



**2023-2024 Antelope Quota Recommendation Forms
(Accompanies Commission Regulation 23-14)**

Pronghorn Quota Recommendation Form

Unit Group: 011

Date Prepared: 3/30/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	21	44	221	49	335	29	22	700	23
2021-2022	11	64	386	90	551	19	23	600	22
2022-2023	6	24	125	63	218	24	50	650	20

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	54%	50%	20%	n/a	67%	86%	n/a	n/a	n/a	n/a	34%
2021-2022	13%	DNH	0%	n/a	74%	80%	n/a	n/a	n/a	n/a	14%
2022-2023	20%	0%	0%	n/a	82%	100%	n/a	n/a	n/a	n/a	22%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	8	1	2	--	45	5	--	--	--	0	0
2022-2023	5	1	2	--	35	4	--	--	--	0	0
2023-2024	2	1	4	--	20	2	--	--	--	0	0
Tag Trend	DEC	=	=	=	DEC	DEC	=	=	=	=	=

Quota Rationale

Due to reduced flight time, this unit was only surveyed for 1 hour rather than the typical 3 hour survey. As a result, the sample size for 011 was lower this year. Due to low fawn:doe ratios from previous years, and the low buck ratios observed in the unit, there is a reduced number of mature bucks available in this population. As a result, NDOW is recommending moderately lower quotas for 011 pronghorn this year.

Reporting Biologist: Jon Ewanyk

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 012-014

Date Prepared: 3/30/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	10	63	280	87	440	26	31	1,900	26
2021-2022	11	45	249	86	391	22	35	1,800	24
2022-2023	14	46	202	93	355	30	46	1,700	28

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	30%	67%	60%	--	65%	73%	n/a	n/a	n/a	100%	24%
2021-2022	26%	67%	63%	100%	60%	55%	n/a	n/a	n/a	50%	9%
2022-2023	33%	0%	25%	0%	47%	54%	n/a	n/a	n/a	100%	12%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	25	3	8	1	150	20	--	--	--	2	0
2022-2023	10	2	5	1	120	15	--	--	--	1	0
2023-2024	11	1	2	1	120	15	--	--	--	1	0
Tag Trend	INC	DEC	DEC	=	=	=	=	=	=	=	=

Quota Rationale

The pronghorn population in 012-014 remains stable, with fawn ratios above maintenance levels for three consecutive years. This unit grouping would benefit from raising both the ALW success and percent of 15" in the harvest to what they were in previous years. As a result, NDOW is recommending similar quotas to last year, despite the increase in fawn production the past three years.

Reporting Biologist: Jon Ewanyk

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 015

Date Prepared: 3/30/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	30	48	241	103	422	32	43	1,050	24
2021-2022	6	31	136	51	224	27	38	900	26
2022-2023	13	21	109	62	205	31	57	1,000	25

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	21%	50%	11%	n/a	56%	83%	n/a	n/a	n/a	100%	33%
2021-2022	20%	67%	10%	n/a	45%	43%	n/a	n/a	n/a	n/a	7%
2022-2023	25%	0%	50%	n/a	69%	100%	n/a	n/a	n/a	n/a	11%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	25	3	10	--	75	3	--	--	--	0	0
2022-2023	15	1	10	--	55	6	--	--	--	0	0
2023-2024	10	1	10	--	60	7					
Tag Trend	DEC	=	=	=	INC	INC	DEC	DEC	DEC	=	=

Quota Rationale

Pronghorn populations in 015 remain stable, with multiple years of quality fawn:doe ratios. Much of this area has been impacted by wildfires, however rehab efforts seem to be helping pronghorn maintain steady numbers. Keeping tag numbers similar to last year's recommendation should keep the success rates aligned with objective.

Reporting Biologist: Jon Ewanyk

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 021, 022

Date Prepared: 3/30/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	2	4	19	6	31	32	32	600	21
2021-2022	5	21	100	22	148	26	22	600	20
2022-2023	--	--	--	--	--	--	--	600	21

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	33%	100%	50%	n/a	88%	100%	n/a	n/a	n/a	100%	40%
2021-2022	60%	0%	50%	n/a	88%	50%	n/a	n/a	n/a	100%	22%
2022-2023	80%	0%	100%	n/a	85%	100%	n/a	n/a	n/a		39%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5	1	2	--	35	4	--	--	--	1	0
2022-2023	5	1	2	--	35	4	--	--	--		0
2023-2024	2	1	1	--	40	4	--	--	--	2	0
Tag Trend	DEC	=	DEC	=	INC	=	=	=	=	INC	=

Quota Rationale

Success rates, percent of 15" or greater in the harvest, and hunter satisfaction all remain stable in this unit. Although much of the unit grouping has been impacted by fire, this population of pronghorn has remained stable. Due to reduced flight time, this unit was not surveyed this year. Three year averages were used for modeling this population. As a result, NDOW is recommending similar tag quotas to last year for this unit grouping.

