ACKNOWLEDGEMENT

The field data contained in these reports is the result of the combined efforts of the Lander Region Wildlife Division personnel including District Wildlife Biologists, District Game Wardens, the Habitat Biologist, the Wildlife Management Coordinator and Region Supervisor, the Lander Wildlife Technician, and other Department personnel working at check stations. The authors 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: PR615 - RED DESERT

HUNT AREAS: 60-61, 64

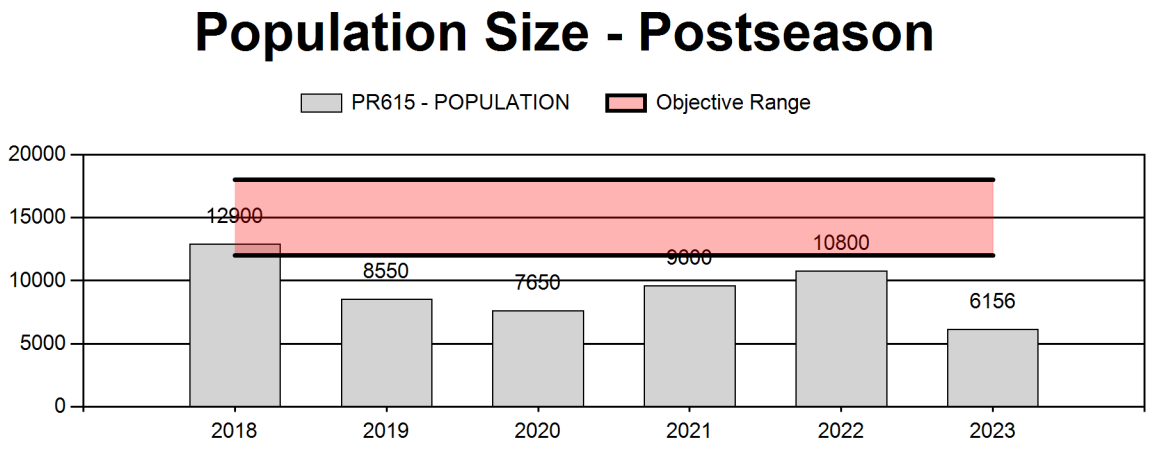
PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Population:	9,900	6,156	6,190
Harvest:	306	148	182
Hunters:	358	182	225
Hunter Success:	85%	81%	81%
Active Licenses:	371	182	225
Active License Success:	82%	81%	81%
Recreation Days:	1,201	555	728
Days Per Animal:	3.9	3.8	4
Males per 100 Females	58	50	
Juveniles per 100 Females	51	29	

Population Objective (± 20%) :	15000 (12000 - 18000)
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	-59.0%
Number of years population has been + or - objective in recent trend:	19
Model Date:	2/7/2024

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:	8%	9%
Proposed change in post-season population:	-25%	.01%



2024 Hunting Seasons
Red Desert Pronghorn (PR615)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
60	1	Aug. 15	Sep. 20	Sep. 21	Oct. 31	50	Any antelope
61	1	Aug. 15	Sep. 13	Sep. 14	Oct. 31	50	Any antelope
64	1	Aug. 15	Sep. 20	Sep. 21	Oct. 31	100	Any antelope

2023 Hunter Satisfaction: 74% Satisfied, 13% Neutral, 11% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: This herd experienced two consecutive severe winters in 2018-19 and 2019-20 and then an extraordinarily severe winter in 2022-23, causing significant mortality. These losses, compounded with near-record low fawn crops in 2018 (41:100), 2019 (49:100), 2020 (45:100), and in 2023 (29:100) caused this population to decline well below objective. Fawn production improved in 2021 (56:100) and 2022 (70:100) allowing herd size to begin to recover, but was negated with the high mortality in 2023.

Classification sample size in 2023 was 28% lower than in 2022, the smallest samples since at least 2005. The buck:doe ratio for this herd dropped significantly to 50:100, the lowest since 2008 and well below the minimum for the special management criterion. Concurrently, yearlings decreased by ~30% as was expected given the harsh winter and high mortality across all age classes. Buck:doe ratios were below the minimum for special management in all three hunt areas. Fawn production was dismal in 2023, the lowest ever recorded. Fawn:doe ratios were similar between Areas 61 and 64, and again lowest in Area 60 at 24:100.

Hunter success declined slightly to 81% in 2023, and was still well below historic norms. Concurrent with reduced hunter success for a large portion of the herd unit, hunter satisfaction decreased by 18% to 74% and dissatisfaction increased from 9% to 11%. These changes are not surprising after the most recent harsh winter(s) and reduced pronghorn numbers.

Winter severity this year was considered relatively mild. Whereas, in 2023 constant sub-zero temperatures, high winds, and record snowfall produced deep crusted snow cover, nearing 100% coverage. Thirty-three adult doe pronghorn were still collared and alive in this herd unit at the end of December, 2022. Movements recorded from these animals show the same extreme migrations, often outside the herd unit, seen in the harsh 2018-19 and 2019-20 winters, as well as in 1983-84 and 1992-93. 14 of these 33 collared adult does died (42%) during the winter, with an annual survival rate of 52%.

With the herd so far below objective no doe/fawn harvest is warranted. From 2020 through 2023, reported harvests represented 9.3% of the bucks currently estimated to have been in this herd. With significant losses of bucks in 2023 from winter mortality, total license quotas were cut by 50% for the 2023 season. The same quota is used in 2024, with an expected harvest of ~225 bucks, representing ~15% of the pre-hunt buck population, given the minimal winter mortality.

2.) Population Modeling: The bio-year 2023 postseason population estimate for this herd unit was 6,156 (5,298-7,248) pronghorn. Long term IPMs failed to achieve Rhat values adequate to place much confidence in their predictions and most greatly overestimated population size at the time of the most recent LT survey. While still failing to achieve desired Rhat values, and missing confidence intervals on two of six LT estimates, the selected IPM aligned well with the most recent LT estimate and showed growth in the population through 2022 due to light winters and improved fawn production and a modest decline of 25% from 2022 to 2023. A 25% decline is believed to be an underestimate, given collar data indicated a 52% decline during that extraordinarily harsh winter. Regardless, this model predicts a herd size 59% below objective.

2023 - JCR Evaluation Form

SPECIES: Pronghorn

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

HERD: PR630 - IRON SPRINGS

HUNT AREAS: 52, 56, 108

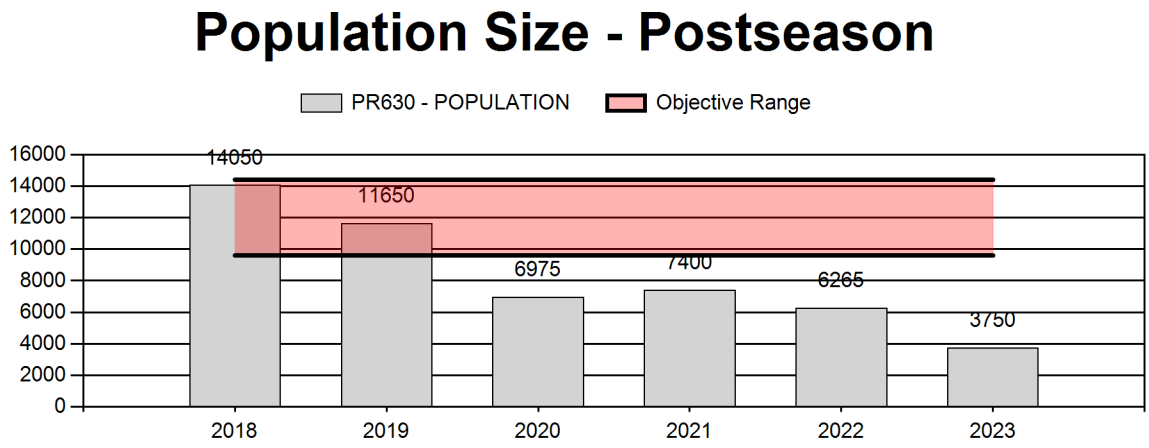
PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Population:	9,268	3,750	3,625
Harvest:	687	186	190
Hunters:	721	226	226
Hunter Success:	95%	82%	84%
Active Licenses:	832	226	226
Active License Success:	83%	82%	84%
Recreation Days:	2,543	654	665
Days Per Animal:	3.7	3.5	3.5
Males per 100 Females	53	51	
Juveniles per 100 Females	46	35	

Population Objective (± 20%) :	12000 (9600 - 14400)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-68.8%
Number of years population has been + or - objective in recent trend:	0
Model Date:	2/9/2024

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:	15%	15%
Proposed change in post-season population:	-3%	-3%



2024 Hunting Seasons
Iron Springs Pronghorn (PR630)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
52	1	Aug. 15	Sep. 15	Sep. 16	Oct. 31	75	Any antelope
52	2	Aug. 15	Sep. 15	Sep. 16	Nov. 14	75	Any antelope valid south of North Spring Creek
56	1	Aug. 15	Sep. 19	Sep. 20	Oct. 31	25	Any antelope
108	1	Aug. 15	Sep. 19	Sep. 20	Oct. 31	25	Any antelope

2023 Hunter Satisfaction: 77% Satisfied, 12% Neutral, 11% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: Classification and harvest data indicate this herd suffered heavy losses during the 2019-20 and the 2022-23 winter. The population has not recovered due to low fawn production (35:100 in 2023 – the lowest recorded in at least the 18 years). Classification sample size declined again to another record low in 2023, and was a mere 10% of the sample collected in 2018. Most of the decline in sample size came from Area 108, yielding another all-time low for that area. As usual, minimal sample was collected from Area 56 due to the lack of access to the majority of the hunt area. For the herd as a whole, the buck:doe ratio declined to 51:100, and is within the recreation management criteria. Previous harsh winters have been most severe in the northern end, and recovery has been slowest in that same portion of the herd.

Hunter success dropped to 82% in 2023, a 21-year record low. Buck hunters in the southern portion of Area 52 had lower success (80%) than those with Type 1 licenses in the more accessible northern portion (90%). Hunter satisfaction declined slightly to 77%. Concurrently, dissatisfaction increased to 11%.

For the past 20 years buck harvests from Area 52 have been separated between the Type 1 and Type 2 licenses, with the Type 2s valid only in the southern portion of the hunt area. These licenses direct hunting pressure to a major portion of the area with large blocks of private land, often irrigated, which is difficult to access and typically has a greater supply of bucks. While this Type 2 license strategy has been successful, the southern portion still has the majority of the bucks in the area, at 72:100, compared to 60:100 in the more accessible northern portion. Nearly 60% of the bucks classified in Area 52 were in the southern, largely inaccessible portion and these represent 50% of the bucks classified in the herd.

Winter severity in 2022-23 was extreme, with sub-zero temperatures, high winds, and record snowfall producing deep, crusted snow cover, nearing 100% coverage.

Calculations based upon these telemetry losses estimate roughly half the Red Desert herd was lost and similar losses were observed in at least the northern portion of the Iron Springs herd. The winter of 2023-24 was considered mild. The IPM provides an estimate of 3,750 animals after the 2023 hunting season, which is 69% below objective.

With the herd so far below objective, doe harvest is once again not warranted and no Type 6 licenses are issued. From 2020 through 2023, reported harvests averaged ~16% of the bucks currently estimated to have been in this herd. With the herd nearly 70% below objective, total license quotas have been decreased by 50. Expected buck harvest from these quotas would be about 15% of the 1,000 bucks projected to be in this herd pre-hunt 2024, below the 25% target. But roughly 90% of the pronghorn in Area 56 and at least half those in Area 108 are unavailable for harvest due to a lack of access. Pronghorn in major blocks of Area 52, particularly in the southern half, are also unavailable for harvest. As is usual, a major portion of the bucks in the population will be unavailable to most hunters because of the checker-boarded land ownership and a lack of access.

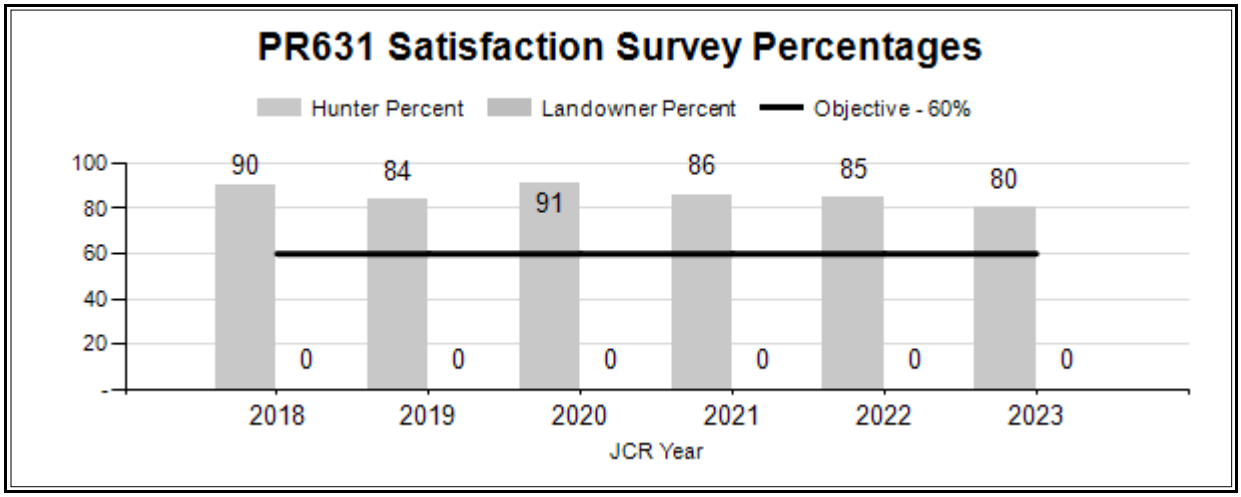
2.) Population Modeling: The bio-year 2023 postseason population estimate for this herd unit was 3,750 (3,106-4,280) pronghorn. The selected model IPM is truncated to 12 years, incorporates four LT estimates, gives undesirable Rhat values despite a long burnin, but it falls well within the confidence interval for the most recent LT. This model shows the drop in herd size due to the harsh 2018-19, 2019-20, and 2022-23 winters. It predicts the herd was ~70% below objective by post-hunt 2023.

2023 - JCR Evaluation Form

SPECIES: Pronghorn
PERIOD: 6/1/2023 - 5/31/2024
HERD: PR631 - WIND RIVER
HUNT AREAS: 84
PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Hunter Satisfaction Percent	87%	80%	87%
Landowner Satisfaction Percent	0%	0%	0%
Harvest:	122	144	165
Hunters:	130	161	185
Hunter Success:	94%	89%	89%
Active Licenses:	158	192	195
Active License Success:	77%	75%	85%
Recreation Days:	703	991	915
Days Per Animal:	5.8	6.9	5.5
Males per 100 Females:	37	65	
Juveniles per 100 Females	47	36	

Satisfaction Based Objective	60%
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	10



2024 Hunting Seasons
Wind River Antelope
(PR631)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
84	1	Aug. 15	Sep. 20	Sep. 21	Oct. 31	150	Any antelope
84	6	Aug. 15	Sep. 20	Sep. 21	Oct. 31	25	Doe or fawn

2023 Hunter Satisfaction: 80% Satisfied, 10% Neutral, 10% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: The hunting season in area 84 has remained unchanged for the past several years, however in 2023 we slightly increased the Type 1 licenses. Anecdotal evidence indicates the population has fluctuated year to year based on environmental factors. This herd inhabits mountain foothill areas throughout much of the summer and fall including isolated parks in conifer covered areas. Given the terrain inhabited by many of the antelope in the herd, classification sampling is difficult and sample sizes are small. In addition, there is believed to be a high rate of interchange with the Wind River Reservation. These factors preclude modeling the population. Instead the herd has a hunter satisfaction objective with the goal to have 60% of hunters satisfied. This goal has been met over the past ten years with an average of 86%.

While classification sample sizes have fluctuated over the years the total number of antelope classified has remained relatively stable the last five years. The buck:doe ratios in 2023 were 65:100, entering into the range for special management and reinforcing the 2023 increase of Type 1 licenses. Fawn production has declined the last two years with 36:100 in 2023, the lowest in the last five years. 2023 hunter success for both the Type 1 and Type 6 licenses (78% & 70%, respectively) saw a decrease from 2022 (80% & 85%, respectively).

With the buck:doe ratio reaching the range for special management, combined with hunter comments, satisfaction, success, and the allowing for more hunter opportunity, we are increasing the Type 1 licenses in 2024. With the decline in fawn:doe ratios as well as the 2023 Type 6 license success, we are decreasing the Type 6 licenses.

2.) Management Objective Review: The current management objective for this herd was reviewed and changed from a population objective to a hunter satisfaction objective in 2014. It was again reviewed in 2019. The hunter satisfaction objective seems to work very well for this small herd. We are not proposing any changes to the current population objective.

2023 - JCR Evaluation Form

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

HERD: PR632 - BEAVER RIM

HUNT AREAS: 65-69, 74, 106
PREPARED BY: STAN HARTER

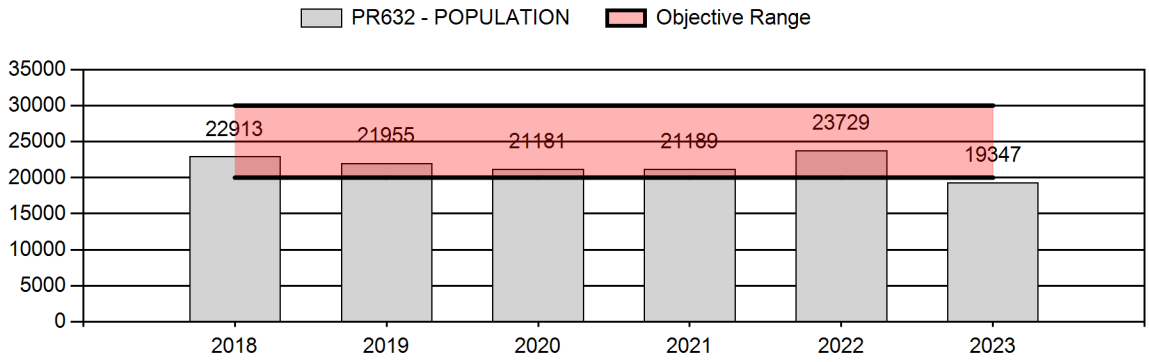
	2018 - 2022 Average	2023	2024 Proposed
Population:	22,193	19,347	21,439
Harvest:	1,722	730	850
Hunters:	1,821	804	900
Hunter Success:	95%	91%	94 %
Active Licenses:	1,983	808	925
Active License Success:	87%	90%	92 %
Recreation Days:	5,314	2,458	2,800
Days Per Animal:	3.1	3.4	3.3
Males per 100 Females	53	46	
Juveniles per 100 Females	50	42	

Population Objective (± 20%) :	25000 (20000 - 30000)
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	-22.6%
Number of years population has been + or - objective in recent trend:	2
Model Date:	02/13/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	1%	1%
Males ≥ 1 year old:	15%	15%
Proposed change in post-season population:	-4%	11%

Population Size - Postseason



2024 Hunting Seasons

Beaver Rim Pronghorn (PR632)

Hunt Area	License Type	Special Archery Dates		Regular Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
65	1	Aug. 15	Sept. 20	Sept. 21	Oct. 31	100	Any antelope
65	7	Aug. 15	Aug. 31	Sept. 1	Nov. 7	50	Doe or fawn valid north of the Little Popo Agie River, also valid in Area 66 west of the Little Popo Agie River
66	1	Aug. 15	Sept. 20	Sept. 21	Oct. 31	100	Any antelope
67	1	Aug. 15	Sept. 20	Sept. 21	Oct. 31	175	Any antelope
68	1	Aug. 15	Sept. 20	Sept. 21	Oct. 31	200	Any antelope
69	1	Aug. 15	Sept. 14	Sept. 15	Oct. 31	75	Any antelope
74	1	Aug. 15	Sept. 20	Sept. 21	Oct. 31	150	Any antelope
106	1	Aug. 15	Sept. 20	Sept. 21	Oct. 31	100	Any antelope

2023 Hunter Satisfaction: 87.1% Satisfied, 10.0% Neutral, 2.9% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: A total of 730 pronghorn were harvested in 2023, with minimal doe/fawn harvest. Pre-season classification surveys showed the fawn/doe ratio declined 30% to 42J/100 F, while the total buck/doe ratio dropped to 46M/100F in 2022 (tied for the lowest buck/doe ratio since 2002 and 23% below the lower end of the special management range of 60-70 M/100F). The severity of winter 2022-23 impacted survival, especially of fawns born in 2022, and surviving does subsequently had lower successful births and/or early fawn mortality for those born in 2023. With the cuts made to Type 1 license numbers in 2023, success rates remained near the long-term average. The 2024 hunting seasons remain conservative with no change in Type 1 license numbers, with the expectation that following the winter of 2022-23, it will take some time for this herd unit to replace adult bucks harvested each year, for buck/doe ratios to increase toward the special management range, and for the population to grow toward objective. The yearling buck/doe ratio of 12YM/100F was an unexpected, but slight, improvement in 2023. It is likely some 2 year old bucks had stunted horn growth following the 2022/23 winter and therefore were misclassified as yearlings. The adult buck/doe ratio declined to 34AM/100F (the lowest since 2002). Doe/fawn harvest will remain low, with an increase to Hunt Area 65 Type 7 licenses to continue addressing localized damage concerns and with minor doe/fawn take that comes with Type 1 licenses. Most hunt areas will not have doe/fawn licenses, in response to declining population trends and anticipated winter losses. Due to the low fawn/doe ratio in 2023, yearling buck recruitment is likely to be lower in 2024 and the total buck/doe ratio is expected to remain below the low end of the special management criteria, with model projections showing a ratio of 49M/100F following the 2024 hunting season.

Habitats throughout the herd unit received above average precipitation in 2023, with well above average snowfall from January through April 2023 leading to very wet conditions during spring runoff, and most areas having above average mid-summer rainfall from June through August. The much needed extra precipitation was beneficial to habitat growth following a few years of drought. Following an almost snow free fall, the Lander area and foothills on the eastern slope of the Wind River Mountains received about 2 feet of snow at Thanksgiving, with some of that snow remaining in late-February and often becoming very crusted over making foraging quite difficult away from southern facing slopes. Most other areas away from the Lander foothills have received near average snowfall in winter 2023-24. In addition, warmer than average temperatures in January and February 2024 have kept key vegetation available to pronghorn throughout the majority of their winter ranges. Mortality has likely been minimal in most of the Beaver Rim herd unit this winter.

In 2024, no changes were made to Type 1 license quotas in all 7 hunt areas in response to lower buck/doe ratios, and expected low yearling buck recruitment. The IPM model projects the 2024 hunting season should result in buck harvest about 15% of the pre-season buck population in the Beaver Rim herd unit, at the minimum of 15% for special management herd units. The IPM model indicates buck harvest has averaged 16% of the males ≥1 year old over the last 3 years. Doe/fawn license quotas remain only to address localized damage concerns in localized portions of Hunt Areas 65 and 66, with an increase to 50 Type 7 licenses.

