

## Proposal 108 – Southern Unit 20E

Intensive Management – wolf control



**Submitted by:** Upper Tanana-Fortymile AC

**Effect of the proposal:** Implement an Intensive Management (IM) program, which includes wolf control, to benefit moose in portions of southern Unit 20E

- Feasibility assessment

**ADF&G Recommendation:** Neutral

**ADF&G Feasibility Assessment:** High potential to maintain elevated harvest

### **AC Recommendations:**

- Upper Tanana-Fortymile AC: Support; Eagle AC: **?????**; Tok Cutoff/Nabesna Road AC: **?????**; Delta AC: Support

1

## Proposed IM Program Goals

**1. Maintain elevated moose population in southern Unit 20E - without exceeding nutritional limitations of habitat.**

- High productivity (twinning-rate)

2

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2. **Maintain elevated moose harvest and success rates in Southern Unit 20E (RY2014–RY2021)**
  - Prior to decline following winters 2021–2022 and 2022–2023

3

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  - Prior to decline following winters 2021–2022 and 2022–2023
3. **Maintain bull-to-cow ratios** above objectives
  - Avoid restrictive hunting regulations

4

## Proposed IM Program Objectives

### 1. Moose Population Objective

- 1.0–1.4 moose/mi<sup>2</sup>, within Taylor Corridor Moose Survey Area (TCSA)

5

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- 170–210 harvested annually, within Universal Coding Units (UCUs) overlapping the IM area
  - RY2014–RY2021 = Avg. 183 (range 169–214)

6

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### 3. Moose Harvest Success Objective

- 20–25% success rate, within UCUs overlapping the IM area
  - RY2014–RY2021 = Avg. 25% (range 21%–30%)

7

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- 20–25% success rate, within UCUs overlapping the IM area
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### 4. Bull-to-cow ratio Objective

- 25 bulls:100 Cows, within TCSA

8



## Proposed IM Management Strategy

1. Periodic SDA wolf control
2. Habitat management
3. Antlerless hunts

9

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  - **Active** - moose density  $< 1.0$  moose/mi<sup>2</sup> in TCSA for 2 consecutive years and twinning  $> 20\%$
  - **Suspend** when moose density  $\geq 1.2$  moose/mi<sup>2</sup> - within the TCSA for 2 consecutive years

10

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2. **Habitat management**
  - Maintain early seral habitat (2004 burn)

11

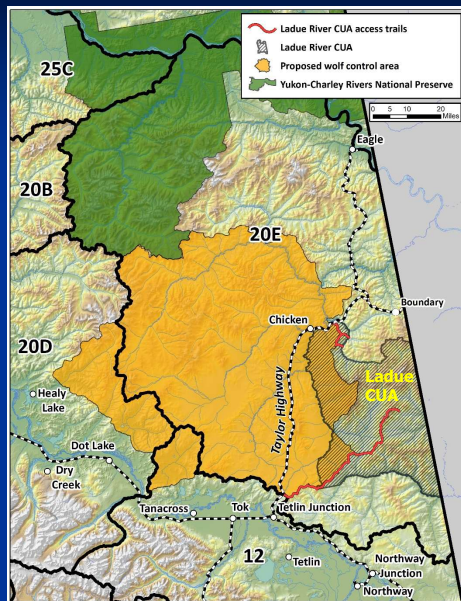
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  - Suspend when moose density  $\geq 1.2$  moose/mi<sup>2</sup> - within the TCSA for 2 consecutive years
2. Habitat management
  - Maintain early seral habitat (2004 burn)
3. **Antlerless hunts**
  - Maintain moose density  $\leq 1.4$  moose/mi<sup>2</sup> (TCSA)
  - Maintain nutritional condition (twinning  $> 20\%$ )
  - Maintain bull:cow ratio
  - Unit 20E antlerless regulations adopted in 2022

12

## Proposal 108 - Wolf Control

Proposal 108; Slide 13



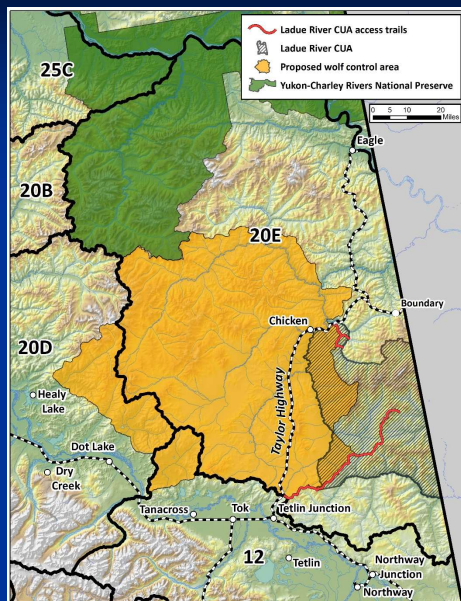
### Proposed 4,757 mi<sup>2</sup> area

- 85% within Unit 20E
- 4% within Unit 12
- 11% within Unit 20D

13

## Proposal 108 - Wolf Control

Proposal 108; Slide 14



### Proposed 4,757 mi<sup>2</sup> area

- 85% within Unit 20E
- 4% within Unit 12
- 11% within Unit 20D

### Aerial wolf control by:

- Public permittees
  - Fixed-wing
    - pilot/gunner teams
  - Helicopter
    - retrieval
    - snare/trap
- Department

14

## Unit 20E – Moose IM objectives

- **Population Objective = 8,000-10,000 moose**
- 2019 Unit-wide estimate
  - **6,742** (5,748-7,736)
- 2023 Unit-wide estimate
  - **4,724** (4,035-5,413)

15

## Unit 20E – Moose IM objectives and ANS

- **Harvest Objective = 250-500 moose**
  - RY18-RY22 average = **199** (range 155-245)
  - 2023 harvestable surplus ~**240**
  - Near IM objective - **prior to decline**
  - Challenges = access
- **Amount Necessary for Subsistence (ANS)**
  - Unit 20E = **50–75**

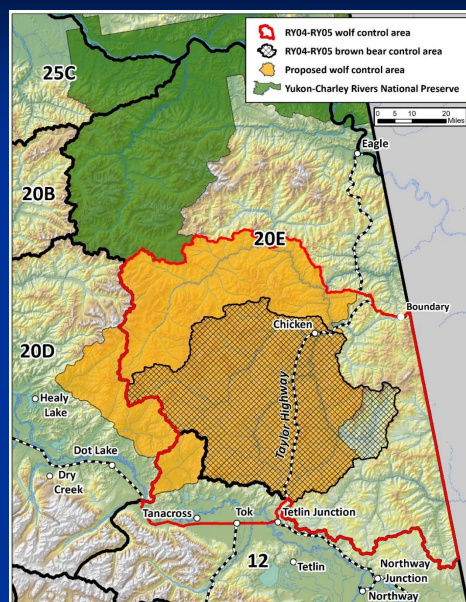
16

## Background – Intensive Management

Long history of predator management

### 2004 IM Program

- **Wolf control**  
(6,600 mi<sup>2</sup>)
- **Brown bear control**  
(2,700 mi<sup>2</sup>)
- **Benefit moose**

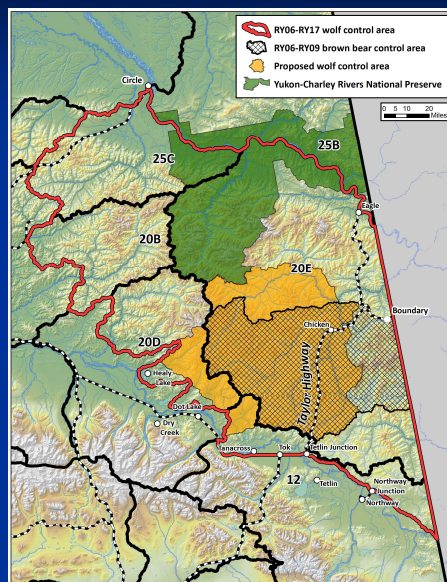


17

## Background – Intensive Management

### 2006 IM Program

- **Area expanded**
- **Wolf control**
  - (18,750 mi<sup>2</sup>)
- **Bear control**
  - (4,050 mi<sup>2</sup>)
- **Fortymile Caribou Herd added**



18



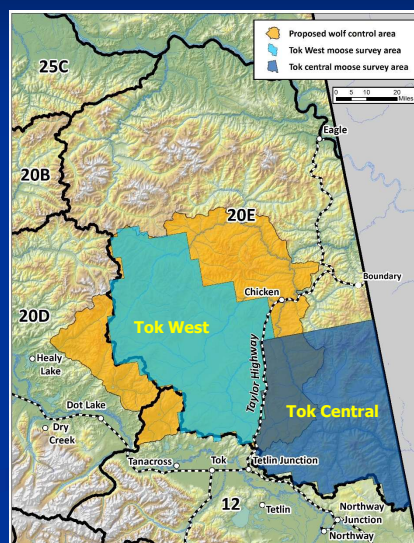
## Background – Intensive Management

- **2009 – bear control stopped**
  - Removal objectives not met
- **2014 – moose removed from plan**
  - No focused wolf control
- **Wolf control for FCH through spring 2018**
  - Public permittees
  - Department: RY08-RY09, RY11-RY17
    - Calving/post-calving range
  - Moose benefit

19

## Southern Unit 20E moose surveys (2005–2012)

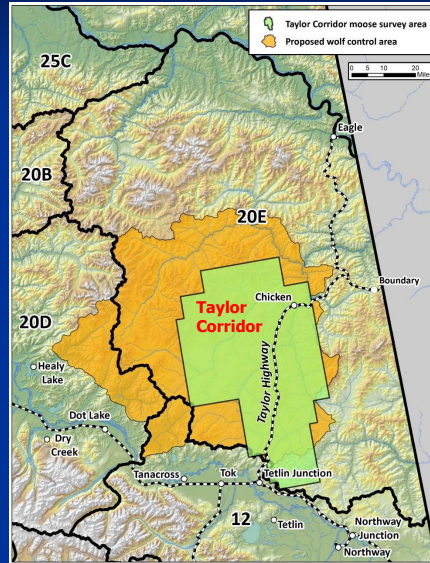
- **Tok West (TWSA)**
  - 2,452 mi<sup>2</sup> (99% in IM area)
- **Tok Central**
  - 2,180 mi<sup>2</sup> (26% in IM area)



20

## Southern Unit 20E moose surveys (2014–2023)

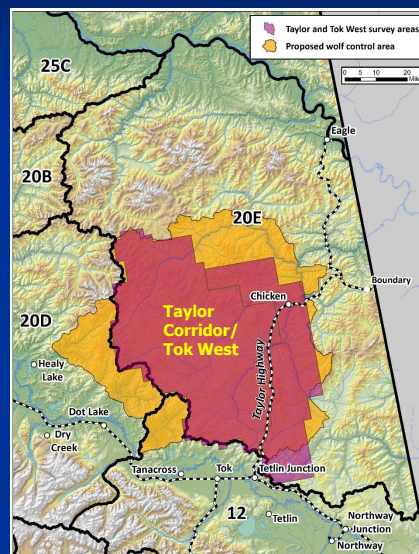
- **Taylor Corridor (TCSA)**
  - 2,241 mi<sup>2</sup> (93% in IM area)
    - Highest moose density
    - Majority of 20E harvest
    - Best moose habitat
    - Greatest Access



21

## IM Program Area for Moose

- **TCSA/TWSA Combined**
  - 3,519 mi<sup>2</sup>
  - Area intended to benefit moose
  - Evaluate program success

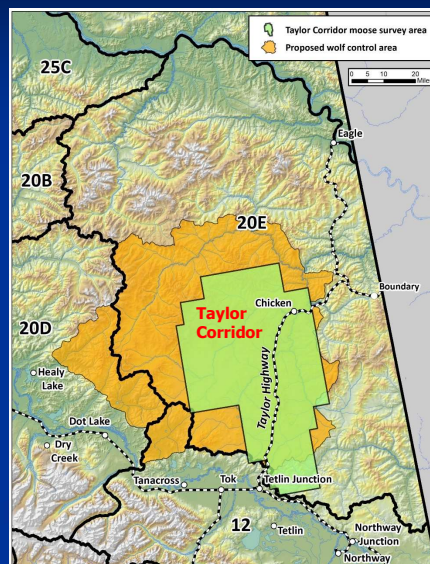


22

## IM Objective - Moose Population

### ➤ TCSA

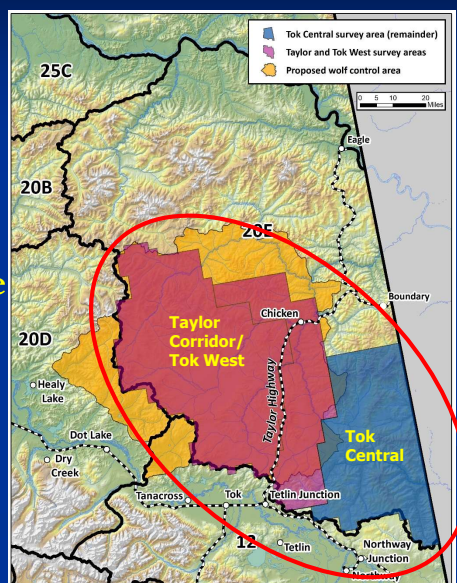
- Maintain 1.0 – 1.4 moose/mi<sup>2</sup> in TCSA
- Annual surveys
- Guide management decisions
- Trigger for wolf control



23

## Southern Unit 20E moose surveys

- **Combined** Tok West, TCSA and Tok Central (5,050 mi<sup>2</sup>)
  - Every **3-years**
  - Coincide with **BOG cycle**
  - Evaluate southern 20E moose population
  - Evaluate IM effects

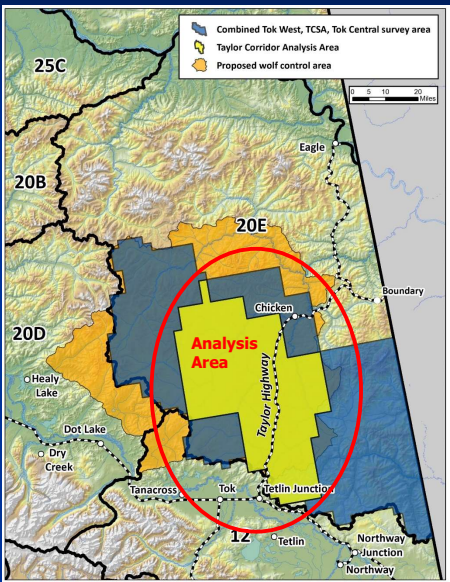


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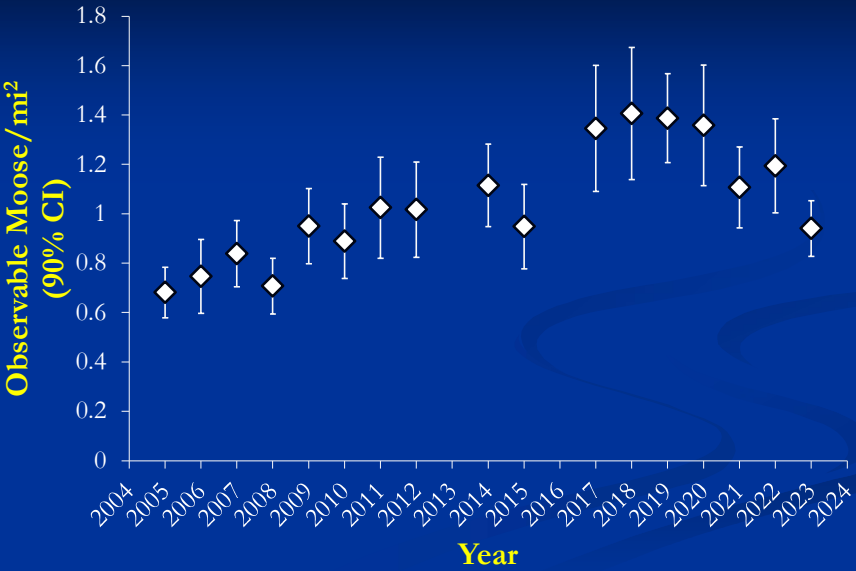
# Southern 20E Analysis Area

- Surveyed annually from **2005-2023**, (except 2013)
- **1,821 square miles**
  - 91% in IM area
- Long-term data

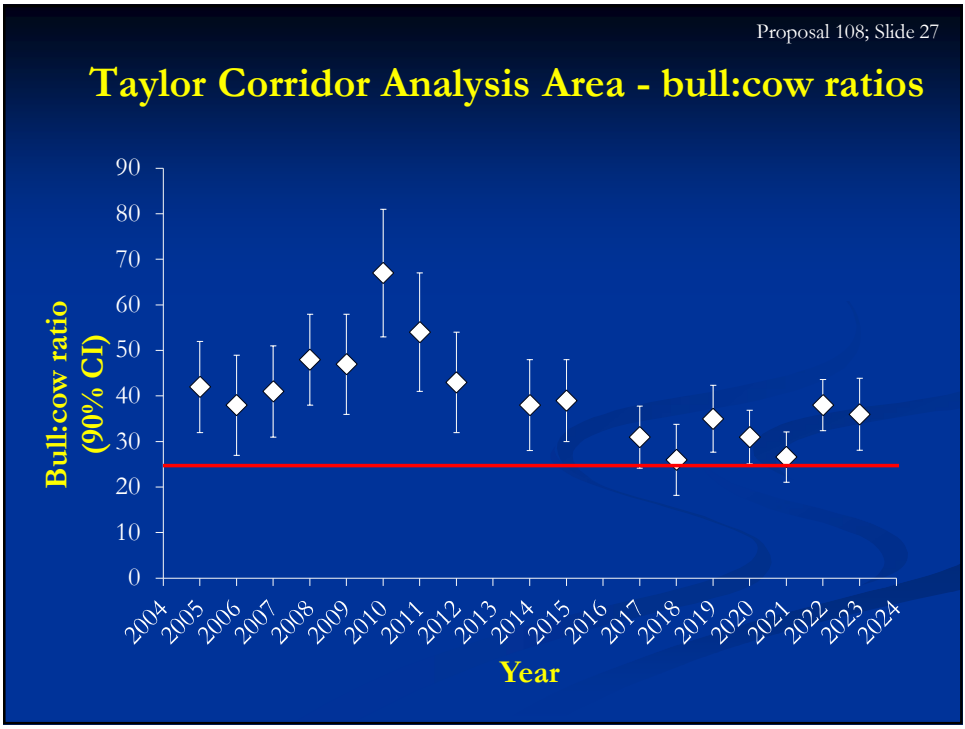


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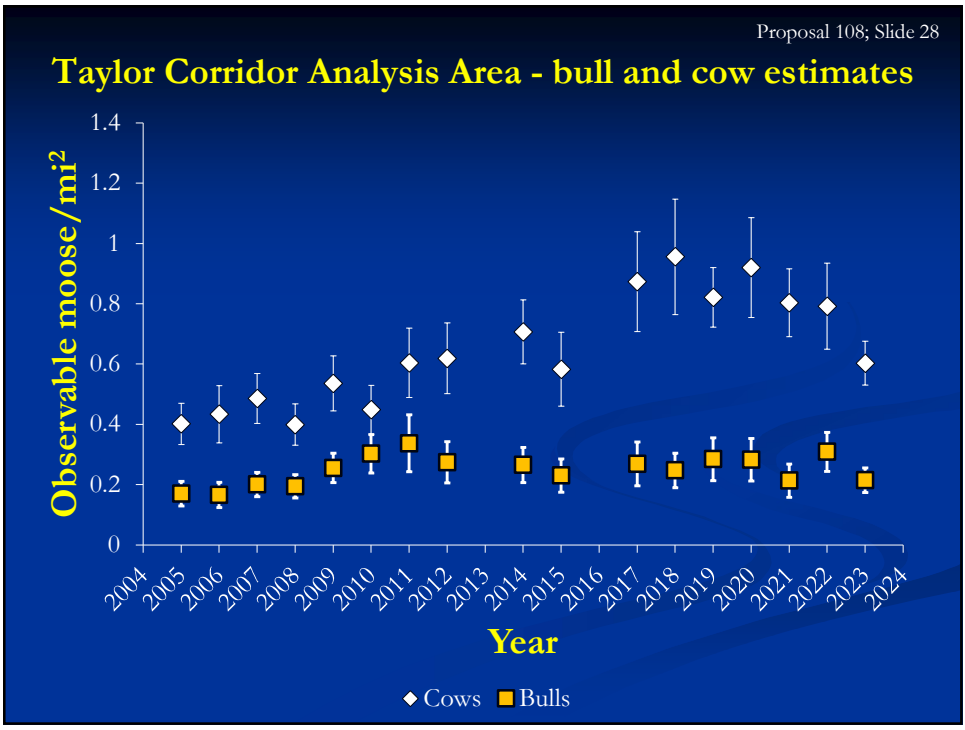
# Taylor Corridor Analysis Area - moose density



