

MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION

Species: Antelope
Region: 3
Hunting District: 310
Year: 2023

1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).

Reduce quota range of Either-sex Antelope License 310-20 from the current 150-250 licenses to 50-200 licenses. Expand the quota range of Doe/Fawn Antelope B License 310-30 from the current 150-400 licenses to 50-300 licenses.

Since the mid-1990's Either-sex licenses have ranged between 100-200 licenses. During the period between 2000 and 2005 the number of Either-sex licenses was below the current quota range. Since the mid-1990's Doe/Fawn licenses for antelope in HD 310 have ranged from between 50 to a maximum of 250 licenses. Since the establishment of the current quota range in 2016 the quota has never exceeded 250 Doe/Fawn licenses. Since 2016 there has been a reduction in both quotas and Doe/Fawn licenses have been at the bottom of the quota range (150 Doe/Fawn licenses) since 2019. These reductions were motivated by an observed decline in survey counts, fawn production and concerns over the effects of weather.

2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.

The objective of this change is to stabilize the population by providing the flexibility to reduce antelope licenses, in the event that poor population performance indicates that a reduction in harvest is desirable.

3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.

This proposed change will be deemed successful if it provides the flexibility to adjust quotas in response to population dynamics, environmental effects and game damage issues. If a reduction in licenses is implemented we should observe a reduction in doe harvest, followed by an observed increase in survey counts towards the informal objective of 800 antelope.

4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).

The informal management objective is to manage for a stable antelope population between 500-800 total antelope. The last survey count in HD 310 was completed in 2021 and produced a minimum count of 499 antelope. This was the lowest count observed in 20 years. Fawn production observed during this survey was 39 fawn: 100 doe, which is the lowest fawn production documented in this district and significantly below the 61 fawn: 100 doe average for this district (stdev=10.05). While this district was not surveyed in 2022, nearby districts had record low fawn production in 2022 possibly due to carry over effects of the historic 2021 drought. It is likely that production was similarly low in HD 310 during the summer of 2022. This would suggest unusually low fawn production over the past 2 years. Concerns over significantly below average fawn production have existed in this district since 2017 and contributed to the reduction in licenses in 2017 and again in 2019.

5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

During the historically severe drought of 2021, surveys in HD 310 showed an unusual drop in both the minimum count of antelope and fawn production. The effects of this drought appeared to carry over into 2022 to impact fawn production, as evidenced by the record low fawn: doe ratios observed in surveys of nearby districts. The winter of 2022/2023 has been unusually long and very likely impacted antelope survival and future reproduction in this area. The effects of multiple years of difficult drought and winter conditions are expected to result in relatively low minimum counts and fawn: doe ratios during surveys scheduled this summer. The ability to lower the number of licenses below the current quota range is desired to respond to the observed poor population performance in recent years.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

This proposal was presented at public scoping meetings in Whitehall, Townsend, Butte, Dillon, Helena, Livingston, and Bozeman with no public comments received. This proposal has also been discussed informally during conversations with a handful of Beaverhead County residents. No concerns were raised during these discussions.

Table 1. Antelope hunting district 310 license history, 1995-2023.

Period	EITHER-SEX LICENSES	DOE/FAWN LICENSES
1995-1997	175	100
1998-1999	200	150
2000-2005	100	50
2006-2009	175	100
2010-2013	200	250
2014-2015	150	125
2016	200	250
2017-2018	175	175
2019-2022	175	150

Table 2. Summary of Antelope HD 310 production and minimum count surveys 1987-2021.