2.) **Population Modeling:** The post-season abundance estimate of 19,347 pronghorn in 2023 (CL = 17,988 to 21,098) is 19% lower than the post-season 2022 IPM estimate used for season setting, and is 22.6% below objective (25,000). The IPM model was run with maximum iterations and burn-in rate, yet still has an Rhat value of 1.58, which is higher than desired for convergence in the IPM. The long-term abundance estimates in the IPM for Beaver Rim pronghorn track well with end-of-bioyear abundance estimates falling within the confidence intervals for all seven line-transect (LT) estimates since 2001. Another LT is scheduled for the end of the current biological year. The post-season abundance estimates also reflect observed trends through the years and trend fluctuations appear accurate based on field observations in classification and harvest data. The pre-season fawn/doe ratio of 42J/100F was a 30% decrease from the ratio observed in 2022 and was the lowest since 1994. The pre-season buck/doe ratio of 46M/100F was the lowest ratio since 2013, and has been declining since a high ratio of 63M/100F in 2017. According to the IPM model, this herd unit is projected to increase by 11% to a post-season population of around 21,500 pronghorn in 2024. However, this projection is based on an IPM generated pre-season fawn/doe ratio of 63J/100F, which seems unrealistic given recent trends in this population.

2023 - JCR Evaluation Form

SPECIES: Pronghorn

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

HERD: PR634 - BADWATER

HUNT AREAS: 75

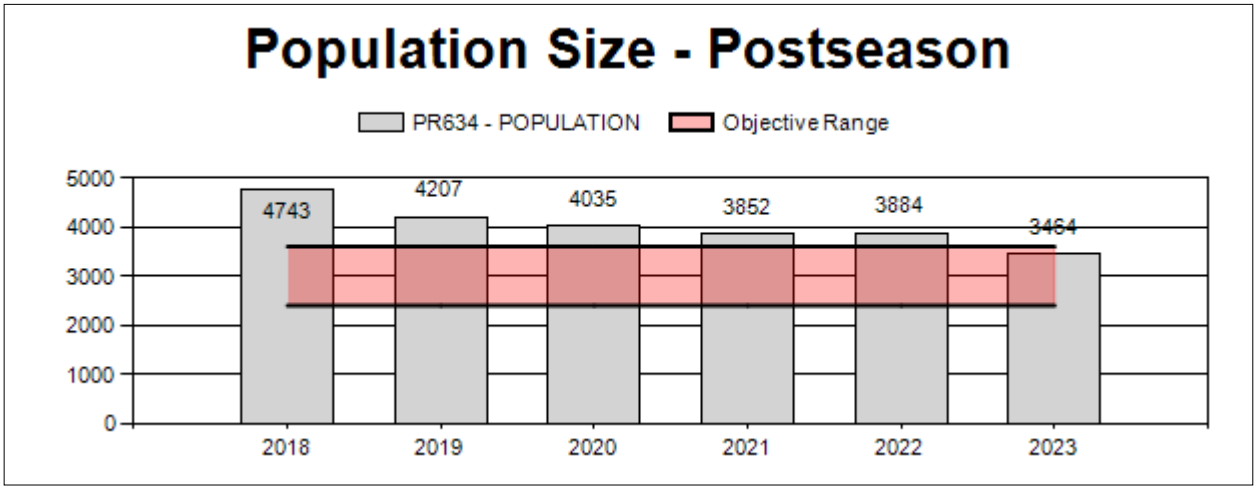
PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Population:	4,144	3,464	3,547
Harvest:	619	258	298
Hunters:	646	279	310
Hunter Success:	96%	92%	96 %
Active Licenses:	692	298	325
Active License Success:	89%	87%	92 %
Recreation Days:	1,783	681	675
Days Per Animal:	2.9	2.6	2.3
Males per 100 Females	58	57	
Juveniles per 100 Females	54	43	

Population Objective (± 20%) :	3000 (2400 - 3600)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	15%
Number of years population has been + or - objective in recent trend:	13
Model Date:	02/12/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	4%	4%
Males ≥ 1 year old:	18%	21%
Proposed change in post-season population:	-4%	2%



2024 Hunting Seasons
Badwater Antelope (PR634)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
75	1	Aug. 15	Sep. 20	Sep. 21	Oct. 31	250	Any antelope
75	6	Aug. 15	Sep. 20	Sep. 21	Oct. 31	50	Doe or fawn

2023 Hunter Satisfaction: 90% Satisfied, 7% Neutral, 3% Dissatisfied

2024Management Summary

1.) Hunting Season Evaluation: The Badwater Antelope herd has been above objective for over five years. However, in recent years the population has been declining mainly due to increased harvest and low recruitment. The 2022-2023 winter was quite harsh with continual sub-zero temperatures and record amounts of snowfall. Presumably after an extreme winter, fawn survival would be quite low but interestingly the yearling buck:doe ratio was 26:100 compared to 9:100 in 2022, significantly higher than the previous four years and similar to 2018 (24:100). It is important to note that some WGFD personnel across the state observed a limited amount of horn growth which added to the difficulty in differentiating between yearling bucks and two year old bucks and may have inflated yearling buck ratios. The overall buck:doe ratio was 57:100 in 2023, an increase from 2022 (45:100), but a large portion of the bucks classified in 2023 were yearlings which may indicate fewer mature bucks available for harvest in 2024. Conversely, fawn production decreased from 65:100 in 2022 to 43:100 in 2023 and below the five year average (54:100). The Type 1 harvest success in 2023 was 86%, similar to the previous two years (85% & 86%, respectively). The days/harvest significantly decreased from 4.8 days/harvest in 2022 to 2.9 in 2023, an indication that hunters were finding bucks to harvest in a reasonable amount of time. The population model shows this herd has declined and is now within ±20% of the objective. The model also predicts a harvest of 21% of the preseason bucks with a three year average of 20%. Based on the previous three year average success on the Type 1 license (86%), an increase in licenses would only decrease an already moderate success. In addition, this is a herd that is trending downward following an extremely harsh winter and it is necessary to be cautious in increasing the number of licenses to avoid reducing the population below the objective. Given the hunter satisfaction, success, and hunter comments there will be no changes to the Type 1 license for the 2024 hunting season. With another year of low fawn production and a five year average of 54:100 fawns we are slightly reducing the Type 6 licenses in 2024 in an effort to stabilize the population within ±20% of the objective.

2.) Management Objective Review: This herd has had the same objective of 3,000 since the 1980s and has seemed to work fairly well given the habitat conditions in the herd unit and some landowner desires. We are proposing no changes to the objective. However, this herd has been well above objective for over a decade with little fluctuation in the population even through years of drought and harsh winters. This may indicate that the carrying capacity for this herd may be higher than previously thought and warrants future revision of the objective with a possible increase.

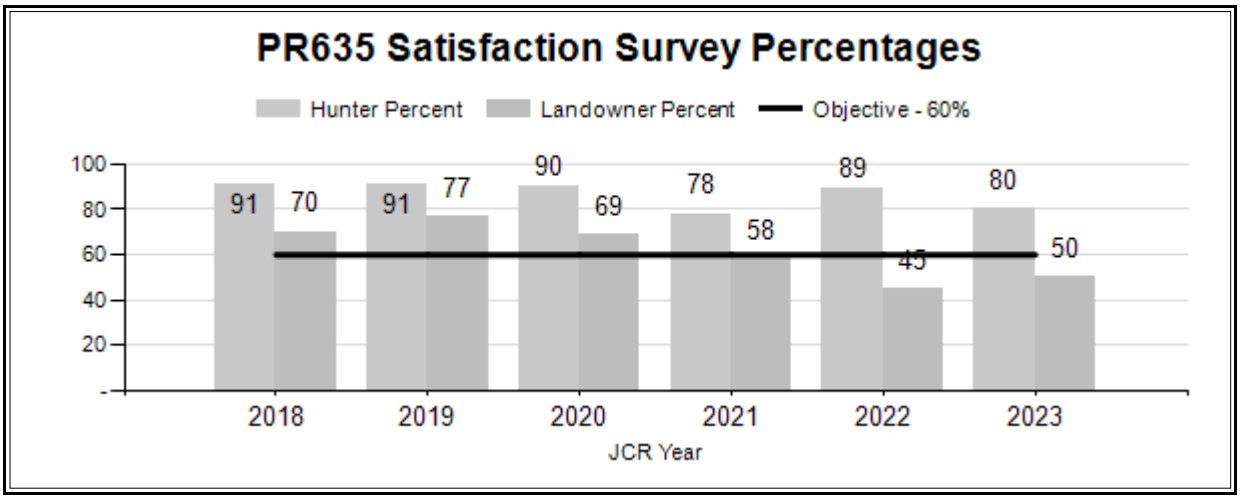
3.) Population Modeling: The bio-year 2023 postseason IPM population estimate for this herd unit was 3,464 (CL = 2,838 – 4,117) pronghorn. The model shows this herd has dropped into the upper limit of the ± 20% threshold of 3,600 with a primary objective of 3,000 pronghorn.

2023 - JCR Evaluation Form

SPECIES: Pronghorn
PERIOD: 6/1/2023 - 5/31/2024
HERD: PR635 - PROJECT
HUNT AREAS: 97, 117
PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Hunter Satisfaction Percent	88%	80%	90%
Landowner Satisfaction Percent	62%	50%	50%
Harvest:	413	147	85
Hunters:	405	125	90
Hunter Success:	102%	118%	94 %
Active Licenses:	486	156	100
Active License Success:	85%	94%	85 %
Recreation Days:	1,641	341	250
Days Per Animal:	4.0	2.3	2.9
Males per 100 Females:	34	15	
Juveniles per 100 Females	40	46	

Satisfaction Based Objective	60%
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	5%
Number of years population has been + or - objective in recent trend:	3



2024 Hunting Seasons
Project Antelope (PR635)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
97, 117	1	Aug. 15	Sep. 20	Sep. 21	Oct. 31	75	Any antelope
97, 117	2			Aug. 15	Oct. 31	25	Any antelope valid in Area 97 south of U.S. Highway 26 or Wyoming Highway 134 and east of Eight Mile Road, and in all of Area 117
97, 117	7			Aug. 15	Oct. 31	25	Doe or fawn valid in Area 97 south of U.S. Highway 26 or Wyoming Highway 134 and east of Eight Mile Road, and in all of Area 117

2023 Hunter Satisfaction: 80% Satisfied, 13% Neutral, 7% Dissatisfied
2023 Landowner Satisfaction: 25% Good # of Ant, 50% Too many Ant, 25% Too few Ant

2024 Management Summary

1.) **Hunting Season Evaluation:** This herd unit is managed based on a hunter/landowner satisfaction objective. Mixed landownership within the Wind River Reservation (WRR) precludes the collection of good demographic data and population modeling. The 2022-23 winter was extremely harsh causing noted mortalities observed by members of the public as well as Department personnel. The total number of antelope classified in 2023 was similarly low to the previous three years and resulted in a fawn:doe ratio of 46:100 and a buck:doe ratio of 15:100. This herd had another extremely low yearling buck:doe ratio (4:100) indicating fawn survival was low over the winter. The low classification sample size does reflect hunter's comments and field personnel observations that overall antelope numbers are down and precludes estimating this herd's size.

The satisfaction objective was set in 2013 and personnel have been collecting landowner satisfaction data since 2014. Since then, hunter satisfaction has averaged 88%, however the 2023 hunter satisfaction did decline to 80%. Landowner satisfaction varied with 25% of landowners indicating that there are a good number of antelope while 75% felt there were either too many (50%) or too few (25%) antelope.

Given the low fawn recruitment for the last several years along with very low buck:doe ratios, and hunter comments we are reducing the Type 1 licenses and eliminating the Type 6 licenses for the 2024 hunting season. The Type 2 and 7 licenses are maintained to address damage concerns.

2023 - JCR Evaluation Form

SPECIES: Pronghorn

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

HERD: PR636 - NORTH FERRIS

HUNT AREAS: 63

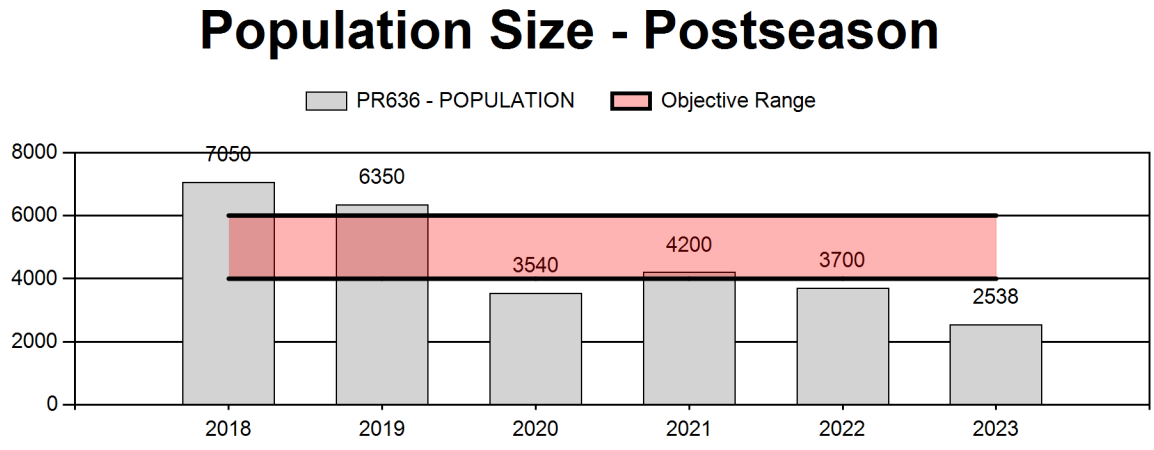
PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Population:	4,968	2,538	2,187
Harvest:	499	157	85
Hunters:	569	194	93
Hunter Success:	88%	81%	91 %
Active Licenses:	614	194	93
Active License Success:	81%	81%	91 %
Recreation Days:	1,499	682	290
Days Per Animal:	3.0	4.3	3.4
Males per 100 Females	66	33	
Juveniles per 100 Females	61	37	

Population Objective (± 20%) :	5000 (4000 - 6000)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-49.2%
Number of years population has been + or - objective in recent trend:	4
Model Date:	2/9/2024

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:	18%	12%
Proposed change in post-season population:	-27%	-14%



2023 Hunting Seasons
North Ferris Pronghorn (PR636)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
63	1	Aug. 15	Sep. 20	Sep. 21	Oct. 31	50	Any antelope
63	2	Aug. 15	Sep. 20	Sep. 21	Oct. 31	50	Any antelope valid east of the Buzzard Road (Natrona County Road 410-Carbon County Road 497)

2023 Hunter Satisfaction: 83% Satisfied, 8% Neutral, 8% Dissatisfied

2024 Management Summary

1.) **Hunting Season Evaluation:** This herd suffered heavy losses during the 2019-20 winter, but harvests were not reduced until 2021. Following heavy harvest in 2020, classification sample size declined significantly in 2021 and 2022. Sample size declined again in 2023, yielding the smallest sample since 2005. The 2023 harvest reduced the buck:doe ratio to well within the recreational range, but at 33:100 was much lower than expected and desired and the lowest level in 20 years. The adult buck:doe ratio was only 21:100, the poorest supply of adult bucks in this herd since 1988. Fawn production decreased significantly to 37:100 and was the 2nd lowest in the past 20 years.

Despite much lower antelope numbers, hunter success was unchanged in 2023. Hunter effort increased substantially to 4.3 days per animal and reflects fewer antelope available for harvest. Hunter satisfaction remained stable at 83%. However, hunter dissatisfaction increased to 8%. This is not surprising as there were fewer antelope to choose from and access in the eastern portion of the herd unit was more restricted in 2023.

Winter severity in 2022-23 was extreme, with persistent sub-zero temperatures, high winds, record snowfall producing deep crusted snow cover, yielding 100% coverage for major portions of the herd unit. But, winter conditions were presumed less severe in the western portion of Area 63 – however, this was NOT the case. Harvest as a proportion of the population was higher than expected in 2023 resulting in the significant decline in the buck ratio. The 2023 post-season population estimate is ~2,500 pronghorn.

With the herd so far below objective, no doe harvest is warranted and no Type 6 or Type 7 licenses are issued. From 2020 through 2022, reported harvests averaged 17% of the bucks currently estimated to have been in this herd. In 2023, this increased to 18%. With the herd 50% below objective before the winter, total license quotas are cut by 50%, partly due to public concern. Expected buck harvest from these quotas would be about 85 animals. While the projected harvest of bucks is 12%, the percentage of bucks harvested on public lands will be much higher due to a large proportion of antelope in this area being on or behind private lands on Sand, Bear, and Deweese Creeks (leaving them unavailable to most hunters). Majority of harvest on public lands may still fail to satisfy hunter demands for higher quality bucks in this herd. Opening dates are shifted to retain a Saturday opener and align with neighboring areas in the Lander Region.

2.) **Management Objective Review:** The post-season population objective for the North Ferris herd unit was reviewed internally. No change is proposed.

3.) **Population Modeling:** The bio-year 2023 postseason population estimate for this herd unit was 2,538 (1,935-3,154) pronghorn. A long term IPM failed to achieve adequate Rhat values and completely missed confidence intervals on two LT estimates and was not used. A similar truncated model with good Rhat values of fit and good alignment within the confidence interval for the most recent LTs was selected. This model reliably predicts the drop in herd size due to the harsh 2018-19, 2019-20, and 2022-23 winters. The model predicts the herd was roughly 50% below objective at post-hunt 2023.

2023 - JCR Evaluation Form

SPECIES: Pronghorn

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

HERD: PR637 - SOUTH FERRIS

HUNT AREAS: 62

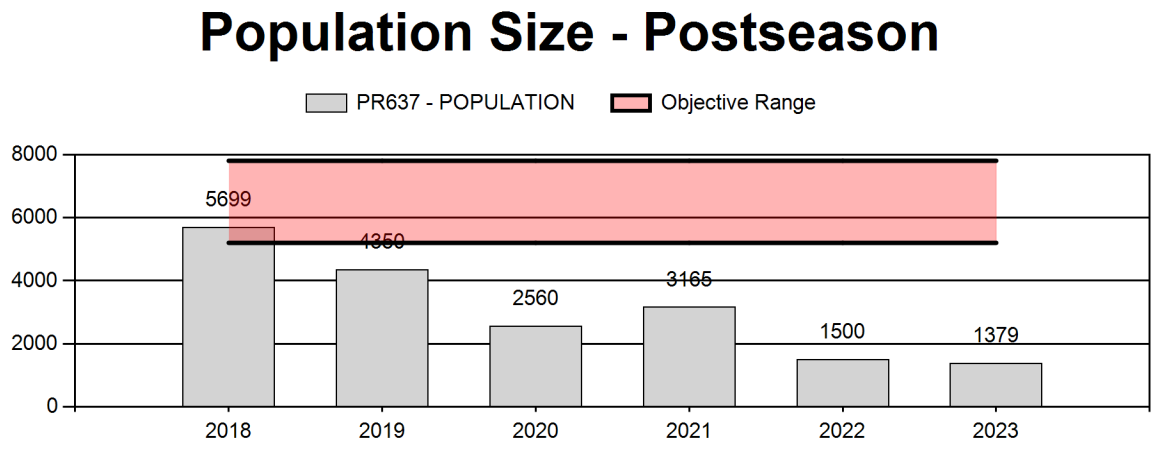
PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Population:	3,455	1,379	1,302
Harvest:	123	18	20
Hunters:	141	27	25
Hunter Success:	87%	67%	80%
Active Licenses:	149	27	25
Active License Success:	83%	67%	80%
Recreation Days:	425	124	120
Days Per Animal:	3.5	6.9	6
Males per 100 Females	63	62	
Juveniles per 100 Females	32	32	

Population Objective (± 20%) :	6500 (5200 - 7800)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-78.8%
Number of years population has been + or - objective in recent trend:	5
Model Date:	2/8/2024

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:	9%	9%
Proposed change in post-season population:	-13%	-6%



2024 Hunting Seasons
South Ferris Pronghorn (PR637)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
62	1	Aug. 15	Sep. 13	Sep. 14	Oct. 31	25	Any antelope

2023 Hunter Satisfaction: 67% Satisfied, 17% Neutral, 17% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: The latest line transect survey flown in June 2019 and population modeling indicate this herd was still more than 62 percent below objective size at postseason 2023. This is the result of heavy losses during the 2018-19, 2019-20, and 2022-23 winters and several years of exceptionally poor fawn production (28:100 in 2019, 20:100 in 2020, 27:100 in 2021, and 32:100 in 2023). Fawn production declined precipitously in 2023 to 32:100 from 57:100 in 2022. The buck:doe ratio increased in 2023 to 62:100, just above the recreational range at 59:100. Because of checker-boarded landownership, more than half of the hunt area is unavailable to almost all hunters and ratios collected from the herd as a whole do not represent what is available for harvest. Surprisingly, the yearling buck:doe ratio increased in 2023 to 20:100, indicating higher than expected recruitment over the 2022-23 winter.

Hunter success and effort was as expected in 2023 given the significant population decline. With far fewer antelope to choose from hunter success decreased to 67% and days/animal harvested more than doubled to 7 days. Hunter satisfaction declined sharply to 67% (down 22%). Hunter dissatisfaction concurrently increased from 7% to 17%. A similar number of hunters reported feeling "neutral" about their hunting experience.

Winter severity in 2022-23 was extraordinarily extreme, with persistent sub-zero temperatures, high winds, and record snowfall that produced deep crusted snow cover, nearing 100% coverage. Thirty-three telemetered adult doe pronghorn were alive in the neighboring Red Desert herd at the end of December 2022. Movements recorded from these animals show the same extreme migrations reported in other severe winters, including three moving across US287 into this herd unit. During the following two months of severe weather and deep snowfall, 14 of these 33 collared adult does died (42%), including all three wintering in this herd unit.

Calculations based upon the telemetry losses estimate half the Red Desert herd was lost and similar losses were expected in the South Ferris herd. Based on those losses, the predicted end-of-year size of this herd would be only 700-800 pronghorn, less than half the size of the herd following two consecutive harsh winters in 2018-19 and 2019-20. The IPM provides an estimate of 1,400 animals after the 2023 hunting season, which is 78% below objective.

With the herd so far below objective, doe harvest is once again not warranted and no Type 6 licenses are issued. From 2020 through 2022, reported harvests represented ~10% of the bucks currently estimated to have been in this herd. With the herd already at least 78% below objective projecting continued population decline, total license quotas remain the same as in 2023 at a minimum of 25, with an expected harvest of ~20 bucks. As usual, the majority of the bucks remaining in the population will be unavailable to most hunters because of the checker-boarded land ownership and a lack of access. This, in concert with a dramatically lower number of pronghorn, explains the dismal success rate hunters experienced in 2023.

For past 11 years prior to the 2023 season, buck harvest has been separated between the Type 1 licenses and Type 2 licenses valid only in the eastern part of the hunt area, directing hunting pressure to a portion of the area which has difficult access and typically has a greater supply of bucks. With the significant reduction in license quota due to severe losses and the herd persisting far below objective, the Type 2 license is, once again, not issued in 2024. Extremely low fawn:doe ratios observed in recent years indicate that it will be several years before recruitment can replace any bucks that are harvested, and the current supply of bucks needs to last longer than normal. Harvests need to remain extremely conservative until herd size and productivity reach more normal levels.

2.) **Management Objective Review:** The post-season population objective for the South Ferris herd unit was reviewed internally. No change is proposed.

