the Valleys and Headwaters Joint Chiefs conservation program. The goal was to reduce canopy cover from 30-40% to 15%. Additionally, 39 acres of mesic habitat were inter-seeded with legumes to increase forage quality and quantity. These treatments will increase age-class diversity, improve shrub health, and increase species diversity. Phase III will begin in 2024 with treatments designed to remove juniper from crucial winter ranges, enhance aspen stands, and improve mixed mountain shrub communities. In fall 2023, WGFD hosted two volunteer days to modify existing right-of-way fencing (ROW) along HWY 789, north of Baggs, WY. The existing fence was once a lay-down fence that had unfortunately been permanently nailed up. With the help of WGFD personnel and local members of the public, approximately 0.8 miles of fence were modified to wildlife-friendly fence specifications. WGFD plans to complete additional modifications to HWY 789 in 2024 to further reduce impediments to wildlife movement between seasonal ranges. Partners have acquired significant grants to manage and control cheatgrass across the herd; areas have been prioritized and work continued in 2023. Managers continued to support predator management with relatively high black bear and mountain lion harvest limits, along with continued coyote control work alongside Wildlife Services and ADMB. In addition the WGF Commission approved an extra pot of funding for predator management in areas affected by the severe winter of 2022-23.

3.) Chronic Wasting Disease Monitoring & Management: The Baggs Mule Deer Herd is a Tier 1 surveillance herd and was prioritized for CWD sampling in 2023. Managers collected 99 adult buck and 4 yearling buck CWD samples from hunter-harvested mule deer. Of the adult buck samples, 16 tested positive for CWD for a prevalence of 16%; no yearlings tested positive for CWD. Cumulative CWD prevalence over the last three years was 18% out of a sample of 157 adult mule deer bucks. This prevalence was alarming and was a considerable increase from the last time the herd was monitored for CWD in 2018, when prevalence was 8% out of a sample of 263 adult mule deer bucks. Positive harvested mule deer have originated from nearly all portions of the herd where deer occur during hunting seasons. To date, no meaningful CWD management actions have occurred in this herd unit. Managers proposed to continue to collect CWD samples in 2024 to build the sample size necessary to refine the prevalence estimate.

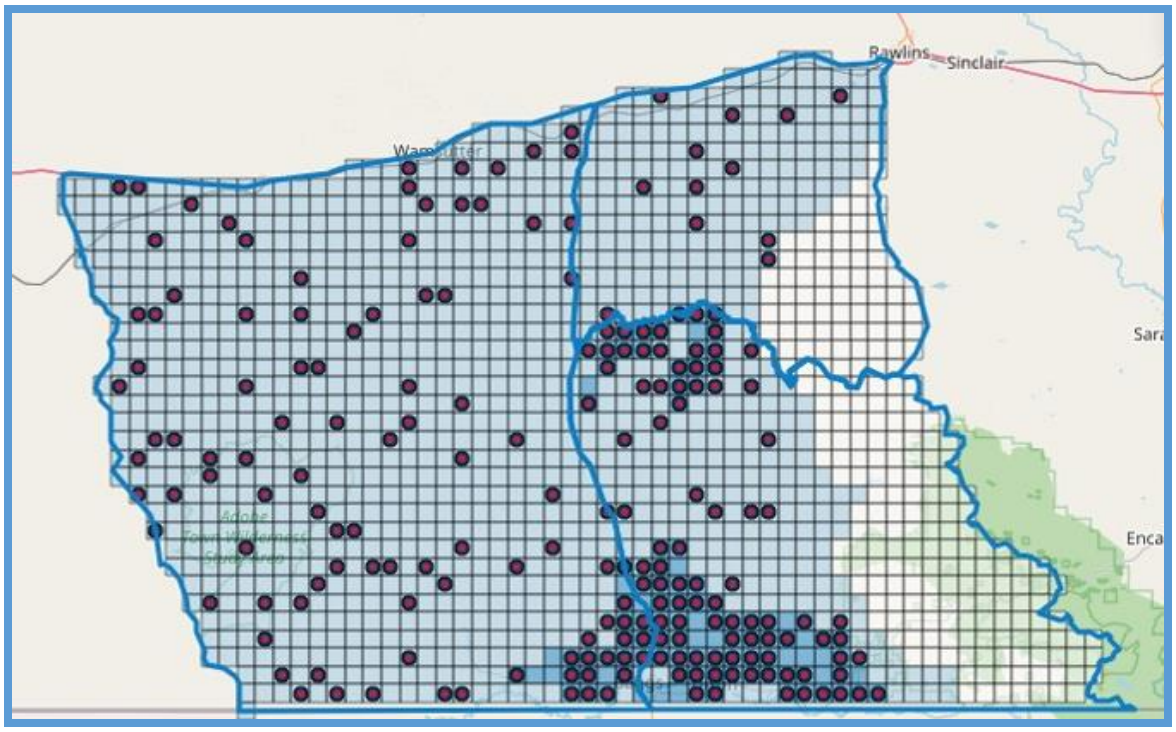


Figure 1. Baggs Mule Deer Herd sightability sample map, December 2023. “High” density areas are indicated in dark blue and “low” density areas are indicated in light blue. Blocks sampled are indicated by a red dot.

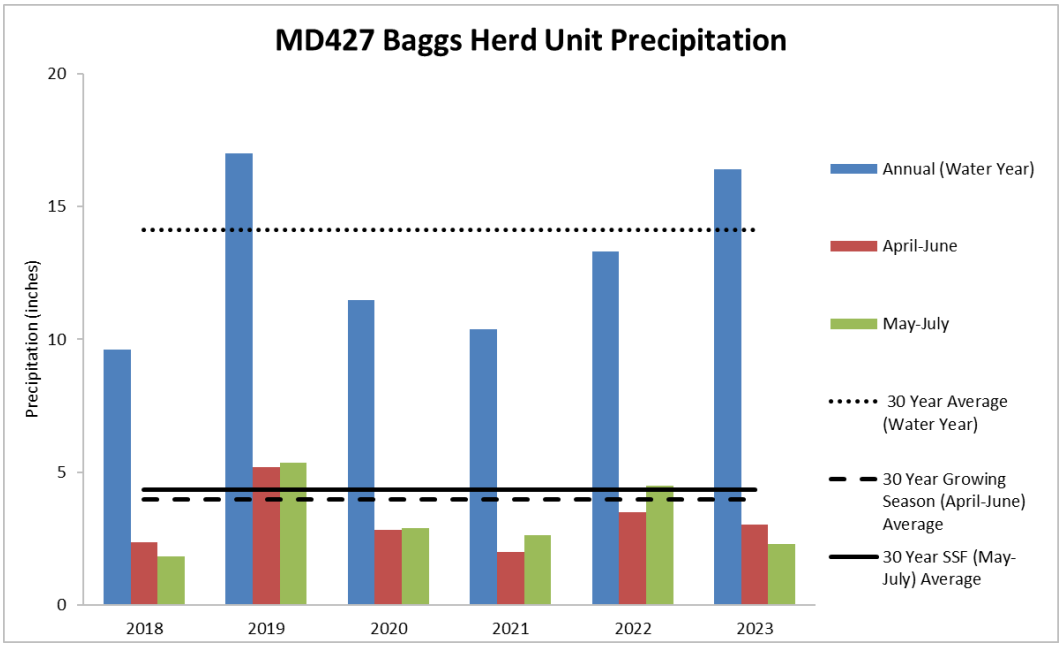


Figure 2. Parameter-Elevation Relationships on Independent Slopes Model (PRISM) estimate of annual, growing season, and spring/summer/fall (SSF) precipitation from 2018-2023 for the Baggs mule deer herd unit in Carbon County, Wyoming. PRISM summaries seemed to lack some accuracy during growing season months, since anecdotally substantial growing season precipitation occurred across the herd in 2023.

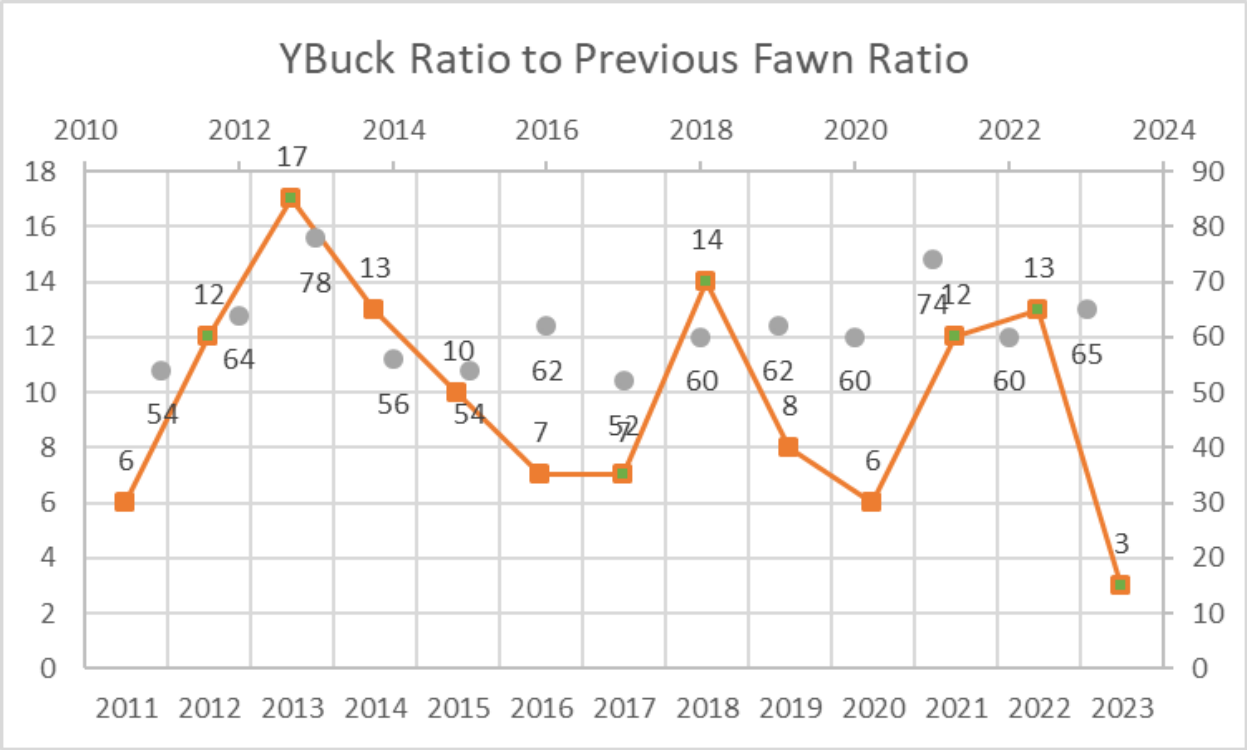


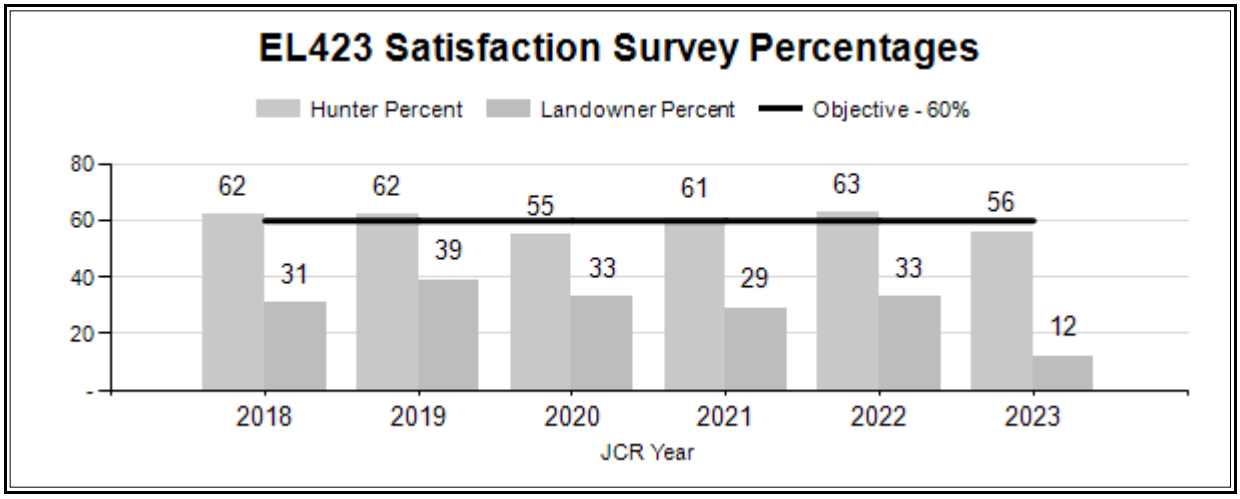
Figure 3. Plot of current year's yearling buck ratio (e.g. 3 in 2023) compared to the previous year's fawn ratio (e.g. 65 in 2022). Good fawn productivity generally resulted in a good yearling buck ratio the next year. However, large deveiations in the trend and the correlation occurred in years of higher winter severity. APRs (2012, 2013, 2017, 2018, 2021, 2022, 2023) may have helped recruit yearling bucks in some years, but success was severely limited in years of higher winter severity (e.g. 2017 and 2023).

