Customary and traditional use worksheet, snowy owls, GMUs 17, 18, 22, 23, and 26

Proposal 132

- 5 AAC 85.070(5). Hunting season and bag limits for unclassified game. Modify the hunting season for snowy owls
  - Units 17, 18, 22, 23, and 26:
    - Residents: September 1 – April 1
    - Nonresidents: no open season
- The board has not addressed customary and traditional uses of snowy owls
- Full written worksheet provided
  - Worksheet addresses all units in proposal
Criterion 1: Length and consistency of use

- Ethnographic information documents historical and recent uses of snowy owls for food and raw materials.
- Northwest Alaska Inupiat
  - People also ate seagulls, hawks, and owls (Ray 1984 and 1992).
- Kivalina
  - Trapping efforts, migration patterns, harvest, use (Saario and Kessel 1966)
  - Key respondent in 1997: trapping, seasonality of harvest
- Point Hope
  - Owls harvested at various times of year (Alaska Consultants 1984)
- Selawik
  - Effort, harvest, uses (Georgette 2000)

Criterion 1: Length and consistency of use continued

- Seward Peninsula, King Island region, Yukon Flats
  - Harvests in late 1960s and early 1970s (USFWS 1980)
- 11 communities of the NANA Region:
  - Harvests in 1970s (Patterson 1974)
- Barrow
  - Snowy owl egg harvest 2014 (Ikuta et al. in prep)
- Yup’ik, Dena’ina Athabascan, Aleut, Siberian Yupik, and Inupiaq names for snowy owls
- Harvest data = Table 1 in written C&T worksheet: 1982-2014
- Recent survey data show snowy owls taken in small numbers throughout their coastal range, with most harvest in North Slope and Northwest Alaska communities.
Criterion 2: Seasonality

• Year-round
  — Bering Strait Inupiat = April and May
  — Noorvik:
    • Spring
    • Winter
  — Kivalina:
    • October and November (during migration)
    • Fall
  — Cape Krusenstern = October
  — Kotzebue = Fall
  — Inland areas = winter (depending on prey availability)
  — Buckland, Deering, Kobuk = Winter
  — Selawik = any time of year
  — Noatak = year-round
• Culturally, socially important
  — Occur when other resources are scarce

Criterion 3: Efficient means and methods of harvest and economy of cost

• Uhl and Uhl (1977)
  — Directed effort = trapping by Kotzebue, Noatak, Kivalina in Cape Krusenstern
  — Incidental effort = taken by firearms during caribou hunts
Criterion 4: Geographic areas

- Along coastal areas during migration
- Inland in areas used for caribou hunting, other subsistence activities
- Yupʼik, Denaʼina Athabascan, Aleut, Siberian Yupik, and Inupiaq names for snowy owls

Criterion 5: Means of handling, preparing, preserving, and storing

- Soup
- Camp food
- Baked
- Eggs
- Feathers in dance fans
Criterion 6: Intergenerational transmission of knowledge of skills, values, and lore

• Directed trapping efforts
  — How to trap, when to trap, daily trap checks
• Cooperative trapping efforts
  — Effort spread out between trappers
  — Elders ask for snowy owls: “they were raised with them”
• Inupiaq name for Barrow = *Utqiaġvik* or *Ukpiagvik* “Place where we hunt snowy owls”
• Feathers used in dance fans used by men

Criterion 7: Distribution and exchange

• Elders request snowy owls
• Eaten as camp food
Criterion 8: Diversity of resources in an area; economic, cultural, social, and nutritional elements

• Snowy owls are part of diverse, large subsistence harvests in all GMUs where they occur
  – Important component that provides fresh meat when other resources are scarce, and diversity in diet

Conclusion

• No current recommendation on amount reasonably necessary for subsistence due to lack of harvest data
• State season limited to Sep 1 – Apr 1, but federal subsistence season provides opportunity for eligible hunters in spring and summer
• Questions?
Customary and traditional use worksheet, cormorants, GMUs 6, 8, 10, 17, 18, 22, and 23