3.) **Population Modeling:** The bio-year 2023 postseason population estimate for this herd unit was 1,400 (917-2,200) pronghorn. Long term IPMs failed to achieve Rhat values adequate to place much confidence in their predictions, and likely greatly overestimated population size at the time of the two most recent LT survey. While still failing to achieve desired Rhat values, a truncated short-term IPM aligned well with observed buck:doe ratios and the most recent LT estimates and was selected. This model showed continued decline in herd size due to poor fawn production. This model predicts a herd size more than 78% below objective post-season 2023.

2023 - JCR Evaluation Form

SPECIES: Mule Deer

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

HERD: MD642 - DUBOIS

HUNT AREAS: 128, 148

PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Population:	3,187	3,148	3,086
Harvest:	324	395	318
Hunters:	1,041	1,065	1,050
Hunter Success:	31%	37%	30%
Active Licenses:	1,056	1,078	1,075
Active License Success:	31%	37%	30%
Recreation Days:	5,799	5,989	5,975
Days Per Animal:	17.9	15.2	18.8
Males per 100 Females	27	32	
Juveniles per 100 Females	54	65	

Population Objective (± 20%) : 8000 (6400 - 9600)

Management Strategy: Recreational

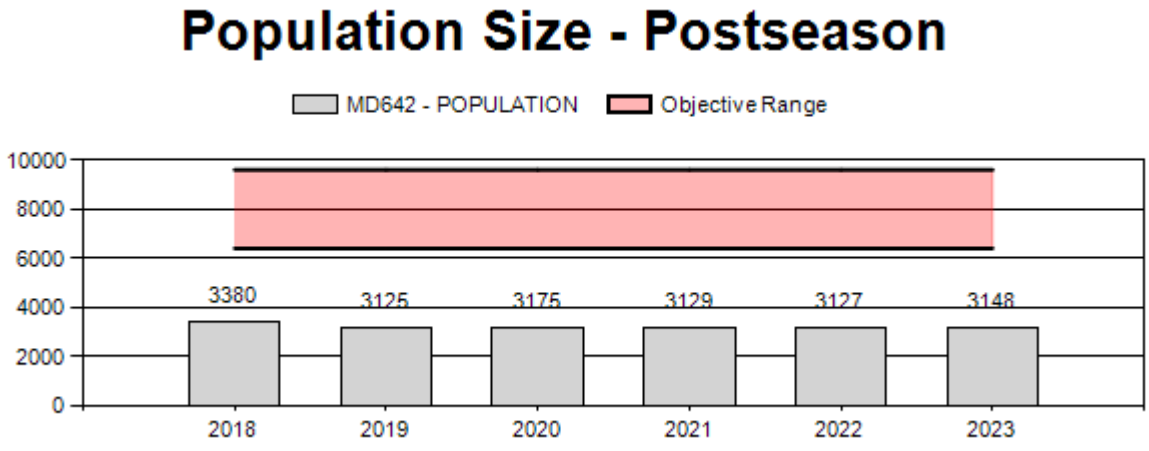
Percent population is above (+) or below (-) objective: -60.6%

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

Model Date: 02/07/2024

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

	JCR Year	Proposed
Females ≥ 1 year old:	2%	3%
Males ≥ 1 year old:	41%	34%
Proposed change in post-season population:	0%	-2%



2024 Hunting Seasons
Dubois Mule Deer
(MD642)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
128	Gen	Sep. 1	Sep. 30	Oct. 1	Oct. 15		Antlered mule deer or any white-tailed deer
128	1	Sep. 1	Sep. 30	Nov. 1	Nov. 20	50	Any deer
128	3	Sep. 1	Sep. 30	Nov. 1	Nov. 30	50	Any white-tailed deer
128	8	Sep. 1	Sep. 30	Oct. 1	Oct. 31	50	Doe or fawn white-tailed deer
	8			Nov. 1	Nov. 30		Unused Type 8 licenses valid on private land
148	Gen	Sep. 1	Sep. 14	Sep. 15	Oct. 25		Antlered mule deer or any white-tailed deer

2024 Region L nonresident quota: 200

2023 Hunter Satisfaction: 48% Satisfied, 31% Neutral, 21% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: This herd has been below objective and slowly declining for over a decade. However, since 2019 the population has stabilized with a five year average population of 3,187 and 3,148 in 2023. Herd demographics also indicate the population is relatively stable over the past five years with an average fawn:doe ratio of 57:100. Fawn production in 2023 did increase from 51:100 in 2022 to 65:100. The buck:doe ratio in the herd unit has been extraordinarily stable and is typically in the mid-20's:100. In 2023 the buck:doe ratio was 32:100 which is slightly higher than the five year average of 28:100 and well within the historical range of variation for this herd. The yearling buck:doe ratio was 10:100 and marginally higher than the five year average (9:100), indicating average fawn survival. Hunter harvest and success increased significantly in 2023 (37%) compared to 2022 (25%) and correspondingly the days/harvest decreased from 23 in 2022 down to 15 in 2023. Over the last decade hunter success and satisfaction has varied significantly and is most likely correlated with weather conditions, particularly snowfall during the hunting season. The 2023 hunting season saw weather events early in the season as well as the last week of the season, providing hunters with ample opportunity to harvest migrating mule deer. The 2024 mule deer hunting seasons in both areas 128 and 148 will remain largely unchanged from the 2023 seasons with the exception of eliminating the Type 7 licenses as these were solely for damage purposes and are no longer needed to address any damage concerns in area 128. The structure of the general season is strictly intended to direct harvest towards the male segment of this herd as well as any white-tailed deer, both of which have no impact on recruitment, survival, nor the overall population. Furthermore, the management strategy is recreational and the postseason buck:doe ratio in 2023

(32:100) has exceeded the maximum recommendation of 29:100, while the five year average (28:100) is at the upper end of recreational parameter limits (20-29:100).

In 2019 Type 8 licenses were included in hunt area 128 to allow increased harvest of white-tailed does. In 2021, the season dates for these licenses were extended on private land to encourage hunters to harvest white-tailed deer west of Dubois along the Wind River. Hunters with these licenses had a success rate of 55% in 2023, significantly higher than the 28% in 2022 but still in the historic range for this license. The Type 3 licenses saw a slight decrease in success at 59% compared to 63% in 2022. Overall, Type 3 hunter success has decreased since 2013.

In 2023, Type 1 licenses were reduced to alleviate hunter crowding and improve hunters' experience for this highly sought after late-season mule deer hunt. Based on personnel observations and many hunter comments, this decrease did seem to resolve hunter crowding and complaints. As a result, Type 1 licenses will remain the same.

Based on other general hunt areas in the region experiencing declining deer numbers, a higher proportion of nonresident hunters than previous years as well as hunter comments, we are reducing the nonresident Region L licenses for the 2024 hunting season.

2.) Chronic Wasting Disease Monitoring and Management: This is a Tier 2 surveillance herd and priority sampling began in 2023. From 2021-2023, there have been 134 hunter harvested mule deer samples collected including 95 adult male, 19 yearling male, and 20 adult female with a prevalence rate of 7%, 0%, and 0% respectively. Samples from hunter harvested white-tailed deer were also collected in 9 adult male, 5 yearling male, and 13 adult female resulting in a prevalence rate of 11%, 20%, and 0% respectively. While this sample size is still relatively low, it indicates an upward trend in the CWD positive deer. This may warrant future CWD management actions including increased harvest of adult male mule deer or reduction of mule deer at known foci or areas of concentration.

3.) In 2019, funding was acquired to conduct an assessment of U.S. Highway 26 where it runs through the upper Wind River Valley to determine if modifications can be made to decrease the number of deer/vehicle collisions. Mule deer mortality along the highway has been a persistent problem for decades as the highway parallels the herd's spring/fall migration route and bisects the densely populated winter range. The highway assessment was completed in 2021 with the publication of a mitigation strategy document. The department has prioritized this project and is currently seeking funding to begin construction over the next few years.

4.) Population Modeling: The bio-year 2023 postseason population estimate for this herd unit was 3,148 (CL = 2,808-3,559) mule deer. While this abundance estimate is much lower than previous years using other models, this particular model shows a very good fit with much tighter confidence intervals and Rhat values close to 1, indicating the model is a good fit. The estimated ratios (both age and sex) seem to track fairly well with the observed ratios. Future abundance estimates, such as a sightability survey, would greatly improve the power of the model.

2023 - JCR Evaluation Form

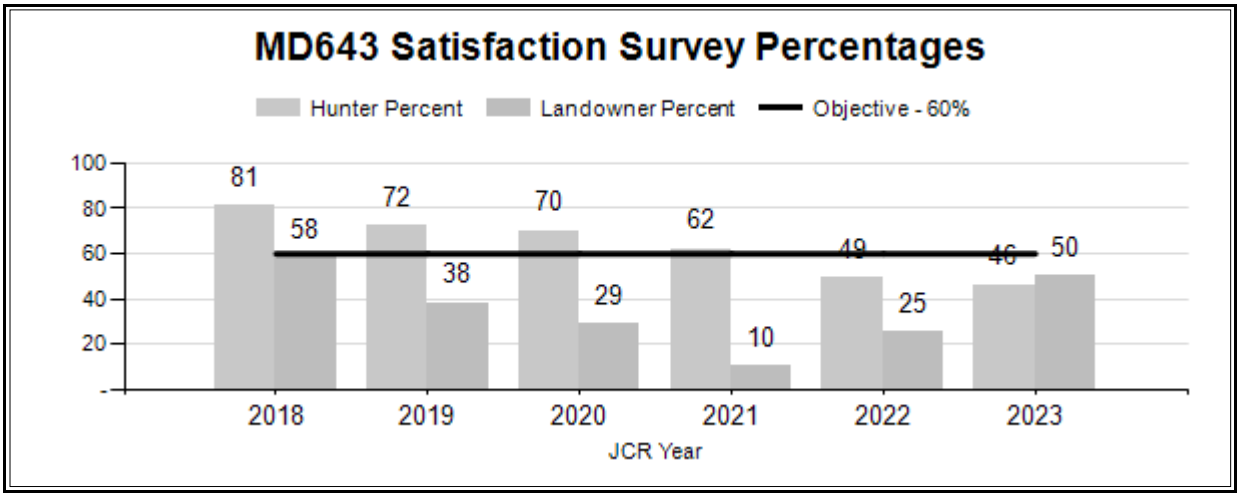
SPECIES: Mule Deer
PERIOD: 6/1/2023 - 5/31/2024

HERD: MD643 - PROJECT

HUNT AREAS: 157, 170-171
PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Hunter Satisfaction Percent	68%	46%	75%
Landowner Satisfaction Percent	30%	50%	50%
Harvest:	304	44	65
Hunters:	540	120	120
Hunter Success:	56%	37%	54 %
Active Licenses:	601	124	126
Active License Success:	51%	35%	52 %
Recreation Days:	2,158	447	475
Days Per Animal:	7.1	10.2	7.3
Males per 100 Females:	22	52	
Juveniles per 100 Females	54	52	

Satisfaction Based Objective	60%
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	-12%
Number of years population has been + or - objective in recent trend:	5



2024 Hunting Seasons
Project Mule Deer (MD643)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
157	1	Sep. 1	Sep. 30	Oct. 1	Oct. 31	100	Any deer
157	3	Sep. 1	Sep. 30	Nov. 1	Nov. 30	100	Any white-tailed deer
157	6	Sep. 1	Sep. 30	Oct. 1	Nov. 10	25	Doe or fawn
157	8	Sep. 1	Sep. 30	Oct. 1	Oct. 31	250	Doe or fawn white-tailed deer
157	8			Nov. 1	Nov. 30		Doe or fawn white-tailed deer valid on private land
171	Gen	Sep. 1	Sep. 30	Oct. 1	Oct. 31		Any deer
171	3	Sep. 1	Sep. 30	Oct. 1	Dec. 31	150	Any white-tailed deer
171	6	Sep. 1	Sep. 30	Oct. 1	Dec. 31	350	Doe or fawn

2024 Region L nonresident quota: 200 licenses

2023 Hunter Satisfaction: 46% Satisfied, 36% Neutral, 18% Dissatisfied
2023 Landowner Satisfaction: 50% Good # of MD, 0% Too many MD, 50% Too few MD

2024 Management Summary

1.) Hunting Season Evaluation: This herd unit is managed based on a hunter/landowner satisfaction objective. Mixed landownership within the Wind River Reservation (WRR) precludes the collection of good demographic data and population modeling. The satisfaction objective was set in 2013 and personnel have been collecting landowner satisfaction data since 2014. Since 2014, hunter satisfaction has consistently been above the objective 60% threshold; however, it has decreased each of the last 4 years from 81% in 2018 to an understandably low of 46% in 2023. The decline in hunter satisfaction has coincided with a decline in deer numbers based on personnel observations, hunter/landowner comments, and harvest statistics. All landowners surveyed in 2023 felt that mule deer numbers were either too low or about right. Regarding white-tailed deer, 75% of landowners feel that they are at about the right levels while 25% feel there are too many.

In 2023 we significantly reduced the number of licenses to maintain a low density deer herd and attempt to increase hunter satisfaction and success while continuing to manage for CWD. While recognizing the dissatisfaction from both hunters and landowners, there is also the need for continued harvest to maintain the current low density of deer in an attempt to address extraordinarily high CWD prevalence. Given the low deer densities, and mortality due to CWD, reduced license issuance was warranted in 2023 to maintain the herd at current levels. CWD prevalence in white-tailed deer in 171 is also trending upwards. In an attempt to lower white-tailed deer densities in this area we will be increasing licenses and extending the season dates. This option is imperative

in continuing to manage this herd in an attempt to mitigate disease transmission and prevalence rates. This level of harvest pressure, in concert with disease caused mortality, will likely limit population growth and maintain current low densities. In the future, managers will need the ability to adapt seasons in order to maintain low deer densities as hunters are becoming disinterested in harvesting a deer in an area with such high CWD rates.

Based on other general hunt areas in the region experiencing a higher proportion of nonresident hunters than previous years as well as hunter comments, we will be reducing the nonresident Region L licenses for the 2024 hunting season.

In 2019 the Department initiated focused CWD sampling in this herd unit, as well as mandatory CWD sampling in 2022. While prevalence data is still preliminary for the herd unit, sampling from 2021-2023 indicates CWD prevalence in this herd is 68% in adult male mule deer sampled. The impact of such a high rate of prevalence on the population is unknown but it is certainly likely CWD is a contributing factor in the population decline over the past 3 years.

2.) Chronic Wasting Disease Management: This is a Tier 2 surveillance herd. The herd was prioritized for CWD sampling beginning in 2019 and continued through 2022 with mandatory sampling initiated in 2022. From 2021-2023, there have been 237 mule deer samples collected including 115 adult male, 17 yearling male, and 105 adult female with a prevalence rate of 68%, 24%, and 32% respectively (Fig.1). White-tailed deer were also sampled (Fig.2), indicating a lower prevalence rate than mule deer.

	2021				2022		
Species	Tested	# Pos	Prevalence	Species	Tested	# Pos	Prevalence
Ad M MD	44	33	75%	Ad M MD	54	32	59%
Yrlg M MD	5	1	20%	Yrlg M MD	11	3	27%
Ad F MD	39	10	26%	Ad F MD	58	22	38%

	2023				3 Year Prevalence		
Species	Tested	# Pos	Prevalence	Species	Tested	# Pos	Prevalence
Ad M MD	17	13	77%	Ad M MD	115	78	68%
Yrlg M MD	1	0	0%	Yrlg M MD	17	4	24%
Ad F MD	8	2	25%	Ad F MD	105	34	32%

Fig. 1 Results from CWD Tier 2 surveillance effort in the Project Mule Deer Herd 2021-2023.

	2021				2022		
Species	Tested	# Pos	Prevalence	Species	Tested	# Pos	Prevalence
Ad M WTD	46	12	26%	Ad M WTD	108	37	34%
Ad F WTD	40	7	18%	Ad F WTD	97	23	24%
Yrlg M WTD	8	0	0%	Yrlg M WTD	12	1	8%

	2023				3 Year Prevalence		
Species	Tested	# Pos	Prevalence	Species	Tested	# Pos	Prevalence
Ad M WTD	54	21	39%	Ad MWTD	208	70	34%
Ad F WTD	55	15	27%	Ad F WTD	192	45	23%
Yrlg M WTD	13	2	15%	Yrlg M WTD	33	3	9%

Fig. 2 CWD test results from White-tailed deer in the Project Herd 2021-2023.

In early 2023 WGFD, in collaboration with the University of Wyoming, U.S. Geological Survey, and the Eastern Shoshone & Northern Arapaho Tribal Fish and Game Department, implemented a two year CWD project in the Project Mule Deer herd. This project is multi-faceted and will help better understand CWD transmission and provide a more targeted management approach. Forty mule deer (30 does and 10 bucks) were collared in February 2023 to gather data on movement, survival, and habitat selection. Currently, only 18 of the original 40 collared mule deer are alive resulting in an annual survival rate of only 45% (Fig. 3). Of the 22 mortalities, 15 were female and 7 were male. Males experienced an annual survival rate of 30% and females 50%. We will again attempt to capture, test, and collar another 40 mule deer in early March 2024. A sightability survey was conducted in March 2023. The results show an abundance estimate for the entire herd unit (157&171) of 5,956 (CL=4,386 – 7,526). When analyzing the sightablility survey by hunt area, 157 had an abundance estimate of 1,285 (CL= 597 – 1,974), and 171 with 4,670 (CL= 3,250 – 6,090). This data will help identify possible CWD hot spots that may be artificially concentrating deer thus increasing transmission and prevalence rates and provide a basis for comparisons in population change through time. Identifying these hotspots will allow WGFD and Tribal managers to target harvest pressure, mitigate transmission, and potentially lower CWD prevalence rates.

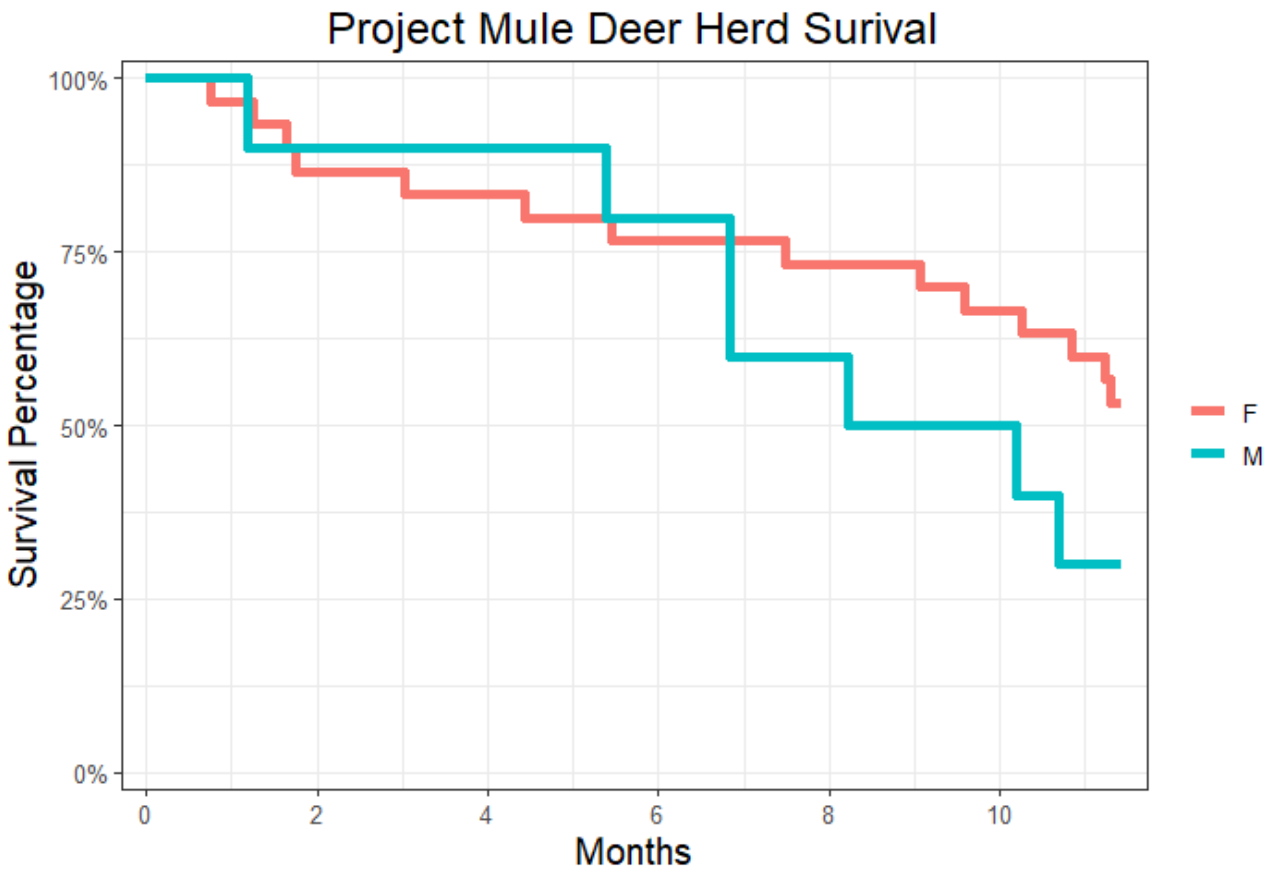


Fig. 3 Annual survival rate of 40 collared deer (10 bucks, 30 does) in the Project herd.

2023 - JCR Evaluation Form

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

HERD: MD644 - SOUTH WIND RIVER

HUNT AREAS: 92, 94, 160
PREPARED BY: STAN HARTER

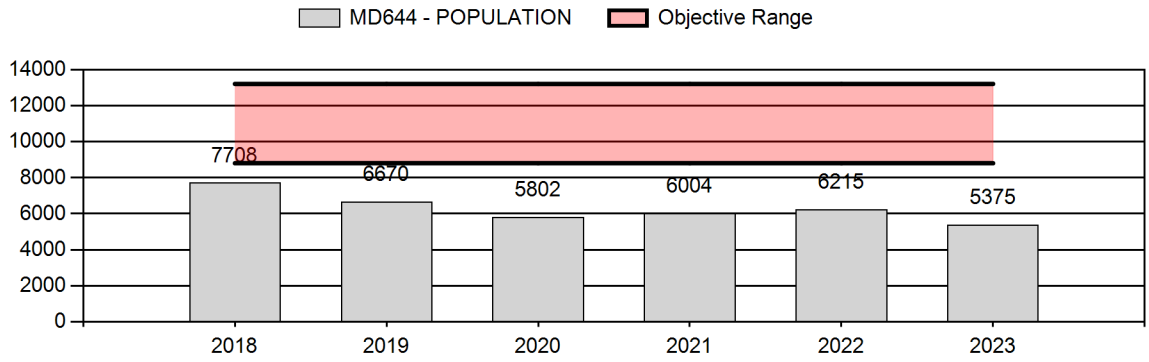
	2018 - 2022 Average	2023	2024 Proposed
Population:	6,480	5,375	4,647
Harvest:	336	180	180
Hunters:	1,058	616	620
Hunter Success:	32%	29%	29%
Active Licenses:	1,063	616	620
Active License Success:	32%	29%	29 %
Recreation Days:	4,210	2,450	2,600
Days Per Animal:	12.5	13.6	14.4
Males per 100 Females	28	24	
Juveniles per 100 Females	71	51	

Population Objective (± 20%) :	11000 (8800 - 13200)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-51.1%
Number of years population has been + or - objective in recent trend:	17
Model Date:	2/13/2024

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:	18%	18%
Proposed change in post-season population:	-15%	-14%

Population Size - Postseason



2024 Hunting Seasons
South Wind River Mule Deer (MD644)

Hunt Area	License Type	Special Archery Dates		Regular Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
92	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 20		Antlered mule deer four (4) points or more on either antler or any white-tailed deer
92, 94, 160	3	Sept. 1	Sept. 30	Oct. 1	Nov. 30	100	Any white-tailed deer
92, 94, 160	8	Sept. 1	Sept. 30	Oct. 1	Nov. 30	150	Doe or fawn white-tailed deer
94	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 20		Antlered mule deer four (4) points or more on either antler or any white-tailed deer
160	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 20		Antlered mule deer four (4) points or more on either antler or any white-tailed deer

2024 Region L Non-Resident Quota: 200

2023 Hunter Satisfaction: 43.4% Satisfied, 27.3% Neutral, 29.4% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: Decline in mule deer numbers continues in each of the 3 hunt areas in the herd unit, with the most dramatic decrease in hunt area 94. Due to an overall declining mule deer population and concerns about the high number of hunters in the herd unit with respect to the number of available buck mule deer, we kept the "standard" general license season length at 6 days in 2023. Along with the shorter season, we increased the antler point restrictions (APR) to only allow antlered mule deer with 4 points or more on either antler to be harvested. The Region L non-resident quota was reduced to 225 for the 2023 season. As intended with these changes, the 2023 season resulted in the lowest number of hunters and 2nd lowest harvest since 1994.