26

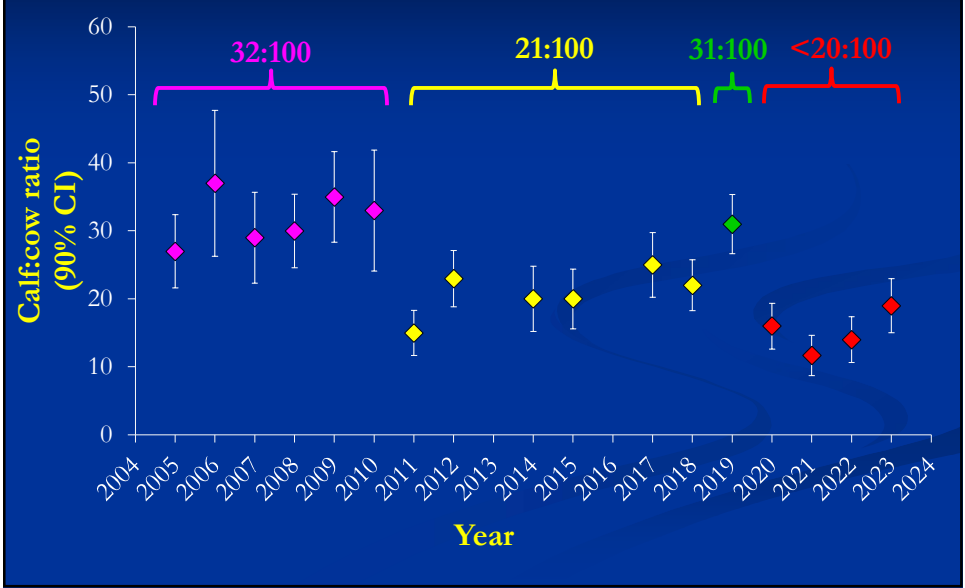


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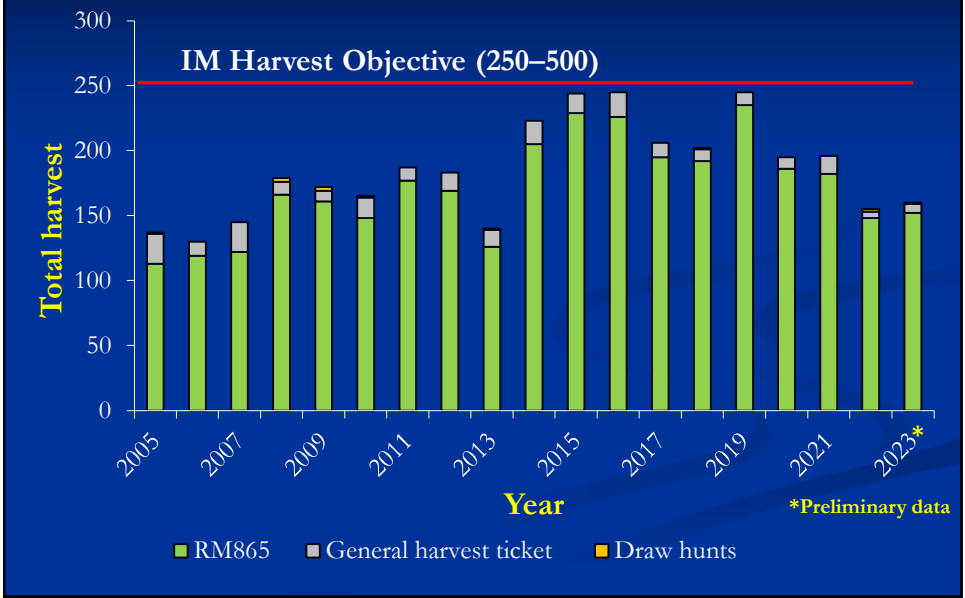
28

Taylor Corridor Analysis Area - calf:cow ratios

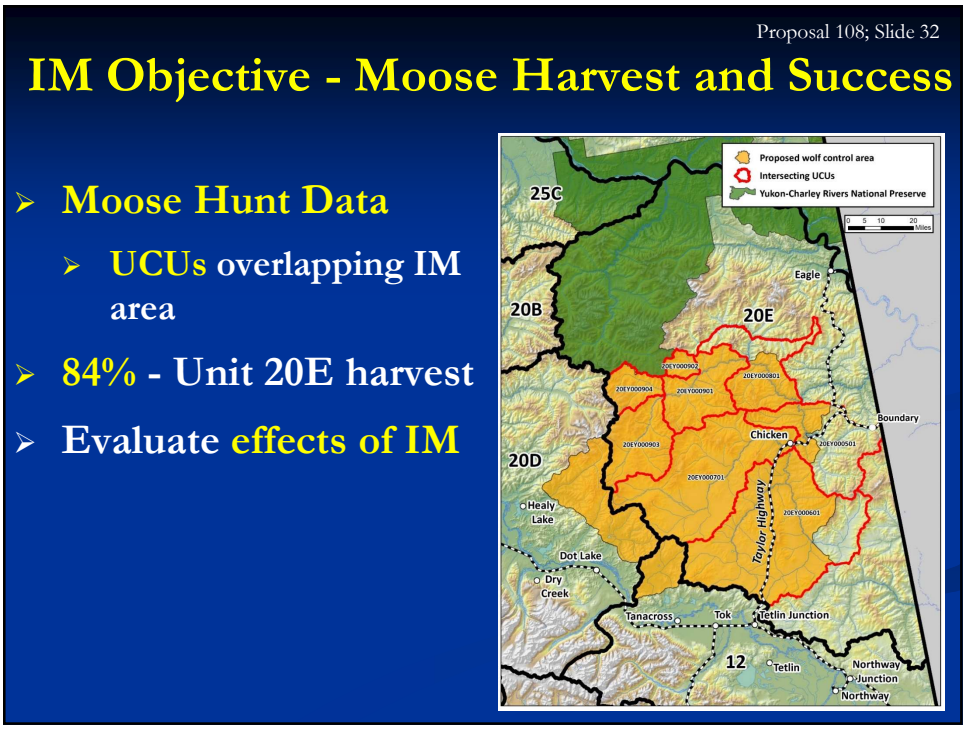
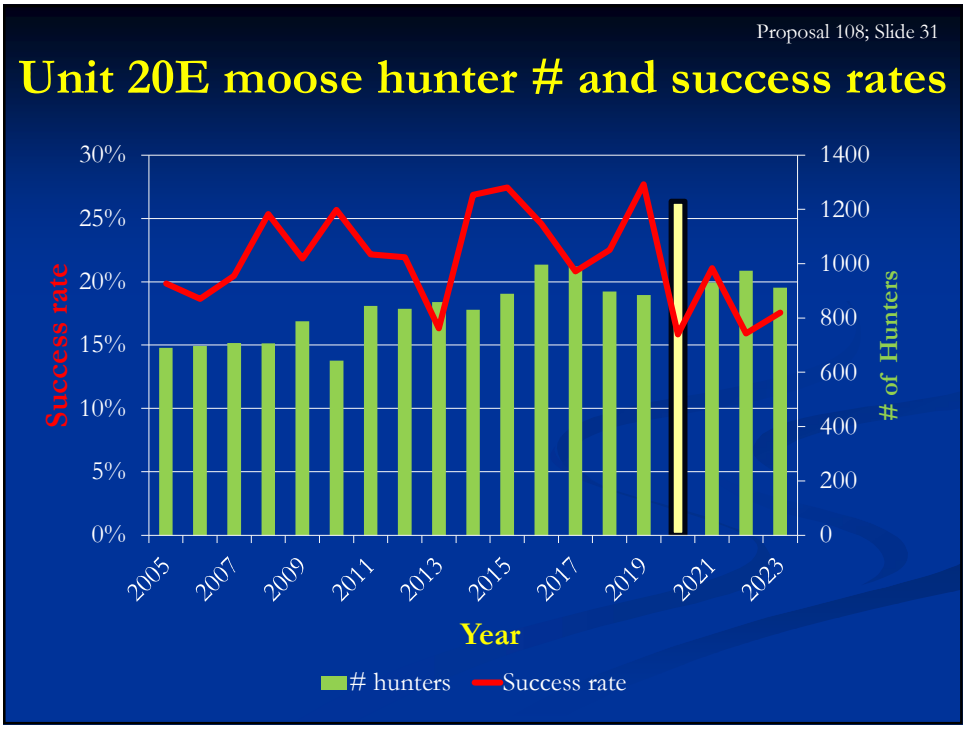


29

Unit 20E reported moose harvest

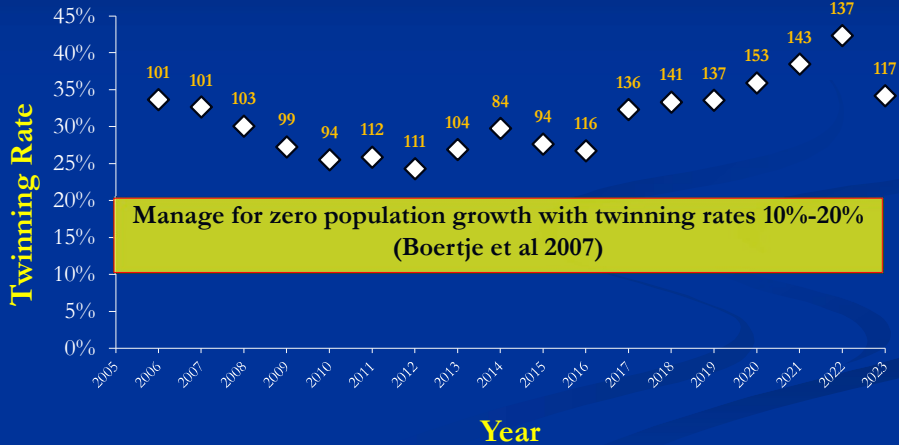


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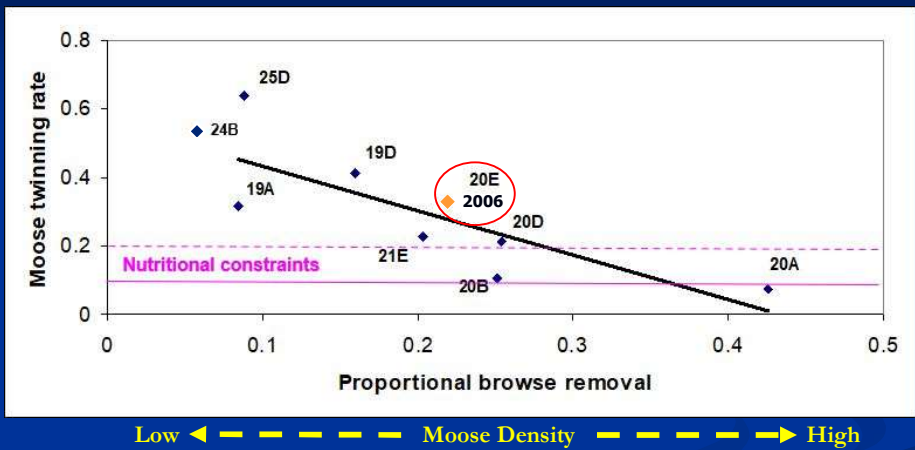
## Southern Unit 20E Twinning Rate

3-year running average (with sample size)



33

## Southern Unit 20E moose productivity

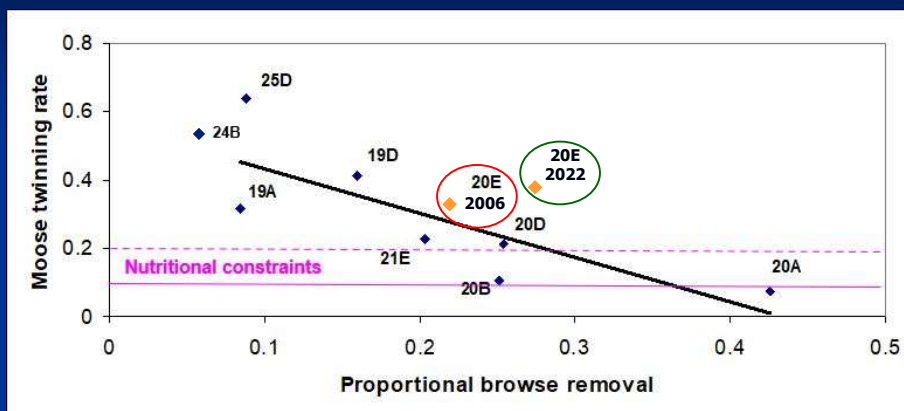


Boertje et al. 2007. Ranking Alaska moose nutrition: signals to begin liberal antlerless harvests. *Journal of Wildlife Management* Vol. 71.

Seaton et al. 2011. Browse biomass removal and nutritional condition of moose *Alces alces*. *Wildlife Biology* Vol. 17.

34

## Southern Unit 20E moose productivity



Low ◀ — — — — — Moose Density — — — — — ▶ High

Boertje et al. 2007. Ranking Alaska moose nutrition: signals to begin liberal antlerless harvests. *Journal of Wildlife Management* Vol. 71.

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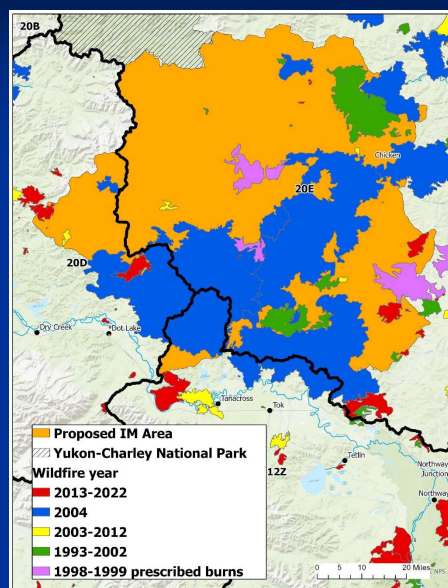
## Southern Unit 20E moose productivity

### Fire history

- 1989-2022 fires
  - 39% of proposed area
  - 1,865 mi<sup>2</sup>
  - Mostly 2004-2005 fires
  - 1592 mi<sup>2</sup>

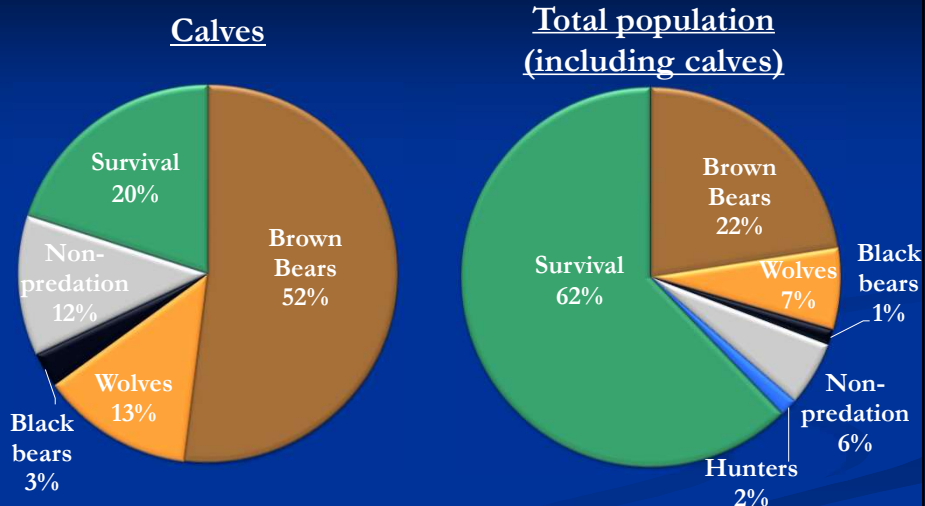
### Habitat Maintenance

- Prescribed fire
- Mechanical treatment
  - Accessible areas



36

## Moose mortality – 1980s Unit 20E

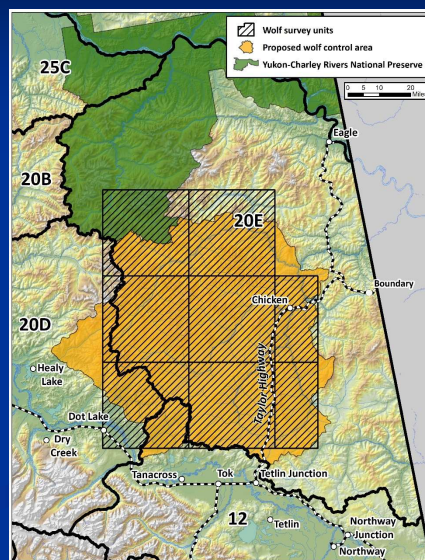


- Reduced wolf numbers during study
- SW Yukon study – similar, but higher

37

## Wolf population within IM area

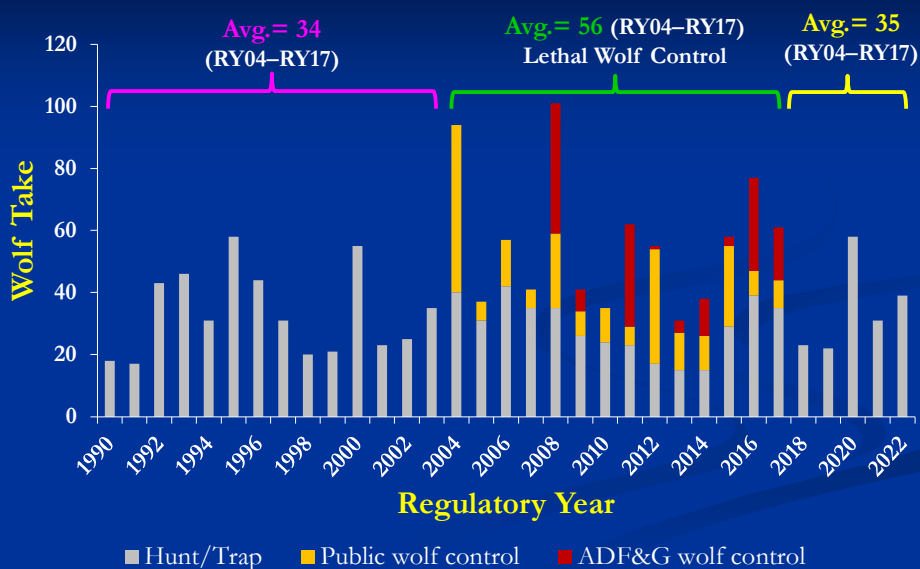
- **Unit 20E Pop Obj.**
  - Maintain a population of no less than 60 wolves
- **2020 Survey - Unit 20E**
  - 99–102 wolves
  - 20–22 wolves/1,000 mi<sup>2</sup>
- **2023 Survey - 5,125 mi<sup>2</sup>**
  - 82% in IM area
  - 109–110 wolves
  - 21–22 wolves/1,000 mi<sup>2</sup>



38



## Wolf harvest within proposed area



39

## Additional Information – Black Bears

- **Management Objective** - Maintain at least 55% males in the combined reported 5-year running total harvest
- Estimated **450–650 black bears** within the IM area
- Harvest averaged **12 black bears/year** during RY18 - RY22
- Harvest rate likely **2-3%**

40



## Additional Information – Brown Bears

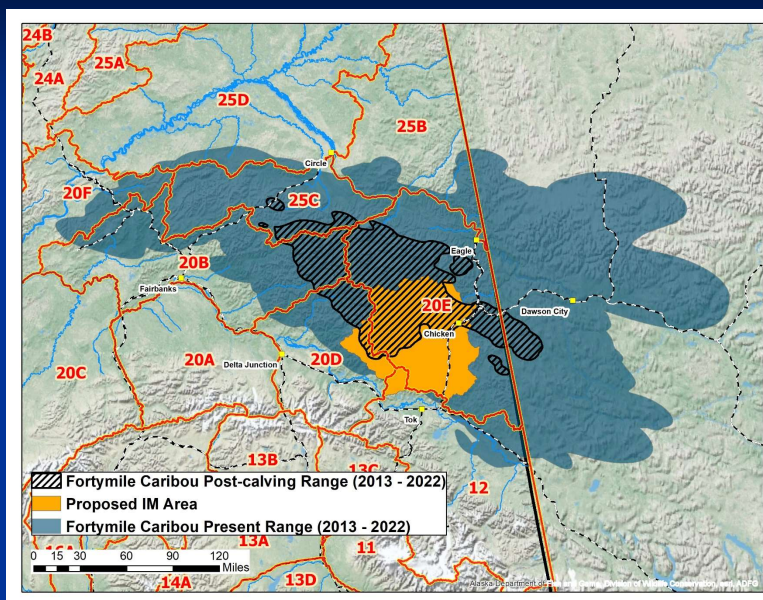
### ➤ Management Objectives -

1. Prohibit the harvest of cubs (within the first 2 years of life) and sows accompanied with cubs.
2. Manage for a stable or increasing trend in harvest.

