

RC 33



1577 C Street, Suite 304 Anchorage, Alaska 99501 (907) 263-9824

MISSION STATEMENT: Believing in the value of healthy moose populations for all Alaskans, The Alaska Moose Federation will be the leader in the effort to both initiate and maintain the quantity and quality of Alaska's moose population.

January 13, 2012

Chairman Judkins,

The Alaska Moose Federation respectfully requests support for proactive strategies to minimize the winter-kill of Moose in Alaska. Snow levels in most areas of South Central Alaska have surpassed annual averages long ago. Some areas are on pace for all-time record snowfalls.

The Alaska Moose Federation requests a letter of support from the Board Of Game requesting Commissioner Campbell authorize, under her emergency order authority, the supplemental feeding of moose in deep snow areas.

In addition the Alaska Moose Federation requests support from the Board for diversionary trails and browse cutting to keep moose in their preferred habitat rather than on roadways.

If you have any questions, please contact Gary Olson at (907) 317-2300.

Sincerely,

Gary Olson, Executive Director
Alaska Moose Federation

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Thank you for the opportunity to submit my comments on the proposals that will be considered at this mtg. I would like to have it on the record that I am very strongly opposed to proposals 35, 36, 109, 118, 120, and 130. I urge BOG to reject these proposals. I support proposals 48, 94, 97, 108, 121, and 126 that intend to prohibit predator control techniques from being used on national park lands.

I would like to start first with proposals 35 and 36. I feel that The Board of Game (BOG) did not provide the Alaska Dept of Fish & Game enough time for either of the plans to be created. I oppose aerial wolf control i.e. slaughter, not only in the sections 15A and 15C but nation wide. It is not biologically supported or appropriate. Alaska Department of Fish & Game (ADF&G) has stated previously that habitat is the cause of a decline in the moose population for 15A and insufficient harvest strategies were responsible for the decline in unit 15C.

ADF&G recognized the current moose population objectives for 15A were too high. A proposal that has extensive biological evidence and support that aims aimed to lower the objective in 15A was rejected by BOG. This is difficult to understand. When you have field scientists telling you what the problem is and to ignore it is ludicrous. Has BOG forgotten that they have a constitutional responsibility to sustainably manage the wolf population? The ADF&G has also stated that any predator reduction program designed to increase moose numbers without sufficient improvements to the habitat of area 15A will put more stress on the moose population ultimately reducing moose numbers to an incredible low. The lack of a major fire in 15A to help improve the quality of habitat is a huge issue. Without the regeneration and new growth for nutritional support moose numbers are low and will continue to stay low regardless of any predator slaughter program you try to implement.

Proposals 35 and 36 state that their goal is to reduce calf mortality to reverse long term decline of the bull: cow ratio and increase calf survival. This goal is not scientifically based and should not be accepted or even considered. It is questionable whether or not calves would even survive given the lack of nutritional support in this habitat. Decreasing the predators in this area *may* allow the population to increase; however, with the lack of nutritional support this increase if there is one will be temporary at best.

ADF&G has stated that the current low bull: cow ratio in unit 15C is also not due to predation but due to, quite honestly what I would consider, a poor harvest strategy that ultimately failed to protect a satisfactory number of young bulls. I recognize that BOG did address this issue and implemented new harvest restrictions in that area; however, the damage had been done. You also need to look at the illegal harvesting that takes place in this area. So why is this not addressed in this proposal? Also, according to ADF&G the moose population remains stable in this area and low calf survival is not a reason for the decline in the ratio. ADF&G clearly states that there has been a 40% **INCREASE** in moose population between 1992 and 2010. So why are even talking about slaughtering

predators to reduce calf mortality and reverse the decline of bull: cow ratio when a reduction in population has not even taken place? Does this make sense to anyone else?

The majority of the area in unit 15A and 15C are in the Kenai National Wildlife Refuge where they are subject to federal laws and would not be considered under Alaska's Intensive Management Statute. Therefore, wolf slaughter won't be allowed on the Refuge and will have little effect on the estimated 41-45 wolves that are on the program to be killed. Any kind of control on the Kenai Refuge would have to have a National Environmental Policy Act (NEPA) review which let's face it, will ultimately be rejected due to the Intensive Management Statute not being in compliance with their mission. I can certainly think of much better ways to spend my tax dollars than on a review that won't support this proposal.

Have you taken into consideration public safety for these proposals? Both areas 15A and 15C are increasingly visited by recreational users. Allowing the aerial wolf killings would increase public safety concerns in these areas, and to allow the public a chance to participate in these predator slaughters whether by air or by land increases the public safety concerns.

As I am sure you are very well aware, wolf population studies have not been conducted in either areas. An estimate or guess on the current population of wolves in the area is simply not acceptable to me when they are in danger of being unnecessarily slaughtered with no regard to the possibility of wiping them out completely. Without a current study, you have no clue what the outcome will be if the target number of wolves are slaughtered in these areas. Not to mention the fact that you may very well be messing with the genetic diversity of the wolf population in these areas, which could have a devastating effect on their overall population.

The initial focus of these 2 proposals will be on the unnecessary slaughter of wolves and it will ultimately move to the unnecessary slaughter of brown and black bears. There is no scientific research to support the claim that these 3 predators are responsible for the decline in the moose population. There is scientific research, however, that the decline is due to habitat and over harvesting. So to adopt these proposals would be nonsensical and absurd.

Let's be honest, the moose population will never again be what it used to be or what we the public would like to see it at. This is partly due to human encroachment. On October 31st, 2011 the human population reached an incredible and completely unsustainable level of 7 Billion people on earth. Yet no one seems to want to bring up that subject touchy as it may be, or even the possibility of a human population control program. So are we really being a responsible society to not speak about that?

I oppose Proposal 109. Who is the Greater Alaska Black Bear Committee (GABBC)? I have never heard of this committee and can find no information on them at all. How were the members selected? Where are the meetings held? Are the meetings open to the public? I know there are a lot of people who would like answers to these

questions and what the GABBC's mission statement is at the very least. The GABBC is asking for a no closed season for much of the state, increasing the bag limit to 3 bears, and a no bag limit in places where black bears are "deemed" to be the cause of the decline of prey species. How do they know this? Where is their research? To allow a year round harvest of black bears with a no bag limit in certain areas, with no research or data to back it up kind of contradicts the whole predator control programs that we have. Have they done any research to see what the effects of a year round harvest would have on the sow and cub population? As we all know, cubs are very dependent on their mothers for survival and this could lead to the unnecessary deaths of many cubs ultimately affecting the black bear population as a whole. Who knows, maybe this is the mission of the GABBC.

I oppose Proposal 120, which has also been proposed by GABBC, based on public safety and it being completely unsportsmanlike. To establish specific locations for bait stations or a bait station in general is extremely argumentative. This proposal is for unlimited killing of sows with cubs or cubs that would be subject to a predator control permit; however, their previous proposal 109, which I just discussed, allows for unlimited killing and eliminates the need for those permits. Is it just me or are these 2 proposals contradictory to each other? Along with this I also oppose proposal 122 and 123. To allow scent lures for black bear baiting as stated before is very argumentative.

I oppose Proposal 114. How would it be regulated or even enforced? Could this proposal violate the Airborne Hunting Act? It very well could.

I am also opposed to Proposal 129. This proposal would give the Commissioner of the ADF&G more authority than they really need.

Proposal 130 is for a brown bear predator control program to protect the current muskoxen populations in the Arctic Refuge. I oppose this proposal as well. It is not clear what the decline of the muskoxen is due to. ADF&G has stated that they have found them to have numerous diseases and deficiencies in copper which can lead to a decline in reproduction rates and also survival rates. You have to also take in consideration the harsh environment that the muskoxen live in as a contributing factor to their decline. Another "touchy" and "controversial" issue that must be considered for the decline of muskoxen in this area is global warming. Due to the fact that it has not been scientifically proven that predators are responsible for the decline in these groups this predator control program has no merit to continue.

