ALASKA BOARD OF GAME
Policies and Resolutions

2010

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#2005-160-BOG	Finding of Emergency: Methods of Harvest for Hunting Small Game in the Skilak Loop Special Management Area of the Kenai National Wildlife Refuge

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#2005-156-BOG	Supporting Joint Federal and State Deer Harvest Reporting
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#2003-145-BOG	Authorization of Airborne Shooting in Unit 19D East Predation Control Program
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#2003-139-BOG	A resolution of the Alaska Board of Game Concerning Management of Kenai Peninsula Brown Bear Mortality

2002

#2002-138-BOG	Request to US Forest Service re: Management of Guided Brown Bear Hunting in Unit 4
#2002-137-BOG	Unit 1C Douglas Island Management Area Findings
#2002-136A-BOG	Unit 1D Brown Bear Drawing Hunt Finding
#2002-136-BOG	Government to Government Relations with Tribes in Alaska

2001

#2001-135-BOG	Resolution concerning Unit 19D-East Adaptive Management Team Work

2000

#2000-134-BOG	Unit 4 Brown Bear Management Team Findings
#2000-133-BOG	Habituation of Wildlife (unsigned – left in draft)
#2000-132-BOG	Reaffirm Resolution re: Management of Alaska's Fish and Game Resources/Ballot Initiative Process
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#2000-130-BOG	Resolution re: Support of the Conservation and Reinvestment Act of 1999

1999

#99-129-BOG	Snow Machine Use in the Taking of Caribou

1998

#98-128-BOG	Findings on Elk Management in Region I
#98-127-BOG	Findings on Commercial Guiding Activities in Alaska
#98-126-BOG	Emergency Findings – Moose in Unit 25B and Unit 25D
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#98-122-BOG	1998 Intensive Management Findings: Interior Region
#98-121-BOG	Findings: HB 168, Traditional Access
#98-120-BOG	Resolution re: Ballot Initiative Banning Use of Snares
#98-119-BOG	Trapping and Snaring of Wolves in Alaska
#98-118-BOG	Customary and Traditional Use of Musk Ox in Northwest Unit 23

1997

#97-117-BOG	Customary and Traditional Use of Musk Ox on the Seward Peninsula
#97-116-BOG	Dall Sheep Management in the Western Brooks Range
#97-115-BOG	Resolution supporting Co-management of Alaska's Fish and Game Resources
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#97-107-BOG	Findings re: Wanton Waste on the Holitna and Hoholitna Rivers

1996

#96-106-BOG	Delegation of Authority re: Issuing Permits to Take Game for Public Safety Purposes
#96-105-BOG	Delegation of Authority to Implement Ballot Measure #3

#96-104-BOG	Finding of Emergency re: Western Arctic Caribou Herd
#96-103-BOG	Findings – Antlerless Moose in Unit 20A
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#96-101-BOG	Findings – Intensive Management for GMU 19D East
#96-100-BOG	Establishment of the Nenana Controlled Use Area
#96-99-BOG	Moose Populations in Unit 26A
#96-98-BOG	Taking Big Game for Certain Religious Ceremonies
#96-97-BOG	Forty Mile Caribou Herd Management Plan
#96-96-BOG	Finding of Emergency – Moose in Remainder of Unit 16B

1995

#95-95-BOG	Resolution – Wildlife Diversity Initiative
#95-94-BOG	Resolution – Change Name of McNeil River State Game Refuge to Paint River State Game Refuge
#95-93-BOG	Requiring License Purchase in advance
#95-92-BOG	*Open Number*
#95-91-BOG	Delegation of Authority – Comply with Alaska Supreme Court Opinion in Kenaitze vs. State
#95-90-BOG	Board Travel Policy
#95-89-BOG	Findings – Noatak Controlled Use Area
#95-88-BOG	Delegation of Authority to Increase Bag Limits in Unit 18 for Mulchatna and Western Arctic Caribou Herds
#95-87-BOG	Subsistence Needs for Moose in Unit 16B
#95-86-BOG	Findings on Intensive Management in Unit 19D
#95-85-BOG	Findings on Intensive Management in Unit 20D
#95-84-BOG	Findings on Intensive Management in Unit 13
#95-83-BOG	Resolution: Subsistence Use on National Park Lands
#95-82-BOG	"No Net Loss" Policy for Hunting and Trapping Opportunities
#95-81-BOG	Resolution: Remove Federal Management of F&W on Public Lands and Waters
#95-80-BOG	Resolution to Legislature to Define Subsistence

1994

#94-80A-BOG	Wolf Predation Control Program in Unit 20A
#94-79-BOG	Delegation to Commissioner to Adopt Regulations Resulting from Kenaitze Decision which Invalidates Nonsubsistence Areas
#94-78-BOG	Addendum to Findings on Unit 16B Moose
#94-77-BOG	Resolution on SB325 (Repeal Antlerless Moose Statute)

1993

#93-76-BOG	Findings on McNeil River Refuge Bears
#93-75-BOG	Resolution on Adak Caribou
#93-74-BOG	Delegation of Authority for Permits to Take Furbearers with Game Meat
#93-73-BOG	Delegation of Authority to Make Emergency Regulations Permanent, Moose in Unit 19D
#93-72-BOG	Wolf Control Findings – Delta Area

#93-71-BOG	Resolution on Round Island Walrus Hunt
#93-70-BOG	Findings on Unit 16B Moose Seasons and Bag Limits
#93-69-BOG	Resolution on Popof Island Bison
#93-68-BOG	Resolution on Commercialization of Moose
#93-67-BOG	Resolution on Elk Transplants in Southeast
#93-66-BOG	Resolution on Clear-cut Management in the Tongass National Forest

1992

#92-65-BOG	Findings in Units 12, 20B, D, and E on Wolves
#92-64-BOG	Findings in Unit 20A Wolves
#92-63-BOG	Findings in Unit 13 Wolves
#92-62-BOG	Findings Wolf Area Specific Management Plans for Southcentral and Interior
#92-61-BOG	Resolution on Unit 13 Moose
#92-60-BOG	Findings Unit 13 Moose Seasons and Bag Limits
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#92-58-BOG	Findings on Kilbuck Caribou re Fall Hunt
#92-57-BOG	Report of the Board of Game, Area Specific Management Plans for Wolves
#92-56-BOG	Relating to Moose in GMUs 19A and 19B per Superior Court order in Sleetmute vs. State
#92-55-BOG	Relating to Endorsement of State Closure of Deer Hunting in GMU 4 and Requesting Federal Closure

1991

#91-54-BOG	Findings on Strategic Wolf Management Plan
#91-54a-BOG	Relating to Kilbuck Caribou Management Plan
#91-53-BOG	Relating to Taking of Walrus from Round Island by Residents of Togiak
#91-53a-BOG	Board Direction to Committee for Strategic Wolf Plan
#91-52-BOG	Findings on Unit 13 Moose Season and Bag Limits

1990

#90-51-BOG	Findings on Strategic Wolf Management Plan
#90-50-BOG	Relating to Kilbuck Caribou Management Plan
#90-49-BOG	Findings on Kwethluk Emergency Caribou Hunt Petition
#90-48-BOG	Relating to the Use of Furbearers by Rural Alaskans, Including Alaska Natives
#90-47-BOG	Relating to the Commercialization of Moose and other Wildlife
#90-46-BOG	Relating to Destruction of Moose by the Alaska Railroad

1989

#89-45-BG	Delegation of Authority to Adopt Waterfowl Regulations

1988

#88-44-BG	Delegation of Authority for March 1988 Meeting
#88-43-BG	Resolution Supporting Funding for Division of Game

1987

#87-42d-BG	Procedures for Delegations of Authority (Replacing #75-2-GB)
#87-42c-BG	Delegation of Authority to Correct Technical Errors
#87-42b-BG	Delegation of Authority to Correct Technical Errors Before Filing Regulations
#87-42a-BG	Delegation of Authority to Adopt Emergency Regulations (Replacing #75-3-GB)

1986

#86-41-BG	Finding of Emergency: New State Subsistence Law
#86-40-BG	Delegation of Authority

1985

#85-39-GB	Resolution on Resources v/s Logging
#85-38-GB	Findings: Madison vs. State Requirements
#85-37-GB	Lime Village Management Area Findings
#85-36-GB	Findings: Waterfowl hunting in and near Palmer Hayflats

1984

#84-35-GB	Resolution on Waterfowl Stamp
#84-34-GB	Transplant of Musk Ox to Nunivak Island

1983

#83-33-GB	Resolution on Guide Board
#83-32-GB	Findings on Moose in GMU 16B

1982

#82-31-GB	Supplement to Wolf Population Control

1981

#81-30-GB	Findings and Policy Regarding Nelchina Caribou
#81-29-GB	Finding and Policy for Future Management of the Western Arctic Caribou Herd
#81-28-GB	Letter of Intent: Wolf Reduction in Alaska

1980

#80-27-GB	Letter of Intent Regarding Use of Alaska's Game for Religious Ceremony
#80-26-GB	Findings and Policy Regarding Bowhunting
#80-25-GB	Standing Committee II on Deer
#80-24-GB	Regarding Advisory Committee Coordinators

1979

#79-23-GB	Authorization to Export Animals from Alaska
#79-22-GB	Staff Directive to Subsistence Section

#79-21-GB	Relating to Brown Bear in GMU 4
#79-20-GB	Relating to Brown Bear in GMU 4
#79-19-GB	Brown Bear, GMU 4
#79-18-GB	Relating to Muskoxen

1978

#78-18-GB	Statement of Direction: Use of Airplanes in Controlling Predation by Wolves
#78-17-GB	Relating to (d)(2) Legislation, State's ability to Manage Fish & Wildlife Resources
#78-16-GB	Relating to (d)(2) Legislation, State's ability to Manage Fish & Wildlife Resources

1977

#77-15-GB	Delegation of Authority to Commissioner to Address Petitions
#77-14-GB	Repeal of Regulations Relating to Registration of Camps by Guides for Hunting Bears
#77-13-GB	Regarding Closed Season for Caribou (rescinded November 30, 1977)
#77-12-GB	Regarding the 17(d)(2) Land Settlement

1976

#76-11-GB	Trapping Wolves by ADF&G
#76-10-GB	Request for Public Safety Involvement in Enforcement of Caribou Regulations
#76-9-GB	Management Goal: Western Arctic Caribou
#76-8-GB	Export of Live Game Animals Outside of Alaska
#76-7-GB	Musk Ox to Anchorage Children's Zoo (rescinded November 30, 1977)
#76-6-GB	Taking of Wolves by Helicopter
#76-5-GB	Regarding the Taking of Wolves in Units 23 and 26A

1975

#75-4-GB	Endorsement of Trapping as a Legitimate Use of Renewable Resources
#75-3-GB	Delegation of Authority to Adopt Emergency Regulations (See #87-42a-GB)
#75-2-GB	Procedures for Delegations of Authority (See #87-42d-GB)
#75-1-GB	Effectuating Delegation of Authority

ALASKA BOARD OF GAME
2010-183-BOG

Harvest of Game for Customary and Traditional
Alaska Native Funerary and Mortuary Religious Ceremonies
February, 2010

1. Throughout the State of Alaska, Alaska Native cultures continue to rely on many species of fish, game, and other wild resources as important components of customary and traditional Alaska Native funerary and mortuary religious ceremonies.

2. Although customs and traditions vary across the state and from culture to culture, the Board has been able to determine that a few principles appear to be consistent in all such ceremonies.

3. One consistent principle is that each ceremony is associated with a particular village, clan, or other group recognized as a cohesive unit by Alaska Native people. A ceremony is not a "customary and traditional Alaska Native funerary or mortuary religious ceremony" unless it is associated with a particular village, clan or other Alaska Native group and performed in accordance with their self-defined customs and traditions.

4. Another consistent principle is that these ceremonies involve consumption of, ideally, a wide variety of wild foods that are customarily and traditionally consumed by members of the village, clan, or other Alaska Native group in their particular locality. While store-bought foods are also often important, hunters for these ceremonies tend to focus their efforts on obtaining species that are viewed as customary and traditional foods with spiritual and cultural meaning, rather than introduced species. The species listed with "positive" findings in 5 AAC 99.125 are a comprehensive list of species that are more or less important for customary and traditional Alaska Native funerary and mortuary religious ceremonies outside of non-subsistence areas where such findings are not made. A similar range of species are traditionally harvested for these ceremonies in non-subsistence areas, however.

5. A third consistent principle is that participants where hunting to provide food for these ceremonies participate because of relationships they have to the deceased and the deceased's family, clan, or community through birth, marriage, adoption, or other social processes recognized by Alaska Native groups.

6. Although traditions vary by community and cultural groups, throughout Alaska, traditional laws govern the initiation and organization of customary and traditional Alaska Native funerary and mortuary religious ceremonies. For example, these traditional laws stipulate who may initiate and organize these ceremonies based upon genealogical or other social relationships with the deceased.

7. The Board of Game recognizes that customary and traditional Alaska Native funerary and mortuary religious ceremonies are constitutionally protected activities that must be

accommodated, absent a contrary and compelling state interest that may not otherwise be served. When presented with requests to accommodate specific ceremonies, the Board will attempt to develop regulations specific to those ceremonies. 5 AAC 92.019 is the Board's effort to accommodate customary and traditional Alaska Native funerary and mortuary religious ceremonies that have not yet been specifically provided for.

Vote: 7-0
February 1, 2010
Anchorage, Alaska

Cliff Judkins, Chairman
Alaska Board of Game

Findings for the Alaska Board of Game
2008-176-BOG

Units 16A and 16B Intensive Management Supplemental Findings
Mar 21, 2008

The Board of Game finds as follows, based on information provided by Department staff, Alaska residents and users of moose in Units 16A and 16B. These findings are supplemental to the findings set forth in 2006-167-BOG, 2006-164-BOG, 5AAC 92.108, and in the predator control implementation plan in 5AAC 92.125(d).

1. The moose population size, currently estimated to be 3193-3951 moose in Unit 16B, is less than the population objective of 6,500-7,500 moose. The population objective has not been achieved for at least the last 11 years.

2. The unit 16B moose harvestable surplus, as described in 5AAC 92.106(3) (A), currently (2008) estimated at 171 bulls, is less than the harvest objective of 310-600 moose. The harvest objective has not been achieved for at least 8 years.

3. The unit 16B moose population is, thus, depleted and reduced in productivity, which has resulted in a significant reduction in the allowable human harvest of the population.

4. Enhancement of abundance or productivity of moose is feasibly achievable utilizing the recognized and prudent active management techniques of predator control.

5. The Board has repeatedly, since 1990 been required to significantly reduce the taking of moose in Unit 16B by restricting harvest, seasons and bag limits as compared to the level and timing of hunting opportunity that was allowed when the population was not depleted and reduced in productivity.

6. The population and harvest objectives have not been achieved, at least in part, because wolf, black and brown bear predation have been important causes of mortality in the population, to the extent that the population is unlikely to recover, and objectives are unlikely to be achieved, in the foreseeable future unless predator control is conducted.

7. Subpopulations of moose from Unit 16B winter in portions of Unit 16A where predation by wolves is an important cause of mortality and objectives are unlikely to be achieved, in the foreseeable future unless predator control is conducted western Unit 16A.

8. Subpopulations of moose from Unit 16B also calve in portions of Unit 16A where predation by wolves and black bears are important causes of mortality to

the extent that the population is unlikely to recover, and objectives are unlikely to be achieved, in the foreseeable future unless predator control is conducted.

9. Reducing predation in Units 16A and 16B can reasonably be expected to achieve the population and harvest objectives of moose in Unit 16B.

Vote: 6-0-1
March 21, 2008
Anchorage, Alaska

Cliff Judkins, Chairman
Alaska Board of Game

Findings for the Alaska Board of Game
2008-175-BOG

Unit 9D (Southern Alaska Peninsula Caribou Herd)
Intensive Management Supplemental Findings
March 6, 2008

The Board of Game finds as follows, based on information provided by Department staff, Alaska residents and users of caribou in Unit 9D. These findings are supplemental to the findings set forth in 5AAC 92.108.

1. The caribou population size, currently estimated to be 600 caribou, is less than the population objective of 4,000 – 5,000. The population objective has not been achieved for at least the last five years.

2. The Unit 9D caribou harvestable surplus, as described in 5 AAC 92.106(3)(A), is currently estimated at zero, which is less than the harvest objective of 200 – 500. The harvest objective has not been achieved for at least the last 7 years.

3. The Unit 9D caribou population is depleted due to poor recruitment, and has already resulted in a complete hunting closure so that there is no human harvest of the population.

4. Increases in abundance and productivity are achievable utilizing the recognized and prudent active management technique of predator control.

5. The bull ratio of 15 bulls per hundred cows and the increasing age of the cows in the herd cause concern that the herd may no longer be viable in another year or two, and recovery will be difficult unless immediate action is taken. Collared cow caribou have shown a 79% to 85% pregnancy rate. However, calf survival during the first four weeks after birth has resulted in a survival rate between 0.5 to 1 calf per 100 cows by October.

6. The population and harvest objectives have not been achieved, at least in part, because wolf and brown bear predation have been important causes of mortality in the population, to the extent that the population is unlikely to recover, and objectives are unlikely to be achieved in the foreseeable future unless predator control is conducted.

7. Reducing predation can reasonably be expected to aid in achieving the population and harvest objectives.

Vote: 6-0-1
March 8, 2008
Fairbanks, Alaska

Cliff Judkins, Chairman
Alaska Board of Game

Finding for the Alaska Board of Game
2007-173-BOG

Nonresident Drawing Permit Allocation Policy
March 12, 2007

At the March 2007, Southcentral/Southwest Region meeting in Anchorage, the Board of Game modified the Nonresident Drawing Permit Allocation Policy, #2006-162-BOG, by adding item #4 to the guidelines that shall be applied when determining the allocation percentage for drawing permits to nonresidents:

1. Allocations will be determined on a case by case basis and will be based upon the historical data of nonresident and resident permit allocation over the past ten years.

2. Each client shall provide proof of having a signed guide-client agreement when applying for permits.

3. Contracting guides shall be registered in the area prior to the drawing.

4. When a guide signs a guide-client agreement, the guide is providing guiding services and therefore must be registered for the use area at that time.

