

# ALBERTA WILDLIFE TAG ALLOCATION

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Discussion Paper  
Published December 2023



ALBERTA WILDLIFE  
FEDERATION

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**Second Printing**

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# WILDLIFE TAG ALLOCATION IN ALBERTA

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ALBERTA WILDLIFE FEDERATION

## MESSAGE FROM THE PRESIDENT

Faran Schaber

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Message to the Reader:

The Alberta Wildlife Federation is the principal Alberta Association representing the public interest of over 16,000 members for recreational hunting access to the wildlife resources of the province. Critical to this interest is the sustainable management of the province's abundant wildlife resources. Responsible harvesting, through the application of science-based allocations, stakeholder involvement as well as current policies and regulations is key to balanced use.

In consideration of this, the Alberta Wildlife Federation has prepared a Discussion Paper on Wildlife Tag Allocation in Alberta. This evaluation has been conducted through a detailed analysis of the current state of allocations, resident hunter uses and demand, as well as the regulations, policies, and programs of the Government of Alberta. The accompanying Discussion Paper is presented to inform on the current state, inspire action, and response.

It is understood that there are significant challenges and this will require engagement with the Government of Alberta departments that are directly responsible. We feel that the overall well-being of the affected wildlife species is paramount in their overall management and continued use. The Alberta Wildlife Federation is prepared to work with the Government of Alberta as well as other stakeholders to resolve the concerns presented in this report.

Faran Schaber  
Alberta Wildlife Federation President

## ABOUT THE ALBERTA WILDLIFE FEDERATION

In October 2023, the Alberta Fish and Game Association Executive approved a change to operate under a trade name, Alberta Wildlife Federation (The Federation). This paper will use this new name.

The Alberta Wildlife Federation is Alberta's oldest and largest independent conservation organization. As "The Voice of Alberta's Hunters and Anglers", we represent over 16,000 committed Alberta outdoorsmen, embracing the North American Model of Wildlife Conservation.

We believe that wildlife is owned by no one and is held in trust for the benefit of present and future Alberta generations by the Government of Alberta (GoA). As a key stakeholder, the Federation has always played an important role in providing input to the management of that wildlife and habitat.



Photo credit: Jessica Carlyon

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## SUMMARY & RECOMMENDATIONS

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This Discussion Paper explores four species of special concern; Bighorn Sheep, Moose, Mule Deer and Pronghorn Antelope. Although their provincial populations appear to be stable, the arbitrary overallocation of commercial outfitter tags in the absence of an updated, formal Species Management Plans cannot be justified. The GoA appears to have ignored its oft-stated principle; “Resident recreational use of game will have precedence over non-resident use”.

The casual reader could be forgiven for interpreting these actions as a matter of GoA policy, adjusting Resident recreational allocations to prioritize and maximize commercialized non-resident use.

**Trust in government has been challenged by recent wildlife management decisions made by the GoA.**

THE ALBERTA WILDLIFE FEDERATION HAS **FOUR MAJOR RECOMMENDATIONS** FOR THE GOVERNMENT OF ALBERTA:

1. Return to the table in good faith and honour the commitments they made in the 2001 Outfitter Guide Allocation Policy.
2. As a priority, formally update the Management Plan for all major Alberta big game species, involving all stakeholders.
3. Immediately cancel the one-time addition to commercial outfitters of all extra tags issued as COVID 19 pandemic relief.
4. Immediately reduce the annual standard allocation to commercial outfitters for each of the major Alberta big game species, reflecting the government’s commitment covered in its 2001 Outfitter Guide Allocation Policy.

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## DISCUSSION

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The Federation has long been a promoter and supporter of the North American Model for Wildlife Conservation (NAMWC). Originally crafted in the late 1800s, it is often presented as a 7-pillar system for the rescue, recovery and future management of North American wildlife. Those pillars have evolved over the past century to reflect the needs of each generation of citizens.

1. Maintaining wildlife as a public trust resource, entrusted to the state to manage,
2. Prohibiting deleterious commerce in dead wildlife products,
3. Regulating and defining appropriate wildlife use by law,
4. Ensuring wildlife can only be killed for legitimate purpose,
5. Recognizing and managing wildlife as an international resource,
6. Utilizing and safeguarding science as the appropriate basis for wildlife policy, and
7. Protecting the democratic allocation of citizen opportunity to harvest wildlife.

The keystone component, “Wildlife as a Public Trust Resource”, is also the most relevant to the topic of this paper. This concept’s principle is that wildlife is owned by no one and is held in trust for the benefit of present and future generations by the government. This indeed is the legal foundation for all federal and provincial wildlife agencies. Reflecting this, the AWF’s first registered Object states: “Promote conservation and use of our fish and wildlife resource including the required habitat through application of science and meaningful consultations with Albertans.”

More recently, the NAMWC has been extensively reviewed in the seminal book edited by Dr. Valerius Geist and Shane P. Mahoney, “The North American Model for Wildlife Conservation” (2019).

The keystone component, “Wildlife as a Public Trust Resource”, is also the most relevant to the topic of this paper. This concept’s principle is that wildlife is owned by no one and is held in trust for the benefit of present and future generations by the government. This indeed is the legal foundation for all federal and provincial wildlife agencies.

Reflecting this, the The Federation’s first registered Object states: “Promote conservation and use of our fish and wildlife resource including the required habitat through application of science and meaningful consultations with Albertans.”<sup>1</sup>

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<sup>1</sup> 2022 1219 Registered Objects for the AFGA

## MANAGEMENT OF ALBERTA WILDLIFE

Management of Alberta's native wildlife has multiple, sometimes conflicting, objectives. The overarching purpose is to conserve the species on its current habitat at a healthy, stable population. Factors include interactions among wildlife species, human influences, disease, and effects of habitat conditions. Throughout this paper we will use the term, Government of Alberta (GoA), since the responsibility for wildlife policy and management has bounced between multiple government departments over the years covered by this paper (2010-2023), and even in the focused, short study period (2015-2019).

Since 1989, the GoA has begun the creation of formal, species-specific management plans to set direction and guide conservation action. Ideally, these objectives reflect a balance between biological, recreational, economic, and stakeholder tolerances and expectations. Sadly, not all species are yet covered.

## ALLOCATION OF ALBERTA'S WILDLIFE TAGS

For years, the GoA has used a Wildlife Tag allocation process to manage the harvest of big game animals with the goal of ensuring "... species conservation objectives while providing hunting opportunities".<sup>2</sup> The process must allocate this harvest across all stakeholder groups, including Alberta resident recreational users, Alberta landowners, and professional outfitters.

The GoA has also stated in numerous documents the policy that "Resident recreational use of game will have precedence over non-resident use."<sup>3</sup> To achieve this balanced policy, the GoA established a Draft Outfitter Allocation Policy in 2001, following consultation with stakeholder groups. It states that the "... basic allocation of the big game resource for commercial outfitting is up to 10% of the allowable harvest".<sup>4</sup> This clearly implies that at least 90% of the allowable harvest should be directed to the other Alberta resident stakeholders.

That same document also created an Allocation Review Committee consisting of 2 members of the Alberta Professional Outfitters Society (APOS), 2 members of the Federation, and 2 members of the Fish and Wildlife Service (one of which will act as chair), charged with meeting every 6 months and conducting full annual and 5-year reviews of the allocation process. The Federation helped develop this process, and has always supported and insisted on its application. The application of this process, under the chairmanship of the GoA, has been ad hoc with no formal Allocation Review Committee meetings between 2012 and 2022. As a consequence, results have been hit and miss in achieving the expected balanced approach to allocations in meeting the needs of all of Alberta's stakeholders.

Recent allocation decisions have been made by the GoA, notably for Bighorn Sheep, Moose, Mule Deer and Pronghorn Antelope. These decisions appear to violate the intent of these policies and agreements.



# GUIDED HUNTING IN ALBERTA

The first guided hunts into the Alberta wilderness began in the late 1800s. In 1997, the APOS was established as a delegated administrative organization for the GoA. APOS' delegated responsibilities include licensing the province's guides and professional outfitters, managing the distribution of big game allocations and waterfowl privileges, and holding members accountable to a Code of Ethics.

Today the society represents 500 professional outfitters and nearly 1,600 hunting guides, claiming a \$327 million contribution to Alberta's gross domestic product, and supporting rural jobs and economies throughout the province. (<https://www.apos.ab.ca/>). The regulatory scope for commercial guiding is set out in Schedule 3 (Sections 52-59) of the Wildlife Act Regulations of Alberta<sup>5</sup>. On June 15, 2018, we received, via email, their 2018 Outfitter Allocation Database<sup>6</sup> from their Records Management Coordinator, Sander Duffhues. That database is used throughout this paper.



<sup>2</sup>2014 0318 APOS Allocation Tenure agreement exp 2023

<sup>3</sup>All GoA Species Management Plans for Pronghorn Antelope, Bighorn Sheep and Mule Deer

<sup>4</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>5</sup>2023 0811 ALBERTA Wildlife Regulation 1997\_143

<sup>6</sup>2018 0615 Outfitter Allocations Only per WMU for 2018 Season

## ALBERTA WILDLIFE TAG ALLOCATION PROCESS

The implementation of a process appears to be deceptively simple. It begins with a point-in-time estimate of a species's population within a defined area. The population changes between that point-in-time and September 1 due to multiple factors, such as winter's severity, natural predation, birth rate, etc., are estimated. Allowing for these impacts will determine whether the population can sustain a harvest, and what that allowable harvest might be.

A GoA DRAFT paper from 2018<sup>7</sup> best illustrates the intended process to distribute wildlife tags between individual Resident/Non-Resident hunters and Alberta's guiding community, represented by APOS.

### Calculation Method

We begin by defining the key variables. The harvest goal (H; sometimes referred to as the allowable harvest) is the number of animals available for harvest each year as determined by the responsible biologist. Harvest goals are set and reviewed annually for species in each WMU where a Special License is required, and are determined based on current population estimates and management goals. Opportunity (O) is the number of licenses available annually that can be used to harvest an animal. For commercial hunters, opportunity is defined as the number of available allocations ("Allocations"), while for recreational hunters it is the number of available Special Licenses ("Quota").

Success (S) is a rate describing the number of animals harvested with respect to the number of licenses available. For commercial hunters, success is defined as the number of animals harvested divided by the number of allocations available ("Allocation Success"), while for recreational hunters it is defined as the number of animals harvested divided by the number of Special Licenses available ("Quota Success"). Success is an important variable, as it enables the conversion from opportunity to harvest and vice versa. Success can be considered as a percentage, but in the calculation, it is expressed as a value between 0 and 1. Harvest is calculated as opportunity multiplied by success:  $H = O \times S$ . Therefore, by re-arranging the equation opportunity can be calculated as harvest divided by success:  $O = H / S$ . Table 1 summarizes the above variables and their symbols.

**Source: 2018 0212 Analysis Report - Allocation by Harvest vs Opportunity - DRAFT**

Table 1: List of the Variables Used in the Allocation Calculations

Variable		Symbol
Harvest	Harvest Goal	H
	Commercial Harvest	Hc
	Recreational Harvest	Hr
Opportunity	Total Opportunity	O
	Commercial Opportunity ("Allocations")	Oc
	Recreational Opportunity ("Quota")	Or
Success	Commercial Success	Sc
	Recreational Success	Sr

The Current GoA Policy is presented as Scenario A in that report's Executive Summary.<sup>8</sup>

Scenario A – Allocation by Harvest (current policy)

Commercial Opportunity	$O_c = 0.1 \times H / S_c$
Recreational Opportunity	$O_r = 0.9 \times H / S_r$
Example: Suppose the harvest goal is 100 animals and the commercial and recreational success is 80% and 75% respectively.	
Commercial Opportunity	$O_c = 0.1 \times 100 / 0.80 = 13$
Recreational Opportunity	$O_r = 0.9 \times 100 / 0.75 = 120$

The 2001 Outfitter Guide allocation policy<sup>9</sup> states that the allowable harvest for commercial interest is "up to a maximum of 10% " of total harvest. However, that model starts at 10% as the given for commercial allocation. This is an inaccuracy and a bias in allotting the commercial harvest.

Given the wildlife management priority places Alberta residents first, the commercial allocations could and in some places where demand by residents is high with long wait times to be drawn, should be significantly less than 10%. In effect, the calculations are biased in favour of achieving the maximum for commercial use by using the 10% variable as a given in this equation

The overall calculation will be at the Species Management Area (SMA) level. SMAs are defined as "... functional units for determining the general application of different management regimes for each big game species throughout the province." They consist of a number of connected Wildlife Management Units (WMUs). The designation of SMAs has changed over time. This paper uses the most recent versions.

A number of criteria are established as having an impact on the commercial allocation. They are:

- *Resource Availability:* The greater the percentage the more limited the resident hunting opportunity for the species provincially.
- *Land Tenure:* The greater the percentage the higher the potential restrictions on access to the resource within a SMA.
- *Resident Use / Demand:* The greater the value the higher the resident use in general seasons and the higher the resident demand for opportunity in draw seasons (SMA basis).
- *Outfitter-Guide Use:* The greater the value the higher the economic value of individual allocations within a SMA.

