



**2022-2023 Pronghorn Antelope Quota Recommendation Forms
(Accompanies Commission Regulation 22-11)**

Pronghorn Quota Recommendation Form

Unit Group: 011

Date Prepared: 3/30/2022

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					
2019-2020	15	53	168	38	274	40	23	900	21
2020-2021	21	44	221	49	335	29	22	700	23
2021-2022	11	64	386	90	551	19	23	600	22

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			
2019-2020	33%	100%	50%		76%	50%					24%
2020-2021	58%	100%	20%		75%	86%					34%
2021-2022	14%		0%		76%	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	NR	RES	NR	RES	NR			
2020-2021	15	2	5	--	65	7	--	--	--	0	0
2021-2022	8	1	2	--	45	5	--	--	--	0	0
2022-2023	5	1	1	--	35	4	--	--	--	0	0
Tag Trend	DEC	=	DEC	=	DEC	DEC	=	=	=	=	=

Quota Rationale

This population has had low fawn ratios for the last 3 years and the population estimate has gradually declined across the past 3 years. Although hunter success rates have been stable the past 3 seasons, the percent of 15 inch or greater in the harvest has drastically declined. A moderate reduction in tags should accommodate for the change in population estimate this year.

Reporting Biologist: Ewanyk

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 012-014

Date Prepared: 3/30/2022

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					
2019-2020	26	70	225	69	390	43	31	1,900	26
2020-2021	10	63	280	87	440	26	31	1,900	26
2021-2022	11	45	249	86	391	22	35	1,800	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			
2019-2020	18%	50%	14%	--	68%	64%				100%	22%
2020-2021	30%	67%	60%	--	65%	73%				100%	24%
2021-2022	33%	100%	63%	100%	63%	58%				50%	9%

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	
2020-2021	30	3	10	--	150	15	--	--	--	1	0
2021-2022	25	3	8	1	150	20	--	--	--	2	0
2022-2023	10	1	2	1	120	15	--	--	--	1	0
Tag Trend	DEC	DEC	DEC	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

The population estimate for Unit Group 012-014 was reduced for this year, and the percentage of 15 inch pronghorn in the harvest has noticeably declined. Much of the habitat in this unit grouping has been impacted by horse numbers over AML, and severe drought. A moderate tag reduction in 012-014 for the 2022 season should benefit this population.

Reporting Biologist: Ewanyk

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 015

Date Prepared: 3/30/2022

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					
2019-2020	26	45	257	100	428	28	39	900	24
2020-2021	30	48	241	103	422	32	43	1,100	24
2021-2022	6	31	136	51	224	27	38	900	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			
2019-2020	13%	0%	25%		69%	75%					31%
2020-2021	21%	50%	11%		56%	83%				100%	33%
2021-2022	22%	67%	14%		52%	60%					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			
2020-2021	20	2	15	--	75	6	--	--	--	0	0
2021-2022	25	3	10	--	75	3	--	--	--	0	0
2022-2023	15	1	7	--	55	6	--	--	--	0	0
Tag Trend	DEC	DEC	DEC	=	DEC	INC	=	=	=	=	=

Quota Rationale

The population estimate in Unit 015 is lower than the previous year's estimate. Much of this area has been impacted by wildfire, horses over Appropriate Management Levels, and degraded habitat. Any Legal Weapon success rates and percent of 15" horns in the harvest both declined this past season. A tag reduction for this unit should help to get success rates realigned with target objectives.

Reporting Biologist: Ewanyk

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 021, 022

Date Prepared: 3/30/2022

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					
2018-2019	17	31	160	47	255	30	29	650	23
2020-2021	2	4	19	6	31	32	32	600	21
2021-2022	5	21	100	22	148	26	22	600	20

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			
2019-2020	100%		33%		88%	50%					45%
2020-2021	33%	100%	50%		91%	100%				100%	42%
2021-2022	75%	0%	50%		88%	100%				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			
2020-2021	5	1	5	--	40	4	--	--	--	1	0
2021-2022	5	1	2	--	35	4	--	--	--	1	0
2022-2023	2	1	1	--	40	4	--	--	--		0
Tag Trend	DEC	=	DEC	=	INC	=	=	=	=	DEC	=

Quota Rationale

Success rates and hunter satisfaction remain high in this unit grouping. Although much of the unit grouping has been impacted by fire, this population of pronghorn has remained stable. Hunter success has been high across the past 3 years and the unit grouping could support five more Any Legal Weapon tags.