Cliff Judkins, Chairman
Alaska Board of Game

Vote: 7-0
Amended: March 12, 2007
Anchorage, Alaska

Alaska Board of Game
Policy for the
Annual Reauthorization of Antlerless Moose

#2007-172-BOG

Background

Alaska Statute **AS 16.05.780** requires the Board of Game to reauthorize the Antlerless moose seasons in each Game Management Unit, subunit or any other authorized antlerless moose season on a yearly basis.

In order for the Board to comply with AS 16.05.780, it must consider that antlerless moose seasons require approval by a majority of the active advisory committees located in, or the majority of whose members reside in, the affected unit or subunit. For the purpose of this section, an "active advisory committee" is a committee that holds a meeting and acts on the proposal.

Because of the requirement for yearly reauthorization, the Board of Game approves of the proposals in order to insure they remain in regulation. In the case of the antlerless moose seasons, the Board of Game has delegated authority to the Department which allows them to administer a hunt if there is an allowable harvest of antlerless moose. The Board of Game has provided language to allow the Department to issue an "up to" number of permits so that we do not have to try and set a hard number each year. In most years it would be very difficult for a decision on allowable harvest to be made prior to the surveys the Department makes of the moose population.

This requirement for yearly authorization takes a lot of valuable Board time as well as requiring the Department to bring in area biologists or regional supervisors to present to the Board information on the proposed regulation. The attendance of many of these area biologists or regional supervisors is not required for any other proposed regulatory changes that the Board will consider in the normal Board cycle of proposals.

Because this requirement increases the cost to the Department and the Board, and because the annual reauthorization for some of the antlerless moose seasons may be considered a house keeping requirement in order to comply with AS 16.05.780, the Board has determined that a more efficient way to handle the annual reauthorization should be adopted and has established the following policy in agreement with the Department.

Policy for yearly authorization of Antlerless Moose Hunts by the Board of Game

Each year, the Department will present as a package for approval all of the antlerless moose proposals. During that presentation, if there are any changes that will be required to be considered, they will be noted for later discussion.

Because the Board had delegated the authority to the Department to hold antlerless moose hunts, there are many hunts that do not occur based on biology. The Department and the Board finds that it is important to keep these regulations on the books so that when opportunity exists. the Department will have the ability to provide additional opportunity for the use of antlerless moose.

The Board agrees that it will minimize debate during the presentation and only consider extensive discussion on any reauthorization that will be associated with a pending proposal submitted during the normal cycle to be considered. This discussion will be limited to any proposal submitted to the Board and not during the approval fo the packaged proposals for reauthorization of antlerless moose seasons.

The Board is aware of the time and expense required to comply with AS 16.05.780; it feels that by adopting this policy both the Department and Board will be better served.

Cliff Judkins, Chairman
Alaska Board of Game

Vote: 7-0
March 12, 2007
Anchorage, Alaska

Findings for the Alaska Board of Game
2006-170-BOG

Game Management Unit 13
Caribou and Moose Subsistence Uses

Background

Virtually since its inception, the Tier II subsistence permit system has been plagued with public complaints about inequities, unfairness, and false applications. Over the years, the Alaska Board of Game (Board) has amended its regulations numerous times to try to address management and legal problems, but the controversy continues and the system remains rife with problems. Public complaints have been primarily directed at the Tier II permitting system—particularly those near urban areas like the Minto moose hunt and the Nelchina Tier II caribou hunt.

The Board has primarily focused on the Nelchina basin caribou and moose hunts because these have generated the vast majority of the interest and complaints from the general public. In addition, Board members are concerned the hunting patterns no longer meet the Board's intent when these subsistence hunts were originally established in regulation. A review of these hunts question whether the current hunts are consistent with the Board's customary and traditional use findings based on the eight criteria the Joint Boards of Fish and Game established (5 AAC 99.010) for implementing the state subsistence law (AS 16.05.258(a)).

Statistics associated with the Nelchina caribou hunt illustrate some troubling trends. Permits have been slowly shifting away from local Alaskan residents the Board identified as the most dependent on the wildlife resources in the region and towards less subsistence dependent urban residents. Testimony from some local residents of Unit 13 indicated they no longer participated in the state subsistence program. The present Tier II scoring and permit allocation system has made it more difficult for long-time, resource-dependent residents of the area to compete for permits, forcing them to rely more heavily on the federal system to provide for subsistence opportunities. The system also makes it almost impossible for area newcomers and younger Alaskans to ever qualify for the limited permits despite their subsistence dependence on wildlife resources for food. In addition, many of the traditions associated with a subsistence way of life are being sidestepped and avoided, such as the traditional teaching of the art of hunting, fishing and trapping to younger generations; and the processing, utilization, and other long-term social and cultural relationships to the resources being harvested and to the land that produces those resources.

The Board's long-term goal is to design a system to accommodate subsistence-dependent users in such a manner that permits can be virtually guaranteed from year to year. The reliability of available hunting opportunities is critical to the maintenance of the subsistence way of life. This could be similar and complementary to the federal subsistence permit system. The federal program allows any Alaska resident living in the Copper Basin and several communities outside

of GMU 13 to harvest two caribou and one moose per year, there is no limit per household except in Unit 13(E) for moose, harvest of caribou by gender is also generally unrestricted in units 13(A) and 13(B), and moose hunters may only take any antlered bull under the federal system.

Bag limits may not be accumulated across both state and federal systems, so hunters can take a total of only one moose and two caribou for the year. State regulations allow all Alaskan residents to harvest a bull moose with spike-fork or 50-inch antlers or antlers with 4 brow tines on at least one side from September 1 – 20. In addition, up to 150 Tier II permits are issued for any bull moose, August 15 – 31, with only one permit being allowed per household. The moose seasons for federally qualified users on federally-managed lands are much longer from August 1 – September 20.

Under the state system, all caribou permits are issued under Tier II regulations and were limited to 3 per household. The Board recently changed the limit to 2 per household. The bag limit is one caribou, although in recent years, harvest under state regulation has been limited to bulls only. The caribou season for federally qualified users on federal land is 10 days longer in the fall, ending September 30 rather than September 20.

State regulations do not jeopardize a qualified federal subsistence hunter from hunting under a federal permit. However, if there are too many state applicants, controlling statutes mandate that permits be issued under the Tier II criteria, with all of its attendant problems.

The Board intends to explore subsistence hunt provisions that reflect and accommodate the customary and traditional use patterns of Nelchina caribou and moose in Game Management Unit (GMU) 13, while distinguishing those uses from other uses.

In accordance with the Joint Boards of Fisheries and Game eight criteria for implementing the state subsistence law, the following findings are made:

Findings

When the Board originally determined there were customary and traditional uses of the Nelchina Caribou Herd and moose in GMU 13, it recognized these subsistence uses were established by Ahtna Athabascan communities within the Copper River basin, and were later adopted by other Alaska residents. Due to the importance of, and high level of competition for subsistence permits in this area, the Board has undertaken, as precisely as possible, the task to identify the particular characteristics of these customary and traditional use patterns. Although they have changed over time due to limited access associated with demographic, economic, and technological factors, the patterns are characterized by traditional fall and winter hunting seasons, efficient methods and means, thorough use of most of the harvested animal, harvest areas traditionally associated with local communities, traditions about harvesting and uses that are passed between generations orally and through practice, and reliance on other subsistence resources from within these same traditional harvest areas

Criterion 1. A long-term consistent pattern of noncommercial taking, use, and reliance on the fish stock or game population that has been established over a reasonable period of time of not less that one generation, excluding interruption by circumstances beyond the user's control, such as unavailability of the fish or game caused by migratory patterns.

This criterion presupposes that an identifiable, consistent "pattern" of noncommercial taking, use, and reliance is characteristic of subsistence use. The Board finds, even though there are many similarities among all users of the moose and caribou resources in the area, there continue to be identifiable distinctions, constituting a unique pattern of subsistence use, that is traceable in direct line back to the original Ahtna Athabascan and later non-native customary and traditional use.

The Board has concluded that the pattern of moose and caribou subsistence use for this region was originally defined by the Ahtna Athabascan residents and then adopted and modified by other local settlers in the early 20th century. This pattern of use was established over many generations and focused on the total aggregate of fish, wildlife, and plant resources locally available to the area residents.

The greatest dependency on subsistence resources occurred prior to the completion of the existing road system in the 1940s. After about 1950, historical use patterns changed rapidly, especially with the introduction of more mechanized access methods. The mobility of the subsistence and non-subsistence users, the availability of seasonal and part-time employment, increased human populations, increasing competition for wildlife resources, and fluctuating game populations (particularly moose and caribou) caused major shifts in subsistence dependency of people within and adjacent to the region. Nevertheless, aspects of the traditional Ahtna Athabascan use pattern are present today, but subsistence-dependent families engaged in that pattern now account for a smaller percentage of all users than a half-century ago.

Most of the long-term subsistence patterns in this area are community-based. The area's communities tend to be long-established, by Alaskan standards, and the residents of these communities tend to be long-term residents, descending from multi-generational families with long ties to the area. These communities tend to exhibit a use of local resources that stretches back to well before Euroamerican contact. In contrast, the use pattern based out of nearby urban areas tends to involve much more recently established communities, a high degree of turnover among residents, short-term residency and, generally, a relatively brief history of use.

Criterion 2. A pattern of taking or use recurring in specific seasons of each year.

Local communities established a tradition of hunting caribou, moose, and other big game species in the late summer and early fall following subsistence fishing, and again hunting in the winter as fresh meat was needed and game was available. Winter hunts have always been critical to subsistence users, as very few other subsistence resources are available during this time. This need for, and use of, winter hunting opportunities is different from use patterns developed by residents of Alaska's more developed and urban areas, where almost all big game hunting takes place exclusively in the fall and is controlled largely by regulations. Thus, as late as 1984, over 60% of the caribou harvest taken by local residents was taken during the winter. Recent changes in that pattern can be largely attributed to regulatory changes, competition from non-local

hunters and shifting migratory patterns of the caribou herd. The seasonal use pattern was based on the traditional Ahtna seasonal movements and the general availability of game. For example, the fall hunt traditionally followed the salmon harvest, whereas the winter hunt took place whenever meat was needed and game was available.

Criterion 3. A pattern of taking or use consisting of methods and means of harvest that are characterized by efficiency and economy of effort and cost.

Before the mid-20th century, Ahtna Athabascan hunters tended to rely on boat access along the area's major waterways in fall, on foot along established trails, and by dog team along winter trails after freeze-up. With the opening up of the Nelchina basin to highway access, and the introduction of off-road vehicles, snowmachines, four-wheelers, and other transportation innovations, a shift in the use pattern occurred. Now, local residents tend to utilize roads as hunting corridors in place of rivers in the fall, and use snowmachines to access the backcountry in winter. Recently, expensive off-road vehicles have been purchased and used by many non-local users and a few more affluent local residents in an attempt to compete with non-local hunters and to increase their opportunity for success. The use of all terrain vehicles may create their own hunting efficiencies as hunting effort and transportation take advantage of labor-saving devices. Hunting methods have changed over the last 75 years. Automobiles, snowmachines, and less expensive all terrain vehicles may make hunting more effective because local and non-local residents can now cover larger areas when hunting caribou or moose. Local hunters can, when animals are available, make relatively short trips that fit into a contemporary work schedule. On the other hand, the use of highway, off-road, and similar vehicles has promoted more frequent short trips with considerable transportation costs for depreciation, fuel, and maintenance. What are being lost are the multi-resource harvest efficiencies associated with long subsistence-oriented summer and fall camping trips traditionally engaged in by Ahtna communities. Thus, recent transportation improvements and fuel prices may have changed traditional subsistence activities to the point where it is unlikely that there is a positive cost/benefit (from an economic standpoint) associated with some of the hunting techniques, especially in cases involving the use of expensive recreational motor vehicles. Overall, the use of some motorized vehicles such as ATVs has blurred the distinction between true customary and traditional patterns and recreational activities.

Residents of local communities—those with the longest histories of use of moose and caribou in the region—have traditionally traveled shorter distances to hunt than do non-local participants; and generally utilize less technology in doing so. Most Ahtna elders testified they still prefer to walk in to hunting areas and maintain permanent camps, whenever possible, in accordance with longstanding means and methods. On the other hand, most non-local users must travel at least 125 miles just to get to the area and have tended to be reliant on all-terrain vehicles (ATVs), aircraft and other expensive off-road and recreational vehicles.

As late as 1984, Copper Basin residents utilized only highway vehicles for hunting access over 65% of the time. It is the Board's conclusion that many of these newer technologies have been adopted based on a perceived need to compete with technologically-oriented recreational hunters from Alaska's urban areas. This may be a direct effect of the 1984 regulations.

Historically, much of the taking of caribou, moose, and small game was done as part of a seasonal round of subsistence activities throughout defined areas used by the community. Family dependence on these resources required a commitment of considerable time and effort to accumulate adequate subsistence resources to meet annual protein requirements and other customary and traditional uses.

Another example of subsistence efficiency in the customary and traditional use pattern has been that specialized hunters tend to provide for the community at large, sometimes or often taking more than necessary for their own family's use in their capacities as community providers, and to fulfill social and cultural obligations. Community subsistence activities are then divided among members and further introduced into traditional patterns of barter and exchange. Thus, some harvest and others process, distribute, receive and utilize the results of the harvest. Each member of the community has a defined role and specialty.

A third example of subsistence efficiency, historically, has been the effort to keep hunting as close to home as reasonably possible, minimizing cost and effort necessary to obtain the wild food resources needed by families and communities. The Board believes that, if competition among users can be reduced, this efficiency is likely to be easier for subsistence users to realize.

In these community efforts, special emphasis has been placed on allowing the maximum opportunity to harvest as many animals and the widest variety of useable species as efficiently as possible. Emphasis was also placed on food gathering activities and other traditions associated with Ahtna Athabascan communities.

Criterion 4. The area in which the noncommercial long-term, and consistent pattern of taking, use, and reliance upon the fish stock or game population has been established.

The Board is examining the area where the subsistence hunting of big and small game occurred prior to the significant change in uses and activities that occurred after approximately 1950 in Game Management Unit 13.

Subsistence uses involve an intimate and exclusive relationship between the user and a very particular set of places generally in close proximity to the hunter's residence. The user is tied to the land. Other types of uses do not exhibit these close, long-term, multi-generational ties to a particularly locality. Even as late as 1981, hunters from Copper Basin communities did not report traveling out of the basin to hunt, while urban-based hunters named alternative areas if they could not hunt Nelchina caribou and moose. Testimony from Ahtna elders emphasized their reliance on local fish and game, and their reluctance, for practical and cultural reasons, to travel outside of their traditional areas for subsistence purposes. Likewise, they described the longstanding family and community use histories and patterns for such areas. Consistently, lifelong residents of the local areas did not share the attitude of utilizing other areas. When Nelchina caribou were not available to them they either added emphasis on moose, and/or use of the Mentasta caribou herd. Resident lake fish species and small game were other alternatives commonly mentioned as alternative and supplemental wild food resources. Families in the range of the Nelchina caribou who harvested little or no wild game mentioned receiving donated meat as an alternative. This differs markedly from the use patterns found in Alaska's urban areas,

where traveling to, and exploring, new game country is deemed a virtue and an essential part of many outdoor experiences.

The Ahtna pattern exhibits a familiarity with terrain and landscape including the associated history of the region transmitted through oral traditions and Ahtna geographic placenames.

Criterion 5. A means of handling, preparing, preserving, and storing fish or game that has been traditionally used by past generations, but not excluding recent technological advances where appropriate.

The traditional pattern has been to salvage and use all parts of the harvested animal, in conformance with traditions prohibiting waste. Lifelong residents of the Copper Basin testified they still practice their traditional methods of harvest by retrieving the entire carcass and all bones, hide, head, heart, liver, kidneys, stomach, and fat. Only the antlers were often left behind. This also differs from patterns based out of urban areas, where hunters tend to focus on the meat and antlers, usually leaving most organs, bones, and the hide in the field.

Ahtna elders also emphasized that preparation and storage are viewed as essential components of their overall use. Women traditionally look forward to practicing their roles as preparers and preservers of harvested game every bit as much as men looking forward to harvesting and providing the game. These traditions and roles are passed on by older relatives to younger family members through in-the-field training and a system of *engii* (rules of appropriate behavior or taboos) that teach traditional means of harvest, handling, and preparation. These "engiis" emphasize traditional Ahtna views of the human place within the natural world and a respectful treatment of animals.

Criterion 6. A pattern of taking or use that includes the handing down of knowledge of fishing or hunting skills, values, and lore from generation to generation.

The Board has concluded that the subsistence traditions of handing down the hunting and fishing knowledge, values and skills through family oriented experiences are an important aspect of the subsistence way of life in this region. Providing the opportunities for the young and old to participate in subsistence activities is critical to the perpetuation of traditional knowledge about hunting locations, hunting methods, methods of handling harvests, and respectful treatment of wildlife. To increase hunting opportunities for youth, a recent provision adopted by the Board allows a resident hunter between the ages of 10 and 17 to hunt on behalf of a resident permit holder. The youth hunter must have completed a certified Basic Hunter Education course and be in direct supervision of the permit holder, who is responsible for ensuring all legal requirements are met.

Ahtna elders have passed this knowledge on to the next generation in the context of community-based traditions that included relatively long summer and fall camping trips described above. As mentioned previously, teaching roles and lessons tend to be more formalized through the system of "engiis" than is the case for uses based out of the urban areas. Skills emphasized included not only those needed to harvest each species, but also the art of field preparation and care for a wide

variety of species and the utilization, preparation, and distribution of game. Most local users learned how to hunt in the local area from other family members in the local area. Most older, local users have also taught other family members. On the other hand, most non-local users learn about hunting in the area by personal experience or from fellow non-local, unrelated hunters. Also, non-local users tend to be controlled primarily by applicable statutes and regulations rather than long-term oral traditions and community-based values.

The Board considers it extremely important to stress the need to pass on skills and knowledge associated with utilization of all parts of the animal taken, as well as preservation of the traditional, cultural rules and family values associated with these subsistence users in this area. Field skills need to be perpetuated for handling not only the meat but the hides, internal organs, stomach, and intestines. This is consistent with the customary practice of maximizing the use of animals taken characteristic of subsistence uses.