<sup>8</sup> 2018 0212 Executive Summary - Allocation by Harvest vs Opportunity - DRAFT

<sup>9</sup> 2001 0627 Outfitter Guide Allocation Policy-DRAFT

Quoting from the same policy on the application of these factors.<sup>10</sup>

The Measurement Factor values are grouped into High, Medium and Low categories. In essence, high values for Resource Availability, Land Tenure and Resident Use I Demand would scale allocation percent down (lower non-resident use) from the basic 10% allotment and low values would scale allocation percent upward (higher non-resident use). Values for Outfitter-Guide Use would act in the reverse manner.

Each of the High, Medium and Low categories is assigned a weighted value to reflect the relative significance of each criterion and the various value categories. Because of the importance of draws in limiting resident opportunity, Resident Demand has been assigned separate weighted values from Resident Use. The following table indicates the proposed weighted values assigned to the different categories of each criterion.

Criteria	High	Medium	Low
Resource Availability	-2	-1	0
Land Tenure	-3	-1	+1
Resident Use (General)	-3	-1	+1
Resident Demand (Draw)	-4	-2	-1
Outfitter-Guide Use	+2	+1	0

Arriving at a range of possible outcomes<sup>11</sup>;

The actual percent allocation (to commercial interests) at the SMA level will not normally be:

**Less than 3%**

**More than 10% in draw situations**

The exception to this overall starting point and calculation is the Bighorn Sheep allocation. The 1993 Bighorn Sheep Management Plan<sup>12</sup> states "At least 80 percent of the harvestable surplus of trophy rams will be allocated to recreational hunting by residents ...", and "Provincially, a maximum of 20 percent of the harvestable surplus of trophy rams may be allocated to the outfitting-guiding industry ...". The use of will versus may is deliberate.

Key aspects of the discussion is that there are three stages of the allocation tags for commercial outfitters.

1. What number of tags are made available to the commercial outfitters, broken down by specie, WMU, archery vs. general, and for Moose; Rut vs. General.
2. How many of these allocation tags are actually sold to Non-Resident hunters by the commercial outfitters.
3. How many of these sold allocation tags are actually filled to form part of the harvest of that specie.

## ALLOCATION REVIEW BY SPECIE OF CONCERN

As noted earlier, the application of the GoA's Wildlife Tag Allocation Process has been inconsistent, especially in the period 2012-2022, when no formal Allocation Review Committee meetings were held.

The Federation has stated that, at the present time, four species are of concern; Bighorn Sheep, Moose, Mule Deer and Pronghorn Antelope.

Our data review focusses on the five-year period, 2015-2019, a time period where the commercial outfitter tag allocations were fixed for the full period, as per the 2001 Outfitter Guide Allocation Policy. The Recreational allocation could vary annually, based on the GoA's calculation of allowable harvest for each specie.

A final comparison is made with the 2023 season.

The study period is also prior to the impact of the Covid 19 pandemic. The two hunting seasons of 2020-2021 had virtually no commercial outfitter guided hunts due to border closures. The 2022 hunting season was a recovery year for commercial outfitters.

That is not to say that that wildlife tag allocations for commercial outfitters were static.

In response to the restrictions of the Covid 19 pandemic, the GoA, without consultation with other stakeholders, brought in a relief package consisting of extra allocation tags only for commercial outfitters and also gave them permission to take on Resident hunters as clients. These additional allocation tags do not expire until the end of the 2027 hunting season. This is of concern and will be discussed with each specie.



<sup>10</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>11</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>12</sup>1993 0701 Management Plan for Bighorn Sheep in Alberta

## BIGHORN SHEEP

The Rocky Mountain Bighorn Sheep is designated the official mammal of Alberta. Worldwide, it is recognized as an indicator species whose abundance indicates the health of its ecosystem.

The population had declined rapidly by 1915, when the GoA brought in Bighorn Sheep management programs. The population did recover, but then plunged in the mid-1940s, primarily due to disease and overgrazing of range land. By 1950, there were about 1,500 Bighorn Sheep on provincial land (excluding National Parks). The Bighorn Sheep harvest and habitat management programs introduced since that time have increased the population to an estimated 5,215 head on provincial land by mid-1989<sup>13</sup>. By mid-2011, that had increased to 6,466 head on provincial land<sup>14</sup>. The GoA continues to closely manage the Bighorn Sheep population through both harvest and habitat management programs.



## SPECIES MANAGEMENT AREAS<sup>15</sup>

Table I-2 Bighorn Sheep Species Management Areas (SMAs) in Alberta, 2012

SMA Number	SMA Name	Wildlife Management Units
1	Westcastle - Yarrow	302, 303B, 400
2	Livingstone	303A, 306, 308, 402
3	Kananaskis	404, 406, 408, 410B
4A	Bow Valley - Ghost	410A, 412, 414
4B	Clearwater - Ram	326, 416, 417, 418, 420, 422, 426A, 428, 430A
4C	Nordegg - Chungo	426B, 430B, 432, 434
5	Ram - Shunda	328, 429
6	Cadomin	436, 437, 438
7	Wilmore	439, 440, 441, 442N, 444B
8	Torrens	442A, 444A, 445, 446

<sup>13</sup>1993 0701 Management Plan for Bighorn Sheep in Alberta

<sup>14</sup>2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT

<sup>15</sup>2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT

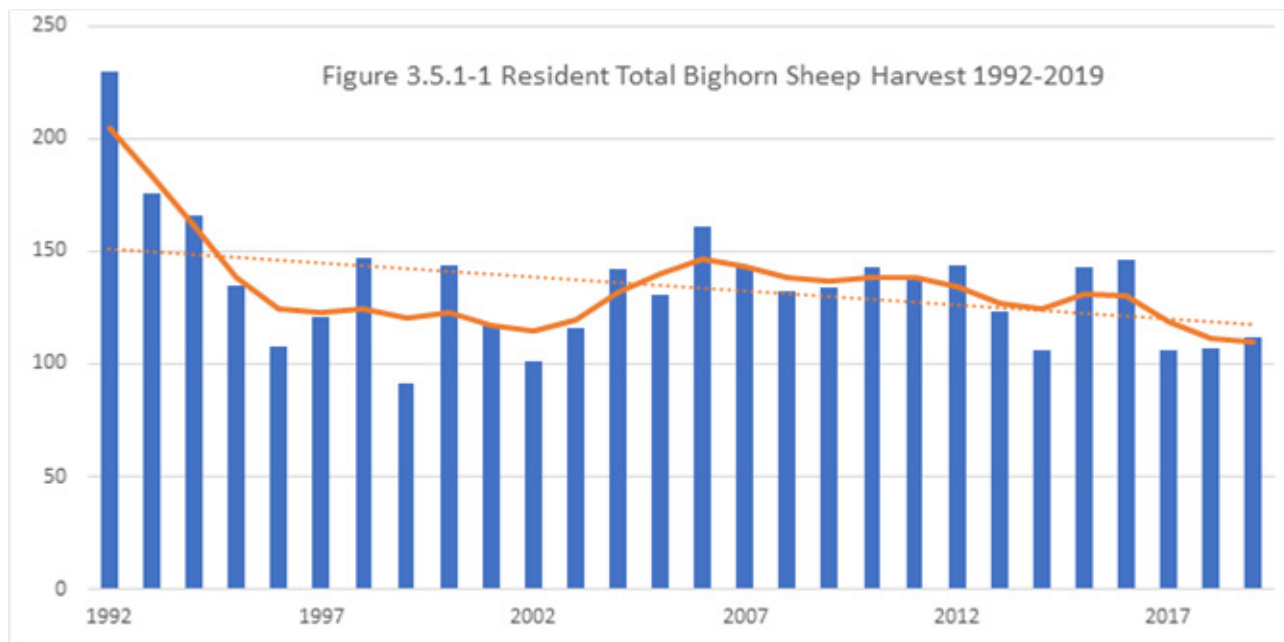
# BIGHORN SHEEP POPULATIONS

It has been difficult for the GoA to develop reliable population estimates. The most common technique has been aerial surveys, but those are expensive, dangerous and difficult in the mountainous Bighorn Sheep range.

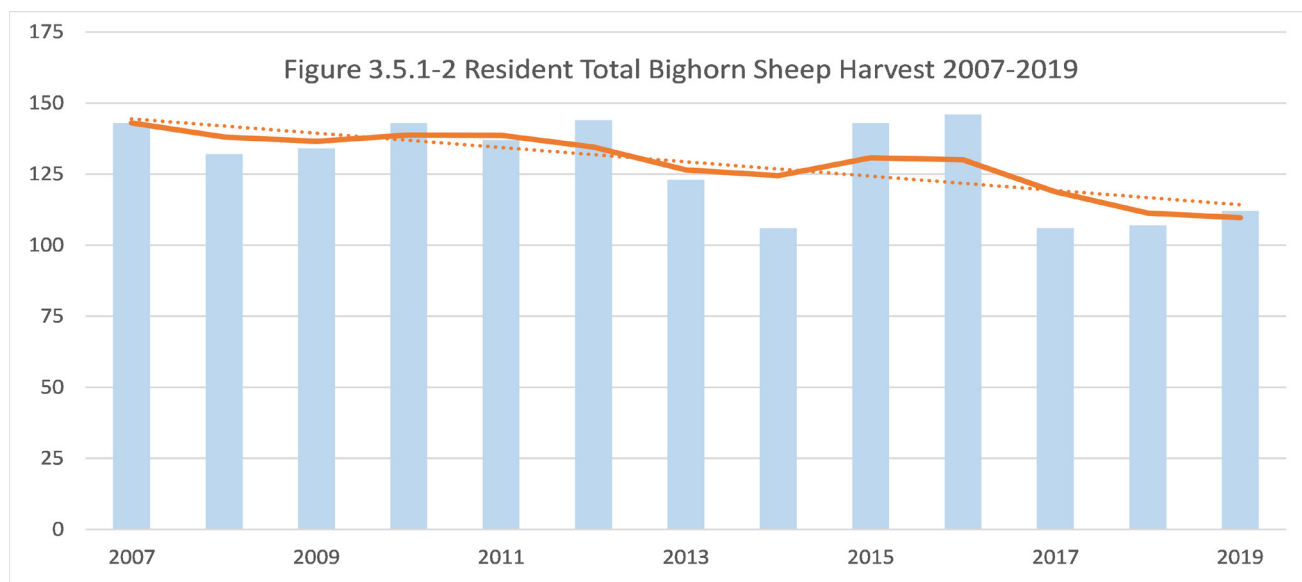
These are usually viewed as minimum population estimates.

The Federation, along with several other stakeholders, has argued that the resident hunter harvest statistics can serve as a suitable proxy for herd population on provincial land.

The Figure below charts the Resident Total Bighorn Sheep Harvest presented in Appendix I, Table I-2 as blue bars. The red line represents the best fit curve, and the red dotted line represents the overall trendline.



Using the resident hunter Trophy Bighorn Sheep harvest statistics as a proposed suitable proxy for Bighorn Sheep population, this data trendline indicates a Bighorn Sheep population decline over the 2015-2019 study period of 4.1%. If this data were restricted to the 2007-2019 period, a trendline would indicate a Bighorn Sheep population reduction over the 2015-2019 study period of 8.1%, as shown below in Figure 3.5.1-2.



# BIGHORN SHEEP HARVEST MANAGEMENT OBJECTIVES

The original 1993 Bighorn Sheep Management Plan<sup>16</sup> considered the following trophy Bighorn Sheep ram harvest objectives.

Under 3.2.2a, "Provide the opportunity for 3,540 residents to hunt 22,020 days and take 248 trophy sheep ...". Under 3.2.2.c, "Provide the opportunity for outfitter-guides to contract non-resident bighorn sheep hunters to take up to 41 trophy sheep annually, consistent with policy". Combining these two statements gives a total target harvest of trophy Bighorn Sheep rams of 289, with the commercial outfitters receiving 14.2% of the total harvest. The 2012 DRAFT<sup>17</sup> plan considered different wording; "Alberta's Management Plan for Bighorn Sheep allows for 20% of the harvest allocated for NR (non-resident) and NRA (non-resident alien) at a provincial scale".

The Trophy Bighorn Sheep Harvest for 1992-2019, a compilation table from a number of sources, is shown as Table I-1 in Appendix I. The non-shaded areas are raw data, and these are accurate harvest numbers, not an estimate, since the Trophy Bighorn Sheep harvest is obtained through compulsory registration (2010-2020). The shaded areas are estimate calculations as noted. The summary of this data appears as the first line in Table 3.5.1-1.