As a side note, all living organisms' populations change over time due to births, deaths, and even migration. Just because there is an unscientifically founded estimate of wolves in these areas does not mean this will be the case a month from now.

Again, I thank you for listening to my insights on these issues, and I hope to bring a clear understanding of the effects of your decision-making.

Sincerely,

Rena Thompson

QOT Testimony of Rick Steiner

May 31, 2011

Honorable Sean Parnell, Governor
State of Alaska
State Capitol Building
P.O. Box 110001
Juneau, AK 99811-0001

via fax: 465-3532

RC 35

RE: Establishing Independent Scientific Advisory Committees for the Alaska Boards of Fisheries and Game

Dear Governor Parnell,

By way of this letter, I would like to reiterate the request I made via email to your office earlier this month that you establish Independent Scientific Advisory Committees (SACs) for both the Alaska Board of Fisheries and the Alaska Board of Game.

As you well-know, our fish and wildlife populations deserve the best, science-based management possible. Management mistakes can be costly, both for the resource and to our economy. Currently, the boards rely almost solely on the Alaska Department of Fish & Game (ADFG) staff biologists for their scientific advice on proposals in consideration. And while ADFG biologists can and do provide expert scientific advice on management proposals, such advice cannot be considered free from political influence. Clearly, whatever administration is in office in Juneau influences the position of ADFG, including its position of management proposals before the boards.

This dynamic was clearly evidenced in the recent issue regarding the lack of impartiality of ADFG representatives to the Cook Inlet Beluga Recovery Team. As you know, the ADFG External Review Policy states explicitly that:

Once a department position or policy is established, employees must present or adhere to such a policy when representing ADFG whether directly or through its affiliations or use of its resources

By this mandate, state biologists are constrained from offering scientific opinion that varies with state policy. Precisely the same mandate exists when ADFG staff biologists provide advice on fisheries and wildlife management to the Boards. Thus, advice from department biologists cannot and should not be considered to be independent from political influence.

Thus, in the interest of providing more robust scientific vetting for management proposals, it is essential that the State of Alaska establish Scientific Advisory Committees (SACs) to provide scientific advice on proposals to both boards that is independent of the department and/or state administration.

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This is what the North Pacific Fisheries Management Council (NPFMC) has done for management of federal fisheries off Alaska, with their use of an independent Scientific and Statistical Committee (SSC).

In that case, although the NPFMC relies to a large extent on scientific advice from the National Marine Fisheries Service (NMFS), it has also found that the additional layer of independent advice provided by the SSC to be fundamental to making the best scientific management decisions. The result has been better management of federal fisheries off Alaska, to the benefit of the resource and resource users.

Precisely the same argument applies to the management of state fisheries and wildlife populations. It is my suggestion that an SAC be constituted for each board, comprised of approximately 7 members each, for discussion appointed as follows: One by the Governor (1), one by the majority and minority leaders of the Legislature (4), one by the Cooperative Fish and Wildlife Unit at the University of Alaska (1), and one by the Alaska Federation of Natives (1). I am sure there are other workable appointment models for these SACs as well.

The members should not currently be in the employ of the State of Alaska, and must have significant scientific background either in fisheries or wildlife science / management. Their Terms of Reference would need to be clearly elucidated, but I suggest that the overall objective for the SACs would be to provide independent scientific advice of any/all proposals in consideration by the Boards, as appropriate. I suspect the advice of the SAC would often align well with the advice from ADFG staff, giving more certainty upon which the Boards can base decisions. As well, the SACs may on occasion provide advice that differs to some extent from ADFG staff, leading to more careful Board deliberation.

Either way, both the resource and resource users will benefit, as we will all be more certain that the best scientific deliberation will have been applied to any decision. This is as close to a win-win in resource management as we are likely to encounter. The cost of supporting both SACs would be nominal, perhaps on the order of \$100,000 / year for each. And given the potential economic benefit and risk for fish and wildlife management decisions made by the Boards, this cost is easily justified.

I discussed this idea with the former ADFG Commissioner (Denby Lloyd) last year, and he thought the idea had merit. He forwarded my proposal to establish the SACs along to the Division of Boards, department directors, and Board Chairs. I have also had discussions with several Legislators on the idea, all of which seemed supportive.

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I would appreciate hearing from you and your staff at your earliest convenience on this. And I would also be delighted to help your staff formulate more specific details as to how these SACs can be comprised and function.

Governor Parnell – we all say we want the best science upon which to base our management of Alaska’s fish and wildlife. Your leadership now in establishing the Scientific Advisory Committees for both the Board of Fisheries and Board of Game would be a demonstration that we mean what we say on this issue.

I look forward to your response.

Sincerely,

A handwritten signature in black ink that reads "Rick Steiner". The signature is written in a cursive style with a large, prominent "R" and "S".

Rick Steiner, Professor
Oasis Earth
Box 666, 9138 Arlon St., A3
Anchorage, AK 99507
richard.g.steiner@gmail.com
907-360-4503

SEAN PARNELL
Governor



P.O. Box 110001
Juneau, Alaska 99811-0001
(907) 465-3500
Fax (907) 465-3532

STATE OF ALASKA
OFFICE OF THE GOVERNOR

September 6, 2011

Mr. Rick Steiner
9138 Arlon Street, No. A3
Box 666
Anchorage, AK 99507

Dear Mr. Steiner,

Thank you for your communications to Governor Sean Parnell regarding a proposal for Scientific Advisory Committees (SACs) for the Board of Fisheries and the Board of Game (Boards). I sincerely apologize for the delay in responding to you.

There are many points we are considering in light of your request for SACs, some of which are discussed below:

- There is a vast difference in number and breadth of proposals submitted to the Board compared to what the North Pacific Fisheries Management Council (NPFMC) and its Scientific and Statistical Committee (SSC) consider. On average, over the past 12 years that records have been kept, 380 proposals are taken up by the Board of Fisheries annually (with a high of 532 during the 2004/05 cycle). That is compared to the NPFMC's 15 to 20 issues annually, and the SSC generally reviews about ten issues per year.
- The Alaska Department of Fish and Game (ADF&G) often uses external peer reviewers for items such as the establishment of guideline harvest levels, total allowable catches, and escapement goals, as well as management strategies, in-season data, mark-recapture and tagging studies, stock assessment project results, and highly controversial issues. Additionally, the public often brings forward review of ADF&G science at its own initiative, which the Board reviews and evaluates.
- NPFMC needs the SSC because they are responsible for biological as well as allocative decisions, such as setting total allowable catches for federally-managed species. The Board of Fish does not have comparable responsibilities for setting quotas or making biological decisions.

One of the foremost concerns with this type of process is the likely addition of another year to the timeframe of the current regulatory process because of when data would become available for external review. This would result in less responsive fisheries management - a hallmark of Alaska sustainable fisheries management programs.

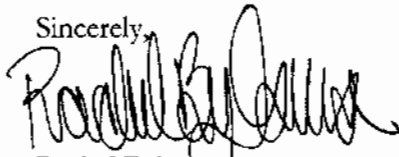
Your suggestions and request were forwarded to the Boards Support Section within ADF&G and the Commissioner for their consideration. I encourage you to continue your participation in the

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public process by contacting Kristy Tibbles, in Board Support, at 907-465-6098, with your suggestions as well. Additionally, as your suggestion may require a statutory change, I encourage you to continue your conversation with your legislators regarding this issue. Their contact information can be found at http://www.elections.alaska.gov/vi_co_state_comm.php.

We appreciate you taking the time to write on issues important to all Alaskans and again apologize for the delayed response. If we can be of further assistance, feel free to contact our office at 907-269-7450.

Sincerely,

A handwritten signature in black ink, appearing to read "Rachel Bylsma". The signature is fluid and cursive, with a large initial "R" and "B".

