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ATTN: Board of Game Comments
Alaska Department of Fish and Game
Boards Support Section
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To Whom It May Concern:

Defenders of Wildlife, The Alaska Center for the Environment and The Alaska Wildlife Alliance appreciate the opportunity to submit these written comments on proposals that will be considered at the November 11-14, 2011 Board of Game (BOG) meeting in Barrow, Alaska.

Established in 1947, Defenders of Wildlife (Defenders) is a non-profit membership based organization dedicated to the protection of all native wild animals and plants in their natural communities. Defenders focuses on the accelerating rate of species extinction and associated loss of biological diversity and habitat alteration and destruction. Defenders also advocates for new approaches to wildlife conservation that will help prevent species from becoming endangered. We have field offices around the country, including in Alaska where we address conservation issues affecting wolves, black bears, brown bears, wolverines, Cook Inlet beluga whales, sea otters, polar bears, Pacific walrus and impacts to wildlife from climate change. Our Alaska program seeks to increase recognition of the importance of, and need for the protection of, entire ecosystems and interconnected habitats while recognizing the role that predators play as indicator species for ecosystem health. Defenders represents more than 3,000 members and supporters in Alaska and more than one million nationwide.

COMMENTS ON ALASKA BOARD OF GAME PROPOSALS

Proposal 15. We offer the following comments on this proposal.

This proposal aims to increase the bag limit for wolves in Unit 18 from 5 to 10 wolves.

Defenders supports regulations that adhere to sound wildlife management principles and are consistent with maintaining healthy populations of all species as well as healthy ecosystems. We urge the ADF&G to analyze and report what effect this proposal would have on the local wolf population in order to insure that its passage would not result in the overharvest of wolves in this area.

Proposal 16. We offer the following comments on this proposal.

Passage of this proposal would increase the bag limit for wolverine in Unit 18 from 1 to 2.

Defenders supports regulations that adhere to sound wildlife management principles and are thus consistent with maintaining healthy populations of all species as well as healthy ecosystems. We urge the ADF&G to analyze and report what effect this proposal would have on the local wolverine population in order to insure that its passage would not result in the overharvest of wolverines in this area.

Proposal 17. We offer the following comments on this proposal.

This proposal seeks to extend the season and increase the bag limit for lynx in Unit 18.

Defenders supports regulations that adhere to sound wildlife management principles and are consistent with maintaining healthy populations of all species as well as healthy ecosystems. We urge the ADF&G to analyze and report what effect this proposal would have on the local lynx population in order to insure that its passage would not result in the overharvest of lynx in this area.

Proposal 24. We *oppose* this proposal and urge the BOG to reject it.

This proposal, if passed, would align brown bear seasons in Unit 22C with the remainder of the unit. The proponents of this proposal claim that the bear population is underutilized, there is bear predation on local ungulates and reindeer, and bear and human conflict exists.

While allowing increased opportunity to harvest bears where opportunity exists may be acceptable, data must be provided which demonstrates that increased harvest will not negatively affect the sustainability of the population. We do not consider increasing the take of brown bears to be a solution to addressing the primary concerns outlined in this proposal.

While we agree with the proponents that brown bears predate upon ungulates, there is no evidence that bear predation is having an excessive influence on the

caribou or moose populations in this unit. According to ADF&G's 2007 Moose Management Report the moose population in 22C exceeds objectives and an antlerless hunt was implemented in 2000 to stabilize the population. Further, this unit falls within the range of the Western Arctic Caribou herd which remains at high levels.

In addition, while brown bears may occasionally take domestic reindeer it is likely that only a few bears can be implicated; we do not view altering the season to allow for increased and non-targeted take of brown bears as solution to this problem. Husbandry tools have been successfully developed to decrease risk of depredation on livestock in the lower 48. Rather than increasing brown bear harvest to address this issue, efforts should be made to determine if such tools might be adapted to prevent depredation of domesticated animals in Alaska.

Finally, while some brown bears may break in to cabins, it is unlikely that all of the unit's brown bears are actually responsible for such break-ins. Therefore, targeting all brown bears in the region with increased hunting is unwarranted. Further, residents already have the ability to take a bear in Defense of Life and Property.

While residents have the right to protect their property from being raided by bears, residents are also responsible for adequately protecting their homes and properties in order to prevent conflicts with wildlife. Emphasis should be placed on preventing negative interactions rather than attempting to solve conflicts by increasing the take of brown bears.

ADF&G recently held workshops on bear-proofing subsistence cabins. Additional workshops should be held in rural locations as an effective means of providing residents with additional tools to prevent future conflict.

Proposal 26. We *oppose* this proposal and urge the BOG to reject it.

This proposal, if passed, would open a year round season for brown bear in Unit 22. The proponent of this proposal claims that brown bears are causing excessive damage by breaking into cabins and subsistence caches. The goal of the proposal is to prevent this type of damage from occurring.

While brown bears may be implicated in cabin break-ins, it is unlikely that all of the unit's brown bears are actually responsible. Therefore, targeting all brown bears in the region is unwarranted. Further, residents already have the ability to take a bear in Defense of Life and Property.

As stated in comments on proposal 24, while rural subsistence users have the right to protect their property from being raided by bears, all Alaska residents also hold

the responsibility of adequately protecting their homes and properties in order to prevent conflicts with wildlife. Emphasis should be placed on preventing the types of interactions described in this proposal rather than attempting to solve conflict by increasing the take of brown bears.

ADF&G recently held workshops on bear-proofing subsistence cabins. Additional workshops should be held in rural locations as an effective means of providing residents with the tools to prevent the type of conflict outlined in this proposal.

Proposal 30. We *support* this proposal and urge the BOG to adopt it.

If passed, this proposal would establish a harvest objective for brown bear in the Noatak National Preserve.

The proponent of this proposal claims that there is a localized unsustainable harvest rate for brown bears in certain portions of Noatak National Preserve and provides evidence to support this claim. Defenders supports efforts aimed at preventing overharvest and ensuring the continued viability of wildlife populations.

Proposal 33. We offer the following comments on this proposal.

The proposal aims to open the wolverine hunting season earlier in Unit 26.

Defenders supports regulations that adhere to sound wildlife management principles and are consistent with maintaining healthy populations of all species as well as healthy ecosystems. We urge the ADF&G to analyze and report what effect this proposal would have on the local wolverine population in order to insure that its passage would not result in the overharvest of wolverines.

Proposal 35. We *oppose* this proposal and urge the BOG to reject it.

This proposal, if adopted, would approve an intensive management plan for moose in 15A.

Firstly, we have substantial concerns over the fact that the BOG has inhibited public participation by providing ADF&G insufficient time for this plan to be developed thus preventing its inclusion in the November proposal book. The BOG has further hampered participation by considering this proposal in Barrow far from the communities that will be directly affected by the BOG's decision. We have outlined such concerns in past comments to the BOG and consider the continuation of such practices to be detrimental to the public process through which such controversial proposals are adopted. We request, in the very least, that consideration of this plan be moved to the January meeting in Anchorage in order

to allow for participation of individuals who will be directly impacted should the proposal pass.

During the March 2011 meeting, the BOG directed the ADF&G to develop an intensive management plan that included aerial wolf control for 15A. The preliminary plan was released October 17th, 2011 and included aerial control of wolves. We vigorously oppose aerial wolf control in Unit 15A. Wolf control is not biologically warranted, appropriate, or feasible in Unit 15A.