Reporting Biologist: Jon Ewanyk

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 031

Date Prepared: 2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	0	3	12	7	22	25	58	1,300	29, 20
2021-2022	2	7	30	15	54	30	50	1,250	30,21
2022-2023	2	12	44	31	89	32	70	1,220	33,24

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	14	50			47	50			23	0	7
2021-2022	21	0	0	0	58	57			10	100	4
2022-2023	29	0	100	0	63	90			0	100	11

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	20	2	3	0	110	15			10	1	0
2022-2023	9	1	1	0	90	10			0	1	0
2023-2024	6	1	1	1	90	10			0	2	
Tag Trend	DEC	DEC	DEC	INC	DEC	DEC	=	=	DEC	=	=

Quota Rationale

This population has remained stable over the last two years. Success in this unit has been good and horn length is starting to show some improvement. Buck ratios remain stable with an increase in fawn ratios. With the stable population and wanting to grow this herd tag numbers should remain the same.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 032,034

Date Prepared: 2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	6	27	107	42	182	31	39	1,100	22, 18
2021-2022	6	16	107	30	159	21	28	1,000	24,17
2022-2023	4	30	135	75	244	25	56	1,000	26,21

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	5	40			37	57			12	100	21
2021-2022	14	13	50		46	80			15	80	3
2022-2023	0	50	0		58	50				100	21

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	15	3	2	0	50	6			15	5	0
2022-2023	20	2	1	0	40	4			0	2	0
2023-2024	20	2	1	0	40	4			0	9	
Tag Trend	INC	DEC	DEC	=	DEC	DEC	=	=	DEC	INC	=

Quota Rationale

This population has remained stable over the last two years. Success in this unit has been good and horn length is starting to show some improvement. Buck ratios remain stable with an increase in fawn ratios. With the stable population and wanting to grow this herd tag numbers should remain the same. These units are modeled with unit 035. Numbers were slightly better in these two units.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 033

Date Prepared: 3/30/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	55	54	384	124	617	28	32	1,200	32
2021-2022	18	56	261	83	418	28	32	1,000	31
2022-2023	24	85	489	162	760	22	33	1,000	35

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	80%	0%	40%	n/a	68%	75%	64%	50%	n/a	n/a	23%
2021-2022	29%	100%	0%	n/a	57%	75%	57%	50%	n/a	n/a	10%
2022-2023	67%	0%	50%	n/a	61%	0%	58%	100%	n/a	n/a	19%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	7	1	3	--	30	4	30	4	--	n/a	0
2022-2023	4	1	2	--	25	1	25	1	--	n/a	0
2023-2024	3	1	1	--	25	3	25	3	--	n/a	0
Tag Trend	DEC	=	DEC	=	=	INC	=	INC	=	=	=

Quota Rationale

The Sheldon pronghorn population remains stable. The past three years have had stable fawn recruitment and success rates. The percent of 15 inch in the harvest also seems to have rebounded from the previous year. As a result, NDOW is recommending similar tag quotas this year.

Reporting Biologist: Jon Ewanyk

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 035

Date Prepared: 2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	6	27	107	42	182	31	39	550	22,18
2021-2022	6	16	107	30	159	21	28	500	24,17
2022-2023	4	30	135	75	244	25	56	500	26,21

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	33	100			74	50			12	100	53
2021-2022	0	0	100		80	100			9	100	12
2022-2023	100	100	0		69	100			0	100	22

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	2	1	1	0	20	2			9	14	0
2022-2023	4	1	2	0	25	1			0	4	0
2023-2024	1	1	1	0	20	2			0	7	
Tag Trend	DEC	=	=	=	=	=	=	=	DEC	INC	=

Quota Rationale

For the last couple of years this population has remained stable. Success has dropped, however horn length was much better. There is room for growth with this population therefore we will see a reduction in the number of tags. With the horns shorter than the ears hunt remove, hopefully we will see some significant growth in the coming years.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 041,042

Date Prepared: April 2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	18	50	195	38	301	35	19	1,400	31
2021-2022	6	43	165	47	261	30	28	1,300	29
2022-2023	28	57	298	123	506	29	41	1,300	29

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	75%	0%			88%	67%	85%	100%	15		25%
2021-2022	78%	0%	67%		93%	67%	86%	100%	8		5%
2022-2023	67%	0%	100%		77%	33%	84%	100%			14%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES		RES	NR	RES	NR			
2021-2022	10	1	3		30	3	30	3	10	none	
2022-2023	10	1	1		25	3	25	3		none	
2023-2024	7	1	2		20	2	20	2			
Tag Trend	DEC	=	INC	=	DEC	DEC	DEC	DEC	=	DEC	=

Quota Rationale

The 2023 population estimate remains 1,300. This herd had been on a sharp decline since 2019 when the population was estimated at 2,000 animals. The 2022 fawn ratio showed improvement and is a step towards positive growth. The unit group's population trend is considered stable at this time. Recommend a post-season buck ratio objective of 25 bucks: 100 does, NDOW Harvest Guidelines recommends using a post season buck ratio range of 20-30 bucks: 100 does.

