

Assignments from the Alaska Board of Game Committee Meeting December 2, 2013, on Copper Basin Area Subsistence Hunting Regulations

Alaska Department of Fish and Game, Division of Wildlife, Region IV

Issue I – Increased Participation in Community Subsistence Hunt

1. Analyze how changing the CSH seasons and bag limits to match the general hunt would work. What would be the effect?

When the board developed the Copper Basin Community Subsistence Hunts (CSH), it authorized an early opening date for moose and caribou and a liberalized bag limit for moose. The committee referred to these special provisions as incentives because they are generally believed to increase hunter interest and participation in the CSH program. However, it is important to note that increased participation in the CSH program may not represent an overall increase in the number of hunters in the CSH hunt area, but rather a redistribution of hunters among the hunting options (Table 1 and Figure 1).

Because the department does not collect information on how individual hunters make their decision on which hunt to participate in, it is difficult to quantify how these provisions influence a hunter's decision making process. As a result, this analysis should be viewed cautiously and will rely on indirect evidence to evaluate how each provision has affected participation in the CSH program.

CSH Moose Hunt

The CSH moose hunt opens on August 10 in Units 11 and 13 (10 days prior to the start of the general season in Unit 11 and 22 days prior to the start of the general season in Unit 13) and mirrors the general season in Unit 12 (Table 2). The CSH hunt was also allocated up to 100 bull moose that do not conform to the general season antler requirements ("any bulls") in Units 11 and 13.

Interactions between staff and the public suggest that the primary interest in the CSH moose hunt stems from the "any bull" provision, even though some hunters continue to hunt throughout August and September, after the CSH bag limit changes. Using the reported harvest of antler legal bulls (bulls that meet general season antler requirements) as an index of hunting effort, participation in the CSH moose hunt appears to decline sharply after the first week of the season, when the CSH bag limit is changed (62% of antler legal bulls are taken during the first week of the CSH season), and harvest by CSH hunters remains low for the remainder of the season (0 to 2 moose taken daily) (Figure 2). This is in contrast to the harvest by general season hunters, which peaks on September 1 and remains relatively consistent until the season closure on September 20, a pattern that suggests that antler legal bulls remain available throughout the season. It has also been noted that many CSH hunters refer to the Emergency Order changing the CSH bag limit as a "season closure", even though they can continue hunting under the more restrictive, general season bag limit.

Based on the same observations, it seems reasonable to conclude that a regulatory change to align the CSH season with the general season would not result in a significant change in hunter participation or moose harvest by CSH hunters. Participation in the CSH hunt is expected to be

highest during the first week of the season, when the “any bull” opportunity is available and decline as the season progresses.

CSH Caribou Hunt

The CSH caribou season mirrors the season for the Tier I registration hunt (August 10), which opens 10 days prior to the start of the drawing permit hunt (August 20). The caribou bag limits for all three hunt types (Tier I CSH, Tier I registration and draw) are identical and are simultaneously changed by Emergency Order when the cow quota is reached. The seasons are also closed simultaneously when the Nelchina herd’s harvest quota is reached.

The primary incentive for participation in the CSH caribou hunt does not appear to be related to seasons and bag limits, which are mirrored in the Tier I registration hunt. In RY2013 the department issued 6,635 Tier I registration permits (91% of the Tier I permits) compared to 687 Tier I CSH permits (9%). This difference suggests that participation in the CSH caribou hunt is more closely associated with other factors, such as resource use patterns and the designated hunter program, than seasons and bag limit opportunities.

Regulatory Year 2014

Fewer people applied to participate in CSH hunts for regulatory year 2014, and the trend of increasing participation may be leveling off (Table 3). While the reason for this change is not known, conversations between department staff and hunters lead us to suspect that the implementation of the new “any bull” bag limit (one “any bull” moose for every 3 households in a group) and forecasts of reduced bag limits for the Nelchina caribou herd may have influenced some hunter’s decisions. Additionally, several former participants also cited negative social pressure as a reason for discontinuing their participation in the CSH moose hunt.

Table 1. Trends in moose hunter participation in the community subsistence hunt area, Units 11 and 13.

Regulatory Year	CSH Moose Hunters (% of CSH Permittees)		General Season Moose Hunters		All Other State Hunters Combined		Total State Moose Hunters
		%		%		%	
2009	293 (78%)	8%	3,428	89%	144	4%	3,865
2010		0%	4,200	94%	258	6%	4,458
2011	311 (41%)	7%	3,689	89%	153	4%	4,153
2012	358 (37%)	7%	4,325	90%	122	3%	4,805
2013	841 (41%)	19%	3,345	76%	188	4%	4,374

Table 2. Moose seasons and bag limits in the CSH hunt area.