Reporting Biologist: Ewanyk

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 031

Date Prepared: 2022

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					
2019-2020	15	43	178	54	290	33	30	1,400	27, 17
2020-2021	0	3	12	7	22	25	58	1,300	29, 20
2021-2022	2	7	30	15	54	30	50	1,200	30, 21

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			
2019-2020	29%	0			52%	54%			35	80%	20%
2020-2021	20%	50%			52%	50%			23	0	9%
2021-2022	25%	0	0	0	62%	67%			10	100%	4%

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			
2020-2021	20	2	0	0	130	15			40	1	0
2021-2022	20	2	3	0	110	15			10	1	0
2022-2023	9	1	1	1	90	10			0	1	0
Tag Trend	=	=	INC	=	DEC	=	=	=	DEC	=	=

Quota Rationale

Over the last 6 years this unit has continued to have a slight drop in the population. For many years the horns shorter than the ears hunt was used as a management tool to reduce the utilization on the winter forage due to past fires which has brought down that population.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 032,034

Date Prepared: 2022

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					
2019-2020	7	20	191	49	267	14	26	1,300	22, 18
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

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			
2019-2020	22%	0			51%	44%			7	83%	14%
2020-2021	5%	40%			43%	100%			12	100%	21%
2021-2022	16%	50%	50%		55%	80%			15	80%	3%

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			
2020-2021	30	3			70	8			30	4	0
2021-2022	15	3	2	0	50	6			15	5	0
2022-2023	20	2	1	0	40	4			0	2	0
Tag Trend	DEC	=	INC	=	DEC	DEC	=	=	DEC	INC	=

Quota Rationale

Over the last 6 years this unit has continued to have a slight drop in the population. For many years the horns shorter than the ears hunt was used as a management tool to reduce the utilization on the winter forage due to past fires which has brought down that population.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 033

Date Prepared: 3/30/2022

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					
2019-2020	12	31	156	37	236	28	24	1,200	30
2020-2021	55	54	384	124	617	28	32	1,200	32
2021-2022	18	56	261	83	418	28	32	1,000	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			
2019-2020	33%	100%	33%		68%	75%	77%	67%			37%
2020-2021	80%	0%	40%		73%	75%	64%	50%			23%
2021-2022	33%	100%	0%		59%	75%	61%	50%			10%

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			
2020-2021	7	1	5	--	30	4	30	4	--	n/a	0
2021-2022	7	1	3	--	30	4	30	4	--	n/a	0
2022-2023	2	1	2	--	25	1	25	1	--	n/a	0
Tag Trend	DEC	=	DEC	=	DEC	DEC	DEC	DEC	=	=	=

Quota Rationale

This population has experienced stable fawn ratios for the past 2 years, but hunter success and horn length have recently declined. A moderate tag reduction for 033 will help to bring success rates and horn length back up.

Reporting Biologist: Ewanyk

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 035

Date Prepared: 2022

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					
2019-2020	3	44	125	41	213	38	33	600	22,18
2020-2021	6	27	107	42	182	31	39	550	22,18
2021-2022	6	16	107	30	159	21	28	500	24,17

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			
2019-2020	33%	100%			77%	100%			6	100%	22%
2020-2021	33%	100%			81%	67%			12	100%	53%
2021-2022	0	0	100%		84%	100%			9	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			
2020-2021	4	1			25	3			15	5	0
2021-2022	2	1	1	0	20	2			9	14	0
2022-2023	1	1	1	0	15	1			0	4	0
Tag Trend	DEC	=	=	=	DEC	DEC	=	=	DEC	DEC	=

Quota Rationale

Over the last 6 years this unit has continued to have a slight drop in the population. For many years the horns shorter than the ears hunt was used as a management tool to reduce the utilization on the winter forage due to past fires which has brought down that population.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 041,042

Date Prepared: April 2022

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					
2019-2020	27	54	259	91	431	31	35	1,700	30
2020-2021	18	50	195	38	301	35	19	1,400	31
2021-2022	6	43	165	47	261	30	28	1,300	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			
2019-2020	50%				75%	86%	75%	86%	29	100%	32%
2020-2021	75%	0%			88%	67%	85%	100%	15	100%	25%
2021-2022	78%	0%	67%		93%	67%	86%	100%	8		5%

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			
2020-2021	15	1			55	6	55	6	25	1	
2021-2022	10	1	3		30	3	30	3	10	0	
2022-2023	10	1	1		25	3	25	3	no hunt		
Tag Trend	=	=	DEC	=	DEC	=	DEC	=	INC	=	=

