



COLORADO

Parks and Wildlife

Department of Natural Resources

License, Reservations and Customer Operations
6060 Broadway
Denver, CO 80216

MEMORANDUM

TO: Colorado Parks and Wildlife Commissioners
FROM: Draw Working Group Members
DATE: April 19, 2024
SUBJECT: Draw Process Working Group Recommendations on Sheep, Goat and Moose Draws

At the May 2023 Parks and Wildlife Commission Meeting, the Commission directed staff to form a Draw Process Working Group (DWG or group). The purpose of the group is to analyze our current draw rules and processes in order to identify ways to reduce the complexities and find new solutions/alternatives to fix some of the issues within the Colorado draw system, as well as address biological and sociological concerns.

This memo provides the Commission with an update after the third DWG work session focused on the draws for Rocky Mountain and desert bighorn sheep, mountain goat and moose. This memo will provide a brief summary of the discussion highlights as well as the **recommendations that were supported by the group**. These recommendations will also be shared with the Commission during an oral panel presentation/workshop at the May Commission meeting.

Topic #1- Primary Draw Methods for Sheep, Goat and Moose

Consistent with the first two DWG meetings, CPW staff spent the first part of the meeting presenting regulations and data pertaining to the current draw processes used for sheep, goat and moose. Additionally, the icebreaker for the meeting covered whether or not the draws for these species should differ from those for other big game species. The consensus was that moose, sheep and goat draws should be administered differently than other big game draws due to the low number of licenses, lower populations, and extremely high demand.

The second part of the meeting consisted of a facilitated SWOT analysis, looking at the strengths, weaknesses, opportunities and threats of the current draw models for these four species. The analysis started by looking at the 50/50 preference and bonus split draw model that the DWG recommended for deer, elk, bear and pronghorn, and whether or not that model could work for sheep, goat and moose. The group agreed that the same split draw model recommended for deer, elk, bear and pronghorn would not be ideal for sheep, goat and moose due to the minimal hunt codes and low quotas involved. Most members felt that the weighted draw method used today was a fair system, although it was very confusing for customers to understand. To ease customer confusion and to provide some consistency between all of the big game draws, **the group recommends going to a 100% bonus draw (names in the hat) for Rocky Mountain bighorn sheep, mountain goat and moose**. While there would be no preference part of these drawings, using a bonus drawing model for Rocky



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Mountain bighorn sheep, mountain goat and moose instead of a weighted model, there could be some consistency across the draws. It would also have essentially the same draw results/draw odds as our current weighted draw model, which the group believed was working fairly well. This maintains functionally the same draw system we have had for 24 years but with a more easily understood process.

The one exception was the desert bighorn sheep draw. **The DWG wished to keep the desert bighorn sheep draw 100% random using no points, or status quo with the system used since desert bighorn sheep hunting began.** The group agreed that a fully random draw is the most simplistic and fair draw method, especially for species with extremely low quota. It also eliminates issues such as point creep down the road. If one could go back in time to when the Division was first developing the draws for Rocky Mountain bighorn sheep, mountain goats, and moose, armed with the knowledge and insights of today, the likely proposal would be a fully random draw for all of these species. However, given the amount of time and money customers have invested into the current system and into weighted points, the group did not feel it would be appropriate to transition to a fully random draw at this point. The group did recommend however, that **if any new limited species were added in the future, that the draw method used for that species should be a random draw.**

Topic #2- Points for Sheep, Goat and Moose

To transition from a weighted draw model to a bonus draw model, the group recommended taking a customer's current weighted and normal preference points and adding them together to get their new number of points. For example, if a customer currently holds 3 regular preference points and 22 weighted points, their new point value would be 25. The group also thought it was important to help customers understand that weighted points and bonus points are the same thing; mathematically the points are just used in different ways based on the draw model. To help with that education, the group recommended **the dissolution of the terms weighted point and preference points, with the merging of each species' points into one point total per species.**

The group also spent a lot of time discussing "barriers to entry" for Rocky Mountain bighorn sheep, mountain goats and moose. One barrier to entry is the current \$50 resident and \$100 nonresident preference point fee. This is a minimal barrier to entry as customers have the ability to opt-out of paying the fee. They can still participate in the drawing if they opt-out, but they will not be able to gain a point for the year.

The DWG wanted to keep the existing point fee in place for the following reasons:

- Avoid another flood/tsunami of additional applicants
- Maintain the current value of moose, Rocky Mountain bighorn sheep and goat points
- Continue providing funding towards the management of these species (roughly 1 million annually).