With reduced fawn survival/yearling buck recruitment in 2023, the total buck/doe ratio dropped 25% to a ratio of 24 total bucks/100 does, with yearling buck/doe ratio dropping 53% to 8YM/100F in 2023 and the adult buck/doe ratio increased slightly to 16AM/100. A total of 345 bucks were observed in classification surveys (33% fewer than in 2022). The total of 2,473 mule deer observed was 25% below the 2022 sample. The fawn/doe ratio was 51J/100F in 2023, the lowest in 21 years.

The 2023 season reduced hunter numbers and mule deer buck harvest as desired. However, with the 2023 post-season abundance estimate being less than half of objective and projected continued declines, the 2024 season features no changes to prevent over-harvesting mule deer bucks with respect to overall population levels. For 2024, the Region L non-resident quota is reduced to 200 in response to declining deer numbers. White-tailed deer persist in agriculturally based areas around Lander in hunt areas 92 and 160 and appear to have declined after the winter of 2022-23. Only 63% of the Type 8 licenses sold in 2023 were used, and this has been the case for several

years, indicating some white-tailed deer hunters are having difficulty getting access to hunt on private lands where the majority of white-tails occur. Given these circumstances, a minor reduction of the Type 8 licenses for doe or fawn white-tailed deer is warranted.

Although the buck/doe ratio in 2023 was within the "recreational" level for mule deer, we are concerned that lifting or even reducing the APR season structure would severely increase overall harvest that would be unwarranted considering the population is 51% below objective and declining. The 2024 season will be the 5th consecutive year featuring antler point restrictions (APRs) limiting hunters to harvesting mule deer bucks with either 3 or 4 points on either side. This will be the 10th season in 21 years to feature APRs. The current season structure has adequately limited hunter numbers and mule deer buck harvest, but likely places undue pressure on older age class bucks in their "breeding prime". While this probably isn't overly detrimental to the reproductive potential for the population since adult buck/doe ratios have held steady over the last 20 years (albeit with varying numbers of adult bucks), it is possible this is deflecting breeding to bucks with inferior antler quality and genetics. At this time, we believe the continuation of APR seasons is vital to limit hunter numbers and buck mule deer harvest, despite the concerns about how they affect breeding potential. Limited quota seasons are essentially the only other option available to limit hunter numbers and harvest, but don't have the support of the majority of deer hunters.

Habitats throughout the herd unit received above average precipitation in 2023, with well above average snowfall from January through April 2023 leading to very wet conditions during spring runoff, and most areas having above average mid-summer rainfall from June through August. The much needed extra precipitation was beneficial to habitat growth following a few years of drought. Following an almost snow free fall, the Lander area and foothills on the eastern slope of the Wind River Mountains received about 2 feet of snow at Thanksgiving, with some of that snow remaining in late-February and often becoming very crusted over making foraging quite difficult away from southern facing slopes. Most other areas away from the Lander foothills have received near average snowfall in winter 2023-24. In addition, warmer than average temperatures in January and February 2024 have kept key vegetation available to mule deer throughout the majority of their winter ranges. Mortality has likely been minimal in most of the South Wind River herd unit this winter.

2.) Mule Deer Initiative Habitat Information:

Weather

Precipitation

Precipitation from October 2022 through September 2023 was well above the 30-year average. Extreme winter snows contributed significantly to the annual precipitation amounts. Precipitation during the growing season (April-June 2023) was also well above the 30-year average (Figure 1). Most of the growing season precipitation fell during April and June, and much of the summer was cooler and wetter than normal which contributed to the herbaceous forage staying green throughout the summer. For the South Wind River Herd Unit, this information is based on 9 weather stations

located throughout the herd unit and is generated from the PRISM (Parameter-elevation Relationships on Independent Slopes Model) dataset developed by Oregon State University.

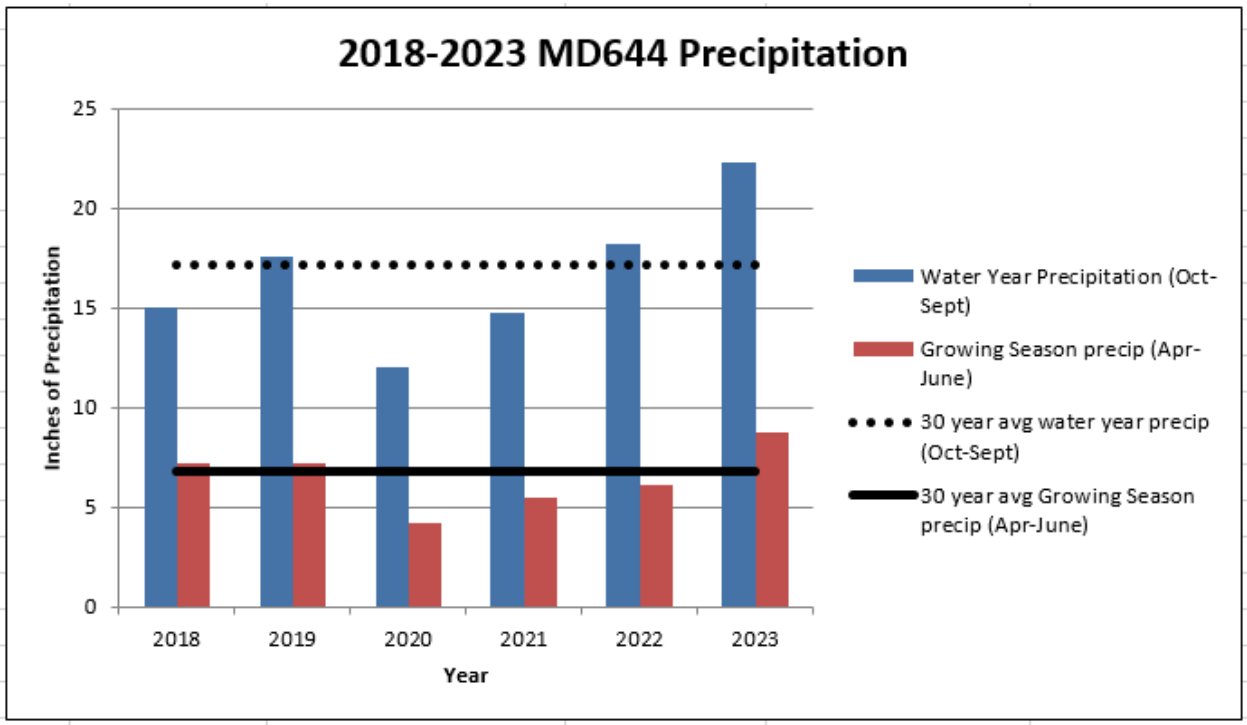


Figure 1. Annual precipitation levels compared to 30-year averages.

Winter Conditions

Winter 2023-2024 was characterized by less than average snowfall and slightly warmer temperatures than a "normal" winter for the South Wind River Herd Unit. Temperatures from November-February averaged 26 degrees Fahrenheit which was 2 degrees warmer than the 30-year average for this time period in the Lander area. A total of 69.3"of snowfall was recorded in Lander from October 2023 through May 20, 2024, which included 23" in November 2023. This was significantly less than the 95" that fell in the same time period the previous winter. The below average snowfall total was combined with above average temperatures for Lander and the surrounding foothills, and likely gave mule deer and other wildlife a slight reprieve after the difficult winter they endured last year. However, the snow that came in late November in Hunt Area 92 lingered for most of the winter with intermittent melting and crusting, forcing some mule deer to alternative winter ranges or to more limited foraging areas where they remained. Snow conditions were less severe in traditional winter ranges of Hunt Areas 94 and 160.

Habitat

Precipitation across the herd unit was well above the 30-year average, with precipitation falling not just during the growing season, but consistently throughout the summer which kept herbaceous forages green the entire season. The June- September time period was characterized by cooler than normal temperatures and periodic precipitation from June-August. Forbs and grasses capitalized on spring moisture and appeared to have good growth, and shrubs had good leader growth and grew prolific amounts of seed. The high snowfall from 2022-2023 coupled with a high

precipitation summer likely contributed to recharging many springs, seeps, streams, and surface ponds that have not held perennial water in several years. These wet meadows and springs are important to both sage grouse and mule deer.

Significant Events

Habitat enhancements continued across the South Wind River Herd Unit in 2023. It was the ninth year of aspen enhancement treatments (cut/ pile and lop/scatter) within the South Pass area. Sites treated were in the Townsend Creek area of the Loop Road. A total of 75 acres of aspen were treated to remove encroaching conifers and improve aspen regeneration. This work was done and is ongoing as part of the WGFD's Mule Deer Initiative. Since 2015, a total of 3,176 acres have been treated on South Pass in cooperation with USFS- Shoshone National Forest, BLM, Wyoming State Forestry, and private landowners.

Beaver Dam Analogues (BDAs) and beaver relocation are becoming increasingly popular tools for use in habitat enhancement and restoration across Wyoming. The 20 BDA's on Mill Creek were maintained and 7 new ones were installed, and in concert with conifer removal should improve riparian condition and aspen vigor. One nuisance beaver was live trapped in the Lander area and moved into a stream within the South Pass Aspen project vicinity.

The Popo Agie Weed Management Association continued a Russian olive removal project in Squaw Creek and Baldwin Creek, both tributaries of the Popo Agie River, in an effort to improve riparian vegetation for mule deer. This project is on-going, and treatment occurred on approximately 6 acres in cooperation with 2 landowners along the length of Squaw Creek, positively benefitting approximated 200 acres of riparian habitat. This work will continue for the next 3-5 years.

Rapid Habitat Assessments

In 2015, WGFD personnel initiated the Rapid Habitat Assessment (RHA) methodology to survey and assess important mule deer habitats. This method was developed to capture large-scale habitat quality metrics to better understand the condition of vegetation communities important to mule deer. RHAs provide a standardized habitat assessment conducted across the landscape. These assessments and resulting analyses are intended to provide a basis for mule deer population objective and other management decisions. They convey some insight into the habitat's long-term condition or carrying capacity.

In 2023, 15 RHA's were conducted in the South Wind River Herd Unit totaling 1,021 assessed acres. Of those acres, 543 acres were in aspen communities, 422 acres were in rangeland, and 56 acres were in riparian corridors. While there were some areas of severe browse within both aspen and rangeland habitats, most of aspen and shrub communities were in the moderate browse category. Most of the sites assessed showed good species diversity, and production appeared to be above normal given the good precipitation for the year. Riparian areas show impacts from erosion and bank trampling, but woody vegetation in the assessed riparian acres were in good condition and had moderate levels of recruitment.

Aspen communities across the herd unit, where habitat treatments or wildfires have not set back succession, exhibit mid to late seral stages with moderate age class diversity. Browse was moderate in the 2023 assessed stands, with browse attributed to a combination of livestock and wildlife use. The species diversity within aspen communities is good across most of the herd unit, and is generally lowest in stands with higher levels of conifer encroachment which causes drying of the sites.

Shrub communities exhibited higher than normal leader growth in 2023, and excellent seed production, likely due to well-timed and above average precipitation amounts. Of the four Rangeland RHA's conducted, two showed late seral shrub classification, which indicates older more decadent shrubs with decreased age-class diversity. This is often consistent with lack of disturbance such as fire. Many bitterbrush, sagebrush, serviceberry and other mixed mountain shrub species preferred by ungulates show a history of severe browse, contributing to clubbed and contorted growth forms. The last few years, tent caterpillars appeared to have serious impacts to bitterbrush and chokecherry communities. However in 2023, similar to 2022, the number of caterpillars appeared to be much lower. Shrubs seemed to bounce back, and in areas where caterpillar numbers were very high previously, those shrubs had fewer caterpillars and very good leader growth. Herbaceous understory species diversity is generally good.

Riparian habitats assessed in 2023 were generally in good condition. Assessments occurred in the vicinity of Willow Creek on southern tip of the Wind River Mountains. A high level of species diversity was found in most of the assessed riparian areas, including many shrub and forb species beneficial to mule deer does during lactation. There were areas of increased erosion found where two-track roads cross riparian areas, or where heavily used livestock and wildlife crossings occur. Willow communities associated with the assessed streams were in good condition with recruitment occurring and browse levels generally low. Relict and active beaver activity is present along most of the stream corridor, and it would be good to see more beaver colonies in this system. The Lander Region recently acquired a beaver holding facility and beaver panniers, for use in backcountry relocation efforts, in order to increase the ability to trap and relocate beaver.

3.) Chronic Wasting Disease Monitoring and Management: This is a Tier 1 surveillance herd and has been prioritized as a CWD focal herd beginning in 2023. From 2021-2023, 98 mule deer and 78 white-tailed deer were sampled, with CWD detected in 5 adult male mule deer, 5 adult male white-tailed deer, and 1 adult female white-tailed deer. To date, no CWD management actions have occurred.

4.) Population Modeling: The bio-year 2023 post-season IPM abundance estimate was 5,375 mule deer (CL = 4,779 to 6,073). This is a 15% decline from the post-season 2022 estimate in POP R, and is 51.1% below objective (11,000). The post-season abundance estimates reflect observed trends and fluctuations appear accurate based on field observations in classification and harvest data. The IPM estimated buck/doe ratios follow the trend of observed buck/doe ratios through the life of the IPM, but have several estimated ratios below observed values. Ideally, all model estimates of male/female ratios should be above actual observation data. The IPM model was run with maximum iterations and burn-in rate, yet still has an Rhat value of 1.38, which is higher than desired for convergence in the IPM. A sightability survey was conducted in the South

Wind River herd unit in February 2023 (in bio-year 2022) and the current IPM post-season abundance estimate runs through the upper confidence interval of the estimate provided by that survey.

The pre-season fawn/doe ratio of 51J/100F was a 30% decrease from the ratio observed in 2022 and was the 3rd lowest since 1994. The total buck/doe ratio declined to 24M/100F, with the yearling buck/doe ratio dropping 53% to 8YM/100F. The decline in yearling bucks was due to high fawn mortality over winter 2022-23, despite yearling bucks being protected via the 4-point antler restrictions placed on the 2023 hunting season.

With the low fawn/doe ratio observed in 2023 and anticipating harvest to remain steady in 2024, the IPM projects the South Wind River mule deer herd will decline to a 2024 post-season population of around 4,650 mule deer (58% below objective).

2023 - JCR Evaluation Form

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

HERD: MD646 - SWEETWATER

HUNT AREAS: 96-97
PREPARED BY: STAN HARTER

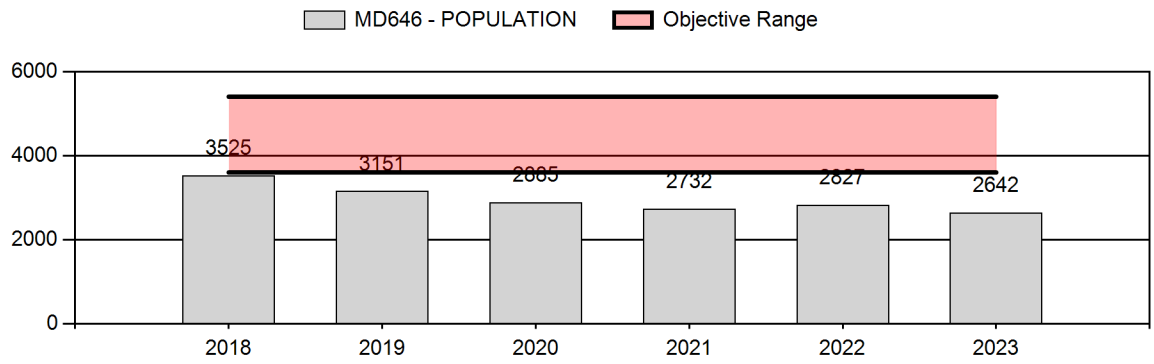
	2018 - 2022 Average	2023	2024 Proposed
Population:	3,024	2,642	2,506
Harvest:	251	63	70
Hunters:	672	317	325
Hunter Success:	37%	20%	22 %
Active Licenses:	672	317	325
Active License Success:	37%	20%	22 %
Recreation Days:	2,476	1,311	1,400
Days Per Animal:	9.9	20.8	20
Males per 100 Females	19	23	
Juveniles per 100 Females	75	51	

Population Objective (± 20%) :	4500 (3600 - 5400)
Management Strategy:	Recreational
Percent population is above (+) or below (-) objective:	-41.3%
Number of years population has been + or - objective in recent trend:	2
Model Date:	2/21/2024

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:	28%	28%
Proposed change in post-season population:	-12%	-5%

Population Size - Postseason



2024 Hunting Seasons
Sweetwater Mule Deer (MD646)

Hunt Area	License Type	Special Archery Dates		Regular Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
96	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 20		Antlered mule deer four (4) points or more on either antler or any white-tailed deer
97	Gen	Sept. 1	Sept. 30	Oct. 15	Oct. 20		Antlered mule deer four (4) points or more on either antler or any white-tailed deer

2024 Region Q Non-Resident Quota: 75

2023 Hunter Satisfaction: 41.3% Satisfied, 30.7% Neutral, 28.0% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation:

With favorable flight conditions on December 9 and 11, 2023, classification surveys were flown in hunt areas 96 and 97, with 1,250 mule deer observed. The 2023 post-season fawn/doe ratio of 51J/100F was the 2nd lowest since 1994. The adult buck/doe ratio increased to 14AM/100F and the total buck/doe ratio of 23M/100F was the highest since 2013. Despite reduced buck harvest during the last 4 years of conservative hunting seasons with antler harvest restrictions, buck/doe ratios have not increased as much as expected, especially with generally good fawn/doe ratios which should have led to steady yearling buck recruitment and population growth, even in drought years.

During the 2023 hunting season, hunter participation was the lowest since 1994, with 317 hunters harvesting 61 mule deer bucks (also the lowest since 1994). Hunter success was the lowest in 20 years, coupled with the highest number of days to harvest in the same time span.

The 2023 season reduced hunter numbers and mule deer buck harvest as desired. However, with the 2023 post-season abundance estimate being less than half of objective and projected declines, the 2024 season remains at 6 days in length and the limitation of "Antlered mule deer four (4) points or more either antler or any white-tailed deer" to prevent over-harvesting mule deer bucks with respect to overall population levels. The Region E non-resident quota will continue at 75 for the 2024 season to keep non-resident hunter presence near 20%.

White-tailed deer numbers seem considerably lower than in previous years, especially following winter 2022-23. Only one group of white-tailed deer was seen during the mule deer sightability survey conducted in February 2024 and observations have generally been lower since the EHD outbreak that occurred in 2013. With access almost entirely on private lands and very low harvest on Type 8 licenses over the last 10 years, it seems that hunters are having a hard time finding access to fill those tags. Ironically, hunter success on Type 3 "Any white-tailed deer" licenses increased in 2023. With white-tailed deer numbers being very low, we are eliminating Type 3 and

Type 8 licenses in hunt area 97 for 2024. General license deer hunters will still be allowed to harvest any white-tailed deer.

Although the buck/doe ratio in 2023 was within the "recreational" management range for mule deer herd units, we are concerned that lifting or even reducing the APR season structure would severely increase overall harvest that would be unwarranted considering the population is 41% below objective and declining. The 2024 season will be the 5th consecutive year featuring antler point restrictions (APRs) limiting hunters to harvesting mule deer bucks with either 3 or 4 points on either side. This will be the 10th season in 21 years to feature APRs. The current season structure has adequately limited hunter numbers and mule deer buck harvest, but likely places undue pressure on older age class bucks in their "breeding prime". While this probably isn't overly detrimental to the reproductive potential for the population since adult buck/doe ratios have held steady over the last 20 years (albeit with varying numbers of adult bucks), it is possible this is deflecting breeding to bucks with inferior antler quality and genetics. At this time, we believe the continuation of APR seasons is vital to limit hunter numbers and buck mule deer harvest, despite the concerns about how they affect breeding potential. Limited quota seasons are essentially the only other option available to limit hunter numbers and harvest, but don't have the support of the majority of deer hunters.

2.) Mule Deer Initiative Habitat Information:

Weather

Precipitation

Precipitation from October 2022 through September 2023 was well above the 30-year average. Winter snows usually contribute the majority of the annual precipitation, and last winter was no exception with 60" of snowfall. In 2023, the majority of the precipitation fell in April and June, with nearly 6.5" of precipitation falling in those two months in the Sweetwater area. This contributed to well above average growing season precipitation (April-June 2023 (Figure 1). Temperatures through the summer (June-September) were about average for the area. This precipitation information is generated from the PRISM (Parameter-elevation Relationships on Independent Slopes Model) dataset developed by Oregon State University. For the Sweetwater Herd Unit, precipitation information is based on 1 weather station located near Jeffrey City, WY. With only one official weather station being located in the Sweetwater Herd Unit, this can limit detection of unique and often extreme weather events that occur away from Jeffrey City. For example, one ranch a few miles downstream from Sweetwater Station unofficially recorded 6" of rain in a 2 hour period in early August 2023 and a similar, if not the same storm, had roughly 3" of rain in a one hour period on the south side of Green Mountain near Bairoil. Yet, the total precipitation recorded for the entire month of August was only 1.5" in Jeffrey City. As such, precipitation may often differ markedly from levels shown in the PRISM data.