At the March meeting, ADF&G supplied a Feasibility Assessment (FA) for intensive management in 15A (see attached Record Copy 23 and Proposal 174). Though the FA was conducted with the goal of describing the feasibility of a habitat based intensive management plan, it also addressed the limitations of conducting a predator control program in 15A.

In the FA, ADF&G biologists recognized that habitat was limiting moose population growth in 15A. Further, ADF&G recognized that the current moose population objectives for 15A were too high. A proposal recommending the moose population objectives be lowered was submitted by ADF&G for the March meeting and, despite extensive biological evidence that such a reduction was necessary, was rejected by the BOG. Due to the widely recognized habitat limitations in 15A, ADF&G also stated in their FA that "if predator densities were reduced to increase moose numbers without concomitant wide-spread improvements to the habitat any increases to moose survival would further increase the nutritional stress of the moose population thereby reducing productivity."

The recognition that habitat, rather than predation, is limiting moose population growth in 15A is also demonstrated by recent media coverage of this issue. The regional ADF&G biologist who was responsible for drafting the plan stated "The reason we had conducted the survey [in 15A] was due to the chronic decline in moose numbers, which was predicted by the department based on changes in habitat. Fifteen A has a rich history in wildfires that changes the habitat. This greatly benefits moose browse and increases moose numbers," further, "The main cause keeping moose at their present level of abundance is the lack of a major fire to improve the quality of the habitat," adding, "The problem is that there hasn't been a fire of any significant size in 15A for over 40 years. Without the regeneration, moose numbers are at a relatively low density. We know it's definitely because of the habitat."

The plan states that the goal of the wolf control program is to "reduce calf mortality to reverse the long term decline of the bull: cow ratio and increase calf survival." However, ADF&G's plan also clearly recognizes that habitat is limiting the population and includes data presenting poor nutritional condition. Further,

the original habitat plan for this program states that bull: cow ratios have been stable since the 1990's (see proposal 174). Reducing calf mortality through control of wolves, in the hopes of improving the bull: cow ratio when neither low bull: cow ratios, nor excessive calf predation, have been identified as limiting factors is scientifically unfounded.

Section 3c of the plan states that, "with limited habitat, reducing predation will allow for possible reallocation of moose from predators to harvest." We question whether such a reallocation is achievable. Further, attempting to reallocate moose from predators to humans would necessitate calves surviving beyond the very young age at which they would be taken by predators. Also, considering that the nutritional stress currently experienced by this population is likely to continue for some time, and that predation in this area is likely compensatory, it is questionable whether such calves would survive to a harvestable age. Further, promoting even a temporary increase in the population is not sustainable under current conditions and could lead to a crash in the moose population.

As recently as March of 2011, ADF&G was promoting a reduction in the moose population objective for 15A. ADF&G staff biologists also indicated during that meeting that they doubted even the lower population objectives could be met. Considering ongoing nutritional stress, we seriously question the rationality of introducing methods meant to increase survival in advance of adequate habitat improvement and in advance of determining if habitat improvement alone would be adequate to allow the moose population to recover. We support development of population objectives which are based on realistically achievable goals.

In section 6c., the plan states that the program will be reviewed and suspended if, after 3 years, any measure consistent with significant levels of nutritional stress [e.g., twinning rates less than 20%, adult female pregnancy rates less than 80%] fails to improve to levels no longer showing significant levels of nutritional stress. While this plan includes habitat improvement, such improvements will take numerous years to achieve. Since nutritional parameters are currently below target, reducing predation and allowing the population to increase could be detrimental to moose and their habitat in this unit.

In addition to ecological concerns, we also have concerns that the program would be ineffective based on land management patterns. The Kenai National Wildlife Refuge, whose primary mission is "to conserve fish and wildlife populations and habitats in their natural diversity," makes up much of Unit 15A. As part of the National Wildlife Refuge system, lands within the Kenai Refuge are subject to federal laws and mandates and are precluded from Alaska's Intensive Management Statute. Aerial wolf control would not be allowed on the Refuge; implementing a program on the remaining lands in 15A would be insufficient to achieve the desired but unsustainable landscape level moose population increase.

This recognition was clearly demonstrated by ADF&G biologist testimony at the March, 2011 BOG meeting, as well as in the 15A FA. The regional ADF&G biologist was again recently quoted in the Homer Tribune stating that, because most of Unit 15A near Kenai is in the wildlife refuge, aerial wolf control is unlikely to have a detectable effect on the estimated 41-45 wolves. Further he stated that, "It's a difficult plan given the limitations of the available land and where the moose population is in respect to the habitat."

Despite the realities of land ownership, the plan states that the predation control area includes all lands within Unit 15A and will be initiated on certain lands pending authorization by land managers/owners. Though authorization may be sought, ADF&G is well aware that any proposal to conduct control on the Kenai Refuge would be subject to NEPA review. We oppose the initiation of such a review. The Unimak Island decision has already clearly demonstrated that the Intensive Management Statute is inconsistent with federal refuge policy. We are therefore confident that aerial control of wolves would ultimately be rejected on Kenai Refuge lands. Initiation of a NEPA review would be an unnecessary waste of taxpayer dollars in a time of fiscal constraint.

In addition to the program being subject to NEPA review on refuge lands, any request to conduct aerial control on 22G lands within the refuge would be subject to a compatibility determination. Intensive management is not compatible with the purposes of the Kenai Refuge, the mission of the National Wildlife Refuge System, nor federal laws and policies which govern refuge management. We would therefore consider the time dedicated to such a review to also be a waste of public tax dollars.

As noted in our March 2011 BOG comments, Defenders is also concerned about the practicality of conducting an aerial wolf control program in 15A. Unit 15A is poorly suited to aerial shooting of wolves due to the forested nature of much of the terrain. Wolves are very difficult to track and shoot in this area and pilots cannot land to retrieve carcasses. Aerial shooting would therefore likely be ineffective in influencing overall wolf numbers in this unit and would result in the waste of a valuable wildlife resource.

Considering that 15A is relatively populated and heavily visited by a variety of recreational users, allowing aerial wolf control would also create a human safety risk and would likely result in increased conflict between user groups. As stated by the regional biologist, "It's likely this will be a highly visible program if it's implemented." The concern over public safety is exacerbated by ADF&G's plan to allow privately permitted citizens to participate in the program. Defenders has long opposed the involvement of private citizens in Alaska's aerial wolf control programs. Allowing private citizens to participate in this program would be especially controversial.

Both the Alaska Constitution and the Intensive Management Statute require the Board of Game to manage wolves on a sustained yield basis. *West v. State, Bd. of Game,* 248 P.3d 689, 696-98 (Alaska 2010). According to the Fish and Wildlife Service, recent and robust wolf population surveys have not been completed in 15A; however, ADF&G's plan states that the wolf population is estimated at 41-45 wolves. Despite the professional difference of opinion with regards to robustness of the available population data, we question the basis for the population target of 15 wolves absent an analysis of the implications for the wolf population.

Considering that the Kenai is relatively isolated from interior populations, we are also concerned that the genetic diversity of these populations will be threatened in the long term; especially considering that the programs – once initiated – do not typically end. Absent an evaluation of the affect wolf control would have on wolf population sustainability in 15A, passage of proposal 35 would violate the BOG's constitutional responsibility to manage wolves on a sustained yield basis.