Rachel Bylsma
Constituent Relations Specialist

Proposal to establish an independent Scientific Advisory Committee to advise the Alaska Board of Game:

Rick Steiner, Professor, thank you for submitting your proposal to the Alaska Board of Game:

What is the problem you would like the Board to address?

The Alaska Board of Fisheries (BOF) and Board of Game (BOG) currently have no structured mechanism to provide independent scientific advice on proposals for their consideration, and historically rely exclusively upon ADF&G staff for such scientific advice. Staff biologists at ADF&G provide their professional scientific advice on proposals, but such advice is not without political vetting within whichever administration is in office at the time. As such, department scientific review cannot always be relied upon to be strictly objective, independent, and free from political considerations. This problem can easily be solved with the establishment of a standing, independent Scientific Advisory Committee (SAC) for the BOG, as proposed herein.

As example, the North Pacific Fisheries Management Council (NPFMC), which manages federal fisheries in Alaska, relies not just upon the agency (National Marine Fisheries Service) review and analysis of proposals before it, but as well upon its independent Scientific and Statistical Committee (SSC). This additional layer of

scientific review sometimes confirms agency recommendations, and sometimes doesn't. This more robust scientific process has resulted in more effectively managed federal fisheries in Alaska, to benefit of all.

Similarly, state wildlife (and fishery) resources deserve the best objective scientific management possible, and we simply do not have such at present.

What will happen if this problem is not solved?

The BOG will continue to rely solely upon state biologists for scientific vetting of proposals, and thus will not have the benefit of truly objective and independent scientific analysis of proposals upon which to make decisions. Management mistakes will be made, due to lack of adequate scientific basis for certain decisions taken up by the BOG. Wildlife resources will be compromised, and potentially lost, as a result. In addition, the credibility of the State of Alaska to manage its own wildlife resources will continue to be challenged by those who do not feel the existing system provides sufficient independent scientific assessment of proposals to the BOG. Many officials often say that Alaska wildlife management relies on the best, sound science possible, but without this additional independent scientific review of proposals to the BOG, such a claim is hard to support.

What solution do you prefer? In other words, if the Board adopted your solution, what would the new regulation say?

There is established a Scientific Advisory Committee (SAC) for the Alaska Board of Game (BOG), independent of the State of Alaska. The BOG SAC shall be comprised of 7 members, with demonstrated experience and training in wildlife science, and not currently in the employment of the State of Alaska.

Members shall be appointed for 3-year terms, one member appointed by each of the following: the Governor (1), the minority and majority leaders in the State House and Senate (4), the University of Alaska Cooperative Fisheries and Wildlife Unit (1), and the Alaska Federation of Natives (1). The SAC shall advise the BOG on all proposals as appropriate, with their best, objective, and independent analysis of any and all scientific considerations of proposals in consideration by the Board.

Does your proposal address improving the quality of the resource harvested or products produced? If so, how?

More effective scientific review and deliberation of proposals to the BOG by an independent SAC should improve all aspects of wildlife management, including, but not limited to, the quality of the resource harvested.

Who will benefit if your proposal is adopted?

Beneficiaries will include the wildlife resources of Alaska and their habitat, all resource users, and state government.

Who is likely to suffer if your proposal is adopted?

No one will be disadvantaged by the proposal. State biologists should endorse the additional layer of scientific peer review provided by the SAC, as this is the very essence of a rigorous scientific peer-review process. As well, many of the department's internal scientific analyses will undoubtedly be validated by the independent SAC, thus giving greater confidence in management decisions taken by the BOG.

Upon approval of this proposal, the BOG should ask the Alaska Legislature for an ongoing appropriation through the ADF&G budget sufficient to cover the expenses for the SAC.

List any other solutions you considered and why you rejected them.

There truly are no effective alternatives to a standing SAC to advise the BOG.

Log Number: EG040611298

This Proposal has been received and will be processed by the Boards Support Section.

5 AAC 92.125. Intensive Management Plans

(a) Intensive management plans are established under this section in the areas described in this section.

... (e) **Unit 19(A) Predation Control Area:** the Unit 19(A) Predation Control Area is established and consists of those portions of the Kuskokwim River drainage within Unit 19(A), encompassing approximately 9,969 square miles; this predator control program does not apply within National Park Service or National Wildlife Refuge lands unless approved by the federal agencies; notwithstanding any other provision in this title, and based on the following information, the commissioner or the commissioner's designee may conduct a wolf **and a black bear and brown bear** population reduction or wolf **and black bear and brown bear** population regulation program in the Unit 19(A) Predation Control Area:

(1) the following Predation Control Focus Areas are established in Unit 19(A):

(A) a Unit 19(A) Wolf Predation Control Focus Area (WCFA) is established and consists of approximately 3,913 square miles generally within the Holitna, Hoholitna, and Stony River drainages; the purpose is to focus wolf control in a relatively small area where moose are accessible to hunters, rather than spread this effort over the entire game management unit; wolf control will be conducted only within the WCFA; the department will have the discretion to adjust its size and shape up to 40 percent (approximately 4,000 square miles) of Unit 19(A);

(B) a Unit 19(A) Black Bear and Brown Bear Predation Control Focus Area (BCFA) is established and consists of those portions of the Kuskokwim River drainage within the area starting at Sleetmute at 61° 42.00' N. lat., 157° 10.00' W. long., then east to 61° 42.00' N. lat., 157° 00.00' W. long., then north to 61° 44.00' N. lat., 157° 00.00' W. long., then east to 61° 44.00' N. lat. 156° 55.00' W. long., then north to 61° 46.00' N. lat., 156° 55.00' W. long., then east to 61° 46.00' N. lat. 156° 50.00' W. long., then north to 61° 48.00' N. lat., 156° 50.00' W. long., then east to 61° 48.00' N. lat., 156° 45.00' W. long., then north to 61° 50.00' N. lat., 156° 45.00' W. long., then east to 61° 50.00' N. lat., 156° 30.00' W. long., then south to 61° 40.00' N. lat., 156° 30.00' W. long., then west to 61° 40.00' N. lat., 156° 45.00' W. long., then south to 61° 18.00' N. lat., 156° 45.00' W. long., then west to 61° 18.00' N. lat., 157° 15.00' W. long., then north to 61° 24.00' N. lat., 157° 15.00' W. long., then east to 61° 24.00' N. lat., 157° 10.00' W. long., then north to 61° 42.00' N. lat., 157° 10.00' W. long., encompassing approximately 540 square miles; the purpose is to focus bear control in an area where moose are accessible to hunters, rather than spread this effort over the entire game management unit; bear control will be conducted only within the BCFA; the department will have the discretion to adjust its size and shape by 40 percent (approximately 325 – 750 square miles); the BCFA is generally within the WCFA;

(2) [(1)] the discussion of wildlife population and human use information is as follows:

(A) prey population information is as follows:

(i) a Central Kuskokwim Villages moose management area (MMA) is established within **the same area as the WCFA and includes the BCFA;** [UNIT 19(A) PREDATION CONTROL AREA, ENCOMPASSING APPROXIMATELY 3,913 SQUARE MILES GENERALLY WITHIN THE HOLITNA, HOHOLITNA, AND STONY RIVER DRAINAGES] the purpose of the MMA is to **designate an area where moose numbers are closely monitored and objectives for number of moose and moose harvest can be applied; the department may adjust the size and shape of the MMA;** [FOCUS INTENSIVE MANAGEMENT ACTIVITIES, INCLUDING PREDATOR CONTROL AND HABITAT MANAGEMENT, IN A RELATIVELY SMALL AREA WHERE MOOSE ARE ACCESSIBLE TO HUNTERS, RATHER THAN SPREAD THIS EFFORT OVER THE ENTIRE GAME MANAGEMENT UNIT; WOLF CONTROL WILL BE CONDUCTED ONLY WITHIN THE MMA, AND THE DEPARTMENT WILL HAVE THE DISCRETION TO ADJUST ITS SIZE AND SHAPE UP TO 40 PERCENT (APPROXIMATELY 4,000 SQUARE MILES) OF UNIT 19(A);]