Note that the Outfitter percent of total Trophy Bighorn Sheep harvest always exceeded the 14.2% recommended by the 1993 Management Plan and exceeded the potential maximum of 20% in four of the 5 years studied. This has resulted in an outfitter overharvest of up to 81 trophy Bighorn Sheep rams, as shown below. This suggests that the outfitter annual harvest needs to be reduced by 16.2 head. At the study period's outfitter success rate of 45% (Appendix I, Table I-8), the tags

Table 3.5.1-1 Harvest Comparison of Trophy Bighorn Sheep Rams 2015-2019

	2015	2016	2017	2018	2019	Total	Average
Resident Harvest <sup>18</sup>	143	146	106	107	112	614	122.8
Outfitter Harvest <sup>19</sup>	30	37	27	64	38	196	39.2
Total Harvest	173	183	133	171	150	810	162
Outfitter % of Total	17.34%	20.22%	20.30%	37.43%	25.33%	24.20%	24.20%

Table 3.5.1-2 Outfitter Overharvest of Trophy Bighorn Sheep Rams 2015-2019

	2015	2016	2017	2018	2019	Total	Average
At 14.2% of Harvest	5	11	8	40	17	81	16.2
At 20% of Harvest	-5	0	0	30	8	34	6.6

allocated need to be reduced by 36. The recorded commercial outfitter trophy ram harvest by SMA for 2015-2019 is shown in Appendix I as Table I-3. The summary of that data appears as the second line in Table 3.5.1-1.

For the study period, the total available Trophy Bighorn Sheep allocations for commercial outfitters is detailed in Appendix I as Table I-4. The total available Trophy Bighorn Sheep allocations sold by commercial outfitters is detailed in Appendix I as Table I-5. As shown in Appendix I, Table I-6, 86% of available allocations were sold during the study period. Although some WMU commercial outfitter allocations were not sold in some years, the popular WMUs were almost always sold out.

Appendix I, Table I-7 details the commercial outfitter Trophy Bighorn Sheep tags filled during the study period, and Table I-8 calculates the commercial outfitter success rate by WMU by hunting season. The overall average commercial outfitter success rate was 45%. Looking at both these

tables, it is clear that the 2018 hunting season was an anomaly. Excluding it, and only 37% of the allocation Trophy Bighorn Sheep tags available to commercial outfitters were filled. Over the 2018 season, 65% of these Trophy Bighorn Sheep tags were filled. This particularly stands out when compared to the 1993 management plan's forecast of limiting "... contract non-resident bighorn sheep hunters to take up to 41 trophy sheep annually ...".

At least 23 Trophy Bighorn Sheep in excess of the 1993 management plan were harvested by commercial outfitters. That includes an overharvest of 9 Trophy Bighorn Sheep in WMUs 410, 418 and 426 (see Tables I-7 and I-8 in Appendix I). It is worth noting that the resident Trophy Bighorn Sheep harvest of 107 in 2018 was the 4th lowest since 1992.<sup>20,21</sup> The commercial outfitter allocations for trophy Bighorn Sheep over the study period shown in Appendix I, Table I-4, sit at 88 per year.<sup>22</sup> The current commercial outfitter allocations for trophy Bighorn Sheep are shown in Appendix I, Table I-9<sup>23</sup>. The increase of 1 additional allocation has never been explained.



# ACCOMMODATION OF THE COMMERCIAL OUTFITTER INDUSTRY DURING COVID PERIOD

In response to the restrictions of the COVID 19 pandemic, the GoA increased the commercial outfitter tags for the 2021 season by 36 to a total of 125, as shown in Appendix I – Table 1-9<sup>24</sup>. This one-time addition of extra 36 tags does not expire until the end of the 2027 season.

## BIGHORN SHEEP CONCLUSIONS AND RECOMENDATIONS

It is abundantly clear the Bighorn Sheep population has been slowly dropping since 1992, and possibly even quicker since 2007.

- The GoA must return to the table in good faith and honour the commitments they made when the Outfitter Guide Allocation Policy was first drafted in 2001<sup>25</sup>, and the applicable wildlife management plans wherein they stated “Resident recreational use of game will have precedence over non-resident use.”<sup>26</sup>

- As a priority, the GoA must create a new, updated Management Plan for Bighorn Sheep in Alberta, involving all stakeholders.

- The GoA must immediately cancel the one-time addition to commercial outfitters of the extra 36 tags for the COVID 19 pandemic. These will only further reduce the overall Trophy Bighorn Sheep population if they are filled.

- The GoA must immediately reduce the annual Trophy Bighorn Sheep allocation to commercial outfitters from the current 89 tags to 81 tags, reflecting the 8.1% decline noted in the discussion of Figure 3.5.1-2. In addition, to reflect the commitment made in the 1993 Bighorn Sheep management plan<sup>27</sup> (an outfitter harvest of 14.2% of total harvest), the annual Trophy Bighorn Sheep allocation to commercial outfitters needs to be even further reduced by 28 tags to 53 tags in total.

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<sup>16</sup>1993 0701 Management Plan for Bighorn Sheep in Alberta

<sup>17</sup>2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT

<sup>18</sup>2023 0525 AEP Trophy Bighorn Sheep Resident Harvest Report 2013-2022

<sup>19</sup>2022 0222 FWMIS FOIP of Outfitter Success 2015-2020

<sup>20</sup>2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT

<sup>21</sup>2022 0222 FWMIS FOIP of Outfitter Success 2015-2020

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<sup>22</sup>2018 0615 Outfitter Allocations Only per WMU for 2018 Season

<sup>23</sup>2023 0810 AFP-Moose Allocations- 2023 Hunting Season

<sup>24</sup>2021 0617 AEP Bighorn Sheep Allocations for the 2021 Hunting Season

<sup>25</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>26</sup>1993 0701 Management Plan for Bighorn Sheep in Alberta

<sup>27</sup>1993 0701 Management Plan for Bighorn Sheep in Alberta

# MOOSE

Moose occur across most of Alberta, with the population highest in the northern Boreal and Foothills regions. Although they have expanded their range to include much of the Prairie and Parkland regions, their overall population is thought to be in decline.

In particular, First Nations have been vocal on the matter, and have called upon provincial governments to take action<sup>28</sup>.



## SPECIES MANAGEMENT AREAS

The GoA has yet to develop a Management Plan for Moose in Alberta, even as a draft document.

We are told SMAs for Moose have been established and are in use for species management, but we have been unable to find any published reference defining them. Therefore, we will use the Big Game management areas as defined in the Alberta Hunting Regulations and annually used in the provincial hunting guide. They are shown in the table to the right. Moose management in Alberta is complicated because of a perceived role they might play in the population collapse of Alberta's Woodland Caribou.

Table 3.5.2-1 Alberta Big Game Regions

Region
Prairie WMUs (100 series)
Parkland WMUs (200 series & 728, 730, 936)
Foothills WMUs (300 series)
Mountain WMUs (400 series)
Boreal WMUs (500 series & 841)

<sup>28</sup> 2021 0107 HUMAN ECOLOGY Conservation and Indigenous Subsistence Hunting in the Peace River Region of Canada

<sup>29</sup> 2023 0810 AFP-Moose Allocations- 2023 Hunting Season

<sup>30</sup> 2023 Alberta Hunting Guide

<sup>31</sup> 2023 0705 GoA Estimated Resident Hunter Harvest 2010-2022 - Moose

# MOOSE POPULATIONS

With the absence of a formal Management Plan for Moose in Alberta that articulates the government’s Moose population objective, it is difficult to address the health of these populations. The pressure on the Moose population is evident, since all Resident WMU rifle seasons and 58% of Resident WMU Archery seasons are on a draw basis for 2023<sup>29,30</sup>.

The last time a Moose-specific aerial survey was conducted was in 2019-2020 for WMU 326. The 2018 surveys covered WMUs 320, 322 and 332. General Ungulate surveys were

conducted for multiple species and multiple WMUs for the period 2012-2022. In all, 54% of the WMUs with a Resident season for Moose covering 76% of the total Special License allocations available to Residents were surveyed in those 11 years. Four WMUs have been surveyed twice. Most of the surveys showed a steady or slightly increasing population within the WMU. A similar result is indicated by looking at the Resident Harvest for 2010-2022<sup>31</sup>. Figure 3.5.2-1 shows the estimated resident harvest as blue bars with the best fit curve as a red line. The calculated trend line indicates an increasing harvest over these years.

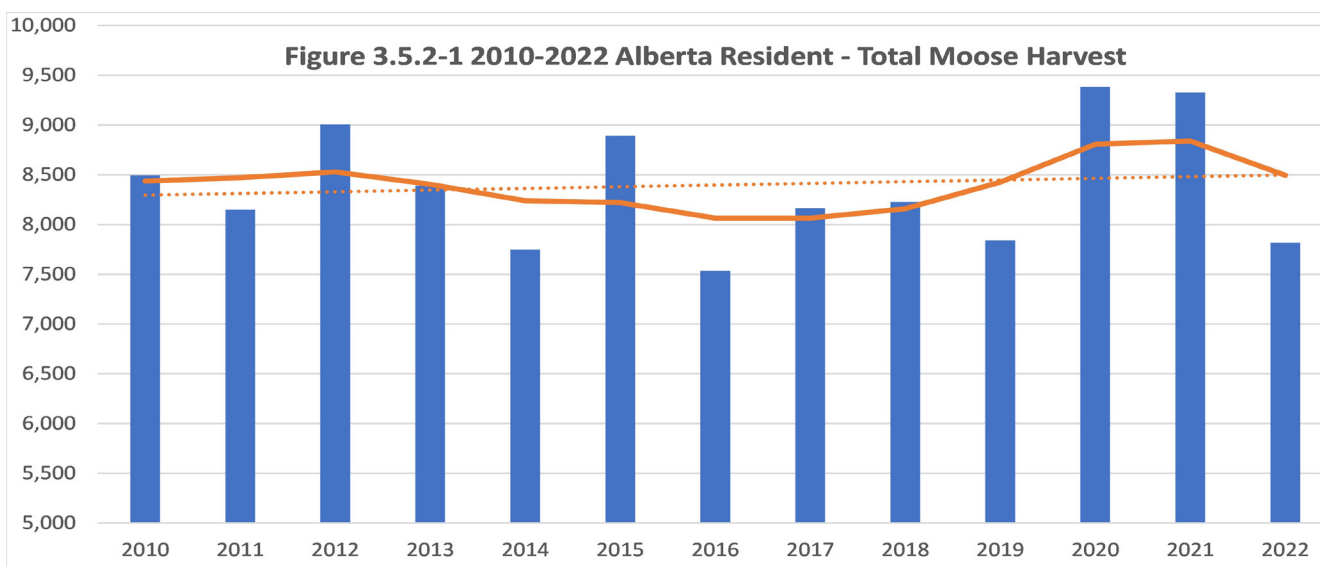
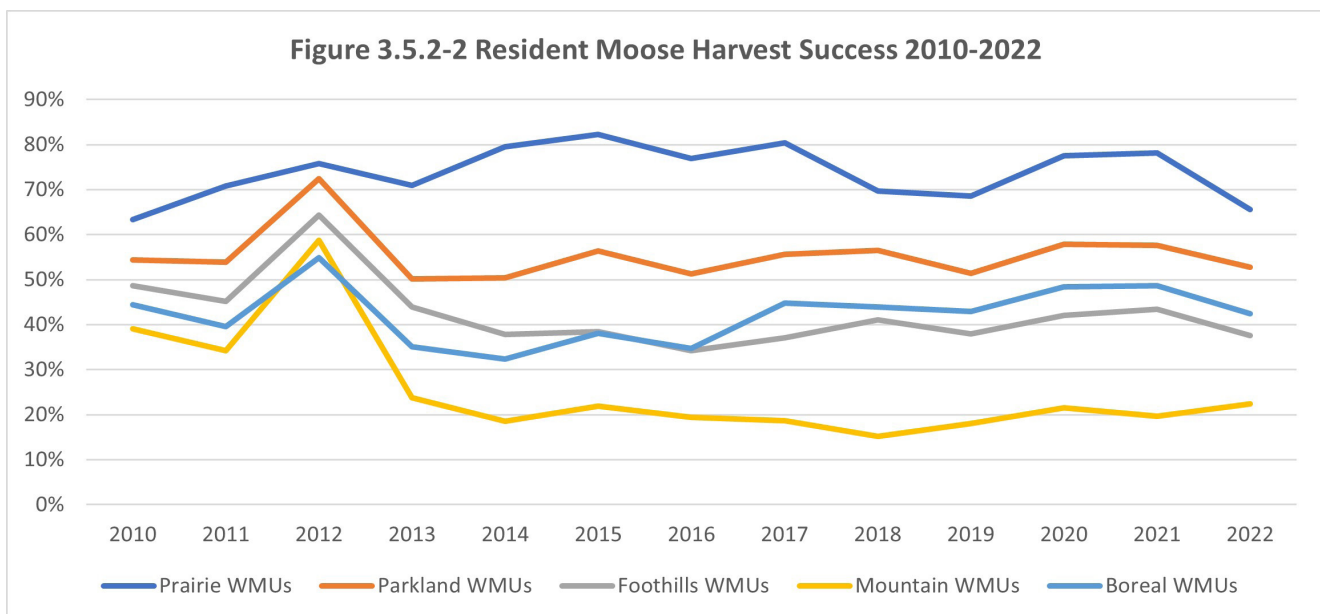


Figure 3.5.2-2 shows the estimated resident hunter success by region. Overall, it also appears to be stable. Together, both charts seem to support the contention that the Alberta Moose population has been relatively stable over this 13-year period.