Criterion 7. A pattern of taking, use, and reliance where the harvest effort or products of that harvest are distributed or shared, including customary trade, barter, and gift-giving.

Widespread community-wide sharing is customary in local communities, involving all family members, elders, others in need, and taking place in formal settings such as during ceremonial potlatches. As such, sharing has associated social, cultural, and economic roles in the community. Sharing is expected and follows well-understood community standards that are structured on kinship relations and obligations. As an example, young hunters are required by Athabascan tradition to give all or most of their first harvested animal to elders and others in need. Also, traditional barter and exchange follow these standards. Successful Ahtna harvesters traditionally share some of their moose and caribou meat with other families and communities to meet their social obligations and for ceremonial purposes. This, again, is in contrast to the uses arising out of the urban areas where hunters are completely free to share, or not share, as they see fit and there is not a system of sharing, barter, and exchange. In addition to the key social and cultural roles of sharing in the local rural community, sharing of subsistence resources plays a key economic role in distributing essential food supplies throughout the community. The Board has concluded it is imperative to accommodate the customary and traditional family and community harvest sharing practices as part of the subsistence way of life to the maximum extent possible.

Use of the state authorized proxy system has provided a limited opportunity for individuals to harvest for permittees who are personally incapable of participating in the field but who have a personal history of subsistence use. Proxy hunters are not required to fully accommodate the customary and traditional practices. Non-local users, on the on the other hand, tend to have few established rules or traditions requiring sharing, and seldom share outside of their own households. External sharing, when it occurs, is usually with friends and co-workers, and extensive kinship networks are absent. There are no non-local traditions of community-wide meat distribution.

Criterion 8. A pattern that includes taking, use, and reliance for subsistence purposes upon a wide diversity of the fish and game resources and that provides substantial economic, cultural, social, and nutritional elements of the subsistence way of life.

The Board has concluded it is critical to emphasize the values associated with the reliance and dependence on a wide variety of fish and wildlife resources as an important element of the subsistence way of life for this region. Subsistence use patterns historically required a significant dedication of time and effort towards the harvesting of adequate fish and game resources to meet the protein and nutritional requirements of the subsistence harvesters, their families, and their communities.

This differs markedly from the more recreational type of uses arising out of the Alaska's more urban areas, where a single, focused effort to harvest only one resource in any given location, and then salvage only what is legally required from that resource, tends to be a predominant characteristic. To the extent that other foodstuffs are harvested, they are often harvested in completely separate areas, far removed from the fall hunting area. Also, different hunting areas are explored in different years. This separation of the interconnected diversity of resource uses also seriously undermines the principles reflected in Criterion 3. As more and more emphasis is placed on single species harvesting patterns, cost is increased, and efficiency is reduced. Such practices do not reflect the customary and traditional use pattern.

Reliance on most, or all, locally available sources of wild food is characteristic of a traditional subsistence way of life where maximum economic and nutritional benefits typically must be derived from the hunt and harvests. The local harvest of salmon has historically been the most important wildlife resource in terms of useable pounds per subsistence-dependent family in Unit 13. Alaska residents are allowed to use a fish wheel in the Copper River between Slana and the Copper River bridge at Chitina to harvest salmon—permits are issued free of charge. The limit is 500 total salmon for a household with two or more members and 200 for a household with one member, with no limit on the number of Chinook salmon in the total harvest by fish wheel. The salmon run in the Copper River is primarily comprised of sockeye and Chinook salmon.

Use of moose and caribou by local communities is embedded in a wide range of other fish and wildlife uses. It is also embedded in a mixed, subsistence-cash economy characterized by seasonal employment and relatively low cash incomes. A wide variety of subsistence foods are still critically important in these local economies. Almost all hunting, fishing, and gathering takes place locally and the majority of meat and fish consumed tends to come from local sources.

Big game species are taken for food and not for their trophy value by families engaged in subsistence uses. The Board may undertake efforts to reduce or eliminate the trophy values of the resources taken to focus entirely on the inherent subsistence values.

Vote: 6/0
November 12, 2006
Anchorage, Alaska

Ron Somerville, Chairman
Alaska Board of Game

Findings for the Alaska Board of Game
2006-167-BOG

Unit 16 Intensive Management Supplemental Findings
May 14, 2006

The Board of Game finds as follows, based on information provided by Department staff, Alaska residents and users of moose in Unit 16B. These findings are supplemental to the findings set forth in 5AAC 92.108 and in the Unit 16 predation control implementation plan in 5 AAC 92.125.

1. The moose population size, currently estimated to be 3193-3951 moose, is less than the population objective of 6,500-7,500 moose. The population objective has not been achieved for at least the last 9 years.

2. The Unit 16B moose harvestable surplus, as described in 5 AAC 92.106(3)(A), currently estimated at 140 bulls, is less than the harvest objective of 310-600 moose. The harvest objective has not been achieved for at least the last 6 years.

3. The Unit 16B moose population is, thus, depleted and reduced in productivity, which has resulted in a significant reduction in the allowable human harvest of the population.

4. Enhancement of abundance or productivity is feasibly achievable utilizing the recognized and prudent active management techniques of predator control.

5. The Board has repeatedly, since 1990, been required to significantly reduce the taking of moose in Unit 16B by restricting harvest, seasons and bag limits as compared to the level and timing of hunting opportunity that was allowed when the population was not depleted and reduced in productivity.

6. The population and harvest objectives have not been achieved, at least in part, because wolf black and brown bear predation have been important causes of mortality in the population, to the extent that the population is unlikely to recover, and objectives are unlikely to be achieved, in the foreseeable future unless predator control is conducted.

7. Reducing predation can reasonably be expected to achieve the population and harvest objectives.

Vote: 6-0-1
May 14, 2006
Anchorage, Alaska

Mike Fleagle, Chairman
Alaska Board of Game

Findings for the Alaska Board of Game
2006-166-BOG

Unit 13 Intensive Management Supplemental Findings
May 14, 2006

The Board of Game finds as follows, based on information provided by Department staff, Alaska residents and users of moose in Unit 13. These findings are supplemental to the findings set forth in 5AAC 92.108 and in the Unit 13 predation control implementation plan in 5 AAC 92.125.

1. The moose population size, currently estimated to be 13,020 moose, is less than the population objective of 17,600-21,900 moose (derived by combining the objectives for all subunits). The population objective has not been achieved for at least the last 10 years.

2. The Unit 13 moose harvestable surplus, as described in 5 AAC 92.106(3)(A), currently estimated at 520-650 bulls, is less than the harvest objective of 1,050-2,180 (also combined subunit objectives). The harvest objective has not been achieved for at least the last 13 years.

3. The Unit 13 moose population is depleted, reduced in productivity, and has already resulted in a significant reduction in the allowable human harvest of the population.

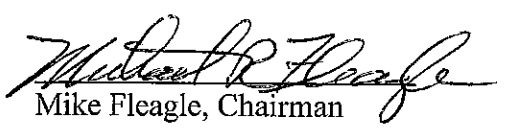
4. Increase in abundance and productivity is achievable utilizing the recognized and prudent active management technique of predator control.

5. The Board has repeatedly, since 1999, been required to significantly reduce the taking of moose in Unit 13 by restricting harvest, seasons and bag limits as compared to the level and timing of hunting opportunity that was allowed when the population was not depleted and reduced in productivity.

6. The population and harvest objectives have not been achieved, at least in part, because wolf and brown bear predation have been important causes of mortality in the population, to the extent that the population is unlikely to recover, and objectives are unlikely to be achieved in the foreseeable future unless predator control is conducted.

7. Reducing predation can reasonably be expected to achieve the population and harvest objectives.

Vote: 6-0-1
May 14, 2006
Anchorage, Alaska



Mike Fleagle, Chairman
Alaska Board of Game

Findings of the Alaska Board of Game
2006-164-BOG

BOARD OF GAME BEAR CONSERVATION AND MANAGEMENT POLICY
MAY 14, 2006

GENERAL BEAR MANAGEMENT

Purposes of Policy

1. To assure all management actions provide for the conservation of Alaska's bear species, their habitat and food sources, and are consistent with the Alaska Constitution, and applicable statutes.

2. To encourage review and comment and interagency coordination for bear management activities.

Goals

1. To ensure the long-term conservation of bears throughout their historic range in Alaska.

2. To increase public awareness and understanding of the uses, conservation, and management of bears and their habitat in Alaska.

Background

Brown/grizzly bears (*Ursus arctos)* are large omnivores found throughout most of Alaska. Although they are considered the same species, brown and grizzly bears occupy different habitats and have somewhat different lifestyles and body configurations. Grizzlies are typically found in interior and northern areas. They are generally smaller than brown bears and more predatory. Brown bears live in coastal areas of southern Alaska where they have access to productive salmon streams.

Brown/grizzly bears are found throughout their historic range in Alaska, and unlike populations in the contiguous 48 states, they are not considered a threatened or endangered species. Estimating precise population numbers is difficult because of the bears' secretive habits and often densely vegetated habitat, but in most places in the state, populations are considered stable or increasing. Throughout most coastal habitats where salmon are abundant, bear densities typically exceed 175 bears/1,000 km2 (450 bears/1,000 mi2). A population in Katmai National Park on the Alaska Peninsula was measured at 550 bears/1,000 km2 (1,420 bears/1,000 mi2). In most interior and northern coastal areas, densities do not exceed 40 bears/1,000 km2 (100 bears/1,000 mi2).

Densities as low as 7 bears/1,000 km2 (20 bears/1,000 mi2) have been measured in the eastern Brooks Range. Extrapolations from existing density estimates yielded an estimate

of 31,700 brown bears in 1993. All indications are that the population has increased in the past decade.

American black bears (*Ursus americanus)* are generally found in forested habitats throughout the state. Black bears also occupy their historic range in Alaska, often overlapping distribution with brown/grizzly bears. Because they live in forested habitats it is very difficult to estimate population size or density. Where estimates have been conducted in interior Alaska, densities ranged from 67 bears/1,000 km2 (175 bears/1,000 mi2) on the Yukon Flats to 289 bears/1,000 km2 (750 bears/1,000 mi2) on the Kenai Peninsula. In coastal forest habitats of Southeast Alaska's Alexander Archipelago black bear densities are considered high. A 2000 estimate for Kuiu Island was 1,560 black bears/1,000 km2 (4,000 black bears/1,000 mi2). A statewide black bear population estimate is not available because, unlike the many brown/grizzly bear and wolf estimates that are available across the state, very few black bear population estimates have been conducted.

Brown/grizzly bears have relatively low reproductive rates and require abundant resources. Black bears exhibit higher reproductive rates than brown/grizzly bears; however, rates are still lower than for other big game animals with the exception of brown/grizzly bears. Population stability can be threatened by human-caused mortality and from fragmentation or destruction of habitat. This combination is present to a sufficient extent on the Kenai Peninsula that brown/grizzly bears there have been designated by the State as a "population of special concern". To address situations where bear populations have declined because of human activities, the Department has implemented remedial management actions. In the Kenai situation, a conservation strategy has been developed through a public stakeholder process.

In most areas of the state black bear populations are healthy and can sustain current or increased harvest levels. However, in some areas such as Unit 20B and 20D in the interior, the Kenai Peninsula, and Southeast Alaska, hunter demand for black bears is high, harvest is high, and these populations require closer monitoring. Bears are intelligent animals that learn to adapt to new situations. This ability, coupled with their enduring drive to rebuild fat reserves prior to denning, makes bears experts in finding ways to get a meal. Garbage is often a source of food from people. If this happens, bears learn to exploit human-related food resources and lose their natural tendencies to avoid people. Frequently, such bears become classified as "nuisance" bears and often are killed in defense of live or property (DLP).

Respected by most, and feared by many, bears can pose a threat in certain situations. Statewide, there are an average of about six encounters a year in which a human is injured. About half of those involve hunters in search of other quarry. About every two or three years, one of the attacks results in a human fatality.

Whenever bears and people interact with each other there are potential benefits and dangers. Displacing bears from feeding sites has serious consequences for them. Human behavior around bears not only impacts their own personal safety and viewing experience,

it also impacts the health and safety of the bears and the people who come to the area later. When bears and people meet, it is important that bears never get food from them and that people are trained how to react to bear encounters. Comprehensive education is recognized as a vital component in all aspects of any bear viewing program.

Public interest in bears has increased dramatically in Alaska during the past decade. Some of this interest is incidental to other pursuits such as sport fishing, hiking, flight seeing, eco-tours, or marine water cruises but some of it is specifically targeted at bear viewing. Bear viewing is a rapidly growing industry in selected areas of the state. The interest exceeds the opportunities provided now by such established and controlled sites as McNeil River, Pack Creek, Anan Creek, Wolverine Creek and Brooks Camp. As a result, private entrepreneur businesses are providing viewing opportunities in some high-density bear areas. Many of these sites and programs involve highly habituated bears that most frequently result in mutually exclusive conflicts with other uses of bears. Habituation of bears should be discouraged and maximum public benefits pursued by providing management programs designed to provide for public viewing opportunities in areas where other uses are already excluded or to carefully integrate uses on a time and area basis.

Alaska is world-renowned as a brown/grizzly bear hunting area. Alaska is the only place in the United States where they are hunted in large numbers, and the vast majority of record book bears come from the state. An average of about 1,500 brown/grizzly bears are harvested each year. The trend has been increasing. Many of the hunters are nonresidents and their economic impact is significant to Alaska. Hunters have traditionally been the strongest advocates for bears and their habitat, providing consistent financial and political support for research and management programs.

Because bears can be both prey and predator, their relationship with people is complex. In areas where a population of large ungulates has been reduced to low levels, bears may have a significant influence on the decline of species such as moose, caribou and deer. This is especially true when bears are found in combination with thriving wolf populations. Alaskan studies of bear interactions with moose, for instance, indicate that bears may contribute significantly to calf mortality. Coupled with wolf predation, the combined mortality rates can far exceed human induced mortality and contribute to major moose population declines, depressed populations and delayed recoveries. The role of bears in these situations greatly exacerbates the debate over predator control and complicates evaluation of potential and initiated management actions.

Guiding Principles

1. Manage bear populations to allow a wide range of human uses, while providing for long-term bear population sustainability.
2. Establish minimum population goals that ensure the long-term viability of bears recognizing the reproductive capacity of each bear species.
3. Manage bears at the scale of subunits or units to achieve appropriate overall predator-prey relationships rather than pursue single species management.
4. Protect the genetic diversity of bears.
5. Continue and, if appropriate, accelerate research for the management of bears.

6. Consider short-term and long-term effects of habitat loss and fragmentation on bear populations.
7. Provide for consumptive and non-consumptive uses of bears in management plans and encourage economic benefit to the state and its citizens while maintaining sustainable bear populations.
8. Do not allow identified prey populations to decline to a point where predation keeps them at low levels.
9. Avoid, where possible, activities that encourage the habituation of bears and manage bear viewing opportunities that are not mutually exclusive of other uses.
10. Encourage wildlife viewing of bears and other species in their natural settings as part of a broader outdoor experience.
11. Implement this policy in such a manner that the Department and the Board can respond promptly to unforeseen situations.
12. Pursue informational and educational efforts to help the public understand more about bears and their management.
13. Work with enforcement agencies to identify priorities and to assist with and encourage adequate enforcement activities.
14. Review and recommend revision to this policy as needed.

Conservation and Management

A. Management Strategies

The Department will manage both bear species differently according to their population and human use characteristics in different parts of the state. In some areas, such as the Kodiak Archipelago, portions of Southeast Alaska and the Alaska Peninsula, bears are managed for trophy-hunting and viewing opportunities. In many other areas of the state, bear populations are largely unaffected by human harvest. Bears are an important big game species sought by resident and nonresident hunters and are managed for a variety of objectives.

Generally, bear hunting will be conducted on a sustained yield basis, except in areas where a bear predation control program is authorized. Harvests will not be allowed to threaten the long-term population survival of bears. In most areas of the state, sustained brown/grizzly bear harvests will generally be 4-8 percent of the estimated total population and up to 12 percent for black bears. Some bear populations may be able to sustain a harvest above these guidelines and these will be evaluated for more liberal harvest programs. Lacking precise population data, managers will continue applying indirect parameter to assess the status of bear populations.

All brown/grizzly bears harvested under the general hunting regulations must be inspected and sealed by a Department representative. Black bears must be sealed in some units but not all. Non-resident hunters of brown/grizzly bears must be accompanied in the field by a registered big game guide or a resident relative. For both species, sows accompanied by cubs, and the cubs, are protected, but cubs are defined as bears in their first year of life for

black bears and for the first two years of life for brown/grizzly bears. The Department will continue to maintain these strategies and regulations for most of the state, unless it is necessary to consider methods to increase bear harvests as part of a bear predator control program.

The effect of management actions on the economic contribution of bears to Alaska's users of bears should be considered. Maintaining a regulatory structure that assures reasonable standards of data integrity with responsible management strategies and population sustainability will help avoid threats of international sanctions. Large areas of the state have subsistence brown/grizzly bear hunts with liberal seasons and bag limits, mandatory meat salvage, and relaxed sealing requirements. The Department will continue to accommodate subsistence needs and will consider the impacts on subsistence activities.

Bear viewing and bear/human interactions are also important aspects of bear management in Alaska. Increasing interest in watching bears at concentrated feeding areas such as salmon streams and sedge flats is challenging managers to find appropriate levels and types of human and bear interactions without jeopardizing human safety or bears or other legitimate uses of bears. Bear hunting and viewing are compatible in many situations. However, there are areas where the two uses are potentially mutually exclusive. Land and wildlife managers are faced with tough decisions that could either minimize those conflicts or promote single use regulations at the expense of other uses. For instance, federal withdrawals totaling over 40 million acres are managed to protect large segments of Alaska's big game resources habitat and major portions of these areas provide park-like observation opportunities. Logically these areas could first be utilized for habituated wildlife viewing opportunities before traditional uses of bears and other wildlife are unnecessarily impacted in other areas. Bear management programs on state and private lands should be designed to achieve maximum benefits to Alaskans. Specifically, state management programs should avoid habituating bears wherever possible. Conflicts between user groups can frequently be reduced if viewing programs adopt "best viewing practices."