2023 - JCR Evaluation Form

SPECIES: Elk
PERIOD: 6/1/2023 - 5/31/2024
HERD: EL423 - UINTA
HUNT AREAS: 106-107
PREPARED BY: JEFF SHORT

	2018 - 2022 Average	2023	2024 Proposed
Hunter Satisfaction Percent	61%	56%	60%
Landowner Satisfaction Percent	33%	12%	60%
Harvest:	621	652	650
Hunters:	1,618	1,682	1,700
Hunter Success:	38%	39%	38 %
Active Licenses:	1,706	1,915	1,800
Active License Success:	36%	34%	36 %
Recreation Days:	11,397	13,680	13,000
Days Per Animal:	18.4	21.0	20
Males per 100 Females:	NA	NA	
Juveniles per 100 Females	NA	NA	

Satisfaction Based Objective	60%
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	-26%
Number of years population has been + or - objective in recent trend:	9



2024 HUNTING SEASON

Uinta Herd Unit (EL423)

Hunt	Hunt	Archery Dates		Season Dates			
Area	Type	Opens	Closes	Opens	Closes	Quota	Limitations
106	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 31		Any elk
106	Gen			Nov. 1	Nov. 14		Antlerless elk
106	1	Sept. 1	Sept. 30	Nov. 15	Jan. 31	50	Any elk valid west of the Black's Fork River or north of Wyoming Highway 410; also valid in Area 105 west of the Bear River
106	4	Sept. 1	Sept. 30	Oct. 15	Dec. 31	150	Antlerless elk
106	4			Jan. 1	Jan. 31		Antlerless elk valid on private land or west of the Black's Fork River or north of Wyoming Highway 410
106	7			Aug. 15	Jan. 31	350	Cow or calf valid on private land or west of the Black's Fork River or north of Wyoming Highway 410
107	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 31		Any elk
107	Gen			Nov. 1	Nov. 14		Antlerless elk
107	4	Sept. 1	Sept. 30	Oct. 15	Dec. 31	200	Antlerless elk
107	4			Jan. 1	Jan. 31		Antlerless elk valid off national forest within the Henry's Fork River drainage
107	7			Aug. 15	Aug. 31	50	Cow or calf valid in Sweetwater County
107	7	Sept. 1	Sept. 30	Dec. 15	Jan. 31		Cow or calf valid off national forest within the Henry's Fork River drainage

2024 Nonresident General Elk Southern Region Quota: 1,050

2023 Hunter Satisfaction: 57.0% Satisfied, 25.9% Neutral, 17.1% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: In the ninth year of a satisfaction based objective, we are not meeting the landowner or hunter satisfaction objective. Hunter satisfaction is highly correlated to hunter harvest success, which correlates to weather conditions affecting migration and elk vulnerability in the fall. Even though landowner satisfaction is below objective, the 2023 landowner survey shows 68% of landowners are either satisfied with the current season structure

or would like us to be more conservative. We are meeting the secondary objective with 90% of the bull harvest being branch-antlered bulls. We have no proposed changes for 2024. In the future we would like to have more private land open to cow elk hunting. A significant reason that this herd is not meeting landowner objective is that private lands and access restrictions are creating sanctuaries for elk to evade harvest during cow hunts.

Hunters would like to see more elk in accessible public land areas in HA 106 and 107, so late antlerless hunts are designed to avoid these areas. For 2024 we will continue liberal hunt timing and license allocation to maximize elk harvest and target elk causing damage problems. These season structures are aimed at reducing this elk herd. The August 15 – 31 portion of the area 106 and 107 type 7 hunts is to address specific damage issues on private lands.

The HA 107 antlerless licenses are used to maintain pressure on elk on the Wyoming side of the state boundary during a hunt on the Utah side. Damage complaints on the HA 107 side of the herd unit are typically less even during severe winters. We receive landowner complaints about elk numbers and will maintain license quotas in 2024 to address those complaints.

The Area 106 Type 1 hunt had 49% hunter success in 2023. Over the previous five years, the hunt had higher success. Hunter success is influenced yearly by winter severity. The hunt is in addition to general season hunts in September, October and November so significant elk hunting opportunity is currently offered. This hunt is in place to help deal with late damage where Utah elk are migrating into Wyoming and damaging stored hay. The area is mostly private land and hunters have very limited places to hunt.

2.) Management Objective Review: We are maintaining this herd at the current objective and management strategy based on internal discussions and conversations with our constituents. We evaluated and considered population status and habitat data and a change is not recommended at this time. We will review this herd objective again in 2029; however, if the situation arises that a change is needed, we will review and submit a proposal as needed

3.) Chronic Wasting Disease and Brucellosis Monitoring and Management: This is not a tiered CWD surveillance herd. To date, no meaningful CWD prevalence data is available within this herd unit and no CWD management actions have occurred. This herd has not been prioritized for CWD surveillance. Brucellosis has not been present in elk in this herd. However, measures to reduce elk/cattle interaction are still taken and will continue. The 2023 seropositive brucellosis prevalence was 0%, with a sample size of 32 testable samples.

4.) Aerial Counts: Elk surveys were previously flown in conjunction with Utah DWR, most recently in January of 2019, so abundance data is lacking. No classification data is available with the way Utah conducts their surveys. The count numbers in Wyoming vary drastically with flight funds and weather conditions. High count numbers are typically the result of severe winter weather and higher numbers of elk migration into Wyoming. Both Utah and Wyoming have been running liberal hunting seasons to increase cow elk harvest.

5.) Damage Concerns: This is an interstate herd shared with Utah. There are elk that summer in Wyoming but many elk that summer in the Uinta Mountains in Utah come to Wyoming to winter. Limited public land winter range is an issue for this herd. With winter range in short supply, conflict with agriculture producers becomes an issue. Damage complaints occur on bad winters. Summer damage also occurs on crops in limited areas. Significant efforts have been made by field personnel to alleviate these problems. The strategy in this herd unit has been to minimize elk damage problems through harvest and hunting season structure.

2023 - JCR Evaluation Form

SPECIES: Elk
PERIOD: 6/1/2023 - 5/31/2024

HERD: EL424 - SOUTH ROCK SPRINGS

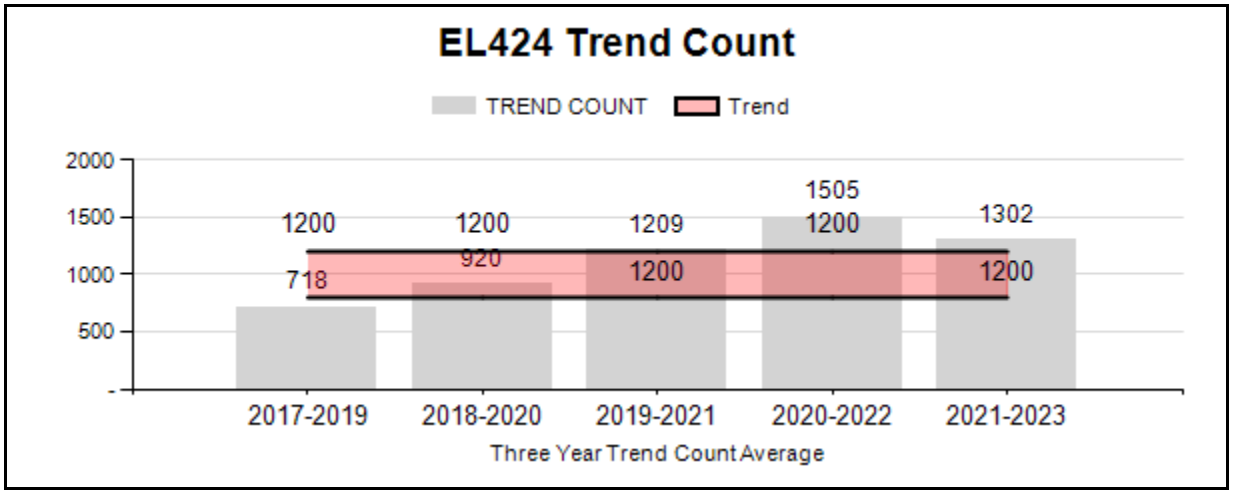
HUNT AREAS: 30-32
PREPARED BY: PATRICK BURKE

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	1,124	1,047	1,000
Harvest:	313	385	350
Hunters:	444	618	500
Hunter Success:	70%	62%	70%
Active Licenses:	444	618	500
Active License Success	70%	62%	70 %
Recreation Days:	3,520	4,576	4,000
Days Per Animal:	11.2	11.9	11.4
Males per 100 Females:	30	18	
Juveniles per 100 Females	38	32	

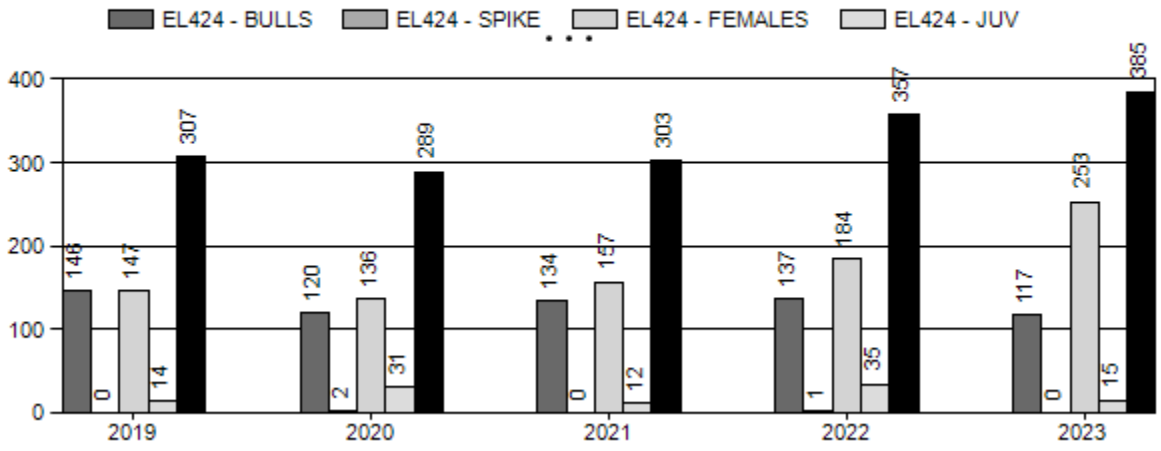
Trend Based Objective (± 20%)	1,000 (800 - 1200)
Management Strategy:	Special
Percent population is above (+) or (-) objective:	5%
Number of years population has been + or - objective in recent trend:	3

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

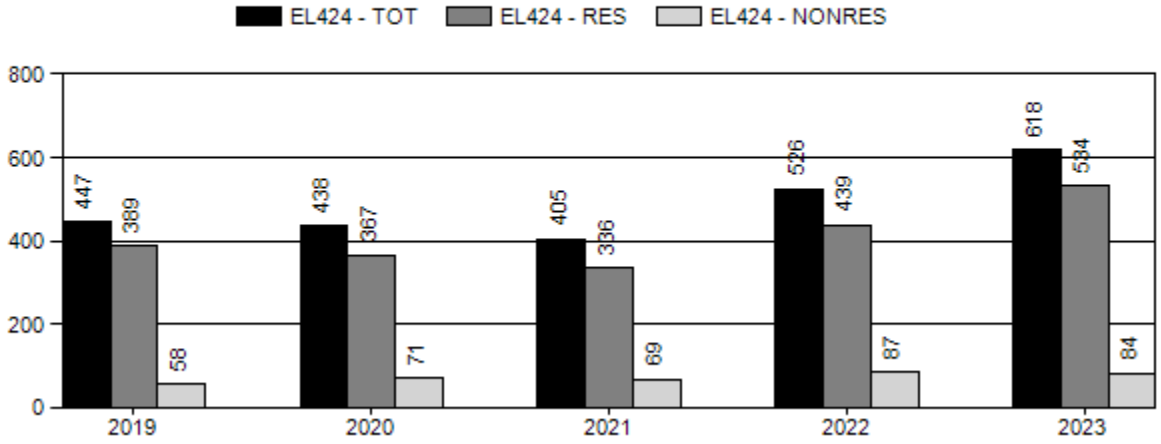
	JCR Year	Proposed
Females ≥ 1 year old:	0%	0%
Males ≥ 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%
Total:	0%	0%
Proposed change in post-season population:	0%	0%