# MOOSE HARVEST MANAGEMENT OBJECTIVES

Without a formal Management Plan for Moose in Alberta, we must turn to the 2001 draft Guide Outfitter policy<sup>32</sup> for some direction, as covered in section 3.2 of this paper.

The process for calculating the Resident – Outfitter split in allocations is covered in Section 3.3 of this paper. Using that formulation as a guide, we calculated the allowed commercial outfitter harvest as a % of Resident Bull Moose Harvest by region, and applied it to the average Resident Harvest for the study period, 2015-2019.

Table 3.5.2-2 shows the Average Annual Bull Moose harvest for both Residents and commercial outfitters for the study period 2015-2019, presented in detail in Appendix II, Tables II-5 and II-6.

The key factor to consider in calculating a commercial outfitter harvest percentage is that all Resident WMU rifle seasons are now on a draw basis, with many WMUs having high to very high resident draw applications leading to extended wait periods.

Table 3.5.2-3 shows those calculated commercial outfitter allocations and the resultant annual commercial overharvest during the study period; totaling 111 Bull Moose. This is reflective of the commercial outfitter harvest being 7.2% of total harvest and the calculated allocation at 5.2%. The 2018 Outfitter Allocation<sup>33</sup> is detailed in Appendix II, Table II-7. Table 3.5.2-4 shows the calculation of an adjusted allocation for 2018 to commercial outfitters, based on the allocation calculation shown in Table 3.5.2-4.

The calculation calls for almost a 65% reduction of that 2018 Outfitter Allocation. The 2023 Outfitter Allocation appears as Appendix II, Table II-5<sup>34</sup>. The 2023 commercial outfitter allocation is now for a total of 1,895 tags, 250 tags more than the 2018 allocation!

For 2023, the calculated commercial outfitter tag reduction has risen to 1,312, or almost a 70% reduction!

Table 3.5.2-2 Resident & Outfitter Average Annual Bull Moose Harvest 2015-2019

Region	Resident Average		Outfitter Average		
	Bull Moose	Hunter Success	Bull Moose	Outfitter Success	Outfitter % of Total Harvest
Prairie WMUs	194	75.3%	2	100%	1.0%
Parkland WMUs	1,246	54.2%	21	61.6%	1.7%
Foothills WMUs	1,677	37.8%	174	51.4%	9.4%
Mountain WMUs	156	18.6%	24	37.6%	13.4%
Boreal WMUs	1,839	40.6%	178	43.6%	8.8%
<b>Total</b>	<b>5,112</b>	<b>43.1%</b>	<b>399</b>	<b>47.1%</b>	<b>7.2%</b>

Table 3.5.2-3 Outfitter Average Annual Bull Moose Overharvest 2015-2019

Region	Outfitter Annual Average			
	Bull Moose	Outfitter Harvest as % of Total Harvest	Calculated Outfitter Allocation as % of Total Harvest	Outfitter Over Harvest
Prairie WMUs	2	1.0%	4.0%	6
Parkland WMUs	21	1.7%	4.9%	40
Foothills WMUs	174	9.4%	4.8%	-84
Mountain WMUs	24	13.4%	5.0%	-15
Boreal WMUs	178	8.8%	6.0%	-58
<b>Total</b>	<b>399</b>	<b>7.2%</b>	<b>5.2%</b>	<b>-111</b>

Table 3.5.2-4 Outfitter Adjusted Annual Bull Moose Allocation 2015-2019

Region	Average Annual Bull Moose Total Harvest	Outfitter Annual Average					
		Calculated Outfitter Allocation as % of Total Harvest	Calculated Outfitter Allocated Harvest	Outfitter Success %	Calculated Outfitter Allocation	2018 <sup>33</sup> Outfitter Allocation	Outfitter Allocation Adjustment
Prairie WMUs	196	4.00%	8	100%	8	2	6
Parkland WMUs	1,267	4.86%	62	61.60%	101	39	62
Foothills WMUs	1,851	4.84%	90	51.40%	175	496	-321
Mountain WMUs	180	5.00%	9	37.60%	24	127	-103
Boreal WMUs	2,017	5.95%	120	43.60%	275	981	-706
<b>Total</b>	<b>5,511</b>	<b>5.23%</b>	<b>289</b>	<b>49.60%</b>	<b>583</b>	<b>1,645</b>	<b>-1062</b>

# ACCOMMODATION OF THE COMMERCIAL OUTFITTER INDUSTRY DURING COVID PERIOD

In response to the restrictions of the COVID 19 pandemic, the GoA increased the commercial outfitter tags for the 2021 season by 527 to a total of 2,422, as shown in Appendix II – Table II-8 . This one-time addition of extra 527 tags does not expire until the end of the 2027 season.

## MOOSE CONCLUSIONS AND RECOMMENDATIONS

Although the provincial Moose population appears to be stable, the overallocation of commercial outfitter tags in the absence of a formal Management Plan for Moose in Alberta cannot be justified.

- The GoA must return to the table in good faith and honour the commitments they made when the Outfitter Guide Allocation Policy was first drafted in 2001<sup>35</sup> , and the applicable wildlife management plans wherein they stated “Resident recreational use of game will have precedence over non-resident use.”<sup>36</sup>
- As a priority, the GoA must create a Management Plan for Moose in Alberta, involving all stakeholders.
- The GoA must immediately cancel the one-time addition to commercial outfitters of the extra 527 tags for the COVID 19 pandemic. These will only further reduce the overall Moose population if they are filled.
- The GoA must immediately reduce the annual Moose standard allocation to commercial outfitters from the current 1,895 tags to 583 tags, reflecting their commitment covered in the 2001 Outfitter Guide Allocation Policy.<sup>37</sup>

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<sup>32</sup> 2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>33</sup> 2018 0615 Outfitter Allocations Only per WMU for 2018 Season

<sup>34</sup> 2021 0617 AEP-Moose Allocations- 2021 Hunting Season

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<sup>35</sup> 2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>36</sup> 1993 0701 Management Plan for Bighorn Sheep in Alberta

<sup>37</sup> 2001 0627 Outfitter Guide Allocation Policy-DRAFT

# MULE DEER

Mule Deer are a common big game harvest target, second only to White-tailed Deer. The Alberta Mule Deer are all of one subspecies of Black-tailed Deer, the Rocky Mountain Mule Deer. They are found throughout the province.



## SPECIES MANAGEMENT AREAS

The 1989 Management Plan for Mule Deer in Alberta<sup>38</sup> presented nine Deer Management Areas (DMAs) as the basis for population management. Each represented a group of WMUs having similar Mule Deer population characteristics and similar levels of recreational use.

We are told that SMAs for Mule Deer have been established and are similar to the earlier DMAs. Apparently, they are in use for species management, but we have been unable to find any publication reference defining them. Therefore, we will use the Big Game management areas as defined in the Alberta Hunting Regulations and annually used in the provincial hunting guide. They are shown as Table 3.5.3-1.

Table 3.5.3-1 Alberta Big Game Regions

Region
Prairie WMUs (100 series)
Parkland WMUs (200 series & 728, 730, 936)
Foothills WMUs (300 series)
Mountain WMUs (400 series)
Boreal WMUs (500 series & 841)

<sup>38</sup> 1989 1101 Management Plan for Mule Deer in Alberta

<sup>39</sup> 2023 0425 Resident Hunter Harvest Estimates - Mule Deer 2010-2022

<sup>40</sup> 2023 0425 Resident Hunter Harvest Estimates - Mule Deer 2010-2022

# MULE DEER POPULATIONS

According to the 1989 Management Plan for Mule Deer in Alberta<sup>38</sup>, Alberta Mule Deer population has recovered in fits and starts since the late 1800s. The management plan targeted "... a harvest of 17,260 mule deer annually by the year 1996". No specific goals were set for commercial outfitter harvest. As well, this management plan has never been formally updated.

As shown in Appendix III, Table III-1, the Resident Mule Deer harvest averaged 14,435 head per year for the period 2010-2022. As shown in Appendix III, Table III-6, the commercial outfitter harvest averaged an additional 465 head per year for the period 2015-2019. This total annual harvest of 14,900 head is only 86% of the 1996 target harvest. As with Moose, regular aerial surveys have been conducted for most

of the WMUs with huntable Mule Deer populations, but no overall picture of provincial Mule Deer population has been published. As mentioned in Section 3.5.1, the AWF, along with several other stakeholders, has argued that the resident hunter harvest statistics can serve as a suitable proxy for herd population on provincial land.

Figure 3.5.3-1 presents the total Resident Annual Mule Deer Harvest for the period 2010-2022<sup>39</sup>. Figure 3.5.3-2, presents the same data, but excludes the anomaly of the 1st year of Covid, 2021. In both figures, the blue bars represent the annual harvest, the red curves the smoothed fit of those data points, and the red dotted line the trend line of those data points. In both figures, the upward slope of the trend line seems to indicate a growing herd population.

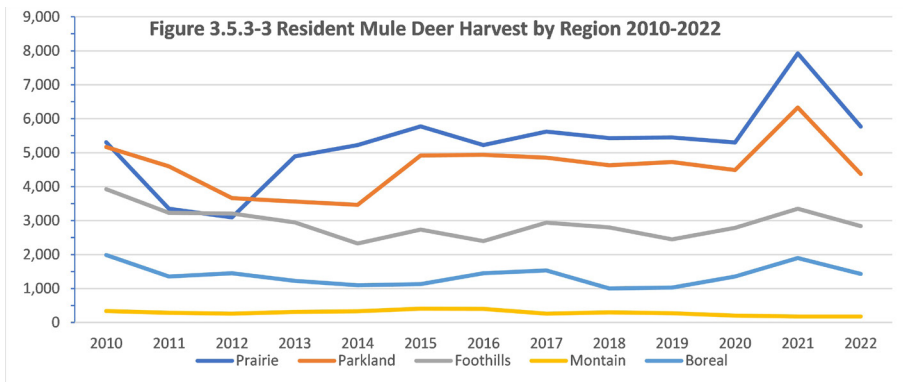
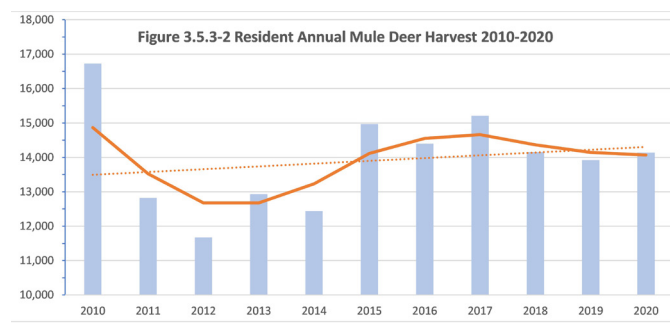
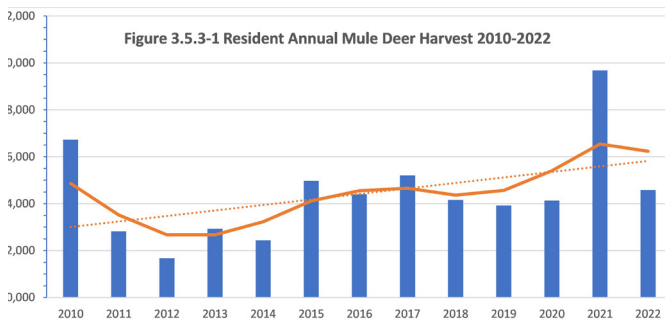


Figure 3.5.3-3 presents the same population data, broken down by region<sup>40</sup>.

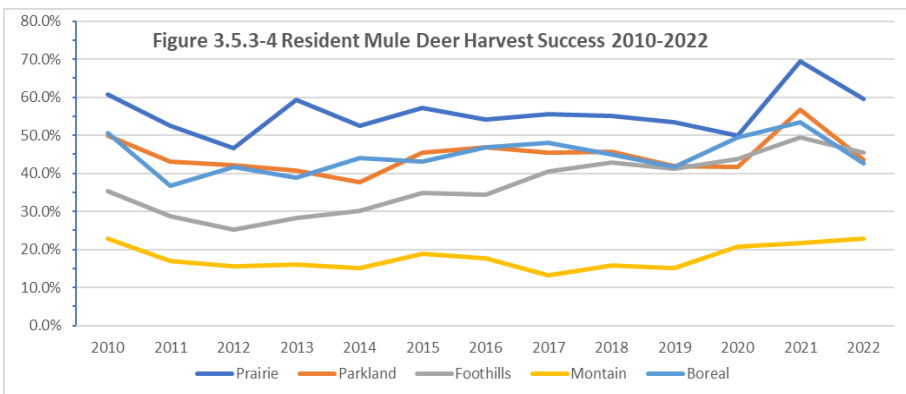


Figure 3.5.3-4 presents the estimated harvest success for the the same period.