(ii) the moose population size for Unit 19(A) was estimated in March 2004, based upon earlier estimates of density in portions of the unit; in March 1998, 1.25 moose per square mile (plus or minus 14 percent at an 80 percent confidence interval) was estimated in a portion of the Holitna-Hoholitna drainage; in March 2001, 0.7 moose per square mile (plus or minus 21 percent at a 90 percent confidence interval) was estimated in a portion of the Aniak River drainage; extrapolation of data from both estimates to all of Unit 19(A) resulted in an estimated total population size of 4,300 - 6,900 moose; the population size for Unit 19(A) was updated in February 2005, based upon an estimate of 0.27 moose per square mile (plus or minus 16 percent at a 90 percent confidence interval) obtained from a survey in the portion of the unit south of the Kuskokwim River; extrapolation of **these** [THIS] data to all of Unit 19(A) resulted in an estimated total population size of 3,000 - 4,000 moose (0.3 - 0.4 moose per square mile), which was corrected for sightability of moose and was lower than the 2004 estimate indicating moose numbers had declined; the population size estimate was updated in March 2006, based on an estimate of 0.39 moose per square mile (plus or minus 15 percent at a 90 percent confidence interval) obtained from a survey conducted south of the Kuskokwim River, from Kalskag to the mouth of Crooked Creek (3,440 square miles); extrapolation of these data to all of Unit 19(A) resulted in a estimated total population size of 2,700 - 4,250 moose (0.27 - 0.42 moose per square mile), which was also corrected for sightability; the population size was updated again in March 2008, based on an estimate of 0.55 moose per square mile (plus or minus 28 percent at the 90 percent confidence interval) obtained within a 3,874 square mile moose survey area located south of the Kuskokwim River, within the Holitna, Hoholitna, and Stony River drainages; extrapolation of these data to all of Unit 19(A) resulted in an estimated

total population size of 3,200 - 5,275 moose (0.32 - 0.53 moose per square mile), which was corrected for sightability; the population size was updated in March 2011, based on an estimate of 0.43 moose per square mile (plus or minus 36 percent at the 90 percent confidence interval) obtained within a 3,874 square mile moose survey area located south of the Kuskokwim River, within the Holitna, Hoholitna, and Stony River drainages; extrapolation of these data to all of Unit 19(A) resulted in an estimated total population size of 2,791 - 5,782 moose (0.28 - 0.58 moose per square mile), which was corrected for sightability;

(iii) in November 2001, a survey on the Holitna-Hoholitna Rivers in Unit 19(A) was conducted; a total of 196 moose were classified with an observed bull-to-cow ratio of 6:100 and an observed calf-to-cow ratio of 8:100; the low numbers observed could have been influenced by an atypical moose distribution caused by shallow snow and relatively temperate late-fall weather;

(iv) in November 2004, a survey was conducted to estimate composition in the Holitna-Hoholitna, Oskawalik, and Stony River portion of Unit 19(A) (4,828 square miles); a total of 226 moose were classified and the bull-to-cow ratio (19:100, plus or minus 76 percent at a 90 percent confidence interval) and calf-to-cow ratio (32:100, plus or minus 38 percent at a 90 percent confidence interval) estimates were higher than observed in the November 2001 trend count survey; some improvement in the ratios is indicated; however, results of the two surveys cannot be directly compared because the 2004 survey covered a much larger geographic area and was done using different methods than the 2001 survey; the estimated percent moose calves in the total population during the November 2004 composition survey was 22 percent (plus or minus 38 percent with a 90 percent confidence interval);

(v) in November 2005, composition surveys were conducted in the Holitna-Hoholitna drainage in Units 19(A) and 19(B) and in the Aniak River drainage including the Kuskokwim River from Lower Kalskag to Napaimiut in Unit 19(A); a different technique was implemented than what was used for previous composition surveys because of the concern about possible atypical moose distribution when confining the survey area to the river corridor and the concern about wide confidence intervals in the November 2004 survey; a total of 307 moose were observed and the observed bull-to-cow ratio was 8:100 with most (12 of 19) bulls classified as yearlings; the observed calf-to-cow ratio was 24:100 and the percent of calves was 18 percent; the low bull-to-cow ratios observed during the past three composition surveys indicate that hunting pressure has been high in the Holitna-Hoholitna drainage; in the western portion of Unit 19(A), the Aniak River drainage and the Kuskokwim River from Lower Kalskag to Napaimiut was also surveyed; composition data had not been collected previously in this portion of Unit 19(A); a total of 410 moose were counted with an observed bull-to-cow ratio of 20:100 and an observed calf-to-cow ratio of 23:100;

(vi) in November 2007, composition surveys were conducted in the Holitna-Hoholitna drainage in Unit 19(A) and in the Aniak River drainage downriver from the Buckstock River including the Kuskokwim River from Lower Kalskag to Aniak in Unit 19(A); in

the Holitna-Hoholitna drainage a total of 200 moose were observed, the bull-to-cow ratio was 35:100, the calf-to-cow ratio was 45:100, and the percent of calves was 25 percent; in the Aniak River drainage a total of 122 moose were observed, the bull-to-cow ratio was 28:100, the calf-to-cow ratio was 51:100, and the percent of calves was 29 percent; in November 2008, composition surveys were again conducted in the same area; in the Holitna-Hoholitna drainage a total of 117 moose were observed, the bull-to-cow ratio was 34:100, and the calf-to-cow ratio was 27:100, and the percent of calves was 18 percent; in the Aniak River drainage a total of 51 moose were observed, the observed bull-to-cow ratio was 42:100, and the observed calf-to-cow ratio was 23:100, and the percent of calves was 14 percent;

(vii) in November 2009, composition surveys were conducted in the Holitna-Hoholitna drainage; a total of 129 moose were observed, the bull-to-cow ratio was 51:100, the calf-to-cow ratio was 36:100, and the percent of calves was 19; in November 2010, composition surveys were conducted in the Holitna-Hoholitna drainage a total of 212 moose were observed, the bull-to-cow ratio was 48:100, the calf-to-cow ratio was 19:100, and the percent of calves was 11; in November 2011, composition surveys were conducted in the Holitna-Hoholitna drainage; a total of 164 moose were observed, the bull-to-cow ratio was 38:100, the calf-to-cow ratio was 31:100, and the percent of calves was 18;

(viii) [(VII)] birth rate among radiocollared cows in Unit 19(A) is high; in 2005, of nine radiocollared cows in the lower Holitna River, three had twins, four had a single calf, and two had no calf (78 percent birth rate); of eight radiocollared cows in the Aniak River drainage, two had twins and six had single calves (100 percent birth rate); overall, the 2005 birth rate among radiocollared cows in Unit 19(A) was 88 percent; combined data from twinning surveys in the Holitna during 2007, 2008, and 2010, indicate 12 of 19 cows with calves had twins (63% twinning rate);

(ix) [(VIII)] a late winter survey to estimate calf survival, conducted in April 2003 in Unit 19(A), resulted in an estimate of 7.6 percent calves in the moose population in Holitna-Hoholitna drainage (sample size 107 adults and 9 short-yearlings) and 8.9 percent in the moose population in the Aniak River drainage (sample size 61 adults and six short-yearlings); spring population surveys conducted south of the Kuskokwim River drainage and west of the Holitna-Hoholitna drainage (3,440 square miles) in 2006, resulted in 17 percent calves and 9 percent calves respectively (plus or minus 30 percent at a 90 percent confidence interval); the calf-to-cow ratios in fall and the percent of calves found in spring surveys support the conclusion that calf survival in the moose population is very low, and a decline in moose numbers is probably occurring;