- Estimated **132–165 brown bears** within IM area
- Harvest averaged **10 brown bears/year** (within IM area) during RY18 - RY22
- Harvest rate likely **6–8%**

41

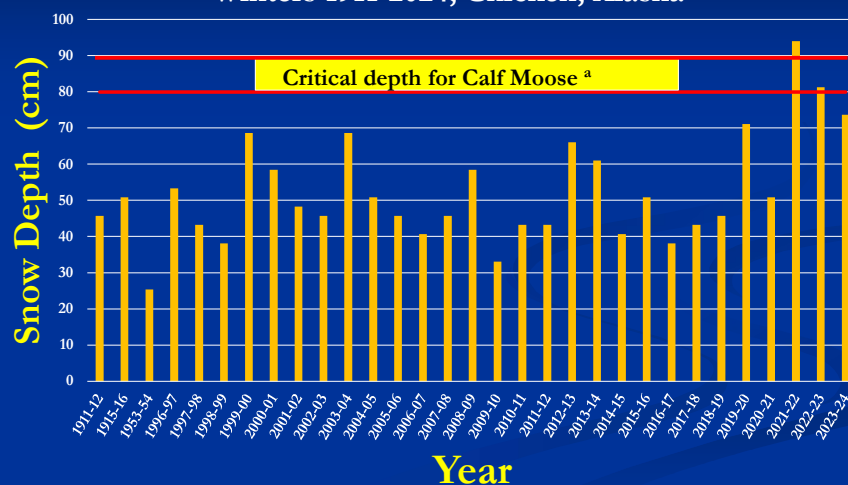
## Other considerations



42

## Other Considerations - Weather

Max. Accumulated Snow Depth (cm)  
Winters 1911-2024, Chicken, Alaska



<sup>a</sup> Coady, J.W. 1974. Influence of snow on behavior of moose. Nat. Ca (Que.) 101:417-436

43

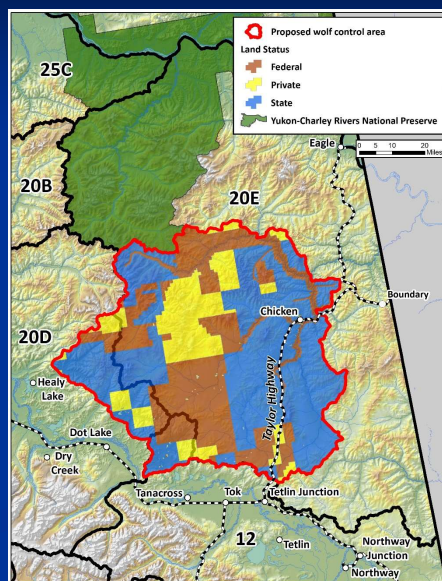
## Other considerations

### ➤ Land Ownership

- 52% - State
- 32% - Federal (BLM)
- 16% - private

### ➤ Access

- Wolf control
- Moose harvest
- Habitat Projects



44

Proposal 108; Slide 45

**Proposal 108 – Southern Unit 20E**

Intensive Management – wolf control

**Submitted by:** Upper Tanana-Fortymile AC**Effect of the proposal:** Implement an Intensive Management (IM) program, which includes wolf control, to benefit moose in portions of southern Unit 20E

- Feasibility assessment

**ADF&G Recommendation:** Neutral**ADF&G Feasibility Assessment:** High potential to maintain elevated harvest**AC Recommendations:**

- Upper Tanana-Fortymile AC: Support; Eagle AC: **?????**; Tok Cutoff/Nabesna Road AC: **?????**; Delta AC: Support

45

Proposal 108 - Feasibility Assessment; Slide 46

**Feasibility Assessment**Maintaining or increasing sustainable  
harvest of moose in Game Management**Unit 20E****Prepared by:**

Division of Wildlife Conservation

February 2024

46

## Department Recommendation

### If Proposal 108 is adopted by the board:

The Department recommends implementing the proposed IM program as described in the presentation for Proposal 108 and written in section 1. C. 1. of the Feasibility Assessment, to include wolf control and ongoing habitat enhancement efforts as necessary, to benefit moose, within the 3,519 mi<sup>2</sup> combined Taylor Corridor and Tok West Moose Survey Area, in southern Unit 20E.

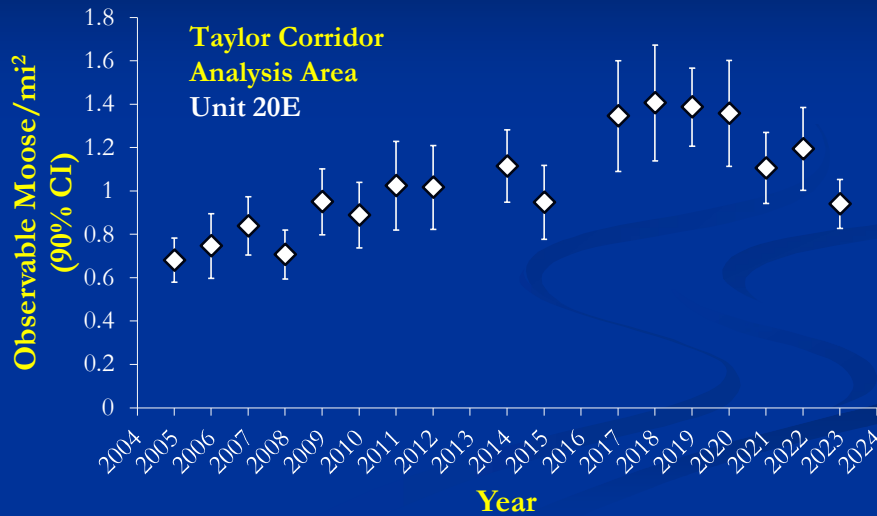
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## Rationale

We observed increases in moose density in the combined Taylor Corridor and Tok West Moose Survey Areas (3,519 mi<sup>2</sup> in southern Unit 20E) during 2004 –2018, concurrent with wolf control activities under the Upper Yukon Tanana Predator Control Program and large-scale fires in this area. We expect that a combination of wolf control and ongoing habitat enhancement efforts has a high likelihood of maintaining or moderately increasing the moose population within the combined Taylor Corridor and Tok West Moose Survey Area, which we propose as an Intensive Management (IM) program area for moose that will help with progress toward the Unit 20E IM harvest objective for moose.

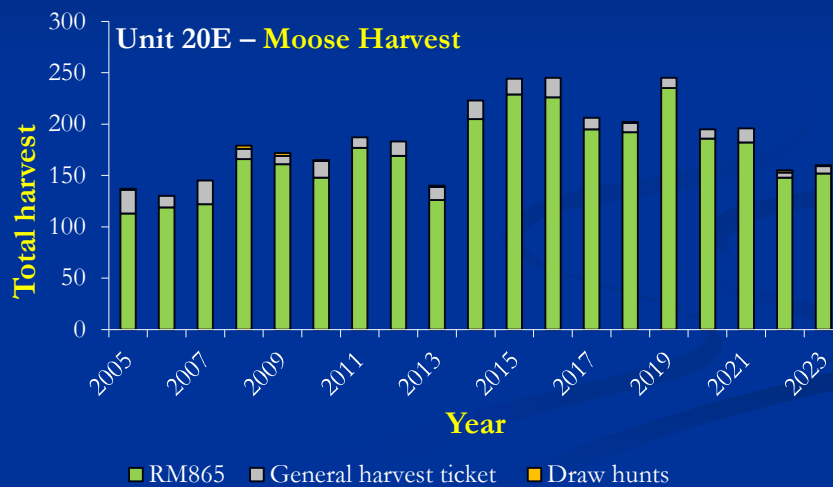
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## Feasibility of attaining population objective: High



49

## Feasibility of attaining harvest objective: High



50

## Potential Issues

### Biological

- Aging large burns of 2004 and 2005

### Social

- Public opposition to wolf control
- Trapper conflicts
- Hunter crowding/conflicts
- Public opposition to cow hunts

51

## Other Considerations

- **Weather** - Frequency of severe **winters**
  - 3 severe winters since 2019
  - High mortality all ages
  - Low recruitment for 2-3
    - likely have a lag effect on population recovery
  - 2023–2024 winter snow depth >70 cm Chicken
- **Fire frequency** – increased in recent decades
- **Predators**
  - Wolves – Recovered from previous reductions
  - Alternative prey species – reduced
    - Nelchina and Fortymile caribou herds

52

## Department Recommendation

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53



## Proposal 109 – Allow same-day airborne hunting of wolves in Unit 12

Submitted by: Public

- Effect of Proposal: Would allow take of wolves same-day airborne (SDA) in Unit 12 contingent upon the adoption of an Intensive Management (IM) program in a portion of Unit 12.
- ADF&G Recommendation: Opposed
- AC Recommendation(s): Upper Tanana Fortymile: No Vote

54



## SDA Wolves – Unit 12

- **AS 16.05.783 (a).** This statute prohibits shooting or assisting in shooting a free-ranging wolf or wolverine the same day that a person has been airborne. However, the Board of Game may authorize a predator control program that allows airborne or same day airborne shooting under conditions laid out in the statute and written into an Intensive Management or Non-Intensive Management Plan adopted by the board.
- **5 AAC 92.039. Permit for taking wolves using aircraft.** This regulation prohibits the use of an aircraft to land and shoot a wolf or take a wolf by aerial shooting without first obtaining a permit from the department.
- **5 AAC 92.085 (8). Unlawful methods of taking big game.** This regulation prohibits the taking or assisting in taking big game until after 3:00 a.m. following the day in which the flying occurred. The exceptions to this regulation include a person flying on a regularly scheduled commercial airline, including a commuter airline.
- **5 AAC 92.095 (8). Unlawful methods of taking furbearers.** This regulation prohibits a person from taking or assisting in taking wolf and wolverine until after 3:00 a.m. following the day in which the flying occurred, however it does not prohibit the dispatch of wolves and wolverine in a snare the same day the flying occurred. The regulation also prohibits the taking of coyote, arctic fox, or lynx unless that person is over 300 feet from the airplane at the time of taking.
- **5AAC 92.990 (5). Definitions.** This regulation defines “big game” as black bear, brown bear, bison, caribou, Sitka black-tailed deer, elk, mountain goat, moose, muskox, Dall sheep, wolf and wolverine.

55

## SDA Wolves – Unit 12

- **Sheep – Not an IM species**
- **Moose – Unit 12**
  - **IM Pop Objective 4,000–6,000**
    - **Current = 6,542 (range 5,427 – 7,657)**
  - **IM Harvest Objective 150–300**
    - **Avg. harvest (RY18–RY22) = 130 (range 115–155)**

56





## **Proposal 109** – Allow same-day airborne hunting of wolves in Unit 12

**Submitted by:** Public

- **Effect of Proposal:** Would allow take of wolves same-day airborne (SDA) in Unit 12 contingent upon the adoption of an Intensive Management (IM) program in a portion of Unit 12.
- **ADF&G Recommendation:** Opposed
- **AC Recommendation(s):** Upper Tanana Fortymile: No Vote

57

## **Proposal 110:** Moose/Subunit 20E



**Submitted by:** ADFG

**Effect of the proposal:** Reauthorize the antlerless moose seasons in Unit 20E

**Department Recommendation:** Support

**Upper Tanana/Fortymile Advisory Committee:**  
Support (5-0)

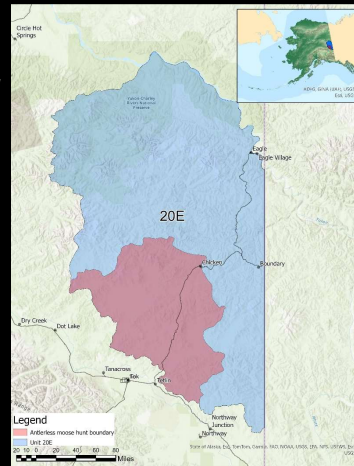
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58

## Proposal 110: Unit 20E antlerless moose

### Current regulation

- No active antlerless hunts in 20E
- Antlerless hunts must be reauthorized annually
- Positive C&T finding for 20E moose
  - ANS of 50-75
- IM harvest objective of 250-500



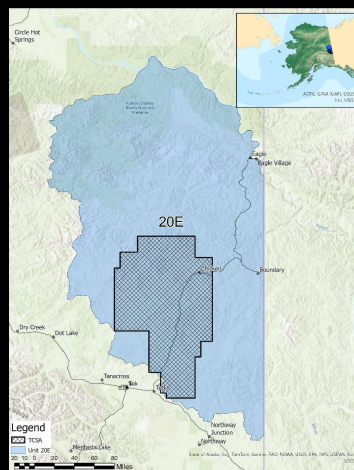
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## Proposal 110: Unit 20E antlerless moose

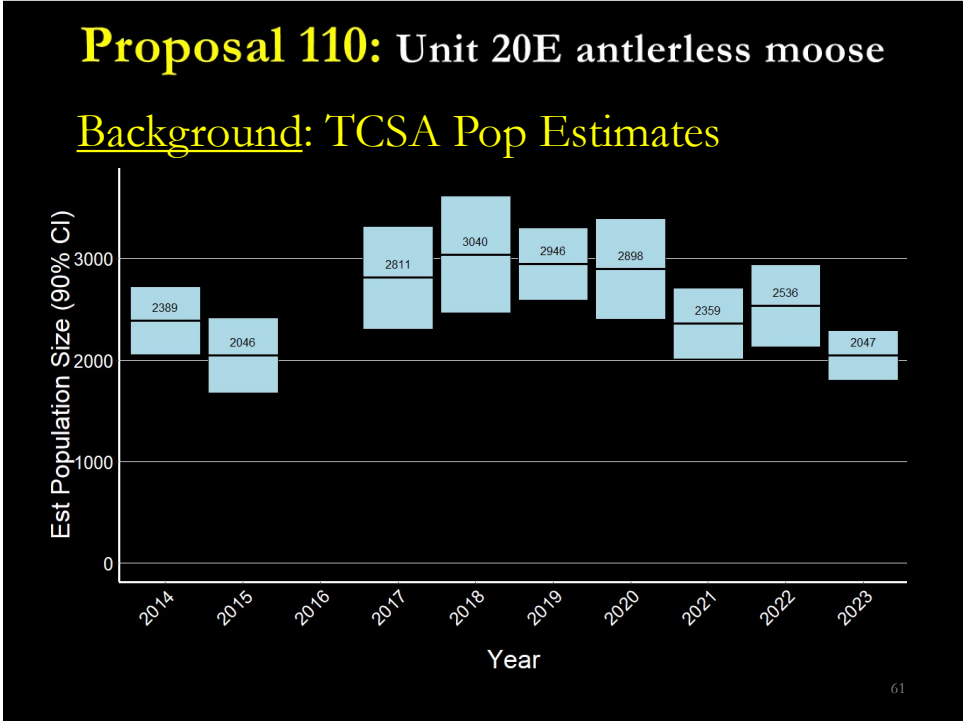
### Background

- Most recent survey in 2023, TCSA and Tok West/Central
- Previous survey of southern 20E occurred in 2019