Taking these four figures together, all indicate a stable or slowly growing population.

# MULE DEER HARVEST MANAGEMENT OBJECTIVES

Goal: To maximize benefits to Albertans through the optimum allocation of the mule deer resource.

Goal: To maximize the recreational benefits and enjoyment to Albertans from the mule deer resource through the provision of a variety of types and amounts or recreational opportunities.

Goal: To provide an opportunity for Albertans to benefit economically from the commercial use of the mule deer resource.

Goal: To ensure that mule deer populations and habitat are managed to meet the resource requirements needed to achieve the recreational and economic goals and objectives.

**Source: 1989 Management Plan for Mule Deer in Alberta<sup>41</sup>**

Although the commercial outfitting goal was mentioned, the management plan left details to a forthcoming “Non-Resident Big Game Guiding and Outfitting Policy”.

For details, we turn to the 2001 draft Outfitter Guide Allocation Policy<sup>42</sup> for some direction, as covered in section 3.2 of this paper.

Table 3.5.3-2 shows the Average Annual Mule Deer Buck harvest for both Residents and commercial outfitters for the study period, 2015-2019, presented in detail in Appendix III, Tables III-5 and III-6. The commercial outfitter harvest averages 6.1% of the Total Mule Deer Buck harvest for the study period, 2015-2019, and ranges from 5.8% to 6.8%.

The process for calculating the Resident – Outfitter split in allocations is covered in Section 3.3 of this paper. Using that formulation as a guide, we calculated the allowed commercial outfitter harvest as a % of Resident Mule Deer Buck harvest by region, and applied it to the average Resident Mule Deer Buck harvest for the study period, 2015-2019. The key factor to consider in calculating a commercial outfitter harvest percentage is that almost all Resident WMU rifle seasons are now on a draw basis, with many WMUs having high resident draw applications leading to extended wait periods.

Table 3.5.3-3 shows those calculated annual commercial outfitter allocations and the resultant annual commercial overharvest during the study period; totalling 28 Mule Deer Trophy Bucks. This is reflective of the commercial outfitter harvest being 6.1% of total harvest and the calculated allocation to be 5.7%. Once the commercial outfitter harvest allocation has been determined, the next step is to calculate the correct commercial outfitter tag allocation. That is presented in Table 3.5.3-4, as outlined in Section 3.3 of this paper. The calculation calls for almost a 63% reduction of that 2018 Outfitter Allocation.<sup>43</sup> The 2023 Outfitter Allocation appears as Appendix III, Table III-8. The 2023 commercial outfitter allocation is now for a total of 2,300 tags, 409 tags more than the 2018 allocation! For 2023, the calculated commercial outfitter tag reduction has risen to 1,595 tags, or now almost a 70% reduction.

Table 3.5.3-2 Resident & Outfitter Average Annual Mule Deer Buck Harvest 2015-2019

Region	Resident Average		Outfitter Average		
	Mule Deer Buck	Hunter Success	Mule Deer Buck	Outfitter Success	Outfitter % of Total Harvest
Prairie WMUs	1,416	44.7%	87	57.7%	5.79%
Parkland WMUs	1,367	44.3%	99	59.2%	6.75%
Foothills WMUs	1,462	45.8%	92	59.9%	5.92%
Mountain WMUs	1,400	48.2%	93	54.1%	6.23%
Boreal WMUs	1,519	43.9%	94	54.2%	5.83%
<b>Total</b>	<b>7,163</b>	<b>45.0%</b>	<b>465</b>	<b>56.9%</b>	<b>6.10%</b>

Table 3.5.3-3 Outfitter Average Annual Trophy Mule Deer Overharvest 2015-2019

Region	Outfitter Annual Average			
	Mule Deer Buck	Outfitter Harvest as % of Total Harvest	Calculated Outfitter Allocation as % of Total Harvest	Outfitter Over Harvest
Prairie WMUs	87	5.79%	5.0%	-12
Parkland WMUs	99	6.75%	5.0%	-26
Foothills WMUs	92	5.92%	5.5%	-7
Mountain WMUs	93	6.23%	5.0%	-18
Boreal WMUs	94	5.83%	8.0%	35

Table 3.5.2-4 Outfitter Adjusted Annual Trophy Mule Deer Allocation 2015-2019

Region	Average Annual Mule Deer Buck Total Harvest	Outfitter Annual Average					
		Calculated Outfitter Allocation as % of Total Harvest	Calculated Outfitter Allocated Harvest	Outfitter Success %	Calculated Outfitter Allocation	2018 <sup>43</sup> Outfitter Allocation	Outfitter Allocation Adjustment
Prairie WMUs	1,502	5.00%	75	57.7%	130	295	-165
Parkland WMUs	1,466	5.00%	62	61.60%	101	280	-179
Foothills WMUs	1,554	5.50%	90	51.40%	175	731	-556
Mountain WMUs	1,493	5.00%	9	37.60%	24	290	-266
Boreal WMUs	1,613	8.00%	120	43.60%	275	295	-20
<b>Total</b>	<b>7,628</b>	<b>4.70%</b>	<b>356</b>	<b>50.50%</b>	<b>583</b>	<b>1,891</b>	<b>-1,186</b>



## ACCOMMODATION OF OUTFITTERS DURING COVID

In response to the restrictions of the COVID 19 pandemic, the GoA increased the commercial outfitter tags for the 2021 season by 631 tags to a total of 2,931 tags for 2023, as shown in Appendix III – Table III-8<sup>44</sup>. The 2023 total allocation now stands at 155% of the 2018 allocation, and a whopping 416% of the calculation in Table 3.5.3-4. This one-time addition of an extra 631 COVID tags does not expire until the end of the 2027 season.

## MULE DEER CONCLUSIONS AND RECOMMENDATIONS

Although the provincial Mule Deer population appears to be stable, the overallocation of commercial outfitter tags in the absence of an updated formal Management Plan for Mule Deer in Alberta cannot be justified.

· The GoA must return to the table in good faith and honour the commitments they made when the Outfitter Guide Allocation Policy was first drafted in 2001<sup>45</sup>, and the newer applicable wildlife management plans wherein they stated “Resident recreational use of game will have precedence over non-resident use.”<sup>45</sup>

· As a priority, the GoA must formally update the Management Plan for Mule Deer in Alberta, involving all stakeholders.

· The GoA must immediately cancel the one-time addition to commercial outfitters of the extra 631 tags for the COVID 19 pandemic.

· The GoA must immediately reduce the annual Trophy Mule Deer standard allocation to commercial outfitters from the current 2,300 tags to 705 tags, reflecting their commitment covered in the 2001 Outfitter Guide Allocation Policy.<sup>45</sup>

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<sup>41</sup>1989 1101 Management Plan for Mule Deer in Alberta

<sup>42</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>43</sup>2018 0615 Outfitter Allocations Only per WMU for 2018 Season

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<sup>44</sup>2021 0617 AEP-Moose Allocations- 2021 Hunting Season 2001 0627

<sup>45</sup>Outfitter Guide Allocation Policy-DRAFT

<sup>46</sup>1993 0701 Management Plan for Bighorn Sheep in Alberta

# PRONGHORN ANTELOPE

Pronghorn Antelope in Alberta are at the northern extreme of their North American range. The population fluctuates frequently due to climate extremes such as extended dry periods and severe winters.



## SPECIES MANAGEMENT AREAS

Although Pronghorn Antelope do range into the Parkland WMUs (200 series) of the province, they primarily live in the Prairie WMUs (100 series). The 1990 Management Plan for Pronghorn Antelope in Alberta noted 8 SMAs that are still in use today, and noted in Table 3.5.4-1. These 8 SMAs include 23 of the 30 Prairie WMUs.

The reader may find reference to another area labelled “SMA S”. This is WMU 732, which is all of Canadian Forces Base Suffield, northwest of Medicine Hat. The habitat area for this SMA s (WMU 732) is listed as 2,590 km<sup>2</sup> in the same document. As a federal property, it is solely managed by the Canadian Department of National Defence. It is not included in this paper’s review.

Table 3.5.4-1 Pronghorn Antelope Species Management Areas (SMAs) in Alberta<sup>47</sup>

SMA	WMU	Habitat Area <sup>48</sup> (km <sup>2</sup> )	% of Total Habitat area
A	108	1,839	3.77%
B	104, 106, 112	5,905	12.11%
C	102, 118	4,874	9.58%
D	128, 140	1,352	2.77%
E	138, 142, 144	3,004	6.16%
F	116, 119, 124, 148	7,420	15.22%
G	150, 151, 152	8,375	17.18%
H	160, 162, 163, 164, 166	16,191	33.21%
<b>Total</b>		<b>48,760</b>	<b>100%</b>

<sup>47</sup>2023 0810 AFP Pronghorn Antelope Allocations - Hunting Season 2023

<sup>48</sup>2019 0200 Provincial Pronghorn Survey - 2017

<sup>49</sup>2013 0500 ACA Delegated Big Game Surveys - 2011 and 2012

<sup>50</sup>2019 0200 Provincial Pronghorn Survey - 2017

<sup>51</sup>2022 1020 Provincial Pronghorn Antelope Survey - 2021

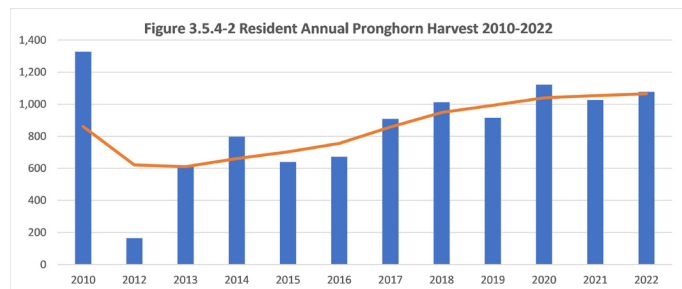
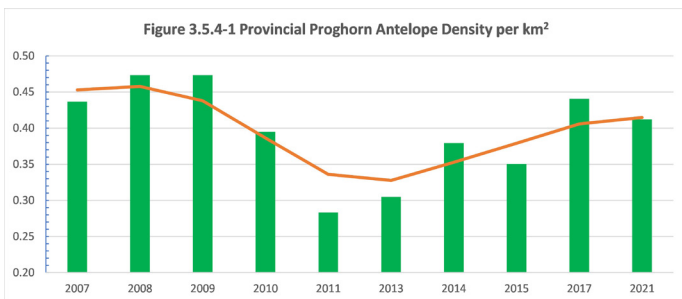
# PRONGHORN POPULATIONS

Of the 23 WMUs covered by the Pronghorn Antelope SMAs, 8 have had published aerial surveys since 2012, but Pronghorn Antelope was not part of any of these surveys. The Alberta Conservation Association (ACA) published their aerial big game surveys for 2011-2012<sup>49</sup> that include a provincial Pronghorn Antelope survey. The GoA also published a 2017<sup>50</sup> and a 2021<sup>51</sup> provincial Pronghorn Antelope survey. The ACA Survey included data for 2007, 2008, 2009 & 2010. The 2017 Survey included data for 2013, 2014 and 2015.

Figure 3.5.4-1 uses all this data and looks at Pronghorn Antelope population density over all 8 SMAs. Clearly, a sharp population decline occurred over two years, starting following the 2009 survey. Note that the 2021 population density estimate has yet to return to the 2008-2009 levels. The GoA 2021 provincial Pronghorn survey noted:

Between 2009 and 2011 the provincial pronghorn population was estimated to decline 42% from 20,111 to 11,701 animals; the population in 2011 was the lowest on record since 1996. Between 2011 and 2014, the population increased by an estimated 3,624 animals (15%/year). A slight decline was observed in the herd between 2014 and 2015. Between 2015 and 2017 the population increased 23%, roughly 12%/year. The population estimate declined 18% between 2017 and 2018. This survey indicates a stable pronghorn population trend between 2018 and 2021 with an estimated annual increase of 3%.