The group also agreed that **the option to opt-out of paying the point fee should be maintained.**

Another barrier to entry discussed was the current 3-point threshold required before someone can gain weighted points and realistically, draw a license for a Rocky Mountain bighorn sheep,



mountain goat or moose. The DWG agreed that this point threshold was important to maintain as a way to ensure applicants are vested or have “skin in the game” before they are able to draw a license. Based on the high demand for these licenses, the group felt there should be a short waiting period before a new applicant should be able to draw a license, especially for a male sheep, goat or moose. The length of that waiting period was discussed with suggestions ranging from 0 years to 5 years. **The majority of the working group support a 3-year waiting period with the requirement of purchasing points during those 3 years before you could draw a ram Rocky Mountain bighorn sheep, bull moose, or either-sex mountain goat license.**

Topic #3- Once in a Lifetime Harvest

Similar to the waiting period before one can initially draw, the group also discussed waiting periods after someone has successfully drawn one of these licenses. Current waiting periods vary by species, sex, and whether or not the license holder harvested an animal. Regulations are complex and lack consistency between species. For example:

- Moose- once in a lifetime harvest for any bull moose. However, there is no waiting period if you draw a bull moose license but do not harvest or if you draw a cow moose license (regardless of harvest).
- Desert bighorn sheep- once in a lifetime harvest for all desert sheep, regardless of sex. No waiting period if you do not harvest.
- Rocky Mountain bighorn Sheep- 5-year waiting period for any person who harvests a ram, one-half (½) curl or larger. During this five-year waiting period, a person may apply for a ewe license, but if unsuccessful will not receive preference points.
- Mountain goats- 5-year waiting period for any person who harvests a mountain goat. During this 5-year waiting period, applications for a nanny license are not allowed.

Prior to the meeting, DWG members requested data on how many individuals had drawn more than one license per species in their lifetime, broken out by sex. Data from mandatory harvest reports were used to compile these data which include licenses turned in and not hunted:

- All Moose- 717 individuals have drawn two or more moose licenses, including both antlered and antlerless licenses.
 - Bull Moose- 27 individuals have drawn two or more antlered moose licenses.
- All Rocky Mountain bighorn sheep- 659 individuals have drawn two or more Rocky Mountain bighorn sheep licenses, including both rams and ewe licenses.
 - Ram Rocky Mountain Bighorn Sheep- 252 individuals have drawn two or more Rocky Mountain bighorn sheep ram licenses.
- All Mountain Goat- 254 individuals have drawn two or more mountain goat licenses, including both either-sex and nanny only licenses.
 - Either-Sex Mountain Goat- 199 individuals have drawn two or more either-sex mountain goat licenses.



Additionally, an analysis completed back in 2021 on the potential implications of once-in-a-lifetime harvest for Rocky Mountain bighorn sheep rams (Appendix A) was also shared with the group in advance of the meeting. The findings of that analysis were that changing to once-in-a-lifetime ram harvest resulted in no meaningful increase (hundredths of 1 percent) in the chance of drawing a license. This is because of the high, and increasing, applicant numbers in the draw.

Despite the fact that transitioning to an once-in-a-lifetime harvest does not improve drawing odds, a majority of the DWG did support **changing policy to a once-in-a-lifetime-harvest for bull moose, bighorn sheep rams, and all mountain goats** just out of the perception of fairness and to improve consistency (bull moose and desert bighorn are already once in a lifetime). Exceptions to this would be for auction and raffle licenses and private land tags issued under the Bighorn Sheep Access Program. This change **would also not be retroactive**, just applied to applicants moving forward. The group was not supportive of once-in-a-lifetime license drawing restrictions. They wanted to allow those who did not harvest an animal or individuals who returned their license to be able to reapply in those situations. They also did not want to restrict applications for ewe Rocky Mountain bighorn sheep or cow moose licenses.

Topic #4- Application Rates

The tsunami of new applicants for sheep, goat and moose since 2018 was a topic that came up multiple times throughout the meeting, as well as the impacts of those new applicants on draw odds (Appendix B). The group discussed several ideas to improve draw odds, despite the increased applications, including squaring or cubing bonus points and making applicants choose only one of the four to apply for each year.

Squaring or cubing points was not a popular option with the group, as it would make it nearly impossible for anyone holding less than 10 weighted/bonus points to draw a license. The average age to draw a license would increase under a squaring or cubing scenario, as this practice favors those applicants with the greatest number of weighted/bonus points. This outcome is contrary to the group's vision to both "simplify the draw process to be more readily understood by most hunters" as well as "enable reasonable and transparent opportunities for current and future hunters to draw limited and highly-desirable licenses".