Reporting Biologist: Kyle Neill

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 043-046

Date Prepared: April 2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	20	125	349	127	621	42	36	1,400	40
2021-2022	51	238	786	289	1,364	37	37	1,900	33
2022-2023	14	368	997	323	1,702	38	32	2,300	34

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	50%	25%			91%	100%				100%	27%
2021-2022	40%	60%	80%	0%	91%	100%			24	100%	12%
2022-2023	33%	50%	33%	100%	94%	100%			43	100%	13%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	50	5	5	1	110	15			35	9	
2022-2023	30	3	3	1	120	15			50	11	
2023-2024	20	2	5	1	130	15			50		
Tag Trend	DEC	DEC	INC	=	INC	=	=	=	=	DEC	=

Quota Rationale

Recommend a post-season buck ratio objective of 24 bucks: 100 does, NDOW Harvest Guidelines recommends using a post season buck ratio range of 20-30 bucks: 100 does. The 2023 population estimate of 2,300 antelope is 21% over what was reported last year. This herd has continued to perform extremely well. The horns shorter than ears hunt is designed for opportunity while allowing for controlled growth. Recommend a 3% rate of doe kill, same as last year. Reduced archery quota is the result of yearly decline in demand.

Reporting Biologist: Kyle Neill

Supervisor: Cooper Munson

Pronghorn Quota Recommendation Form

Unit Group: 051

Date Prepared: 4/1/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	3	10	20	8	41	65	40	700	31,24
2021-2022	7	36	93	40	176	46	43	700	27,20
2022-2023	8	31	107	65	211	36	61	700	31,19

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	21%	20%			84%	83%			0	100	29%
2021-2022	21%	25%	0		74%	80%					
2022-2023	29%	50%	0		84%	100%				100	12%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	35	4	2	0	50	5			0	10	0
2022-2023	20	2	1	0	35	3			0	5	0
2023-2024	20	2	1	0	45	5			0	3	
Tag Trend	DEC	DEC	DEC	=	DEC	=	=	=	=	DEC	=

Quota Rationale

The survey was up this year from the last several years. This herd seems to be doing well with minor increases. Success has been good and up with all weapon classes. With the good winter moisture received this year we can anticipate good forage conditions throughout the year benefiting this population. With the slight increase with this herd, we will see a small bump in rifle tag quotas.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 061, 062, 064, 071, 073

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	69	124	526	315	1,034	37	60	1,500	22
2021-2022	95	174	766	376	1,411	35	49	1,900	24
2022-2023	132	189	585	348	1,254	55	59	1,900	25

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	27	40			84	86			91		22
2021-2022	30	25	100	100	84	75			122	100	10
2022-2023	41	100	100	100	92	79			158	100	23

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	35	4	3	1	80	8			160	4	
2022-2023	20	2	2	1	140	15			200	3	
2023-2024	15	1	1	1	150	20			230	7	
Tag Trend	DEC	DEC	DEC	=	INC	INC	=	=	INC	INC	=

Quota Rationale

The management strategy for this herd has long been designed to maintain the population at current levels due to the compromised nature of winter ranges on which mule deer and pronghorn compete for forage and cover. With four years of strong fawn recruitment, the rate of doe kill will need to be elevated for 2023 to stop growth and result in an intended 3% population decrease. Harvest success metrics were also elevated in 2022, providing for further support for the decision to increase tags. These recommendations target a post season adult buck (2-year old and older) ratio of 25:100.

Reporting Biologist: Allen

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 065, 142, 144

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		68	290	75	433	23	26	700	18
2021-2022		110	355	109	574	31	31	850	24
2022-2023		200	497	108	805	40	22	800	23

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	27	100	0		78	86			30	100	27
2021-2022	40	0	100		80	100			5	83	19
2022-2023	0	0	100		100	100			3	100	8

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5	1	1		20	2			5	7	
2022-2023	3	1	1		25	3			6	7	
2023-2024	3	1	1		25	3			6	7	
Tag Trend	=	=	=	=	=	=	=	=	=	=	=

Quota Rationale

The observed fawn ratio was the lowest on record. The low fawn ratio is attributed to harsh winter conditions that persisted from November 2022 to March 2023. The large winter survey sample size includes antelope that summer in Units 102 and 103. Early snow likely trapped antelope that would have otherwise migrated to historic winter grounds in portions of Units 103, 108 and 144. That said, it is unlikely antelope would have found refuge anywhere north of Hwy 50 this winter, as persistent snows accumulated throughout much of this part of Nevada all winter long. Two large concentrations of antelope found along Huntington Creek were observed on 1-2' of snow with many 'post holing' and struggling to navigate across the snow. Fences that were wildlife friendly during the summer months became barriers as the bottom wires were covered in crusty snow. A number of antelope carcasses were found, representing all age classes, in association with the wintering concentrations of antelope in the Huntington Creek drainage. Severe drought negatively affected this herd 2019-2021. Depressed recruitment related to drought, coupled with elevated mortality realized this winter, is limiting the potential of this herd. We are hopeful range conditions will be greatly improved this summer, benefiting all wildlife.