Proposal 133

• 5 AAC 85.070(5). Hunting season and bag limits for unclassified game. Modify the hunting season for cormorants
  – Units 6, 8, 10, 17, 18, 22, 23:
    • Residents: September 1 – April 1
    • Nonresidents: no open season

• The board has not addressed customary and traditional uses of cormorants
• Full written worksheet provided
  – Worksheet addresses all units in proposal
Criterion 1: Length and consistency of use

• Ethnographic and archaeological data show cormorants to be one of variety of seabirds used for thousands of years (Causey et al. 2005; Moss 2007)
• Were and continue to be eaten
• One of most important birds traditionally in Bering Sea, Aleutians, and lower Alaska Peninsula communities
• 20th century use in all coastal GMUs by Alutiiq, Aleut, Central Yup’ik, Siberian Yupik, Inupiat
• Table 1 in written worksheet

Criterion 2: Seasonality

• Recent data (2004-2013): 83% of cormorant harvests occur in fall and winter
  – Important source of fresh meat in mid-winter when other resources scarce
• 12% in summer
• 5% in spring
• Aleut name for February means “young cormorant”
Criterion 3: Efficient means and methods of harvest and economy of cost

- Past = hunted by hand at night while on nests
- Bird cliffs approached by boat or by rope; snares, bolas, hand nets, leisters, clubs, or by hand
- Contemporary = shotguns, nets.
- Harvest gear owned by family groups
- Directed effort, but also opportunistically during other subsistence activities (marine mammal hunting, berry picking)

Criterion 4: Geographic areas

- Coastal areas, where other subsistence activities occur as well
Criterion 5: Means of handling, preparing, preserving, and storing

- Traditionally fried, roasted, in soups or stews
- Feathered skins made into parkas
- Fishing barbs from cormorant bones
- Seal spears constructed with cormorant feather fletching

Criterion 6: Intergenerational transmission of knowledge of skills, values, and lore

- Oral traditions of hunting methods, recipes
- Called “Aleut turkeys”
- Dena’ina Athabascan oral history from Lime Village
Criterion 7: Distribution and exchange

• Bird and egg harvests frequently shared, especially with elders
• Table 3 in written worksheet

Criterion 8: Diversity of resources in an area; economic, cultural, social, and nutritional elements

• Cormorants and their eggs are part of diverse, large subsistence harvests in all GMUs where they occur
  – Important component that provides fresh meat when other resources are scarce, and diversity in diet
Conclusion

• No current recommendation on amount reasonably necessary for subsistence due to lack of harvest data
• State season limited to Sep 1 – Apr 1, but federal subsistence season provides opportunity for eligible hunters in spring and summer
• Questions?
Modify the hunting season for snowy owls

Department: Support

Department Proposal
Current Regulation:

- Residents: No closed season / No bag limit
- Nonresident: No open season

Proposed Regulation: (Required due to federal regulations)

- Residents: Sept 1-April 1 / No bag limit
- Nonresident: No open season
Proposal 132

Modify the hunting season for snowy owls

Department: Support

Department Proposal
Modify the hunting season for cormorants

Department: Support

Department Proposal
Current Regulation:
- Residents: No closed season / No bag limit
- Nonresident: No open season

Proposed Regulation: (Required due to federal regulations)
- Residents: **Sept 1-April 1** / No bag limit
- New Season in Units 6 and 8
- Pelagic and Double-crested cormorants only
- No season for Red-faced cormorants
Proposal 133

Modify the hunting season for cormorants

Department: Support

Department Proposal
Proposal 142

Renew Unit 13 IM program regulation

Department: Support

Department Proposal
Proposal 142

- Current Regulation Scheduled to expire October 31, 2016
- Proposal extends expiration to July 1, 2027
  - Conforms to the new IM operational planning protocol
  - Reduces the size of the regulation in codified
  - Introduce a new IM Operational Plan for Unit 13
Moose Objectives and Current Estimates
(Below Objectives vs Meeting Objectives)