A majority of the group did support the idea of limiting applicants to choosing only one of the four species to apply for a license each year to improve draw odds. Applicants could still apply for a point for the other two species each year (no points for desert sheep). Applicants must already choose between applying for Rocky Mountain bighorn sheep and desert bighorn sheep, you can't apply for both.

This would be accomplished by having an applicant choose upfront which species they would like to apply for and selecting to purchase points for the other species if so desired. This point only option application process, without an application for a license, was recommended for deer, elk, bear and pronghorn in the Primary Draw.



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Making customers choose one species to apply for each year will reduce overall demand and increase draw odds for all species. If the quota stays the same and applicant numbers are reduced, the odds of drawing will increase for that species. The only way this would not increase drawing odds is if all current applicants already only apply for 1 of the 4 species, which we know is not the case. Many applicants have one species they really want to draw, and this system would particularly help those individuals.

Staff is working on compiling data in advance of the May Commission Meeting to show how many applicants are currently applying for more than one of the big three annually. This will give the Commission, DWG and members of the public a better estimate of how much this potential change could potentially improve draw odds and for which species it will benefit the most. If most applicants are already prioritizing 1 species and not applying for a license for all 3 the odds will not improve much. If most applicants are already applying for all 3, then the odds will improve for some species.

Topic #5- Residency Allocation

The group unanimously agreed to keep the residency allocation split for sheep, goat and moose at 90% resident and 10% nonresident, or status quo. Many other western states have this allocation split for these species and this same allocation has been in place in Colorado for 20+ years. **The group was also supportive of maintaining the existing hard cap for these species, with resident and nonresident specified quota.** If there is insufficient nonresident demand, those leftover nonresident licenses can roll to residents, but not vice versa. Overall species quotas are totaled statewide to ensure that the appropriate residency allocation split has been applied (not hunt code by hunt code).

Topic #6- Youth Preference

The group also unanimously agreed to keep youth preference status quo for sheep, goat and moose, meaning no preference to youth for drawing these species. A sheep, goat or moose hunt is typically the pinnacle hunting experience for most avid sportspersons. These hunts can also be physically challenging due to the high altitudes or the size of the animal. This gives youth hunters time to gain more hunting experience and hone one's skills and improve the chances of a successful harvest and a more memorable hunting experience.

Topic #7- Group Applications

Another area where little consistency currently exists between the four species is with group applications. Group applications are currently allowed for Rocky Mountain bighorn sheep and mountain goats, but not for moose or desert bighorns. Group applications for Rocky Mountain bighorns and mountain goats also differ from group applications allowed for deer, elk, bear, pronghorn and turkey in that they are restricted to only two members in the group and those two members have to share the same residency. **The DWG was supportive of extending the same group application regulations to moose and desert bighorn sheep for consistency and simplicity.** The group discussed how applying as a group for these species further reduces your odds of drawing a license, however it is a customer service that the agency can provide.



An opportunity to further discuss these recommendations as well as ask questions of the DWG panel will be a part of the May Commission agenda. As a part of the panel presentation, the DWG and staff will be seeking approval or guidance on the recommendations from the Commission. This will allow the DWG to continue having additional DWG topic discussions as well as allow staff to start drafting new rules and policies to start the regulatory process needed for implementation. Thank you for your time and consideration. We look forward to the discussion in May.



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Appendix A:

MEMORANDUM

TO: Parks and Wildlife Commissioners

FROM: Brian Dreher, Terrestrial Section Manager and Danielle Isenhardt, License, Reservations and Customer Operations Manager

DATE: April 22, 2021

SUBJECT: Preference Point Draw Trends for Bighorn Sheep, Mountain Goat and Moose and Bighorn Sheep Once In a Lifetime Harvest Analysis

At its January 2021 meeting, the Colorado Parks and Wildlife Commission requested information on 1) the number of preference points it has been taking for individuals to draw Rocky Mountain bighorn sheep, mountain goat and moose licenses as well as 2) any information or statistics to inform the consideration of whether to transition Rocky Mountain Bighorn Sheep Ram license eligibility to be once-in-a-lifetime ram harvest. This latter consideration would be consistent with current once-in-a-lifetime bull moose opportunities, where any hunter that harvested a ram would no longer be eligible to apply for another ram license. Importantly, this topic should not be confused with once-in-a-lifetime draw, or a once-in-a-lifetime license.

