

# Proposal 123

## Effect of the proposal:

Reauthorize antlerless moose  
hunts in Units  
19D, 20A, 20B, and 20D

## Department recommendation:

Amend & Adopt

(Do not reauthorize  
Unit 19D antlerless moose hunts)



# Proposal 123 – Unit 19D East



Don Young/ADF&G





# Proposal 123-A Unit 19D

Unit 19D (East) reauthorization:

Advisory Committee recommendation:

McGrath – Did not comment

Department recommendation:

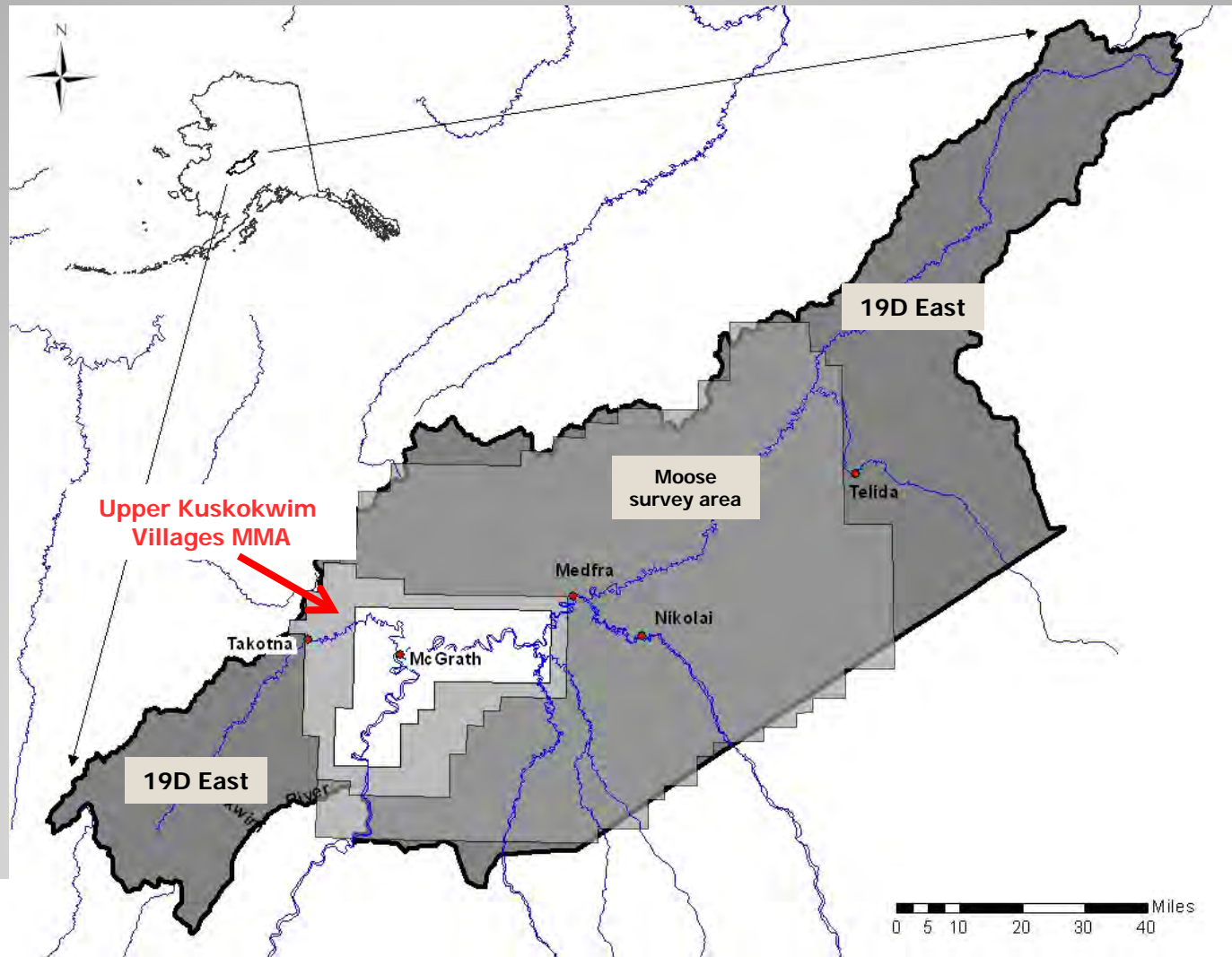
Do Not Reauthorize 19D antlerless moose hunts

# Current and Proposed

## Unit 19 moose seasons:

Area	Res or NR	Permit type	Bag limit	Season
Unit 19D w/in Upper Kuskokwim CUA	Res	RM650	1 antlered bull	Sept 1 – Sept 25
	Res	RM651	Any moose	TBA between Feb 1 – 28
	NonRes			No open season
Unit 19D Cheeneetnu and Gagaryah Rivers except 2 mi from Swift	Res	RM650	1 antlered bull	Sept 1 – Sept 25
	Res	RM651	Any moose	TBA between Feb 1 – 28
	Res NonRes	Harvest Harvest	1 antlered bull 1 bull SF50-4	Sept 1 – Sept 20 Sept 1 – Sept 20
Unit 19D Remainder	Res	RM650	1 antlered bull	Sept 1 – Sept 25
	Res	RM651	Any moose	TBA between Feb 1 – 28
	Res NonRes	Harvest	1 antlered bull	Sept 1 – Sept 20 No open season

# Unit 19D East



# Considerations – Unit 19D East

- n **Population & harvest objectives**
- n **Estimates of moose numbers**
- n **2-year avg twinning rates**
- n **Predation**



# Objectives for Upper Kuskokwim Villages Moose Management Area

## n Moose numbers:

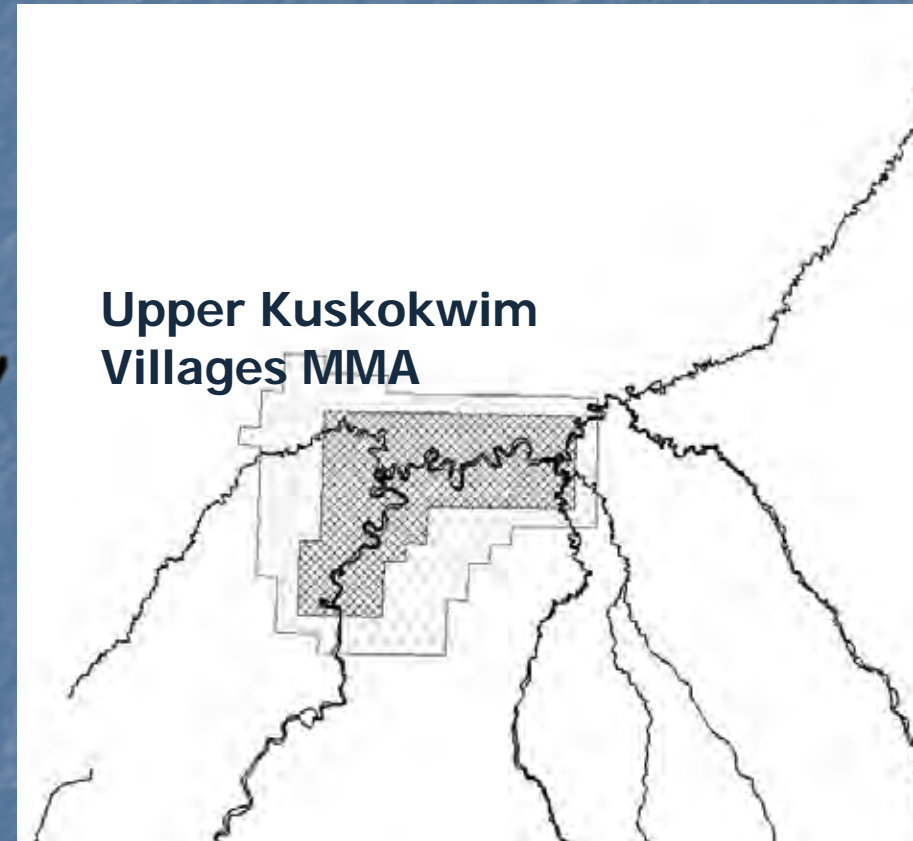
- n At least 2,500 (2.2 moose/mi<sup>2</sup>)

**2012 estimate: 1,337  
(1.2 moose/mi<sup>2</sup>)**

## n Harvest:

- n At least 100

**Current: ~95 – 100**



# Unit 19D Moose Survey Area estimates

Year	UKVMMA (density)	MSA
2001	868 (0.8)	2,564 (0.5)
2004	1,192 (1.1)	2,744 (0.5)
2006	1,308 (1.2)	
2007	1,720 (1.5)	
2008	1,718 (1.5)	3,889 (0.7)
2009	1,820 (1.6)	
2010	1,796 (1.6)	
2011	1,647 (1.5)	
2012	1,337 (1.2)	



# Unit 19D Moose Survey Area estimates

Year	UKVMMA (density)	MSA
2001	868 (0.8)	2,564 (0.5)
2004	1,192 (1.1)	2,744 (0.5)
2006	1,308 (1.2)	
2007	1,720 (1.5)	
2008	1,718 (1.5)	3,889 (0.7)
2009	1,820 (1.6)	
2010	1,796 (1.6)	
2011	1,647 (1.5)	
2012	1,337 (1.2)	

# **Guidelines for managing growth (2-year avg. twinning rates)**

2-year average twinning rates and moose management strategies associated with this measure

2-year ave. Twinning rates	Management strategy
> 25%	Promote rapid growth
20 – 25 %	Slow growth
15 – 20%	Stabilize population density
< 15%	Reduce population density

# Observed twinning rates

Year	Twins
2002	39%
2003	36%
2004	39%
2005	50%
2006	35%
2007	50%
2008	--
2009	26%
2010	29%
2011	37%
2012	34%



2-Year Average  
twinning rate is 36%



# Browse surveys

- 40.5% browse utilization was measured in winter 2008-09



# Predators

## n Wolves

- n In wolf control focus area (4,484 mi<sup>2</sup>)