<table>
<thead>
<tr>
<th>Subunit</th>
<th>Population</th>
<th>Havest</th>
<th>Bull-to-Cow</th>
</tr>
</thead>
<tbody>
<tr>
<td>13(A)</td>
<td>3,500-4,200</td>
<td>210-420</td>
<td>25 : 100</td>
</tr>
<tr>
<td>2013</td>
<td>4,015</td>
<td>255</td>
<td>24 : 100</td>
</tr>
<tr>
<td>13(B)</td>
<td>5,300-6,300</td>
<td>310-620</td>
<td>25 : 100</td>
</tr>
<tr>
<td>2013</td>
<td>4,934</td>
<td>201</td>
<td>39 : 100</td>
</tr>
<tr>
<td>13(C)</td>
<td>2,000-3,000</td>
<td>155-350</td>
<td>25 : 100</td>
</tr>
<tr>
<td>2013</td>
<td>1,764</td>
<td>50</td>
<td>43 : 100</td>
</tr>
<tr>
<td>13(D)*</td>
<td>1,200-1,900</td>
<td>75-190</td>
<td>No obj.</td>
</tr>
<tr>
<td>2013</td>
<td>1,511</td>
<td>67</td>
<td>89 : 100</td>
</tr>
<tr>
<td>13(E)</td>
<td>5,000-6,000</td>
<td>300-600</td>
<td>25 : 100</td>
</tr>
<tr>
<td>2013</td>
<td>4,947</td>
<td>140</td>
<td>28 : 100</td>
</tr>
</tbody>
</table>
Proposal 142

Renew Unit 13 IM program regulation

Department: Support

Department Proposal
Establish additional hunting opportunities for winter moose hunts in Unit 16B

Department: Support

Department Proposal
### Proposal 136

<table>
<thead>
<tr>
<th>Survey Unit</th>
<th>IM Population Objective proportional to area (midpoint)</th>
<th>Moose Population Estimate</th>
<th>Percent Recovery to Objective Midpoint</th>
<th>Bull:100 Cow Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>16(B)-North</td>
<td>1,820-2,100 (1,960)</td>
<td>1,587</td>
<td>81%</td>
<td>60</td>
</tr>
<tr>
<td>16(B)-Middle</td>
<td>3,120-3,600 (3,360)</td>
<td>3,458</td>
<td>103%</td>
<td>46</td>
</tr>
<tr>
<td>16(B)-South</td>
<td>1,560-1,800 (1,680)</td>
<td>2,372</td>
<td>141%</td>
<td>52</td>
</tr>
<tr>
<td>Unit 16(B)</td>
<td>6,500-7,500 (7,000)</td>
<td>7,418</td>
<td>106%</td>
<td></td>
</tr>
</tbody>
</table>
Harvest Objective
310-600
## Proposal 136

### Current Regulations

<table>
<thead>
<tr>
<th>Permit Type</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Season (SF5)</td>
<td>Aug 20-Sept 25</td>
</tr>
<tr>
<td>Drawing permit (Any bull)</td>
<td>Aug 20-Sept 25</td>
</tr>
<tr>
<td>Youth Drawing permit (Any bull)</td>
<td>Aug 20-Sept 25</td>
</tr>
<tr>
<td>Tier II (Any bull)</td>
<td>Nov 15-Dec 15</td>
</tr>
<tr>
<td>Tier III (Any bull)</td>
<td>Dec 15-Mar 31</td>
</tr>
</tbody>
</table>

### Background
Proposal 136

Background

Recommend Consideration of other winter hunt opportunities

- Registration/Draw hunts Dec 15 to end of Feb
- Additional Tier II permits (limited to 260 permits)

- Extend Youth hunt?
Proposal 136

Establish additional hunting opportunities for winter moose hunts in Unit 16B

Department: Support

Department Proposal
Proposal 139

Change nonresident goat hunt structure in Unit 14C from registration to drawing permit

Department: Neutral

Department Proposal
### Proposal 139

**Current Regulation:**
- Res and Nonres – Archery Registration Aug 16-31
- Res and Nonres Registration Sept 1-Oct 15

**Proposed Regulation:**
- Res and Nonres – Archery Registration Aug 16-31
- Resident Registration Sept 1-Oct 15
- Nonresidents **Drawing** Sept 1-Oct 15
Lake George (14C) Goat Harvest Summary