Appendix A shows preference point and application trends for moose, bighorn sheep and mountain goat from 2015-2020. Points are listed numerically in the table by normal preference points | weighted preference points. Appendices B-D show draw success by species for the same period, with the top graph showing percentage of all those who applied with that number of points who drew a license, and the bottom graph shows the same data by specific number of individuals. An interactive version of this data is also available, which can be filtered by residency, year, application choice, and youth vs. adult.

To address the Commission's second question (once-in-a-lifetime ram harvest), CPW has conducted analyses using previous license applications and draw statistics by weighted preference point totals to model the percent chance of drawing a license over the next 20 years. We compared two scenarios: 1) according to the current regulations and 2) if regulations were changed to once-in-a lifetime ram harvest (Figure 1: Method of Analysis at the end). Changing to once-in-a-lifetime ram harvest results in no meaningful increase (hundredths of 1 percent) in the chance of drawing a license. This is because of the high, and increasing, applicant numbers in the draw. In other words, the continuous removal of the number of sheep hunters who harvest a ram from the pool of applicants



applying for a ram license has a negligible effect on the chance of drawing a license. This is because the number of rams harvested annually (~130 for residents) is significantly less than the annual increases in resident applicant numbers for a ram license (3,822 applicants at 0+0 preference points in 2020, 6.8% annual increase thereafter). Essentially, the high and increasing applicant numbers swamp out the draw and nullify any increased draw percentage afforded by once-in-a-lifetime ram harvest.

2. While the percent chance of drawing a license in a given year increases somewhat linearly with increasing weighted point number, the chance of drawing a license into the future will decline for all point levels because of high applicant rates compared to license numbers. Annual applications for bighorn sheep licenses have strikingly increased over the past three years, mostly due to the change to pay-after-you-draw (Figure 2). This surge in applicants is now competing for licenses when they have 3+0 preference points. New cohorts of thousands of applicants entering the competition for licenses year after year crash the likelihood of drawing a license over time, even for hunters with the maximum weighted points (Figure 1).