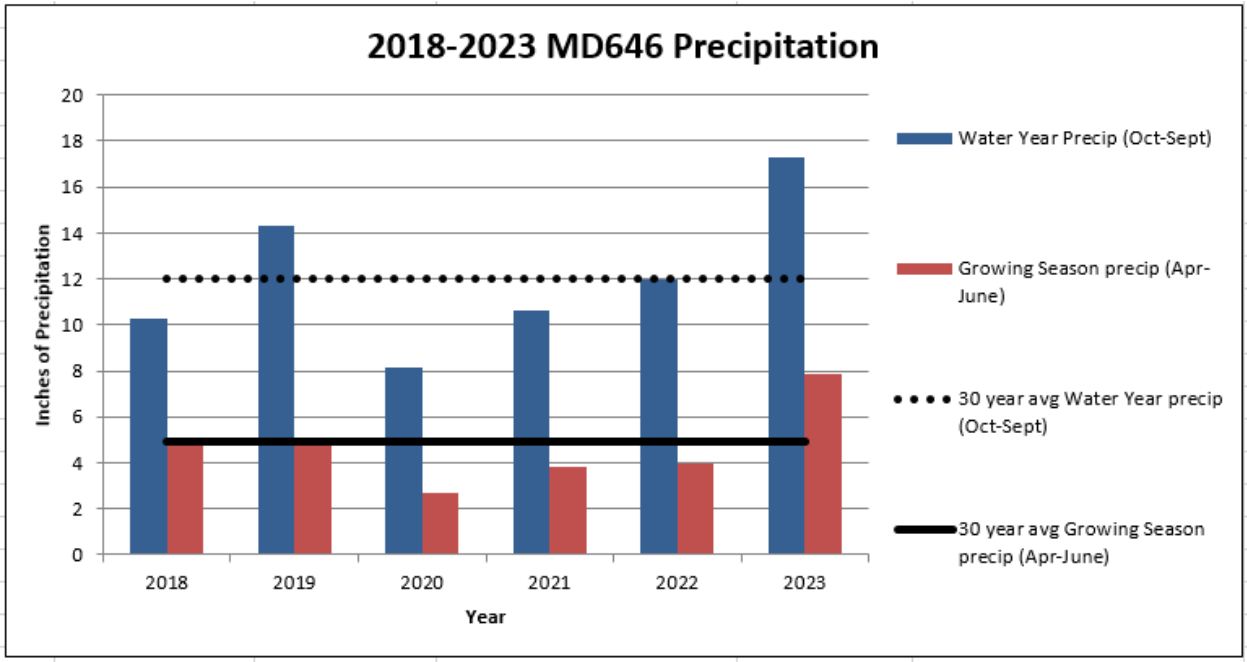


Figure 1. Annual precipitation levels compared to 30-year averages.

Winter Conditions

The 2023-2024 winter was characterized by less than average snowfall, which gave mule deer and other wildlife a slight reprieve following the previous severe winter, especially following above average summer precipitation which led to improved forage conditions. Temperatures in winter 2023-2024 were warmer than normal, and when coupled with below average snowfall in the Jeffery City area resulted in a relatively mild winter. Average temperatures were nearly 3 degrees warmer than average for the November-February time period in the Jeffrey City area. As usual, high winds persisted across the herd unit.

Habitat

Growing season precipitation was well above average for the 2023 season with nearly 8" of precipitation occurring between April-June. This well-timed precipitation contributed to excellent herbaceous forage production, especially perennial grasses and forbs. In addition, rain continued throughout the summer, leading to greener habitat conditions in late summer than are sometimes experienced in late spring. Temperatures throughout the summer were cooler than average across the Sweetwater Herd Unit. The higher than normal precipitation amounts for 2023, coupled with increased beaver activity and significant encroached conifer removal in the Willow Creek drainage resulted in the stream flowing the entire length to its confluence with the Sweetwater River all summer for one of the first times in recent memory. These riparian habitats are important for mule deer and other wildlife in the area.

Significant Events

Habitat enhancements implemented within the Sweetwater Mule Deer Herd Unit were focused on protecting riparian habitats from significant overuse by livestock and feral horses. While there is little support to increase the amount of fencing on the landscape, the reduced resilience of the

streams and springs within the Sweetwater area is troubling. The projects WGFD is involved in work to protect riparian areas, but also try to result in a net loss of total fencing on the landscape. Three riparian protection projects were initiated in 2023 on Willow Creek, the Sweetwater River, and Diamond Springs.

Rapid Habitat Assessments

In 2015, WGFD personnel initiated the Rapid Habitat Assessment (RHA) methodology to survey and assess important mule deer habitats. This method was developed to capture large-scale habitat quality metrics to better understand the condition of vegetation communities important to mule deer. RHAs provide a standardized habitat assessment conducted across the landscape. These assessments and resulting analyses are intended to provide a basis for mule deer population objective and other management decisions. They convey some insight into the habitat's long-term condition or carrying capacity.

From 2015-2023, 150 RHA's were conducted across the herd unit, mostly in the vicinity of Green Mountain, which is an important area for wildlife. In 2023, 14 RHA's were conducted, in riparian and rangeland habitats, across a varied area of the Herd Unit. As is consistent across the herd unit, these showed late seral vegetation communities, with high browse levels on sagebrush species and riparian shrubs. Most of the RHA's showed relatively high species diversity. Invasive species appear to be less of a problem in the Sweetwater Herd Unit when compared to much of the rest of the Lander Region, but are increasing in some areas. Of the 2023 RHA's, 3 were riparian for 60 acres, 9 were in rangeland/shrub habitats for 428 acres, and 2 were Special- and were conducted at Diamond Springs for 60 acres. The majority of these were exhibiting a downward trend based mostly on the late seral condition and continued severe browse levels. Feral horse populations in the Sweetwater Herd Unit likely contribute to the excessive use on many herbaceous and woody forage species.

Aspen communities in the Sweetwater Mule Deer Herd Unit are typically in very late seral condition, exhibiting high levels of drying due to conifer encroachment. This results in decreased sprouting of young aspen suckers, and those that do sprout are at increased risk of browse by livestock, feral horses and wildlife, mostly elk. Severe browse levels on aspen suckers is drastically reducing the number of trees surviving to grow above 6 feet tall and above browse height. Species diversity of understory herbaceous forage plants is also lower than in what would be a healthy aspen stand. The Green Mountain Aspen and Riparian Enhancement Project is working to address these concerns by conducting large scale conifer removal and treatment.

Rangeland and shrub habitats across the Sweetwater Herd Unit are generally in good condition with good species diversity and low levels of cheatgrass and other invasive species present. In 2023, the RHA's conducted in shrub communities showed excellent grass and forb production, which would be expected in a good precipitation year. The best production of any shrub assessments was within the Hadsell prescribed burn which BLM conducted in April 2021, 2022, and again in 2023 on the south side of Green Mountain. These burns produced a good response from herbaceous forage that stayed green long after much of the surrounding landscape had begun to senesce. Additional burns within the Hadsell pasture are planned for 2025. This type of habitat action will be encouraged given the vegetation response.

Riparian areas assessed in 2023 were in relatively good condition. On the east end of Green Mountain, many streams are being re-colonized by beaver, and appear to be holding water later into the year, and are showing greater willow and herbaceous vigor. Encroached conifer removal from private lands along Willow Creek, combined with the presence of beaver should improve the habitat conditions for mule deer. One private landowner protected more than 820 acres on Willow Creek from livestock and feral horses in order to encourage beaver expansion and give willow and birch communities a chance to recover. This landowner is also working to protect nearly 20 miles of the Sweetwater River.

The two Special RHA's conducted were on Diamond Springs in 2023, a unique system of springs and seeps near the top of Beaver Rim. These springs are important late summer brood rearing habitat for sage grouse, and exhibit excellent herbaceous forage production for mule deer, pronghorn and elk. All of the springs are showing signs of over-use by cattle and feral horses, with hummocking, bank sloughing, and erosion present at all of them. One of the springs will be fenced in 2024, using 3-rail continuous pipe panel fencing with funding from the Wind River/Sweetwater River Local Sage Grouse Working Group.

3.) Chronic Wasting Disease Monitoring & Management: This is a Tier 1 focal surveillance herd that was prioritized with mandatory CWD sampling in 2021. Only 3 adult mule deer bucks were tested in 2023 and CWD was not detected. From 2021-2023, CWD samples were collected from 169 male mule deer (163 adults, 9 yearlings) and 7 adult female mule deer (apparently harvested by youth hunters) using extra field personnel, as well as increased use of check stations. CWD was detected in seven adult male mule deer since 2021 (4.3%). In addition, 25 white-tailed deer were tested from 2021-2023 (9 adult males with 1 positive for CWD = 11.1% and 10 adult females with 1 positive = 10.0%). To date, no CWD management actions have occurred in this herd unit.

4.) Population Modeling: The bio-year 2023 post-season IPM abundance estimate was 2,642 mule deer (CL = 2,304 to 2,990). This is a 12% decline from the post-season 2022 estimate, and is 41.3 % below objective (4,500). The IPM model was run with maximum iterations and burn-in rate and has an Rhat value of 1.03, indicating the IPM has found a reliable solution. The IPM estimated buck/doe ratios follow the trend of observed buck/doe ratios through the life of the IPM, but have several estimated ratios below observed values. Ideally, all model estimates of male/female ratios should be above actual observation data. The post-season abundance estimates reflect observed trends through the years and trend fluctuations appear accurate based on field observations in classification and harvest data.

A sightability survey was conducted in the Sweetwater herd unit from February 1-6, 2024 with 29 hours total flying time, surveying 192 randomly selected subunits (out of 603 available subunits) developed in SpeedGoat. We observed 1,871 mule deer in 140 groups of mule deer, ranging from 1 to 80 mule deer per group. Mule deer were found in only 66 of 192 subunits. Although snow cover was light or zero in many areas throughout much of the survey area, mule deer were fairly concentrated in reduced geographic areas with mule deer observed in both hunt areas, and larger

than normal groups when compared with the annual classification survey flown in early December 2023.

The mid-winter abundance estimate of 2,999 mule deer (CI = 2,428 – 3,569) produced by the sightability survey conducted in February 2024 is 13.5% above the post-season estimate, which is contradictory due to the timing of the sightability survey being conducted nearly 4 months after the hunting season. The harvest and ratio data in the IPM suggest that the sightability estimate is a little too high. That said, there is a lot of overlap in the confidence intervals of the two estimates and the difference is only a few hundred deer.

The post-season fawn/doe ratio of 51J/100F was 39% lower than the ratio observed in 2022, and was the 2nd lowest in the Sweetwater herd unit since 1994. Following the low buck harvest, the total buck/doe ratio rose slightly to 23M/100F, with a drop in yearling buck/doe ratio to 9YM/100F and an increase in the adult buck/doe ratio to 15AM/100F.

With the low fawn/doe ratio observed in 2023 and anticipating harvest to remain steady in 2024, the IPM projects the Sweetwater mule deer herd will decline to a 2024 post-season population of around 2,500 mule deer (44% below objective).

5.) Focal Herd Project: The Sweetwater mule deer herd unit was chosen in 2022 as one of 5 "Focal" herds across Wyoming. To begin monitoring efforts in this herd, 210 mule deer were captured and outfitted with GPS transmitters in December 2022 (100 Fawns, 80 Does, and 30 Bucks). Following a 2-week period when mortalities are considered to be capture related, survival rates were quite variable between adult males and females and between juvenile males and females. Survival data were entered into the IPM for bio-year 2022 as follows (AM – 0.56, AF – 0.74, JM – 0.32, JF – 0.37). In January 2024, 100 new GPS transmitters (90 collars, 10 solar ear tags) were deployed on fawns born in 2023, along with 21 collars on adult females and 14 collars on adult males to bring those totals back to the original sample size. As of May 22, 2024, 10 capture related mortalities were detected in the first 2 weeks, and 40 mortalities have been detected not related to captures (31 fawns, 7 adult females, and 2 adult males). Most have been identified as probable predation from coyotes, with at least 5 probable mountain lion kills, and one or two possible bobcat kills.

6.) Other: Predation is one possible, if not probable, factor in low population growth and poor yearling buck recruitment in the face of good fawn/doe ratios through time. In an effort to help this mule deer herd's fawn survival over winter, the Department requested and received funds through the Animal Damage Management Board in July 2023 to pay for coyote removals in the winter ranges of the Sweetwater herd unit, primarily in hunt area 97. These control efforts are in addition to ongoing coyote control efforts paid for by area livestock producers. As of May 22, 2024, 59 coyotes and 1 den had been removed in the project area, with over 80 hours of flight time. This is just over half of the number of coyotes that were removed in the winter of 2022-2023.

2023 - JCR Evaluation Form

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

HERD: MD647 - FERRIS

HUNT AREAS: 87
PREPARED BY: ASHLEY UMPHLETT

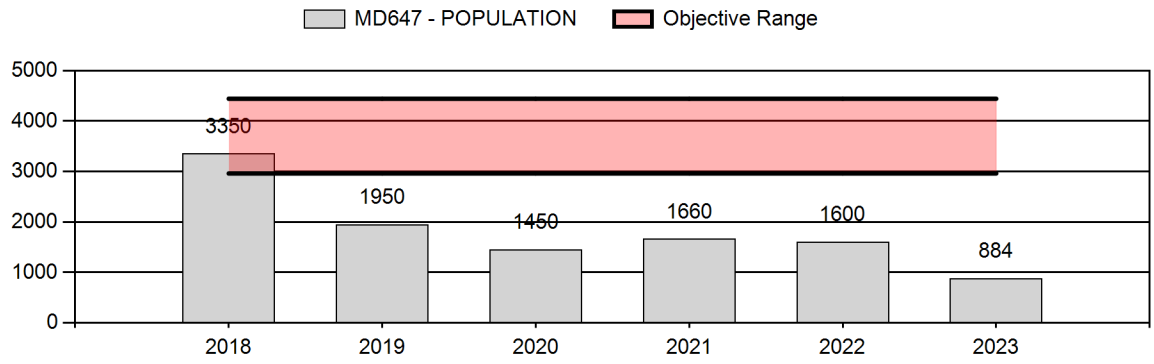
	2018 - 2022 Average	2023	2024 Proposed
Population:	2,002	884	834
Harvest:	84	39	39
Hunters:	107	51	50
Hunter Success:	79%	76%	78%
Active Licenses:	107	51	50
Active License Success:	79%	76%	78%
Recreation Days:	601	289	280
Days Per Animal:	7.2	7.4	7.2
Males per 100 Females	49	35	
Juveniles per 100 Females	73	58	

Population Objective (± 20%) :	3700 (2960 - 4440)
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	-76.1%
Number of years population has been + or - objective in recent trend:	24
Model Date:	2/9/2024

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%	20%
Proposed change in post-season population:	-10%	-6%

Population Size - Postseason



2024 Hunting Seasons
Ferris Mule Deer (MD647)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
87	1	Sep. 1	Sep. 30	Oct. 15	Oct. 31	50	Antlered mule deer or any white-tailed deer

2023 Hunter Satisfaction: 88% Satisfied, 0% Neutral, 12% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: Size of this herd increased in 2017 and 2018, following six years of low numbers, a result of improved precipitation, extensive habitat treatments and increased predator control. Losses during the severe 2018-19, 2019-20, and 2022-23 winters were significant. With this herd in special management, hunters expect better opportunities to see and harvest larger bucks than available in neighboring, general license, more productive herds.

Hunter success dropped to 76%, the 2nd lowest in 8 years, and the average days hunted per deer harvested rose to the 3rd highest level in 34 years. Despite the lowered success and increased effort, hunter satisfaction increased to 88% (from 72%). Hunter dissatisfaction decreased from 14% to 12%. This is a bit surprising given lower hunter success. Interestingly, all hunters expressed either a satisfied or unsatisfied experience, none were neutral.

Most classification data were collected from a helicopter again this year. As a result, sample size improved, but was still the second smallest helicopter sample since 2014. The buck:doe ratio decreased significantly 35:100, down from 56:100 in 2022. Observed buck:doe ratios reported for this herd are inflated by major portions of the herd unit being unavailable to most hunters and remaining essentially un-hunted – they certainly do not reflect proportionally available bucks on hunter accessible portions of the herd unit. The proportion of Class 3 bucks has been steadily declining since these data were first collected in 2015 and continued to do so in 2023.

Winter severity during the 2022-23 winter was extreme, with below normal temperatures, high winds, and record snowfall producing deep crusted snow cover, nearing 100% coverage over much of the herd unit. Winter conditions this year were considered “normal” or mild. The IPM postseason 2023 population estimate of 876 deer reflects an expected and continued downward trend a result of the series of harsh winters.

Classification, harvest, and satisfaction data all indicate this herd was recovering from losses in the 2018-19 and 2019-20 winters but had not yet approached objective size nor the desired supply of mature bucks. With heavy losses from last winter and expected poor fawn survival and recruitment, no more harvest than allowed in 2023 is warranted, especially considering the absence of older aged, bigger antlered class III bucks. As a result of minimal winter mortality, the 50 Type 1 licenses should remove ~20% of the bucks in the 2024 pre-hunt population.

2.) **Management Objective Review:** The post-season population objective for the Ferris mule deer herd unit was reviewed internally. No change is proposed.

3.) **Chronic Wasting Disease Monitoring & Management:** Because of its small size and low harvest rate, this 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.

4.) **Population Modeling:** The bio-year 2023 postseason population estimate for this herd unit was 884 (632-1,152) mule deer. With no independent estimates of herd size, the reliability and predictability of the IPM cannot easily be judged. Regardless, the selected IPM used produced satisfactory Rhat values. This IPM also simulated population trends generally as expected with observed changes in deer abundance, usually in response to severe winters. The selected model predicts the 2023 post-hunt herd size was more than 76% below the objective of 3,700 deer.

2023 - JCR Evaluation Form

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

HERD: MD648 - BEAVER RIM

HUNT AREAS: 90
PREPARED BY: ZACH GREGORY

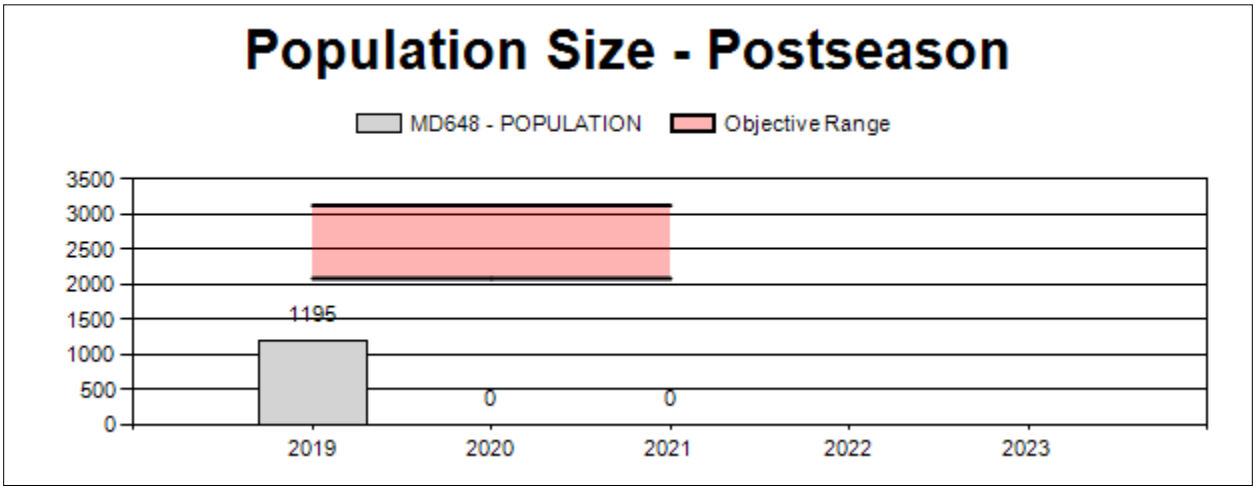
	2018 - 2022 Average	2023	2024 Proposed
Population:	539	N/A	N/A
Harvest:	46	31	38
Hunters:	66	37	42
Hunter Success:	70%	84%	90 %
Active Licenses:	66	37	46
Active License Success:	70%	84%	83 %
Recreation Days:	453	232	255
Days Per Animal:	9.8	7.5	6.7
Males per 100 Females	40	51	
Juveniles per 100 Females	44	74	

Population Objective (± 20%) : 2600 (2080 - 3120)

Management Strategy: Special
Percent population is above (+) or below (-) objective: N/A%
Number of years population has been + or - objective in recent trend: 13
Model Date: None

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%
Proposed change in post-season population:	0%	0%



2024 Hunting Seasons
Beaver Rim Mule Deer (MD648)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
90	1	Sep. 1	Sep. 30	Oct. 1	Oct. 31	50	Any deer

2023 Hunter Satisfaction: 62% Satisfied, 13% Neutral, 19% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: For the past two decades area 90 has been managed for trophy mule deer with limited licenses issued. License issuance has varied between 50 and 150 over the past 20 years. Given the more recent small number of licenses issued, harvest mortality has likely had little impact on the overall deer population in the area for many years. That said, the population has been below objective for over 10 years. Given low deer densities and no recent population growth, the hunt season in area 90 has been structured to provide a high quality recreational experience for a limited number of hunters.

Despite limited buck harvest in the herd unit for a number of years, indications are the population declined over the past several years. The winter of 2022-2023 was quite harsh, however, the amount of moisture received during 2023 has resulted in very good vegetation production compared to past years. No significant mortality events were detected during the winter of 22-23 and classification data seems to indicate good fawn survival and increased fawn recruitment in 2023.

Classification surveys were redesigned in this herd unit in 2022. Unfortunately that design did not fit well with this low density deer herd and did not yield a statistically valid sample. In 2023 classification flight time was adequate and we were able to classify a higher number of deer than the previous 6 years resulting in 255 deer classified. The buck:doe ratio increased to 51:100, a substantial improvement over previous years and comparable to 2018 (57:100). The yearling buck:doe ratio also saw a significant increase to 19:100 which is an all-time high in over a decade and similar to 2014 and 2015, suggesting winter survival was quite good. Similarly, fawn recruitment in 2023 was substantially higher than previous years at 74:100 and may be due in part to an increase of available forage. Hunter satisfaction did see a reasonable jump in 2022 compared to 2021, 63% & 47% respectively, and 61% in 2023. Hunter success also saw another notable increase in 2023 of 84% compared to 72% in 2022 and 58% in 2021. Similarly days/harvest significantly improved in 2023 to 7.5 compared to 12.2 in 2022 and 14.4 in 2021. With the improvements in hunter satisfaction, days/harvest, and hunter success, and a population that is stable at best, there will be no changes to the season in 2024.

2.) Chronic Wasting Disease Monitoring and Management: This 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 harvest has been well below the level necessary to effectively estimate prevalence for over two decades.