In addition to the significant concerns addressed above, current conditions in 15A do not meet the predator control implementation criteria of the Intensive Management Statute.

Alaska law requires the Board of Game to:

> adopt regulations to provide for intensive management programs to restore the abundance or productivity of identified big game prey populations as necessary to achieve human consumptive use goals of the board in an area where the board has determined that: ... (2) depletion of the big game prey population or reduction of the productivity of the big game prey population has occurred and may result in a significant reduction in the allowable human harvest of the population; ***and*** (3) enhancement of abundance or productivity of the big game prey population ***is feasibly achievable*** utilizing recognized and prudent active management techniques AS 16.05.255(e)(2), (3) (emphases added).

However, the Board of Game is not to implement intensive management programs where such programs would be "ineffective, based on scientific information" or "inappropriate due to land ownership patterns."AS 16.05.255(f)(1)(A), (B).

Both of these provisions apply here and, therefore, intensive management is not an appropriate solution to declining moose populations in unit 15A. First, proposal 35 is not supported by scientific information. The record is clear that habitat, not predation, is currently limiting moose populations in Unit 15A. The record is also clear that the potential for moose populations to again reach historic levels is unlikely due in part to increasing human settlement on the peninsula. Further, as

habitat is currently limiting, increasing the moose population could negatively affect population productivity.

Second, proposal 35 is inappropriate due to land ownership patterns. The land ownership patterns in 15A erode the potential success of aerial wolf control and again preclude such a program from meeting the criteria of the Intensive Management Statute.

Due to constraints of land ownership, the plan could only be implemented on the < 3% of lands in the unit managed by the state. At the March, 2011 meeting ADF&G biologists stated on the record that they did not believe that an aerial wolf control program would feasibly achieve the objective of increasing moose abundance in 15A due to the small scale at which it could be conducted.

The state is well aware of the limitations on conducting this program in an area whose land base is mostly under federal management. Passing a plan that includes refuge lands when it is well known that it cannot be implemented on such lands does not overcome the requirements of the Intensive Management Statute that the program be deemed appropriate under land ownership patterns.

Because current biological circumstances do not warrant predator control, and because the feasibility and potential effectiveness of aerial wolf control are in doubt, an aerial wolf control program cannot be instituted in 15A under the Intensive Management Statute.

http://homertribune.com/2011/10/aerial-wolf-hunt-proposed-on-peninsula/

http://www.homernews.com/stories/100511/news_awct.shtml

Proposals 36. We *oppose* this proposal and urge the BOG to reject it.

This proposal, if adopted, would approve an intensive management plan for moose in 15C.

Again, we have substantial concerns over the fact that the BOG has inhibited public participation by providing ADF&G insufficient time for this plan to be developed thus preventing its inclusion in the November proposal book. The BOG has further hampered participation by considering this proposal in Barrow far from the communities that will be directly affected by the BOG's decision. We have outlined such concerns in past comments to the BOG and consider the continuation of such practices to be detrimental to the public process through which such controversial proposals are adopted. We request, in the very least, that consideration of this plan be moved to the January meeting in Anchorage in order

to allow for participation of individuals who will be directly impacted should the proposal pass.

During the March 2011 meeting, the BOG directed the ADF&G to develop an intensive management plan that included aerial wolf control for Unit 15C. The preliminary plan, which included aerial wolf control, was released October 17th, 2011. We vigorously oppose aerial wolf control in this unit. Wolf control is not biologically warranted, appropriate, or feasible in Unit 15C.

Like 15A, implementing aerial wolf control in Unit 15C is not supported by current biological conditions. For this reason, ADF&G recommended "Do Not Adopt" for March meeting proposals 172 and 173 which called for aerial taking of wolves in all of Unit 15 under intensive management. The agency's rationale was that "Unit 15C is currently within intensive management objectives for both population size and harvest."

In addition to recommendations on these proposals, ADF&G's extensive testimony regarding 15C during the March meeting clearly demonstrate the agency's belief that the current low bull: cow ratio in Unit 15C is not the result of predation but of an insufficient harvest strategy which failed to protect an adequate number of young bulls. As a result, the bull: cow ratio has declined. The BOG appropriately responded to this decline by implementing new harvest restrictions. During their testimony, ADF&G indicated that illegal harvest may also be playing a role in the current moose population conditions in the unit.

Despite the fact that overharvest of bulls was implicated as the cause for decline in the bull: cow ratio in prior ADF&G testimony and documents, the recently released plan does not refer to overharvest of bulls as being a factor. Rather, the plan states that the goal of wolf control is to "reduce calf mortality to reverse the long-term decline of the bull: cow ratio." The plan goes on to state that the three major predators in the unit are brown bears, black bears, and wolves; significantly, humans are missing from the list. We find the omission of the human element to this decline disconcerting considering that all actions by ADF&G and the BOG to date indicate that overharvest of bulls was the primary cause of the decline.

Just as the low bull: cow ratio cannot be traced to wolf predation, evidence has not been presented that productivity and calf survival has been influenced by predation. Unfortunately, during the March meeting, several BOG members continually contended that moose productivity and calf survival have declined in Unit 15C; however, the facts simply do not support these assertions. According to testimony and evidence presented by ADF&G, productivity remains stable in the unit and low calf survival is not implicated as a cause for a decline in the bull: cow ratio.

In addition to factors outlined above, the population of moose is well within population objectives in 15C. In fact, according to the plan, the population increased 40% between 1992 and 2010. Though the moose harvest will be temporarily limited due to new harvest restrictions, clearly the population continues to grow. Considering that the recently initiated harvest strategy is expected to protect a sufficient number of bulls, there is no reason to believe that productivity of this population will decline. Controlling wolf predation to improve productivity is simply not warranted.

The plan indicates that the predation control area includes "all lands within Unit 15C north of Kachemak Bay including the Fox River Flats." As in 15A, a portion of 15C consists of the Kenai National Wildlife Refuge which would be exempt from this program. Though authorization to conduct aerial control may be sought, ADF&G is well aware that any proposal to conduct control on the refuge would be subject to NEPA review. We oppose the initiation of such a review. The Unimak Island decision has already clearly demonstrated that the Intensive Management Statute is inconsistent with federal refuge policy. We are therefore confident that aerial control of wolves would ultimately be rejected on Kenai Refuge lands. Initiation of a NEPA review would be an unnecessary waste of taxpayer dollars in a time of fiscal constraint.

As noted in our comments on proposal 35, Defenders also has concerns over the practicality of conducting an aerial control program in 15C. Unit 15C is poorly suited to aerial wolf control due to the forested nature of much of the terrain. Wolves are very difficult to track and shoot in this area and pilots cannot land to retrieve carcasses. Allowing aerial shooting would therefore likely be ineffective in influencing overall wolf numbers in this unit and result in the waste of a valuable wildlife resource.

Considering that 15C is relatively populated and heavily visited by a variety of recreational users, allowing aerial wolf control would also create a human safety risk and would likely result in increased conflict between user groups. As stated by the regional biologist, "It's likely this will be a highly visible program if it's implemented." The concern over public safety is exacerbated by ADF&G's plan to allow privately permitted citizens to participate in the program. Defenders has long opposed the involvement of private citizens in Alaska's aerial wolf control programs. Allowing private citizens to participate in this particular program would be especially controversial.