Quota Rationale

The 2022 population estimate is 1,300 and is a 7% decline from last year. This herd has been on a sharp decline since 2019 when the population was estimated at 2,000 animals. Plausible explanations of this reduction include fawn recruitment rates that have been below maintenance level over the last 3 years, prolonged drought leading to withering water sources and forage availability, continued high over Appropriate Management Level (AML) feral horse and burro numbers leading to increased competition for water and forage resources. Other factors include mountain lion predation and disease. Recommend a post-season buck ratio objective of 24 bucks: 100 does, the Department's Harvest Guidelines recommends using a post season buck ratio range of 20-30 bucks:100 does. Also, recommend leave Resident Archery Buck tags at 10 for increased opportunity with minimal harvest impact.

Reporting Biologist: Neill

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 043-046

Date Prepared: April 2022

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					
2019-2020	25	190	419	155	789	51	37	1,200	43
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

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			
2019-2020	11%	0%			86%	100%				75%	18%
2020-2021	50%	25%			91%	100%				100%	27%
2021-2022	40%	60%	80%	0%	91%	100%			24	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	RES	Combined	
2020-2021	40	4		NR	110	15				4	
2021-2022	50	5	5	1	110	15			35	9	
2022-2023	30	3	3	1	120	15			50		
Tag Trend	DEC	DEC	DEC	=	INC	=	=	=	INC	INC	=

Quota Rationale

This herd's population has increased by 36% over last year and is now estimated at 1,900 antelope. A strong increasing population trend has been demonstrated since 2014. It is believed that immigration from Area 15 and 18 has mainly fueled this rapid growth as observed average fawn ratios have only been slightly higher than maintenance level since 2009. Habitat conditions throughout the unit group favor antelope propagation. This includes numerous water sources as well as antelope have been able to take advantage of past wildfires that converted shrub dominated landscapes into annual grasslands. Additionally, feral horse populations are not severely over AML. Given favorable habitat for antelope, it is thought that this herd can continue grow and expanded as the horns shorter than ears hunt is designed to provide additional hunting opportunity while allowing controlled growth. Recommend a post-season buck ratio objective of 23 bucks:100 does. Recommend a Horns Shorter than Ears Hunt harvest rate of 3%. Using a Horns Shorter than Ears harvest rate of 3% and post-season buck ratio objective of 23 projects a female harvest of 40 and a Reported Buck Harvest (RBK) of 123 bucks for the 2022 hunting season. Using these harvest values and a long-term average fawn ratio of 37 fawns:100 does predicts a modelled 2023 population estimate of 1,900 or no change in population estimate.

Reporting Biologist: Neill

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 051

Date Prepared: 2022

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					
2019-2020	10	60	173	43	286	40	25	700	37, 22
2020-2021	3	10	20	8	41	65	40	700	31, 24
2021-2022	7	36	93	40	176	46	43	700	27, 20

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			
2019-2020	20%				72%	75%			0	100%	35%
2020-2021	27%	20%			85%	83%			0	100%	29%
2021-2022	32%	25%			78%	80%			0	75%	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			
2020-2021	35	4			50	4			0	5	0
2021-2022	35	4	2	0	50	5			0	10	0
2022-2023	20	2	1	0	35	3			0	5	0
Tag Trend	DEC	DEC	DEC	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

Area 5 has been consistent over the last several years. During the 2021 survey, animals were scattered, and a drastic drop in the number of animals surveyed. Both fawn and buck ratios have declined from last year, however with the small sample sizes this information is slightly skewed. Conditions during this survey period were extremely hot and dry with few and small group sizes.

Reporting Biologist: Partee

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 181-184

Date Prepared: 3/21/2022

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					
2019-2020	14	64	173	66	317	45	38	1,050	32
2020-2021	7	39	131	35	212	35	27	950	35
2021-2022	7	56	160	37	260	39	23	900	34

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			
2019-2020	50%	100%			94%	100%					34%
2020-2021	67%	100%			95%	100%					22%
2021-2022	80%	100%	50%		88%	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		RES	NR	RES	NR	RES	Combined	
2020-2021	10	1			40	4			30		
2021-2022	8	1	2		45	5			20		
2022-2023	10	1	1		55	6			35		
Tag Trend	INC	=	DEC	=	INC	INC	=	=	INC	=	=

Quota Rationale

Used a post hunt buck ratio of 25. The Department's harvest guidelines recommend a range of 20-30 bucks per 100 does. Raised the modeled population in 2021. Hunter success was high. Recommend a slight increase in tag quotas for 2022.