- n As low as possible

- n Surrounding the MMA (1,718 mi<sup>2</sup>)

# Predators

## n **Black Bears –**

n **2002 (pre-control) = 83–109 black bears**

n **2003 = 21–39 black bears**

n **2006 = 56–84 black bears**

n **2009 = 96–162 black bears**

n **528 mi<sup>2</sup> bear control area inside the MMA**



# Considerations – Unit 19D

- n **Objective: 2,500 moose in the MMA**

  - n **Estimate: 1,337**

- n **2-year avg twinning rates**

  - n **36% (promote growth)**

- n **Predator populations**

  - n **Black bear recovered**

# Proposal 123 – Unit 20A



Don Young/ADF&G



# Proposal 123 – Unit 20A

## Unit 20A antlerless reauthorization:

- **Combination of Drawing & Registration**
- **Spread hunters spatially & temporally**
- **August – February**

## Advisory Committee recommendation:

**Adopt: Fairbanks, Minto–Nenana, Middle Nenana River, Delta**

## Department recommendation:

**Reauthorize Unit 20A antlerless hunts**



# Proposal 123 – Unit 20A

A topographic map of a region in Alaska, showing various geographical features and administrative boundaries. The map is overlaid with seven colored zones. A legend in the top right corner identifies these zones: Zone 1 (lightest yellow), Zone 2 (yellow), Zone 3 (orange), Zone 4 (dark orange), Zone 5 (red), Zone 6 (blue), and Zone 7 (teal). The map includes labels for Fairbanks, Anderson, Clear, Healy, Delta, and Jet. The text 'Proposal 123 – Unit 20A' is prominently displayed at the top in large, bold, yellow letters with a black outline.

## Purpose of Antlerless Hunts:

§ Regulate population growth

§ Meet IM harvest objective

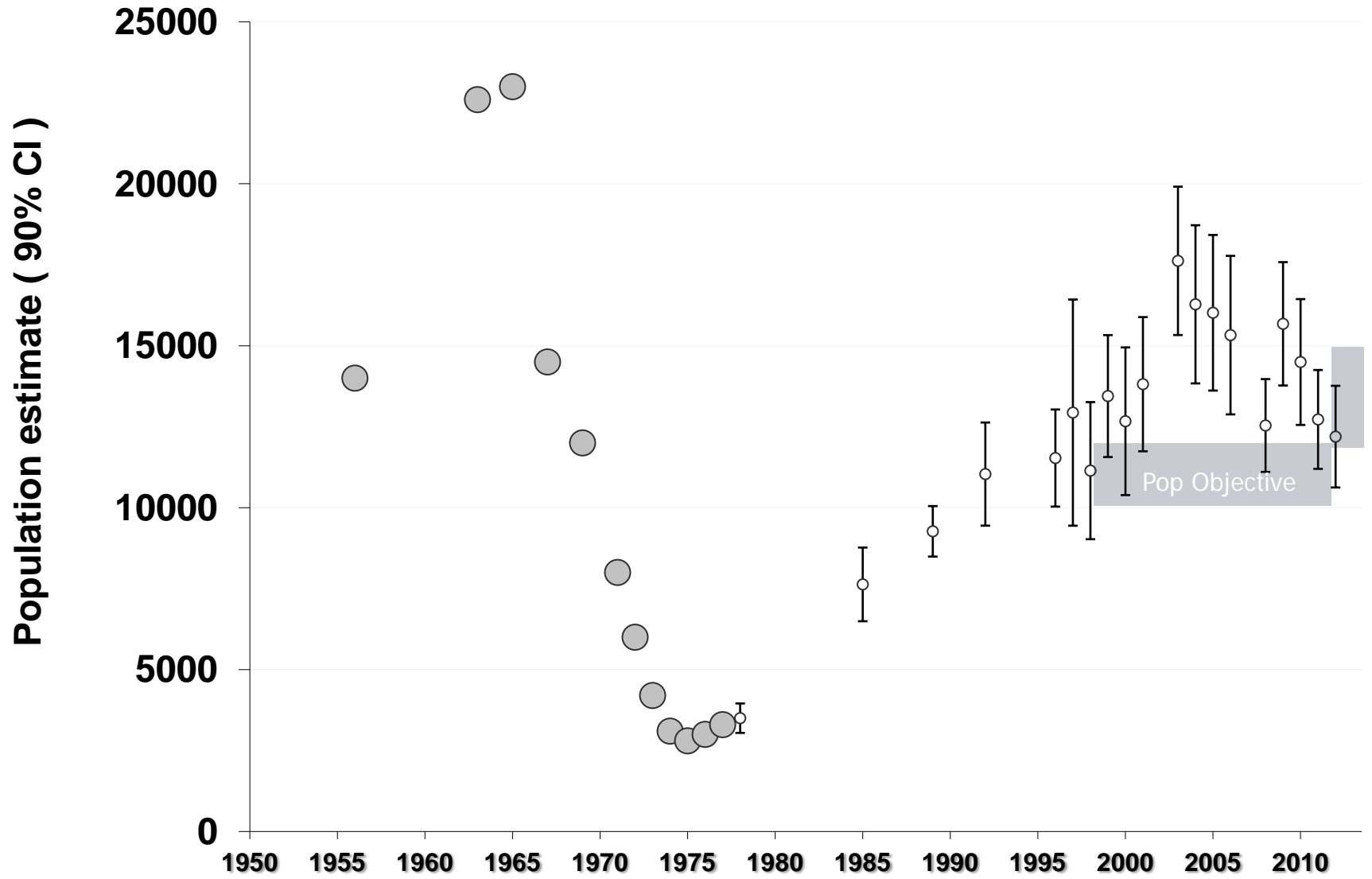
§ Provide hunting opportunity,  
including subsistence

# Unit 20A Recommendations

---

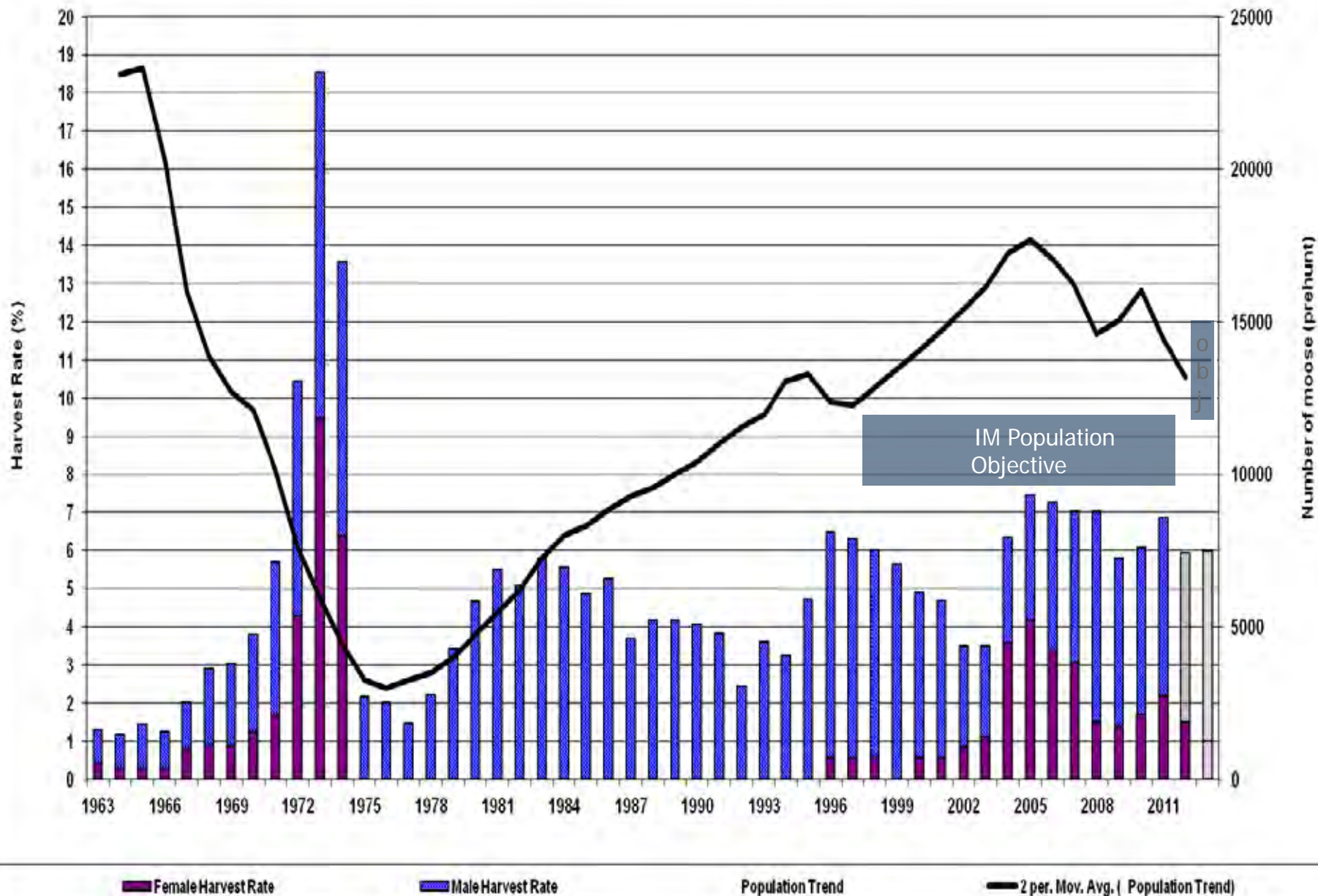
- Reduce antlerless harvest to  $\leq 120$  (1% of 12,000)
- Obtain as much harvest as possible during drawing permit hunts (15 Aug-15 Nov)
- Distribute harvest across unit to lessen impact in any area (emphasis on hunting opportunity)
- Conduct RM764 only in Zone 5, if needed, to meet harvest goal in that zone
- Keep subsistence hunt RM768 (western Tanana Flats, Aug 25-Jan 28). Reduce permits from 50 to 25