Section 3c. of the plan states that "a reduction of predation can reasonably be expected to aid in continuing to meet the intensive management harvest objectives at a higher level than have previously been achieved through both bull and antlerless harvest." However, the limitations of likely success of the program, given the terrain as well as social factors, throw this opinion into question. Further, the

highly productive nature of this moose population does not warrant control of predation to improve moose harvest.

In addition to concerns over the potential for the program to achieve stated goals, we also question the 15C plan's reliance on the operational plan and FA for proposal 35 (see section 7). Both the plan and FA were developed solely for Unit 15A where population concerns are substantially different than those of 15C. Since ADF&G has only recently developed the FA process in order to facilitate proper evaluation of intensive management programs, and considering that ADF&G biologists have been working to complete the FAs since March of this year, we are disappointed that an FA is not yet available for 15C. We are equally concerned that a full independent plan is not yet available.

Both the Alaska Constitution and the Intensive Management Statute require the Board of Game to manage wolves on a sustained yield basis. *West v. State, Bd. of Game,* 248 P.3d 689, 696-98 (Alaska 2010). According to ADF&G, recent and robust wolf population surveys have not been completed in 15C. While we are pleased to see that wolf surveys are being planned, ADF&G indicated during their testimony at the March 2011 BOG meeting that the timeframe imposed for developing the wolf control plan limited their ability to complete a wolf census to include in the plan.

Though a population of 40-75 wolves is estimated to exist in the 15C, this number is based on extrapolation from other areas on the peninsula where the robustness of the data is also in question (see comments on proposal 35). Without robust data on wolf populations in 15C, the BOG will be unable to evaluate the affect wolf control would have on wolf population sustainability. Further, as in our comments on proposal 35, we question the basis for determining a population target of 15 wolves would adequately insure persistence of wolves in the unit. Passage of proposal 36, absent information on how the wolf population will be affected by the planned reduction, would violate the BOG's constitutional responsibility to manage wolves on a sustained yield basis.

The current conditions in 15C do not meet the predator control implementation criteria under the Intensive Management Statute and regulations.

Alaska law requires the Board of Game to:

> adopt regulations to provide for intensive management programs to restore the abundance or productivity of identified big game prey populations as necessary to achieve human consumptive use goals of the board in an area where the board has determined that: ... (2) ***depletion of the big game prey population or reduction of the productivity*** of the big game prey population has occurred and may result in a significant reduction in the

> allowable human harvest of the population; ***and*** (3) enhancement of abundance or productivity of the big game prey population ***is feasibly achievable*** utilizing recognized and prudent active management techniques. AS 16.05.255(e)(2), (3) (emphases added).

However, the Board of Game is not to implement intensive management programs where such programs would be "ineffective, based on scientific information." AS 16.05.255(f)(1)(A). When implementing the Intensive Management Statute, AS 16.05.255(e) - (g), the Board of Game

> "will ... (3) find that depletion of a big game prey population or reduction of the productivity of a big game prey population has occurred when (A) the number of animals, estimated by the department, that can be removed by human harvest from a population, or a portion of a population, on an annual basis without reducing the population below the population objective, preventing growth of the population toward the population objective at a rate set by the board, or altering a composition of the population in a biologically unacceptable manner ***is less than the harvest objective for the population; and (B) the population size is less than the population objective*** for the population...(5)***not*** consider as significant...(B) any reduction in taking that is ***intended or expected to be of a short-term and temporary nature*** and is necessary for the conservation of the population. 5 AAC 92.106(3)(A)-(5)(B) (emphases added).

Moose population concerns in 15C are not driven by wolf predation but the result of an insufficient harvest strategy which has potentially been exacerbated by illegal harvest. The current low bull: cow ratio has resulted in recent temporary harvest restrictions which are necessary to prevent the continued overharvest of bulls and promote the conservation of the population. The moose population in this region cannot be considered depleted and there is no indication that productivity has declined. Though ADF&G does not believe that productivity has declined, if bulls are not adequately protected, a decline could occur. Because local biologists currently consider productivity and calf survival to be within acceptable levels, and the moose population remains within population objectives, this temporary closure can be expected to improve the bull: cow ratio and conserve a healthy moose population.

The ADF&G and BOG explicitly recognized the temporary nature of this closure during the harvest restriction testimony and subsequent discussion at the March meeting. The BOG further recognized the closure as temporary by adding a sunset clause to the harvest restriction; stating that they would reevaluate population parameters and reconsider the regulations at the March 2013 meeting. Control of predation would not achieve the desired result of increasing bull recruitment

because wolves do not selectively prey on bull moose and problems with calf productivity have not been identified.

Under current circumstances aerial wolf control in Unit 15C is neither warranted biologically nor is it appropriate under the Intensive Management Statute or regulations.

Proposal 37. We offer the following comments on this proposal.

According to ADF&G the Southern Alaska Peninsula Caribou Herd (SAPCH) has increased in size since the Unit 9D wolf control program was initiated in 2007; however, sufficient study has not been dedicated to factors other than predation that may be contributing to preliminary indications of increased survival. We continue to have concerns that this program does not meet several recommendations of the NRC.

1. The status of the predator population has not been evaluated.

The updated SAPCH plan states that no current aerial population survey data are available for the wolf population in the management area. Instead, predator populations are estimated using anecdotal evidence from pilots and local residents. While anecdotal information may be sufficient to supplement aerial surveys during years when surveys are not conducted, they are not adequate on their own in areas where predator control is being conducted.

2. Carrying capacity has not been determined nor sufficient monitoring programs developed.

While the revised plan states that nutritional limitations are not implicated as a factor affecting the current status of the SAPCH, the program continues to lack nutritional objectives and fails to outline a protocol for monitoring trends in nutritional condition indices. Further, habitat studies aimed at determining carrying capacity have not been conducted.

Defenders has long documented concerns over the potential for habitat degradation to occur in areas where predators have been suppressed. We find it a significant deficiency that the SAPCH program does not incorporate requirements for nutritional status and that population goals are not based on carrying capacity.

3. The programs are not designed as experiments and inadequate data is collected.

According to the February 2011 annual report to the BOG, this program utilizes Unimak Island as a control to compare trends in magnitude, abundance and

composition. Given that Unimak is an island and island populations perform in a manner unlike mainland populations, we find that the control is scientifically unacceptable.

Defenders supports the more targeted approach being utilized on the Southern Alaska Peninsula, whereby wolves active on calving grounds are taken by management personnel, as opposed to the broad and indiscriminant approach involving privately permitted citizens in other areas. However, we continue maintain that these programs generally lack adequately developed plans and underlying scientific study.

Predator control remains a controversial issue in Alaska. Only by clearly demonstrating that predator control is actually achieving stated goals, that habitat is not being over-utilized, and that predator populations and ecosystems are being adequately protected will ADF&G earn increased trust over this issue. This cannot be achieved in the absence of adequate data collection and management planning. The National Research Council (NRC) 1996 recommendations were aimed at improving management of Alaska's predator and prey populations. We will continue to oppose all predator control programs that do not meet the basic recommendations set by the NRC.

Thank you for considering our comments.