Reporting Biologist: Salisbury

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 202, 204

Date Prepared: 3/21/2022

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					
2019-2020					0	--	--	100	
2020-2021	5	14	43	12	74	44	28	100	33
2021-2022					0	--	--	100	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			
2019-2020					83%	0%					50%
2020-2021					50%	100%					
2021-2022					80%	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	RES	Combined	
2020-2021					7	1					
2021-2022			2		10	1					
2022-2023			1		8	1					
Tag Trend	=	=	DEC	=	DEC	=	=	=	=	=	=

Quota Rationale

Used a post hunt buck ratio of 30 bucks:100 does. The Bodie herd is less than 100 animals. Hunters are limited to a few areas to hunt. Recommend a slight decrease in tags for 2021 to control congestion and increase hunter success.

Reporting Biologist: Salisbury

Supervisor: Munson

Pronghorn Quota Recommendation Form

Unit Group: 203,291

Date Prepared: 3/21/2022

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					
2019-2020	9	15	23	10	57	104	43	90	36
2020-2021	9	15	42	13	79	57	31	90	38
2021-2022	3	27	71	13	114	42	18	140	44

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			
2019-2020	100%				75%						14%
2020-2021	0%				75%						33%
2021-2022	0%		100%		67%						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	RES	Combined	
2020-2021	2				8						
2021-2022	2		1		15						
2022-2023	1		1		10						
Tag Trend	DEC	=	=	=	DEC	=	=	=	=	=	=

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: 205-208

Date Prepared: 3/21/2022

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					
2019-2020	3	11	48	24	86	29	50	310	25
2020-2021	5	10	63	15	93	24	24	280	28
2021-2022	4	7	22	6	39	50	27	270	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			
2019-2020	71%	0%			96%	100%					23%
2020-2021	40%	100%			100%	100%					26%
2021-2022	38%	0%	0%		84%	100%					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		RES	NR	RES	NR	RES	Combined	
2020-2021	10	1			20	2					
2021-2022	10	2	1		20	2					
2022-2023	3	1	1		15	2					
Tag Trend	DEC	DEC	=	=	DEC	=	=	=	=	=	=

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: 061, 062, 064, 071, 073

Date Prepared: 4/11/2022

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					
2019-2020	54	159	489	234	936	44	48	1,400	31
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

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			
2019-2020	13%	33%			77%	92%			131		27%
2020-2021	27%	40%			84%	86%			91		22%
2021-2022	30%	25%	100%	100%	84%	75%			122	100%	10%

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			
2020-2021	60	6			120	15			170	7	
2021-2022	35	4	3	1	80	8			160	4	
2022-2023	20	2	2	1	140	15			200	3	
Tag Trend	DEC	DEC	DEC	=	INC	INC	=	=	INC	DEC	=

Quota Rationale

The total 2021 fall pronghorn survey sample exceeded the previous published estimate, prompting an increased population estimate of 1,900 adult animals for 2022. This increase is also supported by 3 years of very strong production rates averaging 53 fawns:100 does. The long-term harvest management strategy for this herd has been to maintain a stable population level due to the compromised nature of winter ranges on which mule deer and pronghorn compete for forage and cover. Because of this strategy, female harvest must be maintained to minimize growth of the herd beyond the sustainable level of the habitat's carrying capacity. With strong production 3 of the last 4 years, a rate of doe kill at 14% should achieve this objective. Due to an increase in the population estimate based on the most recent survey data, an increase in the harvest of adult male pronghorn is necessary to reach the statewide management objective of a post season ratio of 25 adult males:100 does. In an effort to move toward management objective in an incremental, conservative manner, this year's quota recommendation represents a stepdown approach to that goal in lieu of a much larger tag increase in a single year. This year's quota recommendation is designed to target a post season adult buck to doe ratio of 28:100 for 2022.

Reporting Biologist: Allen

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 065, 142, 144

Date Prepared: 4/11/2022

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					
2019-2020		73	219	61	353	33	28	850	20
2020-2021		68	290	75	433	23	26	700	18
2021-2022		110	355	109	574	31	31	825	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			
2019-2020	33%		71%		75%	78%			40	100%	26%
2020-2021	27%	100%			78%	86%			30	100%	27%
2021-2022	40%		100%		80%	100%			5	83%	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			
2020-2021	15	2	4		70	8			40		
2021-2022	5	1	1		20	2			5	7	
2022-2023	3	1	1		25	3			6	7	
Tag Trend	DEC	=	=	=	INC	INC	=	=	INC	=	=

Quota Rationale

The population estimate represents a slight increase over last year's estimate, however last year was the lowest population estimate for the previous 10 years. It is going to take several years of good recruitment to rebuild this herd. The slight increase in rifle buck tags is warranted given the increase of the overall population.