# GMU 20A moose population trend, 1956-2012

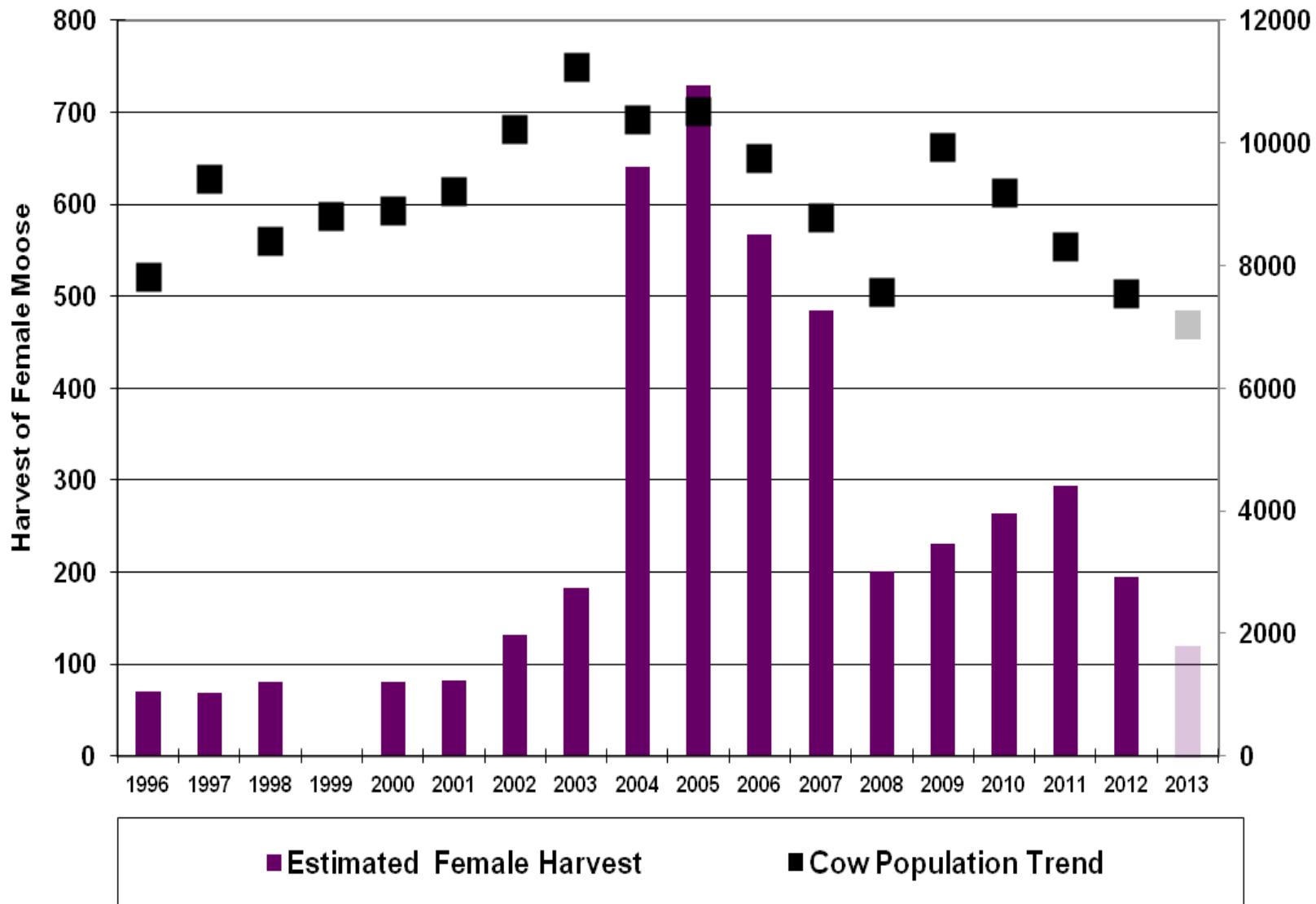




Prehunt moose population and harvest trends by sex, Unit 20A, 1963-2013

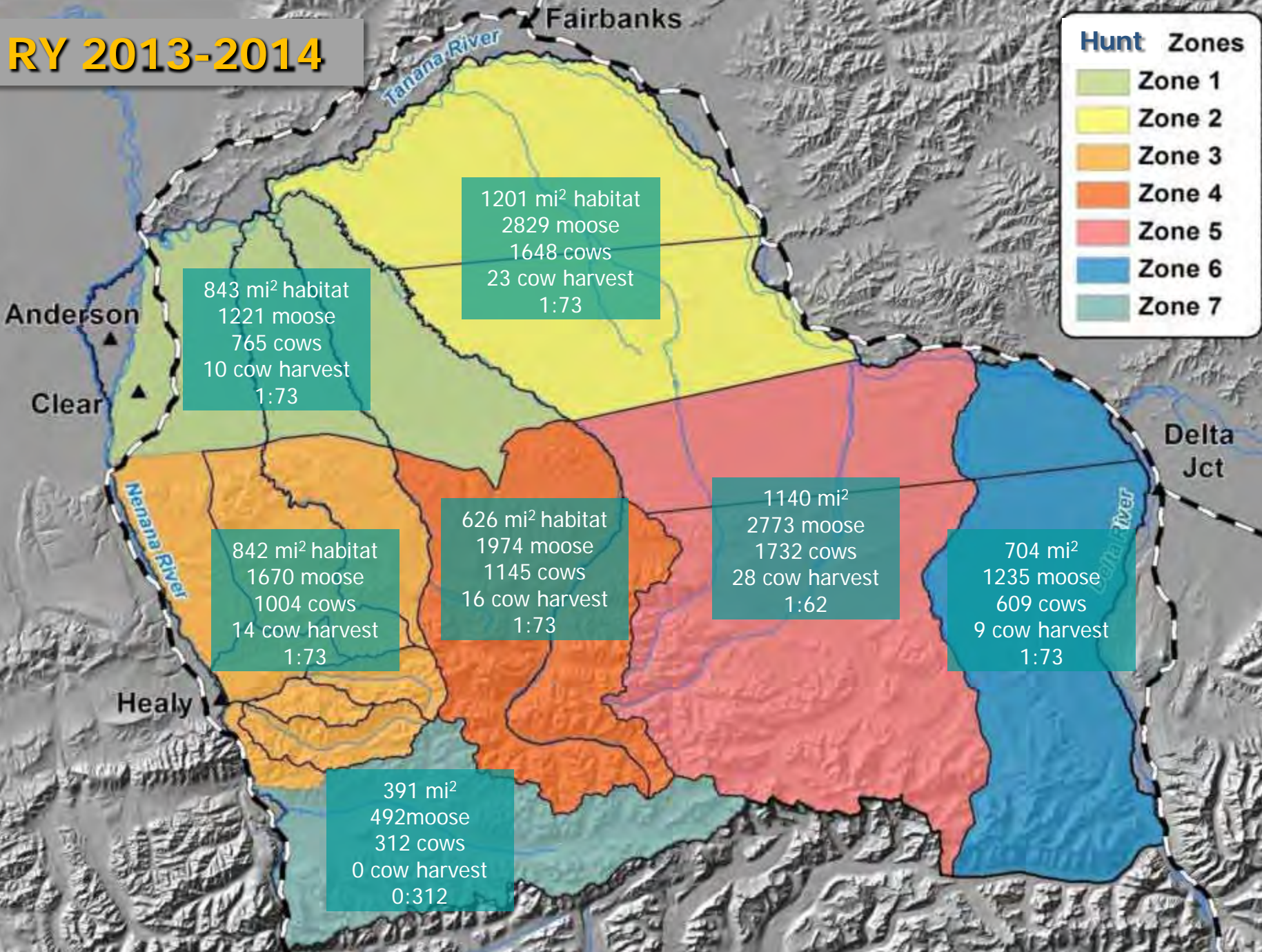


Prehunt numbers and harvest of cow moose in GMU 20A, 1996-2013





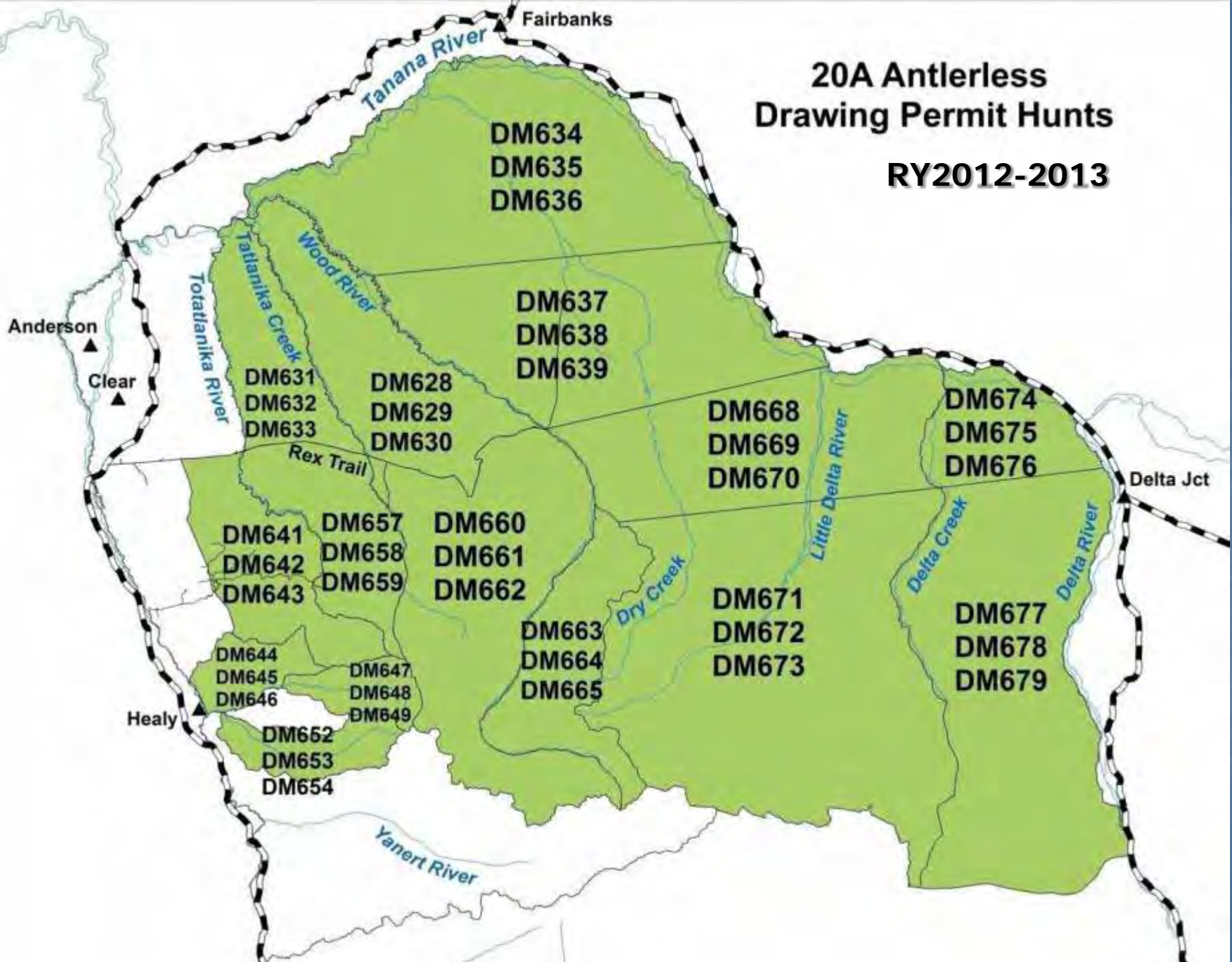
# RY 2013-2014





# 20A Antlerless Drawing Permit Hunts

**RY2012-2013**





# Proposal 123 – Unit 20B



Don Young/ADF&G



# Proposal 123 – Unit 20B

## Unit 20B antlerless moose:

- Combination of drawing & registration hunts
- Seasons spread hunters in time and place
- Aug. 15 – Nov. 15

## Advisory Committee recommendations:

**Fairbanks AC — Adopt**  
**Minto–Nenana AC — Adopt**

## Department recommendation:

**Reauthorize Unit 20B antlerless hunts**





# Unit 20B Antlerless Moose Harvest Goals

- FMA: harvest opportunity, reduce road kill and nuisance moose
- MFMA: Help meet subsistence needs, curb population growth
- Central and Western 20B: Curb population growth

# Unit 20B Antlerless Moose Harvest Goals

- Eastern 20B "any moose" hunt:
  - DM783: Reduce road kill along the Richardson highway (archery and muzzleloader)

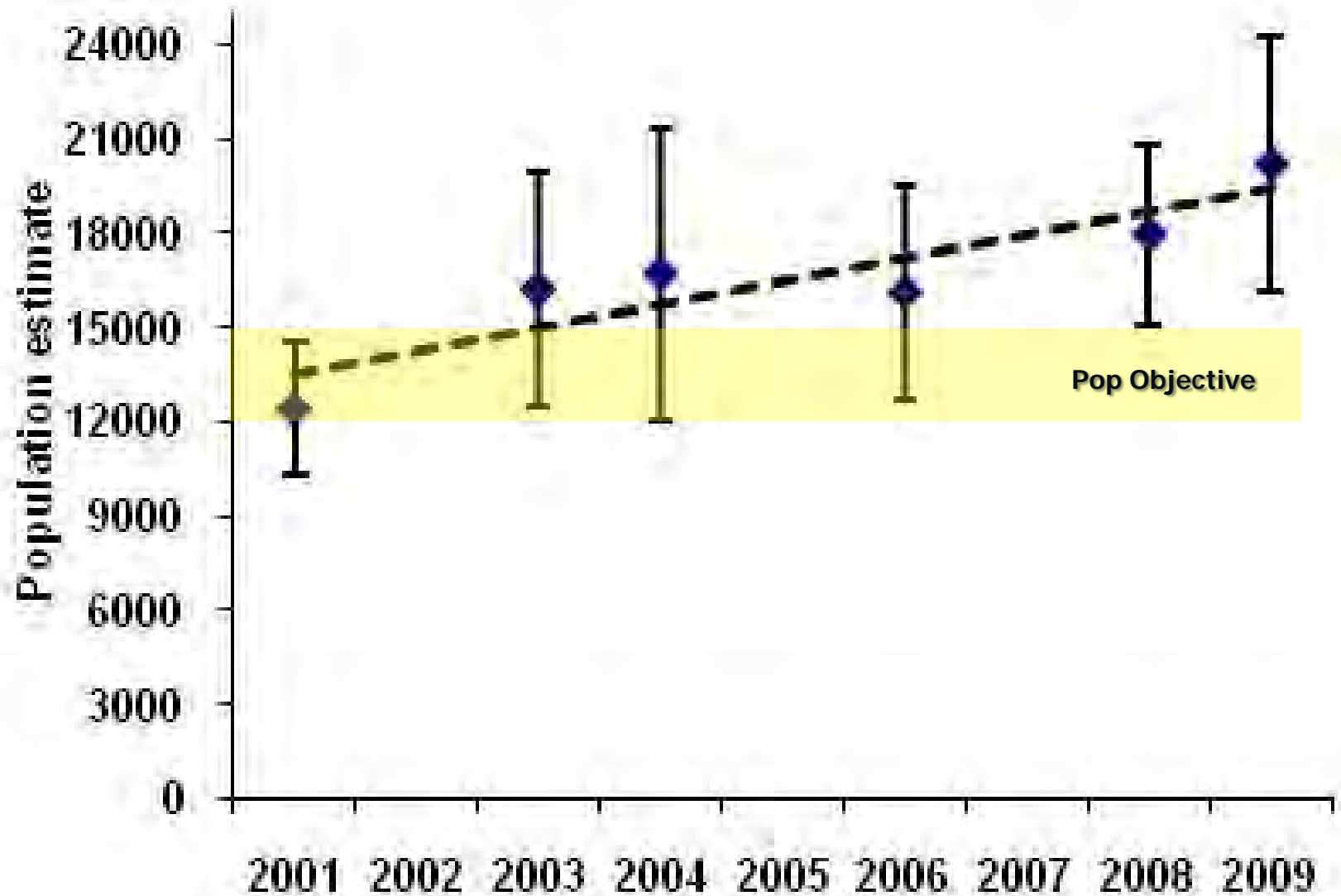
# Unit 20B Management Concerns addressed by antlerless hunts

---

- **High population – well above population objectives**
- Low twinning rates
- Low calf weights
- Moderate to high browse removal



# GMU 20B moose population estimates and trend 2001-2009



# Unit 20B Intensive Management Objectives

---

- n Population Objective 12,000–15,000
- n Current population: ~20,000
  
- n Harvest objective 600–1,500
- n Current harvest: ~400 cows
  - 500–600 bulls
  - 900 – 1,000 total

# Unit 20B Management Concerns addressed by antlerless hunts

---

- High population – well above population objectives
- **Low twinning rates**
- Low calf weights
- Moderate to high browse removal

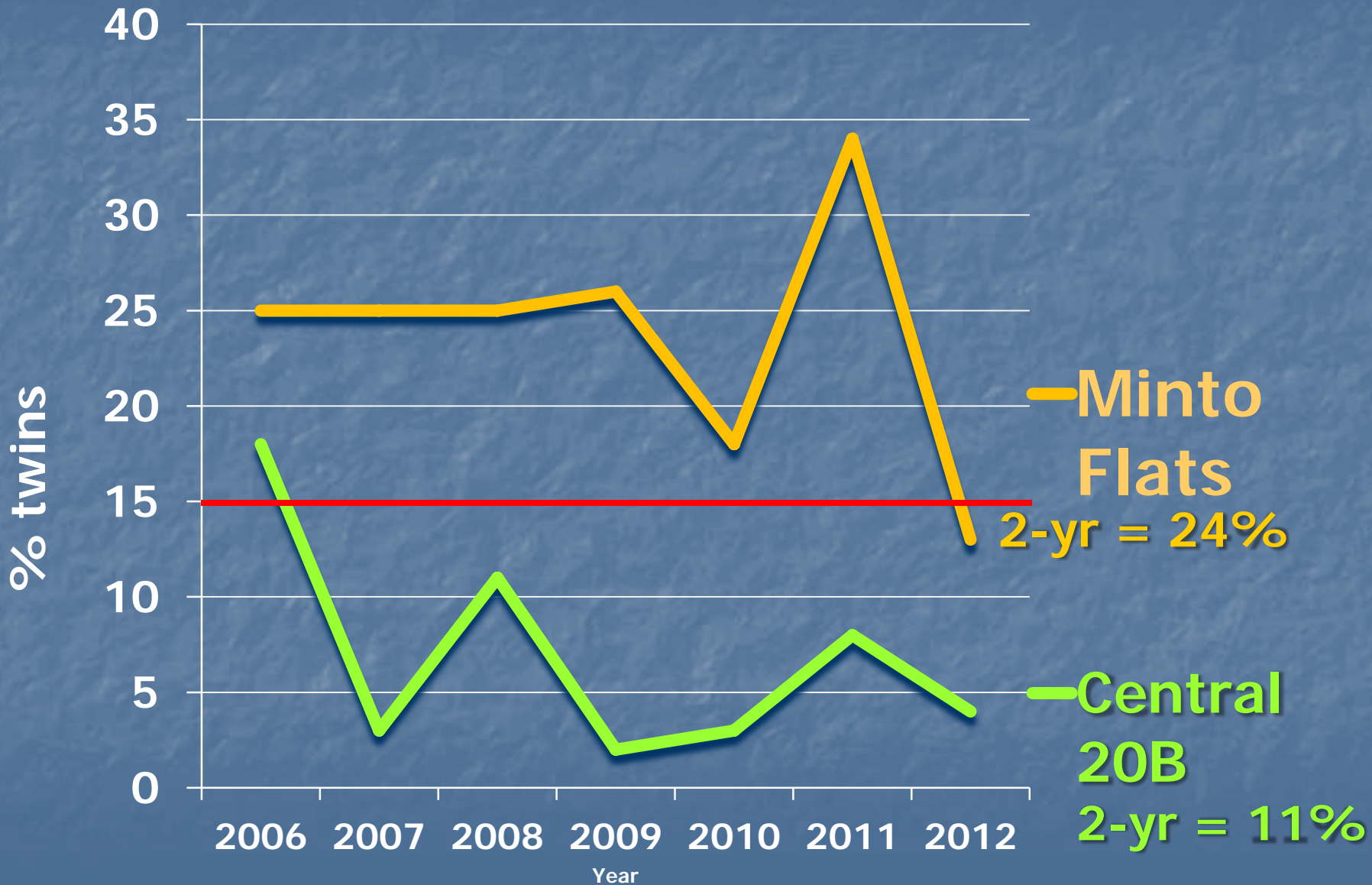


# Guidelines for managing growth (2-year avg twinning rates)

2-year average twinning rates and moose management strategies associated with this measure