In areas where bear management plans have been developed, the Department will adhere to the recommendations included in those plans as long as they are consistent with the newest policies and regulations adopted by the Board.

Nothing in this policy affects the authority under state or federal laws for an individual to protect human life or property from bears (5 AAC 92.410). All reasonable steps must be taken to protect life and property by non-lethal means before a bear is killed.

B. Research Strategies

Developing and implementing precise, cost-effective methods for determining bear populations will continue to be a research priority for the Department. Work to date suggests that no single population estimation method will work across the state given the vast areas, varied topography, differing vegetation communities and great differences in bear density. Some methods work well in one area but not in another. Aerial stream

surveys, line-transect surveys, capture-mark-recapture, intensive aerial surveys, and DNA analysis are some of the tools that can be utilized to provide population estimates.

Predator-prey relationships between bears and large ungulates have not been thoroughly examined in most of the state. Bears use a wide variety of foods seasonally including vegetation, fish, mammals, birds, and carrion and they are exceptionally adaptable in their ability to capitalize on available food resources. Consequently, the impact of ungulate prey abundance on bears is difficult to ascertain. Similarly, the impact of bears on prey populations is multifaceted and can be further compounded by the presence of other predators such as wolves.

Where appropriate, the Department will cooperate in research efforts with other agencies. Research findings will be reported in a timely fashion and presented in a form that is easily understood by the public.

C. Information and Education Strategies

Public education is critical in any bear management program. Perhaps as much as any species in Alaska, bears elicit a wide variety of emotions, have myriad uses, and directly impact peoples' lives both in the field and near settlements. Clear, objective information is necessary for citizens and managers alike to make wise decisions when dealing with bears. As the agency primarily responsible for bear management, the Department must take a lead role in producing and disseminating this information.

Bear information will be developed for a wide range of audiences and be delivered in a variety of media. A principal focus of bear education will be to promote a better understanding of life history, behavior, and habitat associations. Specific messages will include discussions of bear/human interactions, bear hunting, bear viewing, and bear predation on moose, caribou, and sheep. To assure consistent and accurate presentation of bear information, the Department will continue to work with the Alaska Interagency Bear Safety Education Committee.

The Department will strive to include the public in all bear management decisions. The primary method of public involvement will be through existing local Fish and Game Advisory Committee and Board processes. Citizen-driven bear management plans will be sponsored and supported by the Department. To date, such plans have been developed for Game Management Unit 4, the Kenai Peninsula, and the Kodiak Archipelago. The Department is committed to implementing as many of the recommendations from bear management plans as possible.

Because of the economic importance of guiding and other commercial enterprises associated with the varied uses of bear, it is recommended that extra efforts are made to notify all concerned parties that area specific predator control activities are being considered.

BEAR PREDATION MANAGEMENT

Purpose of Policy

1. To guide the Board of Game (Board) and the Alaska Department of Fish and Game (Department) in implementing any bear predation management actions pursuant to AS 16.05.255(e) and 5 AAC 92.106, when the Board determines ungulate populations important for human consumption are being kept at low levels because of bear predation.

Goals

1. To provide guidelines for developing, implementing, and evaluating bear management actions designed to reduce bear specific predation in precise areas for specific time periods required by predator control implementation plans.

Background

In areas where the Board has authorized for intensive management (IM) activities, set IM population and harvest objectives and those objectives are not being met and bear predation has been found to be a major factor in the decline in prey populations or in keeping prey populations from recovering, the Board can authorize bears to be included in predator control planning. Whenever bears are considered and authorized for predator control activities, the implementation control plan must specify whether one or both bear species are to be considered in the control plan.

Based on careful consideration of scientific information and public comment, the Department and the Board believe that in some limited circumstances it may be beneficial and appropriate to control predation by bears to achieve population and human use objectives.

Guiding Principles

1. Where bear reductions are authorized, the first step should be to reduce bear numbers through general hunting provisions such as liberalized seasons, bag limits, hunting methods and means and tag waviers.
2. Where predation regulates prey populations, identify to the extent possible, the relative contribution by each primary predator species so that management response can be focused and effective.
3. Implement measures to reduce black and/or brown bear numbers to allow prey species to increase population management objectives in areas managed for high consumptive use where predation by bears itself or in combination with other predators is keeping prey at low levels.
4. Manage bears at the appropriate scale that may vary from an entire Game Management Unit to a specifically defined area (e.g. key calving sites).
5. If liberalization of general hunting provisions does not adequately reduce the target bear population, an additional control program may be authorized. This program should be conducted for the minimum time necessary to achieve the stated

management objectives and may utilize methods and means not approved for general hunting.

6. Consider the management goals and objectives of state, federal, and private land owners and work cooperatively with them to design, implement, and evaluate bear control activities.
7. Encourage federal and private land owners, where possible, to work cooperatively in any management and/or species control programs.
8. If reduction in bear numbers fail to result in reasonable increases in availability of prey populations for human use, management practices intended to reduce bear populations should be reconsidered.

Management Strategies

In areas where bears have been identified as an important component in reducing and/or holding prey populations well below objectives, higher harvest levels than those listed under general management strategies will be allowed. In these areas, specific harvest reporting conditions will be imposed which may include additional requirements for permits, sealing, and/or reporting. In addition, the Department will closely monitor the effects of higher harvest on the bear and prey populations.

Research Strategies

In areas where bear predation control programs are considered, the Department may conduct research to quantify the contributions of each bear species and of wolves to the causes of decline in the ungulate population important for human use. Alternatively, the Department may use standard survey and inventory data and interpretation of other research results to guide the decision-making process. Monitoring activities designed to determine the effects of high levels of bear harvest on recovery of depressed ungulate populations would help focus management efforts in the most cost-effective manner.

Information and Education Strategies

In any situation where the Board or Department believes bear predation control may become necessary, the public will be informed as soon as possible. Detailed information on the specific location, the predator, prey and habitat concerns, and the proposed management action and its anticipated costs and duration will be widely disseminated. Public meetings may be held in the affected area and in major Alaska communities, in addition to regularly scheduled Board and Advisory Committee meetings. Once implemented, the Department will provide the Board and the public with an annual report and evaluation of the management action.

Board Consideration

The Board may consider bear control on a bear species when:

1. Bear predation has been determined to be an important factor in the decline of a prey population or is preventing recovery of a low density prey population.

6. The moose population in Unit 12 north of the Alaska Highway and Unit 20E is, thus, depleted and reduced in productivity, which has already resulted in a significant reduction in the allowable human harvest of the population.

7. Enhancement of abundance or productivity of both moose and caribou in these areas is feasibly achievable utilizing the recognized and prudent active management technique of predator control.

8. The Board has repeatedly, since 1976, been required to significantly reduce the taking of Fortymile caribou in Unit 12 north of the Alaska Highway, Unit 20D within the Goodpaster drainage upstream from and including the South Fork Goodpaster River drainage and within the Healy River, Billy and Sand Creek drainages, Unit 20B within the Salcha River drainage upstream from and including the Goose Creek drainage and within the Middle Fork of the Chena River drainage, all of Unit 20E, and Unit 25C within the Birch Creek drainage upstream from the Steese Highway bridge and within the area draining into the south and west bank of the Yukon River upstream from the community of Circle by restricting harvest, seasons, and bag limits as compared to the level and timing of hunting opportunity that was previously allowed when the population was not depleted and reduced in productivity.

9. The Board has, since 2000, been required to limit the taking of moose in Unit 12 north of the Alaska Highway, and Unit 20E by restricting harvest, seasons, and bag limits as compared to the level and timing of hunting opportunity that was allowed when the population was not depleted and reduced in productivity.

10. The population and harvest objectives for both moose and caribou in this area have not been achieved, at least in part, because wolf and brown bear predation have been important causes of mortality in the populations, to the extent that the populations are unlikely to recover, and objectives are unlikely to be achieved, in the foreseeable future unless predator control is conducted.

11. Reducing predation can reasonably be expected to aid in achievement of the caribou and moose population and harvest objectives.

12. A person who has been airborne may on the same day take a brown bear with the use of bait or scent lure as authorized under a permit provided by the department, providing the permittee is at least 300 feet from the airplane at the time of taking.

Vote: 6-0-1
March 21, 2008
Anchorage Alaska

Cliff Judkins, Chairman
Alaska Board of Game

Findings of the Alaska Board of Game
2004-148-BOG

Authorizing Predator Control in the Western Cook Inlet Area in Unit 16B with Airborne or Same Day Airborne Shooting
March 10, 2004

Purpose

This action of the Board of Game is to authorize a predator control program that involves airborne or same-day airborne shooting of wolves in the Game Management Unit 16B (mainland) portion of Western Cook Inlet, in accordance with AS 16.05.783.

These findings are based on the best information available, and include data gathered from Departmental oral reports and presentations at Board of Game meetings.

Identified big game prey population and wolf predation control area

The Board of Game identified moose in GMU 16B as important for providing high levels of harvest for human consumptive use in accordance with AS 16.05.255 (e)-(g). The Board established Intensive Management Objectives for a harvest of 310 – 600 moose and for a population of 6,500 – 7,500 in accordance with 5 AAC 92.106 and 5 AAC 92.108. The Board established a Wolf Predation Control Implementation Plan for Unit 16B in accordance with 5 AAC 92.110 and 5 AAC 92.125.

Failure to meet moose harvest objective

It is clear the current level of moose harvest in Unit 16B is not meeting the Intensive Management Harvest Objective of 310 - 600 moose. This conclusion is based on harvest data from the mid-1980s and from 1998 through 2003.

From 1983 through 1988, an average of 1,315 hunters reported harvesting 485 moose annually, with 1984 showing a high harvest of 581. More recent years show a dramatic downturn as follows:

Year	General Season and Subsistence Hunters	Harvest
1998	1,037	290
1999	1,024	271
2000	1,050	242
2001	400*	122
2002	400*	69

*general hunting seasons were closed; 400 subsistence permits were issued each year.

Amount necessary for subsistence

There must be a minimum of 199 – 227 moose available for harvest in order to meet the amount necessary for subsistence. The Department estimates that there will be 214 moose available for harvest during the 2004 – 2005 hunting season.

Status of Moose Population

The estimated moose population for Unit 16B during fall 2001 was 3,423 – 4,321, compared to 3,387 moose after the fall 2003 surveys.

Since 1996, most of the Unit 16B composition surveys have shown less than 20 calves per 100 cows annually. The minimum fall calf to cow ratio should be 20 – 30 calves per 100 cows; thus, this is a very low ratio if the intent is to maintain the population or provide for population growth.

Bull:cow ratios in the area have generally been above the management objective of 20 bulls per 100 cows.

The minimum moose density objective is 1.0 moose per square mile for Unit 16B based on the intensive management objective of 6,500 – 7,500 moose. Presently, population estimates place the moose density at .52 moose per square mile.

Status of wolf population

Predation by wolves was not considered an important factor until the mid-1990s. During March 1993, an aerial survey was conducted to estimate wolf numbers in Unit 16. The minimum population was estimated to be 48 – 62 wolves, which was assumed to be an increase from the previous five to ten years. A second aerial survey in 1999 revealed a minimum of 119 wolves in 13 packs in Unit 16B alone. The moose to wolf ratio had declined from 160 – 250:1 in 1993 to nearly 40:1 by 1999.

The wolf population in mainland Unit 16B for fall 2002 was estimated to be 140 – 200 wolves, based on aerial surveys, incidental pilot observations, sealing records, and interviews with knowledgeable trappers; harvest by hunters and trappers has increased annually from 15 in 1997 – 1998 to a record 48 in 2001 – 2002. Available moose and wolf population estimates suggested the fall 2001 moose-to-wolf ratio could be as low as 17:1. At that ratio, the combination of wolves, a relatively high bear density, and frequent deep snow winters were expected to continue to depress moose numbers.

In 2003, the spring wolf population estimate for 16B was 88 – 137 wolves in 16 packs. The spring population in 2004 is likely to be higher, as prior year trends suggest. The population objective for wolves in Unit 16B is 22 – 45 wolves in 3 – 5 packs in the spring.

Even though wolf harvests have been at record levels, averaging 45 wolves over the past three years, high productivity has resulted in an increasing wolf population.

2004-148-BOG

Status of black bear population

The black bear population in Unit 16B was previously estimated at 1,300 to 1,600 bears but recent line transect surveys provided an estimate of 2,100 black bears.

The intent of the Board of Game in 1999 and 2001 was to reduce the black bear numbers to aid in the moose population recovery. The human use objective is a three-year average harvest of more than 225 bears with more than 30 percent being females. During the last ten years, harvests ranged from 62 – 158 bears, and harvests from 2000 through 2002 averaged 118 bears. These numbers are well below the harvest objectives. Two of the last three years were below the 30 percent female objective.

Based on a population estimate of 2,100 black bears, the goal of the harvest objective for Unit 16B is to reduce the population by maintaining a three-year average harvest of more than 225 bears, of which more than 30 percent are females.

Status of brown bear population

The brown population estimate for Unit 16B is 530 – 1,050 bears. The goal of the brown bear harvest objective is to reduce the population by maintaining a minimum three-year average harvest of 28 females over two years old. The last three years have averaged 26 legal females. During the last ten years, the total brown bear harvest of males and females ranged from 34 – 80.

The goal of recent Board actions has been to reduce brown bear population in order to enhance moose population recovery.

Predation is an important cause for failure to achieve harvest and population objectives

In 2002 and 2003, the Department indicated that, in the absence of high predator mortality, the current habitat is adequate to allow for moose population recruitment and growth to exceed the minimum population objective level. While rejuvenating some areas of winter range could increase moose productivity, the primary cause of low moose populations appears to be predators.

Although weather has been a contributing factor in moose population fluctuation in Unit 16B, the drastic and continued decline in moose numbers appears to be attributed mainly to high predator mortality. Because the reported human harvest in this subunit is well below acceptable levels, the main mortality factor appears to be predation. Management studies completed in adjacent units suggest that this mortality factor can be attributed to high numbers of wolves, brown bears, and black bears.

2004-148-BOG

Previous actions of the Board of Game

In 2003, the Board actions included:

- adopting the Wolf Predation Control Implementation Plan for Unit 16B
- liberalizing the wolf bag limit from 5 to 10
- providing more liberal methods and means, including using snowmachines, for harvesting wolves
- extending the brown bear season
- eliminating the brown bear tag fee
- adjusting the brown bear bag limit to one ever year and not counting it against the one bear every four year bag limit in other units
- adjusting the black bear baiting boundaries

Reducing predation provides reasonable expectation of achieving harvest and population objectives

Despite Board actions via standard hunting and trapping regulations to liberalize wolf and bear hunting in Unit 16B, those predator populations remain high. Meanwhile, the moose population remains below population objective levels, despite Board actions that have curtailed human harvest.

It is clear, based on information provided by the Department, that reducing predators will help the moose population to recover so that human harvest objectives for moose can be achieved.

While it is Board policy to manage wolf populations and predation to the extent possible through routine hunting and trapping, other methods not generally approved for hunting and trapping may be implemented. One such method is the use of aircraft.

Because predator populations in Unit 16B have not responded to the liberalizations noted in the paragraph above, and given recent experience in Game Management Units 13 and 19D East, it is clear to the Board that wolf numbers can be reduced by implementing a control program using aircraft. It is reasonable to expect that the moose population can be restored to desired population and harvest objectives by implementing an aerial program to reduce wolf predation. Removing wolves can reasonably be expected to increase the survival of calf moose as well as older moose, thus accelerating the ability to accomplish management objectives.

The Board establishes the following:

1. The removal of wolves will occur in Game Management Unit 16B, and will not exceed the limits set forth in 5 AAC 92.125 (6); wolves should not be reduced to less than 20 wolves.
2. Methods and means to take wolves will be designated by the Department in accordance with 5 AAC 92.039; these may include public aerial shooting or public land and shoot activities.
3. Permits shall be issued to members of the public qualified to operate within the constraints of the program, and able to accomplish the objectives of the program,

as designated by the Department. Multiple permits sufficient to accomplish the objectives in an efficient and effective manner should be issued.

4. The GMU 16B wolf control program shall continue through June 30, 2009, or until such time as moose population and harvest objectives are reached and have stabilized. The Board may also reauthorize the wolf control program.

The Board of Game hereby authorizes a Predator Control Program using aircraft for the Wolf Predation Control Implementation Plan for Unit 16B in accordance with 5 AAC 92.125(6).

Vote: 6/1
Date: March 10, 2004
Meeting Location: Fairbanks, Alaska

Mike Fleagle
Chair, Alaska Board of Game

Findings of the Alaska Board of Game
2004-147-BOG

BOARD OF GAME BEAR CONSERVATION AND MANAGEMENT POLICY
MARCH 8, 2004

GENERAL BEAR MANAGEMENT

Purposes of Policy

1. To assure all management actions provide for the conservation of Alaska's bear species, their habitat and food sources, and are consistent with the Alaska Constitution, and applicable statutes.

2. To encourage review and comment and interagency coordination for bear management activities.

Goals

1. To ensure the long-term conservation of bears throughout their historic range in Alaska.

2. To increase public awareness and understanding of the uses, conservation, and management of bears and their habitat in Alaska.

Background

Brown/grizzly bears (*Ursus arctos)* are large omnivores found throughout most of Alaska. Although they are considered the same species, brown and grizzly bears occupy different habitats and have somewhat different lifestyles and body configurations. Grizzlies are typically found in interior and northern areas. They are generally smaller than brown bears and more predatory. Brown bears live in coastal areas of southern Alaska where they have access to productive salmon streams.

Brown/grizzly bears are found throughout their historic range in Alaska, and unlike populations in the contiguous 48 states, they are not considered a threatened or endangered species. Estimating precise population numbers is difficult because of the bears' secretive habits and often densely vegetated habitat, but in most places in the state, populations are considered stable or increasing. Throughout most coastal habitats where salmon are abundant, bear densities typically exceed 175 bears/1,000 km2 (450 bears/1,000 mi2). A population in Katmai National Park on the Alaska Peninsula was measured at 550 bears/1,000 km2 (1,420 bears/1,000 mi2). In most interior and northern coastal areas, densities do not exceed 40 bears/1,000 km2 (100 bears/1,000 mi2).