Reporting Biologist: Jeffress

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 066

Date Prepared: 4/11/2022

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					
2019-2020	n/a	n/a	n/a	n/a	0	--	--	400	n/a
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

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			
2019-2020	13%				75%	50%			9		33%
2020-2021	40%				72%	75%			10		10%
2021-2022	60%		50%		72%	67%			7		25%

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			
2020-2021	10	0			35	4			15		
2021-2022	5	0	3	0	25	3			10		
2022-2023	5	0	3	0	25	3			10		
Tag Trend	=	=	=	=	=	=	=	=	=	=	=

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 2021 was consistent with the previous 6-year average. Following a tag reduction in 2021, the percent of bucks harvested with horns 15-inch or better increased noticeably from 2020 and is the only unit in the state to have seen an increase in that metric from 2020; however, it is still 10% below the previous 6-year average. 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.

Reporting Biologist: Allen

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 067, 068

Date Prepared: 4/11/2022

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					
2019-2020		111	352	108	571	32	31	1,100	30
2020-2021		132	401	162	695	33	40	1,100	24
2021-2022		183	552	200	935	33	36	1,000	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			
2019-2020	17%	67%			81%	58%			84	88%	34%
2020-2021	16%	44%			86%	75%			38	100%	47%
2021-2022	28%	75%	50%	100%	81%	83%			53	66%	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			
2020-2021	55	6			100	10			90	1	
2021-2022	35	4	3	1	60	7			85	3	
2022-2023	15	2	3	1	65	7			85	3	
Tag Trend	DEC	DEC	=	=	INC	=	=	=	=	=	=

Quota Rationale

Consistent with previous years, the management objective for the 067, 068 pronghorn herd remains to maintain a stable population, and harvest levels in 2021 achieved that goal. With recruitment being relatively strong during three of the last 4 years, this year's horns shorter quota recommendations are targeting a doe harvest rate of 9% in order to maintain the population at the current level. Horns longer than ears quota recommendations are based on the statewide standard objective of a post hunt adult buck ratio target of 25 adult bucks:100 does.

Reporting Biologist: Allen

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 072,074,075

Date Prepared: 4/8/2022

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					
2019-2020	18	56	228	71	373	32	31	1,100	26
2020-2021	8	30	169	76	283	22	45	1,100	24
2021-2022	33	32	250	95	410	26	38	1,100	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			
2019-2020	11%				71%	71%			22	75%	25%
2020-2021	7%				86%	100%			20		25%
2021-2022	24%	33%	100%		74%	100%			42	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			
2020-2021	20	2			45	5			45		
2021-2022	25	3	2		45	5			55	2	
2022-2023	35	4	1		90	10			55	3	
Tag Trend	INC	INC	=	=	INC	INC	=	=	INC	INC	=

Quota Rationale

This population is stable to slightly increasing due to increased fawn recruitment the last 2 years. As a result of the higher fawn ratios in 2020, there are more 2+ year old bucks available for harvest. Using a 25 adult bucks:100 doe post season objective, a tag increase is recommended. The slight reduction of hunter success this past year is also contributing to the tag increase. The 3-year average of percentage of bucks harvested with 15" horns or better is 23%. 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: 4/8/2022

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					
2019-2020	10	74	185	27	296	45	15	550	28
2020-2021	16	79	155	55	305	61	35	550	24
2021-2022	28	56	174	53	311	48	30	600	17

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			
2019-2020	29%				79%	67%			10	100%	57%
2020-2021	53%				90%	75%			17	50%	52%
2021-2022	50%		100%		93%	100%			13		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			
2020-2021	25				35	4			20	1	
2021-2022	10		1		30	3			20	2	
2022-2023	2		1		30	3			15		
Tag Trend	DEC	=	=	=	=	=	=	=	DEC	DEC	=

Quota Rationale

Survey sample size increased in this herd for the fourth year in a row. Fawn ratios the past 2 years have been much better than the previous 4 years. This equates to a herd that is stable to slightly increasing. The observed buck ratio continues to be high, however the buck cohorts that were born between 2016 and 2020 are comparatively small. This, coupled with a slightly higher hunter success during the any legal weapon season, has resulted in quota recommendations similar to last year. The percentage of bucks harvested with 15" horns or better has decreased for the fourth year in a row.