Year	Survey Type	Production Count	Total Minimum Count	Bucks	Does	Fawns	Bucks : 100 Does	Fawns : 100 Does
1987	Production Only	149		36	65	48	55	74
1998	Minimum Counts		622	96	318	208	30	65
2002	Minimum Counts		480	79	273	128	29	47
2004	Production Only	377		55	210	112	26	53
2006	Minimum Counts		812	160	373	279	43	75
2008	Minimum Counts		594	96	203	142	47	70
2012	Production Only	499		152	215	132	71	61
2014	Minimum Counts		785	133	400	252	33	63
2015	Minimum Counts		940	214	430	296	50	69
2017	Minimum Counts		660	106	358	166	30	46
2019	Minimum Counts		805	173	421	211	41	50
2021	Minimum Counts		499	104	279	109	37	39
Average			689	129	339	199	41	61
Standard deviation			147.17	42.12	72.37	63.53	13.07	10.05

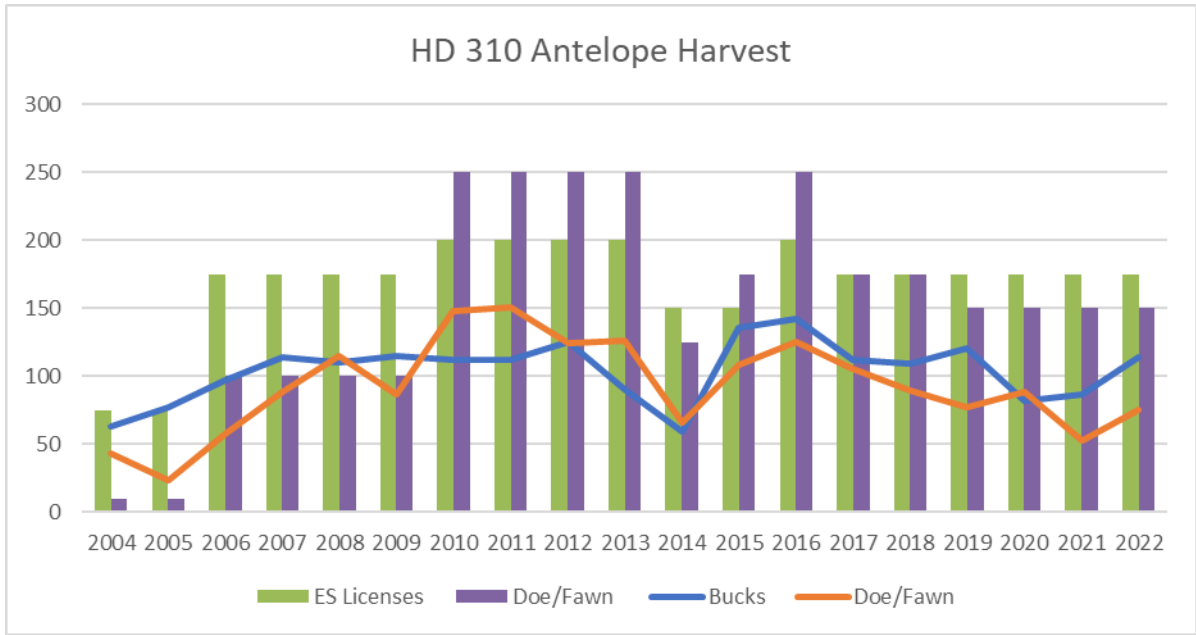


Figure 1. Number of licenses offered with estimated antelope buck and doe/fawn harvest from 2004-2022.

Submitted by: Jesse Newby

Date: 5/17/2023

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

**Species: Antelope
Region: 3
Hunting District: 317
Year: 2024**

- 1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).**

This proposal is to eliminate the 2nd opportunity B license (317-30) available for purchase by 317-20 license holders.

HD 317 was surveyed in 2022. 2022 quotas were lowered in response to reduced total numbers and recruitment. Although 317 was not surveyed in 2023, adjacent hunting districts showed further reduced numbers and substantially lower recruitment; it is expected that last winter had a similar effect on HD 317.

- 2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.**

The objective is to adjust the quota given reduced numbers of pronghorn on the landscape in order to manage harvest sustainably.

- 3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.**

The effectiveness of the quota change will be assessed through aerial surveys (biannual) and harvest surveys (annual), as well as on the ground conversations with hunters and landowners.