Harvest



Number of Hunters



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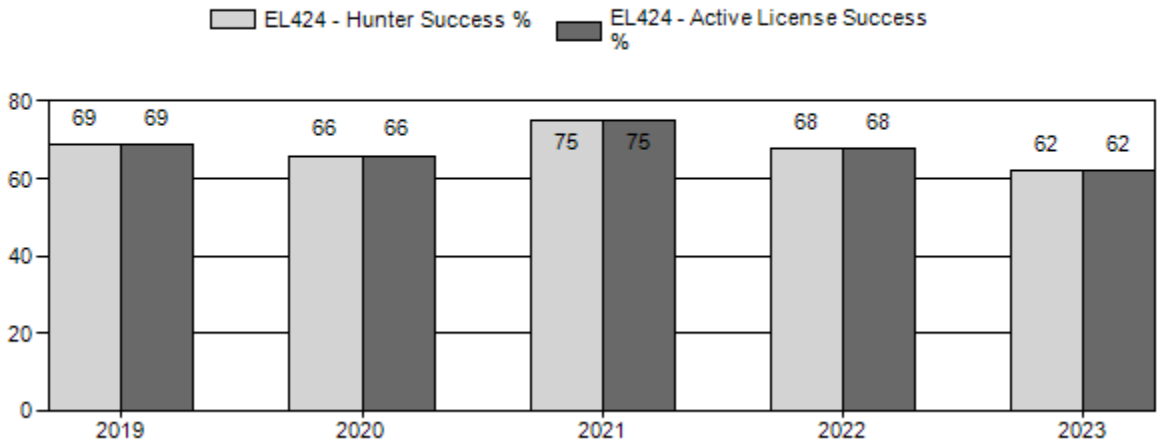
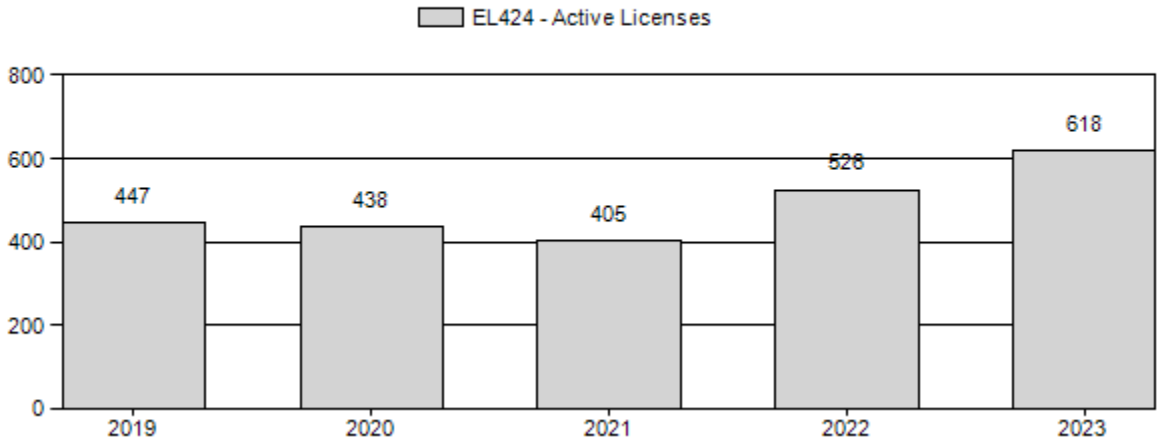
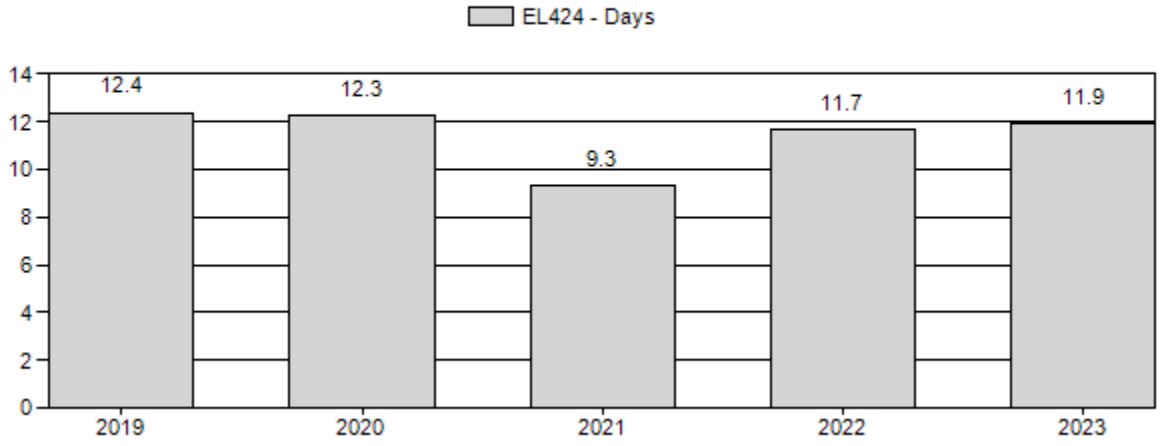


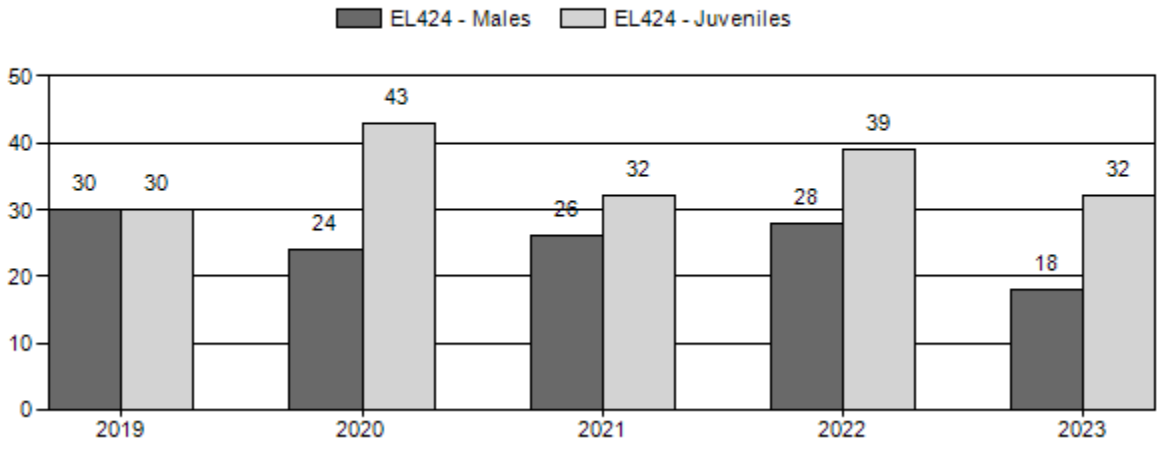
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2024 Hunting Seasons
South Rock Springs Elk Herd (EL424)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
30	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	40	Any elk
30	4	Sept. 1	Sept. 30	Oct. 7	Nov. 15	100	Antlerless elk
31	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	50	Any elk
31	4	Sept. 1	Sept. 30	Oct. 7	Nov. 15	175	Antlerless elk
32	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	40	Any elk
32	4	Sept. 1	Sept. 30	Oct. 7	Dec. 31	150	Antlerless elk
32	9	Sept. 1	Sept. 30			25	Antlerless elk, archery only

2023 Hunter Satisfaction: 72.8% Satisfied, 14.9% Neutral, 12.3% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation:

The 2024 hunting season saw few changes in license numbers across the South Rock Spring elk herd unit, with the only changes made being a slight decrease in Type 1 license numbers for the three hunt area that make up this herd unit, and a slight decrease in HA31 Type 4 licenses. The change to the number of licenses offered in 2024 was necessitated by the continued failure of the observed bull to cow ratios to reach the minimum allowed for a special management herd, and due to a noticeable decline in the number of cow elk present in HA31 after several years of increased cow harvest in that hunt area.

As no dedicated mid-winter trend count flight has been conducted in recent years, the number of elk classified during the December classification flight has been used as a surrogate trend count number. During that flight in 2023, a total of 1,047 elk were classified, with 501 of those elk being observed in HA30, 83 elk were documented in HA31, and 463 elk were seen in HA32. Four hundred thirty five of those elk observed in HA32 were in one large group 900 yards north of the Utah state line. This group of approximately 500 elk that regularly move between Colorado, Utah, and Wyoming have accounted for a significant portion of the total number of elk counted in the last four years, and was a large part of the reason that a mid-winter trend count objective was chosen for this herd, as these elk are only sometimes in the state and are rarely in Wyoming during hunting season. It is important to note that the three year trend count average for this herd has been increasing since the 2014-2016 average, but that this increase can be attributed to an increased sampling effort and more regular flights, rather than necessarily an increase in the actual number of elk on the ground.

Given the number of elk seen from 2020 to 2022, the three year trend count average for this herd moved to 1,505 elk, which is above the upper end of its objective of 800 to 1200 elk. Because of this, Type 4 licenses in the herd unit were increased and the Type 4 season was extended in HA32 to hopefully target this group of elk that are typically not present in Wyoming until later in the year, but that are accounting for the increase in trend count numbers. After several years of increased harvest, the 2021 to 2023 trend count average for this elk herd moved down to 1,302 elk, which is just slightly above the upper end of its objective range of 1,200 elk. While the Type 4 hunter success rate for HA32 in 2022 of 62%, which suggested that running the Type 4 licenses until December 31 did help with harvesting additional cows, the success rate for that license type in 2023 returned to 42%; which is a more typical success rate for that license type indicating that, at least in 2023, the public is still having a hard time harvesting cows in this portion of the herd unit.

Based on hunter submitted tooth samples, the average age of harvested bulls in 2023 was 5.7 years old, which the same average age of harvest bulls as was seen in 2022, and is close to the 10 average for this herd of 5.8 years old. The observed bull ratio in 2023 was only 18 bulls per 100 cows, which is well below the special management guidelines of 30 to 40 bulls per 100 cows post season. This was the fifth year in a row that observed bull to cow ratios have been at the minimum of, or below the guidelines for a special management herd.

The below objective bull ratios, increased effort, and numerous hunter complaints about bull quantity and quality suggest that Type 1 licenses in this herd needed to be reduced to meet both this herd's objective criteria and public expectations. Given the open nature of the landscape, abundance of public lands and roads where this elk herd lives, as well as the public's willingness to put in as much effort as it takes to harvest an elk when they draw a license in this herd unit; a goal of only 60% harvest success is probably not realistic for this herd unit, and would probably not be accepted by the public for this highly sought after special management herd.

2.) Chronic Wasting Disease Monitoring & Management:

The South Rock Springs elk herd is a Tier 3 surveillance herd. To date, no meaningful CWD prevalence data is available within this herd unit and no CWD management actions have occurred. This herd has not been prioritized for CWD surveillance because of the relatively small size of this herd obtaining the necessary sample size to accurately determine prevalence would be unlikely.

2023 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2023 - 5/31/2024

HERD: EL425 - SIERRA MADRE

HUNT AREAS: 13, 15, 21, 108, 130

PREPARED BY: PHILIP DAMM

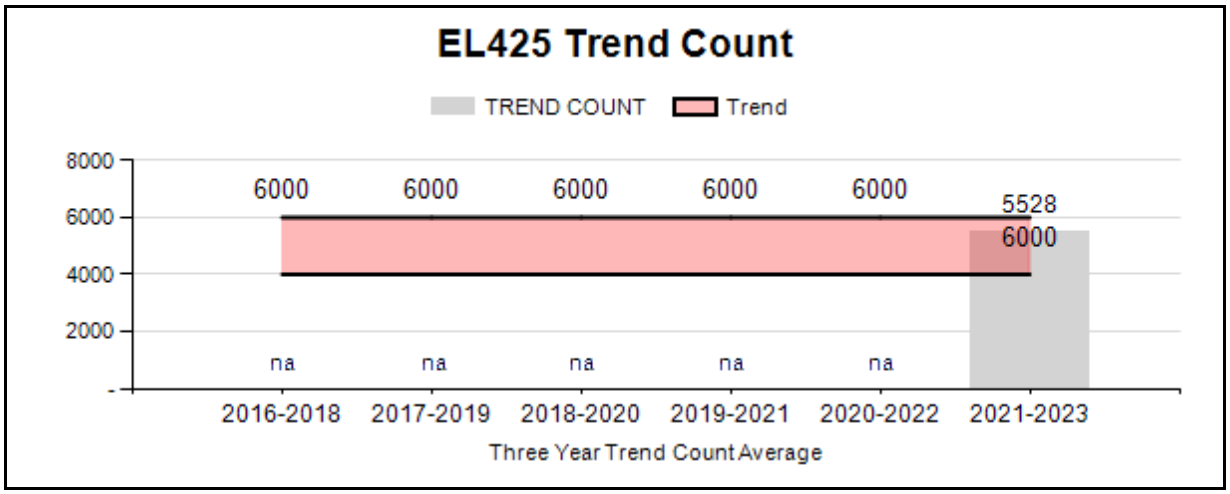
	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	5,978	4,627	6,021
Harvest:	2,117	1,991	2,000
Hunters:	5,231	4,845	5,000
Hunter Success:	40%	41%	40 %
Active Licenses:	5,478	5,310	5,000
Active License Success	39%	37%	40 %
Recreation Days:	38,431	38,582	38,500
Days Per Animal:	18.2	19.4	19.2
Males per 100 Females:	33	25	
Juveniles per 100 Females	36	33	