2023 - JCR Evaluation Form

SPECIES: Mule Deer

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

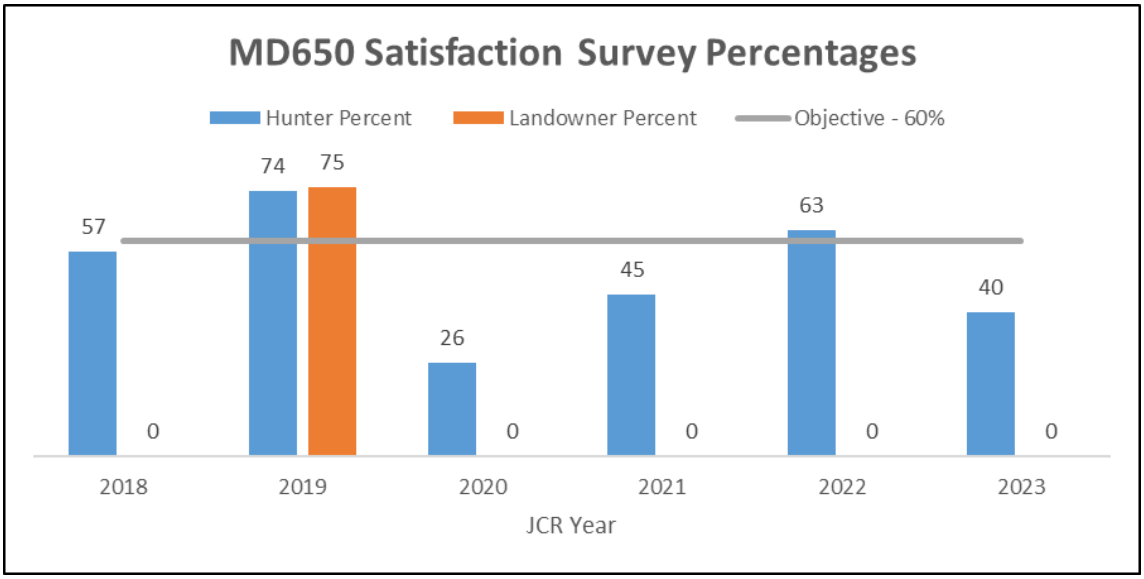
HERD: MD650 - CHAIN LAKES

HUNT AREAS: 98

PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Hunter Satisfaction Percent	46%	40%	40%
Landowner Satisfaction Percent	n/a	n/a	60%
Harvest:	23	10	10
Hunters:	72	44	40
Hunter Success:	31%	23%	25%
Active Licenses:	72	44	40
Active License Success:	31%	23%	25%
Recreation Days:	223	108	100
Days Per Animal:	10.7	10.8	10
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:	N/A%
Number of years population has been + or - objective in recent trend:	5



2024 Hunting Seasons
Chain Lakes Mule Deer (MD650)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
98	Gen	Sep. 1	Sep. 30	Oct. 15	Oct. 20		Antlered mule deer four (4) points or more on either antler or any white-tailed deer, archery and muzzle- loading firearms only

2024 Region Q nonresident quota: 75 licenses

2023 Landowner Satisfaction: N/A
2023 Hunter Satisfaction: 40% Satisfied, 30% Neutral, 30% Dissatisfied

2024 Management Summary

1.) **Hunting Season Evaluation:** With the adoption of a hunter/landowner satisfaction objective for this herd, efforts are made to personally query major landowners on their satisfaction with deer numbers each year – this was not done in 2023. However, in 2022 the 3 landowners who responded were satisfied with deer numbers and the hunt that fall, but all three expressed concern over what the winter of 2022-23 had done to the herd. Hunter satisfaction decreased significantly from 63% in 2022 to 40% in 2023. There were no hunters that expressed they were 'very satisfied' or just unsatisfied. Rather, the 30% reporting dissatisfaction were 'very dissatisfied'. Hunting conditions, as expected, declined in 2023, but were still below hunter and landowner expectations for this herd.

Hunter success decreased to 23%, below the normal range for this herd, and effort (days/animal) increased to 11 days; the second highest it has been in the last 10 years. Hunter numbers also dropped to a 25-year low, which may explain the improved success and effort. Winter severity this year was considered mild. However, after last year's severe winter mule deer numbers certainly declined significantly as indicated by the harvest statistics.

While antler point restrictions may not significantly affect harvest in this primitive weapon hunt area, they are necessary to prevent sharp increases in hunter numbers in this area when the rest of Region Q has antler point restrictions. With Areas 96 and 97 applying a 4-point antler restriction in 2023, the same is being used in Area 98, with no changes in season dates.

2.) **Chronic Wasting Disease Monitoring & Management:** Because of its small size and low harvest rate, this herd is a Tier 3 surveillance herd. To date, no meaningful CWD prevalence data are available for this herd unit and no CWD management actions have occurred. During 2019 and 2020, 55 urban mule deer were removed from the city of Rawlins in the southeast corner of the herd unit under Chapter 56 permits, and 6 of these tested positive for CWD. None of the 22 deer removed from Rawlins under Chapter 56 in 2021 tested positive for CWD. No deer were removed by the Chapter 56 process in 2022, but several targeted collections from within the city tested positive for CWD.

3.) **Population Modeling:** The bio-year 2023 postseason IPM population estimate for this herd unit was 330 (170-584) mule deer. With no independent estimates of herd size nor any classification data the reliability and predictability of the IPM cannot be judged. While failing to achieve desired Rhat values, population estimates from the IPM are consistent with past estimates and peaks and troughs roughly with observed changes in deer abundance, usually in response to severe winters. This model predicts the 2023 post-hunt herd size was 40% below the historic objective of 500 deer, which is consistent with the

2023 - JCR Evaluation Form

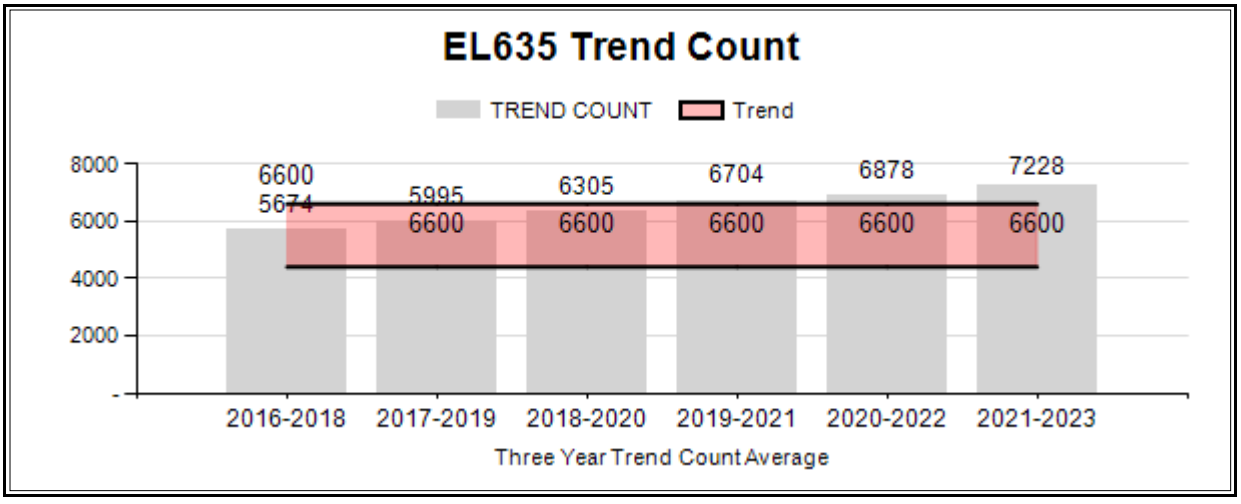
SPECIES: Elk
PERIOD: 6/1/2023 - 5/31/2024
HERD: EL635 - WIGGINS FORK
HUNT AREAS: 67-69, 127
PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	6,616	7,519	6,750
Harvest:	942	1,178	1,325
Hunters:	2,516	2,382	2,510
Hunter Success:	37%	49%	53 %
Active Licenses:	2,623	2,785	2,750
Active License Success	36%	42%	48 %
Recreation Days:	17,087	17,871	17,750
Days Per Animal:	18.1	15.2	13.4
Males per 100 Females:	19	30	
Juveniles per 100 Females	21	16	

Trend Based Objective (± 20%)	5,500 (4400 - 6600)
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	37%
Number of years population has been + or - objective in recent trend:	6

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%



2024 Hunting Seasons
Wiggins Fork Elk (EL635)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
67	Gen	Sep. 15	Sep. 30				Any elk
67	Gen			Oct. 1	Oct. 10		Antlered elk
67	Gen			Oct. 11	Oct. 31		Antlered elk, spikes excluded
67	4	Sep. 15	Sep. 30	Nov. 1	Dec. 31	400	Antlerless elk
67	6	Sep. 15	Sep. 30	Dec. 1	Dec. 31	450	Cow or calf valid west of the Wiggins Fork and west of the East Fork downstream from the confluence with the Wiggins Fork
67	7	Sep. 15	Sep. 30	Oct. 15	Oct. 31	450	Cow or calf
67	7			Nov. 1	Nov. 30		Cow or calf valid west of the Wiggins Fork and west of the East Fork downstream from the confluence with the Wiggins Fork
67, 68, 69	9			Sep. 1	Sep. 30	150	Any elk, archery only
68	Gen	Sep. 15	Sep. 30				Any elk
68	Gen			Oct. 1	Oct. 10		Antlered elk
68	Gen			Oct. 11	Oct. 31		Antlered elk, spikes excluded
68	6	Sep. 15	Sep. 30	Nov. 1	Nov. 30	100	Cow or calf
69	Gen	Sep. 15	Sep. 30	Oct. 1	Oct. 31		Any elk
69	6	Sep. 15	Sep. 30	Oct. 1	Nov. 30	50	Cow or calf
127	Gen	Sep. 1	Sep. 30	Oct. 1	Oct. 31		Any elk
127	Gen			Nov. 1	Jan. 31		Antlerless elk

Western Region Nonresident Quota: 2775

2023 Hunter Satisfaction: 72% Satisfied, 16% Neutral, 12% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: Personnel counted a total of 7,519 elk during the January 2024 trend count. This was 620 more elk than was counted in 2023 and still well above the objective of 5,500. This herd has three established sub-populations based on migratory movements and winter range use. A big portion of the increase in elk was found in the South Dubois segment (Hunt areas 68 & 69) with 1,824 (24% of the total trend count), compared to the previous five year average (2018-2022) of 954 elk, and above the objective of 1,100 for that sub-population. The East Fork segment also had an increase in the number of wintering elk (2,533) compared to the previous year (2,130) but in proximity to the objective for that portion of the herd of 2,200 elk. Conversely, the Dunoir/Spring Mountain portion saw a reduction in the number of wintering elk of 4,109 in 2022 down to 3,162 in 2023 but still higher than the 2,200 objective. The recent 3-year trend count for the entire herd increased to 7,228, well above the ±20% objective range. While the 2023 trend count in the South Dubois segment is incongruent with over a decade of trend count data, we still see the overall population of this herd well above objective even when using the five year average of the South Dubois sub-population.

Overall hunter success for the herd unit increased from 36% in 2022 to 49% in 2023. Area 67 did see a reasonable jump in overall success (50%) in 2023 compared to 2022 (39%). The 67 Type 4 license also saw an increase in success in 2023 (71%) compared to 2022 (61%). The 67 Type 6 license saw a slight decrease in success in 2023 (44%) compared to 2022 (48%), despite reducing the number of licenses and season length in 2023 in an attempt to reduce hunter crowding and increase success. Based on personnel observations and comments from the field, this did seem to help alleviate the hunter crowding issue and still attain a reasonable hunter success even with the reduced amount of time hunters had in the field. The new 67 Type 7 license was well received by hunters as they enjoyed the season's length as well as reducing hunters to limit hunter crowding. While the success rate was slightly lower (38%) than the Type 6 license in 2023 (44%), hunters with the Type 7 license harvested more elk. The Type 4, 6, and 7 licenses in area 67 are structured to increase antlerless harvest on the Dunoir/Spring Mountain segment with Type 6 license pressure focused exclusively on this segment. Given another year of more elk counted and an increase in the three year average, we are proposing to increase limited quota licenses to increase harvest and reduce elk numbers. In addition to increasing licenses we proposed to change area 67 general season to any elk for the last 12 days of the October season. After presenting this proposal to the public, the majority of comments received were not in favor of removing spikes excluded from the general season in areas 67 & 68. Rather, we are extending both the 67 Type 4 and 6 licenses to the end of the year, as well as increase the 67 Type 4, 6, and 7 licenses, and both 68 and 69 Type 6 licenses. Access to elk on private land refuges is a major management concern hindering both the 67 Type 6 and 7 license effectiveness. We will continue to work with landowners in an attempt to increase access to private lands that will help disperse elk onto accessible public lands and facilitate an increase in harvest.

2.) Management Objective Review: The current trend count objective is effective and an obtainable management target. Based on a very robust and long-term data set monitoring vegetation production and utilization, the current objective of 5,500 is very reasonable and allows for years of drought and harsh winters without damaging and over utilizing the winter range. Therefore, no change is proposed.

3.) Chronic Wasting Disease Monitoring and Management: This is a Tier 2 surveillance herd and was prioritized for CWD surveillance in 2021 and ended in 2022. A total of 212 samples have

been collected over the past 3 years. In 2022, field personnel collected 100 samples. Of the 212 samples, 3 tested positive resulting in an estimated prevalence rate of 1.4%. No CWD management actions have occurred nor are any planned.

2023 - JCR Evaluation Form

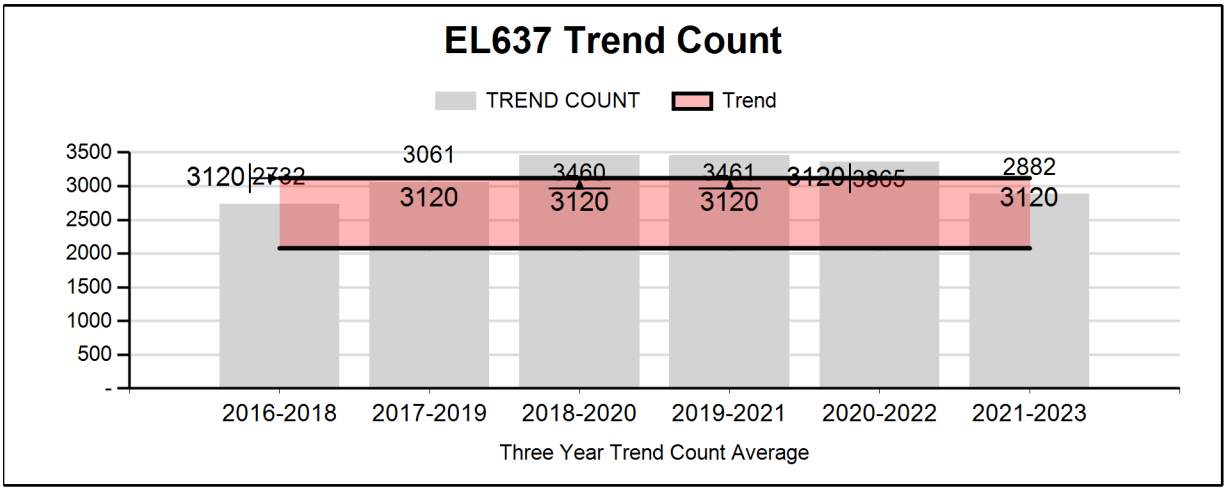
SPECIES: Elk
PERIOD: 6/1/2023 - 5/31/2024
HERD: EL637 - SOUTH WIND RIVER
HUNT AREAS: 25, 27-28, 99
PREPARED BY: STAN HARTER

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	3,308	2,486	2,600
Harvest:	653	822	850
Hunters:	1,755	1,844	1,900
Hunter Success:	37%	45%	45 %
Active Licenses:	1,816	1,973	2,075
Active License Success	36%	42%	41 %
Recreation Days:	12,584	13,854	14,000
Days Per Animal:	19.3	16.9	16.5
Males per 100 Females:	28	28	
Juveniles per 100 Females	31	35	

Trend Based Objective (± 20%)	2,600 (2080 - 3120)
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	-4.4%
Number of years population has been + or - objective in recent trend:	1

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

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



2024 Hunting Seasons
South Wind River Elk (EL 637)

Hunt Area	License Type	Special Archery Dates		Regular Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
25, 27	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	200	Any elk
25	4	Sept. 1	Sept. 30	Oct. 11	Oct. 31	100	Antlerless elk
25	5	Sept. 1	Sept. 30	Oct. 21	Oct. 31	75	Antlerless elk
25	5			Nov. 1	Nov. 10		Antlerless elk, valid north of the Sweetwater River
25	6	Sept. 1	Sept. 30	Nov. 1	Nov. 20	100	Cow or calf, valid north of the Sweetwater River
27	4	Sept. 1	Sept. 30	Oct. 1	Nov. 20	75	Antlerless elk
28	Gen	Sept. 1	Sept. 30	Oct. 1	Oct. 14		Any elk
28	Gen			Oct. 15	Oct. 22		Antlerless elk
28	4	Sept. 1	Sept. 30	Nov. 1	Nov. 20	175	Antlerless elk
99	1	Sept. 1	Sept. 30	Oct. 1	Oct. 31	150	Any elk
99	1			Nov. 1	Nov. 20		Antlerless elk
99	4	Sept. 1	Sept. 30	Oct. 1	Nov. 20	175	Antlerless elk

2023 Hunter Satisfaction: 70.3% Satisfied, 16.1% Neutral, 13.6% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: The South Wind River elk herd unit has a mid-winter trend count objective of 2,600 elk. The 2023 trend count/classification survey flown in January 2024, when pooled with a ground count of elk just west of Lander, produced a count of 2,486 elk. The latest 3-year average trend count of 2,882 elk is 11% above objective, but well within objective range (± 20%). Snow conditions were much less than a year ago, yet most elk were found well away from forested habitats.

The calf/cow ratio of 35J/100F for the herd unit is equal to the 30-year average and the total bull/cow ratio of 28M/100F was 35% lower than in 2022. The total harvest for the herd unit in 2023 increased by 132 with 822 total elk harvested, with overall 45% hunter success during regular hunting seasons as reported from the elk hunter harvest survey. Hunter satisfaction was similar to that in 2022. Hunter success was above 60% in hunt area 25 for Type 1 (also valid in hunt area 27), Type 4, and Type 5 hunters, but the 3-year average for Type 5 was only 44%. Type 1 and 4 hunters are allowed access throughout all of hunt area 25 for the entire season, while Type 5 hunters are restricted for the latter half of their season to hunting north of the Sweetwater River where access is more limited by private lands but more elk have been observed in recent years.
We continued utilizing Chapter 34 auxiliary management hunts from December 1, 2023 through March 1, 2024 to provide “on-demand” harvest of elk in portions of areas 25, 28 and 127. Sixty

antlerless elk were taken via these hunts in response to landowner concerns about elk presence in cattle feeding areas within a few miles of Lander from Willow Creek to the North Fork Popo Agie and to reduce the potential for brucellosis transmission from elk to cattle, however slight the risk. All elk harvested with Chapter 34 permits were tested for brucellosis and CWD. No elk tested positive for brucellosis, but one did test positive for CWD (the first elk with CWD detected in hunt area 28). Although some of the Chapter 34 harvest occurred in hunt areas 25 and 127, these elk were part of a group that originate from hunt area 28. Elk harvested with the Chapter 34 auxiliary management hunt are not included in harvest totals in the 2023 elk harvest survey or in the JCR database. These harvests bring the total number of elk taken in the South Wind River herd unit to at least 872 (the highest since 1994). These hunts using Chapter 34 are designed to reduce damage on private lands and will likely be used each winter for the foreseeable future.

- **Auxiliary Hunt 1 – Elk Hunt Area 28**
  - Fremont County – 30 participating landowners
  - Season Dates: December 1, 2023 – March 1, 2024
  - 94 Auxiliary licenses issued, plus 9 unused HA 25 Type 6 or HA 28 Type 4 licenses
  - Minimum harvest = 60 elk (59 cows and 1 calf)
  - Estimated harvest = 60 elk (59 cows and 1 calf) – due to mandatory CWD and brucellosis testing via our Chapter 34 permits, no harvests should have gone undetected.

Recent changes made to increase antlerless elk harvest continued to work well in 2023 despite a fairly mild, open hunting season that had one significant snow event on October 12 that quickly melted in most low elevations. However, with continued trend counts above objective and average calf recruitment, additional female harvest is needed to limit growth and move toward objective. With a good bull/cow ratio and hunter success above 60%, we are increasing the quota for the area 25 Type 1 and Type 4 licenses to increase opportunity. We reduced the Type 1 quota in 2020 in response to complaints about the number of hunters increasing and elk decreasing in the portion of area 25 south of the Sweetwater River (particularly Cyclone Rim), but elk seem to have become more available on public lands in the area between Beaver Creek and Twin Creek near Highway 287/789. Access in this portion of the hunt area can be an issue, so a modest increase of 25 licenses to each license type is prudent. The seasons above and future use of Chapter 34 should increase antlerless elk harvest in 2024, and help curtail population growth and move this herd toward objective.

2.) Management Objective Review: The current mid-winter trend count objective of 2,600 elk based on a 3-year running average was discussed by Lander and Pinedale region personnel in February 2024. No change is recommended.

3.) Chronic Wasting Disease Monitoring and Management. To date, no meaningful CWD prevalence data is available within this herd unit and no CWD management actions have occurred. South Wind River elk is not a focal CWD surveillance herd. In late 2023, the first elk with CWD was detected in hunt area 28.

2023 - JCR Evaluation Form

SPECIES: Elk
HERD: EL638 - GREEN MOUNTAIN
HUNT AREAS: 24, 128

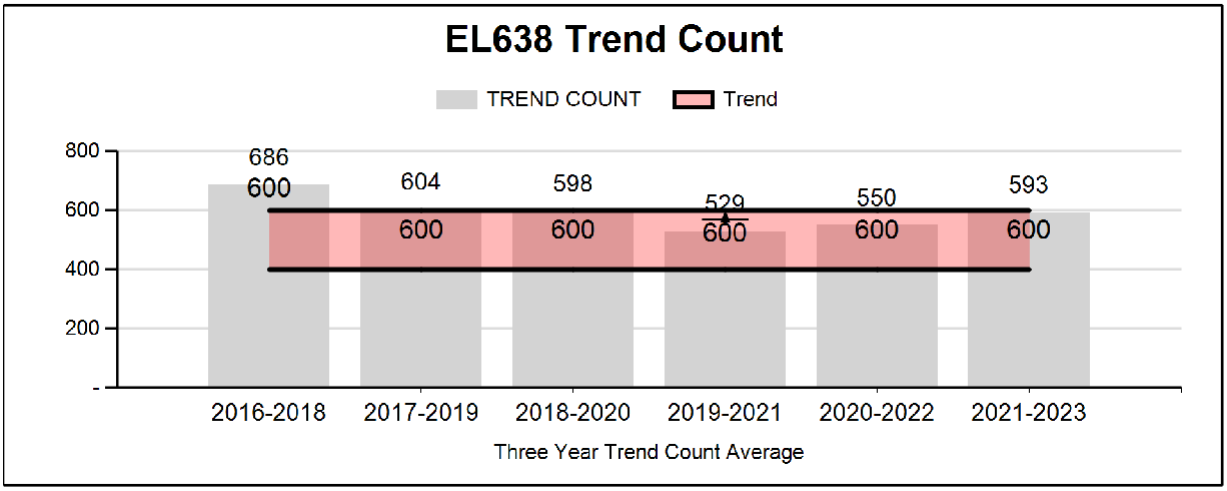
PERIOD: 6/1/2023 - 5/31/2024
PREPARED BY: STAN HARTER

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	576	694	600
Harvest:	252	315	335
Hunters:	620	715	740
Hunter Success:	41%	44%	45 %
Active Licenses:	626	724	750
Active License Success	40%	44%	45 %
Recreation Days:	3,841	4,828	5,000
Days Per Animal:	15.2	15.3	14.9
Males per 100 Females:	42	24	
Juveniles per 100 Females	34	24	

Trend Based Objective (± 20%)	500 (400 - 600)
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	39%
Number of years population has been + or - objective in recent trend:	1

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

	JCR Year	Proposed
Females 2: 1 year old:	0%	0%
Males 2: 1 year old:	0%	0%
Juveniles (< 1 year old):	0%	0%



2024 Hunting Seasons
Green Mountain Elk (EL638)

Hunt Area	License Type	Special Archery Dates		Regular Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
24	1	Sept. 1	Sept. 30	Oct. 1	Oct. 14	200	Any elk
24	4	Sept. 1	Sept. 30	Oct. 1	Oct. 14	75	Antlerless elk
24	5	Sept. 1	Sept. 30	Nov. 1	Nov. 30	175	Antlerless elk, also valid in Area 128
128	Gen	Sept. 1	Sept. 30	Oct. 1	Oct. 7		Any elk
128	Gen			Oct. 8	Oct. 14		Antlerless elk

2024 Western Nonresident Region Quota: 2,775

2023 Hunter Satisfaction: 65.7% Satisfied, 18.2% Neutral, 16.1% Dissatisfied

2024 Management Summary

1.) Hunting Season Evaluation: The Green Mountain elk herd unit has a mid-winter trend count objective of 500 elk. The 2023 trend count/classification survey was flown on January 29, 2024, and resulted in a count of 658 elk in hunt area 24. Another 36 bulls were observed in hunt area 128 in the first week of February during the Sweetwater mule deer sightability survey. The latest 3-year trend count average is 593, placing the population 19% above objective, just below the upper 20% "limit". Snow conditions were much less than a year ago, yet most elk were found well away from forested habitats. There were a few groups of bulls found within timber patches, and tracks indicated we missed a few other groups of elk in the trees.