2-year ave. Twinning rates	Management strategy
> 25%	Promote rapid growth
20 – 25 %	Slow growth
15 – 20%	Stabilize population density
< 15%	Reduce population density

# Unit 20B Twinning Rates



# Unit 20B Management Concerns addressed by antlerless hunts

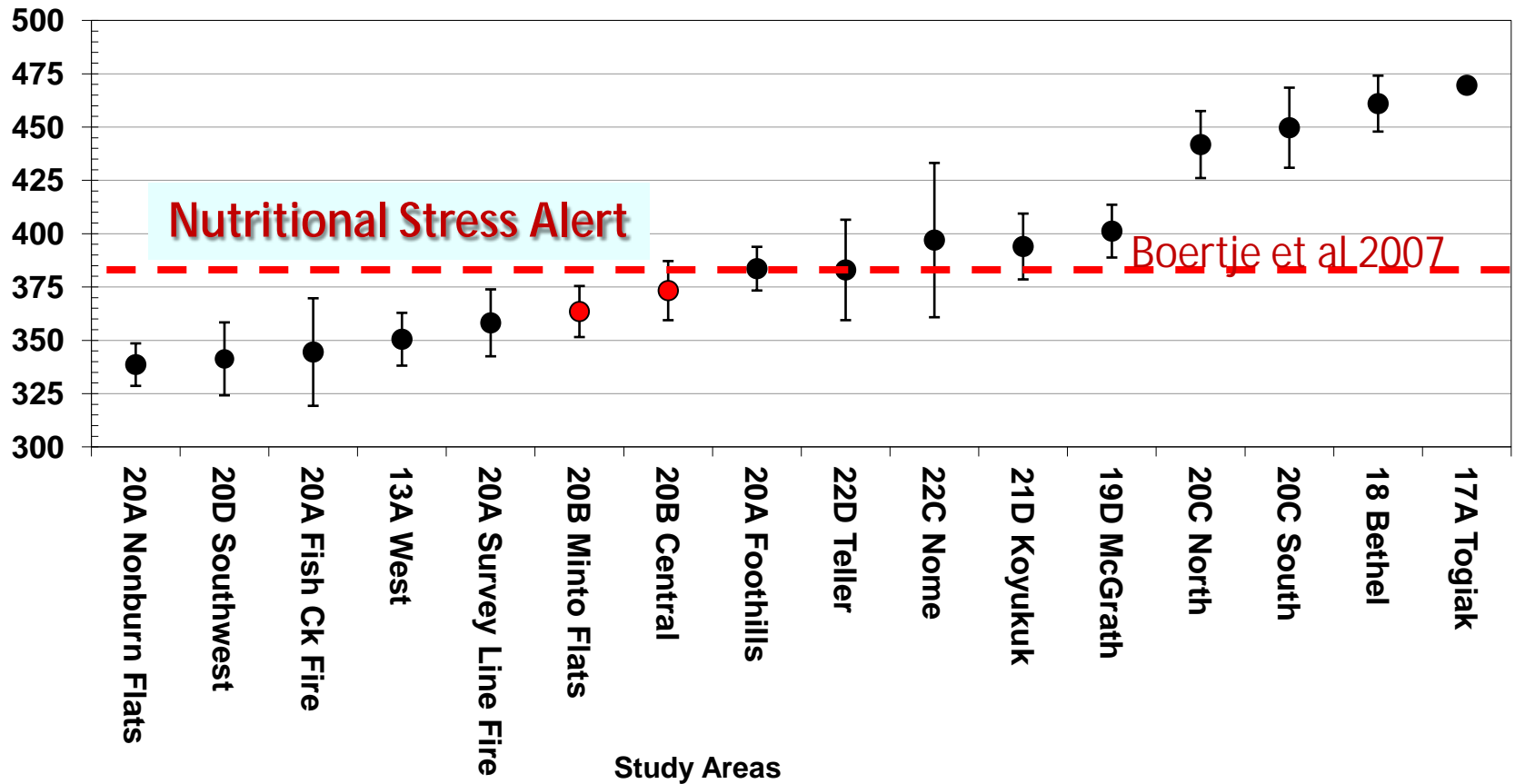
---

- n High population – well above population objectives
- n Low twinning rates
- n **Low calf weights**
- n Moderate to high browse removal



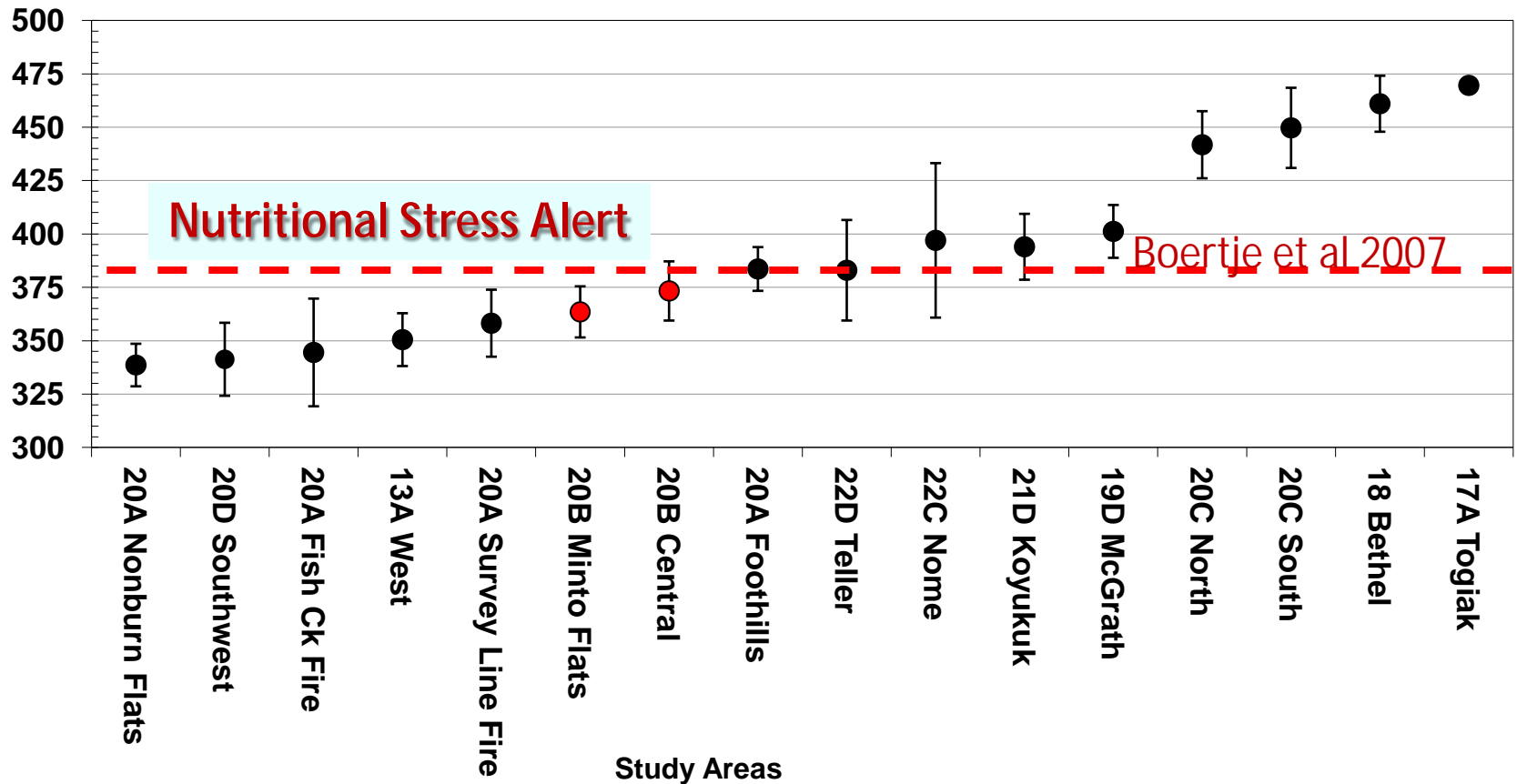
# Calf Weights Across Alaska

9-Month Calf Weights (lbs)



# Calf Weights Across Alaska

9-Month Calf Weights (lbs)