<table>
<thead>
<tr>
<th></th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resident Quota (65%)</strong></td>
<td>13</td>
<td>13</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td><strong>Resident Harvest</strong></td>
<td>16</td>
<td>12</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td><strong>Nonresident Quota (35%)</strong></td>
<td>8</td>
<td>7</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td><strong>Nonresident Harvest</strong></td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total Quota</strong></td>
<td>21</td>
<td>20</td>
<td>20</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total Harvest</strong></td>
<td>26</td>
<td>22</td>
<td>26</td>
<td>17</td>
</tr>
</tbody>
</table>
Lake George (14C) Goat Survey Results

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Adults</th>
<th>Kids</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>365</td>
<td>75 (17%)</td>
<td>440</td>
</tr>
<tr>
<td>2013</td>
<td>307</td>
<td>108 (26%)</td>
<td>415</td>
</tr>
<tr>
<td>2015</td>
<td>372</td>
<td>99 (21%)</td>
<td>471</td>
</tr>
</tbody>
</table>
Change nonresident goat hunt structure in Unit 14C from registration to drawing permit

Department: Neutral

Department Proposal
Proposal 137 A– Moose / Unit 20A

PROPOSED BY:

• Alaska Department of Fish and Game

WHAT WOULD THE PROPOSAL DO?

• Change the Intensive Management population objective from 12,000-15,000 to 10,000-15,000 moose
• Lower the Intensive Management harvest objective from 900-1,100 to 500-900 moose

DEPARTMENT POSITION: AMEND AND ADOPT

Advisory Committee Votes:

• Fairbanks, Middle Nenana River: Support
### Proposal 137A – Moose / Unit 20A

<table>
<thead>
<tr>
<th>Period</th>
<th>IM Population Objective</th>
<th>IM Harvest objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998-2001</td>
<td>10,000 – 12,000</td>
<td>300 – 500 (3% – 4.2%)</td>
</tr>
<tr>
<td>2002-2003</td>
<td>10,000 – 12,000</td>
<td>500 – 720 (5%-6%)</td>
</tr>
<tr>
<td>2004-2011</td>
<td>10,000 – 12,000</td>
<td>1,400 – 1,600 (14%-13.3%)</td>
</tr>
<tr>
<td>2012- present</td>
<td>12,000 – 15,000</td>
<td>900 – 1,100 (7.5% - 7.3%)</td>
</tr>
</tbody>
</table>
### Proposal 137A – Moose / Unit 20A

<table>
<thead>
<tr>
<th>Species</th>
<th>IM Population Objective</th>
<th>IM Harvest objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>GMU 20A moose</td>
<td>12,000 – 15,000</td>
<td>900 – 1,100 (7.5% - 7.3%)</td>
</tr>
<tr>
<td>GMU 23 moose</td>
<td>3,500 – 9,200</td>
<td>210 – 920 (6% - 10%)</td>
</tr>
<tr>
<td>GMU 1A deer</td>
<td>15,000</td>
<td>700 (4.66%)</td>
</tr>
<tr>
<td>Western Arctic caribou</td>
<td>At least 200,000</td>
<td>12,000 – 20,000 (6% - 10%)</td>
</tr>
</tbody>
</table>
Post-hunt moose population estimates, Unit 20A, 1956-2015

Proposal 137A - Moose / Unit 20A

IM Objectives
Moose twinning rates, central Unit 20A, 1960-2015
Twinning rates, Unit 20A, 2006-2015

Recommendation (multiyear twinning rates)

Population

Proposal 137A - Moose / Unit 20A
Weight of 10-month old calves:

- Used to substantiate low twinning rates
- More sensitive index to condition
- Threshold = 385 lbs (Boertje et al. 2007)