Sincerely,

Theresa Fiorino
Alaska Representative
Defenders of Wildlife

On Behalf of:

Valerie Connor
Conservation Director
Alaska Center for the Environment

John Toppenberg
Executive Director
Alaska Wildlife Alliance

The Alaska Center for the Environment (ACE) is a non-profit environmental education and advocacy organization, whose mission is to enhance Alaskans' quality of life by protecting wild places, fostering sustainable communities and promoting recreational opportunities. ACE advocates for sustainable policy on behalf of over 6,000 Alaskan members.

Founded in 1978, the Alaska Wildlife Alliance is the only group in Alaska solely dedicated to the protection of Alaska's wildlife. Their mission is the protection of Alaska's natural wildlife for its intrinsic value as well as for the benefit of present and future generations.

RC 23

Game Management Unit 15A
Intensive Management Feasibility Assessment

1) ***Purpose***

This report serves as a feasibility assessment (FA) for conducting Intensive Management (IM) actions in Game Management Unit 15A. The FA is premised on the ***Guidelines for intensive management of big game in Alaska*** recently created by the Alaska Department of Fish & Game (ADFG). The ADFG has formalized IM guidelines and FAs for areas considered for IM. The Board typically assesses feasibility prior to adopting an IM program. The Board is not required to adopt regulations to provide for an intensive management program per AS 16.05.255(f)(1) if a proposed IM program is:

(A) ineffective, based on scientific information
(B) inappropriate due to land ownership patterns
(C) against the best interest of subsistence uses

2) Definition of populations, recommended strategy, and measures of progress

The moose population in Unit 15A was identified as an IM population (5 AAC 92.108) when the IM law took effect. In 2000, the IM objectives for Unit 15A moose were established (5 AAC 92.108): the population objective is 3000–3500 moose with a harvest objective of 180–350. The moose population in Unit 15A has been below IM population objectives before the objective was established in 2000 and has not met objectives to date. The moose harvest in Unit 15A has been below the IM objective in 10 of the 11 years since the objective was established in 2000.

Based on thorough studies of the moose population response in Unit 15A to fire, which creates and improves moose browse, the management strategy for Unit 15A moose is to focus on improving habitat. While Unit 15A shows a rich history of fires over the past century, there has not been a habitat rejuvenating fire of any significant size in over 40 years. The large scale fires of 1947 (about 300,000 acres) and 1969 (about 80,000 acres) indicate that you obtain 20-25 years of quality moose habitat post fire. Currently, the deterioration of the available moose browse is obvious. The main measure of progress toward achieving the goal of improving moose habitat will be based on the size and frequency of future fires (both wildfire and controlled burns) and the concomitant (albeit delayed) response of moose to the fire.

A key consideration in the feasibility of any IM program for moose in Unit 15A whether through habitat enhancements (i.e., conducting controlled burns or not suppressing wildfires) or other IM activities is cooperation and collaboration with the principal land manager, the Kenai National Wildlife Refuge (KNWR), who manage 79% of the area of Unit 15A, which includes approximately 232,000 acres that is classified as Wilderness. There is an insignificant amount of State land in Unit 15A (12,500 acres or <2% of the total land in Unit 15A) to accomplish any meaningful IM actions alone without support from the KNWR. Any successful IM program must have support and cooperation of the KNWR.

3) Elements of feasibility assessment for moose in Unit 15A

A) Biological

I. Non-predation and non-hunting mortality

a) While severe winters (snow depths >36 inches) do occur in Unit 15A, they occur relatively infrequently and such weather events would not deter the long-

term recruitment of moose should the productivity of the population increase due to habitat improvements.

b) Vehicle caused mortality on moose in the southern portion of Unit 15A is significant and in the past decade has equaled roughly 35% of the combined human caused mortality of hunter harvest and known vehicle caused mortality. Furthermore, most of this vehicle caused mortality is on cows and calves, and, therefore, affects the productivity of the moose population more than the bull-only harvest. However, we do not believe that road-kills, given the limited road system in Unit 15A, would prevent the long-term recruitment of moose should the productivity of the population increase due to habitat improvements.

c) There is no known significant prevalence of disease or parasites in the Unit 15A moose population.

II. Access for predator reduction or ungulate harvest

Approximately 79% of Unit 15A is federal land managed by the KNWR. Access on the Refuge limits the use of off-road vehicles (motor boats, ATVs, airplanes, snowmachines) to various degrees. (Specific Refuge restrictions are listed in the Appendix A of this report).

a) The estimated availability of all-season roads: within the KNWR (and outside of the majority of the human-population areas around Soldotna, Kenai, Sterling, and Nikiski), the only access road is the Swanson River road that extends roughly 15 miles north of the Sterling Highway in the central portion of Unit 15A. There is also a seasonal gravel/dirt road (Mystery Creek Road) that extends north approximately 20 miles north of the Sterling Highway in the eastern portion of Unit 15A and it is typically closed from October - July.

b) The estimated amount of ATV trails is unknown but considering there is no ATV access on the KNWR and $<20 mi^2$ of State land in Unit 15A, the extent of ATV trails that provide significant access to the area is limited to the undeveloped and unmaintained trail (pipeline road) of about 30 miles which starts north of Captain Cook State Park on the northwest coast of Unit 15A and ends near Point Possession, all outside the KNWR boundaries.

c) The exact availability (in miles) of navigable rivers is unknown but is somewhat limited by the KNWR restrictions.

d) The feasibility of landing fixed-wing aircraft in winter throughout Unit 15A is somewhat limited due to KNWR restrictions.

e) The feasibility of ocean shoreline access is low considering the lack of sufficient moorings and high tidal action.

III. Potential effectiveness of predator control

a) Are there concentrated calving and/or rearing areas of ungulates that justify focused bear or wolf control? Concentrations are unknown.

b) Are there concentrated winter ranges of ungulates suitable for focused wolf control? The areas of highest winter moose concentrations are along the human residential areas. However, the current low density of moose in Unit 15A is due to the poor quality of the habitat. If predator densities were reduced to increase moose numbers without concomitant wide-spread improvements to the habitat, any increases to moose survival would further increase the nutritional stress of the moose population thereby reducing productivity. Although the moose population has declined about 50% in the past 2 decades, the moose density in Unit 15A is currently (the last census was conducted in 2008) about 1.3 moose/mi^2, which is within the density objectives of many moose populations around the State.

IV. Potential effectiveness of predator control through public participation

a) Number of communities and residents within proposed management area. Soldotna , Kenai, Sterling, and Nikiski are the major communities in Unit 15A and comprise the vast majority of the approximate 50,000 human population on the Kenai Peninsula.

b) Estimated wolf harvest rate. While we do not have data to allow such a calculation of harvest rate, the approximate harvest rate according to the best available data shows a harvest rate of approximately 20-25% of the fall population the 3 most recent Regulatory Years. The exact harvest rate is unknown, but the average harvest is about 10 wolves per Regulatory Year.

c) Estimated black bear harvest rate. We do not know current black bear densities. If we use densities calculated in the 1980s, the yearly harvest rate in Unit 15A would be approximately 7-9%. The exact harvest rate is unknown.

d) Estimated grizzly/brown bear harvest rate. We do not know brown bear densities and brown bears are known to have large ranges that extend outside of the Unit 15A boundary. Without an approximate density and knowing that Unit 15A is not a closed population, we are unable to calculate the harvest rate of brown bears.