Reporting Biologist: Jeffress

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 066

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	n/a	n/a	n/a	n/a	0	--	--	400	n/a
2021-2022	n/a	n/a	n/a	n/a	0	--	--	400	n/a
2022-2023	n/a	n/a	n/a	n/a	0	--	--	450	

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	40				72	75			10		10
2021-2022	60		50		72	67			7		25
2022-2023	0		67		92	100			6		15

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5	0	3	0	25	3			10		
2022-2023	5	0	3	0	25	3			10		
2023-2024	5	0	5	0	25	3			10		
Tag Trend	=	=	INC	=	=	=	=	=	=	=	=

Quota Rationale

No surveys are conducted, nor is a computer-based population model utilized for this herd due to difficulty of obtaining statistically reliable data. Therefore, harvest management recommendations are based on hunter harvest metrics. Hunter success in 2022 varied from 2021. Rifle and muzzleloader success was higher but archery was 0% and the percent of bucks harvested with horns 15-inch or better is well below the objective at 17%. Quotas are recommended to remain the same as last year to maintain an upward trend in the harvest percentage of bucks with 15-inch or better horn length. *3 muzzleloader tags should be the recommendation.

Reporting Biologist: Allen

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 067, 068

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		132	401	162	695	33	40	1,100	24
2021-2022		183	552	200	935	33	36	1,000	21
2022-2023		320	687	264	1,271	47	38	1,300	39

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	16	44			86	75			38	100	47
2021-2022	28	75	50	100	81	83			53	66	22
2022-2023	15	50	33	0	87	67			60	100	22

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	35	4	3	1	60	7			85	3	
2022-2023	15	2	3	1	65	7			85	3	
2023-2024	15	1	3	1	100	15			90	5	
Tag Trend	=	DEC	=	=	INC	INC	=	=	INC	INC	=

Quota Rationale

The 2023 winter pronghorn survey conducted in January resulted in a total sample size which was larger than the published estimate, prompting an adjustment to increase the February population estimate. Overwinter loss was then accounted for which resulted in the current adult population estimate of 1,300. Consistent with previous years, the management objective for the 067,068 pronghorn herd remains to maintain a stable population. With recruitment being relatively strong during four of the last five years, and an increased population estimate, this year's horns shorter quota recommendations are targeting a doe harvest rate of 8% in order to reduce this population slightly. Horns longer than ears quota recommendations are based on a conservative post-season adult buck to doe ratio to avoid and even larger increase in tags during the upcoming season.

Reporting Biologist: Allen

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 072,074,075

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	8	30	169	76	283	22	45	1,100	24
2021-2022	33	32	250	95	410	26	38	1,100	25
2022-2023	61	54	312	118	545	37	38	1,100	25

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	7	0			86	100			20		25
2021-2022	24	33	100		74	100			42	100	18
2022-2023	22	67	100		83	86			32	100	16

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	25	3	2		45	5			55	2	
2022-2023	35	4	1		90	10			55	3	
2023-2024	25	3	1		75	8			50	3	
Tag Trend	DEC	DEC	=	=	DEC	DEC	=	=	DEC	=	=

Quota Rationale

This population was stable to slightly increasing due to favorable fawn recruitment the last three years. However, the impacts of the 2022-23 winter are not fully understood at this time. Tag quota recommendations will remain conservative at this time. Using a 25 adult bucks:100 doe post season objective, a slight tag decrease is recommended. The 3-year average of percentage of bucks harvested with 15" horns or better is 20%. The recommended doe harvest level is not expected to have any biological impact to the population.

Reporting Biologist: Huebner

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 076,077,079,081,091

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	16	79	155	55	305	61	35	550	24
2021-2022	28	56	174	53	311	48	30	600	17
2022-2023	23	59	146	67	295	56	46	750	30

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	53				90	75			17	50	52
2021-2022	50		100		93	100			13		22
2022-2023	0		100		89	100			9		37

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	10		1		30	3			20	2	
2022-2023	2		1		30	3			15		
2023-2024	3		1		50	5			15		
Tag Trend	INC	=	=	=	INC	INC	=	=	=	=	=

Quota Rationale

Fawn ratios the past three years have been much better than the previous four years. This equates to a herd that is stable to slightly increasing. The full impacts of the severe 2022-23 winter have not been fully realized. The observed buck ratio continues to be high. The population estimate was increased this year to account for this continued high buck ratio. This, coupled with a slightly lower hunter success during the any legal weapon season has resulted in quota recommendations slightly higher than last year's. The 3-year average of the percentage of bucks harvested with 15" horns or better is 37%