	CSH Moose Hunt		General Season Moose Hunt	
	Season	Bag limit	Season	Bag limit
Unit 13	Aug 10–Sept 20	“any bull” or S/F/50”/4 brow tines	Sept 1–20	S/F/50”/4 brow tines
Unit 11	Aug 10–Sept 20	“any bull” or S/F/50”/3 brow tines	Aug 20–Sept 20	S/F/50”/3 brow tines
CSH portion of Unit 12	Aug 24–28, Sept 8–17	S/F/50”/4 brow tines	Aug 24–28, Sept 8–17	S/F/50”/4 brow tines

Table 3. Trends in Copper Basin CSH participation.

Regulatory Year	CSH Caribou			CSH Moose		
	Groups	Households	Participants	Groups	Households	Participants
2009	1	477	N/A	1	246	N/A
2010	-	-	-	-	-	-
2011	6	322	667	9	407	814
2012	17	402	828	19	459	969
2013	28	689	1,424	45	995	2,066
2014	24	576	1,109	43	910	1,780

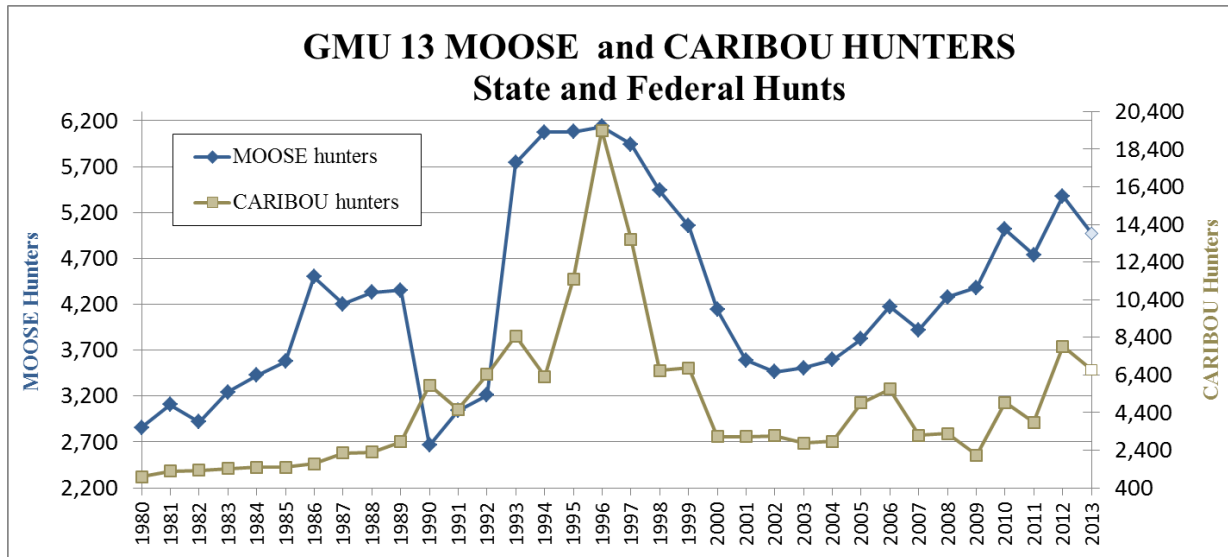


Figure 1. Unit 13 Moose and caribou hunter numbers (2013 data is preliminary)