No assessment is made for the source of the population decline. The same sharp decline is shown in the Resident annual



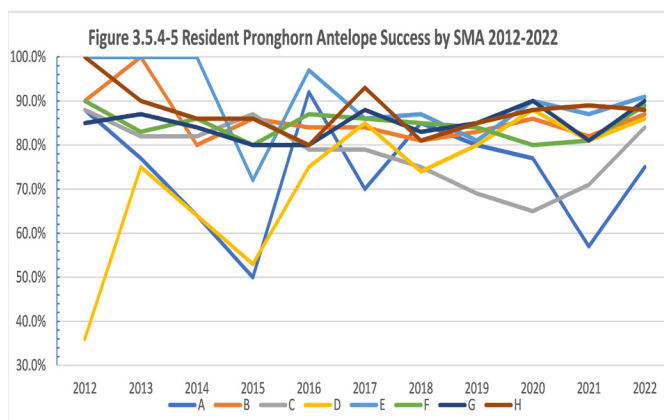
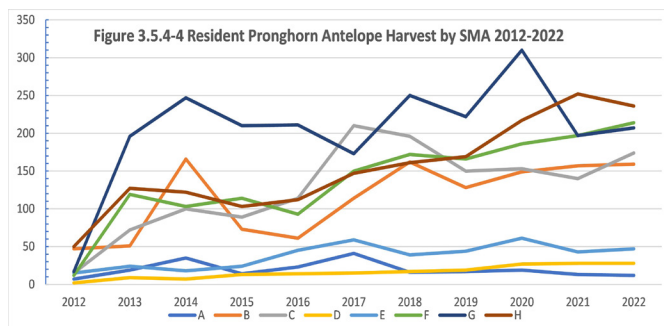
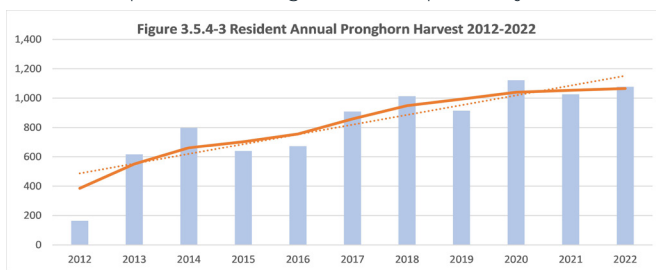
Pronghorn Antelope harvest shown as Figure 3.5.4-2 below.

When the 2010 datapoint is excluded, the trendline (dotted red) in Figure 3.5.4-3 below shows a steady increase in Resident annual Pronghorn Antelope harvest, indicative of a recovering population.

Figure 3.5.4-4 below shows the same 2012-2022 harvest data, but by SMA. Harvest has steadily increased in 5 of the SMAs, but remains low in SMAs A, D and E. As seen in Table 3.5.4-1 earlier, these three SMAs have the lowest habitat area of all 8 SMAs.

Figure 3.5.4-5 shows the resident hunter success rate for 2012-2022 by SMA. By 2016, the success rate was about 85% in all SMAs.

The resident hunter harvest data agrees with the trends shown in the aerial provincial Pronghorn Antelope surveys 2007-2021.



# PRONGHORN HARVEST MANAGEMENT OBJECTIVES

The only published Management Plan for Pronghorn Antelope in Alberta dates back to November 1990<sup>52</sup>. However, it does contain some important statements in Section 3-Management Plan.

*The primary consideration of the Government is to ensure that wildlife populations are protected from severe decline and that viable populations are maintained.*

*The wildlife resource, as a Crown resource, will be utilized in a manner which contributes the most benefit to the citizens of Alberta.*

*Wildlife will be allocated through a defined process whereby specific resources are deployed to specified uses in order to achieve stated public benefits.*

*Resident recreational use of game will have precedence over non-resident use.*

*Provide the opportunity for ... residents to ... harvest 1,590 trophy antelope with hunter success rate of 70 percent*

*Provide an opportunity for ... non-resident hunters to harvest 70 trophy antelope ... while providing an economic return to outfitters, guides and other Albertans providing goods and services.*

*The number of antelope licenses allocated to non-resident hunting, will be determined by the Non-resident Big Game Outfitting and Guiding Policy.*

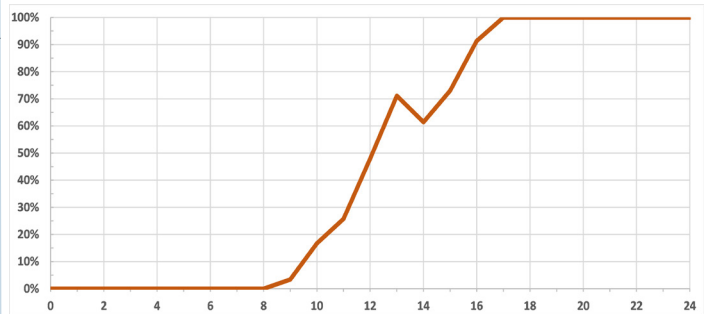
The only "Big Game Outfitting and Guiding Policy" available is the DRAFT 2001 Outfitter Guide Allocation Policy<sup>53</sup>. Note the forecast annual resident trophy Pronghorn Antelope harvest of 1,590 head. The average for the 2010-2022 period shown in Appendix IV, Table IV-1 is only 724 head, 45% of the target. Even at that the forecast commercial outfitter harvest of 70 trophy Pronghorn Antelope is only 4.2% of the forecast total of 1,660 head. Table 3.5.4-2 summarizes the actual annual average trophy Pronghorn Antelope harvest for the study period 2015-2019, by SMA. The annual commercial outfitter harvest ranged from a low of 2.5% up to a high of 13.2%, depending on the SMA. The average % of total harvest was 5.1%

The optimistic 1990 Management Plan for Pronghorn Antelope in Alberta still restricted commercial outfitters to 4.2% of the total trophy Pronghorn Antelope harvest. As discussed under the Population heading, a lot has changed since 1990. Although the current Special License system for residents was part of the 1990 Management Plan, wait times for residents has increased substantially.

Figure 3.5.4-6 shows the results of the most recent resident draw in 2023. The details are shown in Appendix IV, Table IV-9. The average priority rating for the successful applicants was 12.9. No one with a priority ranking of 8 or less was successful. Only those with a priority ranking of 17 or higher were always successful. We applied the factors laid out in the DRAFT 2001 Outfitter Guide Allocation Policy<sup>54</sup>, under the heading: Criteria for Establishing Percent Allocation. Under Resource Availability, 100% of the Pronghorn Antelope resource is under a Resident draw. Under Land Tenure, 100% of the land is in the White Area. The Resident demand is 10 times greater than the draw quota; only 9.6% of applicants are successful, and this excludes code

999 applications. In our opinion, all three of these categories would score the maximum decrease in commercial outfitter allocation of -9% from the 10% starting point.

Figure 3.5.4-6 Resident Priority vs. Trophy Antelope Draw Success 2023 season



The 2018 commercial outfitter allocation was 55 tags. The average number of commercial outfitter tags sold in the study period 2015-2019 was 40, or 73% of those available, adding a +1%, giving a commercial outfitter allocation of 2% of the total trophy Pronghorn Antelope harvest.

However, this draft policy also states that "The actual percent allocation (to commercial interests) at the SMA level will not normally be less than 3%." For that reason, we based our calculation across all SMAs at 3% of the total trophy Pronghorn Antelope harvest. Table 3.5.4-3 summarizes our recalculation of the commercial outfitter allocation, based on the above % and the actual allocation allowance in 2018. We used the calculation protocol from the DRAFT 2001 Outfitter Guide Allocation Policy.

Taking all these factors into account, we believe the DRAFT 2001 Outfitter Guide Allocation Policy would require a reduction in the standard commercial outfitter allocation to 27 tags, or almost a 51% reduction over the 2018 allocation. The 2023 standard commercial outfitter allocation is shown in Appendix IV, Table IV-10. It is unchanged at 55 tags.

Table 3.5.4-2 Resident & Outfitter Average Trophy Pronghorn Antelope Harvest 2015-2019

SMA	Resident Average		Outfitter Average		
	Trophy Antelope Harvest	Hunter Success	Trophy Antelope Harvest	Outfitter Success	Outfitter % of Total Harvest
A	18	73.3%	2	100%	10.68%
B	92	82.4%	3	86.67%	2.74%
C	148	74.6%	6	74.42%	4.16%
D	13	74.8%	2	90.91%	12.99%
E	37	88.7%	6	87.50%	13.21%
F	133	84.2%	11	86.89%	7.38%
G	172	83.2%	4	78.57%	2.49%
H	114	87.0%	5	84.38%	4.53%
<b>Total</b>	<b>727</b>	<b>84.0%</b>	<b>39</b>	<b>84.12%</b>	<b>5.11%</b>

Table 3.5.4-3 Outfitter Adjusted Annual Trophy Pronghorn Antelope Allocation 2015-2019

SMA	Average Annual Trophy Antelope Harvest	Outfitter Annual Average					
		Calculated Outfitter Allocation as % of Total Harvest	Calculated Outfitter Allocated Harvest	Outfitter Success %	Calculated Outfitter Allocation	2018 <sup>55</sup> Outfitter Allocation	Outfitter Allocation Adjustment
A	19	3.00%	1	100%	1	4	-3
B	95	3.00%	3	86.67%	3	3	0
C	152	3.00%	5	74.42%	6	11	-5
D	14	3.00%	0	90.91%	0	2	-2
E	38	3.00%	1	87.50%	1	6	-5
F	137	3.00%	4	86.89%	5	13	-8
G	177	3.00%	5	78.57%	7	8	-1
H	117	3.00%	4	84.38%	4	8	-4
<b>Total</b>	<b>750</b>	<b>3.00%</b>	<b>22</b>	<b>82.01%</b>	<b>27</b>	<b>55</b>	<b>-28</b>

## ACCOMMODATION OF OUTFITTERS DURING COVID

In response to the restrictions of the COVID 19 pandemic, the GoA increased the commercial outfitter tags for the 2023 season by 12 tags to a total of 67 tags for 2023, as shown in Appendix IV, Table IV-10<sup>56</sup>. The 2023 total allocation stands at 122% of the 2018 allocation, and 248% of the calculation in Table 3.5.4-3. This one-time addition of an extra 12 COVID tags does not expire until the end of the 2027 season.

## PRONGHORN ANTELOPE CONCLUSIONS AND RECOMENDATIONS

Although the provincial Pronghorn Antelope population appears to be stable, the overallocation of commercial outfitter tags in the absence of an updated formal Management Plan for Pronghorn Antelope in Alberta cannot be justified.

· The GoA must return to the table in good faith and honour the commitments they made when the Outfitter Guide Allocation Policy was first drafted in 2001<sup>57</sup>, and the current Pronghorn Antelope management plan wherein they stated “Resident recreational use of game will have precedence over non-resident use.”

· As a priority, the GoA must formally update the Management Plan for Pronghorn Antelope in Alberta, involving all stakeholders.

· The GoA must immediately cancel the one-time addition to commercial outfitters of the extra 12 tags for the COVID 19 pandemic.

· The GoA must immediately reduce the annual Trophy Pronghorn Antelope standard allocation to commercial outfitters from the current 55 tags to 27 tags, reflecting their commitment covered in the 2001 Outfitter Guide Allocation Policy<sup>58</sup>.

<sup>52</sup>1990 1101 Management Plan for Pronghorn Antelope in Alberta

<sup>53</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>54</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>55</sup>2018 0615 Outfitter Allocations Only per WMU for 2018 Season

<sup>56</sup>2023 0810 AFP Pronghorn Antelope Allocations - Hunting Season 2023

<sup>57</sup>2001 0627 Outfitter Guide Allocation Policy-DRAFT

<sup>58</sup>1990 1101 Management Plan for Pronghorn Antelope in Alberta

# BIGHORN SHEEP APPENDIX

Table I-1 Bighorn Sheep Harvest 1992-2019

Year	Outfitter Trophy Ram Licenses Purchased <sup>59,60</sup>	Outfitter Trophy Ram Harvest <sup>60,61</sup>	Outfitter Trophy Ram Success (%) <sup>60,61</sup>	Resident Trophy Ram Licenses <sup>61,62</sup>	Resident Trophy Ram Harvest <sup>62,63</sup>	Resident Success <sup>62,63</sup>
1992	86	43	50.0%	1,991	230	11.6%
1993	80	53	66.3%	1,982	176	8.9%
1994	89	37	41.6%	1,926	166	8.6%
1995	86	43	50.0%	1,875	135	7.2%
1996	86	36	41.6%	1,960	108	5.5%
1997	86	32	37.2%	1,710	121	7.1%
1998	87	47	54.0%	1,840	147	8.0%
1999	85	36	42.4%	1,829	91	5.0%
2000	89	41	46.1%	1,841	144	7.8%
2001	87	43	49.4%	1,792	117	6.5%
2002	87	40	46.0%	1,839	101	5.5%
2003	87	37	42.5%	1,779	116	6.5%
2004	86	36	41.9%	1,768	142	8.0%
2005	83	52	62.7%	1,764	131	7.4%
2006	85	50	58.8%	2,078	161	7.7%
2007	87	45	51.7%	2,158	143	6.6%
2008	80	52	65.0%	2,228	132	5.9%
2009	73	23	31.5%	2,304	134	5.8%
2010	74	33	44.6%	2,386	143	6.0%
2011	66	34	51.5%	2,309	137	5.9%
2012				2,613	144	5.5%
2013				2,493	123	4.9%
2014				2,542	106	4.2%
2015	66	30	45.5%	2,771	143	5.2%
2016	81	37	45.7%	2,650	146	5.5%
2017	72	27	37.5%	2,523	106	4.2%
2018	83	64	77.1%	2,451	107	4.4%
2019	81	38	46.9%	2,501	112	4.5%

Average of 2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT and 2021 0617 AEP Resident Bighorn Sheep Resident Harvest Report 2010-2020

Data not requested via FOIP

Table I-2 Bighorn Sheep Species Management Areas (SMAs) in Alberta, 2012<sup>59</sup>