- 4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

In 2022, the total number of observed pronghorn was 419, which is lower than has been observed since the mid 2000s. Although 317 was not surveyed this year, the fawn:doe ratio in adjacent HD 338 was the lowest observed since at least 1997. It is expected that numbers were likely reduced in HD 317, along with the number of fawns born this summer..

- 5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).**

Pronghorn habitat in HD 317 is primarily on private land. Winter 2022-2023 was much harsher than other recent prior winters. This likely reduced body condition and survival of pronghorn, especially of fawns born in 2022.

- 6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).**

Given the short timeline between pronghorn surveys and the deadline for adjustments, public outreach has been limited. This proposal was discussed at the July meeting of the Park County Rod and Gun Club and shared with local wardens.

Submitted by: Michael Yarnall
Date: 31 July 2023
Approved: _____

Regional Supervisor / Date

Disapproved / Modified by:

Name / Date

Reason for Modification:

**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

**Species: Antelope
Region: 3
Hunting District: 338
Year: 2024**

- 1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).**

This proposal is to eliminate the 2nd opportunity B License (338-30) available to 338-20 license holders. Additionally, it is proposed to expand the quota range for 338-20 (currently 100-700) to be 1-700. These changes are made in light of low total numbers and recruitment observed in 2023 pronghorn surveys.

- 2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.**

The objective is to reduce pronghorn harvest and allow the population to grow back within long-term average ranges.

- 3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.**

This proposal will be evaluated via aerial surveys (every other year) and hunter harvest surveys (annually).

- 4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

The observed total population was 959 in 2023 (long-term average since 1997 is 1390). The observed fawn doe ratio was 29.2, which is the lowest observed recruitment since at least 1997 (long-term average since 1997 is 47.3).

- 5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).**

Winter 2022-2023 was particularly severe in the Shields Valley, which likely reduced pronghorn body condition and survival, especially of fawns born in 2022.

- 6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).**

This proposal has not been widely shared given the timeline between pronghorn surveys and the deadline to submit. It has been discussed with hunters at a meeting of the Park County Rod and Gun Club and with local enforcement staff.

Submitted by: Michael Yarnall

Date: 31 July 2023

Approved:

Regional Supervisor / Date

Disapproved / Modified by:

Name / Date

Reason for Modification:

**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

**Species: Antelope
Region: 3
Hunting District: 339
Year: 2024**

- 1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).**

This proposal is to eliminate the 2nd opportunity B Licenses (339-30) available to 339-20 tagholders.

HD 339 was surveyed in 2022. 2022 quotas for both the 339-20 and 339-30 licenses were lowered in response to reduced total numbers and recruitment. Although 338 was not surveyed in 2023, adjacent hunting district 338 showed further reduced numbers and substantially lower recruitment; it is expected that last winter had a similar effect on HD 339.

- 2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.**

The objective is to adjust the quota given reduced numbers of pronghorn on the landscape in order to manage harvest sustainably.

- 3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.**

The effectiveness of the quota change will be assessed through aerial surveys (biannual) and harvest surveys (annual), as well as on the ground conversations with hunters and landowners.

- 4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

In 2022, the total number of observed pronghorn was 727, which is lower than has been observed since the mid 2000s. Although 339 was not surveyed this year, the fawn:doe ratio in adjacent HD 338 was the lowest observed since at least 1997. It is expected that numbers were likely reduced in HD 339, along with the number of fawns born this summer.

- 5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).**

Pronghorn habitat in HD 339 is primarily on private land. Winter 2022-2023 was much harsher than other recent prior winters. This likely reduced body condition and survival of pronghorn, especially of fawns born in 2022.

- 6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).**

Given the short timeline between pronghorn surveys and the deadline for adjustments, public outreach has been limited. This proposal was discussed at the July meeting of the Park County Rod and Gun Club and shared with local wardens.