Reporting Biologist: Huebner

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 078, 105-107, 121

Date Prepared: 4/7/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		94	357	46	497	26	13	700	21
2021-2022		101	297	34	432	34	11	800	32
2022-2023		52	206	32	290	25	16	750	31

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	43	50	20		80	67			34	100	27
2021-2022	50	0	0		74	100			5	50	18
2022-2023	50	100	?	100	86	67			0	100	30

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	2	1	1	1	20	2			5	2	
2022-2023	2	1	1	1	25	3			0	4	
2023-2024	1	1	2	1	25	3			1	2	
Tag Trend	DEC	=	INC	=	=	=	=	=	INC	DEC	=

Quota Rationale

The low fawn ratio this year is attributed to harsh winter conditions. The last four years have had the lowest fawn recruitment values on record. Observations in early June last year indicate improved fawn production as compared to observations made the previous three summers. Those gains in improved production were lost by early March 2023. The low fawn recruitment values are below what is needed for maintenance and this herd continues to decrease in number. Effects of this winter on adult survival are largely unknown at this time, however it is likely we experienced an elevated mortality rate on all sexes and age classes.

Reporting Biologist: Jeffress

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 101-104, 108, 109, and 144

Date Prepared: 3/29/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		95	206	46	347	46	22	900	37
2021-2022		175	481	112	768	36	23	925	30
2022-2023		74	182	50	306	41	27	850	27

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	27	0	100		82	86			25		35
2021-2022	42	50	67	100	85	88			25	71	20
2022-2023	0	0	50	100	87	75			15	100	21

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	15	2	5	1	70	8			25	1	
2022-2023	7	1	2	1	50	5			15	1	
2023-2024	5	1	1	1	35	4			15	3	
Tag Trend	DEC	=	DEC	=	DEC	DEC	=	=	=	INC	=

Quota Rationale

This is the fifth year in a row with fawn ratios of 27 fawns:100 does or lower. The observed fawn ratio was obtained relatively late in the survey season but there was very difficult winter conditions experienced post survey, which likely led to increased mortality. The survey was severely limited by the heavy snow loads, and only the Newark Valley portion of the unit group was sampled. The observed buck ratio is not likely to be representative of the entire unit group, because this portion of the unit group has a lot private land and receives less hunting pressure. The model has been amended over the last few years, and in turn the population contraction has been more pronounced than the published estimates have indicated. There had to be significantly more individuals on the landscape 4 years ago to continue to be able survey over 700 animals in 2021-2022 after 4 years of poor recruitment.

Reporting Biologist: Roberts

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 111-114

Date Prepared: 4/3/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		157	554	112	823	28	20	1,100	25
2021-2022		142	492	44	678	29	9	900	25
2022-2023		138	481	104	723	29	22	850	29

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	35	100	40	NA	65	56	NA	NA	29	NA	22
2021-2022	0	0	33	100	74	100	NA	NA	9	NA	8
2022-2023	0	0	100	0	69	100	NA	NA	0	NA	18

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5	1	5	1	30	3	0	0	10		0
2022-2023	3	1	1	1	30	3	0	0	0		0
2023-2024	4	1	1	1	30	3	0	0	0		0
Tag Trend	INC	=	=	=	=	=	=	=	=	=	=

Quota Rationale

Fawn recruitment has been depressed for five years. The three lowest fawn:doe ratios on record have been observed in the last five years. Fawn production improved in 2022, but recruitment suffered due to winter conditions experienced in the 2022-23 winter. Multiple years of improved fawn recruitment are needed to reverse the current trend. Currently, this population is stable. The record low fawn recruitment in 2021 is negatively affecting the number of 2-year-old bucks in the population. The Quotas are based on a statewide post-hunt buck ratio objective of 25 adult bucks (≥2-year-old):100 does. Quotas are remaining stable in 2023.

Horns shorter than ears season was closed in 2022.

Reporting Biologist: Menghini

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 115, 231, 242

Date Prepared: 3/28/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021					0	--	--	600	44
2021-2022	13	39	194	26	272	27	13	550	35
2022-2023	20	46	183	50	299	36	27	500	31

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	71%	100%	100%		100%	100%				100%	29%
2021-2022	60%		100%		78%	60%				100%	21%
2022-2023	100%	0	0%		100%	100%				100%	14%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES		RES	NR	RES	NR	RES	Combined	
2021-2022	10	1	5		45	5				5	
2022-2023	2	1	1		30	3				5	
2023-2024	4	1	1		20	2			20	5	
Tag Trend	INC	=	=	=	DEC	DEC	=	=	INC	=	=

Quota Rationale

Drought conditions over the past two years has impacted the trend of this population. Three years of poor fawn recruitment has decreased the available bucks on the landscape. Success rates remain high in this Area. However, quality metrics (15" or better) continue to decline. Increased harvest the last three years based off favorable fawn recruitment prior to drought conditions and population trends coupled with poor recruitment has decreased the number of available bucks on the landscape. Winter and spring precipitation receipts should allow does to enter the fawning period in better body condition and aid fawn survival in the coming months. The Department is recommending a decrease in the ALW tags. A new horns shorter than the ears hunt was initiated for Units 115-231 to alleviate agricultural land pressure adjacent to Great Basin Ranch Properties.