Densities as low as 7 bears/1,000 km2 (20 bears/1,000 mi2) have been measured in the eastern Brooks Range. Extrapolations from existing density estimates yielded an estimate

of 31,700 brown bears in 1993. All indications are that the population has increased in the past decade.

American black bears (*Ursus americanus)* are generally found in forested habitats throughout the state. Black bears also occupy their historic range in Alaska, often overlapping distribution with brown/grizzly bears. Because they live in forested habitats it is very difficult to estimate population size or density. Where estimates have been conducted in interior Alaska, densities ranged from 67 bears/1,000 km2 (175 bears/1,000 mi2) on the Yukon Flats to 289 bears/1,000 km2 (750 bears/1,000 mi2) on the Kenai Peninsula. In coastal forest habitats of Southeast Alaska's Alexander Archipelago black bear densities are considered high. A 2000 estimate for Kuiu Island was 1,560 black bears/1,000 km2 (4,000 black bears/1,000 mi2). A statewide black bear population estimate is not available because, unlike the many brown/grizzly bear and wolf estimates that are available across the state, very few black bear population estimates have been conducted.

Brown/grizzly bears have relatively low reproductive rates and require abundant resources. Black bears exhibit higher reproductive rates than brown/grizzly bears; however, rates are still lower than for other big game animals with the exception of brown/grizzly bears. Population stability can be threatened by human-caused mortality and from fragmentation or destruction of habitat. This combination is present to a sufficient extent on the Kenai Peninsula that brown/grizzly bears there have been designated by the State as a "population of special concern". To address situations where bear populations have declined because of human activities, the Department has implemented remedial management actions. In the Kenai situation, a conservation strategy has been developed through a public stakeholder process.

In most areas of the state black bear populations are healthy and can sustain current or increased harvest levels. However, in some areas such as Unit 20B and 20D in the interior, the Kenai Peninsula, and Southeast Alaska, hunter demand for black bears is high, harvest is high, and these populations require closer monitoring. Bears are intelligent animals that learn to adapt to new situations. This ability, coupled with their enduring drive to rebuild fat reserves prior to denning, makes bears experts in finding ways to get a meal. Garbage is often a source of food from people. If this happens, bears learn to exploit human-related food resources and lose their natural tendencies to avoid people. Frequently, such bears become classified as "nuisance" bears and often are killed in defense of live or property (DLP).

Respected by most, and feared by many, bears can pose a threat in certain situations. Statewide, there are an average of about six encounters a year in which a human is injured. About half of those involve hunters in search of other quarry. About every two or three years, one of the attacks results in a human fatality.

Whenever bears and people interact with each other there are potential benefits and dangers. Displacing bears from feeding sites has serious consequences for them. Human behavior around bears not only impacts their own personal safety and viewing experience,

it also impacts the health and safety of the bears and the people who come to the area later. When bears and people meet, it is important that bears never get food from them and that people are trained how to react to bear encounters. Comprehensive education is recognized as a vital component in all aspects of any bear viewing program.

Public interest in bears has increased dramatically in Alaska during the past decade. Some of this interest is incidental to other pursuits such as sport fishing, hiking, flight seeing, eco-tours, or marine water cruises but some of it is specifically targeted at bear viewing. Bear viewing is a rapidly growing industry in selected areas of the state. The interest exceeds the opportunities provided now by such established and controlled sites as McNeil River, Pack Creek, Anan Creek, Wolverine Creek and Brooks Camp. As a result, private entrepreneur businesses are providing viewing opportunities in some high-density bear areas. Many of these sites and programs involve highly habituated bears that most frequently result in mutually exclusive conflicts with other uses of bears. Habituation of bears should be discouraged and maximum public benefits pursued by providing management programs designed to provide for public viewing opportunities in areas where other uses are already excluded or to carefully integrate uses on a time and area basis.

Alaska is world-renowned as a brown/grizzly bear hunting area. Alaska is the only place in the United States where they are hunted in large numbers, and the vast majority of record book bears come from the state. An average of about 1,500 brown/grizzly bears are harvested each year. The trend has been increasing. Many of the hunters are nonresidents and their economic impact is significant to Alaska. Hunters have traditionally been the strongest advocates for bears and their habitat, providing consistent financial and political support for research and management programs.

Because bears can be both prey and predator, their relationship with people is complex. In areas where a population of large ungulates has been reduced to low levels, bears may have a significant influence on the decline of species such as moose, caribou and deer. This is especially true when bears are found in combination with thriving wolf populations. Alaskan studies of bear interactions with moose, for instance, indicate that bears may contribute significantly to calf mortality. Coupled with wolf predation, the combined mortality rates can far exceed human induced mortality and contribute to major moose population declines, depressed populations and delayed recoveries. The role of bears in these situations greatly exacerbates the debate over predator control and complicates evaluation of potential and initiated management actions.

Guiding Principles

1. Manage bear populations to allow a wide range of human uses, while providing for long-term bear population sustainability.
2. Establish minimum population goals that ensure the long-term viability of bears recognizing the reproductive capacity of each bear species.
3. Manage bears at the scale of subunits or units to achieve appropriate overall predator-prey relationships rather than pursue single species management.
4. Protect the genetic diversity of bears.
5. Continue and, if appropriate, accelerate research for the management of bears.

6. Consider short-term and long-term effects of habitat loss and fragmentation on bear populations.
7. Provide for consumptive and non-consumptive uses of bears in management plans and encourage economic benefit to the state and its citizens while maintaining sustainable bear populations.
8. Do not allow identified prey populations to decline to a point where predation keeps them at low levels.
9. Avoid, where possible, activities that encourage the habituation of bears and manage bear viewing opportunities that are not mutually exclusive of other uses.
10. Encourage wildlife viewing of bears and other species in their natural settings as part of a broader outdoor experience.
11. Implement this policy in such a manner that the Department and the Board can respond promptly to unforeseen situations.
12. Pursue informational and educational efforts to help the public understand more about bears and their management.
13. Work with enforcement agencies to identify priorities and to assist with and encourage adequate enforcement activities.
14. Review and recommend revision to this policy as needed.

Conservation and Management

A. Management Strategies

The Department will manage both bear species differently according to their population and human use characteristics in different parts of the state. In some areas, such as the Kodiak Archipelago, portions of Southeast Alaska and the Alaska Peninsula, bears are managed for trophy-hunting and viewing opportunities. In many other areas of the state, bear populations are largely unaffected by human harvest. Bears are an important big game species sought by resident and nonresident hunters and are managed for a variety of objectives.

Generally, bear hunting will be conducted on a sustained yield basis, except in areas where a bear predation control program is authorized. Harvests will not be allowed to threaten the long-term population survival of bears. In most areas of the state, sustained brown/grizzly bear harvests will generally be 4-8 percent of the estimated total population and up to 12 percent for black bears. Some bear populations may be able to sustain a harvest above these guidelines and these will be evaluated for more liberal harvest programs. Lacking precise population data, managers will continue applying indirect parameter to assess the status of bear populations.

All brown/grizzly bears harvested under the general hunting regulations must be inspected and sealed by a Department representative. Black bears must be sealed in some units but not all. Non-resident hunters of brown/grizzly bears must be accompanied in the field by a registered big game guide or a resident relative. For both species, sows accompanied by cubs, and the cubs, are protected, but cubs are defined as bears in their first year of life for

black bears and for the first two years of life for brown/grizzly bears. The Department will continue to maintain these strategies and regulations for most of the state, unless it is necessary to consider methods to increase bear harvests as part of a bear predator control program.

The effect of management actions on the economic contribution of bears to Alaska's users of bears should be considered. Maintaining a regulatory structure that assures reasonable standards of data integrity with responsible management strategies and population sustainability will help avoid threats of international sanctions. Large areas of the state have subsistence brown/grizzly bear hunts with liberal seasons and bag limits, mandatory meat salvage, and relaxed sealing requirements. The Department will continue to accommodate subsistence needs and will consider the impacts on subsistence activities.

Bear viewing and bear/human interactions are also important aspects of bear management in Alaska. Increasing interest in watching bears at concentrated feeding areas such as salmon streams and sedge flats is challenging managers to find appropriate levels and types of human and bear interactions without jeopardizing human safety or bears or other legitimate uses of bears. Bear hunting and viewing are compatible in many situations. However, there are areas where the two uses are potentially mutually exclusive. Land and wildlife managers are faced with tough decisions that could either minimize those conflicts or promote single use regulations at the expense of other uses. For instance, federal withdrawals totaling over 40 million acres are managed to protect large segments of Alaska's big game resources habitat and major portions of these areas provide park-like observation opportunities. Logically these areas could first be utilized for habituated wildlife viewing opportunities before traditional uses of bears and other wildlife are unnecessarily impacted in other areas. Bear management programs on state and private lands should be designed to achieve maximum benefits to Alaskans. Specifically, state management programs should avoid habituating bears wherever possible. Conflicts between user groups can frequently be reduced if viewing programs adopt "best viewing practices."

In areas where bear management plans have been developed, the Department will adhere to the recommendations included in those plans as long as they are consistent with the newest policies and regulations adopted by the Board.

Nothing in this policy affects the authority under state or federal laws for an individual to protect human life or property from bears (5 AAC 92.410). All reasonable steps must be taken to protect life and property by non-lethal means before a bear is killed.

B. Research Strategies

Developing and implementing precise, cost-effective methods for determining bear populations will continue to be a research priority for the Department. Work to date suggests that no single population estimation method will work across the state given the vast areas, varied topography, differing vegetation communities and great differences in bear density. Some methods work well in one area but not in another. Aerial stream

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Because of the economic importance of guiding and other commercial enterprises associated with the varied uses of bear, it is recommended that extra efforts are made to notify all concerned parties that area specific predator control activities are being considered.

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Based on careful consideration of scientific information and public comment, the Department and the Board believe that in some limited circumstances it may be beneficial and appropriate to control predation by bears to achieve population and human use objectives.

Guiding Principles

1. Where bear reductions are authorized, the first step should be to reduce bear numbers through general hunting provisions such as liberalized seasons, bag limits, hunting methods and means and tag waviers.
2. Where predation regulates prey populations, identify to the extent possible, the relative contribution by each primary predator species so that management response can be focused and effective.
3. Implement measures to reduce black and/or brown bear numbers to allow prey species to increase population management objectives in areas managed for high consumptive use where predation by bears itself or in combination with other predators is keeping prey at low levels.
4. Manage bears at the appropriate scale that may vary from an entire Game Management Unit to a specifically defined area (e.g. key calving sites).
5. If liberalization of general hunting provisions does not adequately reduce the target bear population, an additional control program may be authorized. This program should be conducted for the minimum time necessary to achieve the stated

management objectives and may utilize methods and means not approved for general hunting.

6. Consider the management goals and objectives of state, federal, and private land owners and work cooperatively with them to design, implement, and evaluate bear control activities.
7. Encourage federal and private land owners, where possible, to work cooperatively in any management and/or species control programs.
8. If reduction in bear numbers fail to result in reasonable increases in availability of prey populations for human use, management practices intended to reduce bear populations should be reconsidered.

Management Strategies

In areas where bears have been identified as an important component in reducing and/or holding prey populations well below objectives, higher harvest levels than those listed under general management strategies will be allowed. In these areas, specific harvest reporting conditions will be imposed which may include additional requirements for permits, sealing, and/or reporting. In addition, the Department will closely monitor the effects of higher harvest on the bear and prey populations.

Research Strategies

In areas where bear predation control programs are considered, the Department may conduct research to quantify the contributions of each bear species and of wolves to the causes of decline in the ungulate population important for human use. Alternatively, the Department may use standard survey and inventory data and interpretation of other research results to guide the decision-making process. Monitoring activities designed to determine the effects of high levels of bear harvest on recovery of depressed ungulate populations would help focus management efforts in the most cost-effective manner.

Information and Education Strategies

In any situation where the Board or Department believes bear predation control may become necessary, the public will be informed as soon as possible. Detailed information on the specific location, the predator, prey and habitat concerns, and the proposed management action and its anticipated costs and duration will be widely disseminated. Public meetings may be held in the affected area and in major Alaska communities, in addition to regularly scheduled Board and Advisory Committee meetings. Once implemented, the Department will provide the Board and the public with an annual report and evaluation of the management action.

Board Consideration

The Board may consider bear control on a bear species when:

1. Bear predation has been determined to be an important factor in the decline of a prey population or is preventing recovery of a low density prey population.

2. Bear predation is an important factor preventing attainment of approved prey population of human-use objectives.
3. Efforts to control bear predation can be reasonably expected to achieve improvement in sustainable human use of ungulates.

If the Department or the Board determines that one or more of these conditions exist in a given IM area, at the Board's direction, an implementation plan will be prepared for public review that includes:

- A statement of the proposed action, including potential methods and means.
- Justification for the proposed action, including previous measures taken that failed to achieve bear and prey objectives and other alternatives considered.
- Geographical description of the area.
- Population and human use objectives.
- Relevant information about wildlife populations and human use, including bear and prey populations status and trend, harvest information, habitat, and estimates of the effects of all predators on prey populations.
- Estimate of the time and funding necessary to meet population and human use objectives.
- Schedule for update and reevaluation of the program.

If a bear control program is authorized by the Board, a specific predator control implementation plan will be prepared that includes:

- Justification
- Geographic area description
- Wildlife population and human-use information
- Bear and Prey population level and population objectives and the basis for those objectives
- Methods and means
- Anticipated time frame not to exceed five years unless the plan is re-adopted, and a schedule for update and reevaluation
- Other specifications or limitations the Board considers necessary.

Bear control will be implemented using the most humane, selective, acceptable and effective methods available. If methods that do not require killing bears are found to achieve the desired results in a reasonable time and with reasonable financial resources, they will be considered first. At no time will poisons be used for bear control.

It is the intent of the Board of Game that bear control programs authorized under this policy shall be directed at only specified target areas and is not intended for implementation under general hunting regulations.

Under methods and means the Board may selectively consider:

- Relocation
- Sterilization
- Use of communications equipment between hunters or trappers

- Sale of hides and skulls as incentive
- Use of bears for handicraft items for sale
- Trapping
- Bear baiting
- Changing the definition of a legal bear
- Same day airborne taking, except aerial shooting
- Diversionary feeding

Vote: 7/0
March 8, 2004
Fairbanks, Alaska

Mike Fleagle, Chair
Alaska Board of Game

Findings of the Alaska Board of Game
2003-144-BOG

Authorizing Wolf Control in Portions of Unit 13
December 15, 2003

Background
Unit 13 long has been an important hunting area for resident subsistence users as well as for the bulk of the state's population in Anchorage, the Matanuska-Susitna valley, and Fairbanks. It is recognized under the state's intensive management law as an area where moose and caribou are to be managed for high levels of human consumptive use.

For the past decade, the Board of Game has heard persistent concern from local residents, hunters and wildlife managers about a continuous and steep decline in the moose population across most of Unit 13.

The Board has concurrently heard the equally persistent concern that predation is causing the moose decline. Researchers and public testimony identify the primary causes of poor calf survival and dwindling population:

- Year-round predation by wolves, and
- Late spring/early summer brown bear predation on calves.

Under the Wolf Conservation and Management Policy adopted by the Board in 1991, and revised in 1993, "in areas managed for high consumptive use where predation is keeping prey at low levels, ADF&G may implement wolf population regulation or reduction to allow prey species to increase to population management objectives." Under this policy, the Board will consider wolf control when:

- Wolf predation is a factor in an unacceptable decline in prey population size or productivity, or
- Wolf predation is a factor preventing attainment of approved population or human use objectives.

Both situations clearly apply to Unit 13.

In an effort to initiate predation control activity, the Board established in 1999 a wolf predation control area covering much of Unit 13 under 5 AAC 92.125(5). While this wolf predation control area has been in place since 1999, the state has taken no action. The Board hereby incorporates 5 AAC 92.125(5) by reference, and reaffirms its ongoing validity, with updates noted herein, based on the most current information from the department.

Under AS 16.05.783, the Board of Game may authorize a predator control program involving airborne or same day airborne shooting as part of a game management program if the Board determines, based on information provided by the department, certain steps are met:

- Objectives set by the Board for the big game prey population and human harvest have not been achieved,
- Predation is an important cause for failure to achieve the set objectives, and
- Reducing predation can reasonably be expected to help achieve those objectives.

Board Objectives for the Big Game Prey Population Have Not Been Achieved
For the purposes of implementing AS 16.05.255(e) – (g), the Board of Game identified the moose populations in Units 13A, 13B, and 13E as important for providing high levels of harvest for human consumptive use and has established the following population and harvest objectives (5AAC 92.108):

- Unit 13A, 3,500 – 4,200 moose with harvest objective of 210 – 420.
- Unit 13B, 5,300 – 6,300 moose with harvest objective of 310 – 620.
- Unit 13E, 5,000 – 6,000 moose with harvest objective of 300 – 600.

Additionally, the Board adopted a Wolf Predation Control Implementation Plan for Unit 13 (5 AAC 92.125(1)) with program objectives designed to stop the decline of the moose population within the wolf predation control area and maintain the following moose population composition and density objectives during fall surveys:

- Unit 13A, 1.0 cows per square mile and 25 calves per 100 cows.
- Unit 13B, 1.2 cows per square mile and 30 calves per 100 cows.
- Unit 13E, 0.9 cows per square mile and 30 calves per 100 cows.

The fall 2003 moose population, composition and density estimates are:

- Unit 13A, 2,200 moose with 1.0 cows per square mile and 19 calves per 100 cows.
- Unit 13B, 4,200 moose with 0.9 cows per square mile and 17 calves per 100 cows.
- Unit 13E, 4,100 moose with 0.6 cows per square mile and 15 calves per 100 cows.

The moose population in each unit is below intensive management population objectives and below the population composition and density objectives contained in the Wolf Predation Control Implementation Plan.

The human harvest for the past 5 years has averaged:

- Unit 13A, 169 moose.
- Unit 13B, 223 moose.
- Unit 13E, 154 moose.

Based on information provided by the department, the Board determines that the intensive management moose population and human harvest objectives as well as the

Wolf Predation Control Implementation Plan, moose population objectives are not being met in Units 13A, 13B, and 13E.

Predation is an Important Cause for Failure to Achieve Objectives Set by the Board

Through a series of incremental steps over time, the Board has moved to reduce wolf and bear numbers in Unit 13 in order to meet the objectives set by the Board under the state's intensive management law. Longer seasons, more liberal bag limits and additional methods and means are now in place. These actions have not stemmed the moose decline, nor have they provided the hoped-for predator reduction.