Submitted by: Michael Yarnall
Date: 31 July 2023

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

Species: Antelope

Region: 4

Hunting District: 401, 420, 430, 450, 471, 480, 481

Year: 2024-25 biennium

- 1. Describe the proposed season / quotas changes and provide a summary of prior history at the end of this document (i.e., prior history of permits, season types, etc.).**

Proposal is to reduce the quota ranges in the following HDs:

HD 401: License 401-20 reduce from 200-1,200 to 100-500

License 401-30 reduce from 25-1,000 to 25-500

HD 420: License 420-20 reduce from 5 – 1,200 to 5-500

License 420- 30 reduce from 5-700 to 5-500

HD 430: License 430-30 reduce from 25-475 to 25-225

HD 450: License 450-20 reduce from 25-400 to 25-250

License 450-30 reduce from 5-1,200 to 5-400

HD 471: License 471-20 reduce from 25-700 to 25-500

HD 480: License 480-20 reduce from 5 to 1,200 to 5-500

License 480-30 reduce from 5 to 1,400 to 5-500

HD 481: License 481-20 reduce from 5 to 1,200 to 5-500

License 481-30 reduce from 5 to 1,400 to 5-500

- 2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.**

Objective is to narrow down quota ranges to reflect license allocations for the next two years.

- 3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.**

N/A

- 4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

Antelope populations have declined some in these and many other HDs in MT since 2010.

- 5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).**

N/A

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

FWP Game Chief Brian Wakeling was queried and supported the proposal.

Submitted by: Cory Loecker

Date: 9/1/2023

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

**Species: Antelope
Region: 5
Hunting District: 546
Year: 2024**

- 1. Describe the proposed season / quotas changes and provide a summary of prior history at the end of this document (i.e., prior history of permits, season types, etc.).**

This proposal is to add 100 doe/fawn licenses to HD 546 (546-30). The doe/fawn license was removed for the 2022 and 2023 hunting seasons following several years with only 5 doe/fawn licenses available. After 2023 surveys the antelope population has recovered enough to allow doe/fawn licenses again. We propose to add 100 licenses with a quota range of 50 to 600 licenses.

- 2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.**

The objective of the proposed change is to increase harvest to decrease the current population to the management objective range of 1,750 to 2,000 antelope.

- 3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.**

Adding doe/fawn licenses is expected to decrease total antelope numbers toward the management objective range of 1,750 to 2,000 antelope. Harvest surveys will be used to monitor harvest numbers and annual game surveys will be used to monitor the population level.

- 4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

The antelope population objective for HD 500 is 1,750-2,000 total antelope. A trend area is surveyed annually in HD 500 starting in 2009. From the trend count, a total population estimate can be generated. Every three to five years a total coverage survey is completed to check the accuracy of trend predictions and added to the population model used to generate total population estimates. Table 2 shows antelope observed on the trend area from 2009-2023.

In 2023, the estimated population was 2,564 total antelope (Table 2). The population appears to be above the upper end of the objective range.

Table 2. Trend Area Counts for HD 546, 2009-2023.

Year	Adult Bucks	Yearling Bucks	Total Bucks	Does	Fawns	Total Antelope	Estimated Total Population	B/100 Does	F/100 Does	Incr.
2009	7	17	24	66	54	144	1808	36	82	38
2010	11	11	22	65	70	157	1854	34	108	45
2011	26	14	40	93	63	196	1991	43	68	32
2012	29	32	61	76	54	191	1973	80	71	28
2013	33	5	38	70	44	152	1233	54	63	29
2014	32	8	40	76	69	185	1881	53	91	37
2015	56	10	66	97	97	260	2173	68	100	37
2016	33	15	48	87	79	214	1994	55	91	37
2017	43	13	56	99	88	243	2107	57	89	36
2018	22	23	45	103	45	193	1180	44	44	23
2019	38	2	40	115	131	286	2157	35	114	46
2020	53	22	75	139	110	324	2293	54	79	34
2021	64	9	73	104	90	267	2089	70	87	34
2022	66	29	95	127	99	321	2282	75	78	31
<i>Average</i>	<i>37</i>	<i>15</i>	<i>52</i>	<i>94</i>	<i>78</i>	<i>224</i>	<i>1930</i>	<i>54</i>	<i>83</i>	<i>35</i>
2023	75	16	91	175	134	400	2564	52	77	34
<i>% Dev.</i>	<i>103%</i>	<i>8%</i>	<i>76%</i>	<i>86%</i>	<i>72%</i>	<i>79%</i>	<i>33%</i>	<i>-4%</i>	<i>-8%</i>	<i>-4%</i>