V. Ability to confirm treatment response in treatment (e.g., predator control, habitat enhancement, or non-typical harvest) areas with data from nearby and comparable untreated areas through assessment of:

a) Fall composition surveys for young to adult female ratio. We would have this index for moose in Unit 15A to compare with past data.

b) Fall composition surveys for yearling to adult female ratio. We would have this index for moose in Unit 15A to compare with past data.

c) Other metrics? We could also estimate population size of moose in Unit 15A as an overall measure of a treatment response.

B) Societal elements: define hunting conflicts (e.g., constraints to access, acceptable methods, and harvest expectations) and public tolerance for intensive management practices

Overall potential to mitigate hunting conflicts is low considering limitations on access and lack of State land (<2% of land in Unit 15A).

I. Expectation for target ungulate harvest that may limit ability of the Department to control growth of ungulate populations for managing nutritional condition or public conflicts.

The ADFG believes that should the productivity of the moose population in Unit 15A improve due to wide-scale habitat improvements, the Area Managers would plan to increase the harvest through gender and age specific harvests similar to what is being achieved in Unit 20A. The ADFG predicts that a harvest based on nutritional constraints and maximized productivity would be supported by the public.

The Department would like the Board of Game to consider changes to the IM population and harvest objectives as the population responds to habitat enhancement to maximize the productivity of the moose population for the greatest time period. While access is limited by the KNWR, hunters would certainly maximize their hunt success across much of Unit 15A.

There are certainly constraints regarding public acceptance of both controlled burns and wildfire. Fire threats to residential areas would and should limit the use of fire near residences. However, even in remote areas (i.e., federal wilderness designations with limited suppression), health and aircraft safety issues associated with smoke both on the Kenai Peninsula and Anchorage has and will result in the suppression of fires that may have burned without any threat to residential areas or established oil/gas structures on the KNWR.

II. Land Ownership that may restrict access for predator control or ungulate harvest.

The KNWR manages approximately 79% of the land in Unit 15A, which includes 232,000 acres designated Wilderness. Because the KNWR would likely not support any form of predator control on their lands, there is no foreseeable issue regarding public acceptance of predator control methods. The fact that <2% of State land exists in Unit 15A prevents the efficacy of predator control outside of Federal land in Unit 15A.

C. Economic elements define estimated costs of management programs and expectations for public participation in predator control programs for comparison to perceived benefits.

Considering that the IM activities that are needed are controlled burns or non-suppression of wildfire, there is no anticipated public participation based on expense and other factors. We do not believe that hunter participation after an increase in the moose productivity following wide-scale habitat improvements will be an issue. While hunter access is restricted to some degree in the KNWR, there are enough access points that hunters would certainly take advantage of increase hunting opportunities.

There are obviously costs associated with managing fires or conducting controlled burns. These costs are substantial and would be incurred by the land manager and State Forestry.

Because the KNWR would not support any form of predator control on their lands, there is no foreseeable issue regarding expense (public or other) for predator control methods. The fact that <2% of State land exists in Unit 15A prevents the efficacy of predator control outside of Federal land in Unit 15A.

4) Availability of biological and harvest information on population status of predators and ungulate species for modeling ungulate population growth rates and time until increase in harvest of ungulates is feasible

Sufficient data would be available to model moose population growth in order to design an effective management plan. Periodic abundance surveys and yearly composition counts have been and will be available metrics for managers. Furthermore, when moose productivity increases following wide-scale habitat improvements, the Department would likely increase efforts to monitor productivity (e.g., pregnancy rates, body condition, parturition rates, etc.). Harvest has and will be monitored in the future.

Little data exists for predator densities in Unit 15A. While moose predation by wolves and bears certainly occurs, the moose population in Unit 15A is currently limited by habitat conditions. There is an abundant body of literature from studies conducted in Unit 15 that document the response of moose to habitat conditions after fire. Roughly 20 years post-fire, moose have reached their maximum numerical response to the improved habitat and at 40 years post-fire due to the successional advance of the moose browse, moose densities are back down to densities before the fire. If predator densities were reduced to increase moose numbers without concomitant wide-spread improvements to the habitat, any increases to moose survival would further increase the nutritional stress of the moose population thereby reducing productivity. Although the moose population has declined about 50% in the past 2 decades, the moose density in Unit 15A is currently about 1.3 moose/mi^2, which is within the density objectives of many moose populations around the State. Area managers will closely monitor available browse after fire to determine browsing pressure that will determine along with other measures how to maximize hunting pressure to keep the moose population below carrying capacity and, therefore, at its maximum productivity.

5) Overall potential to increase moose harvest in Unit 15A within 6 years is low. The ability to document reasons for success or failure is high

The current moose population in Unit 15A is clearly limited by habitat conditions. Any increases in the productivity and population size of moose in Unit 15A will be dictated by the frequency and size of any future fires. Due to the unpredictable nature of wildfire, the constraints imposed by the KNWR for fire suppression, and the cost and risks imposed by controlled burns, it is not realistic to predict the occurrence of a significant fire that would improve the current status of moose in Unit 15A. The ADFG and the Board of Game can maintain open dialogue with the KNWR and the State Division of Forestry regarding fire suppression and controlled burn issues but neither the ADFG nor the Board of Game has the authority to make determinations on fire management decisions.

Because the primary limiting factor affecting the moose population in Unit 15A is poor habitat conditions and because <2% of the land in Unit 15A is State owned, there is little justification for pursuing IM actions with predator control.

The potential to achieve IM objectives in the defined period should be defined as:

a) Population increase in ungulates required to reach lower IM population objective equals approximately a 50% increase.

b) Percentage increase in average estimated harvest (last 3 RYs) to reach lower IM harvest objective equals approximately a 68% increase

6) Recommendations for public involvement to define measures of success, acceptable methods for enhancing populations and harvest, and risk tolerance

Considering wildfire and controlled burns are the main mechanisms needed to bring the moose population in Unit 15A back within IM objectives, the public is somewhat limited in what their involvement can be. Certainly public acceptance of installing fire breaks along the Refuge borders, tolerance of smoke from fires, and other measures to reduce the choice of fire suppression by the Refuge and State Forestry is welcomed and encouraged. Furthermore, public tolerance and encouragement of the Refuge and State Forestry to conduct controlled burns would be beneficial and may also help land managers make decisions not to suppress fires in areas designated under limited suppression.

There is a trade-off with improving moose habitat via fire. Typically, threats to structures (e.g., homes, oil/gas infrastructure, power lines, etc.), hazards associated with smoke (e.g., health, aircraft safety), and demands of fire crews throughout the state quickly trump desires to rejuvenate moose habitat. Certainly, fires that threaten human health and safety are and should be justifiably suppressed. However, under certain favorable conditions, the fires that occur in isolated areas with designations under limited suppression should receive the support by the public and land managers to burn. Public input and demand in these circumstances may help influence land managers in allowing certain fires to burn.

Summary

Considering the land ownership patterns in Unit 15A and the lack of a significant fire during the past 40 years, addressing the question of whether the "enhancement of abundance or

productivity of the big game prey population is feasibly achievable utilizing recognized and prudent active management techniques" [AS 16.05.255(e)(3)] , the Department believes that traditional IM practices are not feasible. The Department does intend to foster a cooperative relationship with the KNWR and to help ensure the State has a voice in encouraging the use of controlled burns and limited suppression of wildfire to improve the status of moose habitat in Unit 15A.