Concurrent with its efforts to ease predation, the Board reduced human harvests of moose by shortening resident hunting seasons, eliminating nonresident hunters, and adopting more selective antler restrictions. Fewer people are hunting and human harvest is declining.

The moose population in Units 13A, 13B, and 13E has declined 52% between 1988 – 2002 and it continues to decline. Pregnancy rates for adult cow moose haven't declined and productivity has remained constant. Calves are being born but are not surviving.

Moose and caribou make up the bulk of a wolf's diet in Unit 13. It is estimated one wolf kills 12 moose or 36 caribou, or some combination thereof, each year to support itself. Wolves take moose of all ages and both sexes, mostly during early winter through late spring.

The Board has already established wolf hunting and trapping seasons that are as long as reasonably practical. Any further liberalization would have little impact on overall wolf numbers. Few additional wolves would be taken due to poor access and poor pelt quality.

Wolf harvests are at record levels, averaging 211 over the past 3 years. Nevertheless, due to high productivity, the spring 2003 wolf population estimate was 253. Even with another high harvest, the wolf population will probably remain well above the Board-established spring objective of 135-165.

Several studies have shown that brown bears take more than half of the moose calves born each spring. The predation rate remains high until calves are about six weeks old. After that, brown bears can and do kill moose of all ages and both sexes, but the rate at which they do so is greatly diminished.

In actions similar to liberalizing wolf seasons, the Board has gone as far as possible to reduce the number of brown bears given current hunting regulations, including establishing a year-round season for most of Unit 13. A series of record brown bear harvests averaging 141 bears per season over the past 6 years resulted. Although recent high harvest rates exceed estimates of sustainable levels, the Board has no evidence the bear population is being – or even will be – reduced. Based on information provided by

the department, the Board determines that predation is an important cause for failure to achieve the set objectives.

Reducing Predation Can Reasonably Be Expected to Help Achieve Objectives Set by the Board

Despite Board actions via standard hunting and trapping regulations to liberalize wolf and bear hunting, those predator populations remain high. Meanwhile, the moose population remains below objective levels despite Board actions that have curtailed human harvest.

It is clear, based on information provided by the department, that removing predators will help the moose population to recover so that human harvest objectives can be achieved.

While it is Board policy to manage wolf populations and predation through routine hunting and trapping, predation control programs using methods not generally approved for hunting and trapping may be implemented. One such method is the use of aircraft. Given the experience over the past decade, it is clear to the Board that the moose population cannot be restored, and wolf numbers cannot be reduced enough, to meet management objectives without the use of aircraft to control wolves.

It should be emphasized that under the Board's wolf management policy, such control programs "are not expected to be permanent, on-going activities" and control of wolves must be done in such a way as to "assure continued viability of wolves in the ecosystem." The use of aircraft will not jeopardize the long-term viability of wolves in Unit 13 or the state as a whole, where the wolf population is estimated at 7,700 to 11,200.

Once the objectives of the wolf predation control program are achieved, the program should cease. However, any future increase in wolf population with a commensurate decrease in moose population should trigger another predator control activity.

The Board of Game hereby authorizes a Predator Control Program using aircraft for the Wolf Predation Control Implementation Plan for Unit 13 in accordance with 5 AAC 92.125(5).

Vote: 7/0
December 15, 2003
Anchorage, Alaska

Mike Fleagle, Chair
Alaska Board of Game

Findings of the Alaska Board of Game
2003-143-BOG

Authorizing Wolf Control in Portions of Unit 13

Background

Unit 13 long has been an important hunting area for the bulk of the state's population in Anchorage, the Matanuska-Susitna Valley, and Fairbanks. It is recognized under the state's intensive management law as an area where moose and caribou are to be managed for high levels of human consumptive use.

For the past decade, the Board of Game has heard persistent concern from local residents, hunters and wildlife managers about a continuous and steep decline in the moose population across most of Unit 13.

The Board has concurrently heard the equally persistent concern that predation is causing the moose decline. Researchers and public testimony identify the primary causes of poor calf survival and dwindling population:

- year-round predation by wolves and
- late spring/early summer brown bear predation on calves.

Under the Wolf Conservation and Management Policy adopted by the Board in 1991 and revised in 1993, "in areas managed for high consumptive use where predation is keeping prey at low levels, ADF&G may implement wolf population regulation or reduction to allow prey species to increase to population management objectives." Under this policy, the Board will consider wolf control when:

- wolf predation is a factor in an unacceptable decline in prey population size or productivity, or
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Under AS 16.05.783, Board of Game may authorize a predator control program involving airborne or same day airborne shooting as part of a game management program if the Board determines certain steps are met:

- objectives set by the Board for the big game prey population have not been achieved,
- predation is an important cause for failure to achieve the set objectives, and
- reducing predation can reasonably be expected to help achieve those objectives.

Board Objectives for the Big Game Prey Population Have Not Been Achieved
Through a series of incremental steps over time, the Board has moved to reduce wolf and bear numbers in Unit 13 in order to meet the objectives set by the Board under the state's intensive management law. Longer seasons, more liberal bag limits and additional methods and means are now in place. A wolf predation control area was established These actions have not stemmed the moose decline, nor have they provided the hoped-for predator reduction.

Concurrent with its efforts to ease predation, the Board reduced human harvests of moose by shortening resident hunting seasons, eliminating nonresident hunters, and adopting more selective antler restrictions. Fewer people are hunting and harvest is shrinking.

Pregnancy rates for adult cow moose haven't declined and productivity remains high. Calves are being born but are not surviving, so the average age of the moose population has increased. Older animals are more susceptible to predation and severe winter weather.

Predation is an Important Cause for Failure to Achieve the Set Objectives
Moose and caribou make up the bulk of a wolf's diet in Unit 13. It is estimated one wolf kills 12 moose or 36 caribou, or some combination thereof, each year to support itself. Wolves take moose of all ages and both sexes, mostly during early winter through late spring.

The Board has already established wolf hunting and trapping seasons that are as long as reasonably practical. Any further liberalization would have little impact on overall wolf numbers. Few additional wolves would be taken due to poor access and poor pelt quality.

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Several studies show that brown bears take more than half of the moose calves born each spring. The predation rate remains heavy until calves are about six weeks old. After that, brown bears can and do kill moose of all ages and both sexes, but the rate at which they do so is greatly diminished.

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 2003-143-BOG

Alaska Board of Game Findings

Trapping and Wolf Snaring in Alaska

98-119-BOG

At its March, 1998 meeting in Fairbanks, the Board of Game considered several proposals that restrict or eliminate the use of snares for harvesting wolves and other trapping concerns. Extensive public testimony and advisory committee reports regarding concern over the reduction or loss of snares as a method of harvesting wolves, and other trapping concerns was also received on both the proposals and the potential ballot initiative banning wolf snaring.

Based on this testimony and information provided by the Division of Wildlife Conservation and the Division of Fish and Wildlife Protection, and considerable deliberation, the BOG makes the following findings:

1. Snares are an important harvest tool for Alaska trappers, and the restriction or removal of that tool will result in personal and financial hardship for trappers and others dependent on the fur trade for their livelihood. In most areas of Alaska, economic opportunities are few, and the inability to harvest wolves with snares will lead to significantly reduced income levels in already depressed communities.

2. The harvest of wolves, through regulated methods and means, is an important management tool used by the Department of Fish and Game and the BOG in maintaining harvestable quantities of big game species, and is considered to be an important factor in the management of those species. Restricting or eliminating the use of snares to harvest wolves will reduce wolf harvest numbers, leading to potential predator to prey ratio imbalances and low moose and caribou densities in many areas.

3. It is strongly substantiated through many years of scientific monitoring and research that wolves are a highly prolific, productive and resilient species, capable of sustaining consistent harvestable surplus rates of over 30% annually on any given wolf pack. The annual reported harvest from Alaska's estimated wolf population of 7000 seldom exceeds 20% in a given area or statewide under existing harvest and management regimes.

4. The source of the data used by snaring opponents and ballot initiative supporters is the result of an intensive wolf trapping and snaring program conducted by the Department of Fish and Game in 1993-1994 in GMU 20A. It can not be considered representative of common trapping practices. Trappers use varying numbers of snares at a set, rarely more than 12, determined by location and prevailing conditions. There is no evidence that trappers use snares set in the manner of a drift net, or that they set snares in multiple heights.

5. The rate of incidental catch by trappers of non-target species such as moose, caribou, eagles, ravens, and bears is very low, due to the careful and exact placement of their snares, and the timing of trapping seasons, in habitats, locations, and configurations that minimize catch of other species. Other species of furbearers caught in wolf snares, such as fox, wolverine and lynx, are desirable and legal, and are not considered to be incidental non-target catches to the trapper.

6. The instances of wolves being caught around other parts of the body, such as the legs and feet are rare. In cases where wolves are caught around the foot, the snare rarely breaks the flesh. Most wolves caught in snares are caught around the neck, leading to swift and humane death. A very small

percentage of wolves are caught around the torso. These wolves are usually still alive when the trapper returns to the set.

7. We heard widespread public support among Alaska residents, particularly those residing in rural areas, for the use of snares by trappers to harvest wolves. There is no evidence to support the notion that the bush communities support a ban on wolf snares.

8. Alaska trappers are conscientious and operate within the laws and regulations governing trapping. Snares are rarely left operable at the end of the season. Snares are valuable to the trapper, and great effort is made to recover snares set in the field.

9. Regulated trap checks are not reasonable in Alaska, considering climatic conditions, length of traplines, and other considerations that would make a time limit impossible to comply with.

10. Trap identification is not warranted at this time. Trappers have experienced harassment by those against trapping and worry about the information being made available to the public. The Alaska Trappers Association assists law enforcement officers in determining who traps belong to. Most traplines are well known by other people and Department staff, further assisting in the identification of those trappers.

The Board of Game found that much of the information used in the claims against snaring came from a specific intensive wolf management program. Many more snares were used per set and higher density of snares were used for a longer season in habitats not normally trapped. The area also had a higher density of moose than most of Alaska. Two grizzly bears were caught before the normal trapping season begins, and two eagles were caught in snares set by helicopter in high terrain.

It is our conclusion that the numbers used by the Alaska Wildlife Alliance and Alaskans Against Snaring Wolves are inflated and do not represent common trapping practices or actual rates of wolf harvest or incidental take of other species.

ADOPTED DATE: March 26, 1998
Fairbanks, Alaska

Lori Quakenbush

Lori Quakenbush, Chairman
Alaska Board of Game

Findings of the Alaska Board of Game
on Moose Management in Game Management Unit 16B South
97-109-BOG

The Board of Game passed a proposal to provide a general resident only spike-fork 50-inch hunt from August 20 through September 30, and extended the season per an existing Tier II subsistence hunt by sixty days (Nov. 15 to Feb. 28) in Game Management Unit 16B south, that portion of 16B south of the Beluga River, Beluga Lake, and Triumvirate Glacier. Based on the reports presented by Division of Wildlife Conservation, Subsistence Division and the Department of Law, and after due consideration, the Board of Game makes the following findings:

1. The moose population in Unit 16B south is estimated to be 1200 moose (200 bulls, 820 cows, 110 calves) based on the most recent survey estimates made in 1996. The moose population in Unit 16B south consists of a single population or subpopulation that is relatively distinct during the fall hunting and breeding season with emigration and immigration of small numbers of bulls across the Beluga River.

2. The current total harvestable surplus of moose in Unit 16B south is approximately 105 bulls. Although the population goals for cows have been exceeded, it is not desireable to harvest the surplus of cows at this time due to the low recruitment of calves.

3. On March, 1993, the Board of Game found that the harvestable portion of Unit 16B south moose population that is reasonably necessary for subsistence uses is 39 - 47 moose. Between 1993 - 1996 the average harvest was fifteen spike-fork 50 inch bulls in the Redoubt Bay drainage area and 13 bulls for the Tier II permit area in the remainder of the unit. The total harvest for the 1996/97 season is 37 bulls in Unit 16B south.

4. The harvestable portion of Unit 16B south moose (105 bulls) is substantially more than the amount necessary for subsistence uses (39 - 47 moose). There are sufficient numbers of harvestable moose in Unit 16B south to provide for a subsistence hunt that satisfies subsistence uses, as well as to provide for a managed general hunt for residents.

5. The fall general hunt will provide additional opportunity for subsistence uses to Alaska resident hunters. In addition, the Board has authorized an extension to the existing winter Tier II hunt of sixty days, which provides additional opportunity to take moose in excess of what is legally required. Hunting in winter is important to residents in some areas of the state.

6. The Unit 16B south moose population is more vulnerable to overharvest during the winter, therefore the winter hunting opportunity must be managed carefully. Resident hunter success during the fall season has averaged 33 percent. During the fall, local hunters use boats, off-road vehicles and highway vehicles, while non-local residents predominantly use aircraft for access. Hunter success in winter is slightly higher, averaging around 35 percent. Currently, it is not desireable to harvest the surplus of cows and the winter hunt is a bull-only hunt during a time of year when bulls are antlerless, requiring that the Board manage hunter participation differently during the hunt periods. The factors outlined previously require that the moose which are the subject of the winter hunt be managed as a discrete "portion of a population" as set forth in AS 16.05.258.

7. It is necessary to manage the winter hunt by limiting the number of permits in a Tier II hunt. Unlimited participation would likely lead to an overharvest of bulk due to accessibility and herd concentration in wintering areas, unless the season was short. However, a short season would not provide adequate opportunity for subsistence uses.

8. Providing a general hunt with a bag limit of one bull with spike-fork 50 inch antlers for residents only and a long winter season with a bag of one bull by Tier II permit will not result in a significant cost to private persons. Such a hunting regime is consistent with sustained yield principles, provides a reasonable opportunity for subsistence use by all Alaska residents.

Date: 4/20/97

Larry Holmes, Chair
Alaska Board of Game

Vote: 4-0-3

Absent: Fleagle
Quakenbush
Whittington-Evans

ALASKA BOARD OF GAME FINDINGS
NELCHINA CARIBOU PROPOSAL 21A
96-102-BOG

The Nelchina caribou herd occupies a huge area of Southcentral Alaska and western Canada. During the 1950s this herd erupted reaching a peak population of 80,000 to 90,000 animals by the early 1960s. The herd crashed in the late 1960s and by 1971 numbered only 8,000 caribou. The Department and the Board recognized that careful restrictions on the harvest were necessary to rebuild the herd and instituted a permit drawing hunt in the mid-1970s. Annual harvests declined from about 9,000 in 1971 to about 500 shortly thereafter.

During the 1970s and 1980s the herd increased toward the management goal of 40,000 animals. Tier II permits replaced the permit drawing hunt, one of the most popular permit hunts in Alaska. During the early 1990s, permit numbers were increased greatly in an effort to harvest more animals and reduce the rate of population growth. However, unpredictable movements of the herd during hunting season, and reduced hunter success rates acted to keep harvests below desired levels. By 1996, the herd had increased to over 50,000 caribou and biologists warned that a population decline may result if harvests were insufficient to reduce numbers to about 40,000.

Based on public testimony and reports of Department biologists, the Board finds that:

1. Biological information on herd movements, range conditions, and growth of calves suggests that this caribou herd may decline from increased mortality and reduced survival if numbers continue to increase.

2. If the herd increases further and approaches levels reached in the early 1960s (80,000 to 90,000), a crash may again result and long-term damage to the range will occur.

3. Prudent and conservative management of this herd and its harvest has previously resulted in recovery of this herd from very low numbers. This is a wildlife management success story that can be continued with proper measures to regulate harvests in the 1990s.

4. In recent years, the harvest of Nelchina caribou has been about 5,000 animals annually, and has focused predominately on older bulls. A harvest of about 15,000 animals (5,000 bulls and 10,000 cows) is necessary in 1996 to reduce the herd to about 40,000 by spring 1997, given normal recruitment in 1996. However, the Board recognizes that logistical problems of managing the harvest may make such a large one-year harvest impossible to obtain. It may require two or more years of large harvests to reduce the herd.

5. In order to maintain an optimum bull:cow ratio and to harvest sufficient numbers of cows to reduce the herd it will be be necessary to allocate permits such that the bull harvest does not exceed 5,000 animals. Furthermore, it will be necessary to require

hunters to shoot animals with certain antler characteristics in order to target cows. Biologists indicate that virtually all cows and very few younger bulls have six or fewer antler points on one antler. Certain permits will therefore be issued requiring hunters to shoot only animals with certain antler characteristics.

6. In order to obtain a large harvest, it will be necessary to open the season on 1 August and extend it into March. To avoid disrupting the rut and to avoid the potential for numerous problems associated with road-side shooting during road crossings of the Richardson and Tok-Cutoff highways, it is appropriate to close the season during the period 21 September to 20 October. However, if conditions are suitable to allow harvest of the cow sements of the population during this time, the Department should open the season by Emergency Order to ensure an adequate harvest.

7. The Board finds that there is ample potential to extend hunting opportunity to many residents of the state as a result of growth of the Nelchina caribou herd and the need to institute large harvests to reduce its size. Such opportunity includes use of primitive weapons early in the hunting season.

8. The Board finds that issuance of Tier II permits only will be insufficient to obtain the necessary harvests of cows. The Board also finds that, for now, it is not necessary to limit participation in the hunt which is focused on the cow segment of the population. Accordingly, Tier I registration permits available by mail will be issued for a cow segment of the population.

9. The Board finds that there is a serious potential for problems related to road-side incidents, including excessive wounding loss, human injuries due to accidental gunshots, and traffic accidents, when large numbers of hunters encounter migrating caribou near the road system. Careful monitoring of the hunts will therefore be necessary with emergency order closures by the department if problems occur.