(x) [(IX)] based on current estimates of recruitment, population density and bull-to-cow ratios, there is no harvestable surplus in eastern Unit 19(A) (upstream from and excluding the George River), excluding the Lime Village Management Area; in western Unit 19(A) (downstream from and including the George River), the harvestable surplus is 60 bulls, using a conservative harvest rate for bulls that is based on three percent of

the total estimated population;

(xi) [(X)] the intensive management moose population objective established by the board for Units 19(A) and 19(B) is 13,500 - 16,500 moose; based on the relative sizes of the two units, the proportional population objective for Unit 19(A) alone is 7,600 - 9,300 moose; the intensive management moose harvest objective for Units 19(A) and 19(B) is 750 - 950 moose; the proportional harvest objective for Unit 19(A) alone is 400 - 550 moose; achieving the population and harvest objectives for Unit 19(A) will contribute to achieving the intensive management population and harvest objectives established for Units 19(A) and 19(B);

(xii) [(XI)] based on data available, habitat is probably not a factor limiting population growth in moose in the central Kuskokwim region; a browse survey in Unit 19(D) (in the upper Kuskokwim River) during spring 2001, found that moose were removing about 16 percent of current annual growth; these removal rates are near the midpoint of the range observed in areas of low to high moose browse use (9 - 42 percent); a browse survey in fall 2002 below Lower Kalskag on the Kuskokwim River (Unit 18) found that 78 percent of shrubs were unbrowsed and none were heavily browsed by moose; there is some indication that cows are in average or good body condition because twinning rates of 32 percent were observed in spring 2000 on the Holitna and Hoholitna Rivers, although sample sizes were small (less than 10); of 15 radiocollared cows in Unit 19(A) that had calves in 2005, five produced twins for a 33 percent twinning rate; **in 2007, 2008, and 2010 a combined twinning rate of 63% was observed**; if observations of browsing upriver and downriver from Unit 19(A), and limited observations of twinning are indicative of the situation in Unit 19(A), habitat enhancement alone is unlikely to cause a significant population increase in moose in the foreseeable future; the highest quality moose habitat in the unit is found in the lower Holitna River floodplain; high quality habitat is present in riparian areas along the Kuskokwim River and adjacent drainages; other portions of Unit 19(A) have lower quality habitat;

(xiii) [(XII)] total estimated mortality is likely high relative to the size of the moose population; information gained from studies on moose mortality in Unit 19(D)-East and other similar areas of Alaska, and observations by local residents indicate that wolves are currently a major limiting factor for moose in Unit 19(A); research from Unit 19(D)-East also indicates that black and brown bear predation is likely a factor that contributes to limiting the moose population in Unit 19(A); of 38 adult moose radiocollared in October 2003, seven had died by November 2005; moose mortality from harvest by humans is also high, relative to the population size, and regulatory proposals have been submitted to severely restrict harvest;

(xiv) [(XIII)] the number of animals that can be removed from the Unit 19(A) moose population on an annual basis without preventing growth of the population or altering the composition of the population in a biologically unacceptable manner is less than the harvest objective established for the population in 5 AAC 92.108; the moose population in Units 19(A) and 19(B) is well below the intensive management objective set by the board; the moose population in Unit 19(A) is also well below the objective calculated

by the department for the unit;

(xv) [(xiv)] without an effective wolf **and black bear and brown bear** predation control program, moose in Unit 19(A) are likely to persist in a low density dynamic equilibrium state with little expectation of increase; data from moose mortality studies, and predator and prey studies, conducted throughout Alaska and similar areas in Canada suggest that reducing the number of wolves **and bears** in Unit 19(A) can reasonably be expected to increase the survival of calves as well as older moose, particularly yearlings; reducing wolf **and bear** predation on moose, in combination with reducing harvest, particularly of cows, can reasonably be expected to initiate an increase of the moose population towards the population objective;

(B) the human use information for prey population is as follows:

(i) the division of subsistence conducted household surveys on the subsistence use of big game in communities in Unit 19(A) between April 2003 and March 2004; moose was the most widely used and hunted animal in all eight communities surveyed; overall, 76 percent of all households in the central Kuskokwim area used moose, 57 percent of all households attempted to harvest moose, and 22 percent of all households successfully harvested one or more moose; of the estimated 107 moose harvested by the eight survey communities, 64, or 60 percent, were taken in Unit 19(A), 14 or 13 percent, were taken in Unit 18, and the remainder 27 percent were taken in other subunits of Unit 19 or in unreported locations; an estimated 426 individuals, or 28 percent of the area population, spent a total of 4,591 hunter days in pursuit of moose; to put this number in perspective, it is equivalent to a period of nearly 12.6 years, a clear testament to the importance of moose as a subsistence resource in the central Kuskokwim region; of the 426 individuals who went hunting, only 96, or 23 percent, were successful in harvesting a moose; the average number of days spent hunting by successful households per moose harvested (14.7) is higher than any previously reported numbers in the state where similar methods of data collection and analysis were employed; households were asked to compare their 2003 - 2004 harvest of moose with their harvest both five years and 10 years before, and the householders overwhelmingly noted harvesting fewer moose in 2003 - 2004;

(ii) between June 1982 and June 1983, the staff of the division of subsistence conducted extensive research on the resource use patterns and community characteristics of Chuathbaluk and Sleetmute; a comparison of that information with the 2004 data indicates a significant decline in household harvest rates; from an average of 0.55 - 0.2 moose harvested per household in Chuathbaluk and from 0.68 - 0.3 moose harvested per household in Sleetmute;

(iii) residents of Unit 19(A) have always had a high demand for moose for subsistence needs; since the 1990s when larger boats became available to residents in the lower Kuskokwim River and income from commercial fishing increased the ability to purchase fuel for long hunting trips, demand for moose in Unit 19(A) has increased; since 2004, there has been a moratorium on moose hunting in the Kuskokwim River

drainage in Unit 18 and this has increased the demand for moose for subsistence purposes in Unit 19(A);

(iv) the amount necessary for subsistence established by the board for Unit 19 (including the Lime Village Management Area) is 430 - 730 moose; most of the human population in Unit 19 is residents of communities along the Kuskokwim River in Unit 19(A); the amount necessary for subsistence for Unit 19 is also based on subsistence need by residents of Unit 18; Unit 19(A) includes the most accessible portion of Unit 19 for the main population base in the region; subsistence hunters have depended on Unit 19(A) to provide the majority of subsistence harvest in Unit 19 as a whole; harvest in Unit 19(A) is a critical component of the amount necessary for subsistence for Unit 19 and the ability to meet subsistence needs in the region;

(v) according to harvest ticket reports, the numbers of hunters and moose harvested declined substantially between the mid-1990s and 2002; the total reported moose harvested in Unit 19(A) declined from the 1994 - 1995 season (168 moose) to the 2002 - 2003 season (67 moose); in Unit 19(A), the number of moose reported harvested by local residents and other Alaska residents declined approximately 65 percent, from 138 moose to 48 moose, between 1994 - 1995 and 2002 - 2003; after the RM 640 registration permit hunt for Alaska residents was implemented in fall 2004, harvest reporting greatly improved; in 2004, reports indicate that 107 moose were harvested in Unit 19(A); during the fall of 2005, 176 moose were reported harvested; while it may appear that moose harvest increased significantly after the registration permit hunt was established, the increase is most likely attributable to better reporting rates; during 2006, 2007, and 2008, reported moose harvest was 43, 77, and 75, respectively; **during 2009 and 2010, the reported moose harvest was 58 and 84, respectively;** these lower harvests were influenced by Tier II hunt restrictions and moose hunting closures;

(vi) the average number of nonresident hunters in Unit 19(A) between 1994 - 1995 and 2002 - 2003 was 52 hunters; the peak number of nonresident hunters was 91 in 2000 - 2001; when Unit 19(A) was closed to nonresident hunting in March 2004 several guides protested vigorously that their agreements with clients could not be met and their businesses would suffer; since that time demand for nonresident hunting opportunity has not been met;