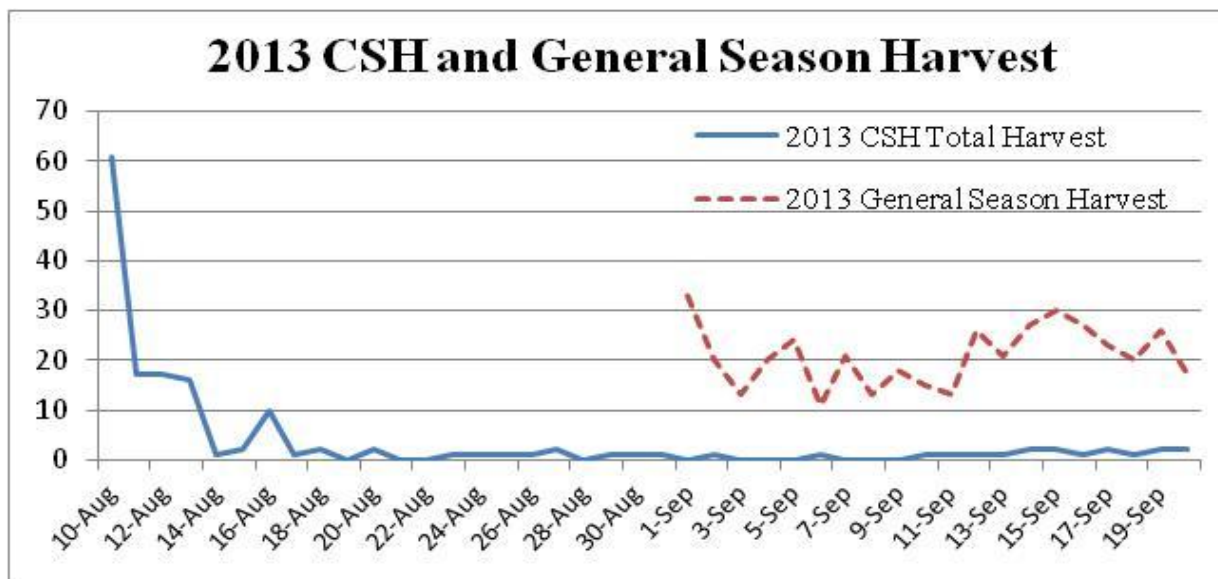


Figure 2. Chronology of moose harvest in Unit 13, regulatory year 2013.

2. Evaluate how a change to 25 “households” (not individuals) would work in the CSH program. What would be the effect?

Under the current regulation, CSH groups are required to demonstrate that they have at least 25 members to form a group. Modifying the current group definition to require a minimum of 25 households would reduce participation by making it more difficult for smaller groups to qualify under the new definition. While this conclusion appears logical, it is difficult to fully quantify how changing the definition of a group would affect participation because current CSH participants have formed groups based on the current definition, and it is possible that current participants would restructure into larger groups if the group definition changes.

If the proposed definition were applied to CSH applicants in regulatory year 2013, 7 of the 45 moose groups (16%) would have met the new definition (Table 4), reducing the number of individual participants by 62%, and 8 of the 28 caribou groups (29%) would have met the new definition (Table 5), reducing individual participants by 47%.

Table 4. Analysis of the proposed group definition for Copper Basin CSH moose hunt

CM300	CSH Moose Groups	No. Groups with 25+ Households	% of Groups
2009	1	1	100%
2010	-	-	-
2011	9	3	33%
2012	19	3	16%
2013	45	7	16%
2014 prelim.	43	8	19%

Table 5. Analysis of the proposed group definition for Copper Basin CSH caribou hunt

CC001	CSH Caribou Groups	No. Groups with 25+ Households	% of Groups
2009	1	1	100%
2010	-	-	-
2011	6	2	33%
2012	17	3	18%
2013	28	8	29%
2014 prelim.	24	6	25%

Issue II – Harvest of any-bull moose in high use subareas reduces harvest opportunity in other subareas

1. Evaluate the mechanism, feasibility and effects of each of the potential solutions listed. How would each of these ideas work? What would be the effect(s)? For example, what would be proposed opening and closing periods for hunt in each subarea? Under what conditions, where, and how would ADF&G consider an antlerless hunt and what would be the effect(s)?
 - Establish a firm any-bull quota per subarea (perhaps established by the Board), so that a harvest that exceeds the quota in one subarea would not reduce the quota (and harvest opportunity) in another subarea.

The CSH “any bull” allocation is distributed in the CSH hunt area by harvest quotas for individual subunits to reduce the potential for overharvest in heavily hunted areas and to keep the harvest within the allocation specified in codified regulation (5AAC 85.045(11)). The requirement to keep the “any bull” harvest within the authorized allocation limit requires a bag limit change for some subunits prior to reaching the subunit’s quotas if the harvest in other subunits exceeds the established quota in other areas.

From a biological perspective, the CSH area moose populations can sustain a limited amount of bull harvest each year, but the harvest must be regulated to keep the bull ratios within objectives. Increases in the harvest of bull moose is expected to decrease the bull ratio in easily accessible areas, making it harder for hunters to find legal moose and increasing social conflicts. Because moose populations are managed at a subunit level, decreasing the bull ratio in a small portion of a subunit does not present a biological concern, but it does increase social conflicts which require allocation decisions if the area is heavily used by other hunters.