Trend Based Objective (± 20%)	5,000 (4000 - 6000)
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	-7.5%
Number of years population has been + or - objective in recent trend:	0

2018 - 2023 Postseason Classification Summary

for Elk Herd EL425 - SIERRA MADRE

		MALES				FEMALES		JUVENILES				Males to 100 Females				Young to		
Year	Post Pop	Ylg	Adult	Total	%	Total	%	Total	%	Tot Cls	Cls Obj	Yling	Adult	Total	Conf Int	100 Fem	Conf Int	100 Adult
2018	0	551	572	1,123	19%	3,456	58%	1,352	23%	5,931	0	16	17	32	± 1	39	± 1	30
2019	0	0	0	0	0%	0	0%	0	0%	0	0	0	0	0	± 0	0	± 0	0
2020	0	22	37	59	17%	193	56%	92	27%	344	0	11	19	31	± 0	48	± 0	37
2021	0	501	513	1,073	24%	2,670	59%	797	18%	4,540	0	19	19	40	± 0	30	± 0	21
2022	0	234	256	490	16%	1,939	61%	730	23%	3,159	0	12	13	25	± 0	38	± 0	30
2023	0	269	419	688	16%	2,707	63%	893	21%	4,288	0	10	15	25	± 0	33	± 0	26



024 Hunting Seasons
Sierra Madre Elk Herd Unit (EL425)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
13		Sep. 1	Sep. 30	Oct. 15	Oct. 31	General	Any elk
13	6	Sep. 1	Sep. 30	Oct. 1	Dec. 31	150	Cow or calf
15		Sep. 1	Sep. 30	Oct. 15	Oct. 31	General	Any elk
15	6	Sep. 1	Sep. 30	Oct. 1	Dec. 31	200	Cow or calf
12, 13, 15, 110	7			Aug. 15	Jan. 31	350	Cow or calf valid on private land
21		Sep. 1	Sep. 30	Oct. 12 Oct. 15	Oct. 13 Oct. 31	General youth license	Any elk
21		Sep. 1	Sep. 30	Oct. 15	Oct. 31	General	Any elk
21	6	Sep. 1	Sep. 30	Oct. 15	Nov. 17	200	Cow or calf
21	7			Aug. 15	Dec. 31	25	Cow or calf valid on private land
108	1	Sep. 1	Sep. 30	Oct. 11	Oct. 31	100	Any elk

108	1	Sep. 1	Sep. 30	Nov. 1	Jan. 31		Antlerless elk
108	4	Sep. 1	Sep. 30	Oct. 11	Jan. 31	75	Antlerless elk
108	6	Sep. 1	Sep. 30	Oct. 11	Dec. 31	250	Cow or calf
108	6	Sep. 1	Sep. 30	Jan. 1	Jan. 31		Cow or calf valid west of the Twentymile Road (Carbon County Rd 605 N)
130		Sep. 1	Sep. 30	Oct. 1	Oct. 23	General	Any elk

2023 Hunter Satisfaction: 59% Satisfied, 23% Neutral, 18% Dissatisfied

2023 Management Summary

1.) Hunting Season Evaluation:

Fewer Sierra Madre Elk Herd (SMEH) resident and non-resident hunters participated in the 2023 seasons than since 2019; although, opportunity in terms of season length and limited quotas in that year was less than 2023. Fewer non-residents participated in this herd in 2023 than since 2008. This lower participation was likely attributable to the perception and/or reality of fewer available elk due to mortality during the severe winter of 2022-23. Success on active licenses on average for the herd was lower than the last couple years, despite very similar season structures and quotas. This lower success, in particular for general license hunters in HAs 13, 15, and 21, led to about 15% fewer elk harvested. This decrease in harvest is confounded between warmer than average temperatures, limited snowfall during the hunting season, and fewer elk on the landscape. Some hunters experienced difficulty finding elk in "normal" locations on the National Forest, but others reported elk well distributed across the National Forest in small groups throughout the seasons. Success in HA108 was the outlier for the herd, with it hovering around 80% for all license types. This high success on active licenses has been atypical for Type 4s and 6s in recent years, because hunters are opportunistic with available cow/calf elk. The same weather conditions that reduced success in the general hunt areas probably increased it in HA108 by allowing vehicular access well into the late antlerless seasons there. This higher success in HA108 in particular led to the highest number of cow elk being harvested in the herd since 2015.

The mid-winter trend count objective for SMEH was assessed during January of 2024. Elk were counted via helicopter in Hunt Areas 13, 15, 21, 108, and 130 for this trend assessment. Effort was down slightly for this count relative to counts in 2021 and 2022; although, managers have been able to refine trend count polygons as they have increased their experience of elk locations on the landscape. In other words, less time was spent flying in areas with little to no elk. In total 4,627 elk were counted for the SMEH in 2024. Due to flight budget constraints in 2020, this was the first time three consecutive trend count flights were completed for the herd since the change to the trend count objective near the end of the biological year of 2018. This accomplishment made the assessment of the three year average objective possible for the first time. The three year average was 5,528, which was within the meat of the objective range of 4,000 to 6,000 elk.

Samples were collected in 2023 for brucellosis, mostly from HAs 21 and 108 and a few in HA15. This collection involved acquiring a vial of quality blood from a freshly harvested elk. Sample kits were mailed to all limited quota license holders, and samples were also collected during field checks and at check stations. Seventy eight testable samples were collected and none tested positive for brucellosis. Brucellosis samples were slated to be collected in HAs 13, 15, and 130 in 2024.

Although hunters in 2023 experienced some difficulty in harvesting elk in HA13, managers felt elk numbers were still there and proposed to increase Type 6 licenses by 50 for 2024 to assist in keeping this elk herd within objective. Managers received broad public support during public meetings for this increase. Increases were made in 2023 to Type 6 quotas in HA15 and the Platte Valley-wide private land only Type 7s to help address damage issues.

Managers believed elk numbers were lower in HA21 in 2023 than previous years; however, this proposal would likely result in similar harvest in 2024 to 2023. With few landowner complaints, HA21 hunting opportunity may need reduced in future if harvest metrics continue to decline. The "youth only" portion of the HA21 general season was proposed occur on October 12-13 in 2024 for two reasons: to allow for that opportunity to occur on a weekend, and to give a day and a half break for elk to redistribute prior to the regular general season opener. This shift would increase general license success on the October 15 opener and reduce hunter complaints. Since October 15 fell on a weekday in 2024, the typical "bull only" opener in HA21 was proposed instead to be "any elk." This would also result in increased cow/calf harvest at the beginning of the season. These two changes likely offset the proposed removal of the general license "antlerless" season that was November 1-12. Type 6s were proposed to be reduced from 300 to 200 to also offset increased harvest on and around the "any elk" opener.

Hunter success in HA108 was high (80% in 2023) across all three license types. Managers continued to have concerns with the extremely limited access in HA108 due to the true checkerboard land ownership, and would be keeping a close eye on success and comments during future seasons. An increased quota in HA108 would lead to increased trespass issues for landowners, and as such was not a palatable way to keep success at 60% for those license types. Increased quotas would also lead to decreased harvest with disturbed elk finding refugia on private lands within HA108.

2.) Chronic Wasting Disease (CWD) Monitoring & Management:
SMEH is a Tier 2 CWD surveillance herd that was prioritized for sampling in 2021. In 2021, managers for this herd across three regions sampled 264 adult elk for CWD to estimate prevalence, and well over 300 total elk were sampled. Of those 264 adults, only one was positive for CWD for a prevalence estimate of 0.4% and a 95% confidence interval of 0.1%-2.3%. One CWD positive elk was euthanized in HA21 in early 2024. To date, no meaningful CWD management actions have occurred in this herd unit.

2023 - JCR Evaluation Form

SPECIES: Elk

PERIOD: 6/1/2023 - 5/31/2024

HERD: EL426 - STEAMBOAT

HUNT AREAS: 100

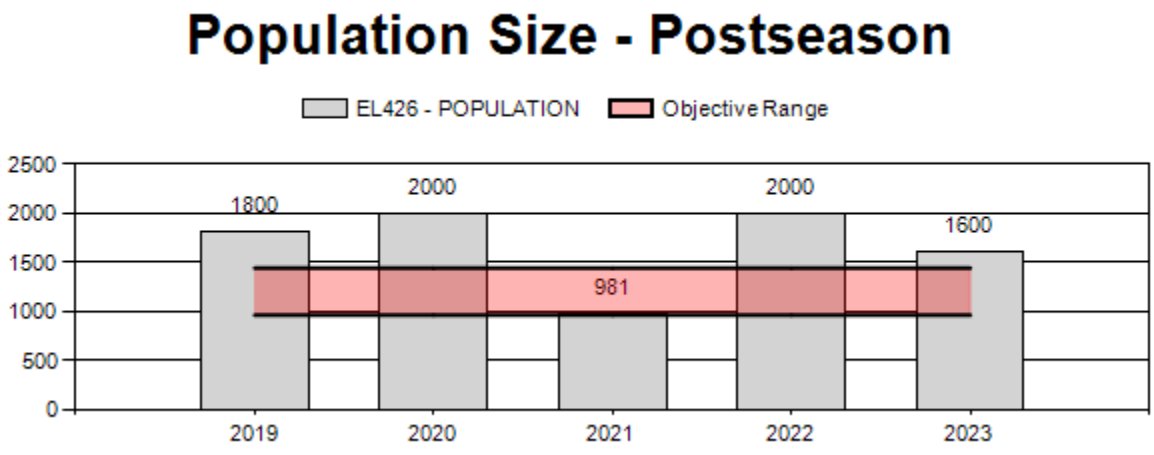
PREPARED BY: PATRICK BURKE

	2018 - 2022 Average	2023	2024 Proposed
Population:	1,746	1,600	900
Harvest:	630	596	600
Hunters:	808	776	750
Hunter Success:	78%	77%	80 %
Active Licenses:	824	786	750
Active License Success:	76%	76%	80 %
Recreation Days:	3,714	4,015	4,000
Days Per Animal:	5.9	6.7	6.7
Males per 100 Females	58	43	
Juveniles per 100 Females	32	50	

Population Objective (± 20%) :	1200 (960 - 1440)
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	33%
Number of years population has been + or - objective in recent trend:	7
Model Date:	02/20/2024

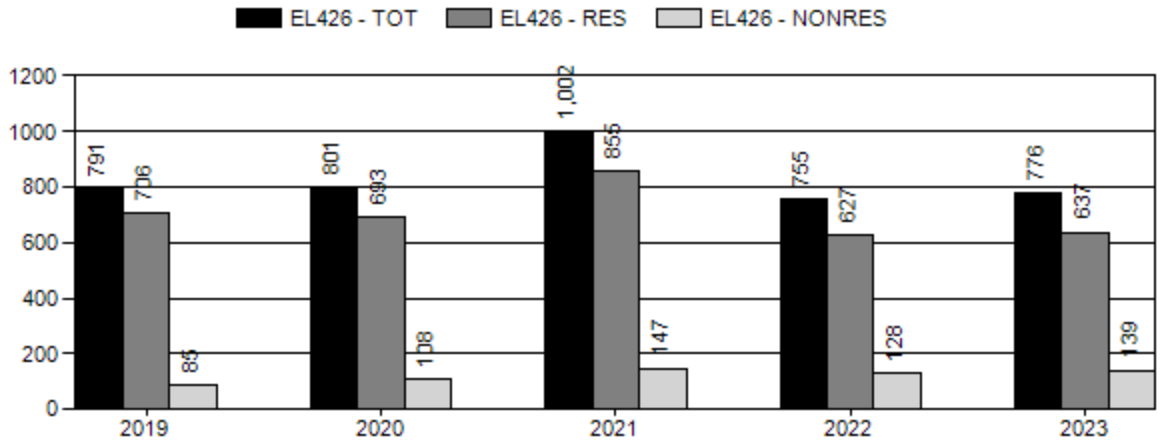
Proposed harvest rates (percent of pre-season estimate for each sex/age group):

	JCR Year	Proposed
Females ≥ 1 year old:	25%	30%
Males ≥ 1 year old:	110%	90%
Proposed change in post-season population:	-33%	-50%