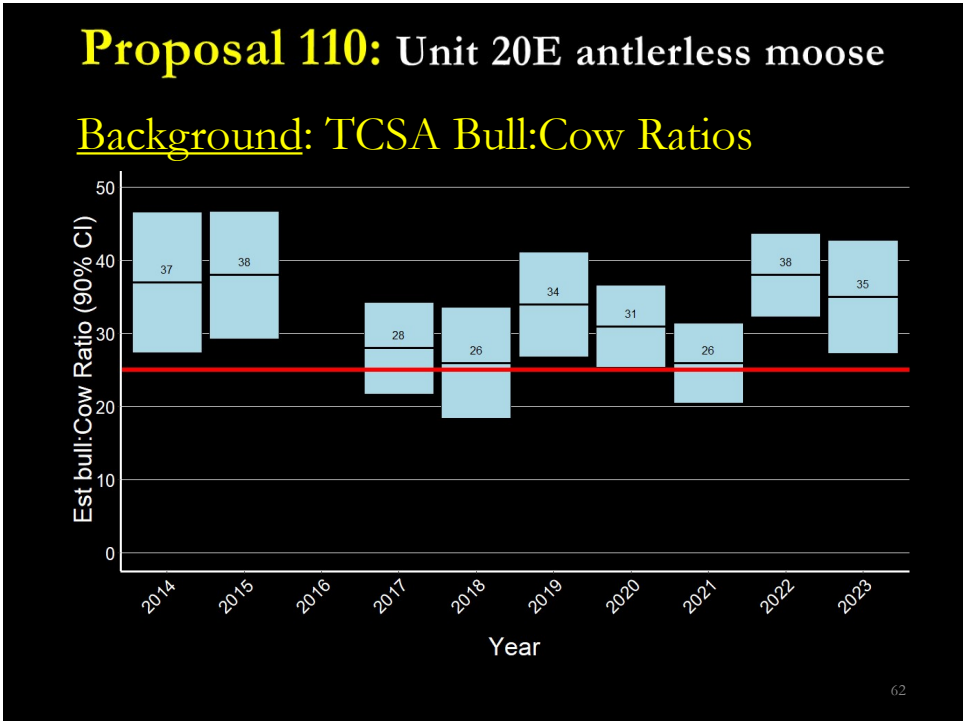


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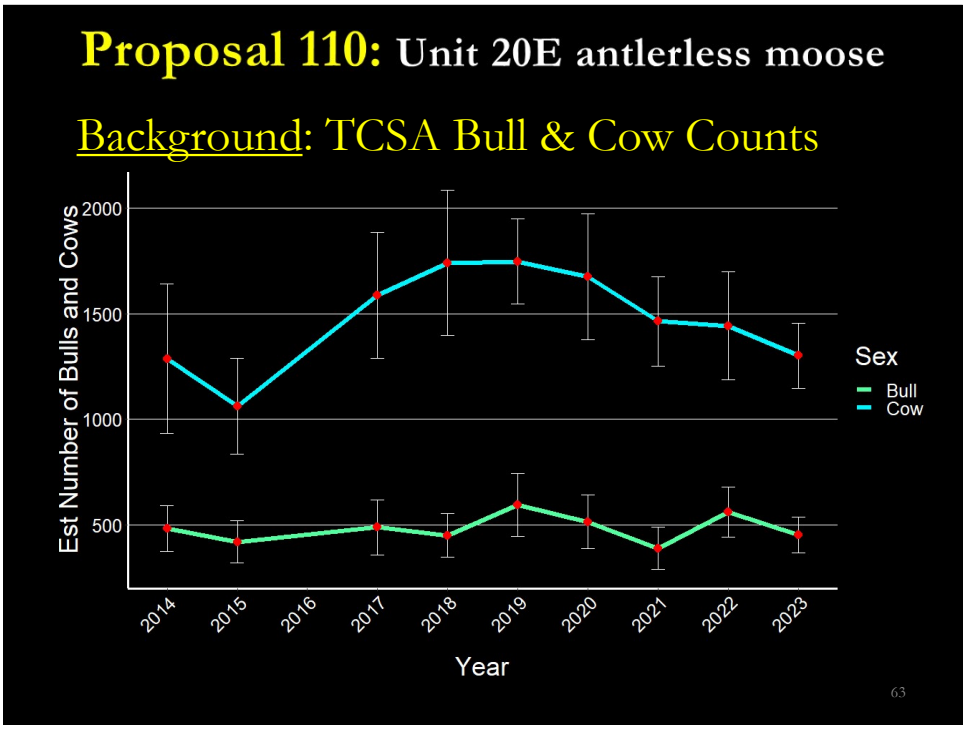
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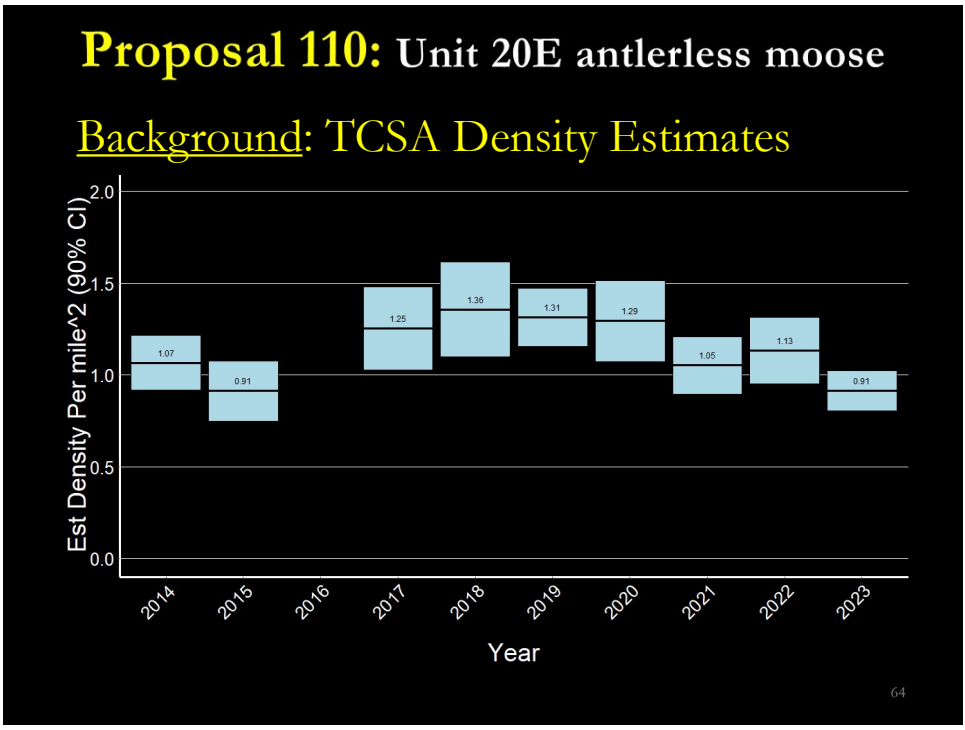
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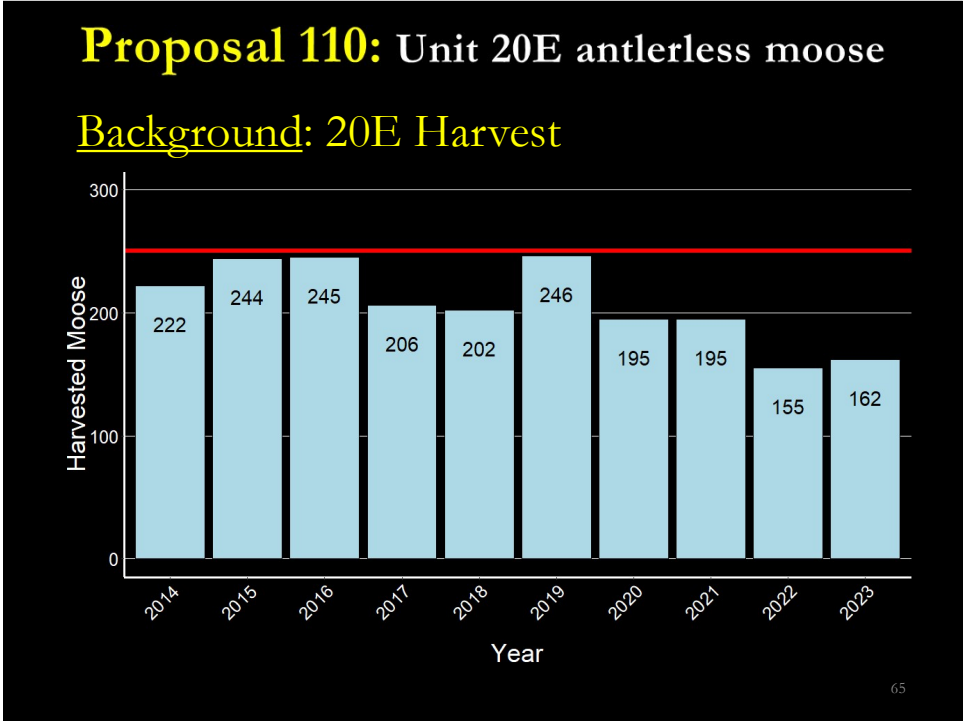
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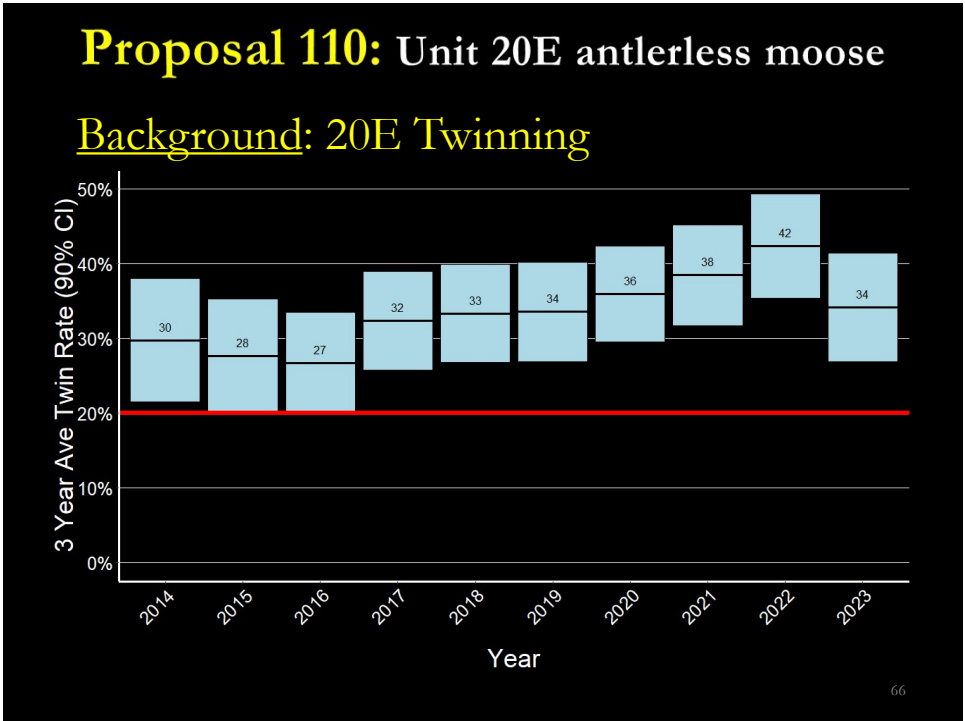
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64



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66

## **Proposal 110:** Unit 20E antlerless moose

### Closing Remarks

- No antlerless hunts planned for near future
- Without reauthorization, responses to population changes may be slow
- Antlerless hunts:
  - Provide management options for population adjustment and habitat protection
  - Can help achieve IM harvest objectives without reducing bull-to-cow ratios below management objectives

67

67

## **Proposal 110:** Moose/Subunit 20E



Submitted by: ADFG

Effect of the proposal: Reauthorize the antlerless moose seasons in Unit 20E

Department Recommendation: Support

Upper Tanana/Fortymile Advisory Committee:  
Support (5-0)

68

68

## Proposal 111: Moose/Unit 12



Submitted by: Public

Effect of the proposal: Add an archery only, five-day moose season for residents and nonresidents in Unit 12

Department Recommendation: Neutral

Upper Tanana/Fortymile Advisory Committee:  
Oppose

69

69

## Proposal 111: Unit 12 Moose

### Management and Harvest Objectives

- IM Population objective of 4000-6000
- IM Harvest objective of 250-450
- Positive C&T finding
  - ANS of 60-70
- No current estimate of harvestable surplus

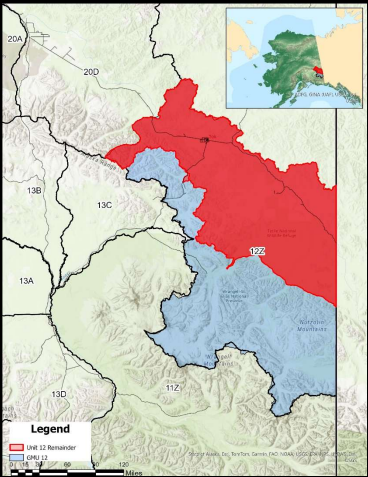
70

70

# Proposal 111: Unit 12 Moose

## Current regulation

- General season dates run Aug 24-Aug 28, Sept 8-Sept 17
- Archery season would extend season Sept 18-Sept 22
- IM harvest objective of
  - 150-300(2020)
- Positive C&T
  - ANS of 60-70

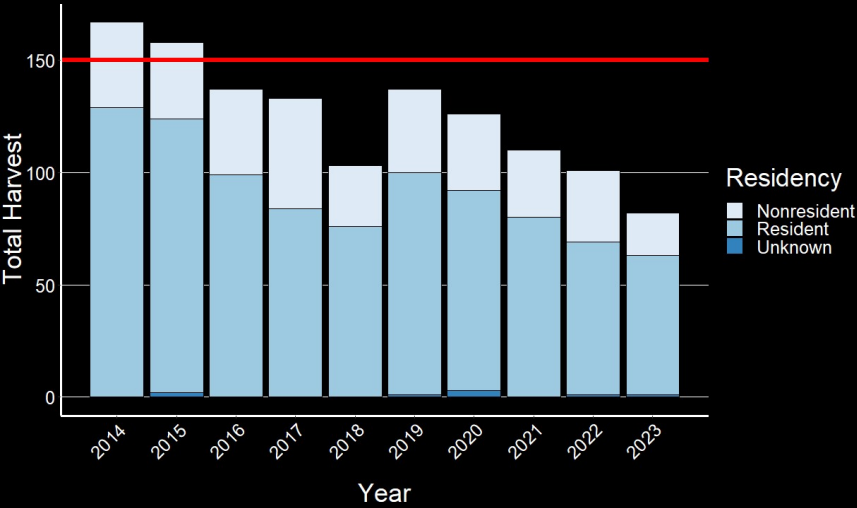


71

71

# Proposal 111: Unit 12 Moose

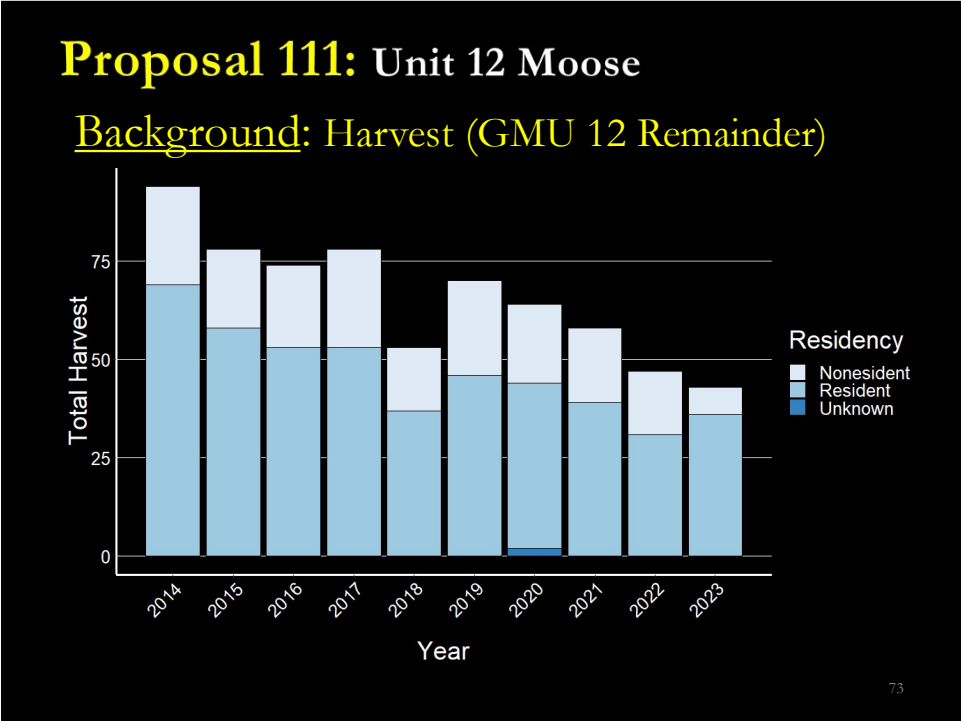
## Background: Harvest (Full Unit)



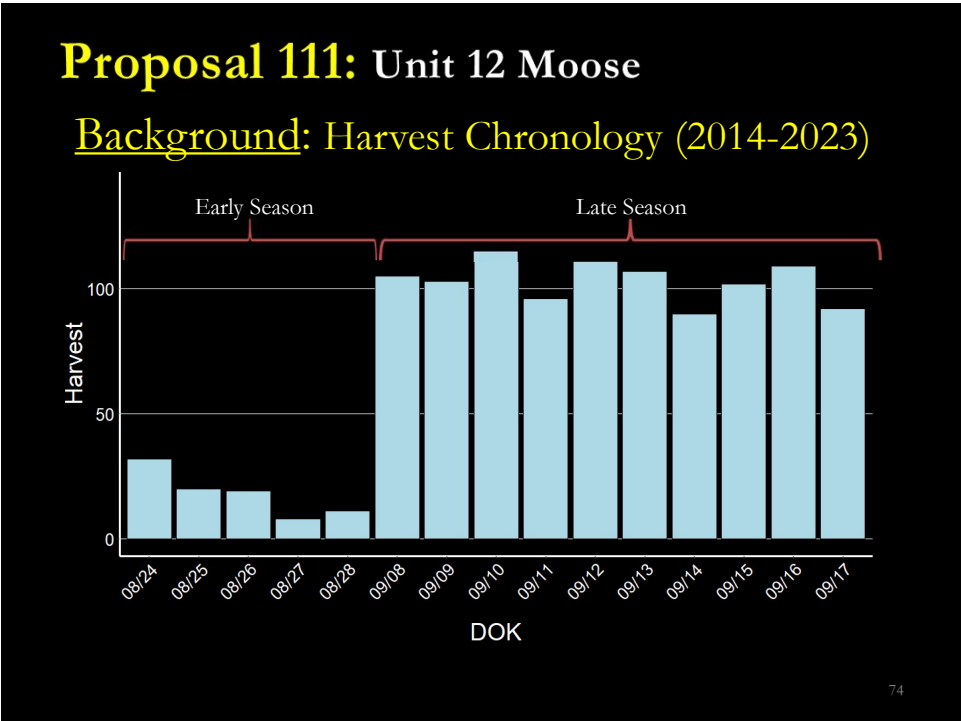
72

72



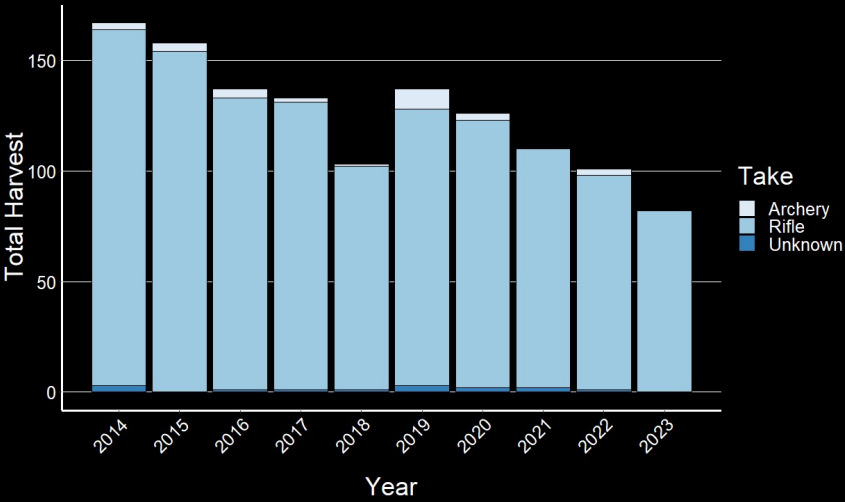


73



74

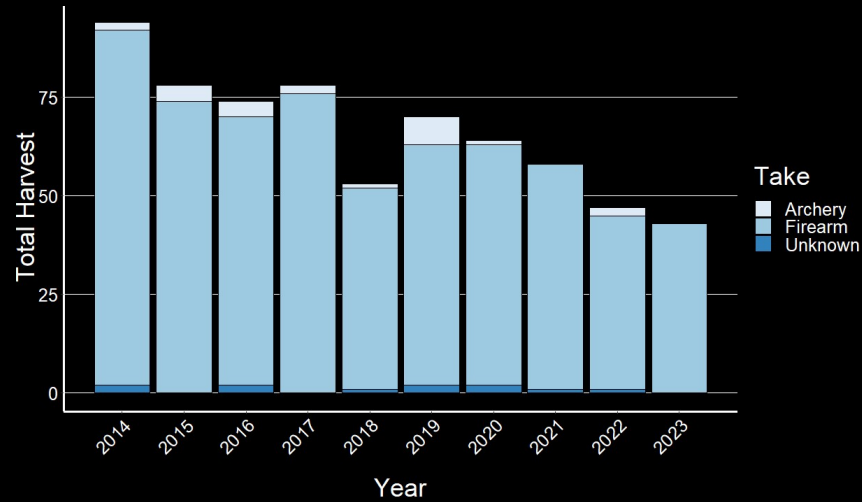
**Proposal 111: Unit 12 Moose**  
Background: Harvest Methods (Full Unit)



75

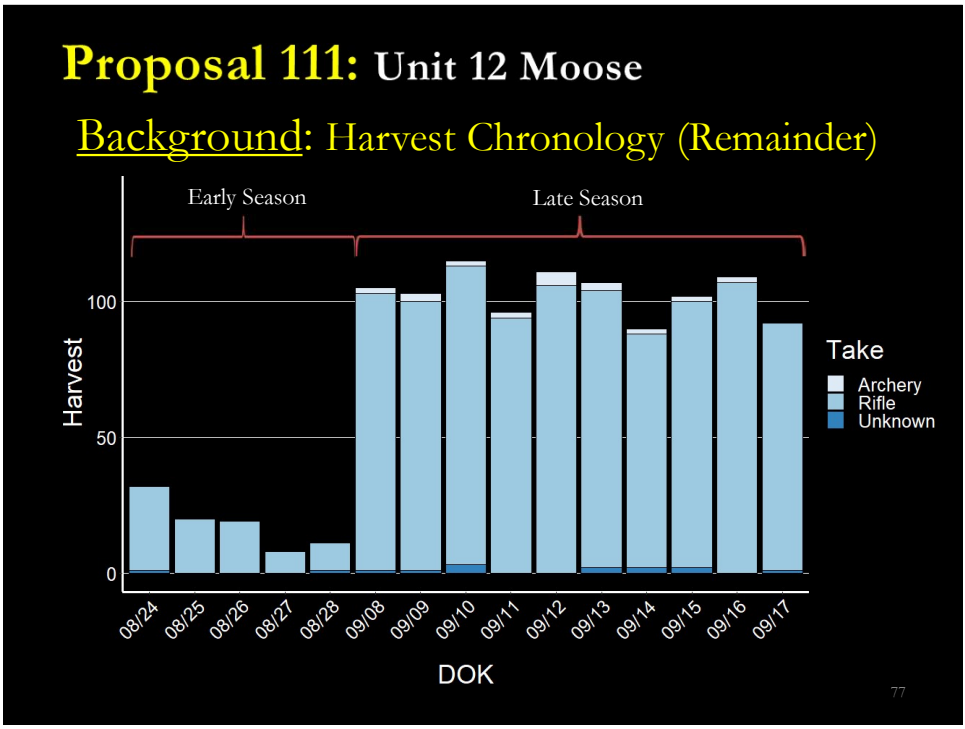
75

**Proposal 111: Unit 12 Moose**  
Background: Harvest Methods (Remainder)




76

76



77

### Proposal 111: Moose/Unit 12



Submitted by: Public

Effect of the proposal: Add an archery only, five-day season for residents and nonresidents in Unit 12

Department Recommendation: Neutral

Upper Tanana/Fortymile Advisory Committee: Oppose

78

78



## Proposal 112 – Limit nonresident hunting of Fortymile caribou in fall registration hunt to Zone 2 only.

**Submitted by:** Public

- **Effect of Proposal:** The proposal would limit nonresident hunters to hunting in Zone 2 only under the fall Fortymile caribou registration hunt (RC860) until the Fortymile herd meets IM pop objective.