The Board is not required to adopt regulations to provide for an intensive management program per AS 16.05.255(f)(1) if a proposed IM program is: (A) ineffective, based on scientific information, (B) inappropriate due to land ownership patterns, (C) against the best interest of subsistence uses. The Department believes that traditional predator control actions would be ineffective in helping the moose population given the current poor condition of the habitat. Furthermore, the Department acknowledges that 79% of the land is managed by the KNWR who may reject any predator control programs on their land; and <2% of Unit 15A is State land which would be available for IM activities.

Appendix A. Description of restrictions on the KNWR that pertain to Unit 15A

1.) Aircraft

The operation of aircraft on the Kenai NWR, except in an emergency, is permitted only as authorized in designated areas as described below. These areas are also depicted on a map available from refuge headquarters.

Within the Canoe Lakes, Andy Simons, and Mystery Creek Units of the Kenai Wilderness, only the following lakes are designated for airplane operations:

Canoe Lakes Unit

Pepper, Gene, and Swanson Lakes are only open for sport ice fishing.

Scenic Lake	Grouse Lake	Snowshoe Lake
Nekutak Lake	King Lake	Wilderness Lake
Shoepac Lake	Bedlam Lake	Mull Lake
Norak Lake	Taiga Lake	Tangerra Lake
Bird Lake	Cook Lake	Sandpiper Lake
Vogel Lake		

Mystery Creek Unit

An unnamed lake in section 11, T. 6 N., R. 5 W., S.M., AK.

(B) Airplanes may operate on all lakes outside the Kenai Wilderness except those lakes with recreational developments, including, but not limited to, campgrounds, campsites, and public hiking trails connected to road waysides. The non-wilderness lakes closed to aircraft operations are as follows:

North of the Sterling Highway

Cashka Lake	Rainbow Lake	Anertz Lake
Dolly Varden Lake	Dabbler Lake	Weed Lake
Nest Lakes	Lily Lake	Silver Lake
Mosquito Lake	Forest Lake	Breeze Lake
Watson Lake	Upper Jean Lake	Imeri Lake
Afonasi Lake		

All lakes in the Skilak Loop Area (South of Sterling Highway and North of Skilak lake) are closed to aircraft except that airplanes may land on Bottenintnin Lake, which is open year-around and Hidden Lake, which is only open for sport ice fishing.

(ii) Notwithstanding any other provision of these regulations, the operation of aircraft is prohibited between May 1 and September 30, inclusive, on any lake where nesting trumpeter swans and/or their broods are present except Scenic and Lonesome Lakes where the closure is between May 1 and September 10, inclusive.

(iii) the operation of wheeled airplanes, at the pilot's own risk, is authorized on the unmaintained Big Indian Creek Airstrip

(iv) Unlicensed aircraft are permitted to operate on the refuge only as authorized by a special use permit from the refuge manager.

(v) Airplanes may operate only within designated areas on the Chickaloon Flats, as depicted on a map available from the refuge manager.

(vi) Airplane operation is permitted on the Kasilof River, the Chickaloon River outlet, and the Kenai River below Skilak Lake from June 15 through March 14. All other rivers on the refuge are closed to aircraft.

2). Motorboats

Motorboats are authorized on all waters of the refuge except under the following conditions and within the following areas:

(i) Motorboats are not authorized on lakes within the Canoe Lakes Unit of the Kenai Wilderness except those lakes as designated for airplane operations as described on a map available from the refuge manager. Boat motor use is not authorized on those portions of the Moose and Swanson Rivers within the Canoe Lakes Unit of the Kenai Wilderness.

(ii) That section of the Kenai River from the outlet of Skilak Lake downstream for three miles is closed to motorboat use between March 15 and June 14, inclusive. However, any boat having a motor may drift or row through this section provided the motor is not operating.

(iii) That section of the Kenai River from the power line crossing located approximately one mile below the confluence of the Russian and Kenai Rivers downstream to Skilak Lake is closed to motorboats. However, any boat having a motor attached may drift or row through this section provided the motor is not operating.

(iv) Motors in excess of 10 horsepower are not authorized on the Moose, Swanson, Funny, Chickaloon (upstream of river mile 7.5), Killey, and Fox Rivers.

(v) A "no wake" restriction applies to Engineer, Upper and Lower Ohmer, Bottenintnin, Upper and Lower Jean, Kelly, Petersen, Watson, Imeri, Afonasi, Dolly Varden, and Rainbow Lakes.

(vi) Notwithstanding any other provisions of these regulations, operation of a motorboat is prohibited between May 1 and September 30, inclusive, on any lake where nesting trumpeter swans and/or their broods are present, except Windy, Scenic, and Lonesome Lakes where the closure is between May 1 and September 10, inclusive.

3. Off-road vehicles

(i) The use of air cushion, airboat, or other motorized watercraft, except motorboats, is not allowed on the Kenai NWR, except as authorized by a special use permit from the refuge manager.

(ii) Off-road vehicle use, including operation on lake and river ice, is not permitted. Licensed highway vehicles are permitted on Hidden, Engineer, Kelly, Petersen, and Watson Lakes for ice fishing purposes only, and must enter and exit lakes via existing boat ramps.

4. Snowmachines

Operation of snowmobiles is authorized on the Kenai NWR subject to the following conditions and exceptions:

(i) Snowmobiles are permitted between December 1 and April 30 only when the refuge manager determines that there is adequate snow cover to protect underlying vegetation and soils. During this time, the manager will authorize, through public notice, the use of snowmobiles less than 46 inches in width and less than 1,000 pounds (450 kg) in weight. Designated snowmobile areas are described on a map available from the refuge manager.

(ii) All areas above timberline are closed to snowmobile use.

(iv) An area, including the Swanson River Canoe Route and portages, beginning at Paddle Lake parking area, then west and north along the Canoe Lakes wilderness boundary to the Swanson River, continuing northeast along the river to Wild Lake Creek, then east to the west shore of Shoepac lake, south to the east shore of Antler Lake, and west to the beginning point near Paddle Lake, is closed to snowmobile use.

(v) An area, including the Swan lake Canoe Route, and several road-connected public recreational lakes, bounded on the west by Swanson River Road, on the north by the Swan Lake Road, on the east from a point at the east end of Swan lake Road south to the west bank of the Moose River, and on the south by the refuge boundary, is closed to snowmobile use.

(vi) Within the Skilak Loop Special Management Area, snowmobiles are prohibited except on Hidden, Kelly, Petersen, and Engineer Lakes for ice fishing access only. Upper and Lower

Skilak Lake campground boat launches may be used as access points for snowmobile use on Skilak Lake.

(vii) Snowmobiles may not be used on maintained roads within the refuge. Snowmobiles may cross a maintained road after stopping and when traffic on the roadway allows safe snowmobile crossing.

WHO IS LIKELY TO BENEFIT? All users, both consumptive and non-consumptive will benefit in the long term. There may not be an immediate benefit, but if nothing is done, our moose population will continue to decline, resulting in lost opportunities for all users.

WHO IS LIKELY TO SUFFER? Hunters will continue to suffer lost harvest opportunities until the bull to cow ratio and overall population improves.

OTHER SOLUTIONS CONSIDERED: Eliminate only the fork regulation and allow the harvest of spike-antler bulls. This would allow some additional harvest opportunity, but would not be as effective and swift as a recovery effort. This would also be likely to be confusing to hunters in adjoining subunits in discerning multiple regulations.