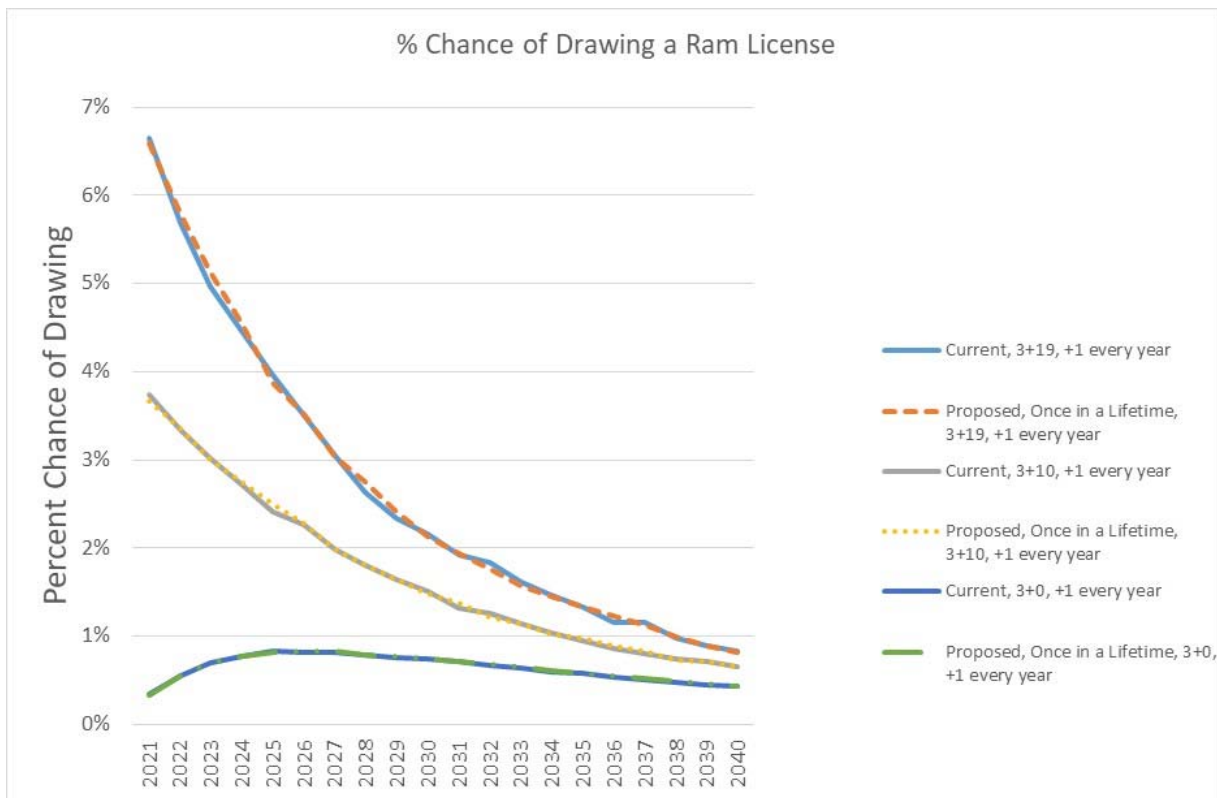


Figure 1. Percent chance of drawing a license over time for varying by weighted point levels, with and without the proposed once-in-a-lifetime ram harvest change. For the purpose of this graph, we have chosen to display draw percentage for individuals with 3+19 weighted preference points in 2021, 3+10 weighted preference points in 2021 and 3+0 weighted preference points in 2021.

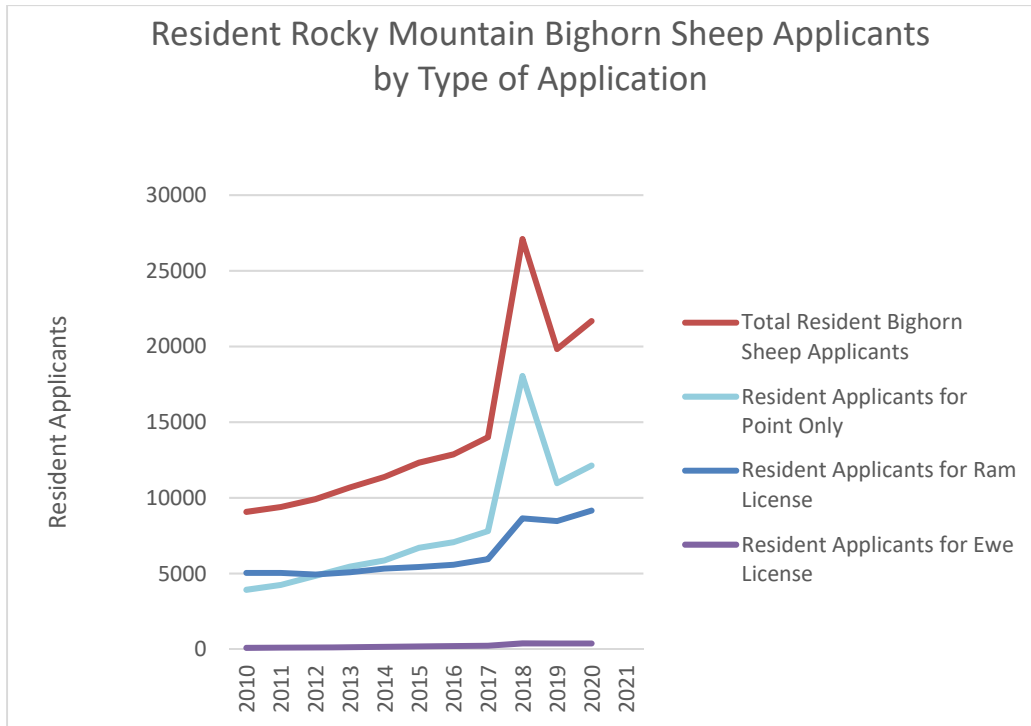


Figure 2. Resident bighorn applicants by application type, 2010-2020.

In summary, a change to once-in-a-lifetime ram harvest does not appear to have a meaningful impact on ram license drawing success and if the trend in bighorn sheep ram applications continues at its current rate, we can expect that the probability of drawing a ram license will be reduced for all preference point totals.

Methods of Analysis

Our objective was to simulate the number of resident hunters in each preference point class and the number of hunters drawing licenses in each preference point class under two different management options:

1. The current policy that hunters are allowed to apply for points again immediately if they are unsuccessful in harvesting a ram, and are allowed to apply after a 5-year waiting period if they successfully harvest a ram. A 5-year wait plus 3 years applying to get to 3+0 and be in the draw equates to a 9 year wait to have another chance at a ram license.
2. A proposed policy that would invoke 'once in a lifetime' conditions for hunting rams, i.e., if a hunter harvests a ram, they cannot apply for a ram license again.