**ADF&G Recommendation:** Neutral on allocation of hunting opportunity to residents and nonresidents; no conservation concerns.

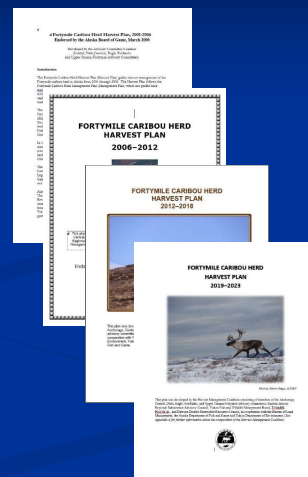
**AC Recommendation(s):**

Upper Tanana Fortymile: Oppose 1-Y, 2-N, 2-A

79

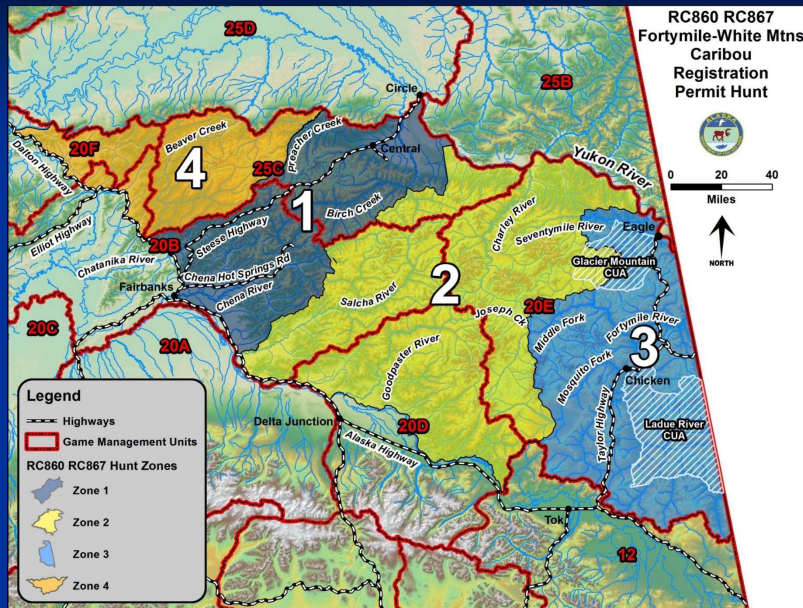
## Fortymile Harvest Management Plan

- **Guides Harvest Management**
- **Harvest Management Coalition**
  - International Planning Team
- **Nonresident hunting opportunity:**
  - Recommended
  - Limited to Fall Season Only



80

## Fortymile Caribou Hunt Area



81

## Proposal 112 – Fortymile Caribou

### ➤ Current regulations:

- Registration Hunt
- Residents (Zones 1-4):
  - August 1–September 30, up to 3 caribou;
  - October 21–March 31, up to 3 caribou
- Nonresidents (Zones 1-4):
  - August 10–September 30, one bull

### ➤ Proposed regulation:

- Registration Hunt
- Residents (Zones 1-4):
  - August 1–September 30, up to 3 caribou;
  - October 21–March 31, up to 3 caribou
- Nonresidents (Zone 2 only):
  - August 10–September 30, one bull

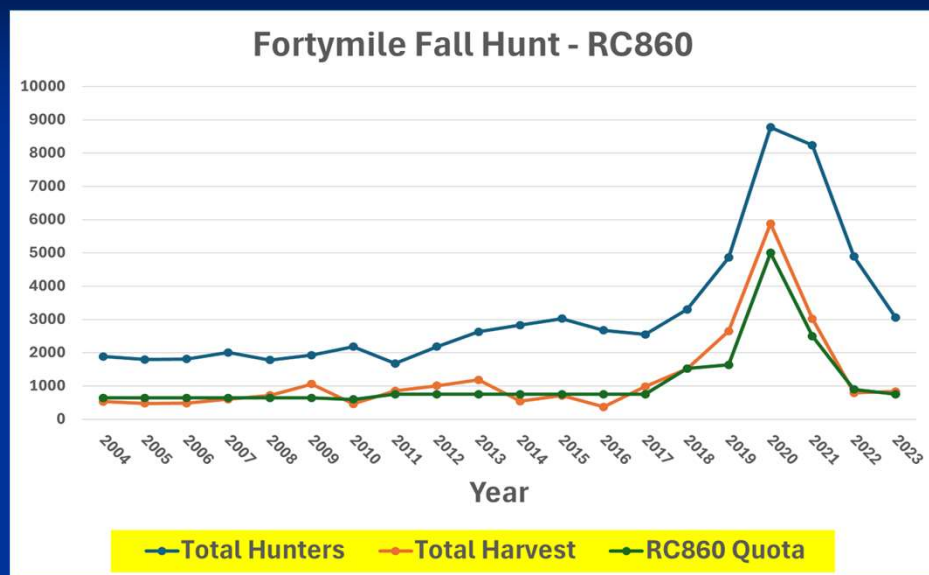
82

## Fortymile Caribou Findings and Objectives

- C&T Fortymile caribou
- Herd ANS of 350-400
- Intensive Management Objectives
  - Population Objective = 50,000–100,000
  - Harvest Objective = 1,000-15,000
- Herd Status
  - ~34,000
  - Reduced nutritional status
  - 2023 Harvest Objective = 1,000

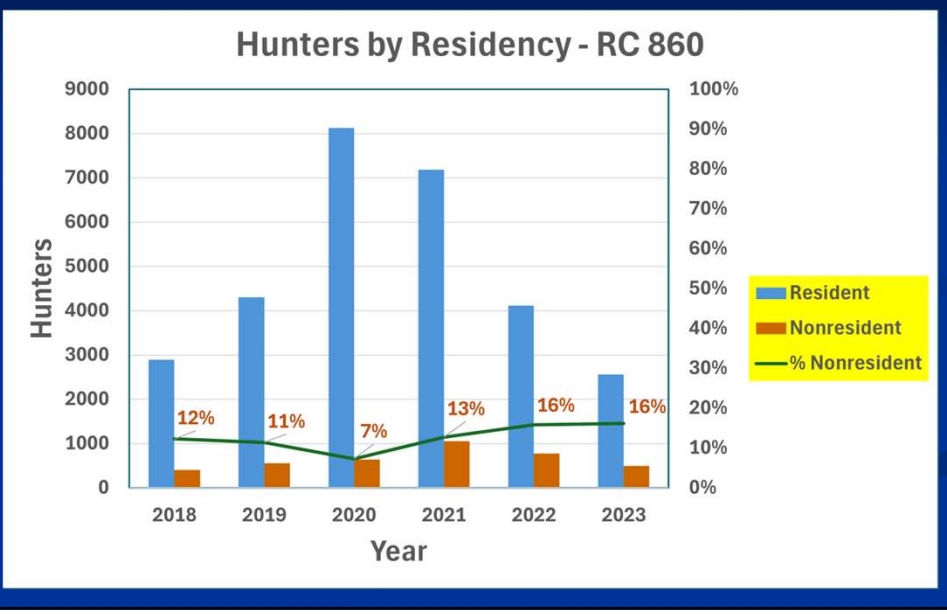
83

## RC860 Fortymile Caribou Hunt



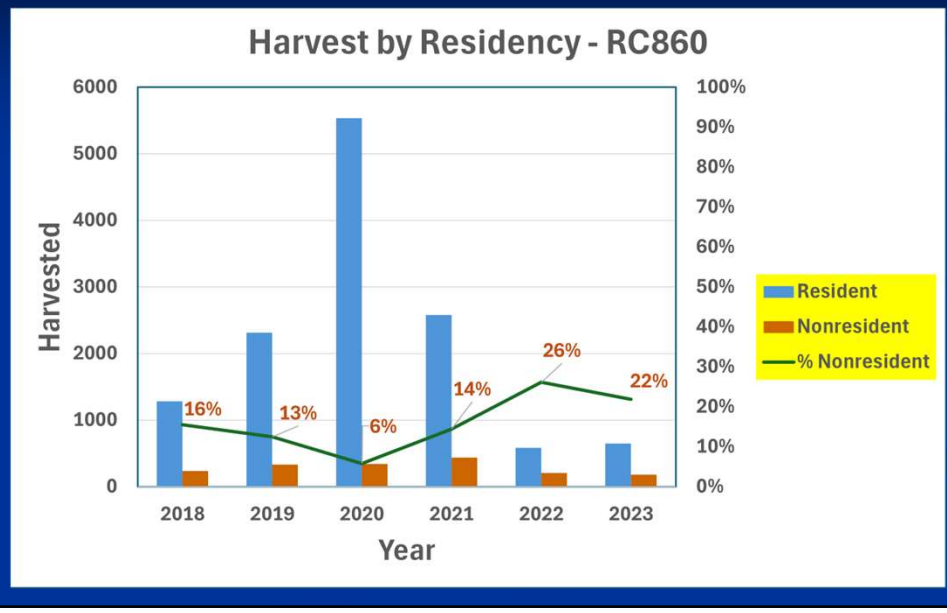
84

# RC860 Fortymile Caribou Hunters



85

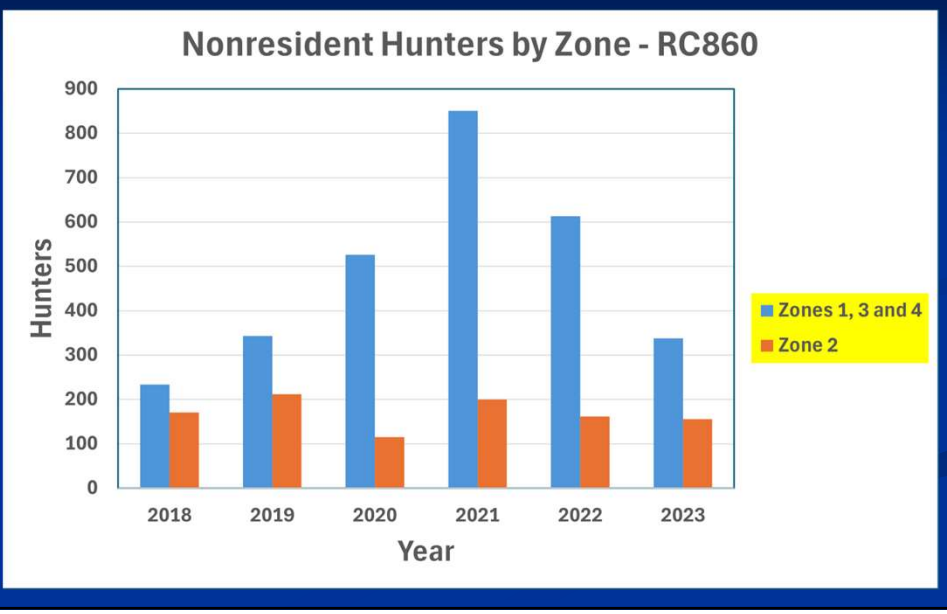
# RC860 Fortymile Caribou Harvest



86

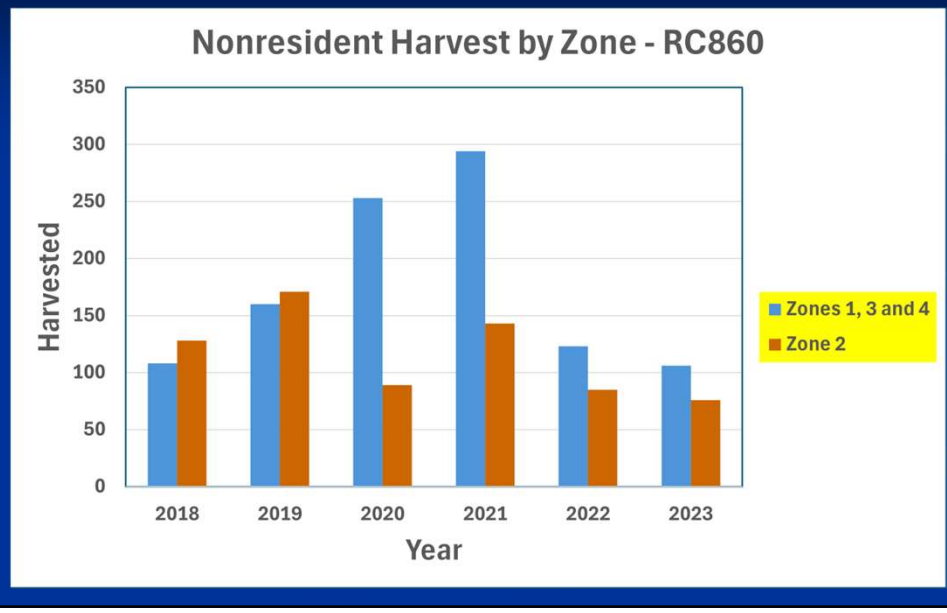


RC860 Nonresident Hunters by Zone



87

RC860 Nonresident Harvest by Zone



88



**Proposal 112** – Limit nonresident hunting of Fortymile caribou in fall registration hunt to Zone 2 only.

**Submitted by:** Public

➤ **Effect of Proposal:** The proposal would limit nonresident hunters to hunting in Zone 2 only under the fall Fortymile caribou registration hunt (RC860) until the Fortymile herd meets IM pop objective.

**ADF&G Recommendation:** Neutral on allocation of hunting opportunity to residents and nonresidents; no conservation concerns.

**AC Recommendation(s):**

Upper Tanana Fortymile: Oppose 1-Y, 2-N, 2-A

89



**Proposal 113** – Close fall hunting of Fortymile caribou within ¼ mile or 100 yards of portion Steese Highway in Units 20B and 25C

**Submitted by:** Public

**Effect of Proposal:** Caribou hunting within ¼ mile or 100 yards of the Steese Highway above treeline on Eagle and Twelvemile summits in Units 20B and 25C would not be allowed during the fall (RC860) season

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: Support

90

## Fortymile Caribou Findings and Objectives

- C&T Fortymile caribou
- Herd ANS of 350-400
- Intensive Management Objectives
  - Population Objective = 50,000–100,000
  - Harvest Objective = 1,000-15,000
- Herd Status
  - ~34,000
  - Reduced nutritional status
  - 2023 Harvest Objective = 1,000

91

## 2019–2023 FCH Harvest Management Plan

- Recommendations for road crossings
  - Delayed hunt openings
  - Targeted hunts
  - Temporary closures in: “road corridors” or “specific drainages”
- Department has used these strategies to achieve desired harvest numbers



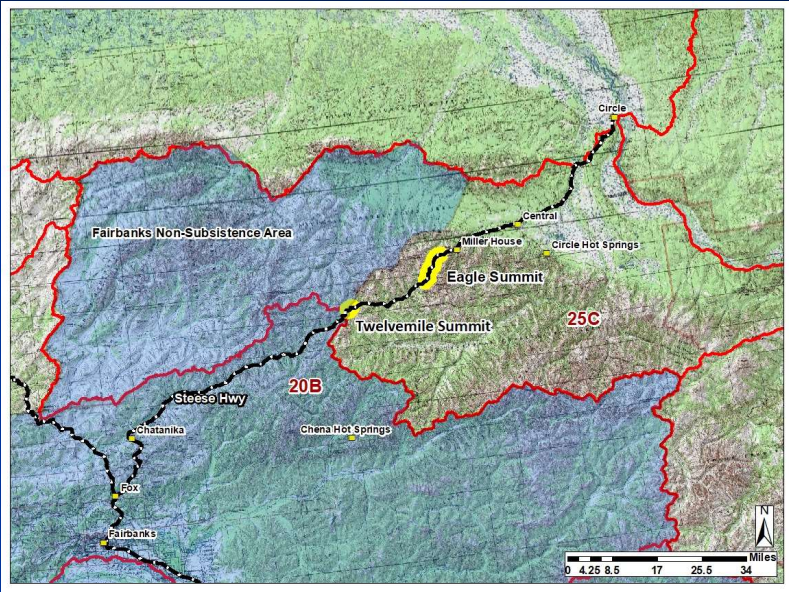
92

Issues identified by Proposer



93

Primary Areas of Concern on the Steese Highway

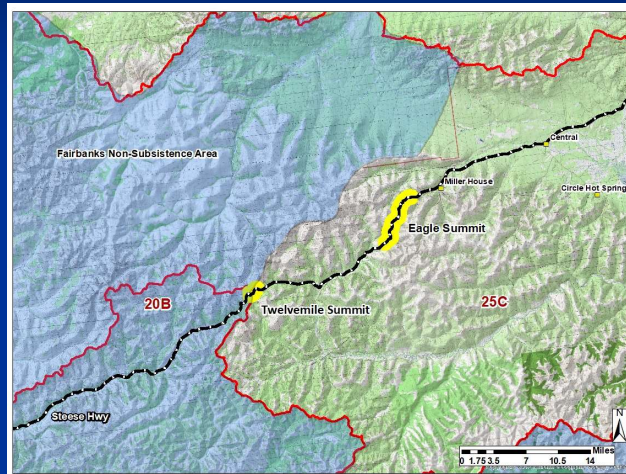


94



## Corridor Options

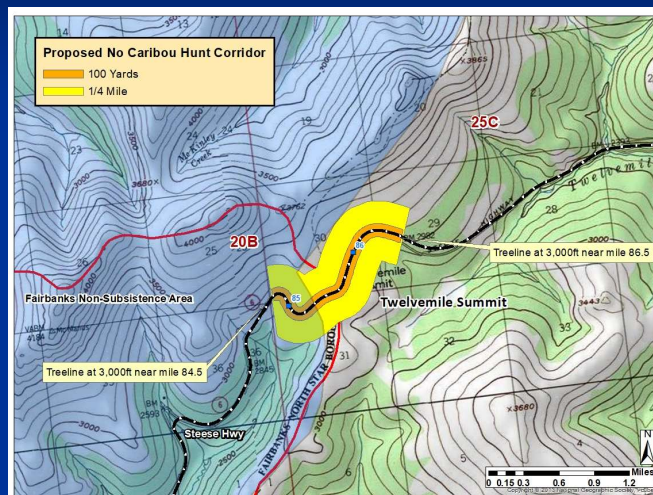
- 1.) Within  $\frac{1}{4}$  mile of the Steese Highway above treeline
- 2.) Within 100 yards of the Steese Highway above treeline



95

## Twelvemile Summit

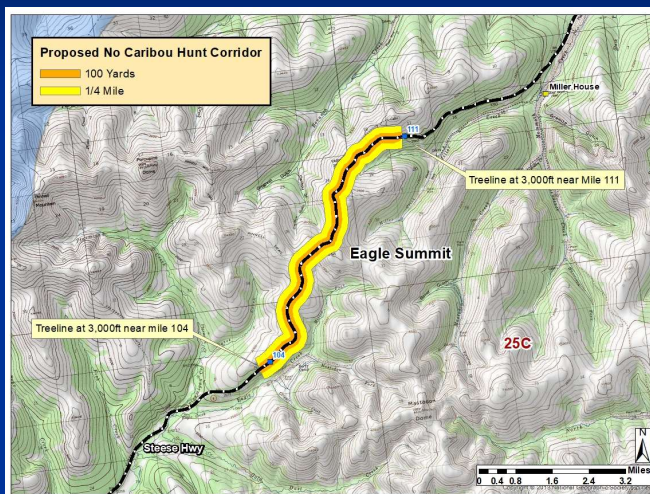
- ~2 miles near miles 84.5–86.5
- Beginning and ending at ~3,000 ft of elevation



96

## Eagle Summit

- ~7-miles near miles 104–111
- Beginning and ending at ~3,000 ft of elevation



97

## Experience with no hunt road corridors

- Mid-1990s **Alaska Highway** (Nelchina caribou)
  - No hunting within 300' of road (*650' corridor*)
  - **Poor results**
- Dec 2001 **Steese Highway** (Fortymile caribou)
  - No hunting within 1 mile of road (*2-mile corridor*)
  - **Poor results**
- Beginning Fall 2017 – **Taylor Highway**
  - No hunting within 100' of road (~*250' corridor*)
  - **Good results**

98

## Additional Board Considerations

- Recommend clarifications:
  - Caribou only
  - Consider implementing during RC867 also
- Implement with RC860 permit hunt condition.
- Is “reasonable opportunity for subsistence users” provided with the proposed restrictions?