The 2023 calf/cow ratio was 24J/100F (41% below the average of 41J/100F since 1994). The bull/cow ratio of 24M/100F was 25% below the average of 32M/100F since 1994. The bull/cow ratio for hunt area 24 was only 17M/100F (45% below the long-term average) with the ratio of branch-antlered bulls was only 8AM/100F (75% below the long-term average).

The total harvest for the herd unit in 2023 increased by 59 elk, almost entirely with 54 more elk taken in hunt area 128 (a 92% increase from 2022), which included the highest antlerless harvest with general licenses in 20 years. Hunt area 24 had a slight overall increase in harvest as the number of spikes and cows harvested increased for Type 1 and Type 4 hunts. However, Type 5 hunters had the lowest success rate in hunt area 24 in 20 years, due in large part to hunter crowding, along with mild weather in November that made locating elk difficult. The biggest complaint heard during hunting seasons was from hunt area 24 Type 5 hunters who thought allowing Type 1 and Type 4 hunters that didn't kill an elk in October to hunt in November was impacting their success (we've heard this every year since we started doing it, but this was the highest level of complaints heard thus far). Hunter concerns about elk leaving hunt area 24 and crossing into hunt area 128 were also pretty high. These concerns were validated as large groups of elk from around 150-200 to nearly 400 elk being were observed along the Sweetwater River and Sweetwater Rocks from September through November.

Overall, the hunter success rate of 44% was higher than in 2022, with the biggest increase in hunt area 128 from 21% to 37%. Total harvest success dropped from 51% to 49% in hunt area 24.

Although hunt area 24 Type 1 hunters had higher success (70%) in 2023, this was due to an increase in harvest of adult cows and spikes, with adult bull harvest dropping slightly. Due to past experience that increases in license issuance negatively affects harvest success and hunter satisfaction, along with the hunter crowding concerns voiced in 2023 and a 66% drop in adult bulls classified in hunt area 24, no change was made to Type 1 license numbers in 2024. In response to concerns raised about hunter crowding and elk leaving hunt area 24 during the 2023 season, we are removing the November antlerless elk portion for hunt area 24 Type 1 and Type 4 hunters. We anticipate this will increase harvest success and hunter satisfaction for those with a Type 5 license.

In addition, the Casper Region's hunt area 23 Type 1, Type 4, and Type 6 licenses will also be valid in the northeastern portion of hunt area 128 from November 15 – December 15 to address concerns about elk crossing the Dry Creek Road and into hunt area 128. Allowing hunt area 23 license holders to hunt that portion of 128 will hopefully increase harvest. With these changes and the low calf production this past year, resulting harvest should decrease elk in this herd.

2.) Management Objective Review: The current mid-winter trend count objective of 500 elk based on a 3-year running average was discussed by Lander region personnel in February 2024. No change is recommended.

3.) Chronic Wasting Disease Monitoring and Management: To date, no meaningful CWD prevalence data is available within this herd unit and no CWD management actions have occurred. Green Mountain elk is not a focal CWD surveillance herd.

2023 - JCR Evaluation Form

SPECIES: Elk

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

HERD: EL639 - FERRIS

HUNT AREAS: 22, 111

PREPARED BY: ASHLEY UMPHLETT

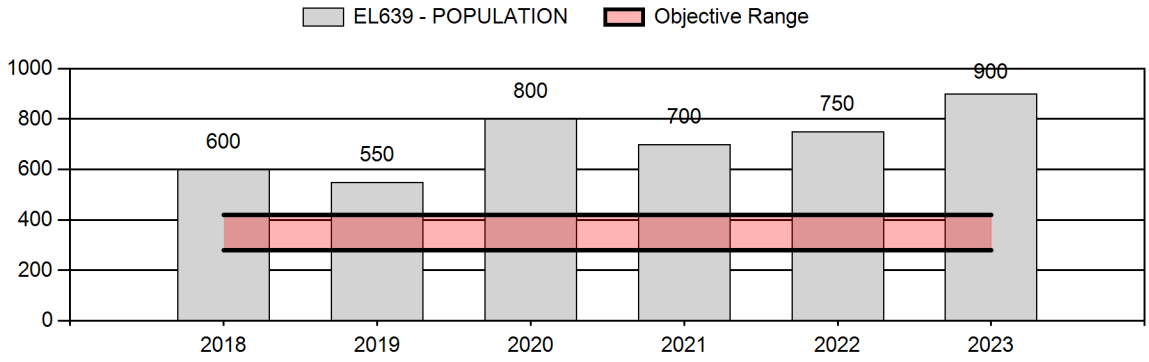
	2018 - 2022 Average	2023	2024 Proposed
Population:	680	900	700
Harvest:	144	203	290
Hunters:	285	360	600
Hunter Success:	51%	56%	48%
Active Licenses:	303	394	600
Active License Success:	48%	52%	48%
Recreation Days:	2,002	2,390	3,480
Days Per Animal:	13.9	11.8	12
Males per 100 Females	75	42	
Juveniles per 100 Females	39	30	

Population Objective (± 20%) :	350 (280 - 420)
Management Strategy:	Special
Percent population is above (+) or below (-) objective:	157%
Number of years population has been + or - objective in recent trend:	26
Model Date:	None

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

	JCR Year	Proposed
Females ≥ 1 year old:	20%	20%
Males ≥ 1 year old:	33%	33%
Proposed change in post-season population:	-3%	-4%

Population Size - Postseason



2024 Hunting Seasons
Ferris Elk (EL639)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
22	1	Sep. 1	Sep. 30	Oct. 6	Oct. 31	75	Any elk
22	1			Nov. 15	Dec. 15		Any elk, also valid in Area 111
22	1			Dec. 16	Dec. 31		Antlerless elk
22	6	Sep. 1	Sep. 30	Oct. 8	Oct. 31	100	Cow or calf valid in the Muddy Creek Drainage
22	6			Nov. 1	Dec. 31		Cow or calf valid in the entire area
111	1	Sep. 1	Sep. 30	Oct. 10	Oct. 31	75	Any elk
	1			Nov. 15	Dec. 15		Any elk, also valid in Area 22
	1			Dec. 16	Dec. 31		Antlerless elk
111	4	Sep. 1	Sep. 30	Oct. 10	Dec. 31	150	Antlerless elk
111	6	Sep. 1	Sep. 30	Nov. 1	Dec. 31	250	Cow or calf

2023 Hunter Satisfaction: 69% Satisfied, 15% Neutral, 16% Dissatisfied

2024 Management Summary

1.) **Hunting Season Evaluation:** Conditions for this year's trend count were good, with snow cover, good light and light winds for all days of flying. A total of 906 elk were counted, still well above the objective of 350. In general, elk were distributed similarly to previous years with the majority of elk on inaccessible land to the hunting public on the Pathfinder Ranch in Area 22 and in the checkerboard in Area 111. The majority of the elk in this herd were unavailable for public harvest due to access limitations on private lands.

Hunter success was unchanged in 2023, and the average number of days hunted per elk harvested declined. It is difficult to interpret hunter success rates for Type 1 licenses in these two hunt areas because of the late bull hunt in late November and early December which allows them to hunt both areas. High success reported in Area 111 may include Area 22 licensees who harvested their elk in Area 111. Date of harvest reports indicate many of the Type 1 licenses are filled in the late hunt, primarily for Area 22. The intent of this late 'any elk' hunt is to increase hunter success and harvest by providing hunters with access to bulls on winter range that are normally behind locked gates during the regular season. This strategy appears to be successful. Success for Type 6 hunters in Area 22 improved to 58%, but in Area 111 Type 4 hunter success decreased to 38% and Type 6 hunter success was unchanged. The Type 4 hunters in Area 111 again had higher success than those with Type 6 licenses.

Hunter satisfaction increased in Area 22 to 85%, but decreased significantly in Area 111 to 61%. Accordingly, hunter dissatisfaction decreased in Area 22 and increased in Area 111.

The harvest of 95 antlered elk in 2023 was the largest ever taken from this herd, and the total harvest of 203 elk was the largest in at least the last 15 years. Trend count data indicate these harvests are successfully controlling elk numbers in the publicly accessible portions of this herd while elk numbers in the largely unhunted southern portion of Area 111 continue to grow and place the herd over objective.

Calf production declined to 30:100 this year. The bull:cow ratio also declined to 42:100, the lowest in a decade. The spike:cow ratio remained stable.

Winter severity last year was extreme, with below normal temperatures, high winds, and record snowfall producing deep crusted snow cover over most of the herd unit. This may, in part, explain lower calf production observed in 2023. Winter conditions this year were considered "normal".

Antlerless harvests need to continue, and are increased in the southern portion of the herd, but more than half the reproductive portion of this herd is unavailable for harvest on private lands or public lands with no access. Increased license quotas for all types are based on need and hunter success rates; it is important to stress quotas need to be scaled according to the number of elk actually available for harvest, with the goal of retaining reasonable numbers of elk and hunting opportunity on public and accessible private lands. Assuming typical calf production and hunter success, the 2024 license quotas should reduce elk numbers on the accessible portions of this herd, but unless hunter access changes, elk numbers in the inaccessible checker-board in the southern portion of Area 111 will continue to grow unabated, leaving the herd unit as a whole above objective.

Early winter hunts have allowed for harvest of antlerless elk that were on private land and unavailable during October but have moved to winter ranges on public lands. A similar strategy was successfully employed beginning in 2019 for "any elk" seasons for the Type 1 licenses, running in late November and early December. To maintain harvest of surplus antlered elk, the same season is continued this year. Since many bull groups frequently cross the boundary between Areas 22 and 111 during the winter, the Type 1 hunters are again allowed to hunt both areas during this late "any elk" hunt and adjust their hunting locations accordingly.

Hunter success for Type 1 licenses exceeded the statewide mandated 60% criterion as a consequence of offering the additional early winter hunts. As in past years, consideration was given to separating the late hunt into a separate license type, which might lower hunter success towards the statewide standard. But weather conditions prevented hunters from accessing winter ranges occupied by elk during the late hunt in some past years, and it would be considered unfair to restrict hunters to a winter hunt where they may be physically unable to use their license. As a consequence of this second, early winter hunt, success rates for the Type 1 hunters have remained higher than the mandated 60%, despite recent increases in license quotas.

2.) **Management Objective Review**: The post-season population objective for the Ferris elk herd unit was reviewed internally. Given access issues affecting our ability to manage

toward the current objective and there is no reasonable population estimate other than the classification count, this objective warrants change. But, at this time no change is proposed.

3.) **Chronic Wasting Disease Monitoring & Management:** Because of its small size and dispersal of harvest over months-long seasons, this 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.

2023 - JCR Evaluation Form

SPECIES: Elk
HERD: EL643 - SHAMROCK
HUNT AREAS: 118

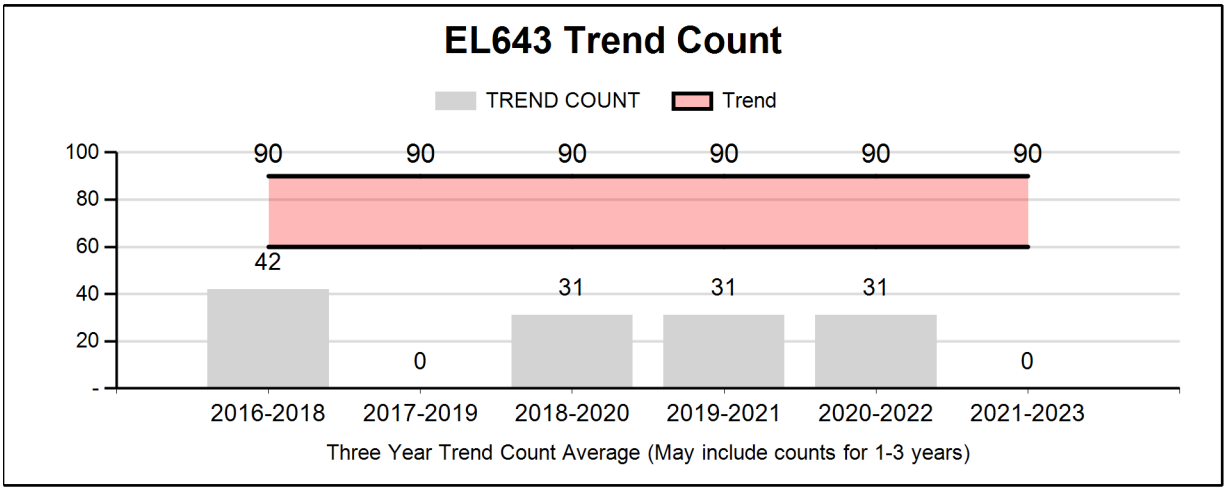
PERIOD: 6/1/2023 - 5/31/2024
PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	31	0	0
Harvest:	55	89	130
Hunters:	90	110	191
Hunter Success:	61%	81%	68%
Active Licenses:	99	118	191
Active License Success	56%	75%	68%
Recreation Days:	501	545	780
Days Per Animal:	9.1	6.1	6
Males per 100 Females:	0	0	
Juveniles per 100 Females	0	0	

Trend Based Objective (± 20%)	75 (60 - 90)
Management Strategy:	Recreational
Percent population is above (+) or (-) objective:	N/A%
Number of years population has been + or - objective in recent trend:	0

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%



2024 Hunting Seasons
Shamrock Elk (EL643)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
118	1	Sep. 1	Sep. 30	Oct. 22	Nov. 12	75	Any elk
118	4	Sep. 1	Sep. 30	Oct. 22	Nov. 30	50	Antlerless elk
118	6	Sep. 1	Sep. 30	Oct. 1	Nov. 30	100	Cow or calf valid south of the Mineral X Road (Sweetwater County Road 63 and B.L.M. Road 3206)

2023 Hunter Satisfaction: 77% Satisfied, 15% Neutral, 7% Dissatisfied

2024 Management Summary

1.) **Hunting Season Evaluation:** The most recent end-of-year trend count for this herd was flown in June 2021 using the same flight lines as flown in 2017 (it will be flown again in spring, 2024). Only 32 elk were found, 10 less than in 2017 and more than 50 percent below objective. License quotas remained constant from 2018 through 2021 with 100 licenses available each year, but were increased in 2022 to a total of 130 licenses because of high hunter success rates. License issuance stayed the same in 2023. Success for Type 1 hunters increased to 82%. Considering the terrain and cover is identical to most pronghorn hunts, this is a fairly reasonable success rate for bull hunters in this desert herd. Success for hunters with Type 4 and Type 6 licenses increased to 54% and 79%, respectively. The type 6 license holders have the longest season and the first opportunity to pursue elk with firearms. Overall, hunter success increased to 81%, a result of high success by Type 6 hunters. Hunter satisfaction increased 77%. License issuance in 2024 is increased by 95 more licenses, given the increased hunter success for all license types.

   The opening date for the Type 6 licenses was pushed back three weeks to synchronize with the Type 1 and Type 4 seasons in 2020 following years of complaints from some hunters that the early cow hunt was disrupting the later hunts. Despite expectations, success for Type 1 hunters dropped to a record low 36% that year. The opening date for the Type 6 licenses was returned to October 1st in 2021, and success for the Type 1 hunters rebounded to a 30-year record high; thus, the same date will be used in 2024. Winter conditions this year were considered "normal" or mild.

2.) **Management Objective Review:** The unique Spring Trend Count objective for the Shamrock elk herd has only been in effect for four years, with only two aerial trend counts flown. Managers would prefer to keep that objective for another cycle to see whether it will provide a successful strategy for managing this small desert herd. To date, the simple act of conducting surveys and counting elk has appeased the major landowner critics opposed to other objectives proposed for this herd. Current elk numbers seem to satisfy public demand. While spring transect trend counts may not provide viable estimates of elk numbers in the

herd, they may be useful indicators of population trend, which currently appears to be adequate for landowners and hunters. This survey will be flown again in spring, 2024.

3.) **Chronic Wasting Disease Monitoring & Management:** Because of its small size and low harvest rate, this 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.

2023 - JCR Evaluation Form

SPECIES: Moose
HERD: MO620 - LANDER
HUNT AREAS: 2, 30, 39

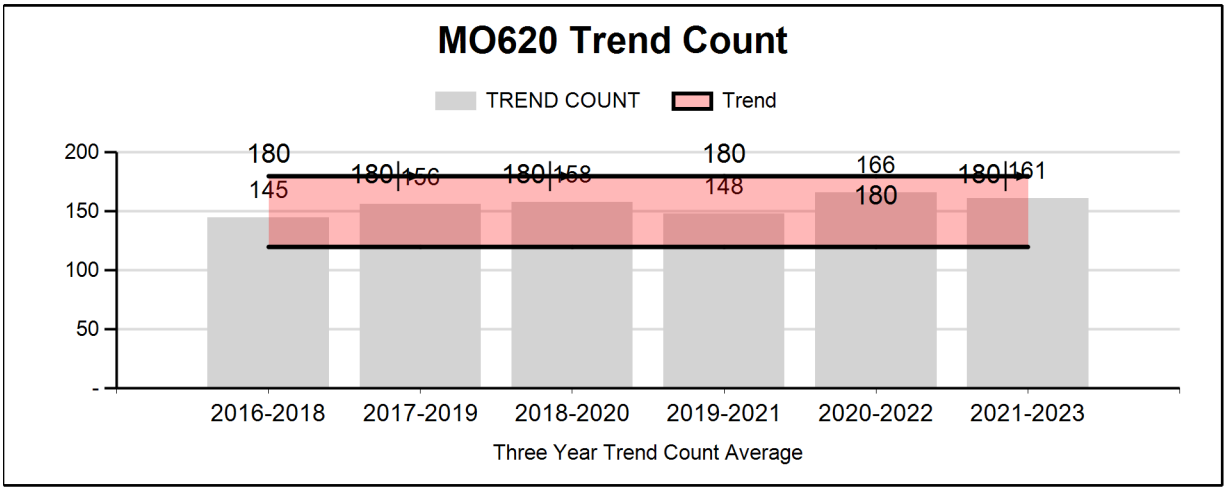
PERIOD: 6/1/2023 - 5/31/2024
PREPARED BY: STAN HARTER

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	171	103	150
Harvest:	4	7	10
Hunters:	5	7	10
Hunter Success:	80%	100%	100 %
Active Licenses:	5	7	10
Active License Success	80%	100%	100 %
Recreation Days:	51	73	100
Days Per Animal:	12.8	10.4	10
Males per 100 Females:	72	59	
Juveniles per 100 Females	47	43	

Trend Based Objective (± 20%)	150 (120 - 180)
Management Strategy:	Special
Percent population is above (+) or (-) objective:	-31.3%
Number of years population has been + or - objective in recent trend:	1

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

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



2024 Hunting Seasons

Lander Moose (MO 620)

Hunt Area	License Type	Special Archery Dates		Regular Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
2, 30	1	Sept. 1	Sept. 30	Oct. 1	Nov. 20	10	Antlered moose (9 resident, 1 nonresident)
39				CLOSED			

2023 Hunter Satisfaction: No data available

2024 Management Summary

1.) **Hunting Season Evaluation:** Snow depths were significantly less in January 2024 than a year earlier. The resultant 2023 mid-winter trend count of 103 moose was less than half of what was observed last year. The current 3-year trend count average is 161 moose, just 5 moose below the previous 3-year average and hence keeping this population 7% above the objective of 150 moose and within the ± 20% range. Harvest survey and tooth aging data results from the 2023 season indicate 100% success for the 7 licenses valid in both hunt areas 2 and 30. All 7 hunters submitted teeth for aging via cementum annuli, with the average age of harvested bulls of 4.9 years (range 3-6) with an average antler spread of 39.2 inches (range 35.5" - 42") from the 6 bulls measured. The average age and antler width of harvested bulls improved in 2023. The decreased number of days per bull harvested (10.4) was also much improved over the 2021 and 2022 seasons. Based on drainage location provided through the tooth aging sample process, 4 moose were harvested in hunt area 30 and 3 in hunt area 2, with distribution away from where harvest has often been concentrated in prior hunting seasons.

   Hunter success has been 100% in 5 of the last 7 seasons and 80% in the other 2 seasons. Beginning in 2017, the hunting season structure was changed with reduction in license numbers and allowing hunters to hunt both hunt areas 2 and 30, due to concerns about population status. Since then, our trend counts have generally increased, with a record high trend count in January 2023. Our count this year was much lower, but due to the winter snow conditions being much more open and not forcing moose out of heavier cover, it's very doubtful the actual population decreased much. Trend count fluctuations are common in this herd unit, primarily due to greatly varying annual snow conditions as encountered in the last 2 years.

   Classification data revealed a calf/cow ratio of 43J/100F and the bull/cow ratio of 59M/100F. These were also declines from the previous classification/trend count, but are very close to the 20-year averages.

   The 2023 season was conservative in spite of record bull and total moose counts, with concern about winter survival of moose calves and observed winter tick infestations, along with the desire to see harvest statistics (success, age, and antler size) improve. Those harvest statistics did improve and were similar to 4 of the previous 6 seasons. As such, the 2024 season has a modest increase to 10 Type 1 Antlered moose licenses (9 residents, 1 nonresident), again being valid in both hunt areas 2 and 30.