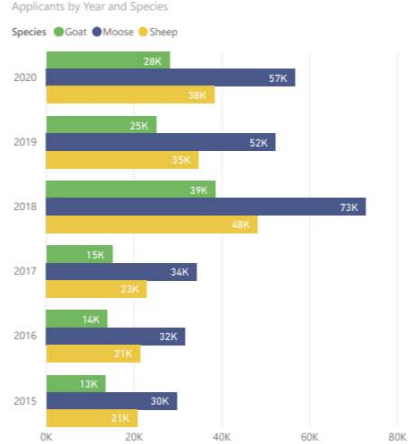
We used the numbers of applicants for each point cohort in the 2020 Rocky Mountain Bighorn Sheep Draw Recap Report to simulate a population of hunters moving forward through the point cohorts from present to 20 years from now.

In each year, we conducted 1,000 simulations to determine how many hunters in each point class were selected. We generated a random number between 1 and 999999, divided that number by the weighted bighorn points +1, ordered all the hunters by the adjusted random number, and selected the 216 simulated individuals with the lowest adjusted random number (see below why 216 was used).

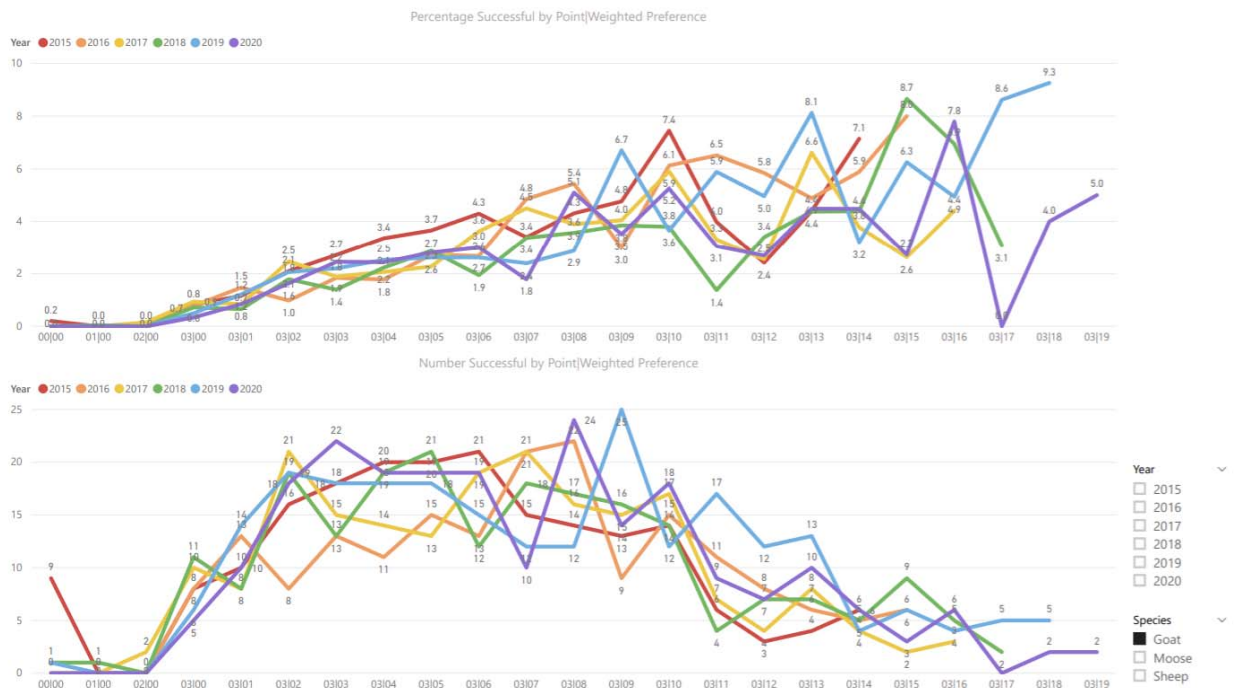
We assumed that:

1. All hunters either applied for a preference point or applied for a license and 93% of applicants purchased the optional preference point or weighted point.
2. 98% of hunters apply for ram licenses and do not switch back and forth between applying for ram and ewe licenses
3. There will be 240 ram licenses available each year and that 90% of these (216) will be resident only by Commission Policy.
4. Harvest success is 60%.
5. The percentage of hunters in a point cohort that apply for a license (versus only buy a point) is the same every year as it was in 2020.
6. The rate of increase of hunters into the initial point cohort (0+0) is the same as the increase from 2019-2020 and remains constant through the years. This resulted in a 6.8% increase per year under current conditions (hunters are allowed to apply again 9 years after harvesting) and a 6.4% increase if hunters were not allowed to apply again.