(vii) demand for moose harvest in Unit 19(A) is likely to increase in the future; if the moose hunting moratorium in Unit 18 is successful in increasing the moose population in that area it will help relieve some of the demand on Unit 19(A); still, with more than 20,000 residents in Unit 18 there will be high demand for moose throughout the region indefinitely into the future; clearly, demand is not being met now; if the wolf **and black bear and brown bear** control program is successful it will help to meet the need for moose in the region in the future; without a wolf **and black bear and brown bear** predation control program, there is a very low probability that the moose population will increase sufficiently to meet subsistence needs or other harvest demands in the future;

(C) the predator population information is as follows:

(i) the pre-control wolf population in Unit 19(A) was estimated in fall 2004 using an extrapolation technique combined with sealing records and anecdotal observations the population in the entire 9,969 square mile area was estimated at 180 - 240 wolves in 24 - 28 packs or approximately 1.8 - 2.4 wolves per 100 square miles; a revised pre-control estimate of 125 - 150 was calculated in 2006 because wolf survey data collected during early 2006 and moose survey data collected during 2005 and 2006 indicated the initial pre-control wolf population estimate was too high;

(ii) after a complete wolf survey was conducted in Unit 19(A) in January and March 2006, a total of 107 - 115 wolves was estimated in 26 - 27 packs or approximately 1.1 - 1.2 wolves per 100 square miles; a complete wolf survey was conducted again in Unit 19(A) in February 2008, a total of 74 wolves was estimated in 17 packs or approximately 0.74 wolves per 100 square miles; **in February 2011, aerial wolf surveys, pilot interviews, and harvest and control data were used to obtain fall 2010 estimates of 30 wolves in 7 packs in Unit 19(A) upriver of Sleetmute and approximately 80 wolves in all of Unit 19(A);** in areas with limited human developments, habitat is not considered a significant factor in limiting wolf populations and it is presumed that numbers of wolves are limited mainly by prey availability; there is no evidence of disease or any other naturally occurring factors that would cause wolf mortality to be higher than normally expected;

(iii) using the **2011** [2008] moose and wolf population estimates, the moose-to-wolf ratio in Unit 19(A) is between **35-72:1** [43:1 AND 71:1];

(iv) when present, the Mulchatna caribou herd provides an alternative source of prey for wolves in Unit 19(A); because migrations of the herd into portions of 19(A) vary each year, the herd is not consistently available to wolves in the plan area;

(v) studies in Alaska and elsewhere have repeatedly concluded that large reductions are required to affect wolf population levels and to reduce predation by wolves on their prey; research indicates a reduction of about 60 - 80 percent of the pre-control wolf population may be necessary to achieve prey population objectives; once the wolf population has been reduced to the population control objective, annual reductions of less than 60 percent will likely regulate the wolf population at the control objective; the wolf population control objective during winters 2004 - 2005 and 2005 - 2006 was 40 - 53 wolves in order to achieve a reduction of between 60 and 80 percent of the pre-control estimate of 180 - 240; beginning in winter 2006 - 2007, the wolf population control objective was changed to 30 - 36 wolves based on the revised pre-control wolf population estimate of 125 - 150; the minimum wolf population control objective will achieve the desired reduction in wolf predation, and also ensure that wolves persist within the plan area;

(vi) without a wolf predation control program, the wolf population is expected to decline somewhat due to further decline in the moose population and reduced

availability of prey; the moose and wolf populations in Unit 19(A) are in a low density dynamic equilibrium state where both predator and prey numbers are likely to stay at low levels indefinitely; if wolf predation control efforts continue and the wolf population is reduced according to the wolf population and harvest objectives, the wolf population will be maintained at 30 - 36 wolves for several years, but once the moose population increases and wolf control efforts are discontinued, the wolf population will increase in response to the increased prey base;

(vii) based on extrapolation of densities from other areas, an estimated 2,475 – 2,970 black bears exist in Unit 19(A), including approximately 135 – 160 black bears within the BCFA;

(viii) based on extrapolation of densities from other areas, an estimated 200 brown bears exist in Unit 19(A), including approximately 10 – 15 brown bears within the BCFA;

(D) the human use information for the predator population is as follows:

(i) total reported harvest of wolves in Unit 19(A) by both hunters and trappers between 1998 and 2004 ranged between 21 and 49 wolves; during the winter of 2004 - 2005, a total of 72 wolves were reported taken in Unit 19(A); of those, 43 wolves were taken in the wolf predation control program and 29 wolves were taken by trappers and hunters; during the winter of 2005 - 2006, a total of 80 wolves were reported taken in Unit 19(A); of those, 47 wolves were taken in the wolf predation control program, and 33 wolves were taken by trappers and hunters; during the winter of 2006 - 2007, a year with low snow and poor travel conditions, a total of 10 wolves were reported taken in Unit 19(A); of those, seven wolves were taken in the wolf predation control program and three wolves were taken by trappers and hunters; during the winter of 2007 - 2008, a total of 24 wolves were reported taken in Unit 19(A); of those, 15 wolves were taken in the wolf predation control program and nine wolves were taken by trappers and hunters; **during the winter of 2008 - 2009, a total of 31 wolves were reported taken in Unit 19(A); of those, 20 were taken in the wolf predation control program and 11 were taken by trappers and hunters; during the winter of 2009 - 2010, a year with low snow and poor travel conditions, a total of 12 wolves were reported taken in Unit 19(A); of those, 2 wolves were taken in the wolf predation control program and 10 wolves were taken by trappers and hunters; during the winter of 2010 - 2011, a total of 14 wolves were reported taken in Unit 19(A); of those, 10 wolves were taken in the wolf predation control program and 4 wolves were taken by trappers and hunters; it is likely that a few additional wolves (estimated 5 – 10 annually) are harvested in the area, but are used locally and do not get sealed and reported;** [IT IS LIKELY THAT A FEW ADDITIONAL WOLVES (ESTIMATED 5 - 10) ARE HARVESTED IN THE AREA, BUT ARE USED LOCALLY AND DO NOT GET SEALED AND REPORTED;]

(ii) the human population in Unit 19(A) is concentrated along the Kuskokwim River corridor; there are large portions of the unit that are remote from communities in the

region and access is difficult; the central Kuskokwim region weather is influenced by coastal conditions and often warm spells in the winter will melt snow and make travel and tracking conditions poor; in addition, the low price of wolf pelts and cost of fuel make it difficult for local residents to harvest a high number of wolves throughout the unit;

(iii) in the first year of the Unit 19(A) wolf predation control program reported wolf harvest by hunters and trappers was 27 wolves, within the range of previous years' harvest; without a wolf predation control program in place wolf harvest is expected to remain relatively constant;

(iv) there is no reporting requirement for black bears harvested in Unit 19(A) and bunter harvest is believed to be low; without a black bear predation control program in place black bear harvest is expected to remain relatively constant;

(v) during 2006 – 2010, a total of 77 brown bears were reported harvested by hunters from Unit 19(A), including an average of 3 per year from the Holitna River drainage; without a brown bear predation control program in place brown bear harvest is expected to remain relatively constant;

(2) the predator and prey population levels and population objectives, and the basis for those objectives, is as follows:

(A) the **2011** [2008] estimated moose population in Unit 19(A) is **2,791 - 5,782** [3,200 - 5,275] moose; the moose population objective for Unit 19(A) is 7,600 - 9,300 moose; this objective is based on the intensive management objective for Units 19(A) and 19(B) established by the board and the proportion of the land area in the combined subunits that is within Unit 19(A); intensive management objectives were based on historical information about moose numbers, carrying capacity of the habitat, sustainable harvest levels, and human use;