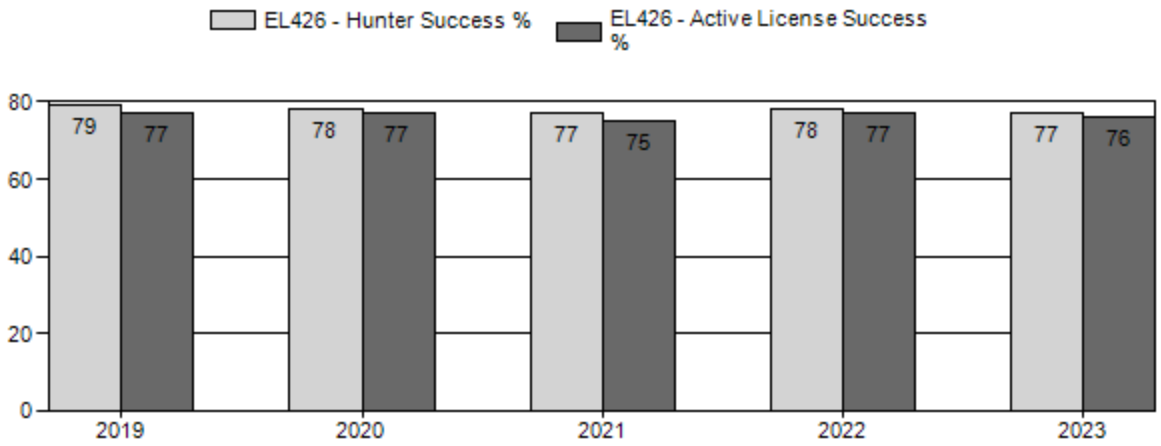


Harvest

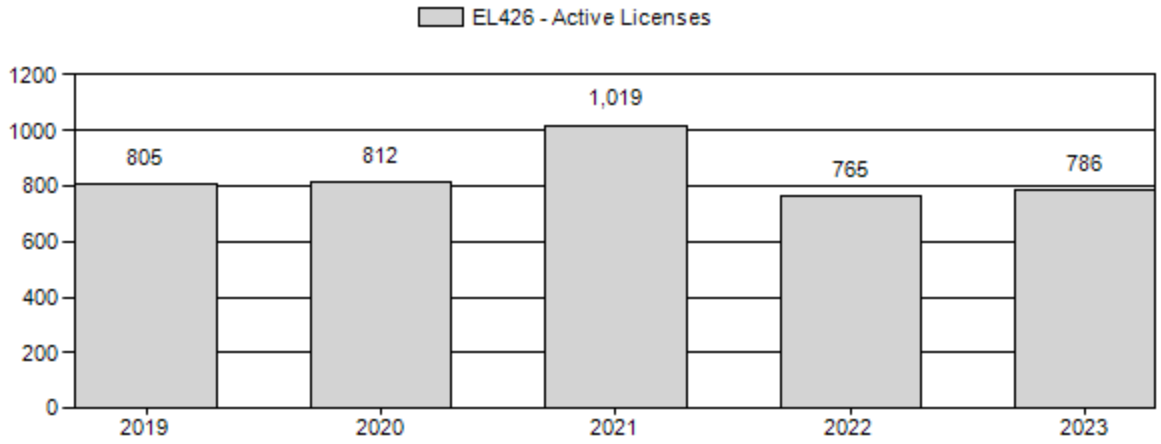
Number of Hunters



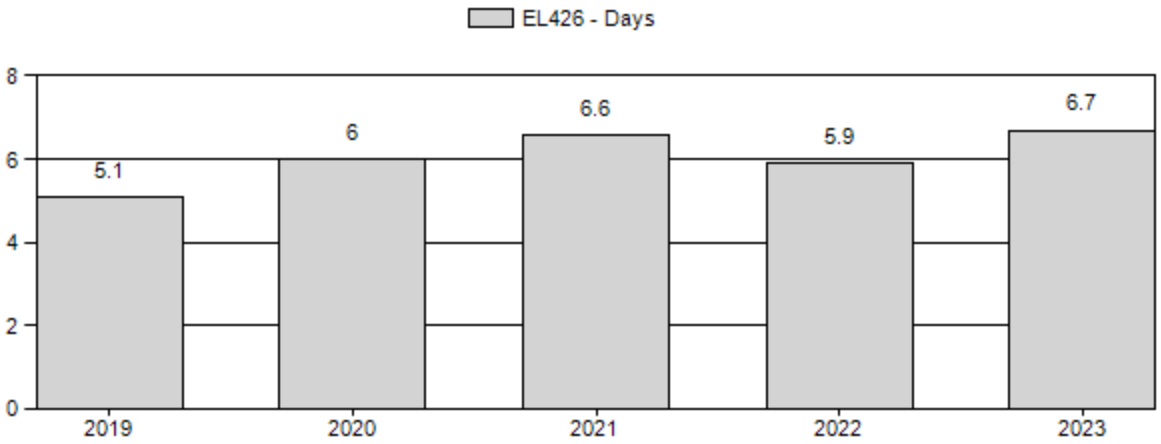
Harvest Success



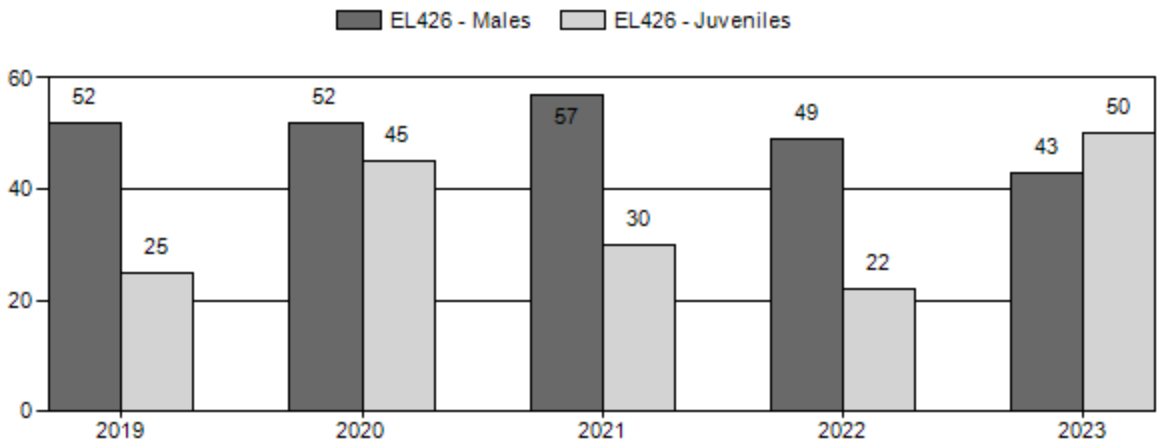
Active Licenses



Days per Animal Harvested



Postseason Animals per 100 Females



2024 Hunting Seasons
Steamboat Elk Herd (EL426)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
100	1	Sept. 1	Sept. 30	Oct. 7	Oct. 31	200	Any elk
100	2			Sept. 1	Oct. 20	100	Any elk valid within two (2) miles of the Farson-Eden Irrigation Project
100	2	Sept.1	Sept. 30	Oct. 21	Nov. 10		Antlered elk four (4) points or less on either antler; any elk valid within two (2) miles of the Farson-Eden Irrigation Project
100	4	Sept. 1	Sept. 30	Oct. 14	Nov. 10	175	Antlerless elk
100	5	Sept. 1	Sept. 30	Nov. 11	Dec. 31	250	Antlerless elk
100	6	Sept. 1	Sept. 30	Oct. 15	Nov. 30	25	Cow or calf valid east of Sweetwater County Road 19, south of Sweetwater County Road 82, east of Sweetwater County Road 21, and south of Sweetwater County Road 20
100	7	Sept. 1	Sept. 30	Oct. 1	Oct. 31	100	Cow of calf valid east of U.S. Highway 191, south of Sweetwater County Road 17, and Sweetwater County Road 15, and west of Sweetwater County Road 19

2023 Hunter Satisfaction: 83.7% Satisfied, 11.2% Neutral, 5.0% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation:

The 2024 hunting season was identical in both season structure and license issuance rate to the 2023 season. Several changes that had been made to the Steamboat elk seasons in 2023 appear to have been successful in meeting their goals and therefore were maintained for the 2024 season. The first of those changes, was an increase in the number of Type 5 licenses offered, changing from 200 licenses to 250 licenses for 2023.

This increase in the number of licenses offered was implemented to help speed up the rate that this population is moved to its objective. Despite the fact that several years of increased license issuance rates since 2016 have harvested 4,600 elk, annual estimates still place this herd above its population objective. However, classification sample sizes from the last three years, along with field observations and model estimates suggest that this population may be nearing its objective range. The second major change for the 2023 season was a change for the Type 2 license, moving the time that it was valid for any elk in the Farson-Eden Irrigation Project from November to the end of January to having that license type be valid starting in September. This change was done to help better address depredation concerns on growing crops in the irrigation project area. A change was also made to the limitation that allowed for antlered elk with five points or less on either antler to be harvested in the entire hunt area during October. For 2023, that limitation was changed to antlered elk with four points or less on either antler. Both of these changes appeared to better target both the elk causing damage concerns in Farson and appear to have helped target the younger aged bulls in the herd.

During a postseason classification flight conducted in December 2023, a total of 960 elk were classified with 498 of those elk being adult cows, 250 being calves, and 212 were bulls. Of those 212 bulls, 55 of those were spikes, 75 were smaller or "raghorn" bulls, and 82 were larger bulls. This means that 61% of the bulls classified in 2023 were younger age class bulls, which would be legal to harvest by a Type 2 license holder and 39% of the bulls are the older six point bulls typically targeted by Type 1 license holders.

Based on hunter submitted tooth samples, the average age of harvested bulls by Type 1 license holders in the Steamboat elk herd in 2023 was 6.1 years old, which is in line with the 10 year average age of harvested bulls in the herd unit which was also 6.1 years old. In 2022 when the Type 2 license limitation allowed for the harvesting of any bull with five points or fewer on either antler, the average age of bulls harvested by Type 2 license holders, excluding elk that could be identified as having been harvested in the Farson-Eden Irrigation Project area, was 6.5 years old. In 2023 when that limitation was amended to antlered elk with four points or fewer on either antler, the age of harvested bulls moved to an average of 4.3 years old, which indicates that the change to the Type 2 limitation was effective in targeting the younger age class bulls that account for a significant percentage of the total bull population.

The modeled post-season population estimate for this herd was 1,600 elk after the 2023 hunting season. Assuming that harvest rates remain consistent with what has been observed in the past, the 2024 season should harvest near 600 elk. This level of harvest should move this population significantly closer to its population objective of 1,200 elk. It is important to note that given the extremely open nature of the landscape that this herd lives in with abundant public land and high road density that this elk herd will always exhibit harvest statistics more commonly observed in pronghorn herds, than what is typically seen in elk herds. Since this elk population lives in open sagebrush country with no real refuge areas, elk are extremely visible and vulnerable to harvest. Therefore, hunter success rates in this elk population will always be above 60%.

2.) Management Objective Review:

In 2023 managers reviewed the past five year's population, weather and habitat data, as well as public desires and determined that the current management objective for the Steamboat elk herd is still appropriate and should be maintained.

3.) Chronic Wasting Disease Monitoring & Management:

The Steamboat elk herd is a Tier 3 surveillance herd. To date, no meaningful CWD prevalence data is available within this herd unit and no CWD management actions have occurred. This herd has not been prioritized for CWD surveillance because of the relatively small size of this herd obtaining the necessary sample size to accurately determine prevalence would be unlikely.