SMA Number	SMA Name	Wildlife Management Units
1	Westcastle - Yarrow	302, 303B, 400
2	Livingstone	303A, 306, 308, 402
3	Kananaskis	404, 406, 408, 410B
4A	Bow Valley - Ghost	410A, 412, 414
4B	Clearwater - Ram	326, 416, 417, 418, 420, 422, 426A, 428, 430A
4C	Nordegg - Chungo	426B, 430B, 432, 434
5	Ram - Shunda	328, 429
6	Cadomin	436, 437, 438
7	Wilmore	439, 440, 441, 442N, 444B
8	Torrens	442A, 444A, 445, 446

Table I-3 Outfitter Harvest of Trophy Bighorn Sheep Rams 2015-2019<sup>63</sup>

SMA	2015	2016	2017	2018	2019	Total
1*						
2*						
3*						
4	20	21	21	50	26	<b>138</b>
5*						
6	2	2		2	1	<b>7</b>
7	7	12	6	9	9	<b>43</b>
8	2	2	0	3	2	<b>9</b>
<b>Total</b>	<b>31</b>	<b>37</b>	<b>27</b>	<b>64</b>	<b>38</b>	<b>197</b>

\*Outfitter hunting not available in all SMAs

Table I-4 Trophy Sheep Allocations Available to Commercial Outfitters<sup>64</sup>

WMU	2015	2016	2017	2018	2019	Total
410	8	8	8	8	8	<b>40</b>
414	1	1	1	1	1	<b>5</b>
416	1	1	1	1	1	<b>5</b>
418	2	2	2	2	2	<b>10</b>
420	8	8	8	8	8	<b>40</b>
422	4	4	4	4	4	<b>20</b>
426	4	4	4	4	4	<b>20</b>
428	4	4	4	4	4	<b>20</b>
430	8	8	8	8	8	<b>40</b>
432	8	8	8	8	8	<b>40</b>
434	8	8	8	8	8	<b>40</b>
438	4	4	4	4	4	<b>20</b>
439	4	4	4	4	4	<b>20</b>
440	6	6	6	6	6	<b>30</b>
442	12	12	12	12	12	<b>60</b>
444	2	2	2	2	2	<b>10</b>
445	4	4	4	4	4	<b>20</b>
<b>Total</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>88</b>	<b>440</b>

Table I-5 Trophy Sheep Allocations Sold by Commercial Outfitters<sup>64</sup>

WMU	2015	2016	2017	2018	2019	Total
410	8	8	8	8	7	<b>39</b>
414	1	2		1	2	<b>6</b>
416	1		1	1	2	<b>5</b>
418		2	2	2	2	<b>8</b>
420	8	8	8	8	8	<b>40</b>
422	1	2	4	4	4	<b>15</b>
426		5	4	4	5	<b>18</b>
428	1	1			4	<b>6</b>
430	6	8	8	8	4	<b>34</b>
432	6	7	8	8	6	<b>35</b>
434	4	7	7	8	10	<b>36</b>
438	4	4	4	4	3	<b>19</b>
439	4	4	4	4	4	<b>20</b>
440	4	6		5	4	<b>19</b>
442	12	11	12	12	11	<b>58</b>
444	2	2	2	2	2	<b>10</b>
445	4	4		4	3	<b>15</b>
<b>Total</b>	<b>66</b>	<b>81</b>	<b>72</b>	<b>83</b>	<b>81</b>	<b>383</b>

Table I-6 Trophy Sheep Allocations % Sold by Commercial Outfitters

WMU	2015	2016	2017	2018	2019	Total
410	100%	100%	100%	100%	88%	98%
414	100%	200%	0%	100%	200%	120%
416	100%	0%	100%	100%	200%	100%
418	0%	100%	100%	100%	100%	80%
420	100%	100%	100%	100%	100%	100%
422	25%	50%	100%	100%	100%	75%
426	0%	125%	100%	100%	125%	90%
428	25%	25%	0%	0%	100%	30%
430	75%	100%	100%	100%	50%	85%
432	75%	88%	100%	100%	75%	88%
434	50%	88%	88%	100%	125%	90%
438	100%	100%	100%	100%	75%	95%
439	100%	100%	100%	100%	100%	100%
440	67%	100%	0%	83%	67%	63%
442	100%	92%	100%	100%	92%	97%
444	100%	100%	100%	100%	100%	100%
445	100%	100%	0%	100%	75%	75%
<b>Total</b>	<b>72%</b>	<b>92%</b>	<b>76%</b>	<b>93%</b>	<b>104%</b>	<b>87%</b>

Table I-7 Trophy Sheep Allocations Filled With Commercial Outfitters<sup>63</sup>

WMU	2015	2016	2017	2018	2019	Total
410	6	3	4	12	2	27
414						0
416	1		1		2	4
418		1	1	4	2	8
420	4	5	3	6	5	23
422	1	1		2	3	7
426		1	1	6	1	9
428	1				2	3
430	2	2	2	6	1	13
432	3	5	5	6	1	20
434	1	3	4	8	7	23
438	2	2		2	1	7
439		1	1	0	2	4
440	2	3			2	7
442	5	8	5	9	5	32
444	2	2		1	1	6
445				2	1	3
<b>Total</b>	<b>30</b>	<b>37</b>	<b>27</b>	<b>64</b>	<b>38</b>	<b>196</b>

<sup>59</sup>2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT

<sup>60</sup>2022 0222 FWMIS FOIP Outfitter Success 2015-2020

<sup>61</sup>2012 0203 Trophy Bighorn Sheep Management in Alberta-DRAFT

<sup>62</sup>2021 0617 AEP Resident Bighorn Sheep Resident Harvest Report 2010-2020

<sup>63</sup>2022 0222 FWMIS FOIP of Outfitter Success 2015-2020

<sup>64</sup>2021 0617 AEP Bighorn Sheep Allocations for the 2021 Hunting Season



Table I-8 Trophy Sheep Allocations - Commerical Outfitters Success Rate

WMU	2015	2016	2017	2018	2019	Total
410	75%	38%	50%	150%	29%	68%
414	0%	0%	0%	0%	0%	0%
416	100%	0%	100%	0%	100%	60%
418	0%	50%	50%	200%	100%	80%
420	50%	63%	38%	75%	63%	58%
422	100%	50%	0%	50%	75%	55%
426	0%	20%	25%	150%	20%	43%
428	100%	0%	0%	0%	50%	30%
430	33%	25%	25%	75%	25%	37%
432	50%	71%	63%	75%	17%	55%
434	25%	43%	57%	100%	70%	59%
438	50%	50%	0%	50%	33%	37%
439	0%	25%	25%	0%	50%	20%
440	50%	50%	0%	0%	50%	30%
442	42%	73%	42%	75%	45%	55%
444	100%	100%	0%	50%	50%	60%
445	0%	0%	0%	50%	33%	17%
<b>Total</b>	<b>46%</b>	<b>39%</b>	<b>28%</b>	<b>65%</b>	<b>48%</b>	<b>45%</b>

Table I-9 Trophy Sheep Allocations Available To Commerical Outfitters (2021 - 2023)<sup>64</sup>

WMU	Regular	Covid-19	Total
410	8	3	11
414	1	1	2
416	1	1	2
418	2	2	4
420	8	4	12
422	5	1	6
426	4	3	7
428	4	1	5
430	8	2	10
432	8	4	12
434	8	1	5
438	4	1	5
439	4	2	6
440	6	2	8
442	12	6	18
444	2	1	3
445	4	1	5
<b>Total</b>	<b>89</b>	<b>36</b>	<b>125</b>

# MOOSE APPENDIX

Table II-1 Resident Moose Harvest 2010-2022<sup>65</sup>

Year	WMU	Male	Female	Young	Total	Est. Hunter Success (%)	Est. Hunter Tags
2010	All	5,499	1,583	1,413	8,495	47.6%	17,838
2011	All	5,228	1,719	1,202	8,149	44.3%	18,399
2012	All	6,007	1,695	1,304	9,006	61.4%	14,673
2013	All	5,404	1,787	1,199	8,390	40.8%	20,568
2014	All	4,849	1,973	926	7,748	38.0%	20,376
2015	All	5,282	2,571	1,038	8,891	42.6%	20,879
2016	All	4,808	1,970	757	7,535	39.2%	19,206
2017	All	5,083	2,271	813	8,167	44.8%	18,250
2018	All	5,372	2,197	657	8,226	45.7%	18,017
2019	All	5,017	2,148	677	7,842	43.3%	18,118
2020	All	6,018	2,563	803	9,384	48.5%	19,331
2021	All	6,027	2,723	578	9,328	49.3%	18,927
2022	All	4,996	2,213	608	7,817	44.0%	17,774
<b>Total</b>		<b>69,590</b>	<b>27,413</b>	<b>11,975</b>	<b>108,978</b>	<b>45.0%</b>	<b>242,356</b>

Table II-2 Commercial Outfitter Bull Moose Harvest 2015-2020<sup>66</sup>

Year	WMU	Total	Hunter Success	Hunter Tags
2015	all	345	46.4%	743
2016	all	375	45.3%	828
2017	all	423	48.3%	876
2018	all	397	43.2%	919
2019	all	455	52.4%	869
2020	all	118	59.6%	198
<b>Total</b>		<b>2,113</b>	<b>47.7%</b>	<b>4,433</b>

Table II-3 Resident Moose Harvest By Region 2010-2022<sup>65</sup>

Region	Male	Female	Young	Total	Est. Hunter Success (%)	Est. Hunter Tags
Prairie WMUs	2,074	1,872	315	4,261	74.4%	5,731
Parkland WMUs	14,735	13,465	3,234	31,434	54.9%	57,253
Foothills WMUs	24,365	6,993	2,782	34,140	42.2%	80,882
Mountain WMUs	2,172	200	44	2,416	23.1%	10,437
Boreal WMUs	26,244	4,883	5,600	36,727	41.7%	88,053
<b>Total</b>	<b>69,590</b>	<b>27,413</b>	<b>11,975</b>	<b>108,978</b>	<b>45.0%</b>	<b>242,356</b>

Table II-4 Commercial Outfitter Bull Moose Harvest By Region 2015-2020<sup>66</sup>

Region	Total	Hunter Success (%)	Hunter Tags
Prairie WMUs	10	100.0%	10
Parkland WMUs	109	61.2%	178
Foothills WMUs	923	52.2%	1,767
Mountain WMUs	127	38.4%	331
Boreal WMUs	944	44.0%	2,147
<b>Total</b>	<b>2,113</b>	<b>47.7%</b>	<b>4,433</b>

<sup>65</sup>2023 0705 GoA Estimated Resident Hunter Harvest 2010-2022

<sup>66</sup>2022 0222 FWMIS FOIP Outfitter Success 2015-2020

<sup>67</sup>2018 0615 Outfitter Allocations Only per WMU for 2018 Season

<sup>68</sup>2023 0810 AFP-Moose Allocations- 2023 Hunting Season

Table II-5 Resident Moose Harvest 2015-2019<sup>65</sup>

Year	WMU	Male	Est Hunter Success (%)
2015	all	971	75.3%
2016	all	6,232	54.2%
2017	all	8,387	37.8%
2018	all	778	18.6%
2019	all	9,194	40.6%
<b>Total</b>		<b>25,562</b>	<b>43.1%</b>

Table II-6 Commercial Outfitter Bull Moose Harvest 2015-2019<sup>66</sup>

Year	WMU	Total	Hunter Success (%)	Hunter Tags
2015	all	345	46.4%	743
2016	all	375	45.3%	828
2017	all	423	48.3%	876
2018	all	397	43.2%	919
2019	all	455	52.4%	869
<b>Total</b>		<b>1,995</b>	<b>47.1%</b>	<b>4,235</b>

Table II-7 Commercial Outfitter Moose Allocation – 2018<sup>67</sup>

2018 Standard Outfitter Tags				
Region	Standard Antlered Archery Outfitter	Standard Antlered Single or Rut Season Outfitter	Standard Antlered Late Season Outfitter	Total Standard Outfitter Tags
Prairie			2	2
Parkland			39	39
Foothills	112	172	212	496
Mountain	68	2	57	127
Boreal	79	601	301	981
Total	259	775	611	1,645

Table II-8 Commercial Outfitter Moose Allocation – 2023<sup>68</sup>

Region	2023 Standard Outfitter Tags				Outfitter Covid Relief Tags			
	Standard Antlered Archery Outfitter	Standard Antlered Single or Rut Season Outfitter	Standard Antlered Late Season Outfitter	Total Standard Outfitter Tags	Antlered Archery Outfitter Covid Relief	Antlered Single or Rut Season Outfitter Covid Relief	Antlered Late Season Outfitter Covid Relief	Total Covid Relief Outfitter Tags
Prairie			2	2			2	2
Parkland			39	39			10	10
Foothills	129	174	214	517	46	51	67	164
Mountain	94	2	60	156	33	1	24	58
Boreal	144	646	391	1,181	37	153	103	293
TOTAL	367	822	706	1,895	116	205	206	527