Reporting Biologist: Huebner

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 078, 105-107, 121

Date Prepared: 4/11/2022

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					
2019-2020		89	291	48	428	31	16	900	26
2020-2021		94	357	46	497	26	13	700	21
2021-2022		101	297	34	432	34	11	800	32

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			
2019-2020			75%		81%	100%			47	67%	24%
2020-2021	43%	50%	20%		80%	67%			34	100%	27%
2021-2022	50%		0		74%	100%			5	50%	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			
2020-2021	10	1	6		90	10			45		
2021-2022	2	1	1	1	20	2			5	2	
2022-2023	2	1	1	1	30	3			0	4	
Tag Trend	=	=	=	=	INC	INC	=	=	DEC	INC	=

Quota Rationale

The February 2022 antelope survey resulted in the lowest observed fawn ratio on record for the third year in a row. The elevated observed buck ratio implies there were more bucks on the landscape last year than previously thought. Recent data indicate this herd has been underestimated the last few years, particularly the mature buck segment. The increase in population estimate is reflective of a modeling exercise to account for the higher-than-expected observed buck ratio, and not the true trajectory of the population. The Department recognizes the irony of increasing the population estimate on the heels of 3 low fawn recruitment years in a row, however the adjustment is simply accounting for animals that have been on the landscape, primarily the mature buck segment. The slight increase in rifle buck tags is accounting for the increase in observed bucks on the landscape.

Reporting Biologist: Jeffress

Supervisor: Donham

Pronghorn Quota Recommendation Form

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

Date Prepared: 4/11/2022

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					
2019-2020		211	428	87	726	49	20	950	41
2020-2021		95	206	46	347	46	22	900	37
2021-2022		175	481	112	768	36	23	925	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			
2019-2020	33%	100%			83%	100%			25		36%
2020-2021	27%		100%		82%	86%			25		35%
2021-2022	42%	50%	67%	100%	85%	88%			25	71%	20%

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			
2020-2021	15	2	2		65	7			35	1	
2021-2022	15	2	5	1	70	8			25	1	
2022-2023	7	1	2	1	50	5			15	1	
Tag Trend	DEC	DEC	DEC	=	DEC	DEC	=	=	DEC	=	=

Quota Rationale

This is the fourth year in a row with below maintenance level fawn ratios. 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 after 4 years of poor recruitment and the recent elevated harvests.

Reporting Biologist: Roberts

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 111-114

Date Prepared: 4/11/2022

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					
2019-2020		193	561	80	834	34	14	1,300	32
2020-2021		157	554	112	823	28	20	1,100	25
2021-2022		142	492	44	678	29	9	900	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			
2019-2020	15%		20%		58%	93%			47		21%
2020-2021	35%	100%	40%		65%	56%			29		22%
2021-2022			33%	100%	74%	100%			9		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	RES	Combined	
2020-2021	20	2	5	0	100	10	0	0	60		0
2021-2022	5	1	5	1	30	3	0	0	10		0
2022-2023	3	1	1	1	30	3	0	0	0		0
Tag Trend	DEC	=	DEC	=	=	=	=	=	DEC	=	=

Quota Rationale

Fawn recruitment has been depressed for 4 consecutive years. The 3 lowest fawn:doe ratios have been observed in the last 4 years, with the lowest being observed last year. This population is continuing to decline due to poor fawn recruitment. Multiple years of improved fawn recruitment will be needed to reverse this trend. Horns longer than ears quotas have been reduced sharply since 2018. Quotas are remaining stable at a low level in 2022 and are based on targeting the statewide standard objective of a post-season buck ratio of 28 bucks:100 does. Horns shorter than ears season was closed for 2022 due to poor fawn recruitment over the last 4 years.

Reporting Biologist: Menghini

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 131-145-163-164

Date Prepared: 4/11/2022

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					
2019-2020		64	293	50	407	22	17	750	23
2020-2021		52	302	28	382	17	9	600	13
2021-2022		31	181	8	220	17	4	400	16

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			
2019-2020					77%	89%			24		28%
2020-2021	50%		100%		81%	89%			22		22%
2021-2022	40%	100%			80%	100%			16		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			
2020-2021	15	2	3	0	80	9			30	0	0
2021-2022	5	1	1	0	25	2			30	4	0
2022-2023	1	1	1	0	10	1			2	2	0
Tag Trend	DEC	=	=	=	DEC	DEC	=	=	DEC	DEC	=

Quota Rationale

Fewer antelope were observed on this year's survey, and fawn:doe ratios were extremely poor. Due to drought, low food resource availability, and poor fawn recruitment, quota and tag recommendations have been drastically reduced in attempts to alleviate some pressures on the population.