99



**Proposal 113** – Close fall hunting of Fortymile caribou within ¼ mile or 100 yards of portion Steese Highway in Units 20B and 25C

Submitted by: Public

Effect of Proposal: Caribou hunting within ¼ mile or 100 yards of the Steese Highway above treeline on Eagle and Twelvemile summits in Units 20B and 25C would not be allowed during the fall (RC860) season

ADF&G Recommendation: Neutral

AC Recommendation(s): Upper Tanana Fortymile: Support

100





**Proposal 114** – Allow proxy hunting for caribou in Units 20B, 20D, 20E, 20F, and 25C registration hunts (RC860 and RC867)

**Submitted by:** Public

**Effect of Proposal:** Proxy hunting would be allowed under the Fortymile and White Mountains caribou registration hunts RC860 and RC867

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: Opposed 0-5

101

## **Proxy prohibited (RC860/867)**

- March 2006 Interior Region BOG meeting
  - Proposal 161 (RC110)
  - **Unit 20E Only**
- March 2012 Interior Region BOG meeting
  - Expanded to include Units **20B, 20D, 20E, 20F and 25C**
  - Recommended in 2012–2018 Fortymile Caribou Herd Harvest Management Plan
  - Recommendation retained in current 2019–2023 Harvest Plan

102

## Fortymile Caribou Findings and Objectives

- C&T Fortymile caribou
- Herd ANS of 350-400
- Intensive Management Objectives
  - Population Objective = 50,000–100,000
  - Harvest Objective = 1,000-15,000
- Herd Status
  - ~34,000
  - Reduced nutritional status
  - 2023 Harvest Objective = 1,000

103



**Proposal 114** – Allow proxy hunting for caribou in Units 20B, 20D, 20E, 20F, and 25C registration hunts (RC860 and RC867)

**Submitted by:** Public

**Effect of Proposal:** Proxy hunting would be allowed under the Fortymile and White Mountains caribou registration hunts RC860 and RC867

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: Opposed 0-5

104



## **Proposal 115** – Create requirements for cleaning caribou harvested during Fortymile caribou hunts

**Submitted by:** Public

**Effect of Proposal:** Fortymile caribou hunters (RC860/867, YC831 and AC999) would be required to dispose of the viscera of harvested caribou at the kill site.

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: No Vote

105

## 2019–2023 **FCH Harvest Management Plan**

- **Recommendations for road crossings**
  - Adding a provision to the hunt conditions that hunters must remove all viscera from drivable surface due to the appearance as well as predators being attracted to roadways



106

## Issues identified by Proposer



107



## **Proposal 115** – Create requirements for cleaning caribou harvested during Fortymile caribou hunts

**Submitted by:** Public

**Effect of Proposal:** Fortymile caribou hunters (RC860/867, YC831 and AC999) would be required to dispose of the viscera of harvested caribou at the kill site.

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: No Vote

108

**Proposal 116:**

Sheep/Unit 12

**Submitted by:** UTF AC

**Effect of the proposal:** Implement a non-intensive management predator control plan within the Tok Management Area to benefit Dall sheep

**Department Recommendation:** Neutral

**Upper Tanana/Fortymile Advisory Committee:**  
Support

109

109

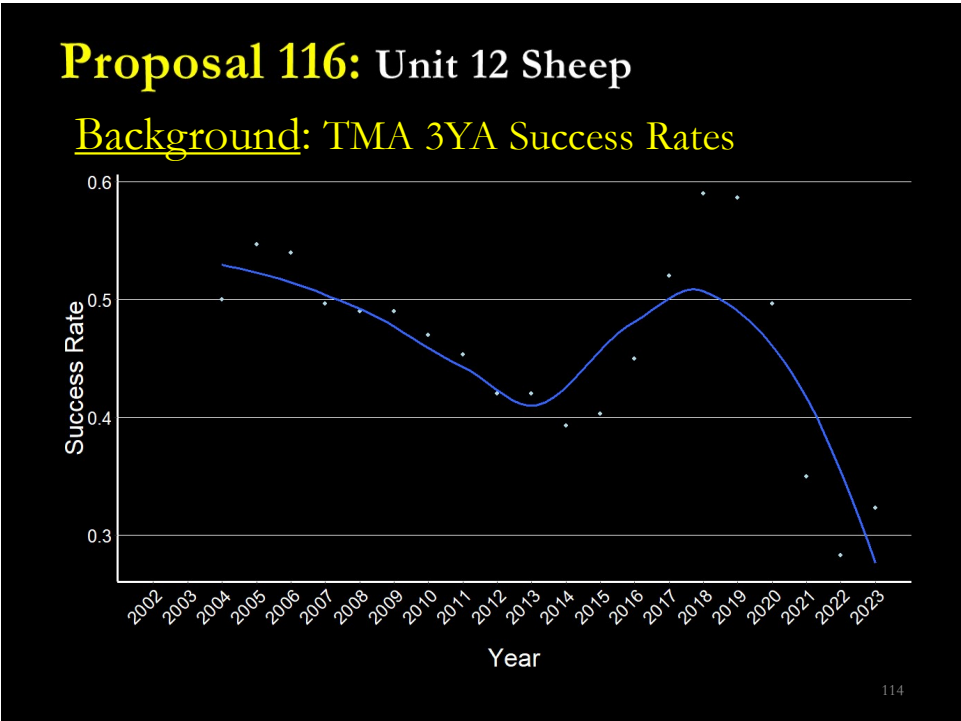
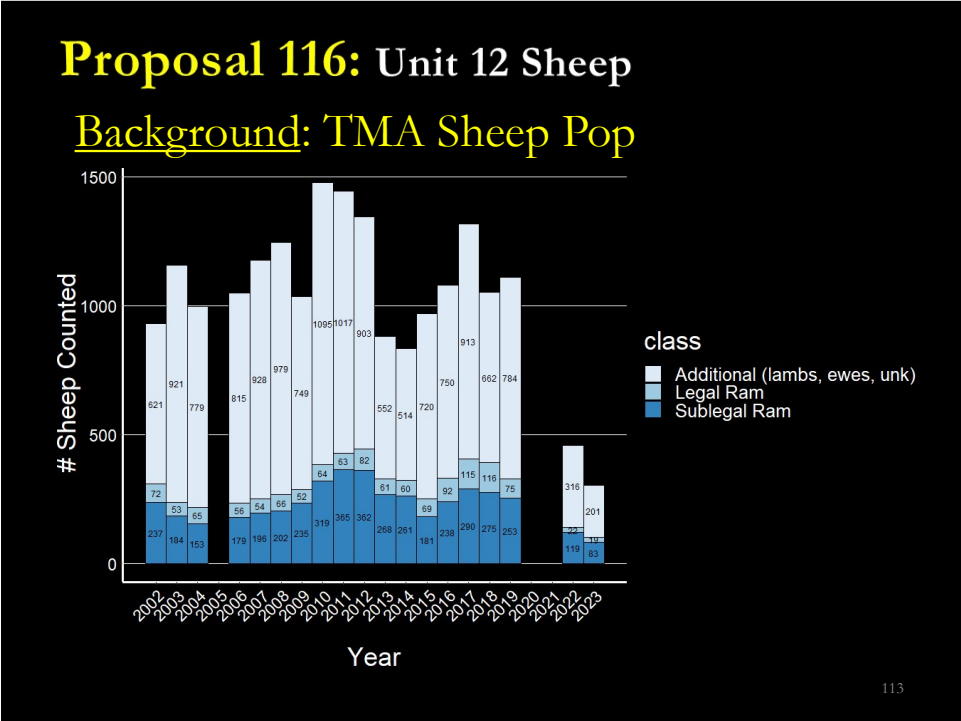
**Proposal 116: Unit 12 Sheep****Current regulation**

- Same day airborne hunting is prohibited
- Take of wolves using an aircraft requires a permit
- Non-IM predator control does exist
  - Used to reduce bear predation on muskoxen in unit 26
  - No non-IM precedent for addressing wolf or coyote predation

110

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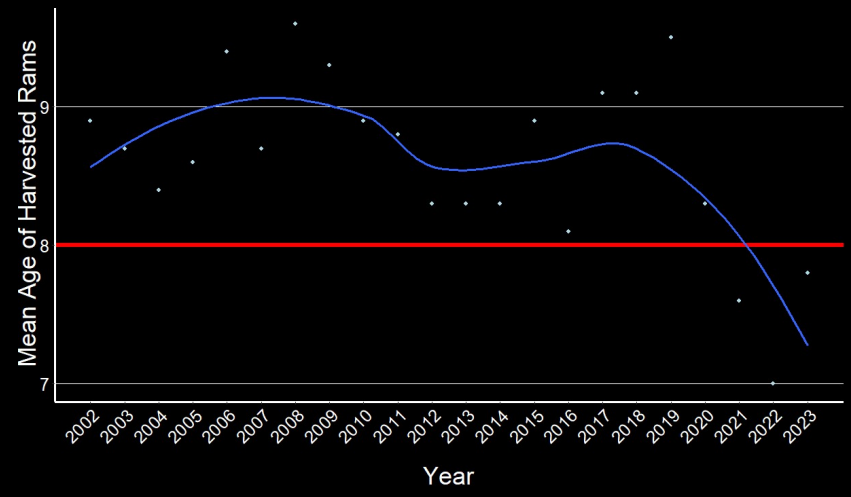






# Proposal 116: Unit 12 Sheep

## Background: TMA Horn Age

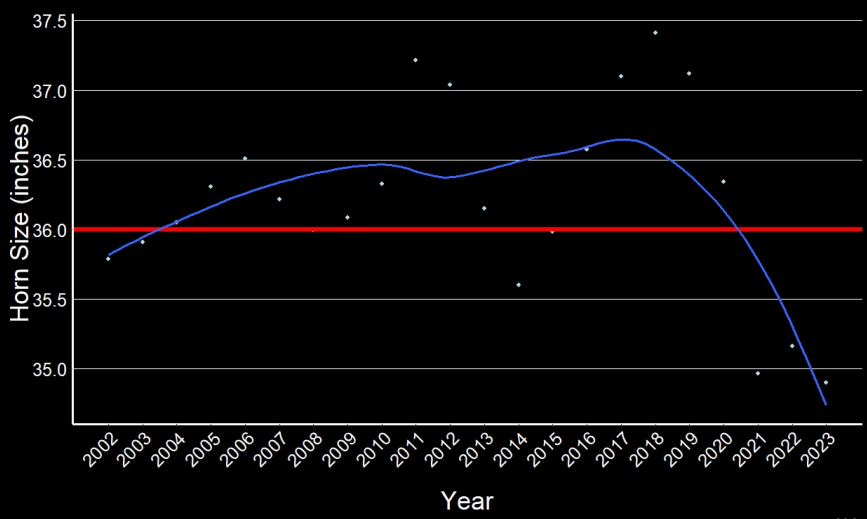


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# Proposal 116: Unit 12 Sheep

## Background: TMA Horn Size

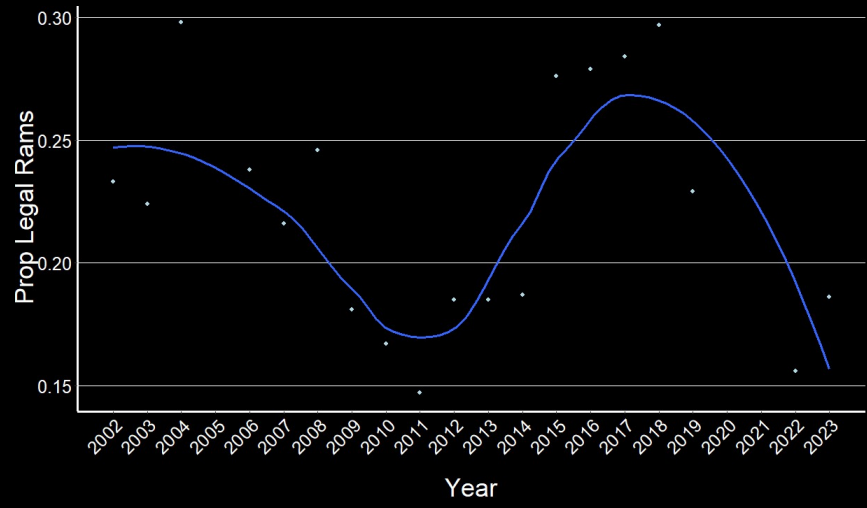


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116

## Proposal 116: Unit 12 Sheep

### Background: Proportion of Legal Rams

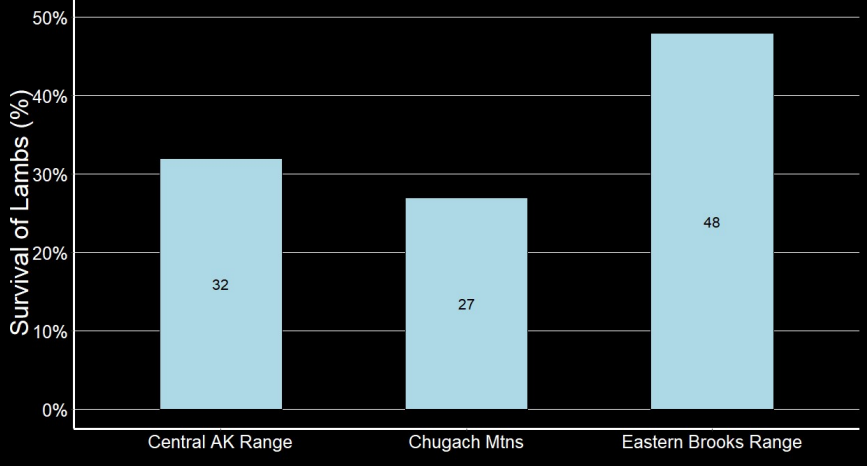


117

117

## Proposal 116: Unit 12 Sheep

### Lamb Survival

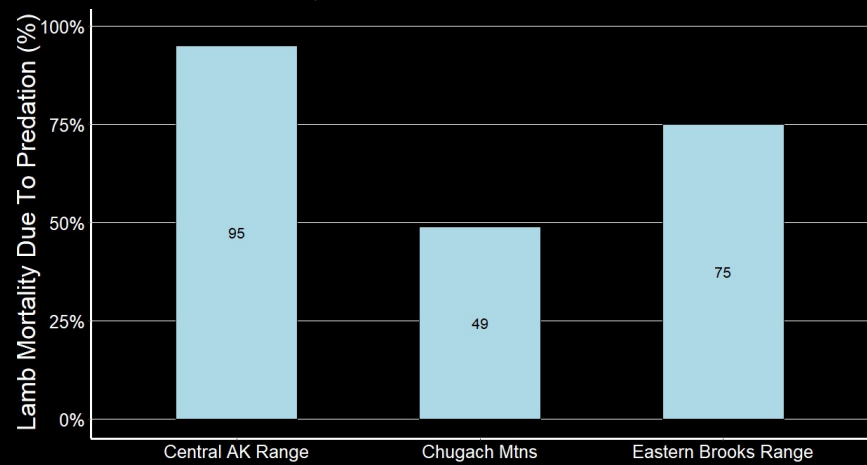


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118

## Proposal 116: Unit 12 Sheep

### Lamb Survival, cont'd.

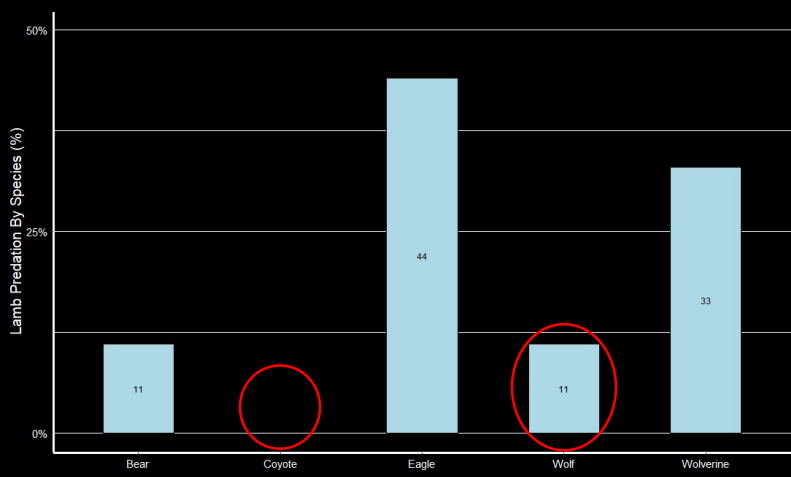


119

119

## Proposal 116: Unit 12 Sheep

### Predation Trends: Lamb Predation By Species, EBR

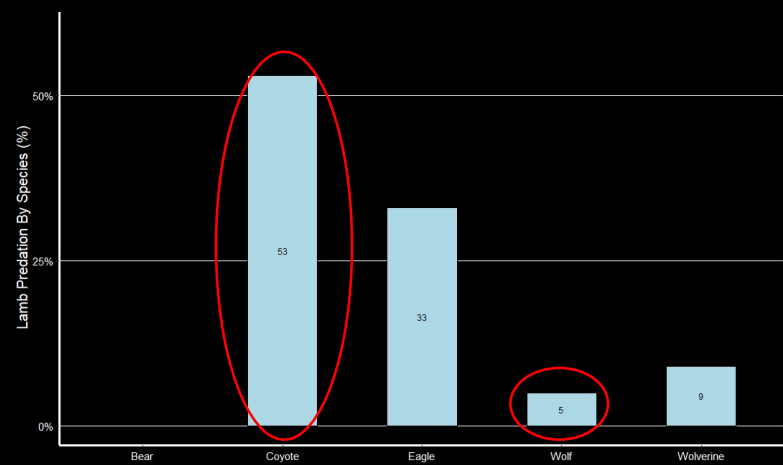


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# Proposal 116: Unit 12 Sheep

## Predation Trends: Lamb Predation By Species, CAR

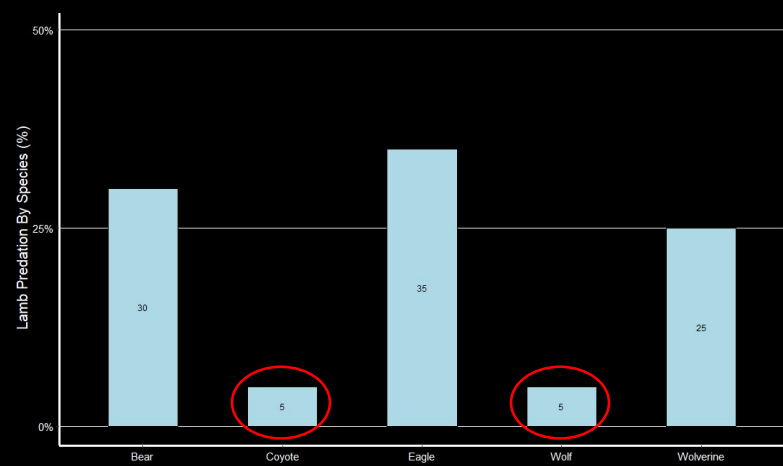


121

121

# Proposal 116: Unit 12 Sheep

## Predation Trends: Lamb Predation By Species, CHU



122

122

## **Proposal 116: Unit 12 Sheep**

### **Predation Trends: Ewe Survival**

- Eastern Brooks Range (2009-2012)
  - 80% of ewe mortality caused by wolves
  - Survival generally high
- Central Alaska Range (1999-2005)
  - 83% of ewe mortality caused by wolves
  - Survival generally high
- Chugach Mountains (2009-2014)
  - 5% of ewe mort caused by wolves
  - Most mortality associated with severe weather/accidents