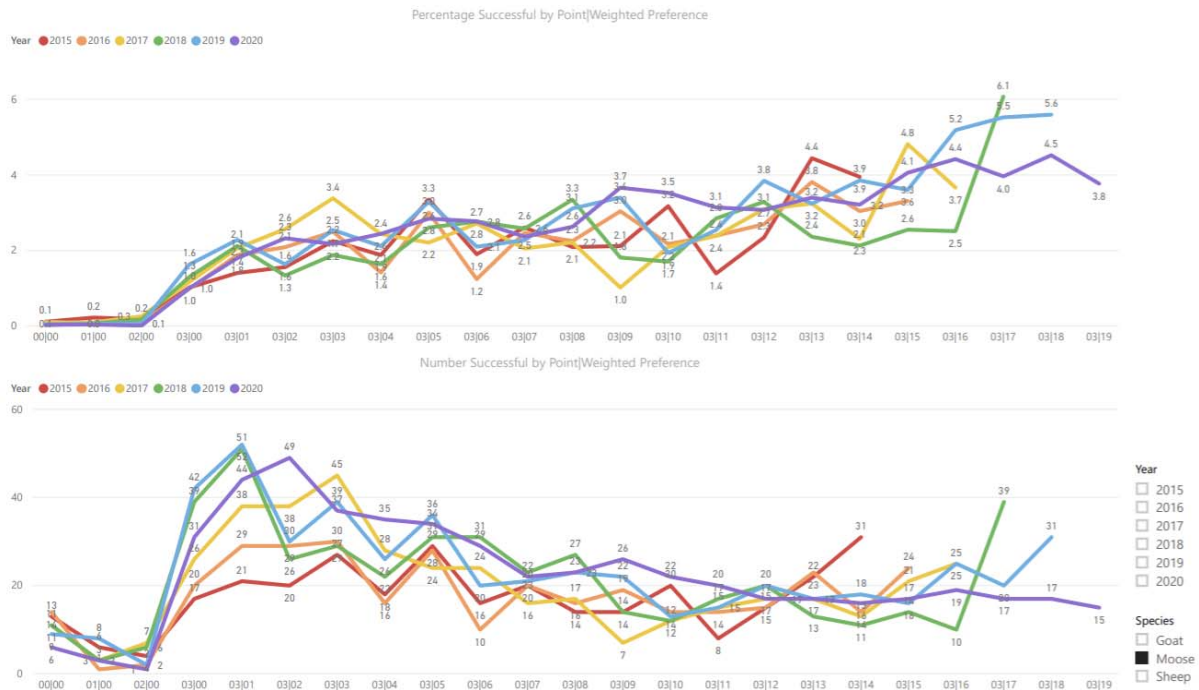
Species Point/Weight	Goat			Moose			Sheep			Total		
	Applicants	Successful	Unsuccessful	Applicants	Successful	Unsuccessful	Applicants	Successful	Unsuccessful	Applicants	Successful	Unsuccessful
0000	53,857	11	53,846	116,433	64	116,369	73,384	61	73,323	243,674	136	243,538
0100	17,737	1	17,736	33,696	24	33,672	21,554	115	21,439	72,987	140	72,847
0200	12,684	2	12,682	24,191	22	24,169	15,153	116	15,037	52,028	140	51,888
0300	7,274	48	7,226	14,564	175	14,389	9,127	89	9,038	30,965	312	30,653
0301	6,262	63	6,199	12,013	235	11,778	7,893	68	7,825	26,168	366	25,802
0302	5,521	101	5,420	10,042	192	9,850	7,038	78	6,960	22,601	371	22,230
0303	4,813	99	4,714	8,513	207	8,306	6,272	97	6,175	19,598	403	19,195
0304	4,238	101	4,137	7,246	145	7,101	5,754	90	5,664	17,238	336	16,902
0305	3,766	106	3,660	6,365	182	6,183	5,217	96	5,121	15,348	384	14,964
0306	3,324	99	3,225	5,651	130	5,521	4,785	110	4,675	13,760	339	13,421
0307	2,937	97	2,840	5,103	122	4,981	4,413	87	4,326	12,453	306	12,147
0308	2,506	105	2,401	4,571	120	4,451	4,032	74	3,958	11,109	299	10,810
0309	2,132	92	2,040	4,102	102	4,000	3,545	87	3,458	9,779	281	9,498
0310	1,762	90	1,672	3,848	93	3,755	3,193	88	3,105	8,803	271	8,532
0311	1,407	54	1,353	3,612	89	3,523	2,786	96	2,690	7,805	239	7,566
0312	1,126	41	1,085	3,427	104	3,323	2,496	86	2,410	7,049	231	6,818
0313	878	48	830	3,197	109	3,088	2,192	85	2,107	6,267	242	6,025
0314	648	30	618	3,290	103	3,187	2,205	68	2,137	6,143	201	5,942
0315	461	26	435	2,573	92	2,481	1,723	54	1,669	4,757	172	4,585
0316	298	18	280	1,992	79	1,913	1,329	45	1,284	3,619	142	3,477
0317	194	7	187	1,433	76	1,357	965	18	947	2,592	101	2,491
0318	104	7	97	930	48	882	669	26	643	1,703	81	1,622
0319	40	2	38	398	15	383	324	12	312	762	29	733
0320							1	0	1	1	0	1
0321							1	0	1	1	0	1
Total	133,969	1,248	132,721	277,190	2,528	274,662	186,051	1,746	184,305	597,210	5,522	591,688