2023 - JCR Evaluation Form

SPECIES: Elk PERIOD: 6/1/2023 - 5/31/2024

HERD: EL428 - WEST GREEN RIVER

HUNT AREAS: 102-105 PREPARED BY: JEFF SHORT

	2018 - 2022 Average	2023	2024 Proposed
Population:	3,895	3,500	3,250
Harvest:	1,359	1,243	1,250
Hunters:	3,619	3,476	3,500
Hunter Success:	38%	36%	36 %
Active Licenses:	3,842	3,968	4,000
Active License Success:	35%	31%	31 %
Recreation Days:	24,868	27,337	26,000
Days Per Animal:	18.3	22.0	20.8
Males per 100 Females	26	0	
Juveniles per 100 Females	33	0	

Population Objective (± 20%) : 3100 (2480 - 3720)

Management Strategy: Recreational

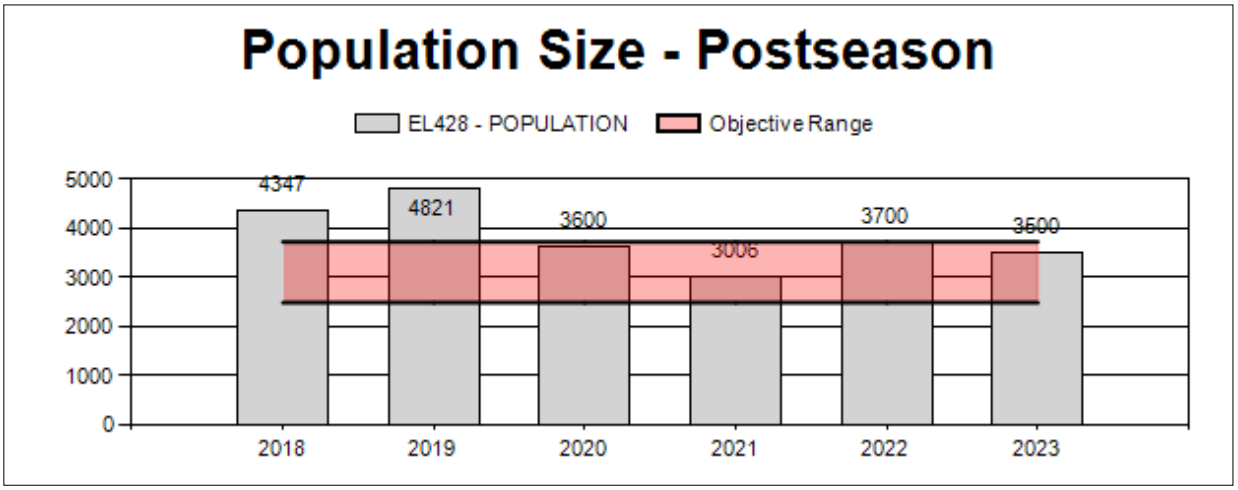
Percent population is above (+) or below (-) objective: 13%

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):

	JCR Year	Proposed
Females ≥ 1 year old:	20%	25%
Males ≥ 1 year old:	30%	33%
Proposed change in post-season population:	0%	-7%



2024 HUNTING SEASON

West Green River Herd Unit (EL428)

Hunt	Hunt	Archery Dates		Season Dates			
Area	Type	Opens	Closes	Opens	Closes	Quota	Limitations
102	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 24		Any elk
102	Gen			Oct. 25	Nov. 14		Antlerless elk
102	6	Sept. 1	Sept. 30	Oct. 15	Nov. 30	250	Cow or calf
102	7	Sept. 1	Sept. 30	Dec. 15	Jan. 31	125	Cow or calf
103	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 24		Any elk
103	Gen			Oct. 25	Nov. 14		Antlerless elk
103	6			Aug. 15	Aug. 31	200	Cow or calf valid on or within one-quarter (1/4) mile of irrigated land
103	6	Sept. 1	Sept. 30	Oct. 15	Nov. 30		Cow or calf
103	6			Dec. 15	Jan. 31		Cow or calf
104	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 24		Any elk
104	Gen			Oct. 25	Nov. 14		Antlerless elk
104	6	Sept. 1	Sept. 30	Oct. 15	Nov. 30	400	Cow or calf, also valid in Area 105 in Lincoln County
104	7			Aug. 15	Aug. 31	200	Cow or calf valid on or within one-quarter (1/4) mile of irrigated land
104	7	Sept. 1	Sept. 30	Dec. 15	Dec. 31		Cow or calf, also valid in Area 105 in Lincoln County
104	7			Jan. 1	Jan. 31		Cow or calf valid on private land or west of U.S. Highway 30 or east of Rock Creek within the Twin Creek drainage
105	Gen	Sept. 1	Sept. 30	Oct. 1	Oct. 31		Any elk
105	Gen			Nov. 1	Nov. 14		Antlerless elk
105	6	Sept. 1	Sept. 30	Oct. 1	Dec. 31	50	Cow or calf

2024 Nonresident General Elk Western Region Quota: 2,775

2023 Hunter Satisfaction: 53.0% Satisfied, 25.7% Neutral, 21.3% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: For 2024 season setting, we have very few changes proposed for West Green River elk seasons. Considerable changes were made last year in response to damage issues in the herd unit brought on by a very severe winter in 2022/23. Elk struggled to find food and the Department conducted emergency feeding to bait elk away from private haystacks and feed lines. This was an extraordinary situation and we do not plan to feed in future

years. We will reevaluate our harvest plan after we get new aerial survey data in the future. We have licenses valid in August to address Elk damage in Hunt Areas 103 and 104. These licenses are only good on or within ¼ mile of irrigated lands. Considerable numbers of elk have been wintering close to Highway 30 in Nugget Canyon. Several groups of elk have crossed into Hunt Area 105. There is concern that more elk may get pushed across the highway during late season hunts. We do not want large numbers of elk in Hunt Area 105 due to potential competition on mule deer winter ranges and lack of support for elk with private landowners in the area. To address this we have recently allowed segments of 104 type 6 and type 7 seasons to also be valid in the northern portion (within Lincoln County) of Hunt Area 105.

In Hunt Area 105 we open the either sex general season on October 1st. This allows general hunting during the second half of the rut and provides a long season of 31 days. This season overlaps the general deer hunt allowing combination hunts. This intentionally puts more hunting pressure on elk in the area to address landowner complaints and increasing elk numbers there. We also propose to add a November antlerless elk season to the general hunt and add a type 6 hunt with 50 licenses to further address this situation.

2.) Chronic Wasting Disease Management: This is a Tier 3 surveillance herd that was last prioritized for CWD sampling in 2020. A good number of samples were collected at that time. Prevalence estimates and sample sizes for the most recent 3 year period are presented below (Table1). It is difficult to get samples from elk in this herd as many harvested elk are quartered or deboned in the field. This results in a low sample size and a wide 95% confidence interval. No positives have been found in this herd.

Table 1. CWD prevalence for hunter-harvested elk in the West Green River Elk Herd, 2021 - 2023.

Year(s)	Percent CWD-Positive and (*n*) – *Hunter Harvest Only*
	All Adult Elk (CI = 95%)
2021-2023	0% (0-41%, n=14)

3.) Fossil Butte National Monument: In recent years, the number of elk moving onto Fossil Butte National Monument (FBNM) during the fall has increased, and is estimated to be around 600-800 animals. Radio collar data suggests a significant number of animals move onto the Monument in early September, immediately after the opener of the archery season. As with most lands administered by the National Park Service, FBNM is closed to hunting. As the number of elk on FBNM has increased, it has become increasingly difficult to manage this herd to objective while providing huntable numbers of elk for sportsmen.

4.) Sightability Aerial Surveys: Elk aerial surveys are scheduled to be conducted every three years in the West Green River Elk Herd. Classification data is also collected during these flights. All known occupied elk winter range is flown in Hunt Areas 102, 103 and 104. Some small parts of Area 105 are flown but not all of Area 105 is flown due to the large geographic area and very low elk densities. The survey was most recently flown in January 2020. Total numbers of elk observed were 4,647. The Idaho sightability model was used to estimate a total population for the area flown. That estimate was 4,721 elk with a standard error of 21.12. Good coverage of occupied elk winter habitat was achieved in the survey. However, there are some peripheral habitats that were not flown due to budget constraints. For population modeling we add 100 animals to the estimate and enlarge the SE to account for those areas. This is a very low sightability correction. A low sightability correction factor on these surveys is normal and is due to large groups of elk in high snow cover and open environments. This creates survey conditions where very few elk are

missed during helicopter surveys. We have not been able to fly this survey since 2020, hence we do not have a reliable population estimate for this herd. We hope to fly this as soon as possible in the future.

5.) Population Modeling Issues: The population model no longer functions in this herd unit. The model cannot reconcile data on the population estimates, bull:cow ratios and bull harvest. We rely heavily on the aerial survey population estimates for population management in the West Green River herd unit and intend to conduct surveys in the near future. Population estimates are approximate and are based on ground observations from field personnel during winter conditions. We recorded elk numbers and locations during Wyoming Range mule deer aerial surveys which helped inform managers of elk numbers and distribution.

6.) Comingling with Livestock and **Brucellosis Monitoring:** Conflict with agriculture producers can be an issue for this elk herd. Damage complaints occur during bad winters, but are less common during "normal" winters. Unfortunately, four of the past seven winters have been much worse than average in regards to snowfall and temperatures. Elk comingling with livestock during winter is uncommon, and only in limited areas, but is an issue we take seriously. Past problems have typically been dealt with successfully if the Department was notified. The herd is in the brucellosis surveillance area. There is extremely low brucellosis prevalence, and the herd has never had a positive brucellosis test in elk near wintering livestock. However, measures to reduce elk/cattle interaction are still taken and will continue. The 2023 seropositive brucellosis prevalence was 0%, with a sample size of 68 testable samples.

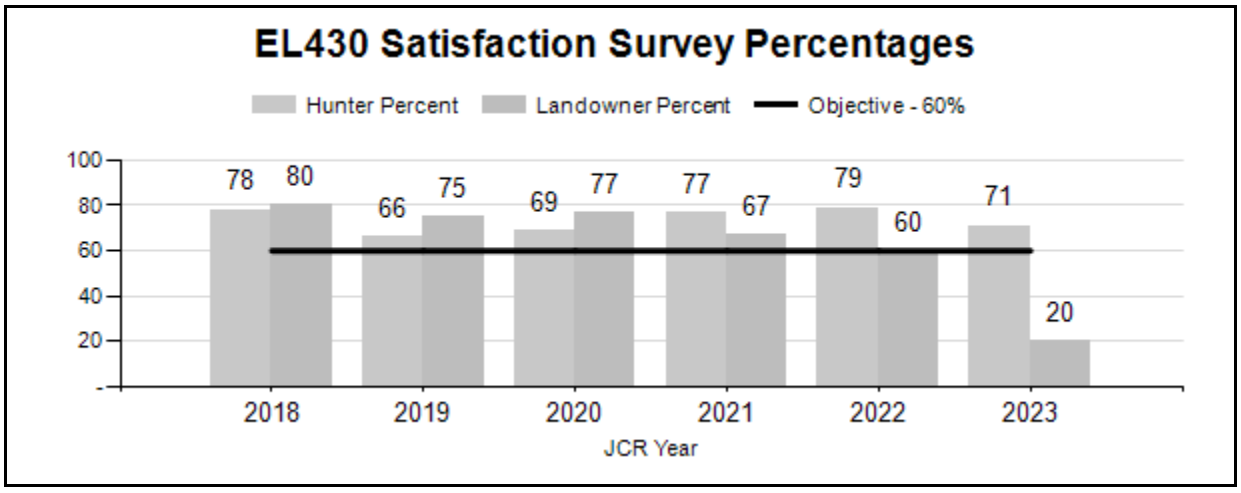
2023 - JCR Evaluation Form

SPECIES: Elk
HERD: EL430 - PETITION
HUNT AREAS: 124

PERIOD: 6/1/2023 - 5/31/2024
PREPARED BY: PHILIP DAMM

	2018 - 2022 Average	2023	2024 Proposed
Hunter Satisfaction Percent	74%	71%	80%
Landowner Satisfaction Percent	73%	20%	50%
Harvest:	107	102	120
Hunters:	173	159	180
Hunter Success:	62%	64%	67 %
Active Licenses:	173	159	180
Active License Success:	62%	64%	67 %
Recreation Days:	1,259	932	1,100
Days Per Animal:	11.8	9.1	9.2
Males per 100 Females:	0	0	
Juveniles per 100 Females	0	0	

Satisfaction Based Objective	60%
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	-14%
Number of years population has been + or - objective in recent trend:	1



2024 Hunting Seasons
Petition Elk Herd Unit (EL430)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
124	1	Sep. 1	Sep. 30	Oct. 15	Nov. 30	70	Any elk
124	4	Sep. 1	Sep. 30	Oct. 15	Nov. 30	100	Antlerless elk
124	4			Dec. 1	Dec. 31		Antlerless elk valid east of Sweetwater County Road 19, and north and east of BLM Roads 4409 and 4411, and west of BLM Road 3310 and Sweetwater County Road 23S
124	6			Aug. 15	Jan. 31	25	Cow or calf elk valid south of BLM Road 3318 and Carbon County Road 700 within Carbon County

2023 Hunter Satisfaction (Obj.=60%): 71% Satisfied, 15% Neutral, 14% Dissatisfied
2023 Landowner Satisfaction (Obj.=60%): 20% At Desired Levels, 60% Above, 20% Below
2023 3-year Average Age of Bull Elk Harvested: 6.5

2023 Management Summary

1.) Hunting Season Evaluation:

Success for the Type 4 licenses in 2023 was 54%, which tracked well with the last two years when license quotas were identical. In 2020, when that license type quota was higher, success was lower such that harvest was almost identical to the current quota. Managers believed this was the level of harvest that was sustainable and was an indication of a current harvest threshold for the herd, outside of the Little Snake River corridor. Type 1 success was a bit lower than the last few years at 79%, which was likely reflective of fewer landowner harvests. Reports of fewer of the oldest age class bulls across the herd were cited as the reason for some license holders not choosing to harvest an elk. As always, changes in numbers and distribution of elk were not estimable due to the size of and relatively low elk density across the herd unit; although, managers were beginning to consider alternatives to current satisfaction based objectives.

Absolute averages for age of harvested bull elk continued to be problematic; however, relative ages over time were still assessed for season setting. Low sample sizes were observed, but biased sample sizes were the main concern. Relatively low participation (5%) by landowner license holders within the herd unit (versus ~20% for all others) likely artificially decreased averages, as landowners typically only harvested older age class bulls. Nevertheless, the average age of bulls harvested in this herd for 2023 was 6.3 (range 4.5-8.5) from 9 samples (past average of 15 samples/year). The running 3-year average was also still excellent at 6.5 (Figure 1). These ages indicated that although some bulls succumbed to mortality during the

severe winter of 2022-23, phenomenal opportunity to harvest mature bulls still existed in Petition in 2023. This opportunity remained despite the herd being only managed under recreational objectives.