Reporting Biologist: Fino

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 132-133-134-245

Date Prepared: 4/11/2022

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					
2019-2020		62	251	51	364	25	20	500	21
2020-2021		61	278	39	378	22	14	450	20
2021-2022		44	100	1	145	44	1	360	17

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			
2019-2020	50%	100%			95%	80%					28%
2020-2021	40%	100%			91%	50%				100%	26%
2021-2022	40%	100%	100%		90%	67%				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			
2020-2021	5	1	1	0	35	4			0	1	0
2021-2022	5	1	1	0	30	3			0	4	0
2022-2023	1	1	1	0	15	2			0	1	0
Tag Trend	DEC	=	=	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

Fewer antelope were observed on this year's survey, and fawn:doe ratios were extremely poor. Due to drought, low food resource availability, and poor fawn recruitment, quota and tag recommendations have been drastically reduced in attempts to alleviate some pressures on the population.

Reporting Biologist: Fino

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 14-15

Date Prepared: 4/11/2022

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					
2019-2020		216	518	130	864	42	25	3,300	31
2020-2021		201	304	205	710	66	67	4,000	30
2021-2022		404	780	298	1,482	52	38	4,200	19

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			
2019-2020	26%	40%			79%	96%			356	82%	27%
2020-2021	32%	78%			89%	90%			340	100%	18%
2021-2022	19%	40%	57%	100%	86%	89%			273	100%	9%

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			
2020-2021	80	9			230	25			480	5	
2021-2022	60	7	7	1	170	20			470	11	
2022-2023	45	5	4	1	250	30			600	9	
Tag Trend	DEC	DEC	DEC	=	INC	INC	=	=	INC	DEC	=

Quota Rationale

This population continues to increase, and will see a large influx of 2 year old bucks this season due to the high fawn ratio in 2020. The standard statewide management objective for the horns shorter than ears quota is a post-hunt ratio of 25 adult bucks:100 does; however, this year's quota recommendations are targeting a post-season ratio of 29:100 to avoid doubling tags based primarily on 2 year old bucks. This should allow movement toward objective in a more conservative, incremental manner. This quota recommendation should allow for a balance of opportunity as well as available buck quality. The Department will continue to use doe harvest to maintain this population's growth at a manageable level and to address crop depredation issues.

Reporting Biologist: Hale

Supervisor: Donham

Pronghorn Quota Recommendation Form

Unit Group: 115, 231, 242

Date Prepared: 4/7/2022

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					
2019-2020	14	19	57	23	113	58	40	600	44
2020-2021					0	--	--	600	40
2021-2022	13	39	194	26	272	27	13	550	35

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			
2019-2020	89%	100%	100%		89%	75%				66%	30%
2020-2021	71%	100%	100%		100%	100%				100%	29%
2021-2022	60%		100%		78%	60%				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		RES	NR	RES	NR	RES	Combined	
2020-2021	15	2	5		45	5				10	
2021-2022	10	1	5		45	5				5	
2022-2023	2	1	1		30	3					
Tag Trend	DEC	=	DEC	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

This pronghorn population has undergone a slight decline this year. The cause of the decline has been low fawn recruitment. The area has been affected by severe drought location the last 2 years, leading to poor forage and limited water availability. Success rates were very high in 2019 and 2020 but have dropped slightly during 2021. The observed and modeled buck ratios have also dropped in 2021. Due to the decrease in the population estimate and buck ratio, we recommend a decrease in quota for all weapon classes in this area.

Reporting Biologist: Sallee

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 161, 162

Date Prepared: 3/24/2022

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					
2019-2020	6	28	79	19	132	43	24	450	43
2020-2021	6	18	71	21	116	34	30	400	35
2021-2022	6	22	102	8	138	27	8	350	39

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			
2019-2020					92%	100%				100%	40%
2020-2021	67%	100%			95%	100%				100%	49%
2021-2022	11%	100%			86%	100%				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		RES	NR	RES	NR	RES	Combined	
2020-2021	10	1			45	5				2	
2021-2022	10	1	2		40	5				6	
2022-2023	5	1	3		30	3				4	
Tag Trend	DEC	=	INC	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

This population is experiencing a contraction due to drought conditions in the past 2 years. Few fawns were observed on survey and animals were tied closely to water. Hunter harvest remains high, but unfortunately the two muzzleloader hunters could not harvest. Due to population level contractions the Department is recommending a quota reduction. In recent years, the Department increased quotas to account for higher observed and modeled buck ratios in the population, however, poor fawn recruitment and declining buck ratios warrant a decrease in quotas.