10. The Board finds that an effort to reduce a major caribou herd by instituting a large, one year harvest of up to 15,000 animals is a bold, unprecedented step in caribou management in Alaska. Although a crash is probably not imminent, prudent management suggests that in order to continue the success story of managing this herd, it is time to take this action. By doing so, the Board intends to reduce the risk of overpopulation problems while providing a significant increase in hunter opportunity for resident hunters. However, we must also carefully avoid creating problems that may occur when large numbers of hunters and caribou interact at major road crossings

Larry Holmes

Larry Holmes, Chair
Alaska Board of Game

Date: 4/18/96
Juneau, Alaska
Vote: 6-0-0-1

No. 92-63-BOG

FINDINGS OF THE BOARD OF GAME

IMPLEMENTATION OF WOLF POPULATION REGULATION IN GAME MANAGEMENT UNIT 13

Introduction to Written Findings: During the publicly convened Board of Game meeting Nov. 9-19, 1992, the Alaska Board of Game heard and considered public testimony, ADF&G staff reports and advisory committee reports and deliberated in regard to the Game Management Unit 13 wolf management implementation plan. Based on this information, the Board passed a regulation authorizing wolf population regulation within portions of the unit. This implementation plan outlines a management program addressed to increasing yields of moose and caribou for hunters. Additionally, the Board found the following:

1. Game Management Unit 13 (GMU 13) is one of the most important areas for uses of wildlife in the state due to its large wildlife populations and proximity to much of the state's population in southcentral and interior Alaska.

2. There are not sufficient sustainable yields of moose and caribou in GMU 13 to meet present consumptive demands for subsistence and other uses. While current populations of moose and caribou are fairly large, recent yields, particularly of moose, are small. Many Alaskans depend on these populations to meet their nutritional needs and those needs are addressed by the implementation plan.

3. Public testimony prevailed toward strong support for intensive management of GMU 13 wildlife populations to provide high yields of moose and caribou for humans.

4. The Department management goal for GMU 13 is to conserve all populations of wildlife; to produce high yields of moose and caribou for humans and to provide the maximum opportunity to participate in hunting for these species; to maintain all populations of wildlife, including predators, at significant and visible levels to provide for a broad spectrum of uses was found to be appropriate. Also found to be appropriate were recommended population and harvest objectives for moose, caribou, wolves, and grizzly bears as follows:

SPECIES	POPULATION OBJECTIVE	HARVEST OBJECTIVE
Wolf	150-200	50-150
Moose	25,000-30,000	2,000-3,000
Caribou	40,000-60,000	4,500-6,500
Grizzly Bears	Reduce Significantly	>125

5. Wolf and bear predation on moose and caribou is a mortality factor which can be managed through the regulation of wolf and reduction of bear population levels in portions of GMU 13. However, benefits from wolf regulation are more immediately measurable than bear reduction which would take several years to have a measurable effect. Additionally, because of the Board's calendar for dealing with different species, bears don't come up until the Spring 1993 meeting so they cannot be dealt with on a regulatory basis until then. Delaying wolf regulation in a portion of GMU 13 until that time would place additional pressure on moose and caribou and force more extreme wolf regulation and bear reduction in the future.

6. The Department's five-point management proposal for increasing moose and caribou yields which includes habitat enhancement, wolf population regulation, grizzly bear population reduction, more sophisticated harvest strategies, and expanded research is appropriate.

7. The appropriate management emphasis for GMU 13 is on high yields of moose and caribou; however wolves and grizzly bears are important wildlife resources and must be managed on a sustained yield basis and maintained at viable levels. Management for high grizzly bear populations is emphasized in other areas of the state; GMU's 4, 8, and 9 in particular.

8. Wolf packs that reside primarily within Denali National Park are an important resource and are appropriately provided protection outside of the park in GMU 13 by zoning changes in the area-specific plan. Wolves primarily residing with Wrangell St.-Elias National Park were also considered and felt to be adequately protected based on the GMU 11 and 13 boundary, the Copper River, the forested terrain along the boundary, and the history of past wolf harvests in the area. The Department will work with appropriate federal agencies to ensure that wolves

residing primarily on federal land will be excluded from regulation programs.

9. The GMU 13 wolf population has been regulated over the past 20 years primarily by public land-and-shoot hunting techniques. It has been demonstrated that ground trapping and hunting are incapable of regulating the wolf population at the desired level. It was recognized that some object to public participation in wolf control activities. Land-and-shoot hunting was successful in achieving desired harvest levels and under the stringent permit conditions of the strategic wolf management plan, public control is appropriate.

10. During some years wolf control may not be appropriate in all or any portions of GMU 13. The Department will evaluate if wolf control is appropriate by considering wolf abundance, prey population size and trend, prey recruitment, success in meeting harvest objectives, and winter severity.

11. An annual report of implementation activities, plans to implement wolf control, and the status of prey and predator populations will be presented at fall board meetings.

12. A wide range of values and uses of wildlife is accommodated within GMU 13 through zoning in the Area Specific Plan.

13. The Department has developed this implementation plan based on sound principles of wildlife management, consistent with the constitutional and statutory mandates for sustained yield management. This plan is consistent with the Strategic Wolf Plan for Alaska adopted by the board on October 30, 1991, and the area specific for Southcentral and Interior Alaska adopted by the board on November 16, 1992. This plan will maximize the likelihood of success in reaching the program objectives and will provide the department with invaluable knowledge of the relationship of wolf predation and sustainable yields of prey for humans. The data gathered from this program will become an important part of the expanding knowledge base used by wildlife managers to provide benefits to people.

14. The implementation and area specific plans covering GMU 13 provide extensive descriptions of the geographic area, wildlife populations, and human uses of wildlife as well as wildlife population and harvest objectives and the rationale behind them. The implementation plan also contains methods and means allowed for the regulation of wolf numbers, pursuant to 5 AAC 92.110.

15. Extensive public input over the past two years was a critical component in the development of the strategic, area specific, and implementation plans.

16. All oral testimony, written comments, staff reports, and previous board findings were considered and incorporated by reference.

Adopted November 18, 1992

Richard Burley, Chair
Alaska Board of Game

BOG-92-No.61

RESOLUTION
BOARD OF GAME

The Board of Game met on July 29, 1992 in Anchorage, Alaska to take action on the final judgement of the superior court ordering the board to implement a Tier II hunt from September 1-20 in GMU 13.

The board met in public meeting for eight hours on July 29 and considered reports from the Alaska Department of Fish and Game concerning the anticipated effect of the court-ordered Tier II hunt. Based on information received today as well as the previous meeting on June 23, 1992, the board concluded that it was not in the best interests of the public or the game resource to implement the court-ordered Tier II hunt. However, in a good faith effort to comply with the court's order, the board adopted the following motion:

> "To comply with the court's order by adopting a resolution expressing the board's reasons for disagreeing with the court order, but (under protest) directing the Department to begin implementing the court-ordered Tier II hunt. However, the board will delay adoption of an emergency regulation until
>
> (1) the Supreme Court acts on the motion for a stay
>
> or
>
> (2) until the board reconvenes within two weeks."

This motion and the reasons for the motion are succinctly summurized in the following statement from board member, Roger Huntington:

> "I'm just a freshman board member and I'm already getting disgusted, my stomach is turning and I'm getting pretty upset here. I have other personal priorities and I don't want to be wasting my time playing these little games. I've watched the Board over the years, I've watched my dad for many years operate. The Board, in the past, has been very professional. I have before me here - just on this page here - ten years of evidence of historical data of professional managers to provide information to the Board. The record shows on that particular page where it deals with subsistence take in line with what the rules that were adopted by the Board on June 23rd. All the preliminaries and information that was brought to the Board at that time and in prior meetings were very technical in detail and done in a professional manner. The Board members have historically made decisions based on data that has some consistency to it. I think we ought to continue that. I think that we ought to depend on that data and I'm sure that as I go on record now as I did the last time be thrown out of context at some sentence I make. That's the

risk we take sitting on this Board. I feel that, damn it, if we're going to do our jobs, let's do it. And there's some risk in that, and if we don't want to take some risks let's get off this board. We stick to our guns and not get thrown around. I'm not saying that we defy the judge, I think that we have reason enough to tell the court that we cannot comply because it is law that we are the managers of the resource but in managing the resource we must be fair to all the users. And for the reasons stated here the confusion to the public, the overload of staff, the short notice for public application period causing for hunting planning time. Even myself I'm planning already. I've already done my planning for September 5 in the area, knowing I can't hunt in that particular area I'll hunt somewhere else. The impact on hunting in other areas. I want to shed a little light on that area. Over the recent years in the Koyukuk and Galena areas we're getting really impact from increased in hunting. What's this going to do? Are we going to go to Tier II in the Koyukuk and those areas too. I think this is going to perpetuate. It's unnecessary in light of the numbers provided. Everything is against it from the technical side and from a professional and sound judgment side I don't see how we can comply. Thanks."

In conclusion the board further determined the following:

1. The board cannot determine a shortage of harvestable moose which would fail to provide reasonable opportunity for subsistence moose hunters in Unit 13.

2. The short timeframe to comply with the Tier II hunt order will result in eligible subsistence hunters being eliminated from the hunt and losing reasonable opportunity to meet subsistence needs.

3. Displacement of moose hunters to other areas will likely result in unanticipated increases in competition in other areas, over harvests, and subsequently, regulation changes to compensate for the effects of hunter displacement; such regulatory changes cannot prevent impacts this fall.

4. The court's order does not take into account the extent of biological and human use data and public testimony which led the board to its reasoned decision on June 23, 1992 to authorize a 14 day Tier I hunt for moose in Unit 13.

5. The timeframe is too short to properly implement the Tier II hunt by September 1:

   A. not enough time for the public, particularly rural subsistence users, to fill out and return applications.

   B. will require the department to forego meaningful appeal process for those who don't receive permits.

C. will likely be challenged by permit applicants who are denied permits and can't get a decision in time to hunt.

6. Confusion to Public. It would add confusion and inconvenience to the public who have made plans to hunt in Unit 13 during the Tier I hunt.

7. Management concerns:

A. Hunter displacement; may exceed by logical capabilities in other units; possible over harvest in other units.

B. Adverse effect on compatibility of hunting regulations among other units.

C. Inconsistency caused by court management of hunts on case by case basis.

D. Court invalidating management methods (i.e., reliance on methods such as hunter success rates and effort) and policy decisions.

E. Impact on staffing drawn from other necessary management activities, effect of that on other hunts and resource management.

8. The board's finding that one moose per subsistence household is consistent with use patterns and one moose per household would satisfy the vast majority of subsistence users, was not made a finding that one moose per household was required, but rather that 2 moose per household was not required.

9. Failure of the court to take into account the federal subsistence hunt in Unit 13 for the plantiffs.

10. In addition, as hunters continue to see the courts willing to issue temporary orders changing seasons or bag limits for individual hunters, the more likely they are to go to the court to get immediate access to specific hunts, thereby further disrupting the ability of the Board to function as a manager. The board should be allowed to do its jobs.

11. It would disenfranchise a large number of subsistence hunters by eliminating up to 1500 hunters otherwise eligible at Tier I.

12. The board did not rely exclusively on hunter success rates, but rather a number of factors.

For these reasons, the board adopted the motion under protest to comply with the Superior Court Judge Katz's order.

Richard Burley

Dated July 29, 1992
Anchorage, Alaska

Richard Burley, Chair
Board of Game

NO. 92-60-BOG

BOARD OF GAME
FINDINGS ON UNIT 13 MOOSE SEASON AND BAG LIMITS
ADOPTED JUNE 23, 1992

The Board of Game has considered the establishment of a 1992 season and bag limit for moose in Game Management Unit 13, which comprises generally that area east and south of the Alaska Range, north of the Talkeetna Mountains and west of the Wrangell Mountains, in the Copper River and Susitna River drainages.

The Board referred consideration of the season and bag limit for moose in Unit 13 to itself as a quasi committee of-the-whole. The actions and report of the quasi committee of-the-whole are part of the official record of the proceedings of this board and are an integral part of the board's deliberations. The record of the board proceedings is incorporated herein, inclusive of all staff reports, documents, public comments and board deliberations.

There are two primary components in determining reasonable opportunity: (1) the opportunity to participate in a hunt, and (2) the opportunity to kill an animal during a hunt. The "opportunity to participate" in a hunt is a function of the number of hunters allowed to hunt and of the percentage of interested hunters allowed to hunt. The "opportunity to kill" during a hunt is a function of the percentage of hunter success on the area's game population, the duration of successful hunts (mean days to kill and the time to achieve a percentage of the kill), as well as the duration of unsuccessful hunts. The latter function is important for determining the period of time before which a hunter loses interest and ceases to use additional opportunity.

Both primary components are important in determining reasonable opportunity. For example, if there are 300 hunter days of hunting opportunity available, using only opportunity to kill could result in one person being given 300 days to hunt. Using opportunity to participate only could lead to 300 people hunting for one day. The Board must strike a balance between the two components and focus on the range of numbers of hunters and length of season that will achieve a reasonable expectation of success for participants.

In determining reasonable opportunity for subsistence use, the board took the following factors into consideration:

the traditional seasons of different use groups; transportation and access, methods and means, competition created by number of participants; hunter success rates; prey population cycle; the customary and traditional level of use; traditional season times and lengths including opportunity to participate within a season.

The Board recognizes there are other considerations as well. Hunters like the freedom to select the time to hunt, they like to have a "quality" hunt, and there is interest expressed in selecting the sex, age or size of the animal. Information provided by the Alaska Department of Fish and Game (department) staff indicates the relative importance of the primary components. For example, during the 1990 Nelchina (Unit 13) registration hunt for caribou (a three day registration hunt) many people were willing to compromise flexibility and "quality" in order to get the opportunity to hunt.

Based on information provided by the department and written public comment, the Board makes the following findings under the 1986 subsistence law - AS 16.05.258:

1. The Board reaffirms the previous findings of customary and traditional use of moose in Game Management Unit 13 as found by the Board in 1983 and again in 1986.

2. The Board accepts the department recommendation that 600 bull moose (based on harvest range of 500 to 700) are available as a harvestable surplus consistent with the sustained yield principle mandated by the Alaska Constitution. Based on the current department estimate, the moose population in Unit 13 ranges between 19,000 and 21,000.

3. The Board determined there are approximately 3000 subsistence users who hunt in Unit 13. Approximately 600 of these hunters are local residents of Unit 13.

   Although the Board reviewed harvest data for the past 20 years the board determined that data for the past 12 years was more reliable due to improved data gathering techniques and more relevant due to changing human demographics, access to the hunt area and moose abundance and distribution. Based on this 12 year data (1980 - 1991), there was an average of 3400 Alaska residents hunting moose in Unit 13. This 12 year average included five years when the moose population was at a recent high. During the last two years, when the moose population declined significantly due to weather and wolf predation and the season length was reduced, the average number of hunters was 2844. Considering the range of numbers, the Board decided 3000 was the number of subsistence users who would hunt moose in Unit 13 in 1992.

4. Working under the all Alaskans policy which states that all Alaska residents are eligible to be subsistence users, the Board determined that all 600 harvestable moose were needed to provide a "reasonable opportunity" for subsistence uses.

   This number was reached by looking at historical statistics on the number of moose harvested and the number of hunters

participating. Once again the board reviewed harvest data for the past 20 years, however again focused on the last 12 years for the same reasons cited in number 3 above. The success rate of Unit 13 resident subsistence moose hunters ranged from 19 percent to 28 percent with a median of 22 percent. Success rates for non-local hunters ranged from 19.5 percent to 28 percent, virtually the same as for local hunters. A harvest of 600 moose by approximately 3000 hunters yields a success rate of 20 percent, which is within the recent historical range.

5. The Board determined that there was no harvestable surplus of moose available for non subsistence uses.

See no. 4 above.

6. Based on the foregoing findings and considerations, the Board hereby adopts a regulation to allow moose hunting in Unit 13 during an open season of September 1-14 with a bag limit of one bull moose per household and the same antler restrictions that were in place in 1991-92. The use by hunters of all motorized vehicles, except boats, is prohibited from September 1-7 except on borough- or state-maintained roads or highways.

The majority of the board felt that the seven day season established for 1991 provided reasonable opportunity based on harvest information and success rates presented by the department. (Attached and incorporated herein to these findings are two tables showing average number of days hunted by local Unit 13 residents and non-local residents. In 1991 the averages were 6.5 days and 4.3 days.) By establishing a 14 day season with restrictions, the board extended the window of opportunity to hunt by seven days, including two full weekends. This seven day extension gives access to the greatest number of subsistence hunters while still addressing conservation of the moose resource. By restricting the use of ORVs and aircraft during the first seven days, it will improve the quality of the hunt of those in the field but will not be detrimental to local subsistence hunters who traditionally use highway vehicles as their mode of transportation for hunting. In addition, a week of hunting opportunity for aircraft and ORV hunters is still provided during the second half of the season.

The board determined that one moose per household is consistent with use patterns and had previously been recommended by Ahtna Corporation and several local advisory committees in proposals to the board. Based on information provided by the department at this meeting, a one moose per household bag limit would satisfy the vast majority of the subsistence users.

The board took into consideration the federal subsistence season on federal land in Unit 13 which is open only to federally qualified subsistence hunters who reside in Unit 13. The federal season is open for 27 days, from August 25 to September 20. The federal season will open seven days before the state hunt, will be open during the state hunt and for six days following the state hunt.

Attached and incorporated herein is the new regulation for Unit 13.

Dated: June 29 1992
Fairbanks, Alaska

Richard Burley

Richard Burley, Chair
Alaska Board of Game

Note to Publisher: When a subsection, paragraph, subparagraph, etc. is indicated by the appropriate number or letter and no text follows that symbol, then the omitted text is the same as that set out in the previous register containing the section. Amended text to be added is underlined. Amended text to be deleted is capitalized and enclosed in brackets.