Reporting Biologist: Shanks

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 131-145-163-164

Date Prepared: 3/29/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		52	302	28	382	17	9	600	13
2021-2022		31	181	8	220	17	4	400	16
2022-2023		38	192	40	270	20	21	450	21

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	50	0	100	N/A	81	89	N/A	N/A	22	NA	22
2021-2022	40	100	0	N/A	80	100	N/A	N/A	16	NA	15
2022-2023	0	0	0	N/A	100	100	N/A	N/A	2	NA	11

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5	1	1	0	25	2	N/A	N/A	30	4	0
2022-2023	1	1	1	0	10	1	N/A	N/A	2	2	0
2023-2024	1	1	1	0	3	1	N/A	N/A	1	0	0
Tag Trend	=	=	=	=	DEC	=	=	=	DEC	DEC	=

Quota Rationale

Multiple and consecutive years of low fawn production and recruitment have caused recent declines of this population. Consistent drought conditions in the central part of the state, as well as rising feral horse numbers have increased competition for limited resources on the rangeland. A ground survey was conducted in late September and early October 2022 over an 8-day period. In total, 270 antelope were classified, yielding sex and age ratios of 20 bucks:100 does:21 fawns. Compared to last year, this season's survey saw an increase in the observed fawn to doe ratio, the buck to doe ratio, and the total number of antelope observed. However, the total antelope observed, and the observed buck ratios are still below the 5-year average (409 antelope and 24 bucks:100 does:17 fawns). The increase in the fawn to doe ratio can be attributed to the above average landscape conditions from the late spring and summer precipitation events that occurred across the management area. The buck ratio is still significantly below the statewide post hunt objective of 25 adult bucks:100 does which warrants a quota reduction this season.

Reporting Biologist: Kirk

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 132-133-134-245

Date Prepared: 3/29/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		61	278	39	378	22	14	450	20
2021-2022		44	100	1	145	44	1	360	17
2022-2023		41	118	18	177	35	15	450	37

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	40	100	0	N/A	91	50	N/A	N/A	N/A	100	26
2021-2022	40	100	100	N/A	90	67	N/A	N/A	N/A	100	23
2022-2023	100	100	0	N/A	73	0	N/A	N/A	N/A	N/A	7

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5	1	1	0	30	3	N/A	N/A	0	4	0
2022-2023	1	1	1	0	15	2	N/A	N/A	0	1	0
2023-2024	1	1	1	0	20	2	N/A	N/A	0	0	0
Tag Trend	=	=	=	=	INC	=	=	=	=	DEC	=

Quota Rationale

A population estimate adjustment was made this year to more closely reflect observed ratios obtained on survey. This adjustment gives the impression that the herd has increased, but that is simply due to the population being at a higher level several years ago than managers realized. The trend of this population is definitely decreasing. Multiple and consecutive years of low fawn production and recruitment have caused the decline of this population. Consistent drought conditions in the central part of the state, as well as rising feral horse numbers have increased competition for limited resources on the rangeland. A ground survey was conducted in September and early October 2022 over a 6-day period. In total, 177 antelope were classified, yielding sex and age ratios of 35 bucks:100 does:15 fawns. The survey saw an increase in the observed fawn to doe ratio and total antelope observed when compared to last year, but they are still below the 5-year average (283 total and 36 bucks:100 does:18 fawns). The increase in the fawn to doe ratio can be attributed to the above average landscape conditions from the late spring and summer precipitation events that occurred across the management area. The buck ratio is still well above the statewide post hunt objective of 25 adult bucks:100 does, which warrants a modest quota increase this season.

Reporting Biologist: Kirk

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 141, 143, 151-156

Date Prepared: 4/11/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021		201	304	205	710	66	67	4,000	30
2021-2022		404	780	298	1,482	52	38	4,200	19
2022-2023		271	500	263	1,034	54	53	4,500	29

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	32	78			89	90			340	100	18
2021-2022	19	40	57	100	86	89			273	100	9
2022-2023	32	33	71	100	86	95			315	100	18

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	60	7	7	1	170	20			470	11	
2022-2023	60	7	7	1	210	25			500	9	
2023-2024	35	4	2	1	250	30			550	6	
Tag Trend	DEC	DEC	DEC	=	INC	INC	=	=	INC	DEC	=

Quota Rationale

This population continues to increase. The standard statewide management objective for the horns longer than ears quota is a post-hunt ratio of 25 adult bucks:100 does. Last year NDOW managed for a post-hunt ratio of 29 adult bucks:100 does to avoid a substantial increase in tags based on a large influx of 2-year old bucks (from the high fawn ratio of 2020). We will continue to move toward our management objective in a conservative, incremental manner, so we will be managing for a post-hunt ratio of 28 adult bucks:100 does. This quota recommendation should allow for a balance of opportunity as well as hunt quality.