2023 - JCR Evaluation Form

SPECIES: Moose

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

HERD: MO621 - DUBOIS

HUNT AREAS: 6

PREPARED BY: ZACH GREGORY

	2018 - 2022 Average	2023	2024 Proposed
Population:		N/A	N/A
Harvest:	5	4	5
Hunters:	5	5	5
Hunter Success:	100%	80%	100 %
Active Licenses:	5	5	5
Active License Success:	100%	80%	100 %
Recreation Days:	54	90	75
Days Per Animal:	10.8	22.5	15

Limited Opportunity Objective:

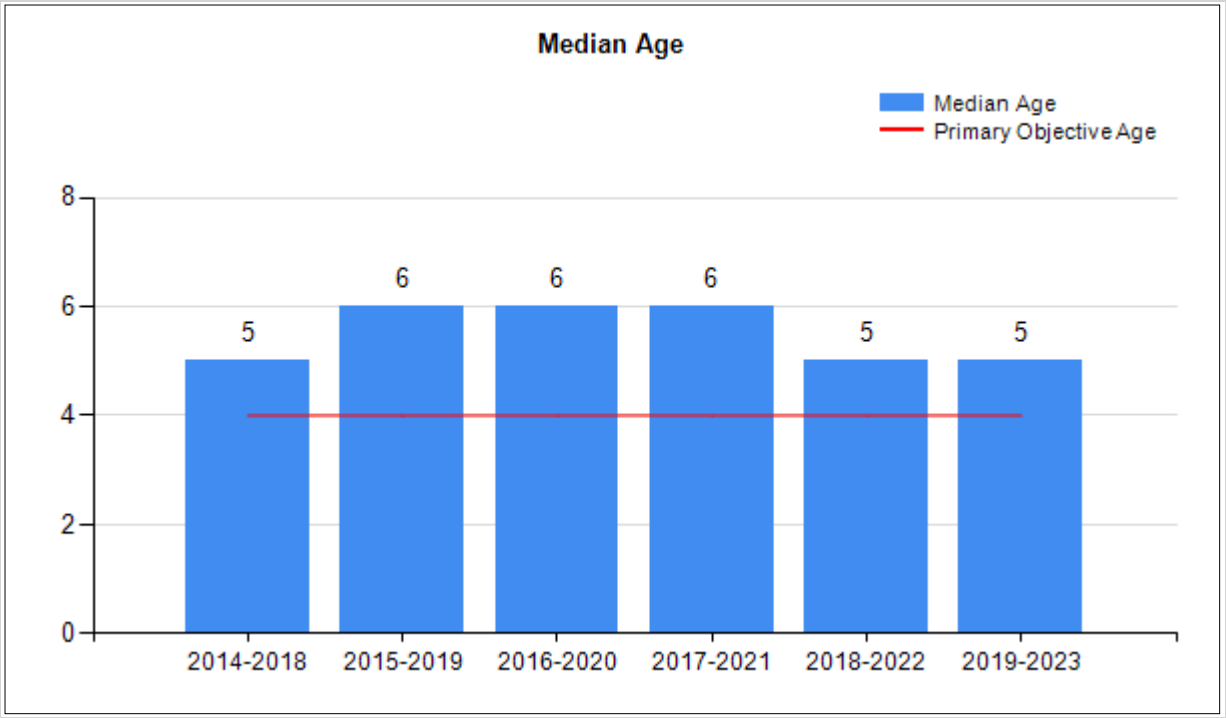
5-year running median age of harvested bulls is > 4 years

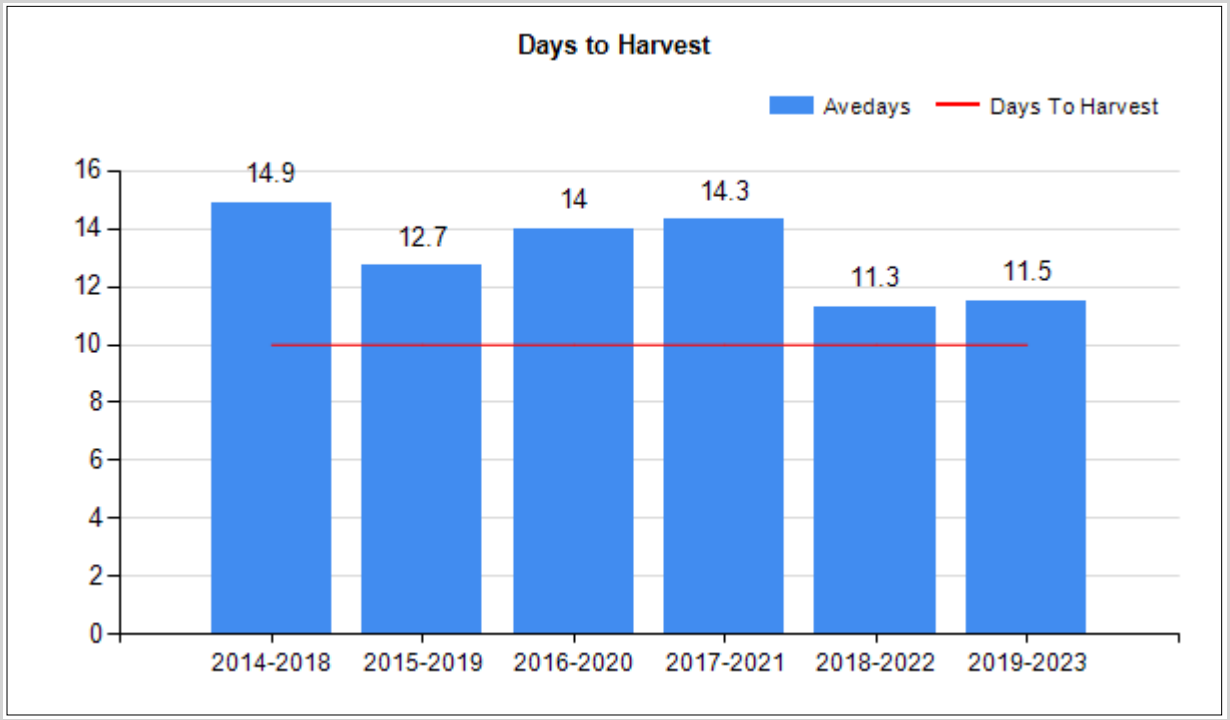
5-year running average of <= 10 days/animal to harvest

Secondary Objective:

5-year running average 40% of harvested bulls are > 5 years old

Management Strategy: Special




Days to Harvest
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2014-2018
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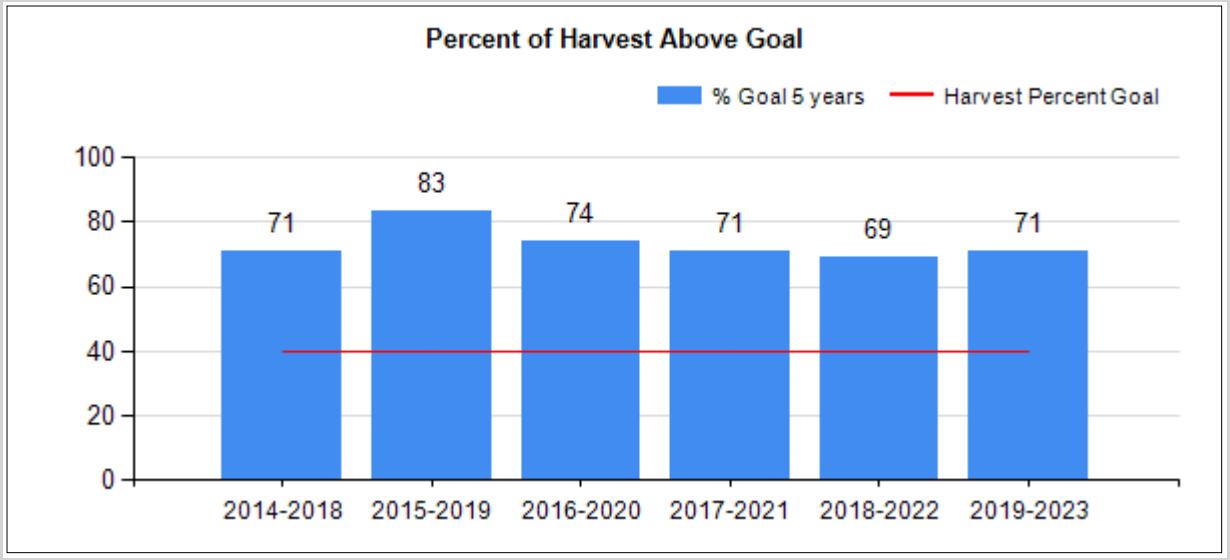
Percent of Harvest Above Goal
% Goal 5 years
Harvest Percent Goal
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80
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40
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0
71
83
74
71
69
71
2014-2018
2015-2019
2016-2020
2017-2021
2018-2022
2019-2023

2024 Hunting Seasons
Dubois Moose (MO621)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
6	1	Sep. 1	Sep. 30	Oct. 1	Nov. 20	5	Antlered moose(4 resident; 1 nonresident)

2024 Management Summary

1.) Hunting Season Evaluation: The 2024 hunting season will remain unchanged from the previous 10 years for this hunt area/herd unit. The season will remain conservative with only 5 licenses issued, 4 resident and 1 nonresident. Harvest success has been 80-100% each of the last 10 years including 80% in 2023. This indicates hunters are able to find adult bull moose in the area. Three teeth were submitted for aging and resulted in a median age of 4, which is within the historic range for this herd as well as the primary objective. Indications are the population continues to languish well below historical levels in the area with low numbers of moose occupying traditional winter ranges throughout the area. While winter surveys did not reveal any increasing trend in the overall moose numbers, it does show that there is an adequate number of bulls available for harvest for the 2024 hunting season.

2023 - JCR Evaluation Form

SPECIES: Bighorn Sheep
PERIOD: 6/1/2023 - 5/31/2024

HERD: BS609 - WHISKEY MOUNTAIN

HUNT AREAS: 8-10
PREPARED BY: ZACH GREGORY

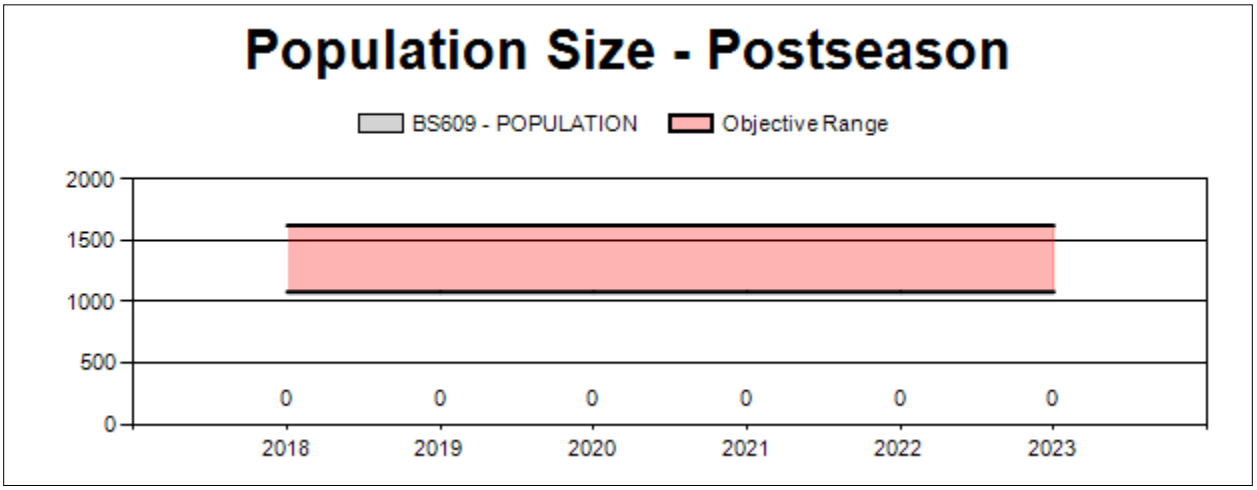
	2018 - 2022 Average	2023	2024 Proposed
Population:	0	N/A	N/A
Harvest:	9	6	10
Hunters:	15	13	12
Hunter Success:	60%	46%	83 %
Active Licenses:	15	13	12
Active License Success:	60%	46%	83 %
Recreation Days:	127	121	120
Days Per Animal:	14.1	20.2	12
Males per 100 Females	48	53	
Juveniles per 100 Females	27	51	

Population Objective (± 20%) : 1350 (1080 - 1620)

Management Strategy: Special
Percent population is above (+) or below (-) objective: N/A%
Number of years population has been + or - objective in recent trend: 13
Model Date: None

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%
Proposed change in post-season population:	0%	0%



2024 Hunting Seasons
Whiskey Mountain Bighorn Sheep (BS609)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
8	1	Aug. 15	Aug. 31	Sep. 1	Oct. 31	2	Any ram (2 Resident)
9	1	Aug. 1	Aug. 14	Aug. 15	Oct. 15	5	Any ram (5 Resident)
10	1	Aug. 1	Aug. 14	Aug. 15	Oct. 15	5	Any ram (4 Resident; 1 Nonresident)

2024 Management Summary

1.) Hunting Season Evaluation: Since 2018 there has been insufficient demographic data collected in this herd to produce an accurate population estimate. Regardless, it appears the population continued to decline in 2023. Personnel classified a historically low number of sheep within the herd unit in 2023 with a sample of 200 due, in part, to weather conditions and the inability to fly area 8. Due to the low classification sample, age:sex ratios should be viewed with caution. That said, the lamb:ewe ratio was the highest it has been in the last 10 years at 51:100. Area 9 had a lamb:ewe ratio of 42:100 and area 10 had a ratio of 61:100, a significant increase from previous years. Hunter success in 2023 in areas 9 and 10 was 60% and 75% respectively, and well within the historic range for these areas. In 2023, the average age of rams harvested in 9 and 10 (8 and 7, respectively) indicate the availability of older rams in these hunt areas. In addition, the ram:ewe ratio has increased to 53:100 in 2023 compared to the five year average of 48:100. Although the population has not improved, there still is ample hunting opportunity in areas 9 and 10. To best accommodate the new 90/10 split, we increased licenses to five in both areas 9 and 10 which will allow one nonresident hunter every year alternating between 9 and 10. For example, in 2022 the one nonresident license went to area 9 and for 2023 it will go to area 10. There was no harvest in area 8 during 2023 and a low harvest success of 20% in 2022. During 2020 and 2021 harvest success was 43%. Prior to 2020, the 5-year average success was 55%. This recent decline of success rates suggest and support field observations that overall ram numbers and hunter opportunity continues to decline. Two licenses (all going to resident hunters) will be issued in area 8 in 2024 in an effort to maintain some harvest opportunity while providing potential for growth and recruitment of younger rams.

In 2019, a lamb survival study was initiated in the eastern portion of this herd to determine cause specific mortality of lambs and track body condition of sheep in the population. In the spring of 2019, 24 adult ewes were outfitted with GPS collars and had VITs implanted to aid researchers in capturing neonate lambs. Graduate students from the University of Wyoming were able to capture 14 neonate lambs during spring, 2019. Between June, 2019 and January, 2020 all lambs subsequently died. The study continued in 2020/21 with 11 lambs captured and collared between May and June, 2020. Similar to 2019, all 11 collared lambs died by the end of February, 2021. Each year, roughly half of the collared lamb mortalities were attributed to pneumonia. In 2022, the study continued in the Red Creek sub herd, but unfortunately only 3 lambs were collared, all of which died. Given sheep availability during captures, ruggedness of the terrain, and access to lambing areas, it was decided to stop collaring lambs in areas 9 and 10. During March of 2021, 14

ewes were captured, collared, and VITs implanted in 11 pregnant ewes in Area 8. This capture effort was the first time sheep had ever been captured and handled in the area. This study has continued since 2021 with approximately 20 collared sheep as of date with a scheduled completion of field work and captures in March, 2024. The same study objectives to collect body condition, pathogen levels, and lamb survival remained the same as conducted previously in other portions of this herd unit (Areas 9 and 10) and some surrounding herds. Of particular interest so far from these Area 8 sheep is that body condition (fat levels) are much better than sheep sampled from the east side of this herd unit, moderate lamb survival, and seasonal range use showing relatively small and consistent distribution among years. Seven collared ewes died during the 2022-23 winter attributed to a combination of winter severity and disease.

In collaboration with the Eastern Shoshone & Northern Arapaho Tribal Fish and Game, the University of Wyoming and WGFD, implemented "test and remove" of bighorn sheep infected with *Mycoplasma ovipneumoniae* (MOVI) in the Red Creek portion of the herd unit. Bighorn sheep that test positive for MOVI twice within a 14 month period with at least 2 months in between testing are considered "chronic carriers" and are removed. To date, 14 ewes have met our definition as a chronic carrier and all 14 have been removed. Lambing season in 2022 was the first glimpse at reproduction/survival after removing 7 of the chronic carriers resulting in a lamb:ewe ratio of 47:100, which had not been observed for the last seven years. During 2023-2024 winter classifications, personnel counted 16 adult ewes, 5 lambs, 2 mature rams, 1 yearling ram, and 2 yearling ewes. While the number of lambs is slightly less than the previous year, it is much improved since 2015. We are still in the beginning stages of the project, and are not making inferences about this increased number of lambs, but this is an encouraging step forward.

In early February 2024, WGFD expanded test and remove to other sub-herds including Torrey rim, Sheep ridge, Sacagawea ridge, and Dinwoody ridge. While similar to the work being done in Red Creek, we will only be testing sheep once in the rest of the Whiskey herd. The reasons for only testing once before removal are difficulty in capturing the same animal multiple times, wilderness captures are not allowed, and it will expedite this management tool. Twenty-five sheep were tested, collared, and released. Seven ewes were captured on Sheep ridge, ten ewes from Torrey rim, three ewes from Sacagawea, and four ewes and one ram were captured on Dinwoody ridge. The captured sheep on Dinwoody ridge are not part of the test and remove management this year but rather we will gather movement data and prevalence rates for a sub-herd that we have no prior data. Of the 42 sheep tested, 14 tested positive for MOVI. All 14 ewes have been removed.

2023 - JCR Evaluation Form

SPECIES: Bighorn Sheep
HERD: BS615 - FERRIS-SEMINOE
HUNT AREAS: 17, 26

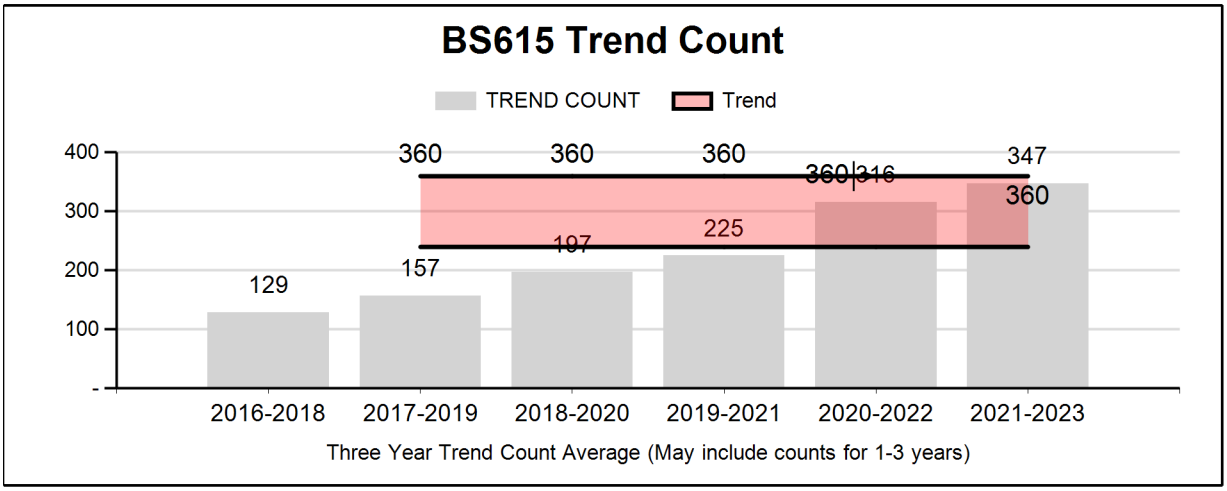
PERIOD: 6/1/2023 - 5/31/2024
PREPARED BY: ASHLEY UMPHLETT

	2018 - 2022 Average	2023	2024 Proposed
Trend Count:	253	365	350
Harvest:	6	31	40
Hunters:	6	32	44
Hunter Success:	100%	97%	91%
Active Licenses:	6	32	44
Active License Success	100%	97%	91%
Recreation Days:	44	164	250
Days Per Animal:	7.3	5.3	6.2
Males per 100 Females:	66	57	
Juveniles per 100 Females	52	35	

Trend Based Objective (± 20%)	300 (240 - 360)
Management Strategy:	Special
Percent population is above (+) or (-) objective:	22%
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:	10%	15%
Males ≥ 1 year old:	10%	11%
Juveniles (< 1 year old):	0%	0%



2024 Hunting Seasons
Ferris-Seminoe Bighorn Sheep (BS615)

Hunt Area	Type	Archery Dates		Season Dates		Quota	Limitations
		Opens	Closes	Opens	Closes		
17	1	Aug. 15	Aug. 31	Sep. 1	Oct. 31	6	Any ram (5 residents, 1 nonresident)
17	2	Aug. 15	Aug. 31	Sep. 1	Oct. 31	4	Ram less than ¾ curl (4 residents)
17	6	Aug. 15	Aug. 31	Sep. 15	Oct. 31	20	Ewe or lamb (18 residents, 2 nonresidents)
17	7	Aug. 15	Aug. 31	Sep. 15	Oct. 31	7	Ewe or lamb (6 resident, 1 nonresident) valid within the Sand Creek drainage
26	1	Aug. 15	Aug. 31	Sep. 1	Oct. 31	2	Any ram (2 resident)
26	6	Aug. 15	Aug. 31	Sep. 15	Oct. 31	3	Ewe or lamb (3 resident)

2024 Management Summary

1.) Hunting Season Evaluation: A winter trend count flown in January 2024 found 365 bighorn sheep, providing a 3-year average of 353 bighorn sheep and reaching the upper limit of the objective of 300. As is typical, the majority of these animals (91%) were in the Seminoe and Ferris Mountains in Area 17 and 9% were found in the Bennett Mountains in Area 26. Lamb production declined from 52:100 in 2022 to 35:100 in 2023, and is below the normal range for this herd.

The ram:ewe ratio declined from 74:100 in 2022 to 57:100 in 2023. A total of 109 rams were found during the trend count, compared to 135 rams in 2022. Average age of harvested rams declined from 7.4 years in 2019 to 7.0 years in 2020, 6.7 years in 2021, 6.6 years in 2022 and remained essentially the same in 2023 at 6.4 years. While there is a good supply of rams, the majority appear to be younger, products of the exceptional lamb production seen within this herd in most years.

License quotas were separated between the two hunt areas for the first time in 2021. Starting in 2024, there will be Type 2 licenses valid for rams less than ¾ curl. This will allow continued ram harvest to minimize foraying by rams and increase hunting opportunity, while decreasing harvest pressure on older aged rams. There will be 6 Type 1 licenses issued (a reduction of 4 licenses), and 4 Type 2 licenses in Area 17. Area 26 will have 2 Type 1 licenses, the same number as in 2023. Trend count data show there are enough mature rams to support the proposed quotas. The combined total for the herd will be 12 licenses for rams, the same as in 2023.

With the population above objective and lamb production and survival remaining high, harvest of ewes continues to be necessary. First, the healthy lamb production and survival seen in this herd is largely due to major habitat treatments in the past decade. To maintain the high productivity of this herd, bighorn sheep numbers need to be managed to maintain

the range health of those habitats. Secondly, the greatest threat to this herd is the possibility of disease transfer from domestic animals outside the herd unit. To address this threat, it is necessary to keep bighorn sheep numbers at a healthy density to minimize the likelihood of bighorn sheep trying to disperse or wander to new ranges which may harbor dangerous pathogens. To prevent overharvest of the small proportion of the population in Area 26, only 3 Type 6 ewe/lamb licenses are issued in that area. Twenty licenses are available as Type 6 licenses valid for all of Area 17. Because of the easy access to the Seminoe Mountains, it is expected most of these will be filled near the Seminoe Road at the eastern edge of the area. To ensure that some ewe harvest comes off sheep ranges on the eastern end of the Ferris Mountains, 7 Type 7 ewe/lamb licenses are also issued for Area 17, valid only in the Sand Creek drainage.

Winter conditions were mild to normal and mortality was minimal, so slight population growth is expected. Thus the reason for increased ewe/lamb harvest. With minimal winter losses, there are clearly enough bighorn sheep to support this level of ewe harvest.