(B) the revised pre-control estimated wolf population in Unit 19(A) was 125 - 150 wolves during fall 2004; studies in Alaska and elsewhere have repeatedly concluded that large, annual reductions of wolves are required to diminish wolf population levels and predation by wolves on their prey; consistent with scientific studies and department experience, the objective of this plan is to substantially reduce wolf numbers from pre-control levels in order to relieve predation pressure on moose and allow for improved recruitment to the moose population; this plan also has as a goal to maintain wolves as part of the natural ecosystem within the described geographical area; to achieve the desired reduction in wolf predation, but ensure that wolves persist within the plan area, the wolf population in Unit 19(A) will be reduced by no fewer than 30 wolves;

(C) the wolf population control objective for Unit 19(A) is 30 - 36 wolves; a minimum population of 30 wolves is within the 60 - 80 percent recommended reduction from the pre-control minimum estimated wolf population; the minimum wolf population control objective will achieve the desired reduction in wolf predation, and also ensure that wolves

persist within the plan area;

(D) the pre-control estimated black bear population in Unit 19(A) was 2,475 – 2970 bears, including 135 – 160 black bears within the BCFA; the objective for the black bear predation control program is to reduce black bear numbers and black bear predation on moose to the lowest level possible within the BCFA; this plan includes a goal to maintain black bears as part of the natural ecosystem within Unit 19(A); because the BCFA is a relatively small geographic area, removing black bears from within it will have only a minor effect on the black bear population in Unit 19(A) overall, but should significantly contribute to moose calf survival in the BCFA;

(E) the pre-control estimated brown bear population in Unit 19(A) was 200 bears, including 10 – 15 brown bears within the BCFA; the objective for the brown bear predation control program is to reduce brown bear numbers and brown bear predation on moose to the lowest level possible within the BCFA; this plan includes a goal to maintain brown bears as part of the natural ecosystem within Unit 19(A); because the BCFA is a relatively small geographic area, removing brown bears from within it will have only a minor effect on the brown bear population in Unit 19(A) overall, but should significantly contribute to moose calf survival in the BCFA;

(3) the justifications for the predator control implementation plan are as follows:

(A) the estimated **2011** [2008] density of the moose population in Unit 19(A) is in the range of **0.28 – 0.58** [0.32 - 0.53] moose per square mile with a population of **2,791 - 5,782** [3,200 - 5,275] moose; based on current estimates of recruitment, density, and bull-to-cow ratios, there is no harvestable surplus in eastern Unit 19(A) upstream from and excluding the George River), excluding the Lime Village Management Area; in western Unit 19(A) (downstream from and including the George River), the harvestable surplus is 60 bulls, using a conservative harvest rate for bulls that is based on three percent of the estimated population; harvestable surplus is not sufficient to provide the amount of moose necessary for subsistence purposes or provide for nonsubsistence uses; the moose population and harvest objectives for Unit 19(A) are not being met because mortality has exceeded recruitment into the population causing a decline in moose numbers; wolf, **black bear and brown bear** predation is an important cause of moose mortality;

(B) kill rates by wolves are affected by availability of moose, snow depth, number of alternate prey, size of wolf packs, and other local factors; in Alaska and Canada where moose are the primary prey of wolves, studies documented kill rates ranging from four to seven moose per wolf per winter;

(C) black bear and brown bear predation is likely a major cause of moose calf mortality; in nearby Unit 19D-East, a 96 percent and 50 percent reduction in black bears and brown bears, respectively, resulted in increased survival rates during summer;

(D) [C] reducing wolf, black bear and brown bear numbers through a wolf, black bear

and brown bear predation control program, combined with reduction in moose harvest is the approach most likely to succeed in a recovery of the moose population; wolf, black bear and brown bear harvest through hunting and trapping efforts has not resulted in lowering the wolf, black bear and brown bear populations sufficiently to allow the moose population to grow; a regulation change in March 2002 to allow the use of snowmachines to take wolves has not resulted in a measurable increase in wolf harvest; public information and education programs have been implemented in the central Kuskokwim region to improve understanding of the biological effect of killing cow moose and the potential benefits to the moose population of increasing harvest of wolves and bears; education should help in the long-term but is not expected to result in a significant increase in the moose population in the short-term; Unit 19(A) was closed to nonresident hunting and a registration permit system for resident hunters was established in 2004; beginning in fall 2006, moose hunting was closed upstream from and excluding the George River drainage and excluding the Lime Village Management Area; a Tier II permit hunt was implemented downstream from and including the George River drainage; these changes were made in response to new information obtained during 2005 surveys;

(E) [D] presently known alternatives to predator control for reducing the number of predators are ineffective, impractical, or uneconomical in the Unit 19(A) situation; hunting and trapping conducted under authority of ordinary hunting and trapping seasons and bag limits is not an effective reduction technique in sparsely populated areas such as Unit 19(A); the numbers of hunters and trappers are relatively low and educational programs to stimulate interest and improve skills in taking wolves are in the early stages of development, and so far have been unsuccessful in increasing the harvest of wolves; the inherent wariness of wolves, difficult access, and relatively poor pelt prices also explain low harvest rates; application of the most common sterilization techniques, including surgery, implants, or inoculation, are not effective reduction techniques because they require immobilization of individual predators, which is extremely expensive in remote areas, relocation of wolves, black bears and brown bears is impractical because it is expensive and it is very difficult to find publicly acceptable places for relocated wolves, black bears and brown bears; habitat manipulation is ineffective because it may improve the birth rate of moose in certain circumstances, but it is poor survival, not poor birth rate that keeps moose populations low in rural areas of interior Alaska; supplemental feeding of wolves and bears as an alternative to predator control has improved moose calf survival in two experiments; however, large numbers of moose carcasses are not available for this kind of effort and transporting them to remote areas of Alaska is not practical; stocking of moose is impractical because of capturing and moving expenses; any of the alternatives to a wolf predation control program are not likely to be effective in achieving the desired level of predator harvest;

(F) [E] moose hunting seasons and bag limits have been reduced in Unit 19(A); in 2004 - 2005, the nonresident season in Unit 19(A) was closed and resident hunters in Unit 19(A) were required to have a registration permit; the resident winter moose hunting season in Unit 19(A) was eliminated to reduce overall harvest and eliminate incidental cow harvest to improve the reproductive potential of the population; beginning in fall 2006, moose hunting in the eastern part of Unit 19(A) outside the Lime Village Management Area was closed

and the remainder of Unit 19(A) was limited by Tier II permit; while helpful, these measures alone will not likely stop the decline in the moose population and they will not be enough alone to allow the moose population to increase;

(G) [F] without an effective wolf, black bear and brown bear predation control program, the wolf, black bear and brown bear harvest objectives cannot be achieved and moose in Unit 19(A) are likely to persist in a low density dynamic equilibrium state with little expectation of increase; data from moose mortality studies, and predator and prey studies, conducted throughout Alaska and similar areas in Canada suggest that reducing the number of wolves, black bears and brown bears in Unit 19(A) can reasonably be expected to increase the survival of calves as well as older moose; reducing wolf, black bear and brown bear predation on moose, in combination with reducing harvest, particularly of cows, can reasonably be expected to initiate an increase of the moose population towards the population objective; aerial wolf predation control makes it possible to increase the take of wolves over large expanses of territory in a vast and remote region like the majority of Unit 19(A); a combination of aerial black bear and brown bear control and bear trapping are effective techniques for reducing bear numbers and bear predation on moose; with a reduction in wolf and bear-caused mortality and restrictions in harvest, the moose population is expected to grow;

(4) the permissible methods and means used to take wolves, black bears and brown bears are as follows:

(A) hunting and trapping of wolves, black bears and brown bears by the public in Unit 19(A) during the term of the program will occur as provided in the hunting and trapping regulations set out elsewhere in this title, including use of motorized vehicles as provided in 5 AAC 92.080;

(B) notwithstanding any other provisions in this title, the commissioner may issue public aerial shooting permits or public land and shoot permits as a method of wolf removal under AS1605.783;