We will continue to use doe harvest to maintain this population's growth at a manageable level and to address crop depredation issues, so are recommending a slight increase in tags, which is appropriate for the growing population.

Reporting Biologist: Hale

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 161, 162

Date Prepared: 3/21/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	6	18	71	21	116	34	30	400	35
2021-2022	6	22	102	8	138	27	8	350	39
2022-2023	5	13	134	20	172	13	15	320	28

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	67%	100%			95%	100%				100%	49%
2021-2022	11%	100%	0%		86%	100%				100%	18%
2022-2023	25%	0%	0%		77%	100%				100%	30%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES		RES	NR	RES	NR	RES	Combined	
2021-2022	10	1	2		40	5				6	
2022-2023	5	1	3		30	3				4	
2023-2024	3	1	3		15	1				0	
Tag Trend	DEC	=	=	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

The Area 16 pronghorn herd has been affected by extreme drought conditions. The rangeland in Big Smoky Valley, Monitor Valley, and Little Fish Lake have been extremely arid. The pronghorn that persist are outcompeted by feral equids near water sources. Hopefully, the above average precipitation received this winter and early spring will aid in their recovery. Modeled buck ratios have declined along with the population estimate in recent years primarily due to poor fawn recruitment. The Department recommends reduced quota in the ALW seasons.

Reporting Biologist: Burkett

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 171-173

Date Prepared: 3/21/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	13	37	205	51	306	24	25	380	39
2021-2022	12	28	114	19	173	35	17	330	37
2022-2023	5	7	82	17	111	15	21	310	30

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	75%				95%	100%				100%	33%
2021-2022	67%	0%	80%		96%	100%				100%	10%
2022-2023	40%	100%	40%		95%	100%				100%	28%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES		RES	NR	RES	NR	RES	Combined	
2021-2022	5	1	5		30	5				3	
2022-2023	5	1	5		25	2				3	
2023-2024	5	1	5		15	2				2	
Tag Trend	=	=	=	=	DEC	=	=	=	=	DEC	=

Quota Rationale

Drought conditions over the past two years has impacted the trend of this population. Three years of poor fawn recruitment has decreased the available bucks on the landscape. Success rates remain high in this Area. Above average winter precipitation should assist in bringing this population back to recent numbers. The Department is recommending a decrease in the ALW tags.

Reporting Biologist: Burkett

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 181-184

Date Prepared: 3/8/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	7	39	131	35	212	35	27	950	35
2021-2022	7	56	160	37	260	39	23	900	34
2022-2023	14	59	191	60	324	38	31	1,100	31

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	33%	100%			92%	100%					34%
2021-2022	50%	100%			95%	75%					22%
2022-2023	70%	DNH			96%	80%					19%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES		RES	NR	RES	NR			
2021-2022	8	1	2		45	5			20		
2022-2023	10	1	1		55	6			35		
2023-2024	10	1	2		55	6					
Tag Trend	=	=	INC	=	=	=	=	=	DEC	=	=

Quota Rationale

Used a post hunt buck ratio of 22. NDOW harvest guidelines recommend a range of 20-30 bucks per 100 does. Raised the modeled population in 2023. Hunter success was high. Recommend similiar tag quotas for 2023.

Reporting Biologist: Salisbury

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 202, 204

Date Prepared: 3/8/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	5	14	43	12	74	44	28		
2021-2022					0	--	--	100	33
2022-2023	3	18	33	11	65	64	33	80	24

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021					44%	100%					
2021-2022					80%	100%					
2022-2023					50%	0%					

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022			2		10	1					
2022-2023			1		8	1					
2023-2024			1		8	1					
Tag Trend	=	=	=	=	=	=	=	=	=	=	=

Quota Rationale

Used a post hunt buck ratio of 30 bucks/ 100 does. The bodie herd is small less than 100 animals. Hunters are limited to a few areas to hunt. Recommend similar tags for 2023 to control congestion and increase hunter success.

Reporting Biologist: Salisbury

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 205-208

Date Prepared: 3/8/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	5	10	63	15	93	24	24	312	21
2021-2022	4	7	22	6	39	50	27	270	29
2022-2023	3	16	56	18	93	34	32	270	29

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	40%	100%			93%	100%					23%
2021-2022	38%	0%			84%	100%					26%
2022-2023	29%	100%			100%	100%					

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	10	2	1	0	20	2					
2022-2023	3	1	1	0	15	2					
2023-2024	10	1	1	0	15	2					
Tag Trend	INC	=	=	=	=	=	=	=	=	=	=

Quota Rationale

Used a post hunt buck ratio of 20 bucks/100 does. High archery and rifle success rates can drive quotas down. The above tag quotas are reflected above. Also the number of bucks represented for harvest are 2+ year old bucks. The yearling bucks are taken out to allow for harvest of more mature bucks.