EMERGENCY REGULATIONS

PART 3. GAME

CHAPTER 85. HUNTING SEASONS AND BAG LIMITS

Article 2. Seasons and Bag Limits

5 AAC 85.045(a)(11) is amended to read:

5 AAC 85.045. HUNTING SEASONS AND BAG LIMITS FOR MOOSE. (a) . . .

Units and Bag Limits	Resident Open Season (Subsistence and General Hunts)	Nonresident Open Season
(11)		

Unit 13(A), that portion Sept. 1[5]--Sept.14[11] No open season.
northwest of Black River

1 bull with spike-fork
or 50-inch antlers per
household; the use of any
motorized vehicle, including
aircraft but excepting boats,
for hunting moose or for
access to hunt moose
from Sept. 1--Sept. 7 is
prohibited, including
transportation of moose
hunters or parts of moose;
however, this does not apply
to a motorized vehicle on
a State or borough-main-
tained highway/road

Unit 13(A), that portion Sept. 1[5]--Sept. 14[11] No open season.
west of the Lake Louise
road, Lake Louise, Lake
Susitna, Tyone River, and
southeast of Black River

1 bull with spike-
fork antlers per household;

the use of any motorized vehicle, including aircraft but excepting boats, for hunting moose or for access to hunt moose from Sept. 1--Sept. 7 is prohibited, including transportation of moose hunters or parts of moose; however, this does not apply to a motorized vehicle on a State or borough-maintained highway/road

Remainder of Unit 13	Sept. 1[5]--Sept. 14[11]	No open season.
1 bull with 36-inch antlers per household; the use of any motorized vehicle, including aircraft but excepting boats, for hunting moose or for access to hunt moose from Sept. 1--Sept. 7 is prohibited, including transportation		

of moose hunters or
parts of moose; however,
this does not apply to
a motorized vehicle on
a State or borough-main-
tained highway/road

(Eff. 8/20/89, Register 111; am 12/30/89, Register 112; am 8/9/90, Register 115; am 12/27/90, Register 116; am 6/16/91, Register 118; am 8/10/91, Register 119; am 1/7/92, Register 122; em am / /92-- / /92, Register)

Average Number of Days Hunted: Successful, Unsuccessful, All Hunters, Moose General (Sport) Hunts, Unit 13.

Year	Successful Hunters			Unsuccessful Hunters			Total Days		
	No. hunters	Total # days	Ave. # days	No. hunters	Total # days	Avg. # days	No. hunters	Total # days	Avg. # days
1981	767	4382	5.7	2123	13,698	6.5	2890	18,080	6.2
1982	611	3440	5.6	2189	14,790	6.8	2800	18,230	6.5
1983	862	5854	6.7	2257	12,702	5.6	3119	18,556	5.9
1984	810	4843	5.9	2489	15,340	6.2	3299	20,183	6.1
1985	787	4835	6.1	2564	15,228	5.9	3351	20,063	5.9
1986	947	5651	5.9	2673	16,050	6.0	3620	21,701	5.9
1987	764	4959	6.4	2737	16,748	6.1	3501	21,707	6.2
1988	950	5745	6.0	2551	15,298	6.0	3501	21,043	6.0
1989	876	5256	6.0	2680	15,984	5.9	3556	21,240	5.9
1990	378	1489	3.9	1612	7,337	4.6	1990	8,826	4.4
1991	577	2522	4.3	1862	9,634	5.2	2439	12,156	4.9

Average Number of Days Hunted: Successful, Unsuccesful, All Hunters, Moose Subsistence Hunts, Unit 13.

Year	Successful Hunters			Unsuccessful Hunters			Total Days		
	No. hunters	Total # days	Ave. # days	No. hunters	Total # days	Avg. # days	No. hunters	Total # days	Avg. # days
1983[a]	32	140	4.4	46	371	8.1	78	511	6.6
1984[a]	19	150	7.9	53	426	8.0	72	576	8.0
1985[b]	31	254	8.1	118	873	7.4	149	1127	7.5
1986[c]	174	929	5.3	596	4659	7.8	770	5588	7.2
1987[c]	152	772	5.0	371	3050	8.2	523	3822	7.3
1988[c]	191	939	4.9	371	2719	7.3	562	3658	6.5
1989[c]	212	928	4.3	386	2888	7.5	598	3816	6.3
1990[b+d]	149	452	6.4	231	1470	6.4	301	1922	6.4
1991[d]	99	651	6.5	413	3570	8.6	512	4221	8.2

a Drawing permit hunt.
b Tier II permit hunt
c Registration permit hunt.
d Federal subsistence hunt.

BOARD OF GAME

FINDINGS ON UNIT 13 MOOSE SEASON AND BAG LIMITS

FINDING #91-52-BOG

MARCH 29, 1991

The Board of Game has considered the establishment of a 1991 season and bag limits for moose in Game Management Unit 13, which comprises generally that area east and south of the Alaska Range, north of the Talkeetna Mountains and west of the Wrangell Mountains, in the Copper River and Susitna River drainages. The Board referred to a committee consideration of the season and bag limits for moose in Unit 13, which was before the Board in Proposal 133 by the Department of Fish and Game. The committee recommended that the Board establish a 10 day subsistence as well as a 5 day non-subsistence hunt for moose in Unit 13. For the reasons stated below, the Board finds that a seven day hunt by all users, from the period September 5 through 11, provides a reasonable opportunity to satisfy the subsistence uses on the various moose populations in Unit 13. Accordingly, the Board has amended the committee regulation to establish the seasons and bag limits attached to these findings as Appendix B.

There are two primary components in determining reasonable opportunity: (1) the opportunity to participate in a hunt, and (2) the opportunity to kill an animal during a hunt. The "opportunity to participate" in a hunt is a function of the number of hunters allowed to hunt and of the percentage of interested hunters allowed to hunt. The "opportunity to kill" during a hunt is a function of the percentage of hunter success on the area's game population, the duration of successful hunts (mean days to kill and the time to achieve a percentage of the kill), as well as the duration of unsuccessful hunts. The latter function is important for determining the period of time before which a hunter loses interest and ceases to use additional opportunity.

Both primary components are important in the decision to determine reasonable opportunity. For example, if there are 300 hunter days of hunting opportunity available, using only opportunity to kill could result in one person being given 300 days to hunt. Using opportunity to participate only could lead to 300 people hunting for one day. The Board must strike a balance between the two components and focus on the range of numbers of hunters and of the season lengths.

The Board recognizes there are secondary considerations. Hunters like the freedom to select the time to hunt, they like to have a "quality" hunt, and there is interest expressed in selecting the sex, age or size of the animal. Information from Department staff indicates the relative importance of the primary components. For example, during the 1990 Nelchina (Unit 13) registration hunt for caribou(a three day registration hunt) many people were willing to compromise flexibility and "quality" in order to get the opportunity to hunt.

The findings, and the basis for those findings, follow:

1. The Average Duration of Time in the Field By All Successful Hunters for Moose in Unit 13 Does Not Exceed Seven Days.

The Board heard testimony from ADFG staff that the average length of time in the field by all successful hunters for Moose in Unit 13 does not exceed seven days. This information was taken from harvest reports by hunters in the field for the years 1985-1990. The data are indicated in Appendix A. It indicates that for the general hunts with a 20 day season from 1985-1989, with a mean of 3277 hunters, the average duration of time spent in the field by successful hunters was 6.1 days. For Unit 13 resident subsistence hunters during the same time period for a 25 day season, with a mean of 640 hunters, the average duration of time spent in the field by successful hunters was 4.9 days.

One issue relating to length of time in the field by successful hunters was discussed by the Board. During the 1980s, there were a number of subsistence moose seasons for residents of Unit 13 that exceeded 20 days. The Board is cognizant of the fact that some hunters would prefer to strategically determine when they want to spend the time in the field within a longer hunting season. The Board believes that this preference should not guide the Board as long as the Board believes, based upon all the facts presented, that a reasonable opportunity is presented. One consideration in this issue, is that hunters may use time in the field before and after the season to mobilize for the hunt and to demobilize after the hunt (including removing a harvested animal). The data referred to above does not make that distinction, and the Board believes it likely that data reported by hunters of duration in the field reflects some time for mobilizing and demobilizing, thereby making the calculation of average duration on the liberal side.

In 1990, a general hunt of five days was held for moose in Unit 13. A total of 1918 hunters participated. The average length of time in the field for successful hunters was 3.9 days.

2. The Average Duration of Time In The Field By Unsuccessful Hunters in Unit 13 Likely Does Not Exceed Seven Days.

The same data referred to in Appendix A indicates that during 1985-1989, the average duration of time in the field spent by unsuccessful hunters in a general hunt was 6.0 days. For the 1990 five day general hunt, the average duration of time in the field for unsuccessful hunters was 4.5 days. During 1985-1989, the average duration of time in the field spent by unsuccessful hunters in a subsistence hunt was 7.7 days. The Board believes that, given the likelihood that the data for duration of time in the field includes some time for mobilization before the hunt and demobilization after the hunt, that it is more probable than not that the average duration of time in the field spent by subsistence hunters did not exceed seven days.

3. A Seven Day Season Does Not Significantly Diminish The Success Rate for Hunting Moose in Unit 13.

Appendix A also indicates that the overall success rate for hunters in Unit 13 in general hunts, for the years 1985 to 1989, was 23%. The success rate for subsistence hunters during the same period was 29%. In 1990, the 5 day general hunt had a success rate of 20%. The Board notes that success rate can be influenced by a variety of factors, most notably weather. For example, the Board heard testimony indicating that there was inclement weather during the period of the 1990 general hunt which was a likely contributing factor in the reduction of the success rate by 3%. Another factor contributing to success is the timing of the hunt. The timing of the scheduled 1991 hunt is for those days in September when success rates for hunting moose in Unit 13 increase. Department staff have estimated that it is likely that the success rate for the 1991 Unit 13 moose hunt will be 24% to 25%. Based upon these facts, it is the Board's finding that a seven day season does not significantly diminish the success rate for hunting moose in Unit 13.

4. The Federal Subsistence Hunt for Moose on Federal Lands Within Unit 13 Provides a Significant Opportunity For Residents of Unit 13 to Harvest Moose.

There is a federal subsistence hunt for moose on federal lands within Unit 13 during the period August 25 to September 20 for residents of Unit 13. The bag limit is one bull. Based upon the history of the 1990 harvest, and the increasing presence of federal management, the federal harvest is expected to amount to 70. Harvests of moose by Unit 13 residents during 1985-1989, ranged from 31 to 215. The Board believes that the federal harvest therefore meets a significant portion of the subsistence needs of Unit 13 residents for moose.

5. <u>The Bag Limits in the 1991 Moose Season for Unit 13 do Not Restrict Reasonable Opportunity</u>.

The bag limits for Unit 13 moose for the 1991 season have antler restrictions throughtout the Unit. Antler restrictions differ within the Unit. These restrictions are in place to protect the bull/cow ratios in the various moose populations in the Unit. Subsistence hunts during the period 1985-1989 did not have antler restrictions. The Board believes, given the average duration of time in the field for successful hunters during general hunts in the same time period, which did have antler restrictions, indicates that the antler restrictions will not restrict reasonable opportunity.

The Board has found that the season and bag limits do not restrict reasonable opportunity to satisfy subsistence uses. Based upon the same analysis, the Board also believes that the season and bag limits chosen provide more opportunity to satisfy subsistence uses than the recommendation of the committee.

Douglas Pope, Chair
Alaska Board of Game

ADOPTED: March 29, 1991
Anchorage, Alaska

VOTE: 5 Favor ____ Oppose ____ Abstain 2 Absent

[DOC: c:\wp51\popefind]

Success rates and average number of days spent hunting reported by successful and unsuccessful moose hunters ~~1985~~ in Unit 13 and statewide, 1985 – 1990.

1985-89	Total Hunters	% Successful	Days Hunted Successful	Days Hunted Unsuccessful
Unit 13 General Hunt * (Sep. 1–20) Harvest ticket	3277 (3136-3479)	23 (20-28)	6.1 (5.9–6.4)	6.0 (5.9–6.1)
Unit 13 Subsistence Registration permit Hunt** (Aug 25 – Sep 20)	640 (566-802)	29 (22-37)	4.9 (4.3-5.3)	7.7 (7.3-8.2)
Statewide ~~all hunts~~ Harvest Tickets)	22,840 (22,364 - 23,894)	27% (25-30)	5.7 (5.6-5.8)	6.2 (6.1-6.3)
1990				
Unit 13 Unlimited Subsistence Hunt (Sep. 5-9) Harvest tickets)	1918	20 %	3.9	4.5
~~Statewide~~ - all hunts Harvest tickets)	20,578	24 %	5.5	5.7

* Data for 1986–89. No antler restrictions in most of Units / antler restrictions in effect

APPENDIX A

Average Success Rates And Number Of Days Spent Hunting Reported By Successful And Unsuccessful Moose Hunters In Unit 13 And Statewide, 1985 - 1990

	Total Hunters	% Successful	Days Hunted Successful	Days Hunted Unsuccessful
1985-89				
Unit 13 General Hunt * (Sep 1-20) Harvest Tickets	3,277 (3136-3479)	23 (20-25)	6.1 (5.9-6.4)	6.0 (5.9-6.1)
Unit 13 Subsistence Registration Permit Hunt ** (Aug 25-Sep 20)	640 (566-802)	29 (22-35)	4.9 (4.3-5.3)	7.7 (7.3-8.2)
Statewide (Harvest Tickets)	22,840 (22,364-23,894)	27 (25-30)	5.7 (5.6-5.8)	6.2 (6.1-6.3)
1990				
Unit 13 Unlimited Subsistence Hunt (Sep 5-9) (Harvest Tickets)	1,918	20	3.9	4.5
Statewide - All Hunts (Harvest Tickets)	20,578	29	5.5	5.7

* Antler restrictions in effect
** Data for 1986-89. No antler restrictions in most of unit

UNIT 13 - MOOSE

Board of Game amendment to Committee Recommendation on Prop. #133
GMU 13 MOOSE

UNITS AND BAG LIMIT	RESIDENT	NONRESIDENT
GENERAL HUNT	Sept. 5-11	NO OPEN SEASON
Unit 13(A), that portion northwest of Black River. 1 bull with spikefork or 50" antlers		
Unit 13(A), that portion west of the Lake Louise Road, Lake Louise, Lake Susitna and Tyone River, and southeast of Black River. 1 bull with spikefork antlers		
Remainder of Unit 13 1 bull with 36 inch antlers		

[DOC: c:\wp51\pope13]

APPENDIX B

ALASKA BOARD OF GAME

BOARD FINDINGS AND POLICY REGARDING
NELCHINA CARIBOU

Many Alaskans from a large geographic area have customarily and traditionally utilized caribou of the Nelchina Herd for subsistence during the last two or more decades. Between 1954 and 1980 more than 100,000 caribou from this herd were killed by hunters. The herd has fluctuated in size in recent years, peaking at about 70,000 animals in 1962 and reaching a low of about 10,000 animals in 1972.

During the late 1960's and early 1970's, winter seasons were established for harvesting Nelchina caribou and snow machines were commonly used for hunting them. Reported abuses with the machines were common--some hunters used the machines to pursue and shoot caribou. Many Alaskans objected to this illegal practice, which was difficult to control and could endanger maintenance of the herd on the sustained yield basis. At least partly for these reasons no winter seasons for the Nelchina caribou have been established in recent years.

Range conditions where the Nelchina Herd lives showed heavy use when the herd was at a high level. Management strategy in recent years has been to harvest mostly males and at a low level to allow the herd to increase to about 20,000 adults. A drawing permit system has been used to limit the number of hunters. The August 20-September 20 season of recent years, with the limited harvest, has allowed the herd to increase and at the same time to provide hunters with an esthetically pleasing experience while they obtained high quality meat.

For each of the past two seasons 1,300 permits were issued. Permit applications exceeded 6,800 in 1980, about 4 percent of which were from nonresidents. In 1980, 5.5 percent of the permits were issued to residents of the Copper River valley.

Harvest in 1979 was 630 caribou; 80 percent of the kill was bulls. Preliminary data indicate the 1980 harvest was about the same. The high kill rate for males is part of the management strategy. The Department of Fish and Game staff believes that a 1981 kill during the August 20-September 20 season will result in a kill for about half the number of permits in force, with 80 percent or more of the kill being bulls. A January-February season limited to antlerless caribou is expected to result in a harvest of perhaps 90 percent or more bulls, which is consistent with management strategy. It is expected to be three or more years before the herd increases to 20,000 adult (breeding) members.

Direct dependence on the Nelchina Caribou Herd for meat is greatest for subsistence users who are low-income residents who live immediately adjacent to the herd in Game Management Unit 13 and 14 (except 14C),

an area where alternative resources include salmon and other fish, moose, small game, and few dollars. A special allocation of permits to these users will give a greater priority for subsistence and a good opportunity for subsistence users to continue their subsistence activities.

ADOPTED: Anchorage, Alaska
April 1, 1981

VOTE: 7/0

Dr. Samuel J. Harbo, Jr., Chairman
Alaska Board of Game

NELCHINA CARIBOU

Units 13 and 14 except 14(C)	Aug. 20-Sept. 20 Jan. 1-Feb. 28	One caribou by drawing permit only; however, only antlerless caribou may be taken between Jan. 1 and Feb. 28. 1,600 permits will be issued, including 150 subsistence permits. See 5 AAC 81.055 and separate permit hunt supplement.

Conditions of the hunt:

1. No more than 5 percent of the permits will be issued to nonresidents.

2. Up to 150 subsistence permits will be valid for both the fall and winter hunting seasons. The remaining 1,450 permits will be valid only for the period August 20-September 20.

3. Those applying for subsistence permits must:
   a. be at least 12 years old, and
   b. be a resident of Game Management Units 13 or 14, except 14(C), with no permanent abode elsewhere, and
   c. live, or have lived, in a household where fish or game not commercially purchased comprised more than half of the meat and fish of the diet during the previous 5 years, and
   d. be a member of a household with $12,000 or less gross income for the household for the previous income tax filing year.

4. An applicant for a subsistence permit must provide an affidavit attesting to the facts of 3. (a), (b), (c), and (d) above. (It is a felony to falsify an affidavit.)

5. Applications for subsistence permits will be drawn first. If all 150 subsistence permits are issued, all other applications for subsistence permits will be included in the drawing for the remaining 1,450 permits. If fewer than 150 subsistence permit applications are received, excess permits will be issued to other applicants, but such permits will be valid only for the period August 20-September 20.

6. Only the following areas are open for hunting by subsistence permittees during the period January 1-February 28:
   a. Game Management Subunit 13(A), except that area within one-half mile of the Trans-Alaska Pipeline
   b. Game Management Subunits 13(B), 13(C), 13(D), 13(E)
   c. Game Management Subunits 14(A) and 14(B)

7. Successful hunters must present their completely filled-out permit report by appearing in person at the ADF&G office in Glennallen or Anchorage during regular working hours, or by mailing the permit to the Anchorage office. All reports must be made within 10 days of killing a caribou.