PROPOSED BY: Kenai/ Soldotna Fish and Game Advisory Committee

LOG NUMBER: EG110310146
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PROPOSAL 174 - 5 AAC 92.125(o). Predation control areas implementation plans.
Approve a habitat based intensive management plan for the Unit 15A Northern Kenai Intensive Management Area.

Unit 15(A) encompasses 1314 square miles (840,960 acres) and includes all of unit 15A. Approximately 80 percent of the land mass in Unit 15(A) is managed by the Kenai National Wildlife Refuge. Notwithstanding any other provisions in this title, and based on the following information contained in this section, the commissioner or the commissioner's designee may conduct an intensive management program on the Kenai Peninsula in Unit 15(A):
(1) the discussion of wildlife population and human use information is a follows:
(A) the Northern Kenai Peninsula moose population information is as follows:
(i) the most recent moose population peak occurred in 1971; the near absence of wolves from 1913-1968, and the increased moose productivity following the 1947 wildfire (approx. 309,000 acres) were two events that led to increased moose numbers throughout the 1950's and 1960's; although harvest seasons were long and either-sex harvest was allowed, the moose population increased beyond carrying capacity and extensive over-browsing occurred by the late 1960's,
(ii) a wildfire in 1969 (approx. 79,000 acres) that initially reduced moose habitat in Unit 15(A), coupled with harsh winters in 1971-1974, caused the moose population in Unit 15(A) to decrease by 59 percent (from 5298 to 2175) by 1975; after the low number in 1975, new habitat created by the 1969 burn and more favorable winter conditions allowed the Unit 15(A) moose population to grow until the mid-1990's; the ADF&G conducted moose censuses in Unit 15(A) during February of 1991, 2001, and 2008 with respective point estimates of 3432, 2068, and 1670;
(iii) since 1991 moose harvests followed a similar pattern, with annual variations; the peak reported harvest during this period (1991-2008) was 271 animals in 1998 and the 2008 reported harvest was 113 moose.
(iv) 75 percent of the collared adult cows in Unit 15(A) were pregnant in March 2007, as identified from blood samples; this compares to pregnancy rates of 85-90 percent in the sub-alpine portion of Unit 7 which is adjacent to Unit 15(A); lower pregnancy rates in the lower elevations indicate habitat may be the limiting the growth of the population;

(v) the percent calves measured from fall surveys in the moose population for Unit 15(A) is about half of what it was during the 1990's (down from 20 percent in 2001 to 12 percent in 2008).
(vi) over-all bull ratios have been consistent since the 1990's.
(vii) the intensive management objectives for moose are as follows: moose population objective of 3,000—3,500 moose; harvest objective of 180-350 moose.
(2) the predator population and human use information is as follows
(A) wolves are a major predator of moose on the Kenai Peninsula;
(i) the wolf population in Unit 15(A) is believed to be stable; anecdotal evidence obtained from biologists, pilots, trappers, and local residents indicates that the wolf population is healthy throughout the area;
(ii) an average of 8 wolves (range of 2 to 16 wolves) have been harvested annually in Unit 15(A) since 1991/92;
(B) brown bears are also considered to be a predator of moose on the Kenai Peninsula,
(i) the extent of their predation has not been documented; while brown bears have been known to kill adult moose opportunistically, brown bears are regarded as an effective predator of calves during the first 6 weeks of life;
(ii) anecdotal information combined with available data indicate the Northern Kenai Peninsula supports a healthy brown bear population.
(iii) human caused brown bear mortalities in Unit 15(A) have averaged 7 (range, 1--16) brown bear annually from 2000 to 2008;
(C) black bears are also an important predator of moose calves during the first 6 weeks of life;
(i) black bears are considered abundant in Unit 15(A) with a 1991 population estimate of 205 black bears/1000km^2 in the area of the 1947 burn and 265 black bears/1000km^2 in the area of the 1969 burn,
(ii) black bear harvests have averaged 44 bears annually during 1991/92 – 2007/08; this compares to an annual average of 27 bears from 1973/74-1977/78;
(3) the prey population and human use information is as follows
(A) moose habitat information is as follows:
(i) the history of fire on the Kenai Peninsula has generally involved human caused fires. Natural fires from lightning strikes are rare, but have increased in frequency in recent years.
(ii) the Kenai National Wildlife Refuge initiated a fire management program in 1985 based in part from the objectives set in their moose habitat management plan.
(a) since 1970, wildfires have only burned about 10,000 acres in Unit 15(A);
(b) since 1995, controlled burns have encompassed 1795 acres in Unit 15(A);
(B) moose population objectives for Unit 15(A) are to maintain 3,000-3,500 moose; the moose population objective for Unit 15(A) is not currently being met;
(4) the commissioner may initiate a habitat enhancement program with the concurrence of relevant land owners to increase the moose population to meet the following objectives:
(A) the post hunting bull-to-cow ratio can be sustained within management objectives of at least 20 bulls per 100 cows.
(B) the fall calf-to-cow ratio can be sustained above 30 calves per hundred cows; or
(C) pregnancy rates above 85-90 percent for adult cows ;
(D) the population can grow at a sustained rate of 5 percent annually until intensive management objectives are met;
(5) the anticipated time frame and schedule for update and reevaluation are as follows:
(A) for up to 10 years beginning July 1, 2010,

(B) annually the Department shall, to the extent practicable, provide to the board a report of program activities conducted during the preceding 12 months, including implementation activities, the status of the moose population, and recommendations for changes, if necessary to achieve the objectives of the plan.

ISSUE: The Unit 15A moose population and harvest has been below Intensive Management objectives since 1999.

WHAT WILL HAPPEN IF NOTHING IS DONE? The Unit 15A moose population and harvest will likely stay below Intensive Management objective.

WILL THE QUALITY OF THE RESOURCE HARVESTED OR PRODUCTS PRODUCED BE IMPROVED? Yes. The moose population should increase and more moose should be available for harvest.

WHO IS LIKELY TO BENEFIT? Hunters and wildlife viewers who would like more moose in Unit 15A.

WHO IS LIKELY TO SUFFER? Potentially motorists and home owners. If the population grows considerably, we will likely see an increase in moose/vehicle collisions and have more nuisance moose issues.

OTHER SOLUTIONS CONSIDERED? Reducing moose hunting opportunities in Unit 15A.

PROPOSED BY: Alaska Department of Fish and Game at the request of the Board of Game

LOG NUMBER: ADFG113010QQ
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PROPOSAL 175 - 5 AAC 92.080. Unlawful methods of taking game; exceptions. Allow the use of artificial light to hunt predators in Units 15 and 7.

I would like the Board of Game to adopt a policy that would enable hunting of predators with artificial lighting. This policy would allow predator hunters to use artificial light to aid in harvesting black bear, coyote, and wolves in 15 and 7. Artificial lighting would be made legal for predator calling on the peninsula during all night hours.

ISSUE: Predators are causing a severe decline in the moose population on the Kenai. Wolf, coyote, and black bear all contribute to the decline of the calf population. Current methods of harvesting these predators is not having a significant impact on their population. Currently we are allowed to bait black bear under a permit for a specified period of time. As hunters we can hunt wolves and coyote through "predator calling" during day light hours for a specified period of time.

The Board of Game has to address the impact of the predator population on the Kenai. Failure to do so is irresponsible on their part.