Reporting Biologist: Salisbury

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 203,291

Date Prepared: 3/8/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	9	15	42	13	79	57	31	90	38
2021-2022	3	27	71	13	114	42	18	140	44
2022-2023	3	23	43	14	83	60	33	140	44

Harvest Results

Year	Archery Success (%)		Muzzloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021					75%						
2021-2022					67%						
2022-2023					67%						

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	2				15						
2022-2023	2				10						
2023-2024	2				10						
Tag Trend	=	=	=	=	=	=	=	=	=	=	=

Quota Rationale

Used a post hunt buck ratio of 29 bucks/100 does. Last year overall hunter success for the early rifle resident tags was 67% compared to 75% the previous year.

Reporting Biologist: Salisbury

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 211-213

Date Prepared: 3/21/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021					0	--	--	100	40
2021-2022	3	5	17	1	26	47	6	80	34
2022-2023	2	6	11	2	21	73	18	80	25

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	100%				88%						13%
2021-2022	100%		100%		90%						9%
2022-2023	0%		0%		100%						60%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR	RES	Combined	
2021-2022	1		1		10						
2022-2023	1		1		6						
2023-2024	1		1		5						
Tag Trend	=	=	=	=	DEC	=	=	=	=	=	=

Quota Rationale

The Area 21 pronghorn herd is highly dispersed and in low densities. This year's surveys resulted in another low fawn ratio. The Department recommends a slight reduction in quota to account for the reduced modeled buck ratio.

Reporting Biologist: Burkett

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 221-223, 241

Date Prepared: 3/28/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021					0	--	--	450	33
2021-2022	3	18	51	9	81	41	18	400	30
2022-2023	19	36	188	38	281	29	20	400	27

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	27%		50%		97%	100%					26%
2021-2022	14%		60%		78%	80%					5%
2022-2023	33%		100%		78%	50%			100%		18%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	10		5		45	5				0	
2022-2023	3		1		20	2				2	
2023-2024	3		1		20	2				0	
Tag Trend	=	=	=	=	=	=	=	=	=	DEC	=

Quota Rationale

Drought conditions over the past two years have impacted the trend of this population. Three years of poor fawn recruitment have negatively affected the availability of bucks on the landscape. Increased harvest the last three years based off favorable fawn recruitment prior to drought conditions and population trends coupled with poor recruitment has decreased the number of available bucks on the landscape. With this being said, it appears that quota reductions from last year had the desired affect and there are enough bucks on the landscape to maintain a similar harvest. Winter and spring precipitation receipts should allow does to enter the fawning period in better body condition and aid fawn survival in the coming months.

Reporting Biologist: Shanks

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 251

Date Prepared: 3/21/2023

Herd Results

Year	Post Season Survey				Survey Total	Total Buck Ratio (Obs)	Fawn:Doe Ratio (Obs)	Pop Est (August)	2 Yr + Buck Ratio (Model)
	Yr Bucks	Bucks	Does	Fawns					
2020-2021	19	52	152	65	288	47	43	340	45
2021-2022	23	42	206	13	284	32	6	300	36
2022-2023	4	15	81	14	114	23	17	370	30

Harvest Results

Year	Archery Success (%)		Muzzleloader Success (%)		Early ALW Success (%)		Late ALW Success (%)		Horns Shorter Than Ears (Total)	Land Owner Comp Tag Success (%)	Horns 15" or Better (%)
	RES	NR	RES	NR	RES	NR	RES	NR			
2020-2021	100%				92%	67%				100%	50%
2021-2022	80%		80%		100%	100%				100%	15%
2022-2023	60%		100%		86%	100%				100%	39%

Approved (Previous Year) and Recommended (Current Year) Tag Quota

Year	Archery		Muzzleloader		Early ALW		Late ALW		Horns Shorter Than Ears	Land Owner Comp Tags	Emergency Doe Hunt
	RES	NR	RES	NR	RES	NR	RES	NR			
2021-2022	5		5		25	3				12	
2022-2023	5		2		15	2				7	
2023-2024	1		2		15	1				10	
Tag Trend	DEC	=	=	=	=	DEC	=	=	=	INC	=

Quota Rationale

The Unit 251 pronghorn herd has movements between the Unit 161, 162 population and the Nevada Test and Training Range (NTTR). These movements can be elevated with varying levels of precipitation and the need for proper forage. This year's surveys resulted in another poor year for fawn recruitment and a reduced sample size. The poor sample size is likely due to the historic monsoonal precipitation received in the months of August and September. This year's quota recommendation will remain reduced compared to previous years. Landowner tags are a large portion of the available tags and are considered in the quota recommendation process.

Reporting Biologist: Burkett

Supervisor: Bennett