Reporting Biologist: Burkett

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 171-173

Date Prepared: 3/24/2022

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					
2019-2020	4	16	73	18	111	27	25	360	44
2020-2021	13	37	205	51	306	24	25	380	39
2021-2022	12	28	114	19	173	35	17	330	37

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			
2019-2020	40%				97%	100%				94%	40%
2020-2021	75%				95%	100%				100%	33%
2021-2022	67%		80%		96%	100%				100%	10%

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			
2020-2021	5	1			25	3				3	
2021-2022	5	1	5		30	5				3	
2022-2023	5	1	5		25	2					
Tag Trend	=	=	=	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

Mature male pronghorn are still available for hunters to harvest. Success rates continue to be high in this herd. The extended drought has influenced adult fitness, therefore reducing fawn ratios. The antelope population in this Area have large immigration and emigration between adjacent unit groups. The population modeling and quota recommendation process reflects these movements. Recruitment data predicts a declining trend for this population. A slight reduction of tags is warranted.

Reporting Biologist: Burkett

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 211-213

Date Prepared: 3/28/2022

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					
2019-2020	1	8	38	10	57	24	26	110	45
2020-2021					0	--	--	100	40
2021-2022	3	5	17	1	26	47	6	80	34

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			
2019-2020					86%						17%
2020-2021	100%				88%						13%
2021-2022	100%		100%		90%						9%

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	
2020-2021	1				8						
2021-2022	1		1		10						
2022-2023	1		1		6						
Tag Trend	=	=	=	=	DEC	=	=	=	=	=	=

Quota Rationale

Success rates continue to be high in this herd. The extended drought has influenced adult fitness, therefore reducing fawn ratios. Due to depressed fawn recruitment in 2021, this population is considered slightly decreasing.

Reporting Biologist: Burkett

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 221-223, 241

Date Prepared: 4/7/2022

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					
2019-2020	10	15	46	21	92	54	46	450	36
2020-2021					0	--	--	450	33
2021-2022	3	18	51	9	81	41	18	400	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			
2019-2020	50%		50%		79%	100%				100%	14%
2020-2021	27%		50%		97%	100%					26%
2021-2022	14%		60%		78%	80%					5%

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	
2020-2021	15		5		45	4					
2021-2022	10		5		45	5					
2022-2023	3		1		20	2				2	
Tag Trend	DEC	=	DEC	=	DEC	DEC	=	=	=	INC	=

Quota Rationale

This pronghorn population has undergone a slight decline this year. The cause of the decline has been low fawn recruitment. The area has been affected by severe drought location the last 2 years, leading to poor forage and limited water availability. Success rates have remained relatively stable over the last 3 years, however, the observed and modeled buck ratios have dropped in 2021. Due to the decrease in the population estimate and buck ratio, the Department recommends a decrease in quota for all weapon classes in this area.

Reporting Biologist: Sallee

Supervisor: Bennett

Pronghorn Quota Recommendation Form

Unit Group: 251

Date Prepared: 3/24/2022

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					
2019-2020	12	34	169	65	280	27	38	380	45
2020-2021	19	52	152	32	255	47	21	340	45
2021-2022	23	42	206	13	284	32	6	300	36

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			
2019-2020					95%	100%					50%
2020-2021	100%				92%	67%				100%	50%
2021-2022	80%		80%		100%	100%				100%	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	RES	Combined	
2020-2021	5				25	3				8	
2021-2022	5		5		25	3				12	
2022-2023	1		1		20	2				7	
Tag Trend	DEC	=	DEC	=	DEC	DEC	=	=	=	DEC	=

Quota Rationale

The Unit 251 antelope population is currently relatively stable to slightly decreasing due to low fawn recruitment. These antelope use agricultural fields during dry periods. This has helped ease the decrease in fawn to doe ratios until recently. This year's observed fawn to doe ratio tied a record low. The appeal of agricultural lands is drawing more animals to the area from the Nevada Test and Training Range. These animals are, at times, not available for harvest due to access restrictions. These movements are considered in the population modeling and quota recommendation process. Extreme drought conditions are expected to be the cause of the low fawn ratios

Reporting Biologist: Burkett

Supervisor: Bennett