<table>
<thead>
<tr>
<th>Pounds</th>
<th>Pre-reduction</th>
<th>Post-reduction</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females</td>
<td>362 (n=191)</td>
<td>372 (n=77)</td>
<td>10 (p=0.08)</td>
</tr>
<tr>
<td>Males</td>
<td>364 (n=31)</td>
<td>397 (n=40)</td>
<td>33 (p=0.003)</td>
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Harvest rates (reported) relative to generalized moose population trend, Unit 20A, Regulatory Years (RY) 1963-2015
Harvest rates (reported) relative to generalized moose population trend, Unit 20A, Regulatory Years (RY) 1991 through 2015.
Reported harvest and harvest rate of moose, Unit 20A, Regulatory Years (RY) 1991 through 2015
**Proposal 137 A—Moose / Unit 20A**

**PROPOSED BY:**
- Alaska Department of Fish and Game

**WHAT WOULD THE PROPOSAL DO?**
- Change the Intensive Management population objective from 12,000-15,000 to 10,000-15,000 moose
- Lower the Intensive Management harvest objective from 900-1,100 to 500-900 moose

**DEPARTMENT POSITION: AMEND AND ADOPT**

**Advisory Committee Votes:**
- Fairbanks, Middle Nenana River: Support
FEASIBILITY ASSESSMENT FOR MAINTAINING OR INCREASING SUSTAINABLE HARVEST OF MOOSE IN UNIT 20A
Potential to meet Intensive Management harvest objective: **Uncertain** pending board action on Proposal 137.

Potential to meet Intensive Management population objective: **High (met)**

The department does not recommend implementing an Intensive Management (IM) plan that includes predator control for the following reasons:

- Moose densities are relatively high at >2 moose/mi² (based on the 2015 pre- and post-hunt population estimate of >12,000 moose);
- Clear signals regarding improvements in the nutritional condition of the moose population have not yet been detected (i.e., the moose population may still be nutritionally stressed in which case increasing moose numbers/density would not be justified);
- The department will be capturing and weighing 10-month old calves again in March 2016 to better assess nutritional condition (i.e., substantiate low twinning rate estimates).
Reported harvest and harvest rate of moose, Unit 20A, Regulatory Years (RY) 1991 through 2015
Pre-hunt moose population estimates, Unit 20A, 1956-2015

Feasibility Assessment - Moose Unit 20A

IM Objectives
Twinning rates, Unit 20A, 2006-2015

Feasibility Assessment - Moose Unit 20A

Recommendation (multiyear twinning rates)

Population
Weight of 10-month old calves:

- Used to substantiate low twinning rates
- More sensitive index to condition
- Threshold = 385 lbs (Boertje et al. 2007)

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Fall moose composition (GSPE), GMU 20A, 1999-2015

Feasibility Assessment - Moose Unit 20A
Feasibility Assessment - Moose Unit 20A
Potential to meet Intensive Management harvest objective: **Uncertain** pending board action on Proposal 137.

Potential to meet Intensive Management population objective: **High (met)**

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Proposal 141– Wolf / Unit 20C

Submitted by: Denali National Park and Preserve (DNP&P)

What will the proposal do?
• Shorten the wolf hunting season in the Stampede Corridor (Wolf Townships) from August 10 – May 31 to August 10 – April 15.

Department Position: Neutral
Wolf harvest in the Stampede Corridor during April and May, Regulatory Years 2006-2007 through 2014-2015

Proposal 141 - Wolf / Unit 20C
Bear bait stations in the Stampede Corridor, Regulatory Years 2010-2011 through 2014-2015

- RY10-11
- RY11-12
- RY10-13
- RY13-14
- RY14-15
RATIONALE:

• This is an allocation issue

• A detailed analysis completed in 1996 indicated wolf viewing opportunity not measurably influenced by reductions in harvest adjacent to DNP&P;

• Existing biological data show that the harvest of wolves outside the park is not a factor for sustainability of populations or packs within or outside of DNP&P;

• Viewing opportunities for the public in DNP&P depend mostly on where wolves den, where they make kills, and the predominant vegetation types along the viewing routes;

• Stampede Corridor area managed under the Tanana Basin Area Plan (TBAP), which includes recreational hunting and trapping.
Proposal 141– Wolf / Unit 20C

Submitted by: Denali National Park and Preserve (DNP&P)

What will the proposal do?
• Shorten the wolf hunting season in the Stampede Corridor (Wolf Townships) from August 10 – May 31 to August 10 – April 15.

Department Position: Neutral