(C) notwithstanding any other provisions in this title, the commissioner may reduce the black bear population within the BCFA by means and direction included in the Board of Game Bear Conservation and Management Policy (2011-186-BOG), dated March 25, 2011, and incorporated by reference, including the following methods and means under AS1605.783:

(i) under a department developed predation control permit allowing take of any black bear, including sows and cubs, same-day-airborne taking of black bears if the permittee is at least 300 feet from the aircraft, sale of unmounted, tanned or untanned black bear hides if the sale tag remains attached, use of foot snares, and no bag limit;

(ii) use agents of the state, or department employees to conduct aerial, land and shoot, and/or ground based lethal black bear removal using state owned, privately

owned, or chartered equipment, including helicopters;

(D) notwithstanding any other provisions in this title, the commissioner may reduce the brown bear population within the BCA by means and direction included in the Board of Game Bear Conservation and Management Policy (2011-186-BOG), dated March 25, 2011, and incorporated by reference, including the following methods and means under AS1605.783:

(i) under a department developed predation control permit allowing take of any brown bear, including sows and cubs, same-day-airborne taking of black bears if the permittee is at least 300 feet from the aircraft, sale of unmounted, tanned or untanned black bear hides if the sale tag remains attached, use of foot snares, and no hag limit;

(ii) use agents of the state, or department employees to conduct aerial, land and shoot, and/or ground based lethal brown bear removal using state owned, privately owned, or chartered equipment, including helicopters;

(5) the anticipated time frame and schedule for update and reevaluation are as follows:

(A) for up to five years beginning on July 1, 2009, the commissioner may reduce the wolf, black bear and grizzly bear populations in Unit 19(A);

(B) annually, the department shall to the extent practicable, provide to the board at the board's spring board meeting, a report of program activities conducted during the preceding 12 months, including implementation activities, the status of moose and wolf populations, and recommendations for changes, if necessary, to achieve the objectives of the plan;

(6) other specifications the board considers necessary are as follows:

(A) the commissioner will suspend wolf control activities:

(i) when wolf inventories or accumulated information from permittees indicate the need to avoid reducing wolf numbers below the management objective of 30 wolves specified in this subsection;

(ii) when spring conditions deteriorate to make wolf control operations infeasible; or

(iii) no later than April 30 in any regulatory year;

(B) wolf, black bear and brown bear control activities will be terminated

(i) when prey population management objectives are attained; or

(ii) upon expiration of the period during which the commissioner is authorized to

reduce predator numbers in the predator control plan area;

(C) [D] the commissioner will annually close wolf hunting and trapping seasons as appropriate to ensure that the minimum wolf population objective is met.

Is the Fish and Wildlife Service breaking its own law?

Posted: January 11, 2012 - 8:40am

By Elaina Spraker

Voices of the Peninsula

In 1931, the Alaska Game Commission recommended establishment of a moose sanctuary approximately 1,230 square miles in the northwestern part of the Kenai Peninsula, today known as Game Management Unit 15A. The giant Kenai moose were renowned by hunters in the early 1900s that traveled from various parts of the world in hopes of harvesting one of these magnificent animals. However, by 1925 the moose population had severely declined because of market hunting that lasted until the 1930s. In 1932, 37 citizens of the Kenai Peninsula petitioned the Secretary of Agriculture to establish a moose sanctuary. Residents of the Kenai were divided on the issue, W.J. Brown urged his fellow townspeople to support the creation of the preserve; Mae Harrington spoke for those in opposition. Mrs. Harrington asserted that the present state of no law enforcement would only result in further lawlessness. To address local concerns, the Alaska Game Commission had taken steps to protect moose when issuing hunting regulations in 1932.

The Reorganization Act of 1940 merged the Bureau of Fisheries and the Bureau of Biological Service to form the Fish and Wildlife Service (FWS). Ira Gabrielson, Director of Fish and Wildlife, supported a moose refuge at the same time the Army requested to use this area as a bombing practice area. Fortunately, Gabrielson persuaded the Army to select an alternate area. On December 16, 1941 President Franklin D. Roosevelt signed an executive order establishing the Kenai National Moose Range and commissioning the Alaska Game Law to manage hunting and trapping. The Kenai National Moose Range was established to ensure the perpetuation of the giant Kenai moose, other fish and wildlife, scenic and recreational resources. Over the years, the Service fought incessantly to protect the Kenai National Moose Range by formulating tough standards where strong pressures from the oil industry and its allies forced compromises.

By the early 1970s the Alaska National Lands Conservation Act (ANILCA) was being proposed by congress in several different bills, each outlining a single proposed park or monument. In 1980, President Jimmy Carter signed ANILCA into law, setting aside 80 million acres of federal public lands, a third of which was secured as wilderness areas. By many, ANILCA was deemed the largest land grab by the Federal Government in recent U.S. history.

The Kenai National Moose Range was assimilated into ANILCA as part of the Kenai National Wildlife Refuge. The congressional record repeatedly states "Kenai National Moose Refuge, by the addition of an area containing 203,600 acres of Federal land to the existing Kenai National Moose Range (hereby designated as part of the refuge), which the refuge shall be managed for the following purposes, among others: The purposes of the expansion of the Moose Refuge are to

(A) Perpetuate a nationally significant population of moose;

(B) Protect populations of fish and wildlife and their habitats, including moose and other mammals and waterfowl;

(C) Provide opportunities for wildlife-oriented recreation in a manner consistent with the purposes specified in subparagraphs (A) and (B).

The significance of this legislation is the clear intent and purpose congress enacted into law. The FWS has failed to fulfill their legal obligation set forth by our legislators. Currently our moose population, particularly in GMU 15A, is in severe decline. In the early 1980s State Game biologists estimated approximately 4,300 moose in GMU 15A, a similar 2008 census report estimated about 2,000 moose, and undoubtedly decreasing. One of the major reasons for the precipitous decline is a direct result of inaction by the Service, primarily not conducting habitat enhancement (i.e. prescribed burns, crushing or clearing) since 1975. In addition, trappers have been saddled with very restrictive regulations. The KNWR is the only refuge in the state where a four-day trap check is required; it is also the most restrictive refuge regarding regulations for access. All other refuges in our state require less snow depth before the public is allowed access by snowmachines. Now that the moose population is less than half its size compared to 30 years ago, predators are now accelerating the decline. We now have what is called a "predator pit" where regardless of how much of the area's habitat is enhanced; the moose population will not recover until the impact of predation is temporarily reduced, and FWS refuses to allow effective predator control.

Studies have shown, to sustain a moose population 30 moose per wolf is needed; this ratio does not factor in the significant impact of bears. Currently, the ratio is less than 30 moose per wolf.

In March 2011, the State of Alaska Board of Game passed an intensive management program in attempt to halt the current decline in the Kenai Moose population. The question Alaskans should be asking is why the Fish and Wildlife Service is refusing to follow the law set forth by congress and the purpose for which the Kenai National Wildlife Refuge was established? The FWS policies are not perpetuating a significant moose population and by law they are required to.

This statement is not a disparagement towards the dedicated employees of the FWS, but a censure of their policies.

Elaina Spraker is a longtime Soldotna area resident and avid outdoorswoman. Her husband, Ted Spraker, is vice-chairman of the Alaska Board of Game.

Jan 13, 12

Board of Game Comments
Alaska Dept. of Fish & Game
Boards Support Section

RC 38

To Whom It Concerns:

Please add ~~my~~^{our} names to the list of people who are against the aerial predator hunting of wolves. It has been proven to be scientifically erroneous and destroys the natural order & socialization processes of the wolf pack.

Sincerely

Della Dempsey
8530 W. Waldal Circle
Wasilla, AK 99623
(907) 892-5876

Heather Wells
P.O. Box 521 443
Big Lake, AK 99652
(907) 892-2008