123

123

## **Proposal 116: Unit 12 Sheep**

### **Previous Predator Control**

- 80s wolf control corresponded with increased coyote predation
- Goodpaster/Mt Harper/Glacier Mt wolf control resulted in no significant changes
- Tanana flats wolf control corresponded with a reversal in sheep population declines

124

124

## Proposal 116: Unit 12 Sheep

### Closing remarks:

- Wolf/coyote seasons/bag limits are liberal within the TMA
- Currently, the harvest of fur is poorly incentivized
- Terrain and land ownership patterns are not well suited for aerial wolf/coyote control
- Impacts of wolves and coyotes on sheep in this area are unknown
  - No contemporary information is available for the TMA

125

125

## Proposal 116:

Sheep/Unit 12



Submitted by: AC

Effect of the proposal: Implement a non-intensive management predator control plan within the Tok Management Area to benefit Dall sheep

Department Recommendation: Neutral

Upper Tanana/Fortymile Advisory Committee:  
Support

126

126

**Proposal 117:**

Sheep/Unit 12

**Submitted by:** Public**Effect of the proposal:** Reduce the proportion of NR Tok Management Area (TMA) sheep draw permits awarded to NR hunters accompanied by 2DK**Department Recommendation:** Neutral**Upper Tanana/Fortymile Advisory Committee:**

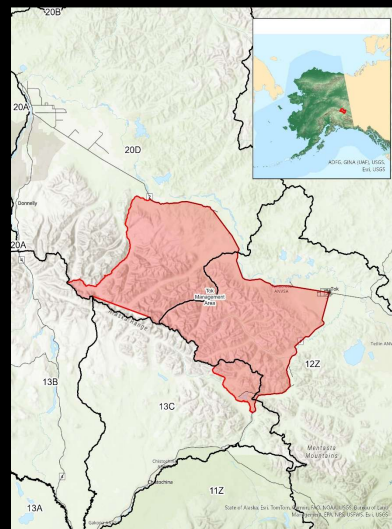
N/A

127

127

**Proposal 117: Unit 12 Sheep****Background**

- Tok Management Area:
  - Managed for trophy quality
  - Employs permitting matrix
  - Follows full curl regulations
- Number of permits in recent years has dropped



128

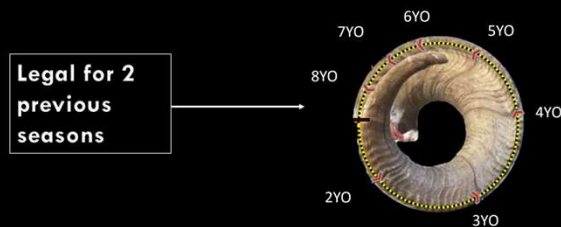
128



## Proposal 117: Unit 12 Sheep

### Sheep Research, Statewide:

- 2016 – 2021 horn morphometric study:
  - 58% – 67% of rams harvested were legal in at least one previous hunting season in unit 12
  - Sheep in unit 12 are managed using full curl and trophy guidelines



129

## Proposal 117: Unit 12 Sheep

### Background

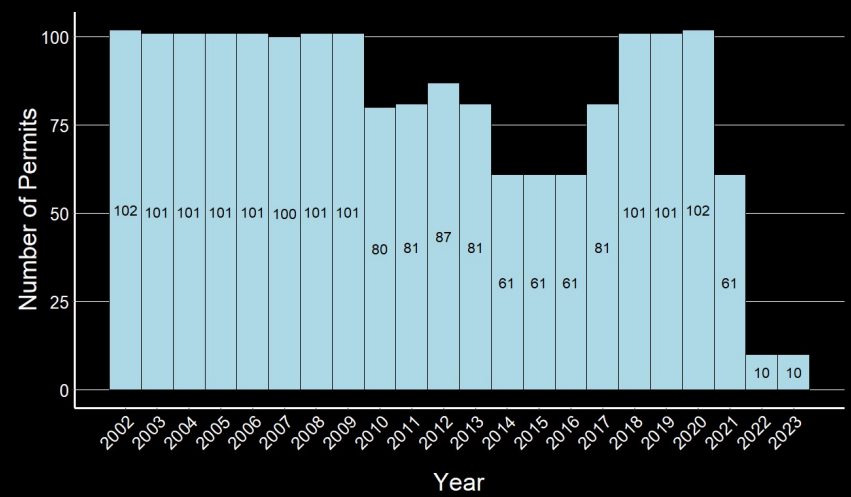
- Tok Management Area:
  - Managed for trophy quality
  - Employs permitting matrix
  - Follows full curl regulations
- Number of permits in recent years has dropped
  - Reduction based on survey counts

130

130

## Proposal 117: Unit 12 Sheep

### Background



131

131

## Proposal 117: Unit 12 Sheep

### Current regulation

- Of total TMA draw permits:
  - 10% allocation to Nonresidents
    - Up to 50% (5% of total permits) per hunt may be 2DK
  - Remainder awarded to guided hunters

132

132

## **Proposal 117: Unit 12 Sheep**

### Permit Allocation 2002-2023

- 1765 Drawing permits issued
- 168 to NR (9.5% of total)
  - 74 assumed to be 2DK
    - 44% of NR allocation, below max. allocation
  - 55 (74% of 2DK) reported hunting

133

133

## **Proposal 117: Unit 12 Sheep**

### Closing Remarks

- Allocation would fall to between 1-2% of total for 2DK
- Current permit numbers likely to remain (10/yr) for foreseeable future
- Harvest may increase marginally
  - Guided NR have higher success than 2DK NR
  - Increase not anticipated to result in biological concerns

134

134

**Proposal 117:**

Sheep/Unit 12

**Submitted by:** Public**Effect of the proposal:** Reduce the proportion of NR Tok Management Area (TMA) sheep draw permits awarded to NR hunters accompanied by 2DK**Department Recommendation:** Neutral**Upper Tanana/Fortymile Advisory Committee:**

N/A

135

135

**Proposal 118:**

Sheep/Unit 12

**Submitted by:** Public**Effect of the proposal:** Allocate a portion of TMA drawing permits to archery only hunts, OR create a new archery only season**Department Recommendation:** Neutral**Upper Tanana/Fortymile Advisory Committee:**

Support

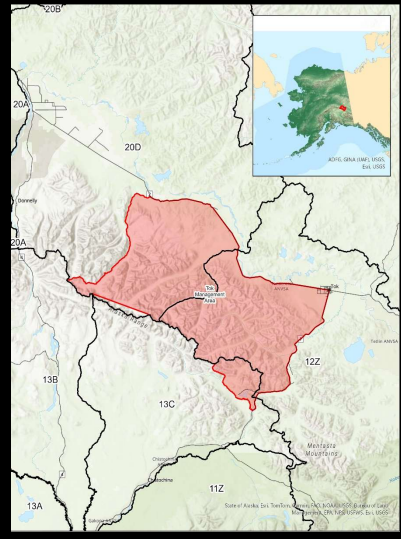
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## Proposal 118: Unit 12 Sheep

### Background

- Tok Management Area:
  - Managed for trophy quality
  - Employs permitting matrix
  - Follows full curl regulations
- Number of permits in recent years has dropped

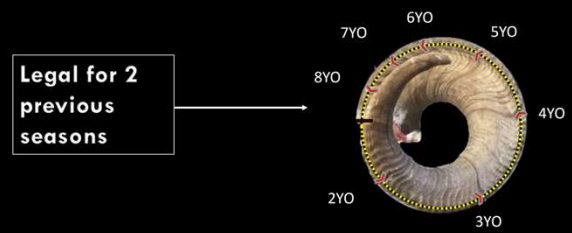


137

## Proposal 118: Unit 12 Sheep

### Sheep Research, Statewide:

- 2016 – 2021 horn morphometric study:
  - 58% – 67% of rams harvested were legal in at least one previous hunting season in unit 12
  - Sheep in unit 12 are managed using full curl and trophy guidelines



138

## **Proposal 118: Unit 12 Sheep**

### Current regulation

- No current harvest method restrictions for TMA sheep drawing permit hunts
- Season dates:
  - August 10-September 20 (DS102)

139

139

## **Proposal 118: Unit 12 Sheep**

### Proposed regulation

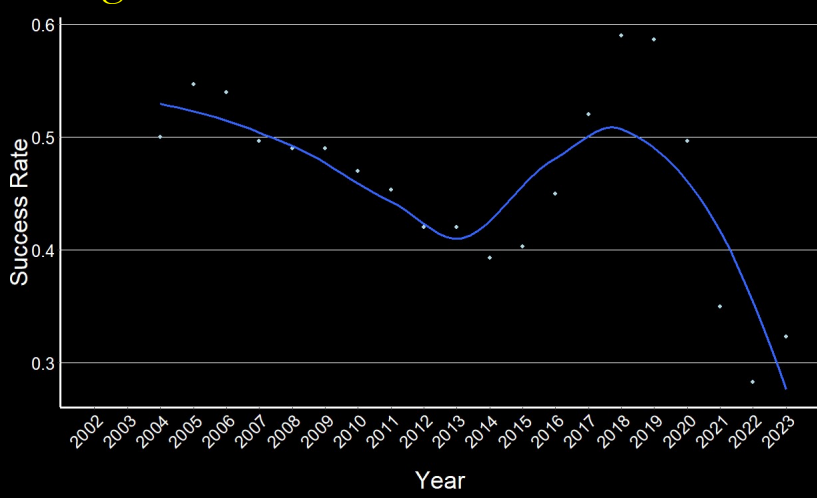
- With 20% of permits
  - 10 day early season
    - August 1-August 10
  - Allocate portion of permits to archery only during existing season
    - Season, August 10-September 20

140

140

# Proposal 118: Unit 12 Sheep

## Background: TMA Success Rates

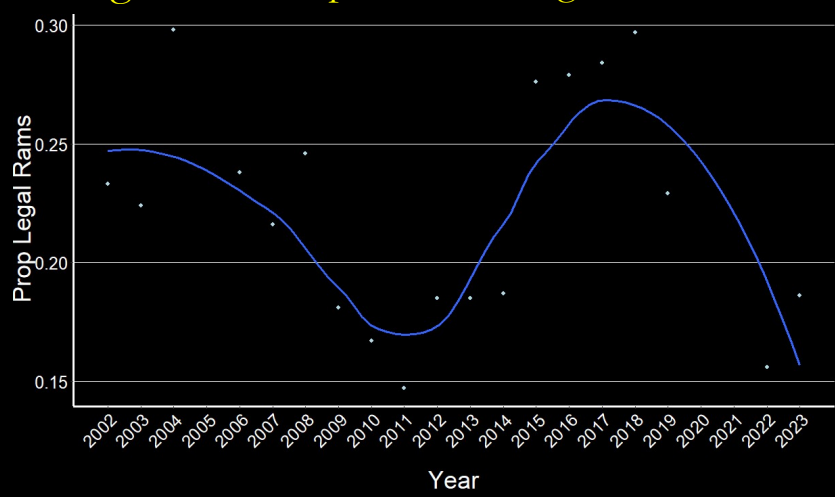


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141

# Proposal 118: Unit 12 Sheep

## Background: Proportion of Legal Rams



142

142



## Proposal 118: Unit 12 Sheep

### Closing Remarks

- No biological concerns
- Change will likely result in decreased success rates
- Already multiple user-specific allocations in the TMA

143

143

## Proposal 118:

Sheep/Unit 12



Submitted by: Public

Effect of the proposal: Allocate a portion of TMA drawing permits to archery only hunts, OR create a new archery only season

Department Recommendation: Neutral

Upper Tanana/Fortymile Advisory Committee:  
Support

144

144

## Proposal 119:

Sheep/Unit 12



Submitted by: Public

Effect of the proposal: Set the sheep bag limit in Unit 12 for resident hunters based on the age of the rams harvested

Department Recommendation: Oppose

Upper Tanana/Fortymile Advisory Committee:  
Oppose

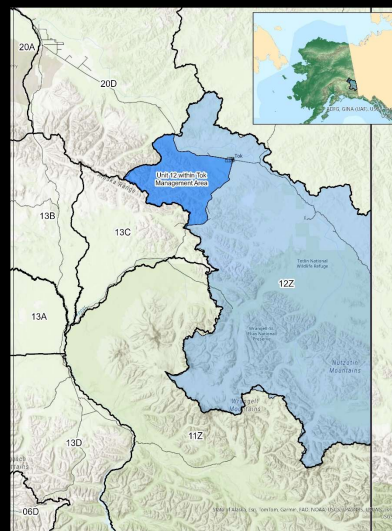
145

145

## Proposal 119: Unit 12 Sheep

### Background

- Unit 12 GS000
  - 1 ram (full curl management)
  - Aug 10- Sept 20
  - Youth hunt Aug 1- Aug 5
- Tok Management Area:
  - Managed for trophy quality
  - Employs permitting matrix
  - Follows full curl regulations
  - Number of permits in recent years has dropped



146

146

## Proposal 119: Unit 12 Sheep

### Current regulation

- Residents:
  - TMA: 1 ram with full-curl horn or larger every 4 reg years by drawing permit only
  - Remainder: 1 ram with full-curl horn or larger
- Change would add:
  - Rams  $\geq 8$ yo, every 1 reg year
  - Rams  $= 7$ yo, every 3 reg years
  - Rams  $\leq 6$ yo, every 4 reg years

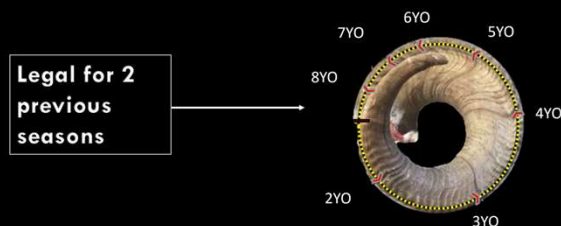
147

147

## Proposal 119: Unit 12 Sheep

### Sheep Research, Statewide:

- 2016 – 2021 horn morphometric study:
  - 58% – 67% of rams harvested were legal in at least one previous hunting season in unit 12
  - Sheep in unit 12 are managed using full curl and trophy guidelines

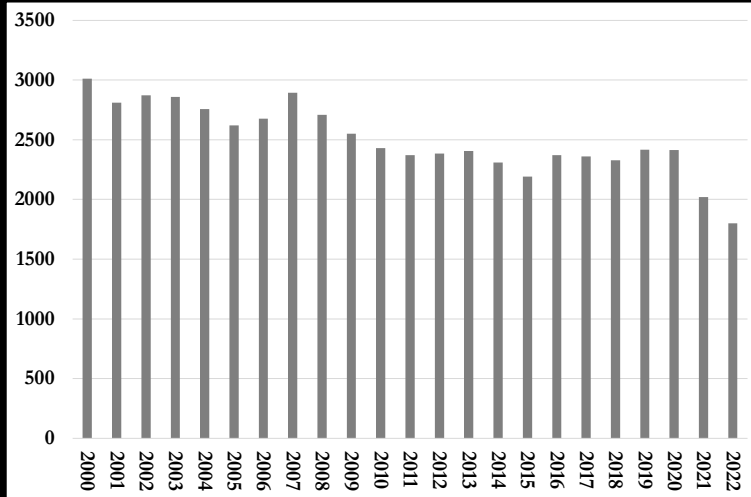


148

148

## Proposal 119: Unit 12 Sheep

### Background: Statewide Trends

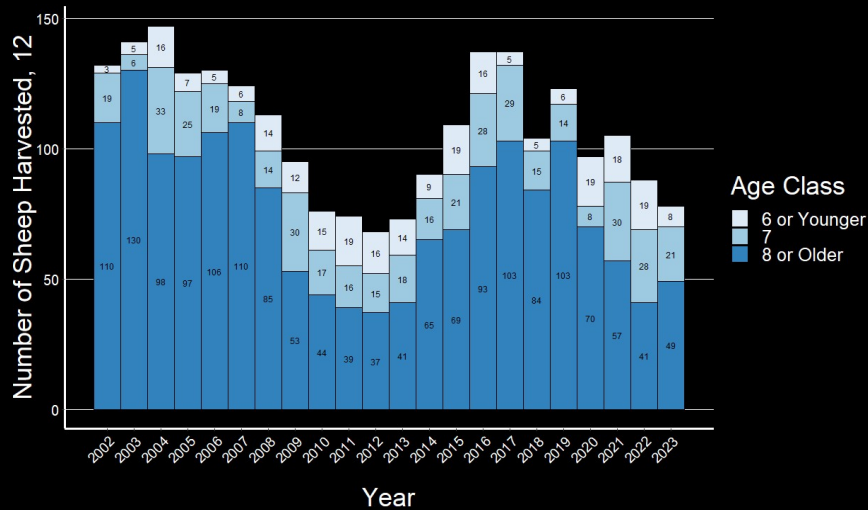


149

149

## Proposal 119: Unit 12 Sheep

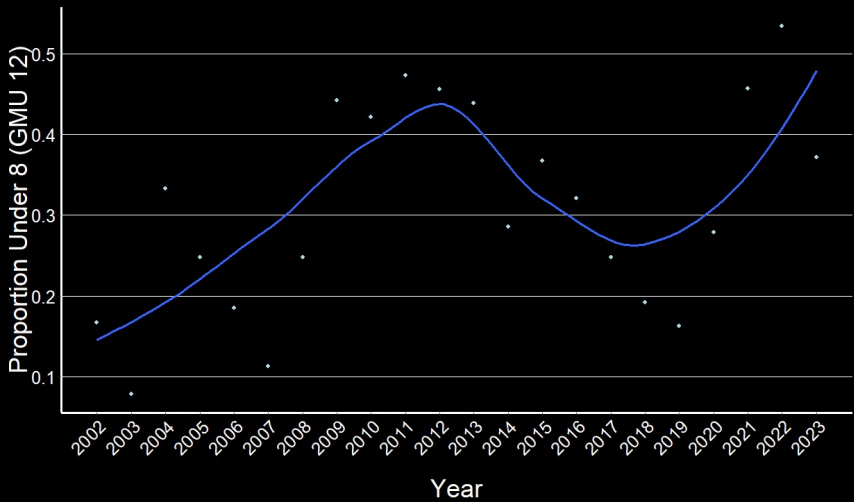
### Background: GMU 12 GS000 Harvest



150

150

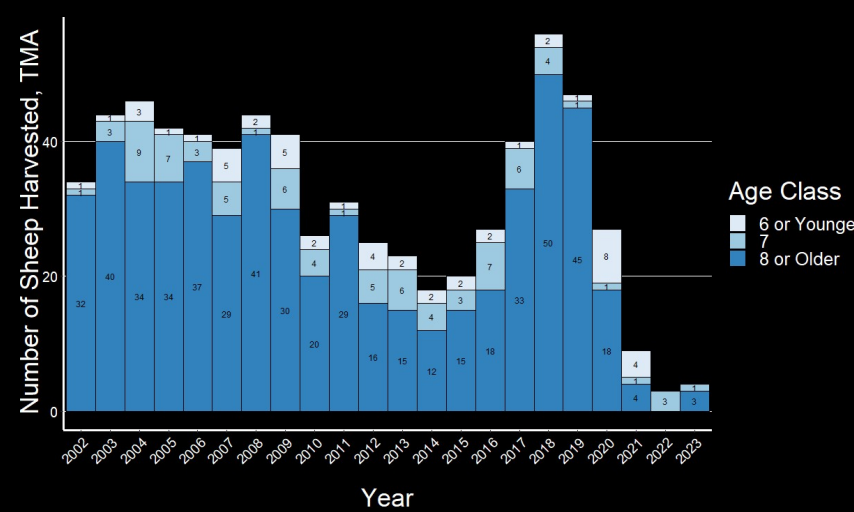
**Proposal 119: Unit 12 Sheep**  
Background: GMU 12 GS000 Harvest