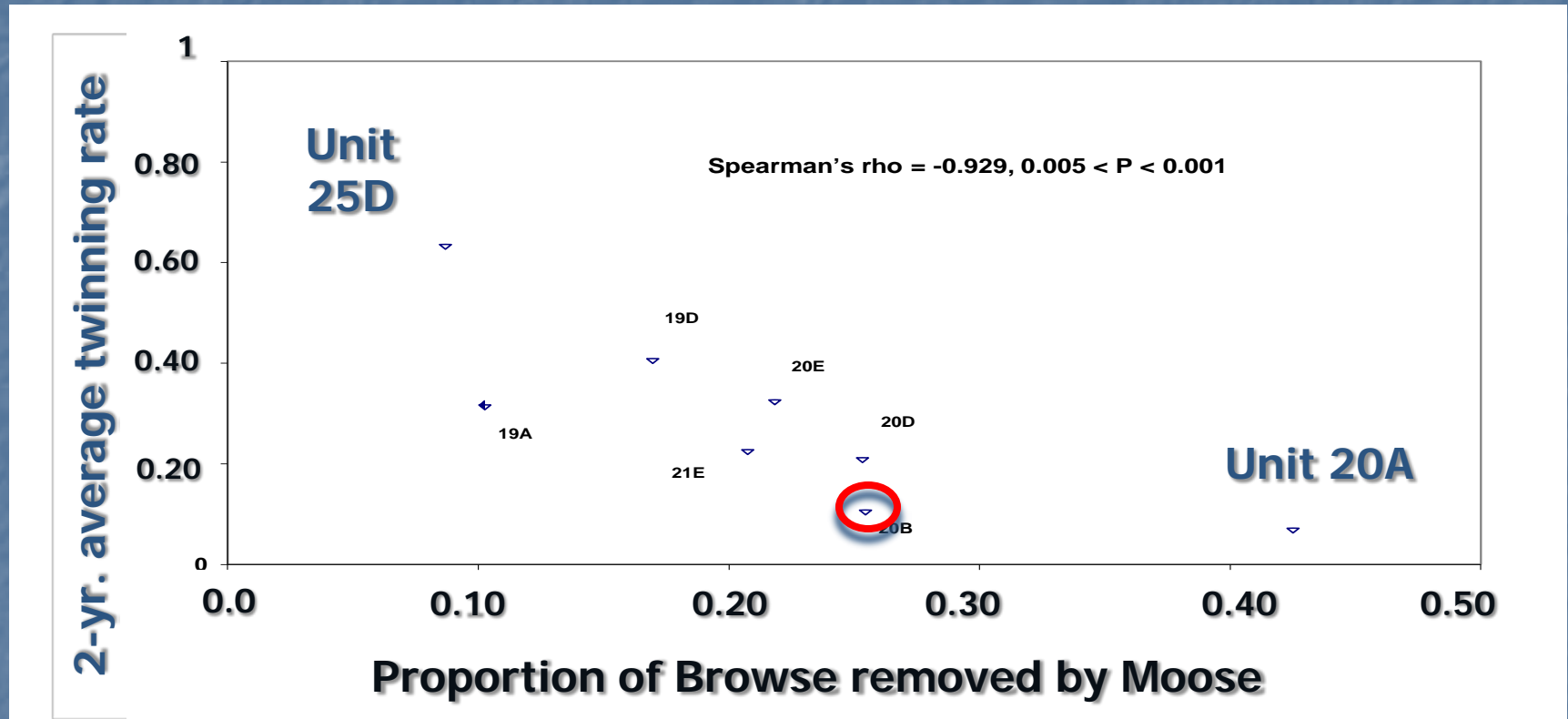
# Unit 20B Management Concerns addressed by antlerless hunts

---

- n High population – well above population objectives
- n Low twinning rates
- n Low calf weights
- n **Moderate to high browse removal**

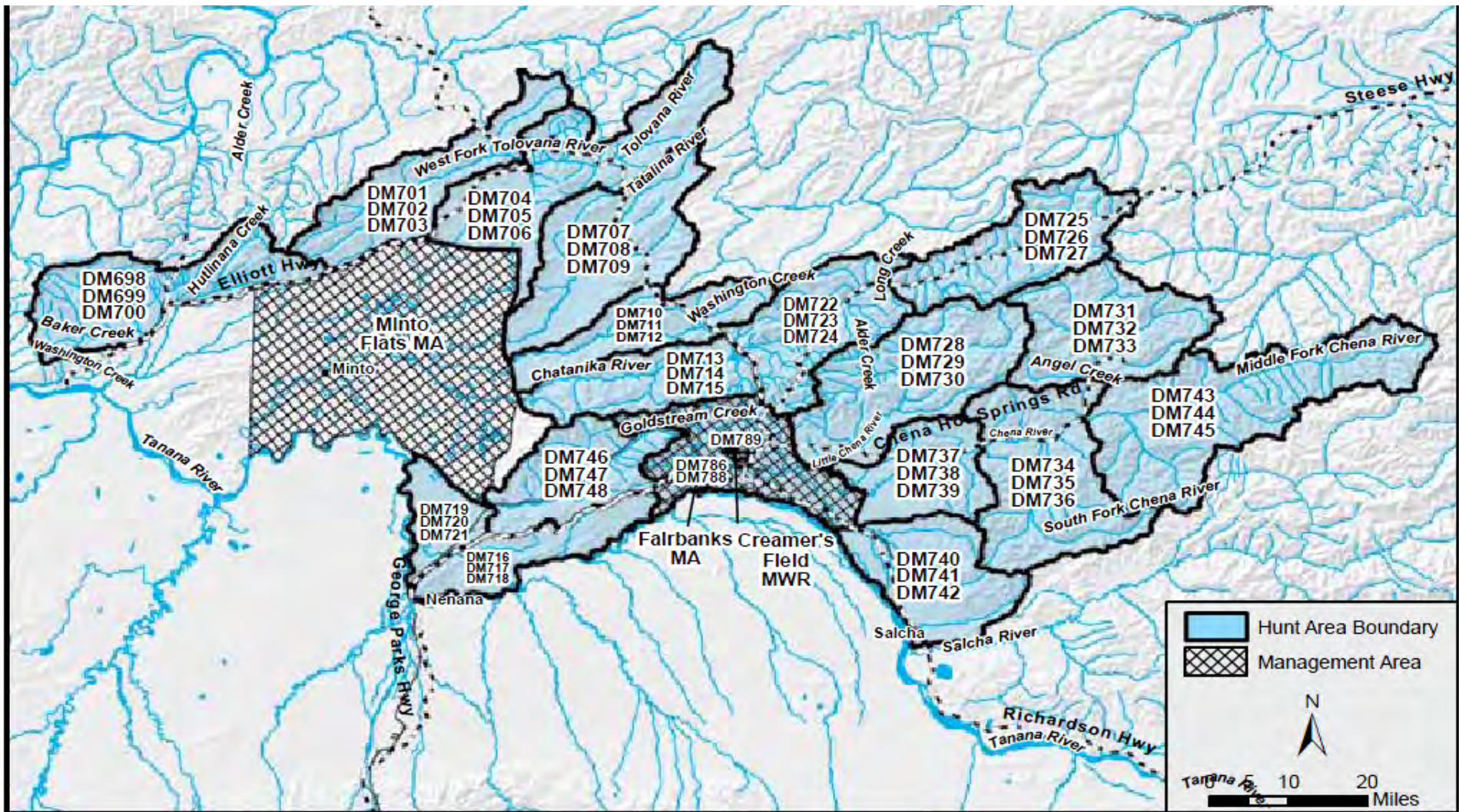


# Browse removal vs. Twinning rate



C. T. Seaton, T. F. Paragi, R. D. Boertje, K. Kielland, S. DuBois, and C. L. Fleener. 2011. Browse biomass removal and nutritional condition of moose *Alces alces*. *Wildlife Biology* 17(1):55-66.

# Antlerless Moose Hunts in Minto Flats & Central Unit 20B





# 20B Antlerless moose harvest by drawing permit holders

## n 2011

1,250 permits / 954 hunted (76%)

**309 antlerless moose harvested**

(32% success)

## n 2012

1,250 permits / 830 hunted (66%)

**273 antlerless moose harvested**

(32% success)

n **Average = 290 antlerless moose/year**



# **Minto Flats Cow Harvest**

**2011 Limited registration permit**

∅ **150 permits issued**

∅ **78 antlerless moose harvested**

**2012 Unlimited registration permit**

∅ **826 permits issued**

∅ **120 antlerless moose harvested**

# **Unit 20B**

## **Antlerless Moose Harvest Plans for 2013**

- n Continue current harvest levels:  
Approximately 400 moose total**
  - n 250–300 through drawing permits.**
  - n 100–120 through registration  
permits in Minto Flats MA.**
  - n Maintain population until another  
survey is completed (2013).**



# Proposal 123 – Unit 20D



Don Young/ADF&G



# Proposal 123 – Unit 20D

## Southwest Unit 20D antlerless moose:

- **Combination of drawing & registration hunts**
- **high density population ~ 3.1 moose/mi<sup>2</sup>**