Hunter satisfaction (71%; established 2013) indicated management objectives were being met from their perspective; however, this was and continued to be confounded with landowner perceptions due to the extremely high proportion of landowner licenses. Hunters had a bit more trouble in 2023 finding the oldest and most mature bulls that have become typical for this herd, likely due to mortality during winter 2022-23, which was atypical for elk in this herd and many others.

Landowner satisfaction did not meet the objective for the first time since 2015, with only 20% of the sample indicating elk were at desired levels. Some landowners indicated a desire for more elk (20%); however, most (60%) indicated there were too many elk in the herd. Most of those landowners desiring fewer elk were located within irrigated lands of the Little Snake River, where elk had been increasing in numbers for several years. Landowners who indicated there were too few elk were interested in the excellent hunting opportunity and felt more cow elk distributed across the area would help with maintaining presence of mature bulls. They also indicated the bull license numbers were too high and should be reduced to improve quality.

With fairly appropriate harvest having occurred on Type 4 licenses in 2023 in terms of success and effort, managers proposed no changes for the 2024 hunt. With high success on Type 1 licenses, maintenance of high average ages of harvest, and apparent high bull ratios, managers proposed no changes to that license type either. The increased allocation of Type 1 licenses in 2022 led to the highest Type 1 allocation in this herd's history, which was proposed to continue for the 2024 hunt. Managers agreed that achieving no more than 60% success for Type 1's in this herd would likely never be palatable to the public, but they would continue in future years to assess the ability to provide additional opportunity.

With elk numbers in and around the Little Snake River seemingly deviating from the consistent trends of the rest of the herd, managers proposed a limited quota of 25 Type 7 licenses generally for the river corridor and immediately adjacent BLM administered lands. Although a modest quota, managers felt it was appropriate to be realistic with hunters and the amount of available opportunity in the area limitation. This opportunity was in consideration with the relatively small size of the area, limited to no access to private lands, and refugia for elk across the state line in Colorado. Managers continued to work with landowners to allow public access through the Access Yes program and by other means.

Feral horse HMAs across the unit continued to be significantly above AML. Horse numbers outside of HMAs were abhorrent as well. Feral horses continued to be observed immediately adjacent to Highway 789, with a couple having attempted to cross recently. These feral horses affected elk distribution and populations through exclusion from water and other resources and habitat degradation. Feral horse removal did occur in 2021; however, it was apparently restricted to the Adobe Town area and would not result in any measurable effects to elk herd-wide.

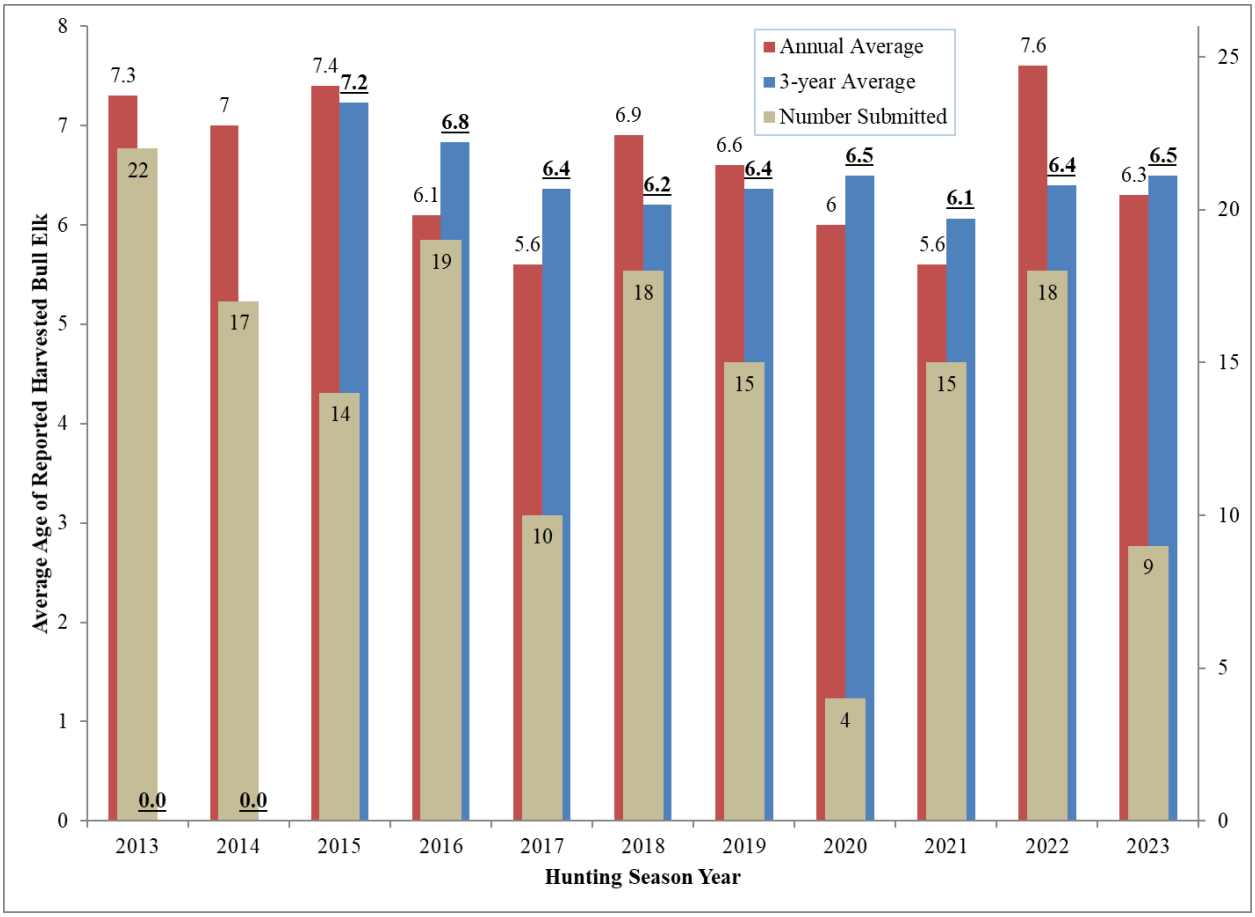


Figure 1. Ages of harvested bull elk for Petition Herd, Hunt Area 124, from incisors submitted by hunters. Current year's average, 3-year running average, and the number of sampled elk are displayed for each year since the Department began assessing this metric in 2013.

2023 - JCR Evaluation Form

SPECIES: Moose | PERIOD: 6/1/2023 - 5/31/2024

HERD: MO415 - UINTA

HUNT AREAS: 27, 35, 44, 901-902 | PREPARED BY: JEFF SHORT

	2018 - 2022 Average	2023	2024 Proposed
Population:		N/A	N/A
Harvest:	19	20	20
Hunters:	20	20	20
Hunter Success:	95%	100%	0 %
Active Licenses:	20	20	20
Active License Success:	95%	100%	100 %
Recreation Days:	206	200	200
Days Per Animal:	10.8	10	10

Limited Opportunity Objective:

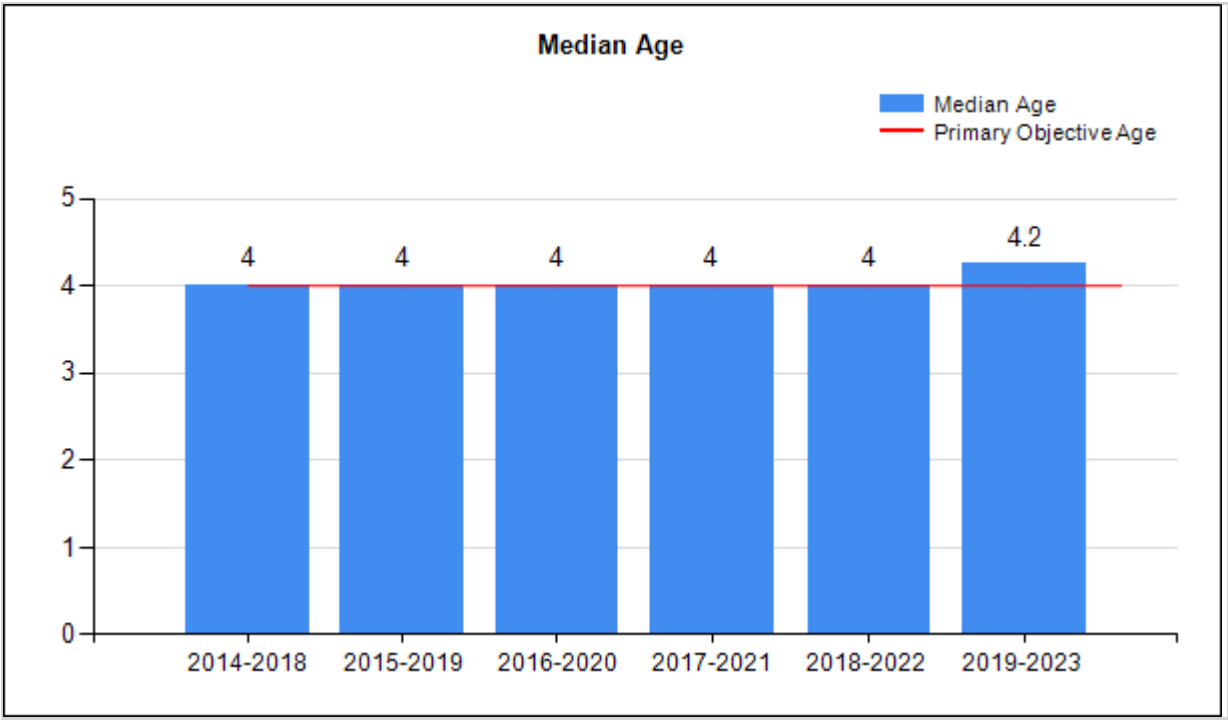
5-year median age of > 4 years for harvested moose

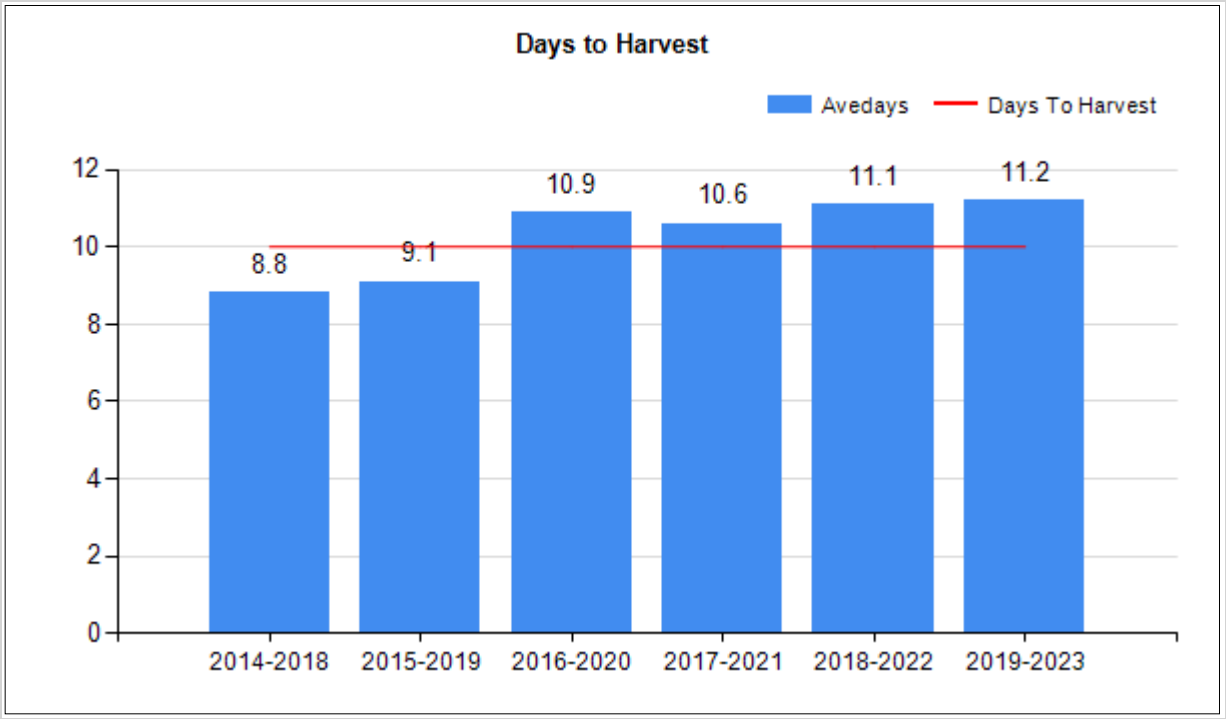
5-year average of <= 10 days/animal to harvest