151

151

**Proposal 119: Unit 12 Sheep**  
Background: TMA Harvest

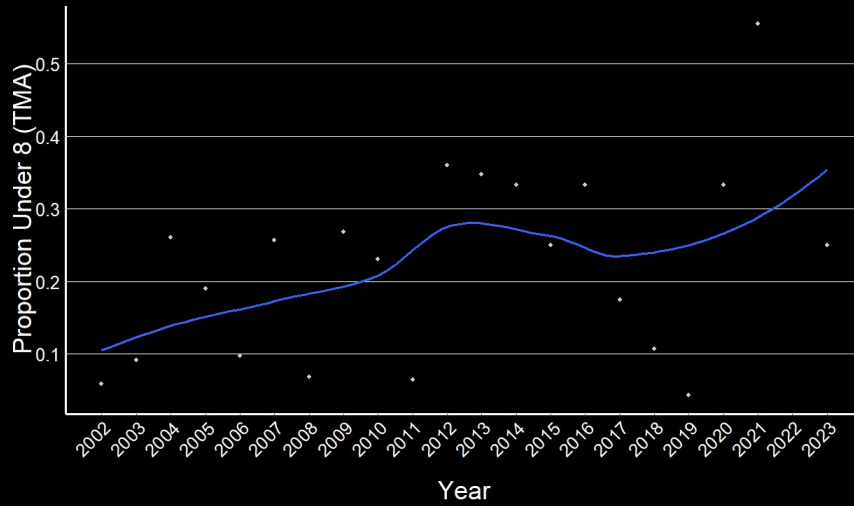


152

152

## Proposal 119: Unit 12 Sheep

### Background: TMA Harvest

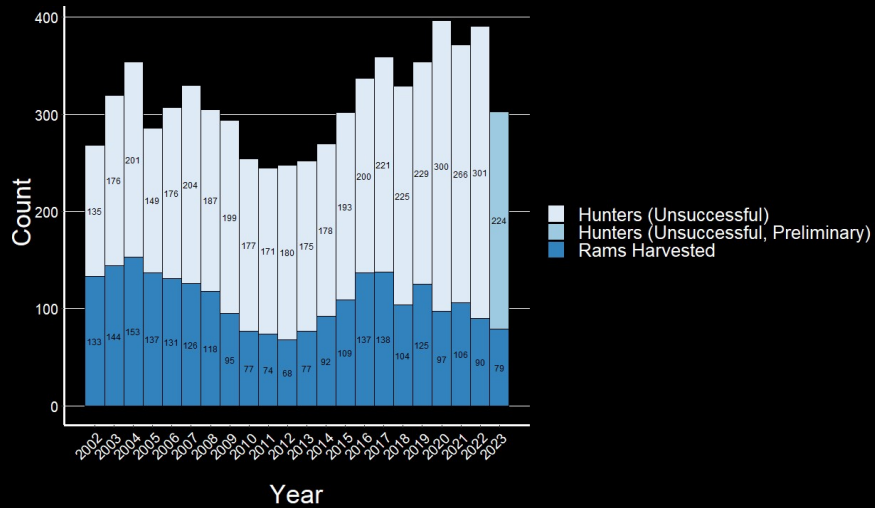


153

153

## Proposal 119: Unit 12 Sheep

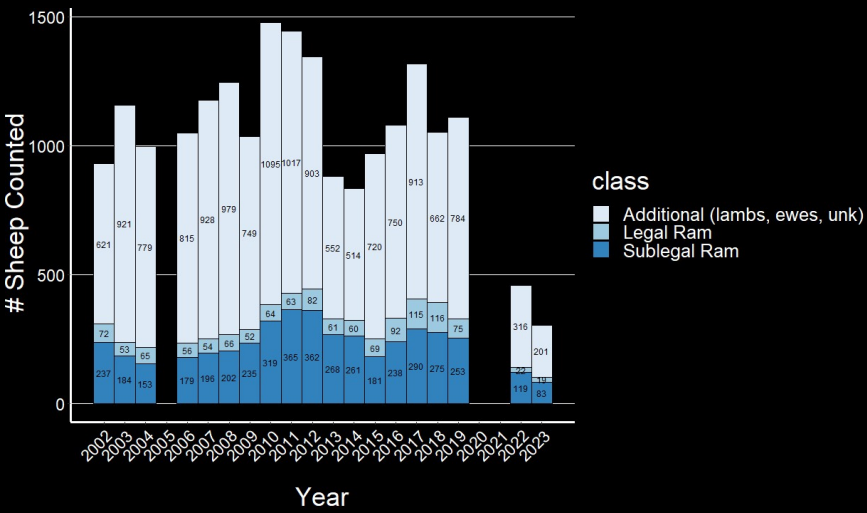
### Background: Unit 12 Remainder Harvest



154

154

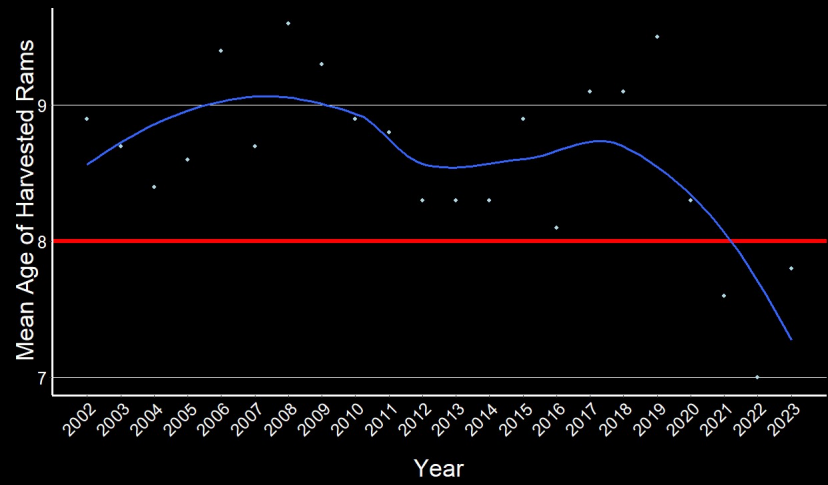
**Proposal 119: Unit 12 Sheep**  
Background: TMA Sheep Pop



155

155

**Proposal 119: Unit 12 Sheep**  
Background: TMA Horn Age



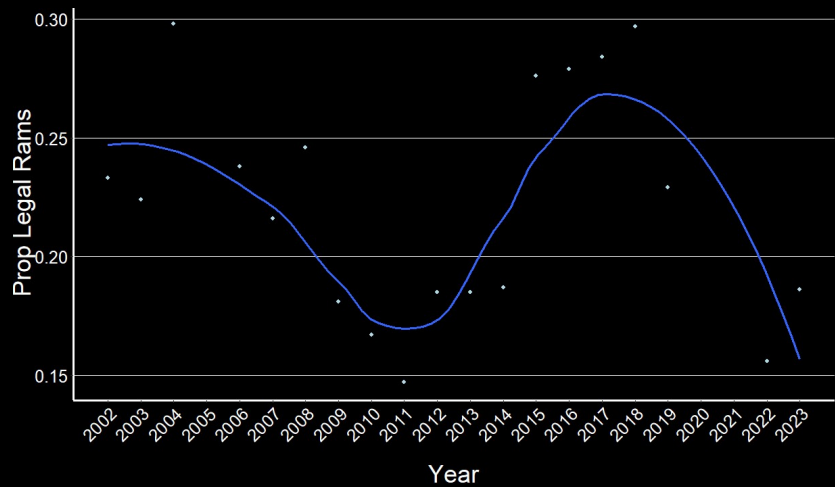
156

156



## Proposal 119: Unit 12 Sheep

### Background: TMA Proportion of Legal Rams



157

157

## Proposal 119: Unit 12 Sheep

### Closing remarks

- Penalizing sheep harvest by age may encourage in-field aging
- Aging is challenging at best
- Current full curl regulations are considered sufficient by ADF&G
  - Proposed reg unlikely to impact population

158

158

**Proposal 119:**

Sheep/Unit 12

**Submitted by:** Public**Effect of the proposal:** Set the sheep bag limit in Unit 12 for resident hunters based on the age of the rams harvested**Department Recommendation:** Oppose**Upper Tanana/Fortymile Advisory Committee:**  
Oppose

159

159

**Proposal 120:**

Brown bear/Unit 12

**Submitted by:** Public**Effect of the proposal:** Increase the brown/grizzly bear bag limit for residents in a portion of Unit 12**Department Recommendation:** Neutral on Allocation, Supports the additional opportunity**Upper Tanana/Fortymile Advisory Committee:**  
Support

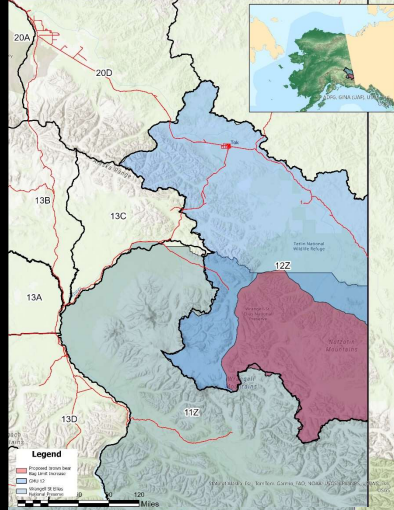
160

160

## Proposal 120: Unit 12 brown bear

### Current regulation

- Harvest of 1 bear/reg year (Aug 10-June 30)
- Change would align Unit 12 with bag limit in Unit 20E
- Would create opportunity for sale of hides/skulls

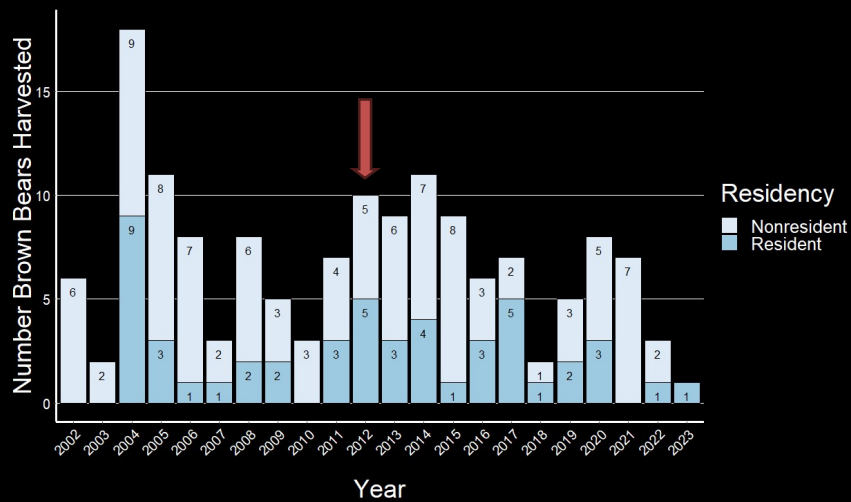


161

161

## Proposal 120: Unit 12 brown bear

### Background: Unit 12 Harvest



162

162

## Proposal 120: Unit 12 brown bear

### Closing Remarks

- Unit 12 bear pops are managed for maximum sustained hunting opportunity
  - Liberalization is consistent with management goals
- Protection of sows with cubs insulates reproductive component of population

163

163

## Proposal 120: Brown bear/Unit 12



**Submitted by:** Public

**Effect of the proposal:** Increase the brown/grizzly bear bag limit for residents in a portion of Unit 12

**Department Recommendation:** Neutral on Allocation, Supports the additional opportunity

**Upper Tanana/Fortymile Advisory Committee:**  
Support

164

164

## Proposal 121:

Brown bear/Unit 12



**Submitted by:** Public, DUPLICATE OF 120

**Effect of the proposal:** Increase the brown/grizzly bear bag limit for residents in a portion of Unit 12

**Department Recommendation:** Neutral on Allocation, Supports the additional opportunity

**Upper Tanana/Fortymile Advisory Committee:**  
Support

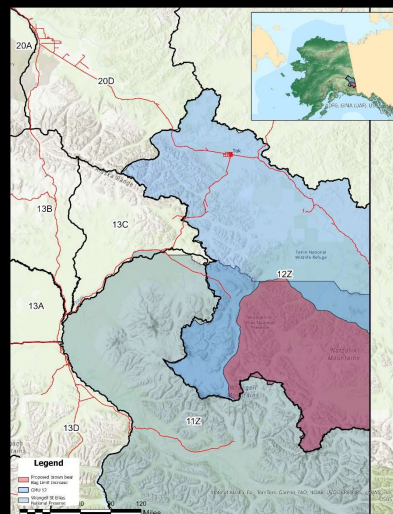
165

165

## Proposal 121: Unit 12 brown bear

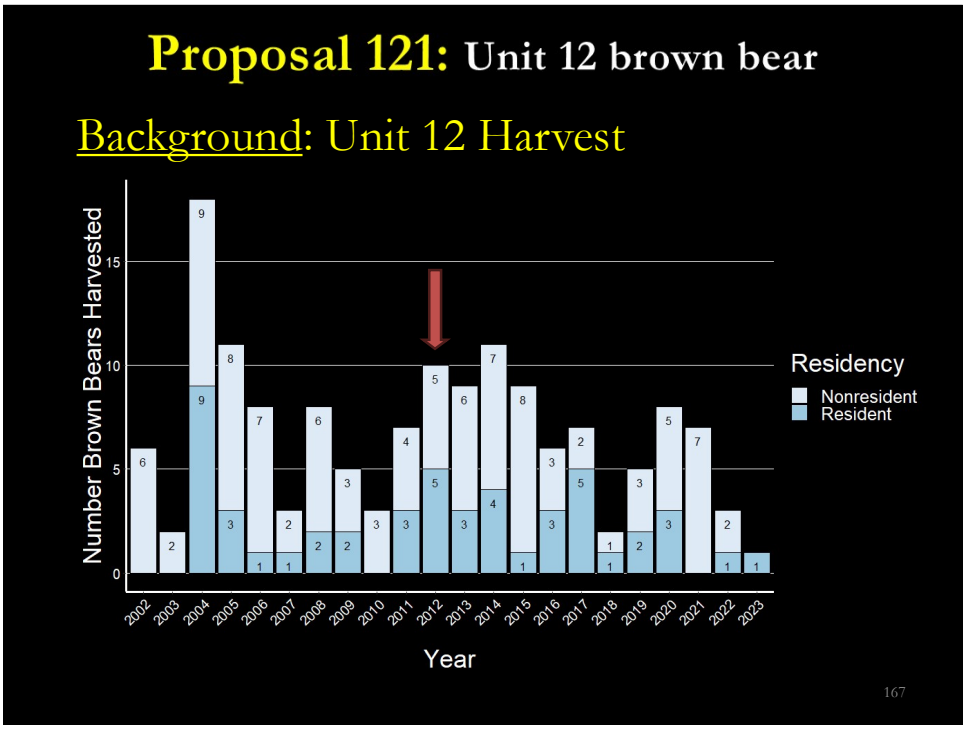
### Current regulation

- Harvest of 1 bear/reg year (Aug 10-June 30)
- Change would align Unit 12 with bag limit in Unit 20E
- Would create opportunity for sale of hides/skulls



166

166



167

- Proposal 121: Unit 12 brown bear**
- Closing Remarks
- Unit 12 bear pops are managed for maximum sustained hunting opportunity
    - Liberalization is consistent with management goals
  - Protection of sows with cubs insulates reproductive component of population

168

**Proposal 121:**

Brown bear/Unit 12

**Submitted by:** Public, DUPLICATE OF 120**Effect of the proposal:** Increase the brown/grizzly bear bag limit for residents in a portion of Unit 12**Department Recommendation:** Neutral on Allocation, Supports the additional opportunity**Upper Tanana/Fortymile Advisory Committee:**  
Support

169

169



Proposal 122: Slide 170

**Proposal 122** – Change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15**Submitted by:** Upper Tanana/Fortymile Advisory Committee**Effect of Proposal:** Wolf hunting season in Units 12 and 20E would end 46-days later, on June 15.**ADF&G Recommendation:** Neutral**AC Recommendation(s):** Upper Tanana Fortymile: Support 5-0

170



## Proposal 122 – Units 12 and 20E wolves

### Wolf hunting season dates

- Current: August 1 – April 30
- Proposed: August 1 – June 15

### March 2020 - Current season adopted by board

- To aligned seasons (Interior and Eastern-Arctic)
- Prior to 2020 - Unit 12 and 20E season ended May 31

171

## Proposal 122 – Units 12 and 20E wolves

### Wolf population objectives

- Unit 12 - Maintain a population of at least 100 wolves
- Unit 20E - Reduce the fall population to no less than 60 wolves

### Unit 12 wolf population estimate

- 179–192 wolves (18.1–19.4 wolves/1,000 mi<sup>2</sup>)

### Unit 20E wolf population estimate

- 213–230 wolves (19.9–21.5 wolves/1000 mi<sup>2</sup>)

172

## Proposal 122 – Wolf Hunting Harvest

**May** (Unit 12 and 20E)

- RY09–RY19 = 7 (2 female, 5 male)

**June** Statewide

- RY03–RY22 = 8 (1 female, 6 male, 1 unspecified)

Currently only **Units 9 and 10** have June season

**If adopted, likely to have little or no impact on harvest**

173



**Proposal 122** – Change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15

**Submitted by:** Upper Tanana/Fortymile Advisory Committee

**Effect of Proposal:** Wolf hunting season in Units 12 and 20E would end 46-days later, on June 15.

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: Support 5-0

174



Proposal 123: Slide 175

**Proposal 123** – Change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15

**Submitted by:** Public

**Effect of Proposal:** Wolf hunting season in Units 12 and 20E would end 46-days later, on June 15.

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: No Vote

175

Proposal 123: Slide 176

## **Proposal 122** – Units 12 and 20E wolves

### **Wolf hunting season dates**

- Current: August 1 – April 30
- Proposed: August 1 – June 15

### **March 2020** - Current season adopted by board

- To aligned seasons (Interior and Eastern-Arctic)
- **Prior to 2020** - Unit 12 and 20E season ended **May 31**

176

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### Wolf population objectives

- Unit 12 - Maintain a population of at least 100 wolves
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177

## Proposal 122 – Wolf Hunting Harvest

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- RY03–RY22 = 8 (1 female, 6 male, 1 unspecified)

Currently only Units 9 and 10 have June season

If adopted, likely to have little or no impact on harvest

178



Proposal 123: Slide 179

**Proposal 123** – Change the closing date of the wolf hunting season in Units 12 and 20E from April 30 to June 15

**Submitted by:** Public

**Effect of Proposal:** Wolf hunting season in Units 12 and 20E would end 46-days later, on June 15.

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: No Vote

179



Proposal 124: Slide 180

**Proposal 124** – Lengthen the marten trapping season in Units 20E and 25B by two weeks to end March 15

**Submitted by:** Eagle Advisory Committee

**Effect of Proposal:** This proposal would lengthen the marten trapping season in Units 20E and 25B by two-weeks to end March 15

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: Support 5-0

180

**Proposal 124 – Units 20E and 25B marten**

**Current Regulations**

Area	Season	Bag limit
Units 20E and 25B	Nov 1–Feb. 28	No limit

**C&T** – Positive for Units **20E** and **25C**

**ANS** – 90% of harvestable surplus

181

**Proposal 124 – Units 20E and 25B marten**

**Proposed Regulations**

Area	Season	Bag limit
Units 20E and 25B	Nov 1– <del>Feb. 28</del> <b>Mar. 15</b>	No limit

- Would **mis-align** closing dates:
  - Mink and weasel in both Units
  - Fox in Unit 25B
- Would **align** closing dates:
  - Lynx in both Units
  - Wolverine and Fox in Unit 20E

182

## Proposal 124 – Units 20E and 25B marten

- Marten – **valuable** furbearer species
- **Chronology of harvest** traditionally aligns with snowfall and freeze-up which increases access by snowmachine.
- **No abundance estimates**
  - Trapper questionnaire indicates fluctuations in abundance
- **Pelt quality** begins to diminish in March

183



## Proposal 124 – Lengthen the marten trapping season in Units 20E and 25B by two weeks to end March 15

**Submitted by:** Eagle Advisory Committee

**Effect of Proposal:** This proposal would lengthen the marten trapping season in Units 20E and 25B by two-weeks to end March 15

**ADF&G Recommendation:** Neutral

**AC Recommendation(s):** Upper Tanana Fortymile: Support 5-0

184