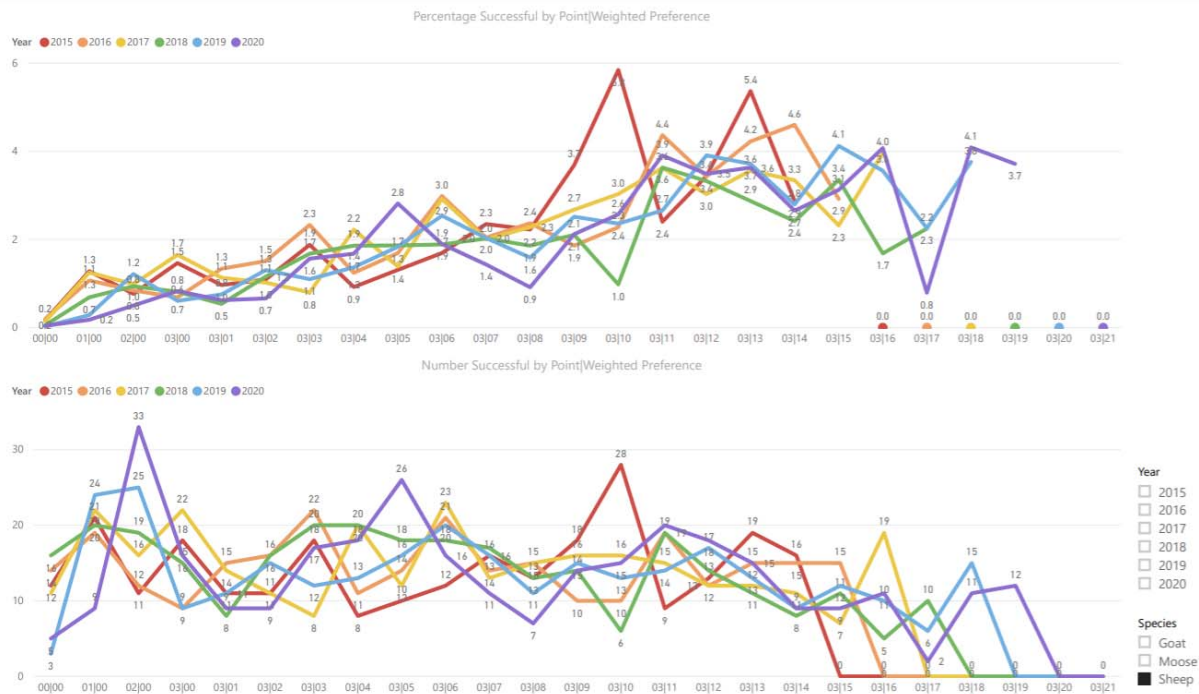
Appendix A: 2015-2020 Application Numbers for Mountain Goat, Moose and RM Bighorn Sheep - Successful and Unsuccessful



Appendix B: 2015-2020 Mountain Goat Draw Success Trends



Appendix C: 2015-2020 Moose Draw Success Trends



Appendix D: 2015-2020 Rocky Mountain Bighorn Sheep Draw Success Trends

Appendix B: Application Trends and Preference Point Fee Opt-in Rates for Sheep, Goat and Moose