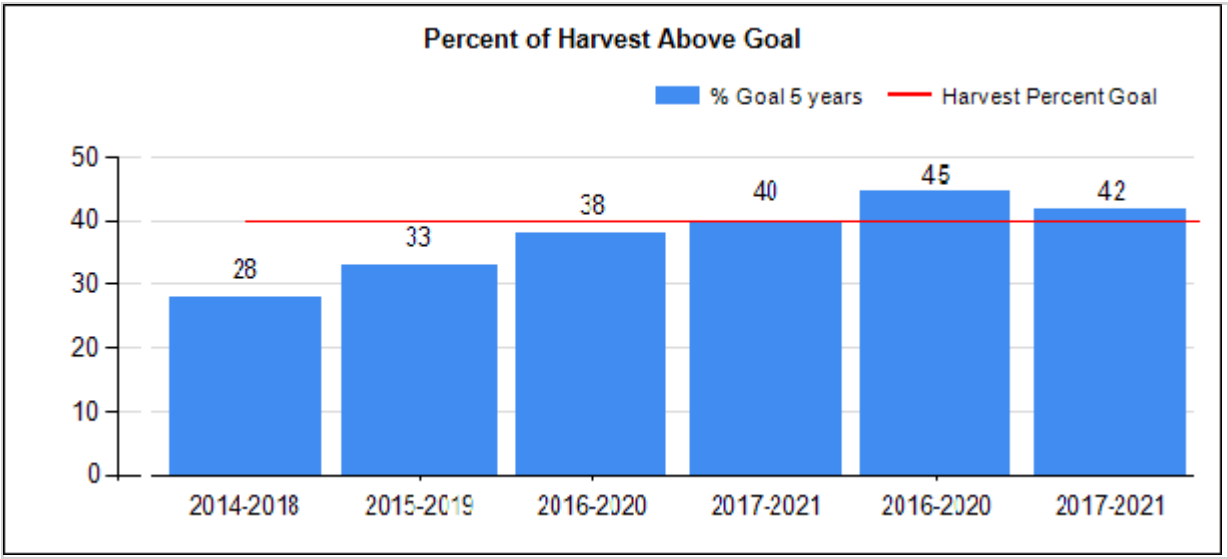
Secondary Objective:

5-year average of 40% of harvested moose are > 5 years of age

Management Strategy: Special




Days to Harvest
Avedays
Days To Harvest
12
10
8
6
4
2
0
8.8
9.1
10.9
10.6
11.1
11.2
2014-2018
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023


Percent of Harvest Above Goal
% Goal 5 years
Harvest Percent Goal
50
40
30
20
10
0
28
33
38
40
45
42
2014-2018
2015-2019
2016-2020
2017-2021
2016-2020
2017-2021

2024 HUNTING SEASONS

Uinta Moose Herd Unit (MO415)

Hunt Area	Hunt Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
27	1	Sept. 1	Sept. 30	Oct. 1	Nov. 20	15	Antlered moose (14 residents, 1 nonresidents)
35	1	Sept. 1	Sept. 30	Oct. 1	Nov. 20	5	Antlered moose (5 residents)

2023 Hunter Satisfaction: NA

2024 Management Summary

1.) Hunting Season Evaluation: The Uinta Moose Herd has a limited opportunity type objective. The objective is based on harvest data and has two parts. The primary objective is to have a median age of Harvest ≥ 4 years and have an average days per harvest of ≤ 10 days. The secondary objective is to have 40% of the male harvest ≥ 5 years of age. For these we use 5 year average timelines for better sample sizes.

Based on recent harvest data, we believe we can offer the same opportunity for hunters as the previous year. We are at objective for the median age of harvest with a most recent 5 year average (2019-2023) at 4.2 year old. In recent years we have had several retired hunters spending many days hunting and passing up bulls. This has put our average days to harvest data out of objective but does not appear to indicate it is difficult to find moose to harvest. If anything, it appears that the hunt is improving and hunters are getting more selective and spending more time looking for large bulls. We are at objective for the secondary objective criteria of percent of harvested moose that are greater than or equal to five years of age. The most current 5 year average (2019-2023) is 42% percent of harvested moose that are greater than or equal to five years of age. Average age of harvest and antler spread in 2023 were good at 4..7 years and 37.3inches.

Hunt Area 44 is hunted in conjunction with Hunt Area 33. The hunt is listed as 33,44 and in the Lincoln Moose Herd document. The hunt is a Type 1 and good for any moose, except cow moose with calf at side. No antlerless harvest is currently allowed in the rest of herd unit. This is an effort to allow maximum growth of the herd. However, hunting is not likely to be a limiting factor for this herd. We do have some landowners experiencing moose damage in Hunt Area 27 and will consider adding a type 4 hunt limited to private irrigated lands in the future if those issues persist.

2.) Management Objective Review: We are maintaining this herd at the current objective and management strategy based on internal discussions and conversations with our constituents. We evaluated and considered population status and habitat data and a change is not warranted at this time. We will review this herd objective again in 2029; however, if the situation arises that a change is needed, we will review and submit a proposal as needed

2023 - JCR Evaluation Form

SPECIES: Moose | PERIOD: 6/1/2023 - 5/31/2024

HERD: MO417 - LINCOLN

HUNT AREAS: 26, 33, 36, 40 | PREPARED BY: JEFF SHORT

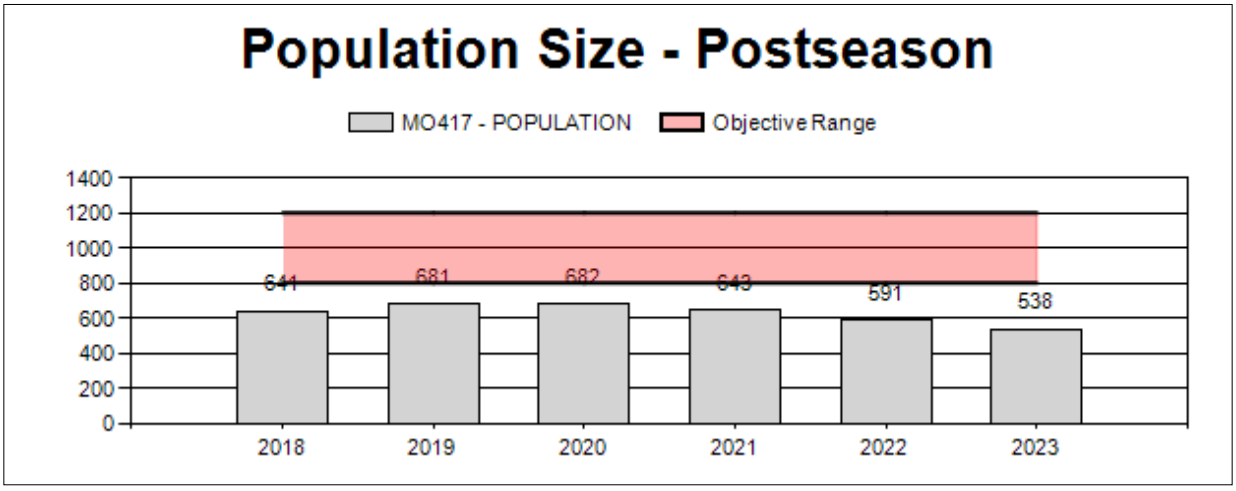
	2018 - 2022 Average	2023	2024 Proposed
Population:	648	538	600
Harvest:	46	60	60
Hunters:	48	61	60
Hunter Success:	96%	98%	100%
Active Licenses:	48	61	60
Active License Success:	96%	98%	100%
Recreation Days:	336	380	380
Days Per Animal:	7.3	6.3	6.3
Males per 100 Females	68	75	
Juveniles per 100 Females	31	43	

Population Objective (± 20%) : 1000 (800 - 1200)

Management Strategy:	Special
Percent population is above (+) or below (-) objective:	-46.2%
Number of years population has been + or - objective in recent trend:	8
Model Date:	02/28/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	2.3%	2.5%
Males ≥ 1 year old:	41%	55%
Proposed change in post-season population:	-14%	11.5%



2024 HUNTING SEASONS

Lincoln Moose Herd Unit (MO417)

Hunt	Hunt	Archery Dates		Season Dates			
Area	Type	Opens	Closes	Opens	Closes	Quota	Limitations
26	1	Aug. 15	Aug. 30				Antlered moose; Valid on private irrigated land within the LaBarge Creek Drainage
26	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	39	Antlered moose; (36 residents, 3 nonresidents)
26	4	Aug. 15	Aug. 30				Antlerless moose, except cow moose with calf at side; valid on private irrigated land within the LaBarge Creek Drainage
26	4	Sept. 1	Sept. 30	Oct. 1	Oct. 31	5	Antlerless moose, except cow moose with calf at side; valid on private irrigated land (4 residents, 1 nonresident)
33,44	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	3	Any moose, except cow moose with calf at side; (3 residents)
33	4	Sept. 1	Sept. 30	Oct. 1	Oct. 31	2	Antlerless moose, except cow moose with calf at side; (2 residents)
36	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	5	Antlered moose (4 residents, 1 nonresident)
40	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	3	Antlered moose; (3 residents)
40	4	Sept. 1	Sept. 30	Oct. 1	Oct. 31	3	Antlerless moose, except cow moose with calf at side; (3 residents)

2023 Hunter Satisfaction: NA

2024 Management Summary

1.) Hunting Season Evaluation: Harvest data is collected on a voluntary check basis for moose. The data collected includes tooth age and antler spread data. As the check is voluntary, data is not complete. Harvest data from 33, 36 and 40 does not provide much information about each individual hunt area given the low sample sizes. Harvest from Area 26 results in a good sample size due to higher license numbers. Total herd unit harvested bull age data suggests an average age of harvest of 4.2 years old for 2023. Average antler spread was 37.5" and % male harvest ≥ 5 years was 37% for 2023.

Harvest opportunity has been much more limited in this herd unit over the past 14+ years. In the late 2000s we dramatically reduced the number of licenses due to a population crash related to

habitat issues and the parasite *Elaeophora schneiderii*. Since then, populations have stabilized and started to grow slowly. Hunts have very good success rates. Hunt Area 26 is considered a very good quality moose hunt with potential for trophy animals. Area 26 has ample public access and a variety of places to hunt moose. Hunts in areas 33, 36 and 40 are considered good hunts with good success rates but require more time to find low numbers of moose spread out over large areas. Public access can be more challenging in these areas but access to moose hunting is available. Those areas are not typically considered trophy areas but mature animals do exist and are harvested occasionally.

In 2022 we added a type 4 hunt in Area 26 to address problem moose on private agricultural lands. For 2024 we propose to add an Aug. 15 to Sept. 30 archery only portion on the type 1 and type 4 hunts in order to deal with specific damage problems occurring in the LaBarge Creek Drainage. We also have a type 4 hunt in Areas 33 and 40 to address problem moose and overall moose numbers on agricultural lands. Hunt Area 33 has a very limited amount of moose habitat. Moose habitat primarily occurs within cottonwood and willow habitats associated with the Green River, including Seedskadee National Wildlife Refuge. Area 33 is hunted in conjunction with Area 44 for the type 1 hunt.

2.) Sightability: Moose aerial population estimation surveys are intended to be conducted every three years in Hunt Area 26 concurrent with West Green River Elk surveys if budgets allow. Classification data is also collected during these flights. Areas 33, 36 and 40 are not flown due to the large geographic area and very low moose densities. The joint elk and moose survey was last flown in January 2020. Total numbers of moose seen were 404. The Idaho sightability model was used to estimate a total population for the area flown. That estimate was 547 moose with a standard error of 6.63. Good coverage of occupied moose winter habitat was achieved in the survey. However, there are some peripheral habitats that were not flown due to budget constraints. For population modeling we have added 50 animals to the estimate and enlarged the SE to account for those areas. Unfortunately we have not had the money to fly this survey and it is long overdue.

3.) Modeling: There is a population model for moose in this herd unit. It functions due to the past availability of sightability based population estimates. However, since it has been over four years since the last sightability survey was conducted we have low confidence in the model at this time. The model is showing a reduction in the population but our field observations, aerial observations and hunter comments indicate the population is doing well and growing. We will fly another sightability survey when money is available and will have more information at that time. We were able to collect good moose classification data during the Wyoming Range mule deer sightability survey in February of 2024. That sample size was 225 animals and showed a good bull:cow ratio of 68:100 and a very good cow:calf ratio of 46:100. The model infers only to the core population in Hunt area 26. That portion of the herd resides in classic high quality moose habitat. The other hunt areas in the herd unit have very low numbers of moose and scattered low density moose occupancy. Across those three hunt areas we estimate there are approximately 120 moose. Total herd unit estimates in the JCR are reported as model estimates plus 120 animals to account for the overall objective. There is a moose model in the Speedgoat IPM system. However, sightability data from the JCR program for Lincoln moose is not in the IPM model. There are four sightability surveys that need utilized for modeling but without the data in the IPM we have to use the spreadsheet model.