If CSH quotas for each hunt area are managed separately, rather than as a cumulative allocation, the department anticipates that the CSH harvest will exceed the total allocation of “up to 100 any bulls” each year unless a mechanism is put in place to reduce the total allocation in subsequent years. Without such a mechanism, decreasing the quota in one hunt area increases the quota in other hunt areas, redistributing the allocation and transferring the problems associated with high harvest to the other areas. An example of a mechanism to reduce the total allocation is assigning a fixed allocation to individual hunt areas in regulation. This “fixed allocation” would reduce flexibility for managing the population, but provides structure to the allocation, keeping harvest quotas and harvests within sustainable limit.

- Establish a maximum number of CSH groups per subarea and require groups to register for a specific subarea.

If the board establishes a limit on the number of groups that can participate in the “any bull” hunting opportunity in specified subareas, the department would ask each group to identify and rank their preferred hunt areas with the intention of ultimately assigning groups to specified hunt areas. However, the department would need additional guidance from the board on how to distribute groups and on how to process groups that are not selected for any of their preferred hunt areas.

It should also be noted that large groups will have more difficulty selecting and ranking preferred hunt areas than smaller groups. This negative pressure on large groups may influence some participants to form smaller groups. As a result any implications of the number of groups increasing as groups restructure into smaller groups should also be considered.

- Establish different season lengths for different subareas, providing longer seasons in areas with lower participation.

Season dates for the CSH hunt are August 10–September 20 in Units 11 and 13 and August 24–28 and September 8–17 in Unit 12. Because there have been no season closures since the

inception of the CSH hunt, this analysis will focus on the potential for extending season dates beyond what is currently provided in regulation.

At the 2013 Board of Game meeting, the board adopted a new winter season for CSH hunters that will occur from December 1–31. This season extension has not been implemented due to regulatory and administrative delays, and the department does not recommend further liberalizations of moose hunting opportunity in Unit 13 until the effects of this additional hunting opportunity has been quantified.

Additionally, because the CSH harvest chronology is so closely associated with the “any bull” hunting opportunity, it is difficult to evaluate the pros and cons or benefits of extending CSH fall hunting season in areas with low participation, particularly given the liberal season dates that are already in place.

- Provide an antlerless hunt, to reduce pressure on any-bulls and to provide an alternate subsistence resource to meet needs.

The only subunit where an antlerless moose hunt is recommended is Unit 13A, where the population is within the Intensive Management Objectives. There has been an antlerless drawing permit hunt (DM325) in Unit 13(A) west since 2012 with 10 permits issued annually.

While there may be potential to increase the number of antlerless moose permits or to allocate the antlerless moose hunting opportunity to CSH hunters, adding an antlerless moose bag limit to the CSH hunt presents many challenges that should be considered.

The primary concerns for the viability of any antlerless hunt are gaining sufficient public acceptance of the hunt and procuring a sufficient number of votes from local Advisory Committees (AC) to prevent an AC veto of the hunt. The public has numerous concerns about the current antlerless moose hunts in Unit 13, and there is questionable support from local Advisory Committees (AC). Allocating antlerless moose opportunity to the CSH hunt may detract from the public support needed to conduct the hunt.

The department also anticipates that it will be difficult to manage the harvest due to the large number of CSH hunters. Because cows are so numerous in the hunt areas, a very large number of cows will be taken very quickly. Even a one-day hunt for antlerless would result in an overharvest of cow moose if participation is not limited. As a result antlerless moose hunting opportunity would need to be allocated among CSH hunt participants to keep the harvest within sustainable limits.

Additionally, based on a prior analysis which suggests that one of the primary incentives for participating in the CSH moose hunt is the opportunity to shoot any bull, the addition of an antlerless bag limit is expected to increase the number of CSH participants.

- Provide for more rapid harvest reporting and more responsive in-season management during the any-bull harvest. Ideas discussed include ensuring there is weekend staffing/tracking of the harvest by ADF&G biologists, and more rapid communication between ADF&G and hunters regarding actual harvest and EOs (e.g., cell phone?, radio?).

Rapid communication between hunt managers and hunters is always problematic in Alaska, and Unit 13 is no exception. Throughout the communication process (reporting harvest information, generating Emergency Orders and news releases, updating hotlines, and delivering updates to hunters), there are many steps where communication delays can add hours or days to the delivery of a message. Cell service and radio coverage are not available in the majority of Unit 13, so requiring hunters to carry cell phones and radios will have limited utility for improving communication.

Reporting Requirements

Under the current reporting requirements, successful hunters are required to report within 24 hours of killing a moose or returning from the field and are given the options of reporting by phone or mail or using the internet. Hunters who report by phone during the weekends can leave a voicemail to report their harvest, and internet reporting is always available, provided the hunter has access to the internet.