## Advisory Committee recommendations:

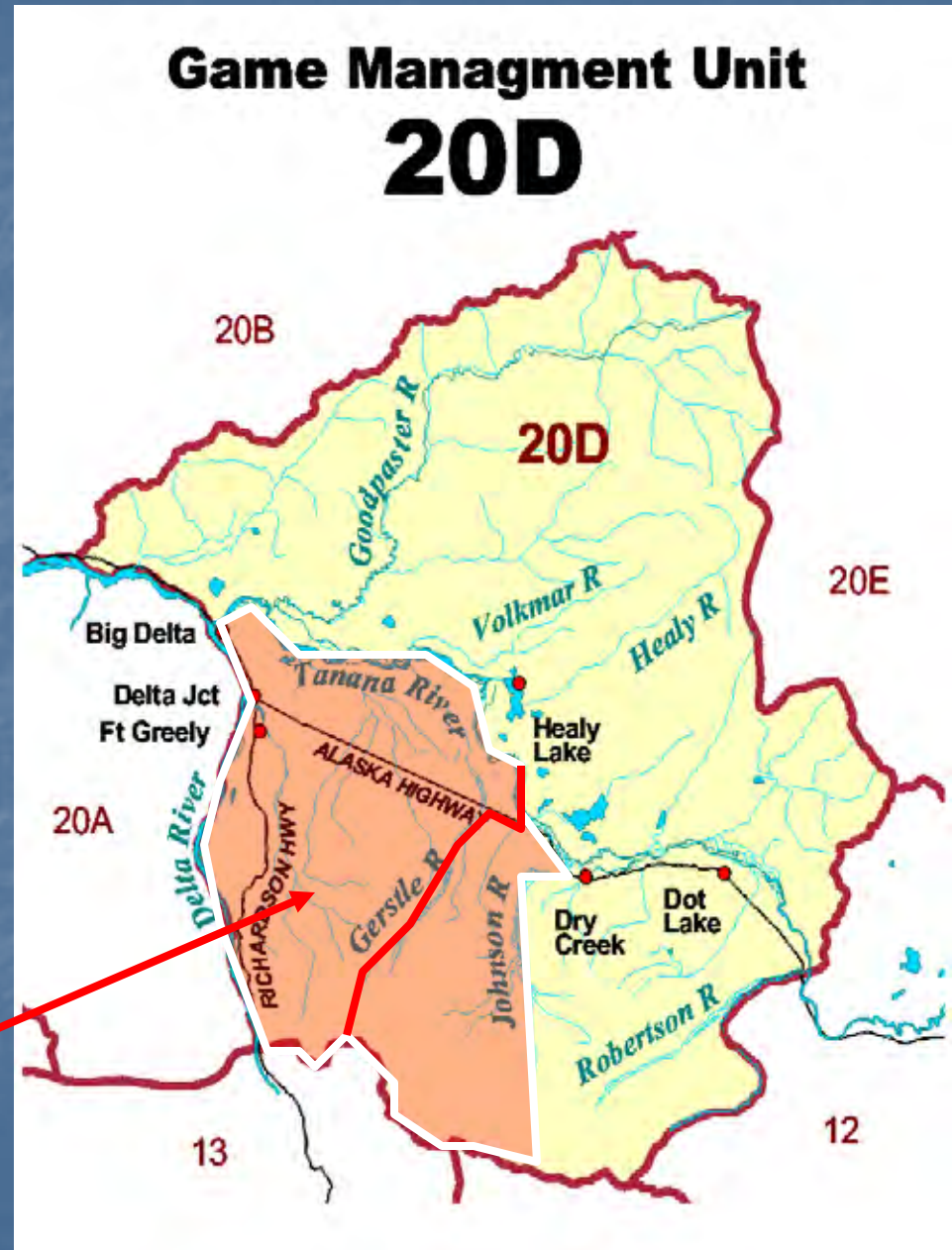
**Delta AC – Adopt**

## Department recommendation:

**Reauthorize Unit 20D antlerless hunts**

# Proposal 123 – Unit 20D

- Proposal is to reauthorize antlerless hunts in southwest Unit 20D
  - for a cow without calf,
  - Oct 10 – Nov 25
- Southwest Unit 20D hunt area:
  - South of Tanana Rv
  - West of Gerstle Rv



# *Proposal 123 – Unit 20D*

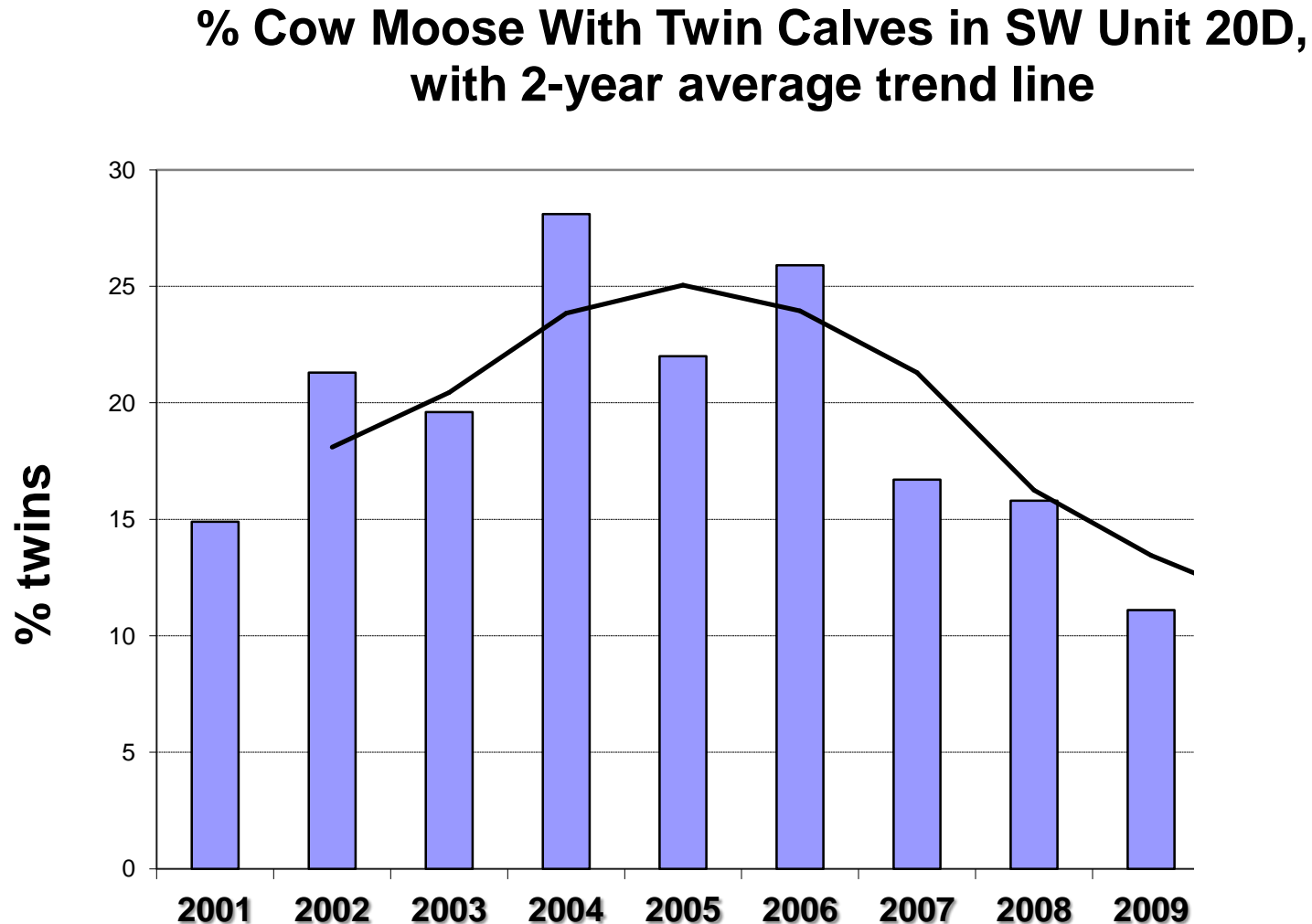
## Background:

- n 2006, population in SW Unit 20D increased to 5.6 moose/mi<sup>2</sup>
- n Moderately low twinning rate
- n Moderately high overwinter browse



# *Proposal 123 – Unit 20D*

- Decreasing trend in 20D twinning rates 2005 – 2009



# Proposal 123 – Unit 20D

Unit 20D antlerless moose harvest (cow without calf)