# MULE DEER APPENDIX

Table III-1 Resident Mule Deer Harvest 2010-2022<sup>69</sup>

Year	WMU	Male	Female	Young	Total	Est. Hunter Success (%)	Est. Hunter Tags
2010	All	6,116	7,826	642	14,584	30,029	48.6%
2011	All	7,989	10,715	976	19,680	33,745	58.3%
2012	All	7,695	5,947	496	14,138	31,472	44.9%
2013	All	7,596	5,808	520	13,924	31,697	43.9%
2014	All	6,998	6,661	497	14,156	30,628	46.2%
2015	All	7,312	7,245	651	15,208	33,233	45.8%
2016	All	6,836	6,880	686	14,402	32,498	44.3%
2017	All	7,075	7,210	686	14,971	33,513	44.7%
2018	All	5,721	6,163	556	12,440	31,443	39.6%
2019	All	6,289	5,940	704	12,933	32,512	39.8%
2020	All	6,161	4,916	598	11,675	33,163	35.2%
2021	All	6,546	5,665	610	12,821	33,640	38.1%
2022	All	8,666	7,181	881	16,728	35,605	47.0%
<b>Total</b>		<b>91,000</b>	<b>88,157</b>	<b>8,503</b>	<b>187,660</b>	<b>423,178</b>	<b>44.3%</b>

Table III-2 Commercial Outfitter Trophy Mule Deer Harvest 2015-2020<sup>70</sup>

Year	WMU	Total	Hunter Success	Hunter Tags
2015	all	437	57.65%	758
2016	all	497	59.24%	839
2017	all	459	59.92%	766
2018	all	464	54.08%	858
2019	all	470	54.21%	867
2020	all	187	75.10%	249
<b>Total</b>		<b>2,514</b>	<b>58.0%</b>	<b>4,337</b>

Table III-4 Commercial Outfitter Trophy Mule Deer Harvest by Region 2015-2020<sup>70</sup>

Region	Total	Hunter Success (%)	Hunter Tags
Prairie WMUs	800	64.4%	1,243
Parkland WMUs	526	58.0%	907
Foothills WMUs	775	62.0%	1,250
Mountain WMUs	88	24.2%	363
Boreal WMUs	325	56.6%	574
<b>Total</b>	<b>2,514</b>	<b>58.0%</b>	<b>4,337</b>

Table III-3 Resident Mule Deer Harvest by Region 2010-2022<sup>69</sup>

Region	Male	Female	Young	Total	Total Tags	Est. Hunter Success (%)
Prairie WMUs	31,702	33,179	3,487	68,368	121,522	56.3%
Parkland WMUs	28,529	27,824	3,357	59,710	132,976	44.9%
Foothills WMUs	19,020	17,831	1,082	37,933	107,126	35.4%
Mountain WMUs	2,936	757	24	3,717	21,602	17.2%
Boreal WMUs	8,813	8,566	553	17,932	39,952	44.9%
<b>Total</b>	<b>91,000</b>	<b>88,157</b>	<b>8,503</b>	<b>187,660</b>	<b>423,178</b>	<b>44.3%</b>

<sup>69</sup>2023 0705 GoA Estimated Resident Hunter Harvest 2010-2022

<sup>70</sup>2022 0222 FWMIS FOIP Outfitter Success 2015-2020

<sup>70</sup>2018 0615 Outfitter Allocations Only per WMU for 2018 Season

<sup>70</sup>2023 0810 AFP-Moose Allocations- 2023 Hunting Season

Table III-5 Resident Buck Mule Deer Harvest 2015-2019<sup>69</sup>

Year	WMU	Male	Est Hunter Success (%)
2015	all	7,075	44.7%
2016	all	6,836	44.3%
2017	all	7,312	45.8%
2018	all	6,998	46.2%
2019	all	7,596	43.9%
<b>Total</b>		<b>35,817</b>	<b>45.0%</b>

Table III-6 Commercial Outfitter Trophy Mule Deer Harvest 2015-2019<sup>66</sup>

Year	WMU	Total	Hunter Success (%)	Hunter Tags
2015	all	437	57.7%	758
2016	all	497	59.2%	839
2017	all	459	59.9%	766
2018	all	464	54.1%	858
2019	all	470	54.2%	867
<b>Total</b>		<b>2,327</b>	<b>56.9%</b>	<b>4,088</b>

Table III-7 Commercial Outfitter Trophy Mule Deer Allocation – 2018<sup>71</sup>

2018 Standard Outfitter Tags			
Region	Standard Antlered Archery Outfitter Allocation	Standard Antlered Outfitter Allocation	Total Outfitter Allocation
Prairie	137	158	295
Parkland	92	188	280
Foothills	125	606	731
Mountain	26	264	290
Boreal	72	223	295
<b>Total</b>	<b>452</b>	<b>1,439</b>	<b>1,891</b>

Table III-8 Commercial Outfitter Trophy Mule Deer Allocation – 2023<sup>72</sup>

Region	Standard Antlered Archery Outfitter Allocation	Standard Antlered Outfitter Allocation	Total Outfitter Allocation	Antlered Archery Outfitter Covid Relief Allocation	Antlered Archery Outfitter Covid Relief	Antlered Rifle Outfitter Covid Relief Allocation	Total Outfitter Covid Relief Allocation	Total Outfitter Allocation inc. Covid Relief
Prairie	137	164	301	83	83	60	143	444
Parkland	96	197	293	44	44	78	122	415
Foothills	185	670	855	57	57	135	192	1,047
Mountain	108	280	388	16	16	73	89	477
Boreal	146	317	463	35	35	50	85	548
<b>Total</b>	<b>672</b>	<b>1,628</b>	<b>2,300</b>	<b>235</b>	<b>235</b>	<b>396</b>	<b>631</b>	<b>2,931</b>

# PRONGHORN ANTELOPE APPENDIX

Table IV-1 Resident Pronghorn Antelope Harvest 2010-2022<sup>73</sup>

Year	SMA	Estimated Harvest				Tags Sold	Est. Hunter Success (%)
		Male	Female	Young	Total		
2010	All	1,056	253	19	1,328	1,741	76.3%
2012	All	146	18	1	165	181	91.2%
2013	All	576	34	7	617	709	87.0%
2014	All	634	159	5	798	970	82.3%
2015	All	518	116	6	640	799	80.1%
2016	All	572	90	11	673	818	82.3%
2017	All	867	42		909	1,077	84.4%
2018	All	887	120	6	1,013	1,250	81.0%
2019	All	793	119	3	915	1,128	81.1%
2020	All	857	252	13	1,122	1,357	82.8%
2021	All	871	144	12	1,027	1,264	81.3%
2022	All	910	159	8	1,077	1,231	87.7%
<b>Total</b>	<b>All</b>	<b>8,687</b>	<b>1,506</b>	<b>91</b>	<b>10,284</b>	<b>12,525</b>	<b>82.1%</b>

Table IV-2 Commercial Outfitter Trophy Pronghorn Antelope Harvest 2015-2020<sup>74</sup>

Year	SMA	Trophy Harvest	Tags Sold	Outfitter Success (%)
2015	all	33	39	84.62%
2016	all	47	49	95.92%
2017	all	20	32	62.50%
2018	all	27	35	77.14%
2019	all	41	45	91.11%
2020	all	28	33	84.85%
<b>Total</b>		<b>196</b>	<b>233</b>	<b>84.12%</b>

Table IV-3 Resident Pronghorn Antelope Harvest by SMA 2010-2022<sup>73</sup>

SMA	Estimated Harvest				Tags Sold	Est. Hunter Success (%)
	Male	Female	Young	Total		
A	220	42	1	263	359	73.3%
B	1,158	312	17	1,486	1,804	82.4%
C	1,616	67	4	1,687	2,261	74.6%
D	158	36	7	202	270	74.8%
E	441	81	4	526	593	88.7%
F	1,561	72	12	1,645	1,954	84.2%
G	2,051	567	37	2,655	3,193	83.2%
H	1,482	329	9	1,820	2,091	87.0%
<b>Total</b>	<b>8,687</b>	<b>1,506</b>	<b>91</b>	<b>10,284</b>	<b>12,525</b>	<b>82.1%</b>

Table III-4 Commercial Outfitter Trophy Mule Deer Harvest by Region 2015-2020<sup>74</sup>

SMA	Trophy Harvest	Tags Sold	Outfitter Success (%)
A	11	11	100%
B	13	15	86.67%
C	32	43	74.42%
D	10	11	90.91%
E	28	32	87.50%
F	53	61	86.89%
G	22	28	78.57%
H	27	32	84.38%
<b>Total</b>	<b>196</b>	<b>233</b>	<b>84.12%</b>

Table IV-5 Resident Trophy Pronghorn Antelope Harvest 2015-2019

Year	Trophy Harvest <sup>75</sup>	Tags Sold <sup>75</sup>	Outfitter Success (%)
2015	518	680	76.2%
2016	572	625	91.5%
2017	867	1,018	85.2%
2018	887	1,055	84.1%
2019	793	954	83.1%
<b>Total</b>	<b>3,637</b>	<b>4,332</b>	<b>84.0%</b>

Table IV-6 Commercial Outfitter Trophy Pronghorn Antelope Harvest 2015-2019<sup>74</sup>

Year	Trophy Harvest	Tags Sold	Outfitter Success (%)
2015	33	39	84.62%
2016	47	49	95.92%
2017	20	32	62.50%
2018	27	35	77.14%
2019	41	45	91.11%
<b>TOTAL</b>	<b>168</b>	<b>200</b>	<b>84.00%</b>

<sup>73</sup>2023 0425 GoA Estimated Resident Hunter Harvest Estimates 2010-2022

<sup>74</sup>2022 0222 FWMIS FOIP Outfitter Success 2015-2020

<sup>75</sup>2015-2019 GoA/RELM Trophy Antelope Draw Summaries

<sup>76</sup>2023 RELM Antelope Draw Summary

<sup>77</sup>2018 0615 Summary of Outfitter Allocations for 2018 Season

<sup>78</sup>2023 0810 AFP Pronghorn Antelope Allocations - Hunting Season 2023

Table IV-7 Resident Trophy Pronghorn Antelope Harvest by SMA 2015-2019

SMA	Trophy Harvest <sup>75</sup>	Tags Sold <sup>76</sup>	Est. Hunter Success (%)
A	92	125	73.3%
B	462	539	82.4%
C	738	930	74.6%
D	67	86	74.8%
E	184	165	88.7%
F	665	820	84.2%
G	860	979	83.2%
H	569	688	87.0%
<b>Total</b>	<b>3,637</b>	<b>4,332</b>	<b>84.0%</b>

Table IV-8 Commercial Outfitter Trophy Pronghorn Antelope Harvest by SMA 2015-2019<sup>74</sup>

SMA	Trophy Harvest	Tags Sold	Outfitter Success (%)
A	8	8	100%
B	11	13	84.62%
C	30	40	75.00%
D	8	9	88.89%
E	24	28	85.71%
F	44	50	88.00%
G	18	22	81.82%
H	25	30	83.33%
<b>TOTAL</b>	<b>168</b>	<b>200</b>	<b>84.00%</b>

Table IV-9 Resident Trophy Pronghorn Antelope Draw Success 2023<sup>76</sup>

Priority	Drawn Applicants	Unsuccessful Applicants*	Total Applicants	Draw Success
24	1	0	1	100%
23	1	0	1	100%
22	1	0	1	100%
21	4	0	4	100%
20	5	0	5	100%
19	9	0	9	100%
18	13	0	13	100%
17	24	0	24	100%
16	21	2	23	91.30%
15	73	27	100	73.00%
14	97	61	158	61.39%
13	165	67	232	71.12%
12	282	306	588	47.96%
11	103	297	400	25.75%
10	61	304	365	16.71%
9	16	459	475	3.37%
8	0	528	528	0.00%
7	0	468	468	0.00%
6	0	476	476	0.00%
5	0	619	619	0.00%
4	0	700	700	0.00%
3	0	686	686	0.00%
2	0	839	839	0.00%
1	0	1,015	1,015	0.00%
0	0	1,438	1,438	0.00%
<b>TOTAL</b>	<b>876</b>	<b>8,292</b>	<b>9,168</b>	<b>9.55%</b>

\* Excludes all code 999 applications

Table IV-10 Commercial Outfitter Trophy Pronghorn Antelope Allocation – 2023

SMA	2018 <sup>77</sup>	2023 <sup>78</sup>		
	Standard Trophy Outfitter Allocation	Standard Trophy Outfitter Allocation	Trophy Outfitter Covid Relief Allocation	TOTAL Trophy Outfitter Allocation inc. Covid Relief
A	4	4	0	4
B	3	3	0	3
C	11	11	2	13
D	2	2	0	2
E	6	6	3	9
F	13	13	3	16
G	8	8	0	8
H	8	8	4	12
<b>Total</b>	<b>55</b>	<b>55</b>	<b>12</b>	<b>67</b>



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