Reporting requirements could be made more stringent by requiring all hunters to report by internet or by phone within 24 hours of the kill and/or by reducing the number of hours a hunter has to report to 6 or 12 hours. These changes would partially address reporting delays caused by mail service and hunters who remain in the field for more than 24 hours after killing a moose. However it should be noted that penalties for failing to report do not take effect until 60 days after the season closes (there is no penalty for not reporting harvest within the specified time period), and the extent to which reporting is improved still depends on individual hunters to comply with these requirements.

Implementation of these more stringent reporting requirements can be accomplished using the department's discretionary authority, which does not require a proposal to the Board of Game.

Communication of Hunt Updates and Emergency Orders

To communicate information about Emergency Orders and hunt updates to hunters, the department maintains a 24-hour hotline and generates news releases, which are distributed to news organizations statewide. Hotline information is sent to all of the department's information desks on the road system, and the department encourages hunters to call the hotline before they go hunting.

One option to improve communication would be to use email notifications to disseminate hunt information to permit holders, but an email notification would still have inherent limitations associated with the availability of cellular data service and internet access in the field.

It should also be noted that poor communication was not the only reason the quota was exceeded in Unit 13A during the 2013 season. Forty-five moose were taken on opening day, indicating that the quota would have been exceeded even if all hunters were able to report their harvest within 24 hours of killing a moose. As long as the quotas for the "any bull" bag limit are small relative to the number of hunters participating in the hunt, it will be difficult to keep the harvest from exceeding the quotas.

- Allow any-bull hunt Mon-Fri only (in entire CSH, or only in high-use subareas?)

The department has considered the use of weekday-only hunting opportunities for the any-bull bag limit and 24-hour hunting opportunities to regulate harvests and intends to experiment with these options in the future. Hunting opportunity for antler legal bulls would not be restricted by these changes. Additionally, the department would only implement these restrictions in areas that are known or anticipated to receive heavy hunting pressure.

Implementation of these options can be accomplished using the department's discretionary authority, which does not require a proposal to the Board of Game. Restricted hunting opportunity for the "any bull" bag limit can be specified in the hunt supplement, on permits, on the information hotline, and in news releases.

- Change from annual any-bull opportunity, to only allowing a group to periodically participate in the any-bull hunt (interval not specified).

If this were implemented, the department would administratively select groups (systematically or randomly) that would have the opportunity to hunt under the "any bull" bag limit and would apply an administrative rule whereby a group would not be able to participate in the "any bull" hunting opportunity for a specified time period. Implementation of this rule would be very difficult to administer and require guidance from the board.

The biggest challenge to implementing a multi-year restriction on groups stems from the difficulty of tracking groups. Under our current procedures, groups can reform into new groups, with new names and new group coordinators, on an annual basis. Tracking groups based on group membership may be the most effective way to track groups over time, but additional administrative rules would be required.

In addition, the department would also need guidance on how many groups to select each year, how to select groups, and a specified period of time during which groups cannot be reselected.

- Make no change to the 2014 regulation that will provide one locking tag for any-bull per three households. Need to evaluate what effect this new regulation will have on participation in the any-bull hunt. (Note, however, that there are members of the committee who question whether this new regulation is equitable or workable.)

Issue III – Reduced Subsistence Harvest Opportunity for Caribou

1. It was suggested that the CSH for caribou be managed to ensure that the community hunt continues into the winter season as long as the CSH cap of 300 caribou is not exceeded.

Nelchina caribou management relies on achieving an annual harvest equivalent to the annual surplus of caribou. The variation in harvest over the past 10 years (797-4,429 caribou) demonstrates how variable harvests can be.

Under the current hunt management structure, all state hunts are closed simultaneously by Emergency Order when the reported state harvest, combined with the anticipated federal harvest, approaches the harvest quota. The majority of caribou are taken by hunters during fall season under state regulations. Federal subsistence hunts in Unit 12 and 13 continue through the end of March, taking 450 additional caribou on average. If the CSH allocation was treated as a cap, the

department would reserve additional caribou to ensure that 300 caribou are available to CSH hunters. This would likely mean that the Tier I Registration and drawing hunts would be closed conservatively to ensure that CSH harvest does not result in total harvest exceeding quota. Closing any hunt before the quota is reached also increases the risk of not reaching the annual quota due to the uncertainties in predicting possible future harvests, making it more difficult to regulate the population within objectives.