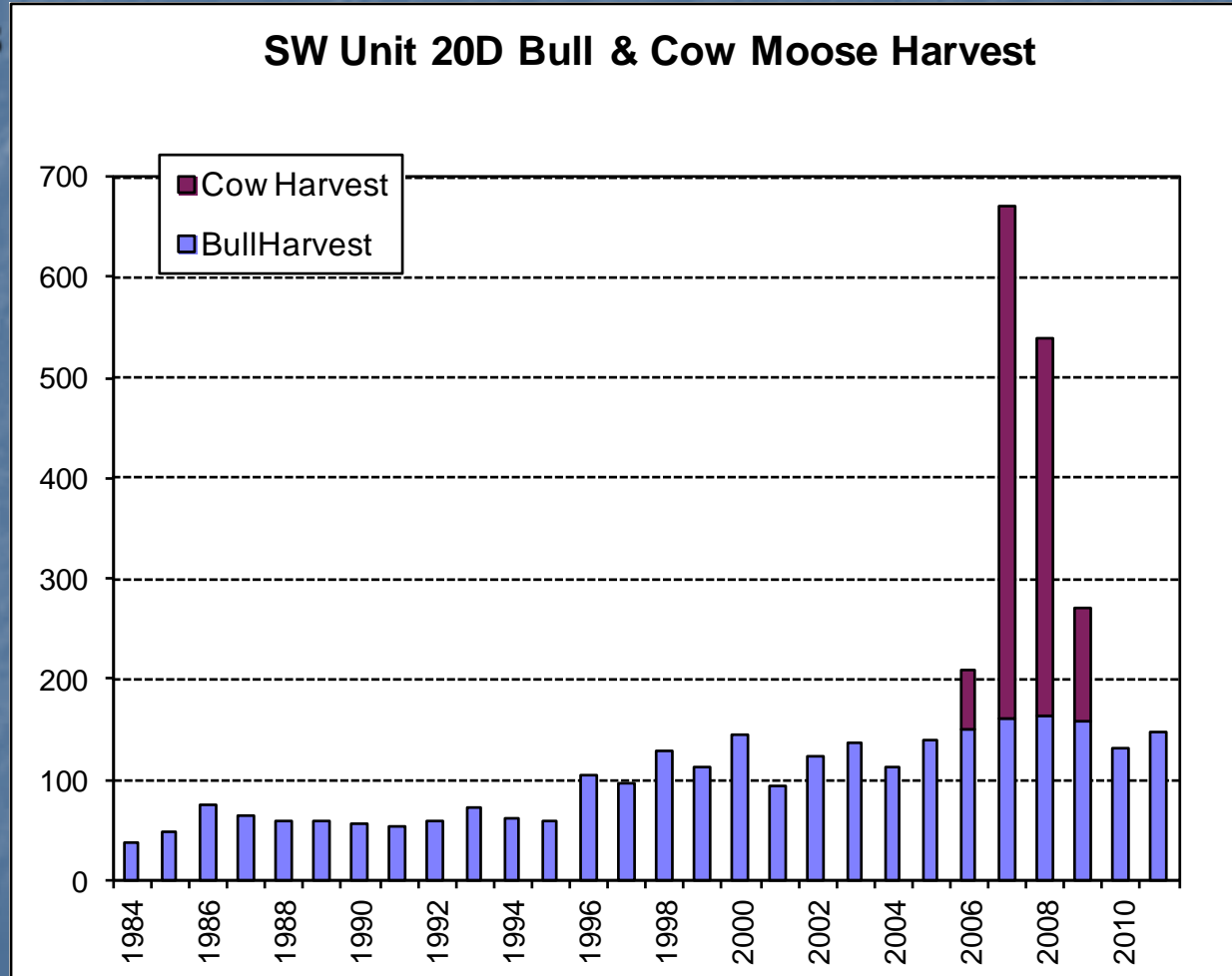
2006 = 52 cows

2007 = 507 cows

2008 = 382 cows

2009 = 113 cows

Total = 1,054



# Proposal 123

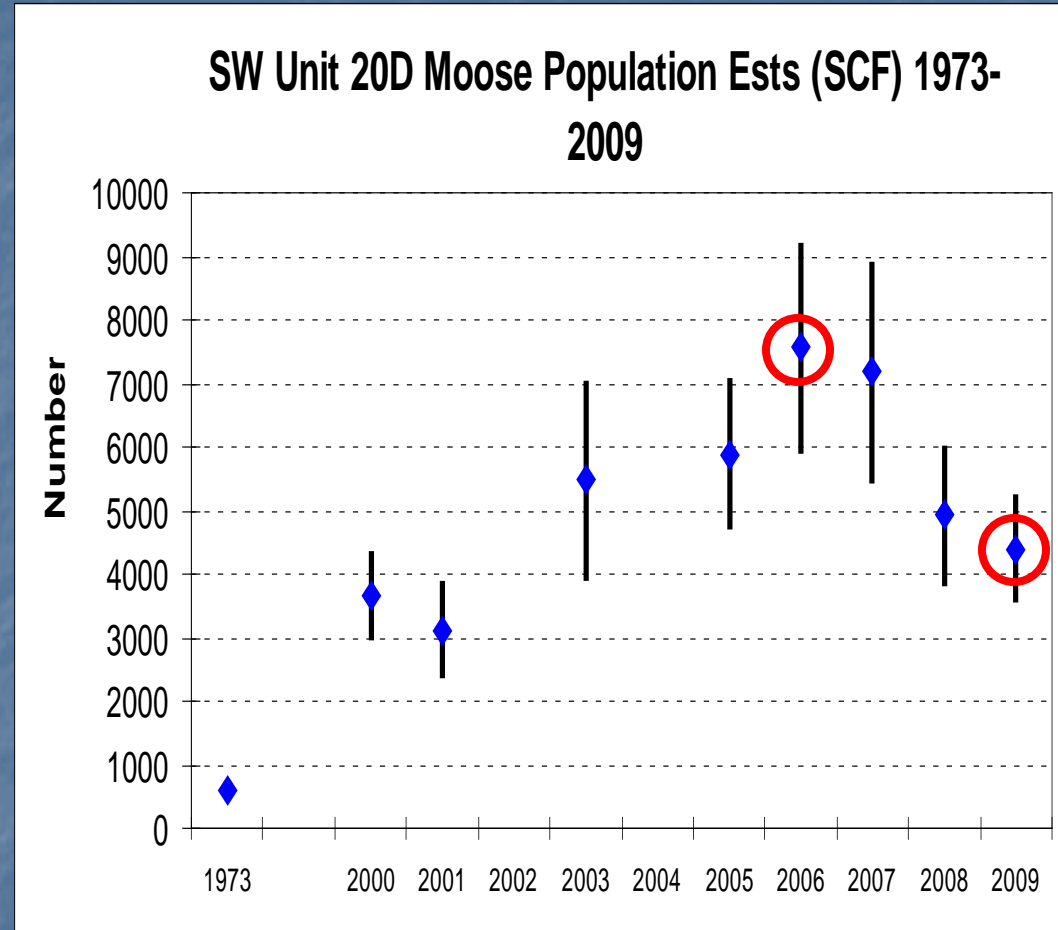
SW Unit 20D cow hunt has reduced moose population density:

2006

- 7,559 moose
- 5.6 moose/mi<sup>2</sup>

2009

- 4,401 moose
- 3.1 moose/mi<sup>2</sup>

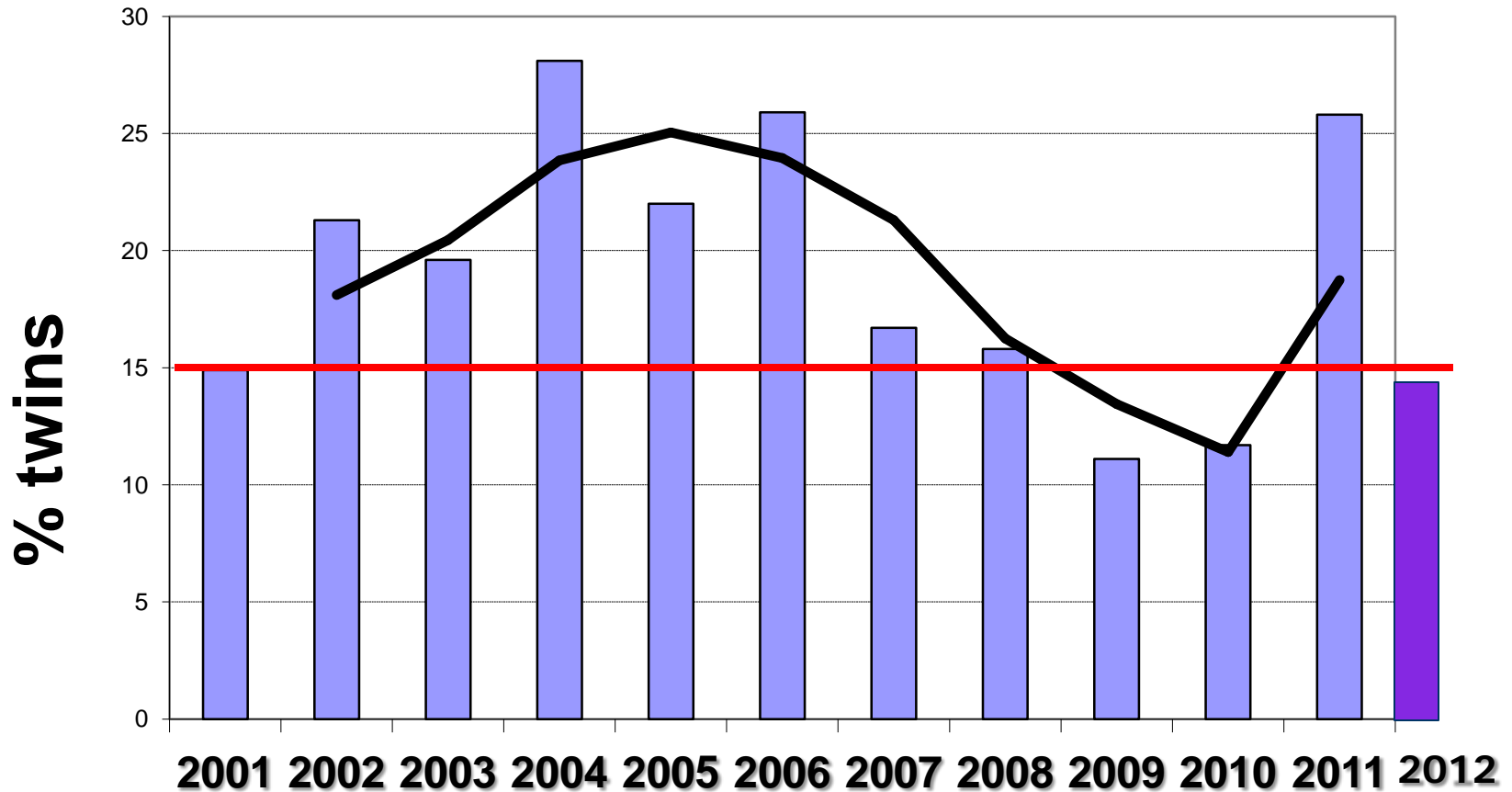




# *Proposal 123 – Unit 20D*

**2011 - SW Unit 20D twinning rates increased to 25.8%**

**% Cow Moose With Twin Calves in SW Unit 20D, with 2-year average trend line**



# *Proposal 123 – Unit 20D*

- **No plans to issue antlerless permits in RY13**
- **Reauthorization is requested in case new data indicates a hunt is needed.**
- **Fall 2012 population estimate is being calculated.**
- **Twinning rates may be declining**

# Proposal 123 – Unit 20D

## Southwest Unit 20D antlerless moose:

- **Combination of drawing & registration hunts**
- **high density population ~ 3.1 moose/mi<sup>2</sup>**

## Advisory Committee recommendations:

**Delta AC – Adopt**

## Department recommendation:

**Reauthorize Unit 20D antlerless hunts**

- **in case they need to be resumed quickly**
- **Low 2012 twinning rates**
- **Calculating 2012 population estimate**



# Proposal 123 – Summary

## Effect of the proposal:

Reauthorize antlerless moose hunts in Units 19D, 20A, 20B, and 20D



## Department recommendation:

Amend & Adopt

§ Do not reauthorize Unit 19D antlerless hunts

§ Reauthorize hunts in

§ Unit 20A

§ Unit 20B

§ Unit 20D

# Questions?



Don Young/ADF&G