Table 3. Antelope Harvest HD 546, 2008-2023.

Year	Buck Harvest	Doe Harvest	Fawn Harvest	Total Harvest	Antelope Population	% of Pop. Harvested
2009	146	96	3	245	1,808	13.6
2010	168	122	11	301	1,854	16.2
2011	221	135	4	360	1,991	18.1
2012	149	109	9	267	1,973	13.5
2013	70	27	7	104	1,233	8.4
2014	118	40	5	163	1,881	8.7
2015	129	57	2	190	2,173	8.7
2016	155	71	2	228	1,994	11.4
2017	141	75	12	228	2,107	10.8
2018	99	57	0	156	1,180	13.2
2019	72	38	5	114	2,157	5.3
2020	86	43	0	128	2,293	5.6
2021	120	26	0	146	2,089	7.0
2022	140	54	0	194	2,282	8.5
<i>Average</i>	<i>149</i>	<i>109</i>	<i>10</i>	<i>268</i>	<i>1,919</i>	<i>11</i>
<i>%Dev.</i>	<i>-6%</i>	<i>-50%</i>	<i>-100%</i>	<i>-28%</i>	<i>19%</i>	<i>-26%</i>

5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

Snow condition survey information: The 2022-23 winter was long and produced heavy snow conditions. The 2023 spring and summer was cool and wet which produced great forage conditions. The fawn:doe ratio was 77 which was higher than neighboring districts. Population growth will be dependent on the level of fawn survival.

Describe access problems related to change, etc.: Occupied antelope habitat in HD 546 consists mainly of private lands. However, numerous accessible state sections are present, especially in the western half of the district. Many of the landowners are traditional ranchers/farmers, several block management areas offer antelope opportunity in the district. Hunter access to public and private lands has been moderate to good in the past. Considering the relatively low number of licenses currently being offered compared to license numbers in the past, no access problems are anticipated from the proposed license increase.

Overwinter survival information (i.e. bad winter lost what % of population): Over winter survival during the 2023 winter was good.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

No individual sportsmen, sportspersons groups, or landowners have been contacted relative to this proposal.

Table 1. History of license numbers, hunter numbers, and harvest for Antelope in HD 546.

Year	License Numbers	Hunters Afield	Hunter Days	Harvest
2004	600 ES 1200 DF	479	1271	676
2005	600 ES 1200 DF	460	1306	543
2006	600 ES 600 DF	467	1102	458
2007	600 ES 600 DF	418	1330	384
2008	500 ES	393	1188	198
2009	500 ES + 500 DF	368	1077	245
2010	500 ES + 200 DF	429	1266	301
2011	500 ES + 200 DF	458	1403	360
2012	500 ES + 200 DF	408	1222	267
2013	300 ES + 5 DF	NA	NA	104
2014	300 ES + 5 DF	277	1008	163
2015	400 ES + 50 DF	332	964	190
2016	400 ES + 50 DF	NA	NA	228
2017	400 ES + 50 DF	NA	NA	228
2018	300 ES + 5 DF	202	674	162
2019	300 ES + 5 DF	NA	NA	201
2020	300 ES + 5 DF	254	908	243
2021	400 ES + 5 DF	NA	NA	146
2022	400 ES	294	812	194
2023	400 ES	NA	NA	NA
2024	400 ES + 100 DF (proposed)			

Submitted by: Ashley Taylor

Date: 07/31/2023

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification: