

# Proposal 13: Moose

This proposal would change the winter antlered moose season in Unit 22E:

- Change the season to Mar. 1 – Mar. 31

This is a public proposal.

Department Recommendation: **Support**

Advisory Committee Recommendation:

- Northern Norton Sound AC....**Support** with amendment for season dates Jan. 1 – Mar. 15
- Southern Norton Sound AC....**Support**



# Moose Hunting Regulations

## Unit 22E Current Season and Bag Limit

- Residents:

- Aug. 1 – Dec. 31; one bull moose
- Jan. 1 – Jan. 31; one antlered bull moose

- Nonresidents:

- Sept. 1 – Sept .14; one bull moose 50-inch antlers or 4 or more brow tines
- Registration permit

## Unit 22E Proposed Season

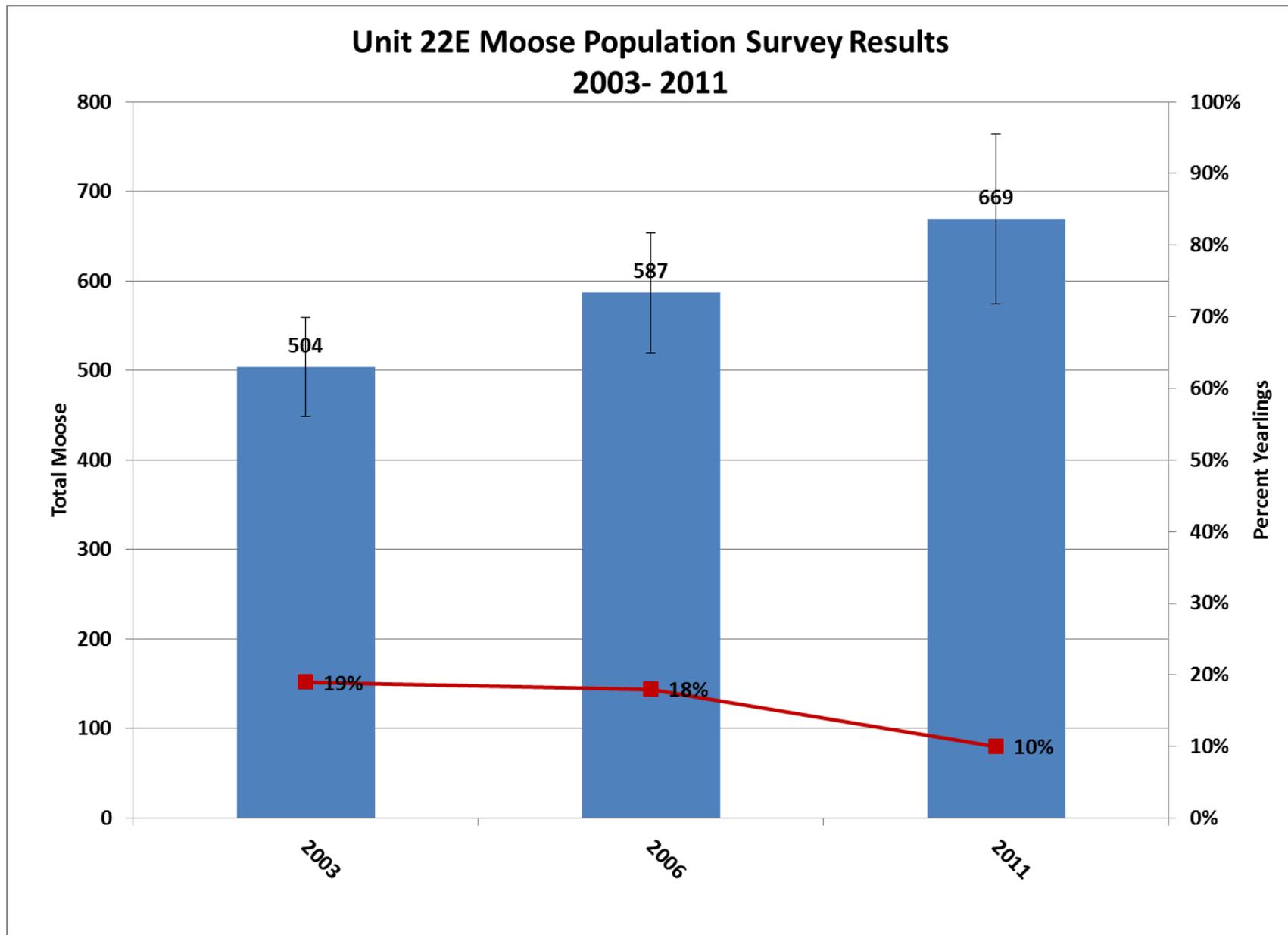
- Residents:

- **Mar. 1 – Mar. 31**; [Proposal 13]
- Jan. 1 – **Mar. 15**; [NNSAC Amendment]

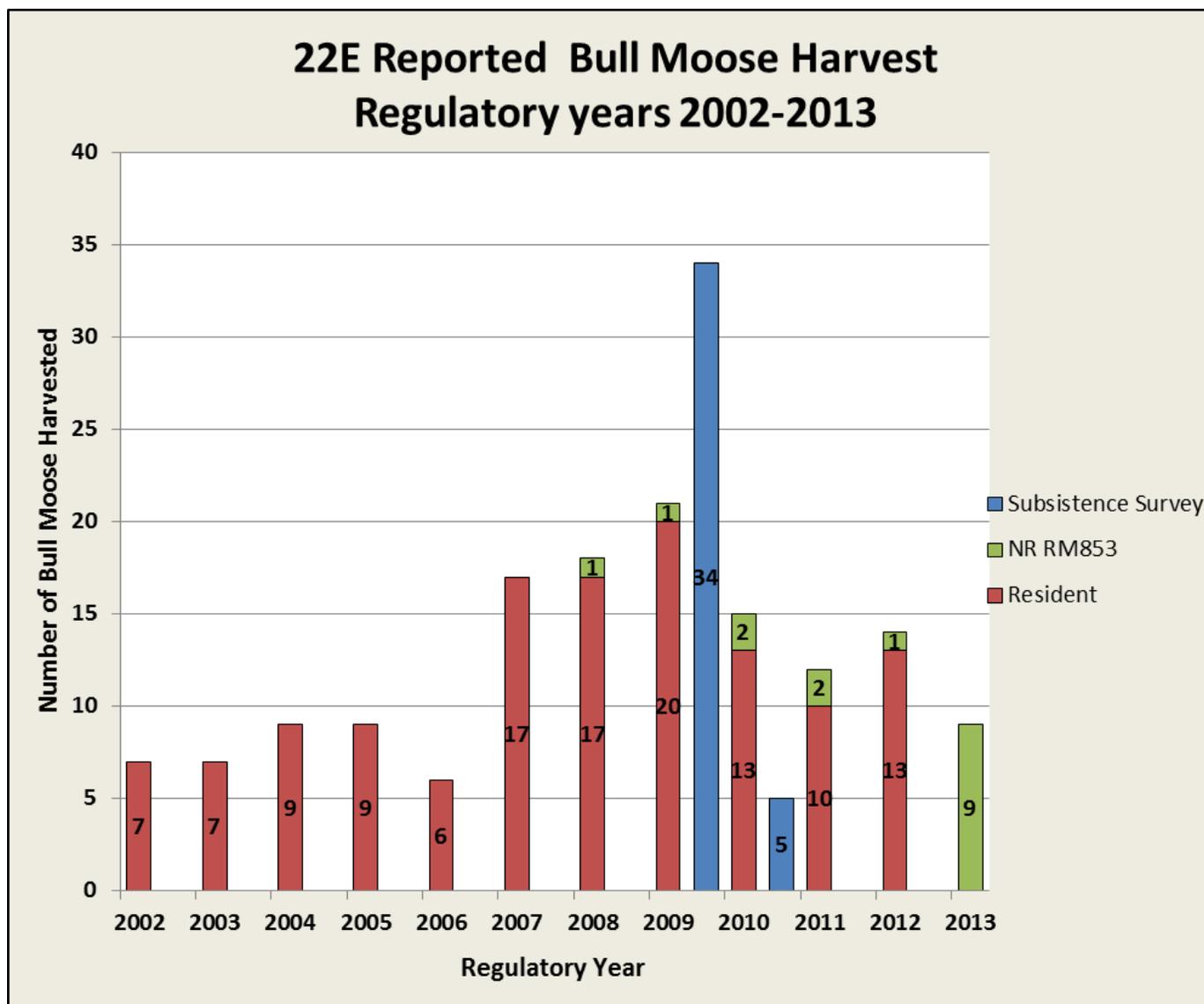
## Unit 22E Moose Regulatory Background

- RY2002: Board adopted new regulations
  - Changed bag limit from one moose to one antlered bull moose
  - Shortened an 8 month season to a 5 month season
  - Closed the nonresident season
- RY2008: Board provided additional opportunity after the Department found a population increase
  - Resident winter season was established for one antlered bull; Jan. 1 – Jan. 31
  - Nonresident quota hunt established by registration permit

# Unit 22E: Moose Population

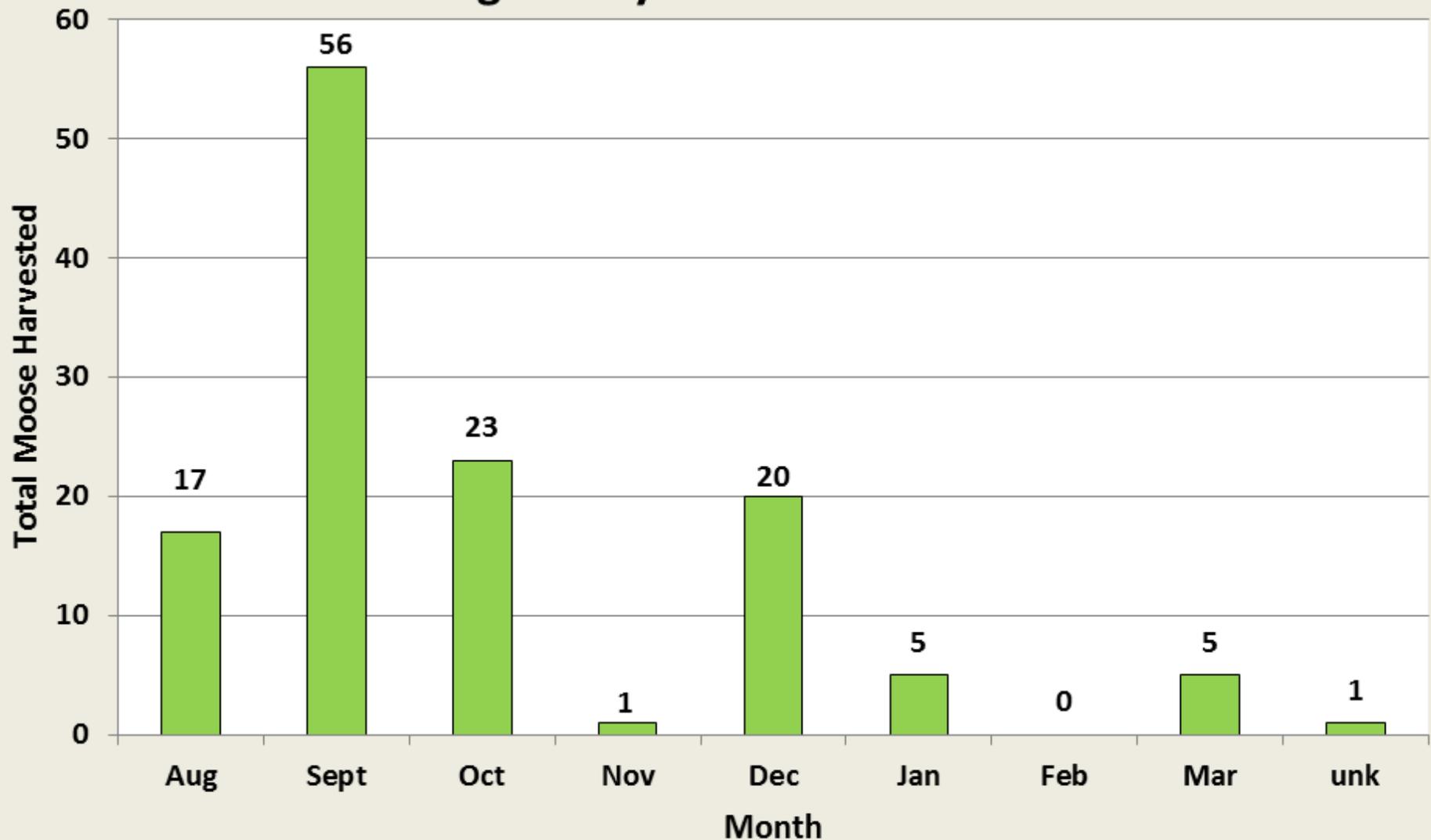


- 2011 spring GSPE survey: 669 moose and a 4% annual rate of increase from the 2006 survey of 587 moose.
- Percent yearlings ranges from 10 – 19%
- The next survey is scheduled for February 2014.



- RY2002 – RY2012:  
Average resident reported harvest = 12 bulls/year
- RY2009:  
Shishmaref community harvested 34 moose  
(Household survey data, Braem 2012)
- RY2010:  
Wales community harvested 5 moose  
(Household survey data, Braem, 2012 *in prep*)
- RY2008 – RY2013:  
Average nonresident harvest = 3 bulls/year (RM853)

## Unit 22E Resident Moose Harvest by Month Regulatory Years 2002-2012



- 75% (n=96) of total harvest occurs between August – October
- 16% (n=20) of total harvest occurs in December
- 4% (n=5) of total harvest occurs in January
- 4% (n=5) of total harvest occurs in March

## Unit 22E: March Antlered Bull Season

Mar. 1 – Mar. 31; antlered bull bag limit

- Will not impact breeding bulls and/or cows in the population
- Likely, few bulls will be harvested in March, but some young bulls retain antlers
- Small bulls will likely be harvested in March
- Favorable winter travel conditions
- Longer daylight in March

# Proposal 13: Moose

- QUESTIONS? -

# Proposal 14: Moose

This proposal would:

- Establish an antlered bull season in Unit 22A Unalakleet River drainage (aka 'Unit 22A Central') through a winter season "to be announced" by emergency order
- Winter season would be announced if an unmet fall quota exists.
- Season Dates: Dec. 1 – Dec. 31.

This is a Department proposal.

Department Recommendation: **Support**

Advisory Committee Recommendation:

- Southern Norton Sound AC .....**Support**
- Northern Norton Sound AC .....**Support**

# Unit 22A Central: Moose Regulations

## Current Regulations

Residents:

- Sept. 1 – Sept. 14
- One antlered bull moose
- By registration permit (RM841)

Nonresidents:

- No open season

## Proposed Regulations

Residents:

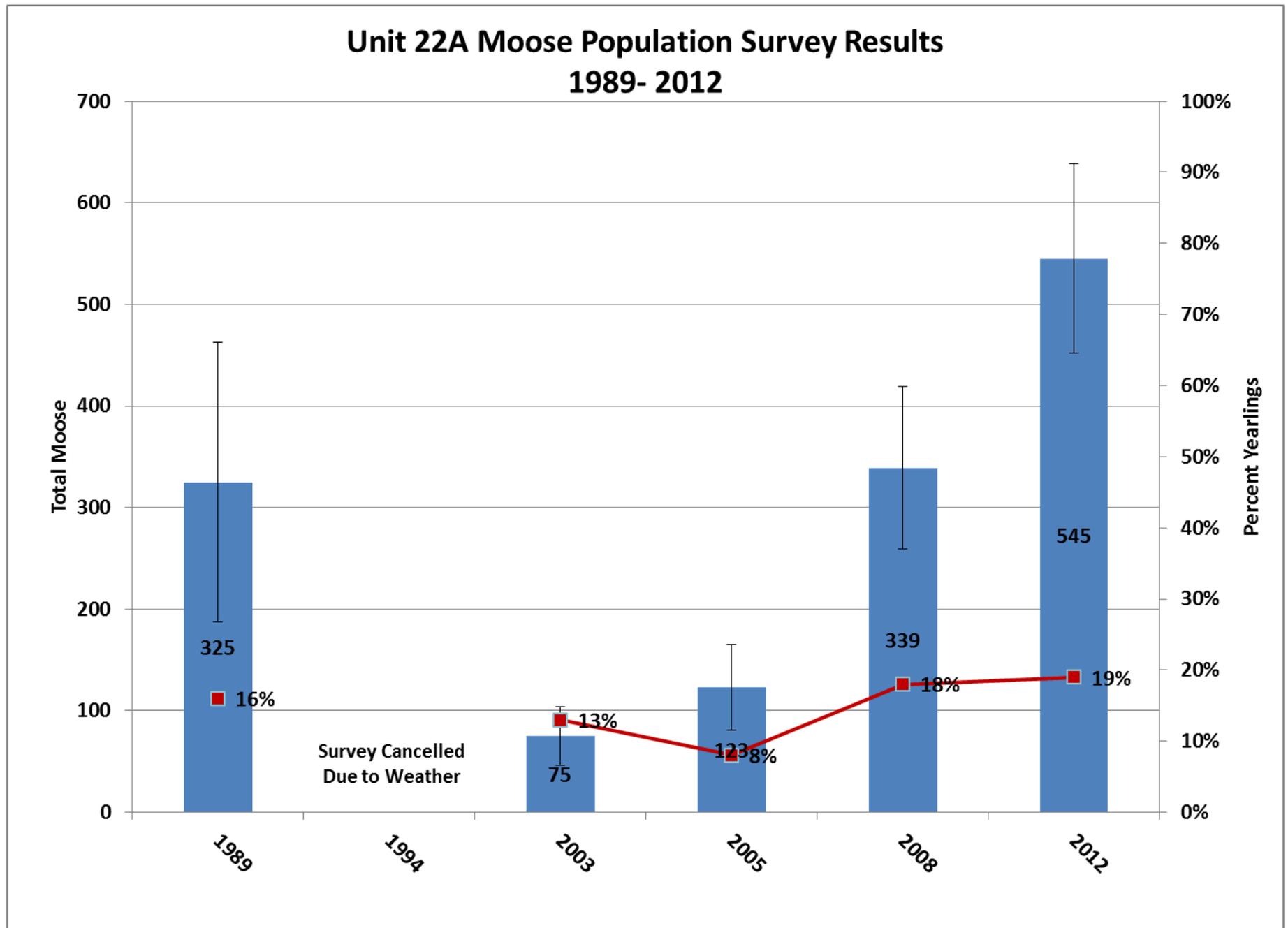
- **Dec. 1 – Dec. 31**
- **During the period Dec. 1 – Dec. 31 a season may be announced by emergency order**
- **One antlered bull**
- **By registration permit (RM844)**

## Unit 22A Central: Background

- The Unit 22A Central moose season was closed in 2004 after local residents expressed concerns over declining moose numbers.
- The Department worked closely with Unalakleet residents and the Southern Norton Sound Advisory Committee for 3 years to allow conservative hunting opportunity which began in 2008.



## Unit 22A Moose Population Survey Results 1989- 2012



- 13% annual rate of increase between 2008 and 2012 population survey.
- Calf recruitment has increased to almost 20%.
- The next survey is scheduled for spring 2015.

## Unit 22A Central: Registration Permit Hunt

- RM841 established in RY2008
- Fall season extended to Sept. 20 by emergency order to fulfill unmet fall quota:
  - RY2011
  - RY2012
  - RY2013
- Winter season announced by EO to fulfill unmet fall quota in RY2012 with RM844.
- The Department worked with the Southern Norton Sound Advisory Committee to create a TBA winter season to prevent future petitions to extend the fall season.

## Unit 22A Central: Proposed Winter Hunt

- Hunt type: “To be announced” by EO registration permit hunt
- Harvest : Unmet fall harvest quota
- Bag limit: Antlered bull
- Season: Dec. 1 – Dec. 31
- Reporting period: 24 hours

The proposed Unit 22A Central winter hunt will be consistent with ‘EO announced’ winter registration moose hunts in Units 22C and 22D.

## Additional Information

- Antler drop of mature bulls begins in December
- Most bulls of all age classes will be available for harvest during Dec. 1 – Dec. 31
- Antlered bag limit protects cows
- Winter dates of Dec. 1- Dec. 31 recommended by Southern Norton Sound Advisory Committee.
- Winter hunt will only “be announced” if the hunt will not over harvest the population.
- A winter season will help prevent requests to extend the fall season (when fall harvest is below quota).

**- QUESTIONS? -**

## Proposal 15: Unit 22 Antlerless Moose Hunts

This proposal reauthorizes antlerless moose hunts in Unit 22 (two areas: Unit 22C and Unit 22D Remainder)

This is a Department proposal.

Department Recommendation: **Support**

Advisory Committee Recommendation:

- Northern Norton Sound AC .....**Support**
- Southern Norton Sound AC .....**Support**

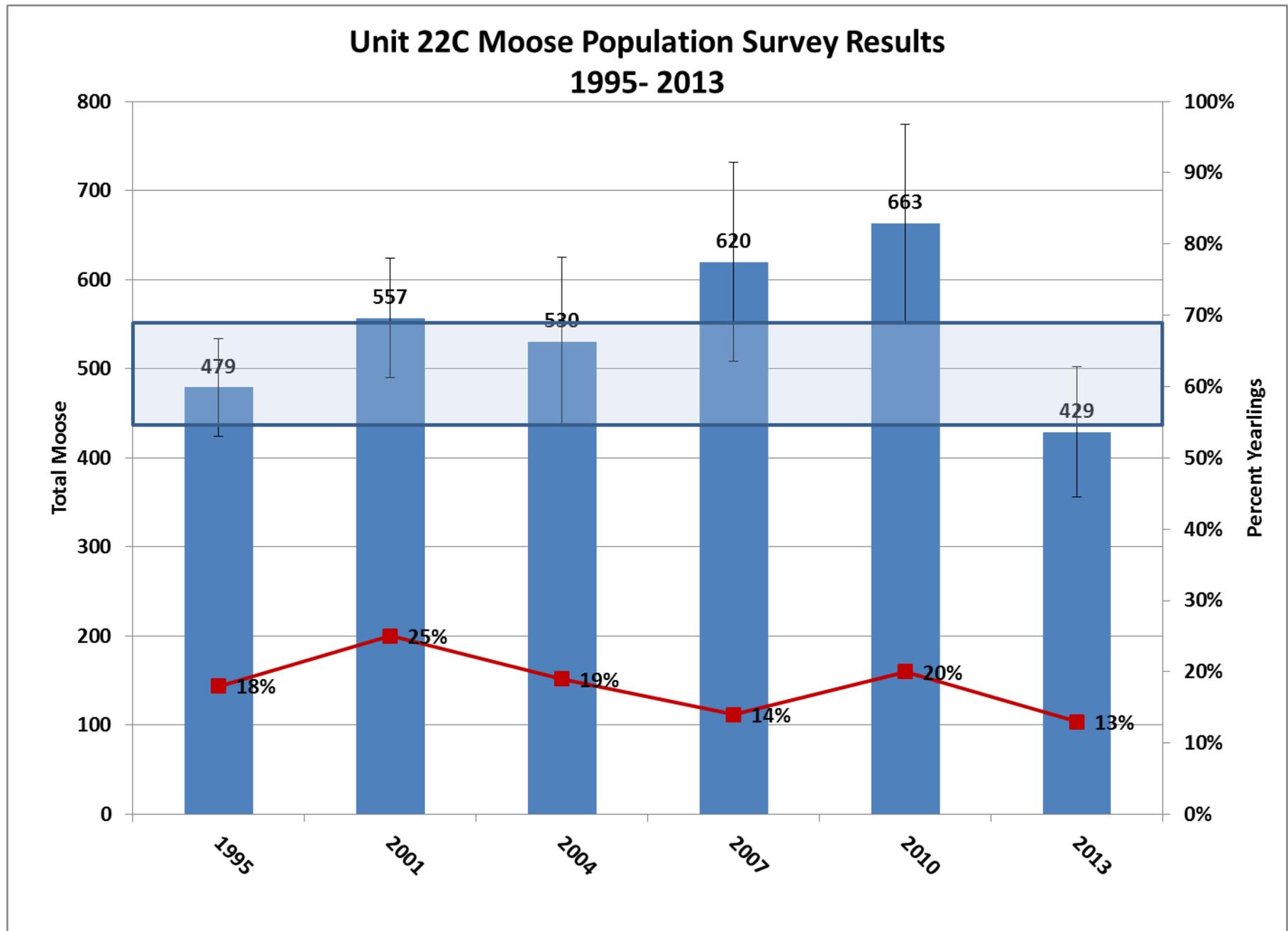
## Antlerless Moose Hunt Summary

### Unit 22C

- Antlerless moose hunting began in Unit 22C in RY2000 and continued through RY2012.
- In response to concerns over increased moose densities Unit 22C and questions related to available winter moose habitat.
- Population declined 14% annually between 2010 and 2013.

If reauthorized, the Department does not plan to administer Unit 22C antlerless moose hunts in the near future. Retaining the regulation provides options for future hunts if supported by population data.

# Unit 22C Moose Survey Results



- Unit 22C moose population (point estimate) is now below the population objective for Unit 22C

## Antlerless Moose Hunt Summary

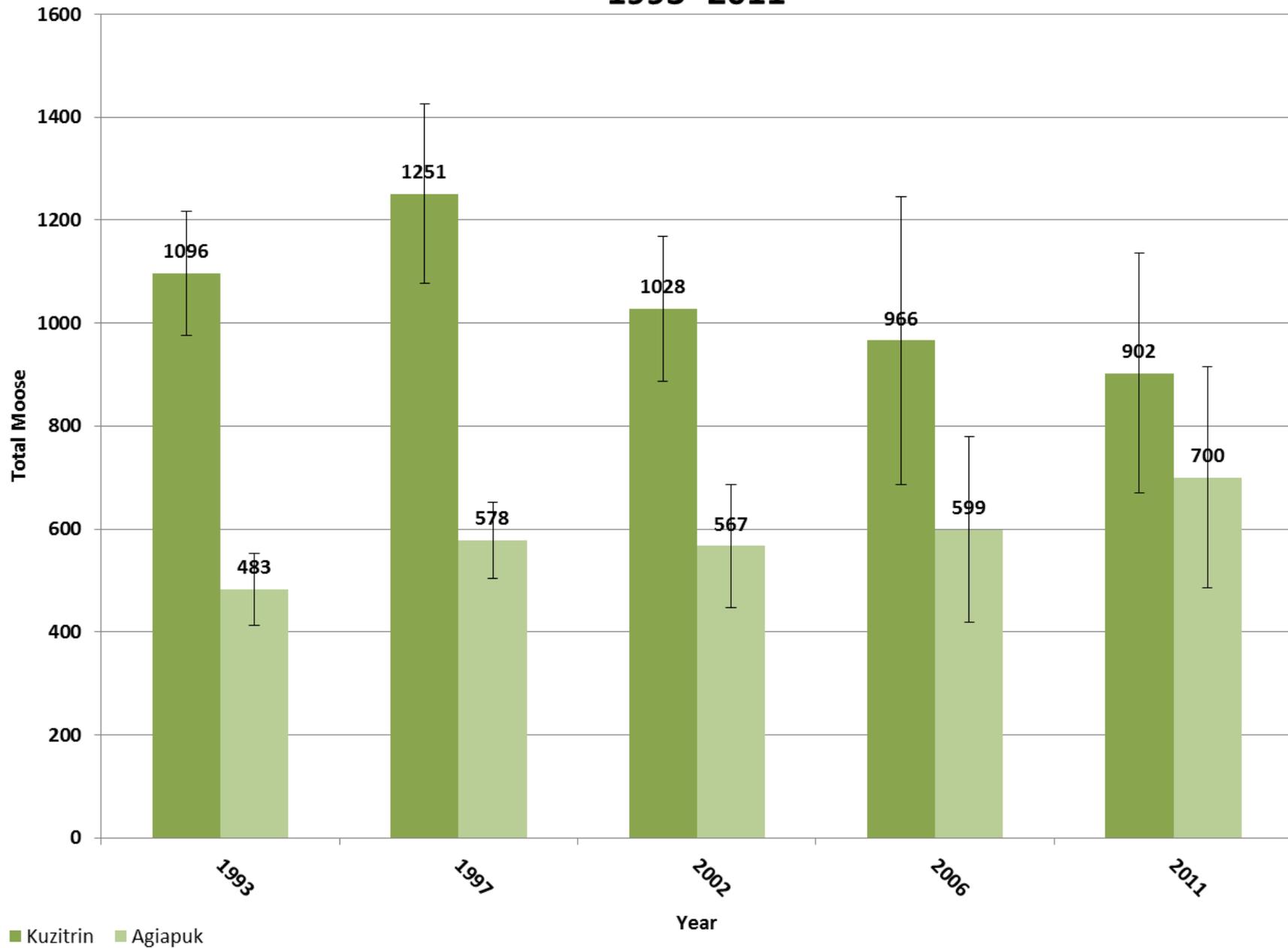
### Unit 22D Remainder

- Antlerless moose hunting began in Unit 22D Remainder in RY1997.
- Exists today as an artifact of a period where Unit 22 moose regulations were more liberal.
- Few people take advantage of the hunt, but it provides opportunity to some who choose to do so.
- Harvest data show that since RY1997, less than 1 antlerless moose is harvested annually.
- Population surveys found that calf:adult ratios range from 14 – 35 calves:100 adults. [avg. is 23 calves:100 adults since 1988, n= 5]

If reauthorized, the Department plans to continue antlerless moose hunts in Unit 22D Remainder

# Unit 22D Moose Survey Results

**Unit 22D Moose Census; Population Estimate Results by Drainage  
1993- 2011**



**Questions?**

## Proposal 16: Brown Bear

This proposal affects brown bear hunting Unit 22 :

- Change the bag limit in Unit 22C to one bear every regulatory year
- Lengthen the spring season in Unit 22C to April 1 – May 31

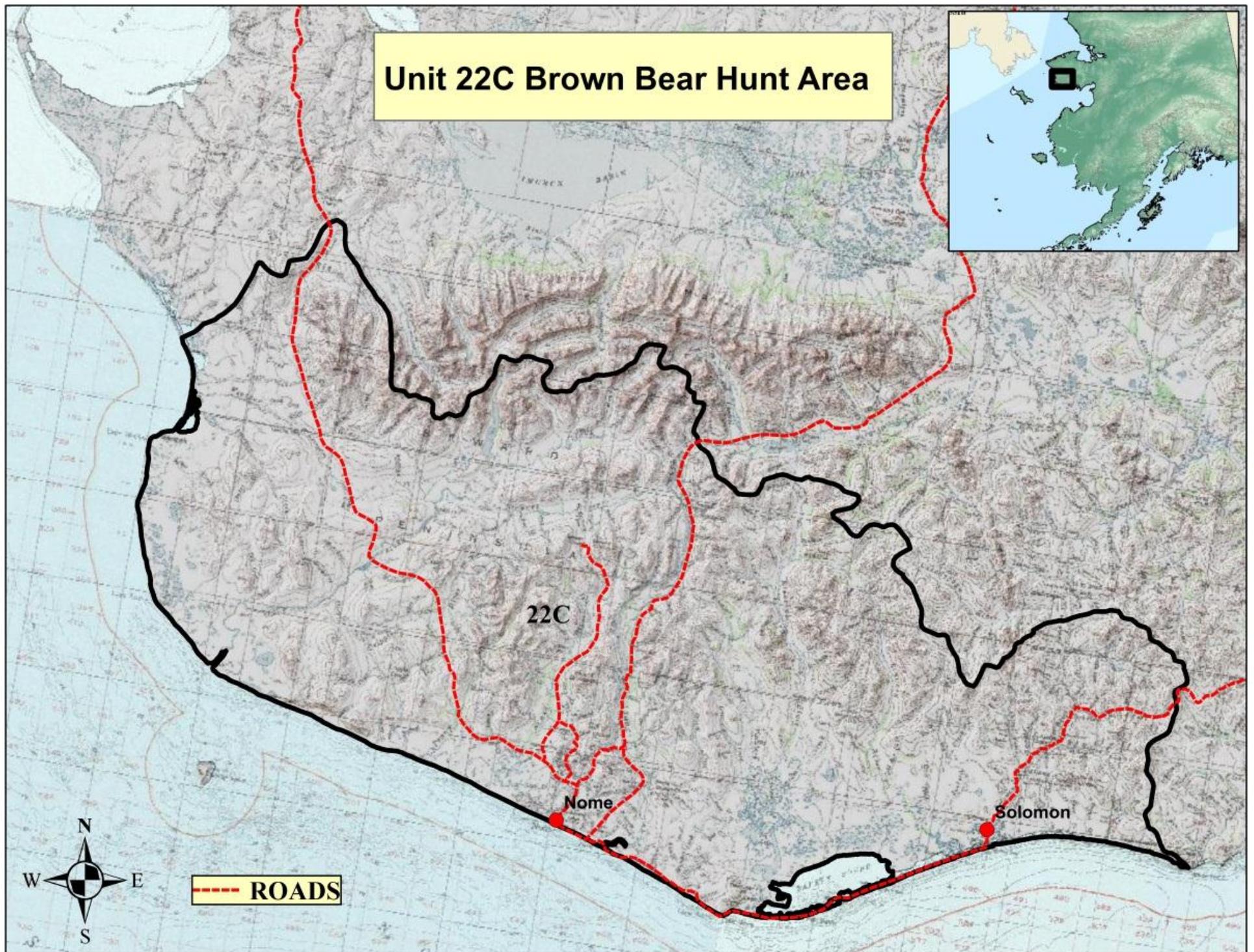
This is a public proposal.

Department Recommendation:

- Support the bag limit of one bear every RY
- Oppose the combination season and bag limit

Advisory Committee Recommendation:

- Northern Norton Sound AC ..... Support
- Southern Norton Sound AC ..... Amend by extending season in Unit 22B to June 15; AC also voted to Support the Unit 22C part of proposal



➤ Proximity to Nome

➤ Road accessible

# Brown Bear Regulations

## Unit 22C Current Season and Bag Limit

- Fall: Aug. 1 – Oct. 31
- Spring : May 1 – May 31
- Residents: 1 bear every 4 regulatory years
- Residents (subsistence): 1 bear every regulatory year by registration permit (RB699)
- Nonresidents: 1 bear every 4 regulatory years by drawing permit

## Unit 22C Regulation Background

### ➤ RY1986 – RY2001

- Fall Season: Sept. 1 – Oct. 31
- Spring season: May 10 – May 25

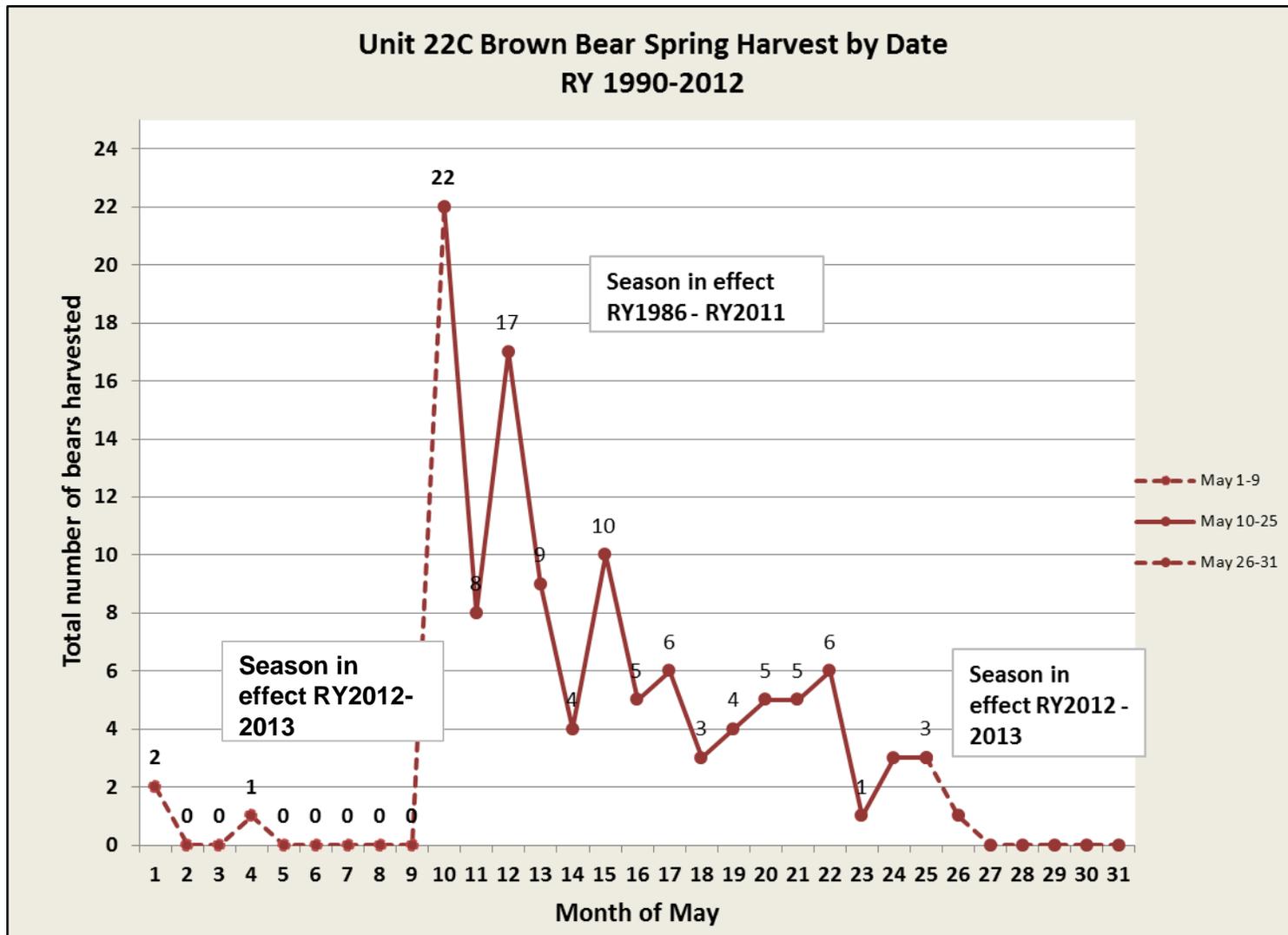
### ➤ RY2002 – RY2011

- Fall season: Aug. 1 – Oct. 31
- Spring Season: May 10 – May 25
- Fall season change increased average annual harvest 83%

### ➤ In November 2011, the Board lengthened spring hunting, effective in RY2012

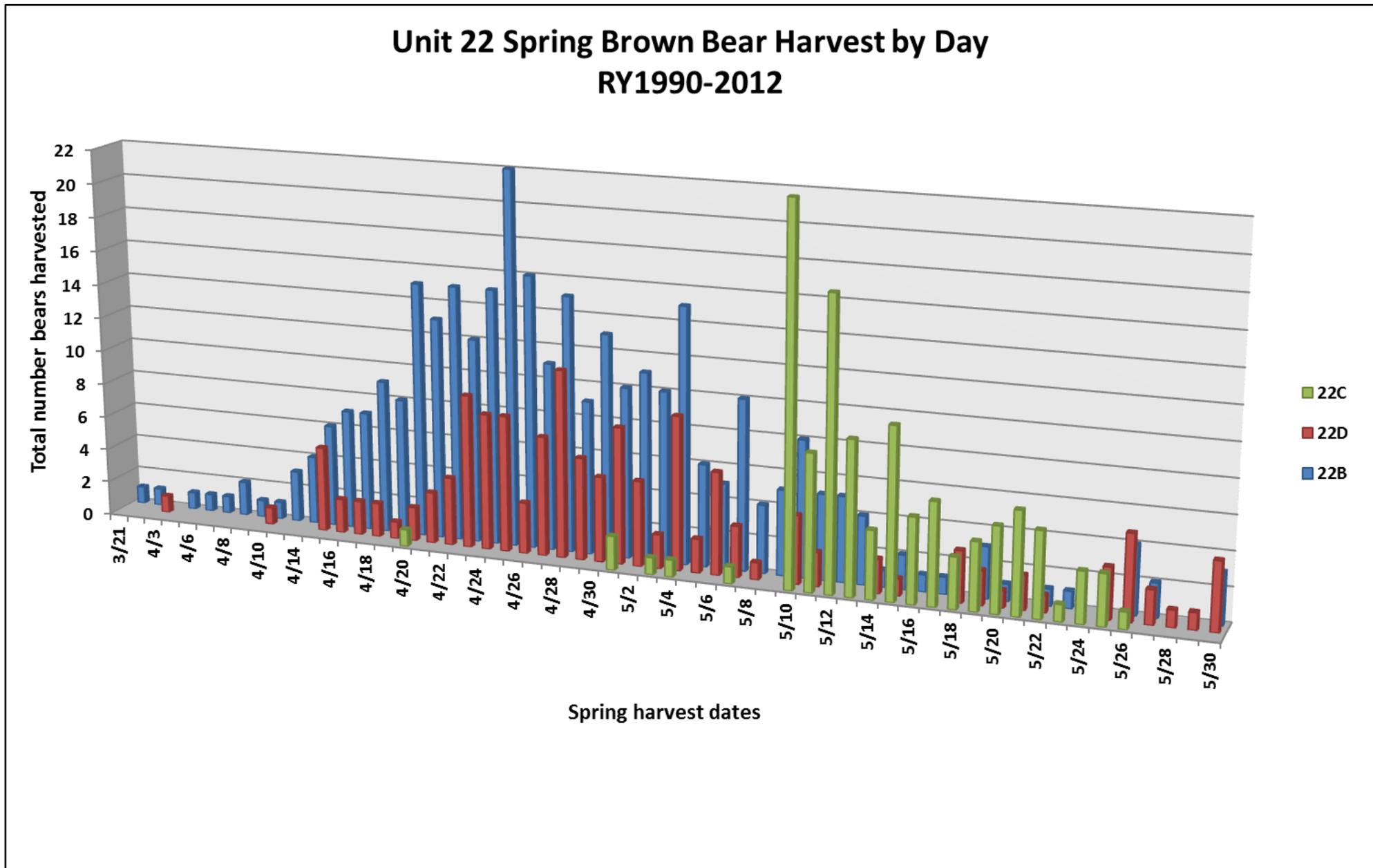
- Fall Season: Aug. 1 – Oct. 31
- Spring Season: May 1 – May 31
- Effect of spring season change unknown

# Unit 22C Chronology of Spring Harvest



- The BOG authorized a 15 day spring season extension during the 2011 BOG meeting.
- Early May season dates allow for better spring travelling conditions.
- The lengthened spring season has only been in effect for 1 year, but it is likely the additional opportunity will incrementally increase local bear harvest.

# Unit 22 Chronology of Spring Bear Harvest



- Nome hunters travel to Units 22B and 22D to hunt bears in April when the Unit 22C season is closed.
- This pattern focuses a portion of hunter effort in Units 22B and 22D. The Department would like to see this continue.

# Unit 22C Brown Bear Harvest

**1990 – 1997**

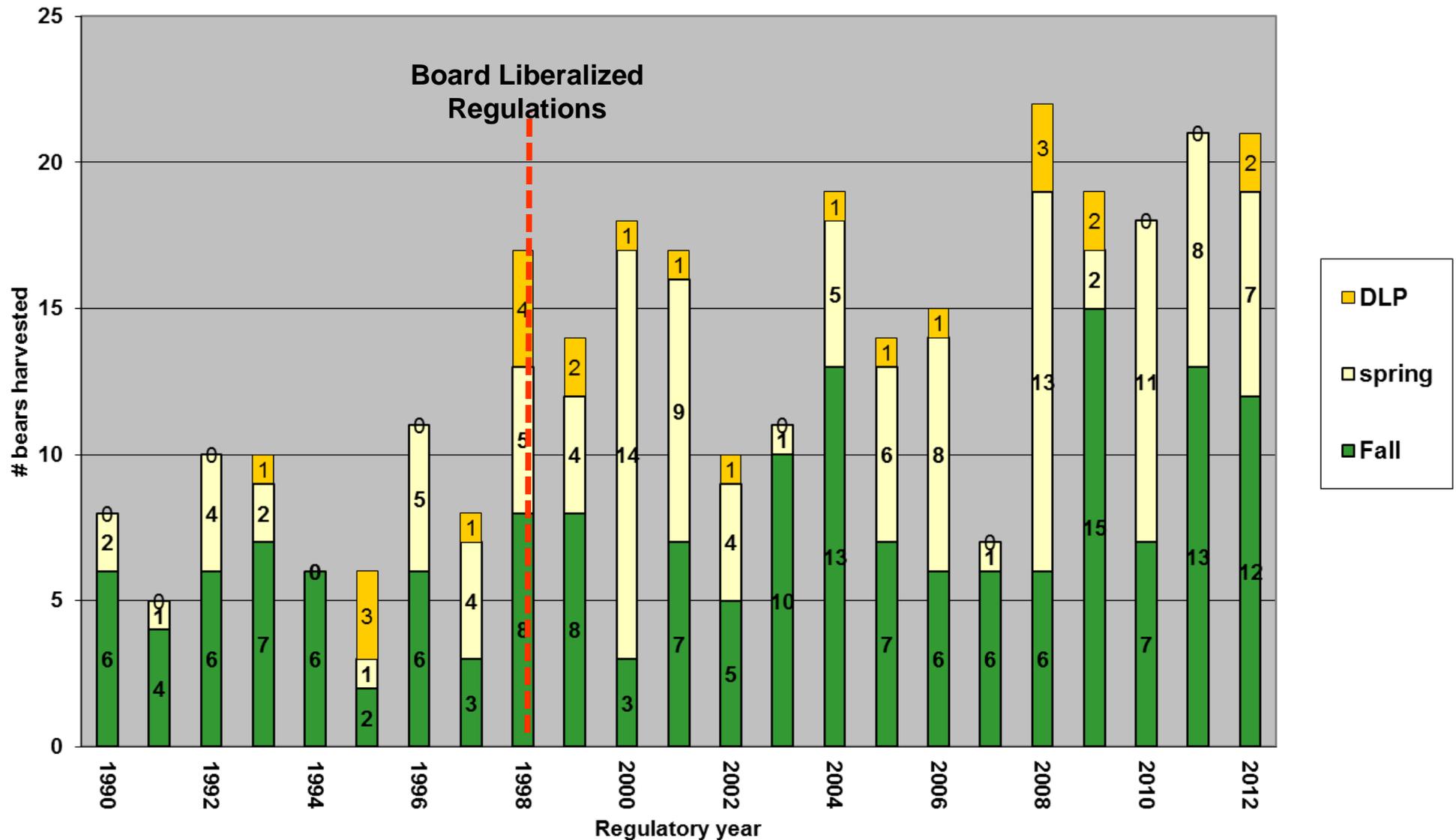
**Average annual harvest = 8 bears**

**1998 – 2012**

**Average annual harvest = 16 bears**

**Harvest increased 100%**

**22C Brown Bear Harvest 1990-2012**  
**RY July 1- June 30**



# Unit 22 Brown Bear Harvest Trend

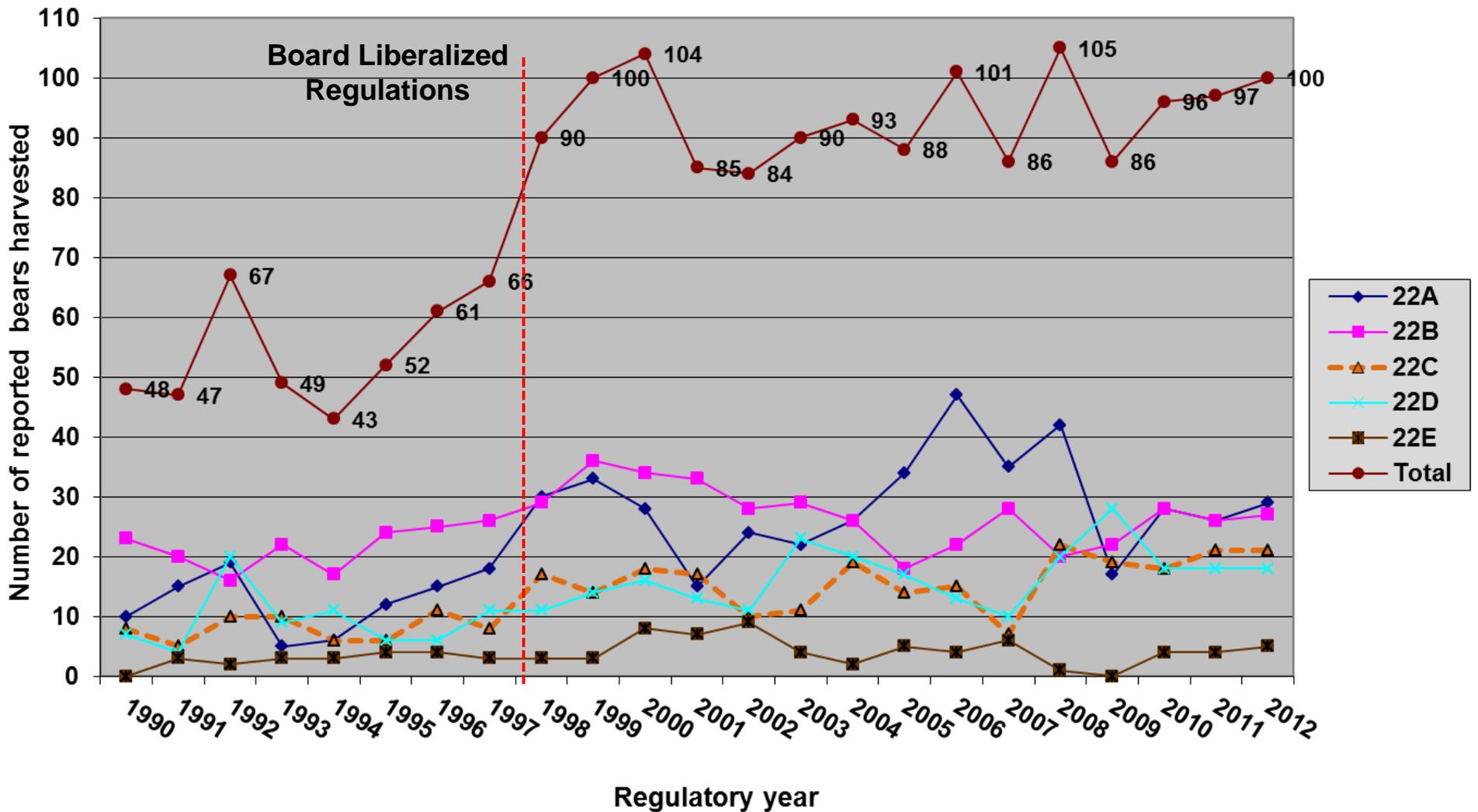
**1990 – 1997**

**Average annual harvest = 54 bears**

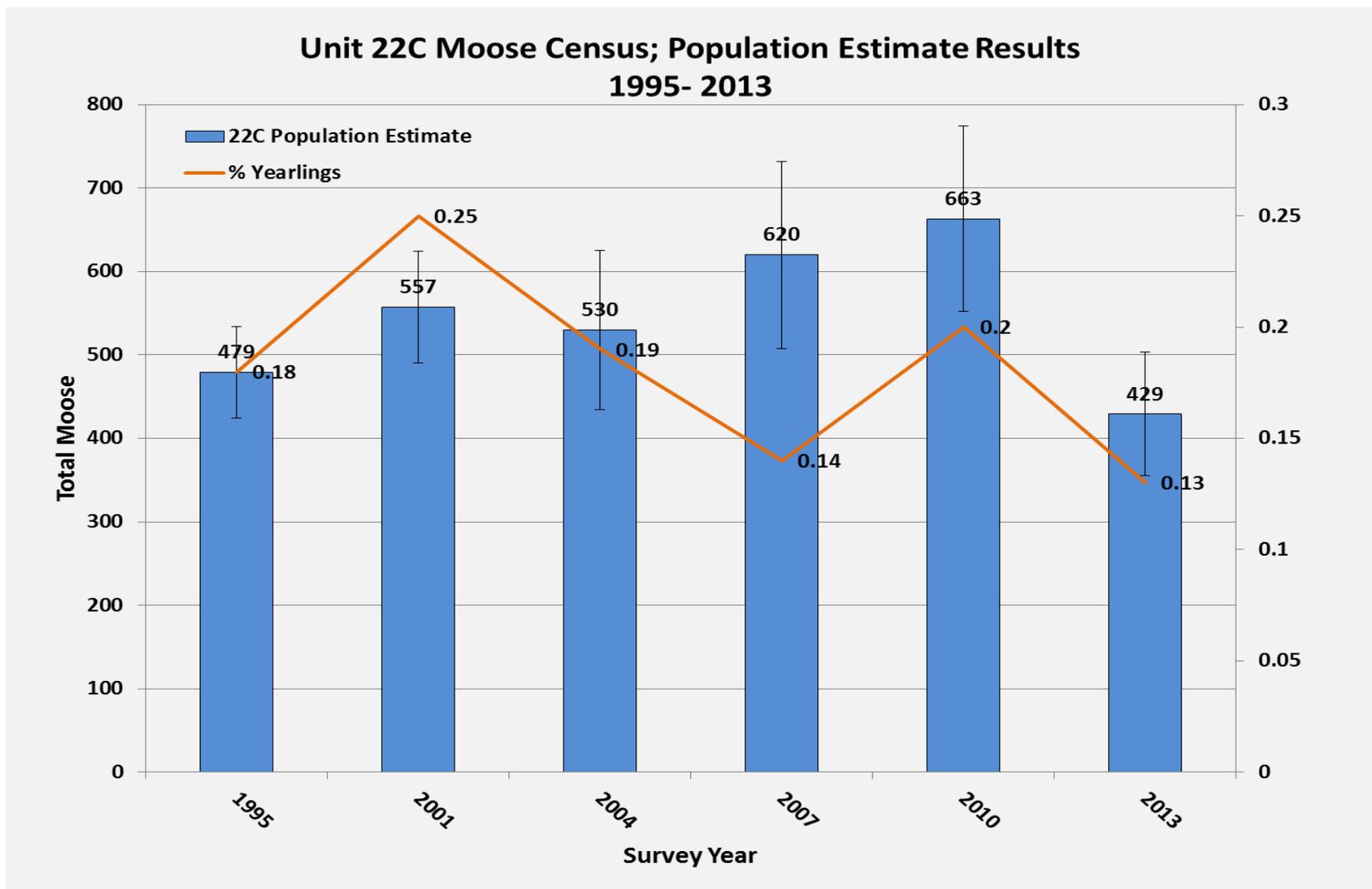
**1998 – 2012**

**Average annual harvest = 94 bears**  
**Harvest increased 74%**

**Unit 22 Reported Brown Bear Harvest  
 RY 1990 - RY2012**



# Unit 22C: Moose Population



- 2013 estimate of 429 ± 17% at 90% C.I. (range = 355 – 503 moose) moose is near the Unit 22C population objective 450 – 525.
- 13 years of an antlerless moose hunt management (RY2000 – RY2012) likely resulted in the 2013 population reduction.

## **Proposal 16: Summary**

- The Department supports the change to a general hunt bag limit of **1 bear every regulatory year.**
- The department anticipates increased harvest with more opportunity provided.
- Unit 22C bear harvest increased 100% after 1997.
- Historical Unit 22-wide harvest data has shown liberalizing regulations in RY1997 resulted in 74% increase in harvest, with an annual average harvest of 94 bears.
- The Department will be able to evaluate harvest trends resulting from the lengthened spring season (May 1- 31) combined with the proposed one bear per year bag limit change in Unit 22C.

## Proposal 16: Summary

- Next Unit 22C moose population survey is scheduled for 2016
  
- If future survey results show a local moose population decline (without antlerless hunts), the Department may recommend additional steps to provide additional brown bear hunting opportunity.
  
- This strategy allows the Department:
  - 5 years to evaluate harvest from the lengthened spring season (May 1- 31) and,
  
  - 2 years to evaluate the effect of the proposed one bear per year bag limit change.

# Proposal 16: Brown Bear

- QUESTIONS? -

# Proposal 17: Brown Bear

This proposal would:

- lengthen the Unit 22A South brown bear hunting season to June 15.

This is a public proposal.

Department Recommendation: **Oppose**

Advisory Committee Recommendation:

- Southern Norton Sound AC ..... **Support**
- Northern Norton Sound AC ..... **Support**

# Unit 22A: Brown Bear

## Unit 22A Brown Bear Regulatory Background

- Liberalization of regulations started in RY2006
- Lengthened seasons in Unit 22A Remainder, and increased bag limits
- Residents: 2 bears every regulatory year
- Nonresidents: 1 bear every regulatory year
- No nonresident permits system exists

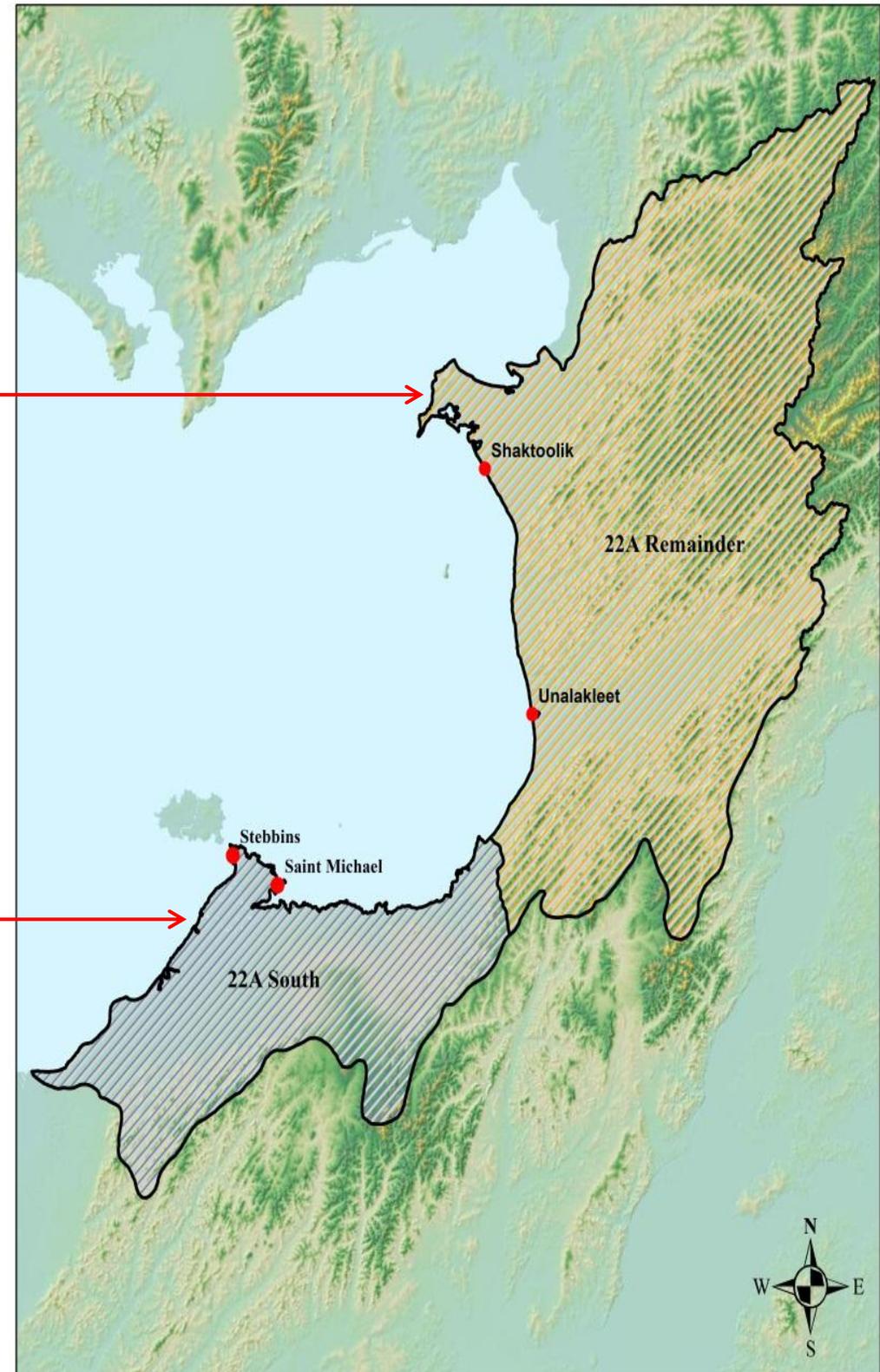
# Unit 22A: Brown Bear Season & Bag Limit

## Unit 22A Remainder

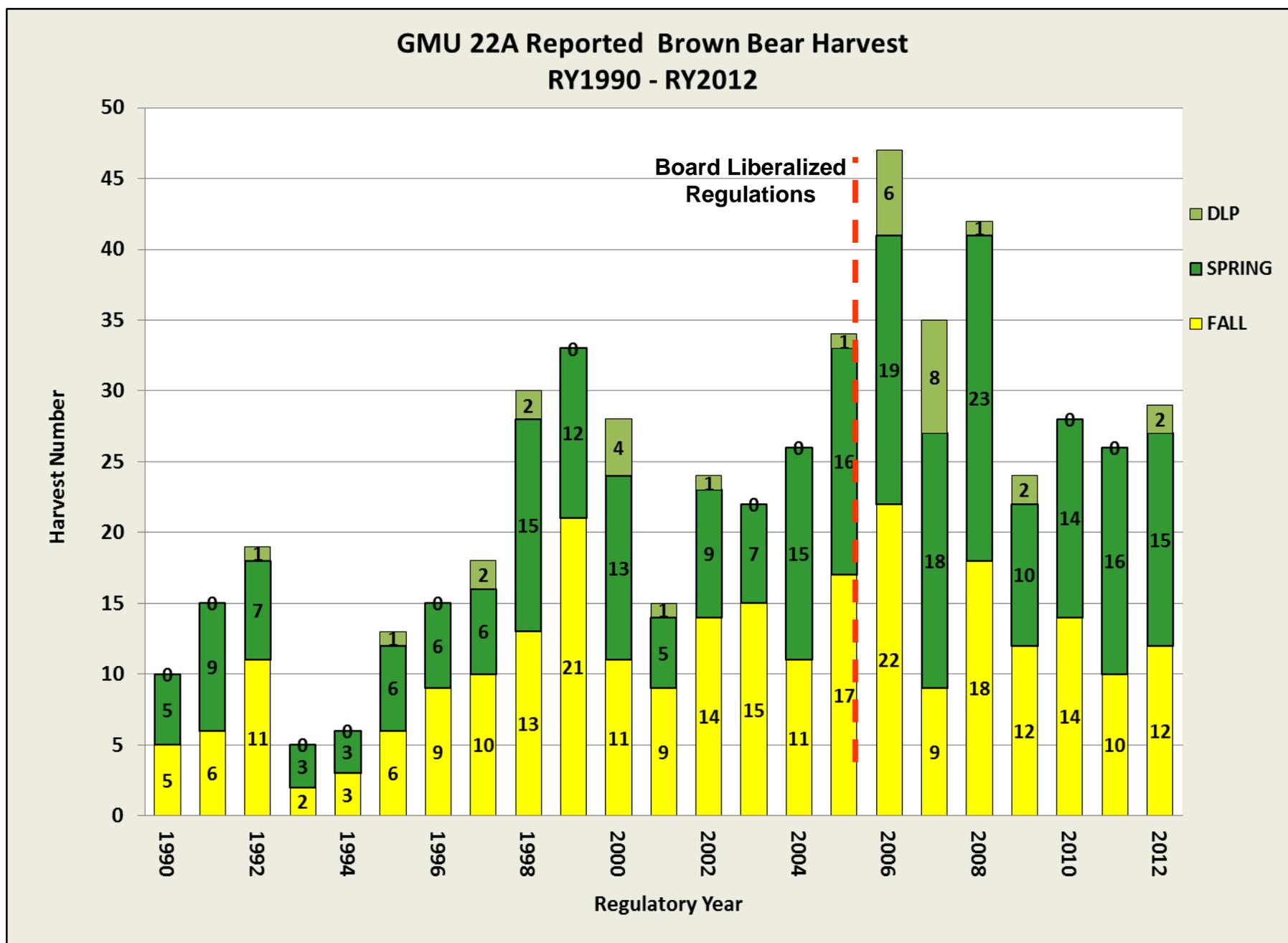
- Aug 1 – June 15
- Resident: 2 bears every regulatory year
- Resident (subsistence): 2 bears every regulatory year
- Nonresident: 1 bear every regulatory years

## Unit 22A South

- Aug 1 – May 31
- Resident: 2 bears every regulatory year
- Resident (subsistence): 2 bears every regulatory year
- Nonresident: 1 brown bear/ regulatory years

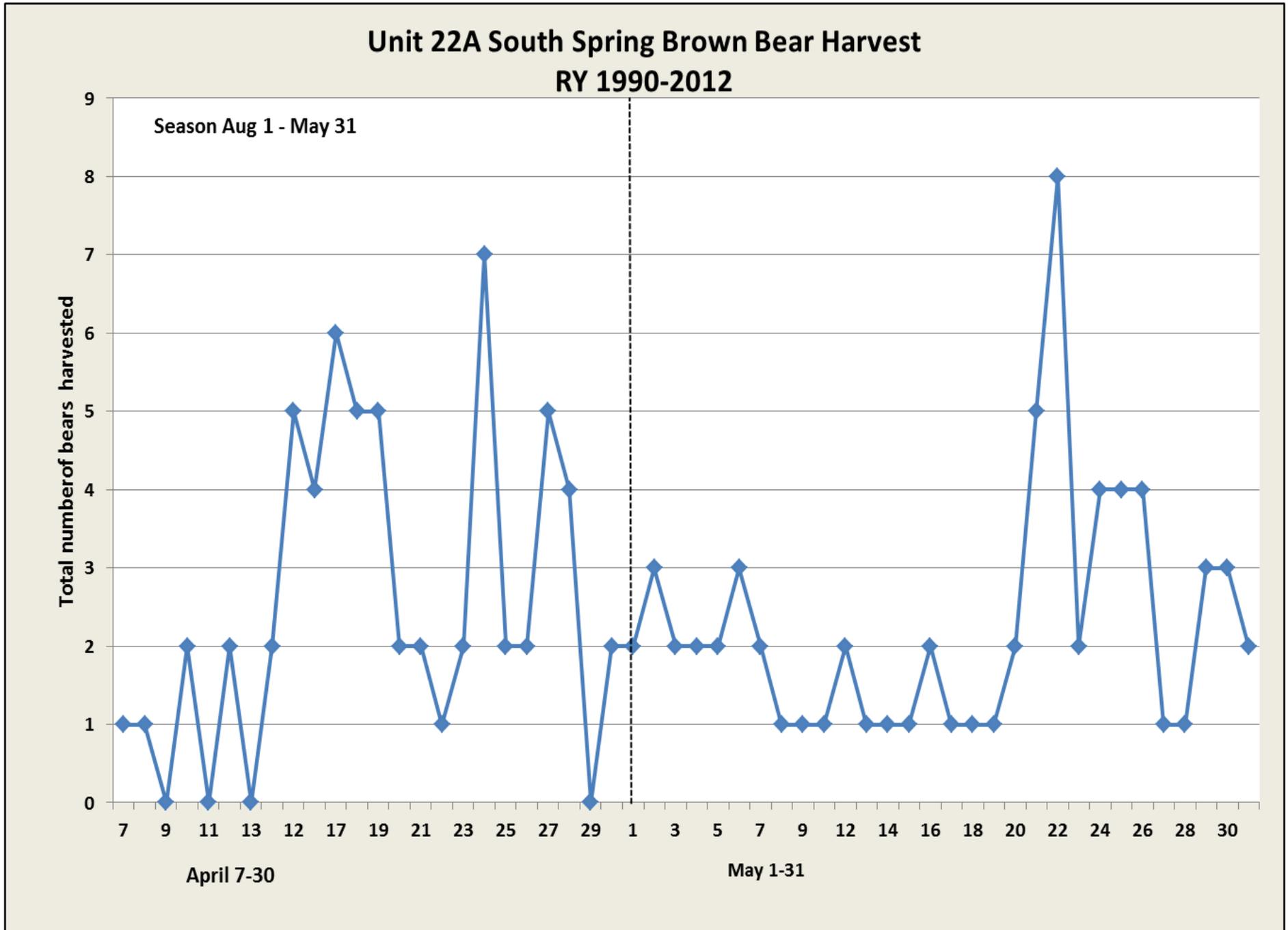


# Unit 22A Reported Harvest and Seasonal Timing



- RY1990 – RY2005  
Average annual harvest = 26 bears per year
- RY2006 – RY2012  
Average annual harvest = 33 bears per year  
Harvest increase of 26%

# 22A South: Chronology of Spring Harvest



## Unit 22A South: Prey Populations (Moose)

### 22A South moose population:

- The Department does not have a population estimate for this area. Unit 22A South has supported liberal hunting seasons.
- Resident: 90 day season (has existed for 31 years)
- Nonresident: 30 day season (has existed for 8 years)
- General harvest ticket for residents and nonresidents.
- Brown bears do not appear to be adversely impacting the Unit 22A South moose population

## Unit 22A South: Summary Information

- Brown bears congregate along the coast to feed on spawn-on kelp and spawning herring in early June.
- Bears are more visible and vulnerable to harvest when feeding on herring.
- Potential overharvest of brown bear with season extended to June 15.
- Bears do not appear to be adversely impacting moose in Unit 22A South.
- Unit 22A South supports 90-day resident moose and 30-day nonresident moose season.
- The Department opposes extending the brown bear season in Unit 22A South.

**-QUESTIONS?-**

## Proposal 18: Wolf

This proposal changes wolf hunting in Unit 22:

- Lengthen the season to Aug. 1 – May 31

This is a public proposal.

Department Recommendation: **Oppose**

Advisory Committee Recommendation:

- Southern Norton Sound AC ..... **Support**
- Northern Norton Sound AC ..... **Oppose**

# Wolf Season and Bag Limit

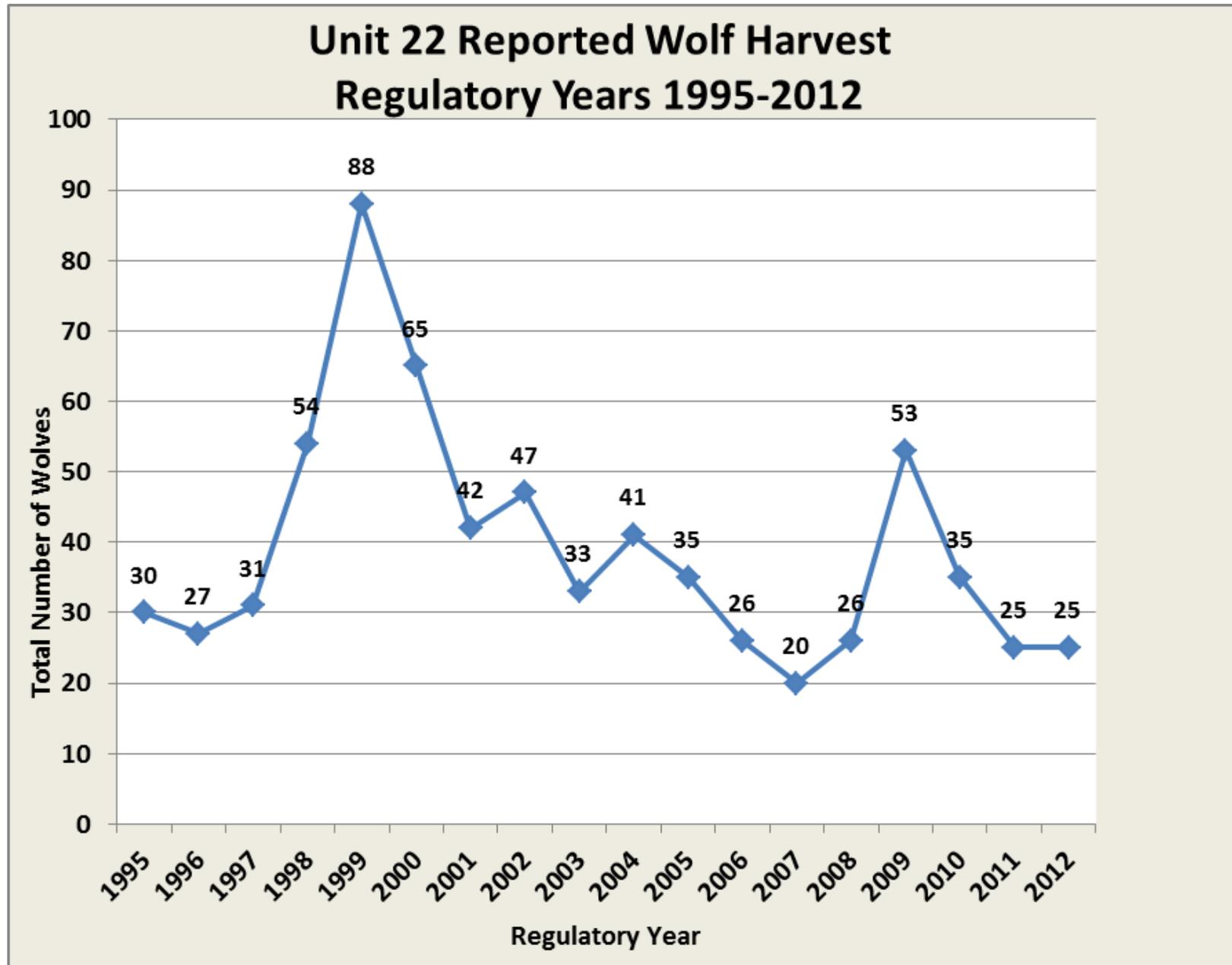
## Unit 22 Current Hunting

- Season Dates: Aug. 1 – Apr. 30
- Resident bag limit: 20 wolves
- Nonresident bag limit: 20 wolves

## Proposed Hunting Season

- Aug. 1 – **May 31**
- No change to bag limit

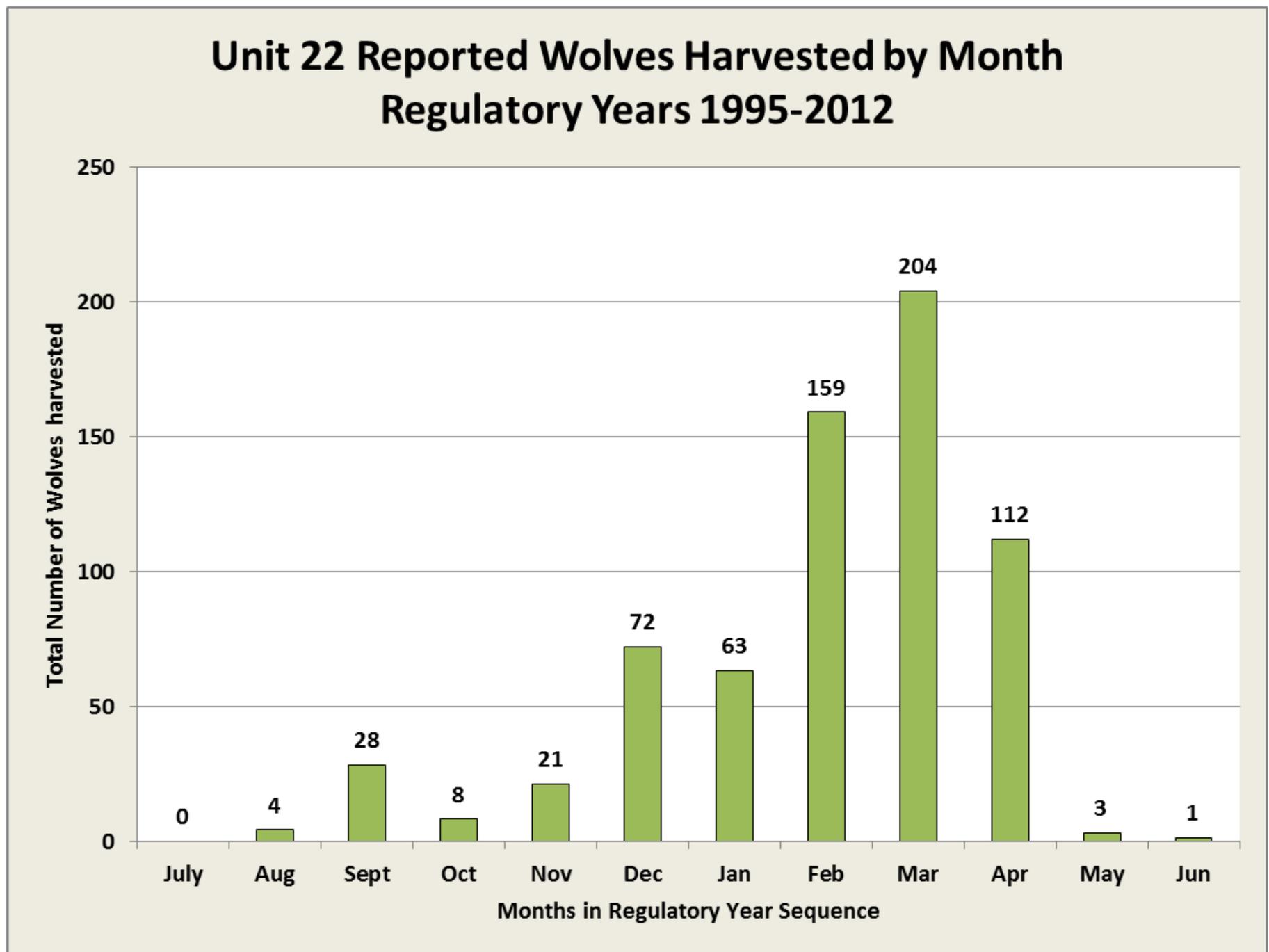
## Unit 22: Wolf Harvest



### RY1995 – RY2012 Sealing records:

- Average annual harvest = 39 wolves
- Harvest numbers range from 20 – 88 wolves
- RY1999 and RY2000 had high harvests (88 and 65 wolves, respectively)

## Unit 22: Wolf Harvest



- 68% (n=475) of the total wolf harvest was between February and April.
- March had highest wolf harvest (n=204).

## Unit 22: Wolf Population Information

- Unit 22 does not have a wolf population estimate.
- February 2006 track survey completed along main stem of Unalakleet River in Unit 22A found 9 wolves.
- Statewide Trapper surveys indicate that wolves are common and numbers are increasing in Unit 22.

## Impact of Lengthened Season

- Maternal females are dependent on pack members for food in May
- Wolves spend substantial time near den sites in May
- Pelt conditions begin to deteriorate in May
- The Department opposes lengthening the season to May 31

# Proposal 18: Wolf

**- QUESTIONS? -**

# Proposal 19: Wolverine

This proposal would:

- change wolverine hunting in Unit 22 by extending the open season to Sept. 1 – April 30.

This is a public proposal.

Department Recommendation: **Oppose**

Advisory Committee Recommendation:

- Southern Norton Sound AC .... **Oppose**
- Northern Norton Sound AC .... **Oppose**

# Proposed Changes

## Current Hunting Season

Hunt Area: Unit 22

Open Season: Sept.1 - Mar 31

Bag Limit: 1 wolverine

## Proposed Hunting Season

Hunt Area: Unit 22

Open Season: Sept. 1 – **Apr. 30**

Bag Limit: 1 wolverine

## Current Trapping Season

Area: Unit 22

Open Season: Nov. 1 – Apr. 15

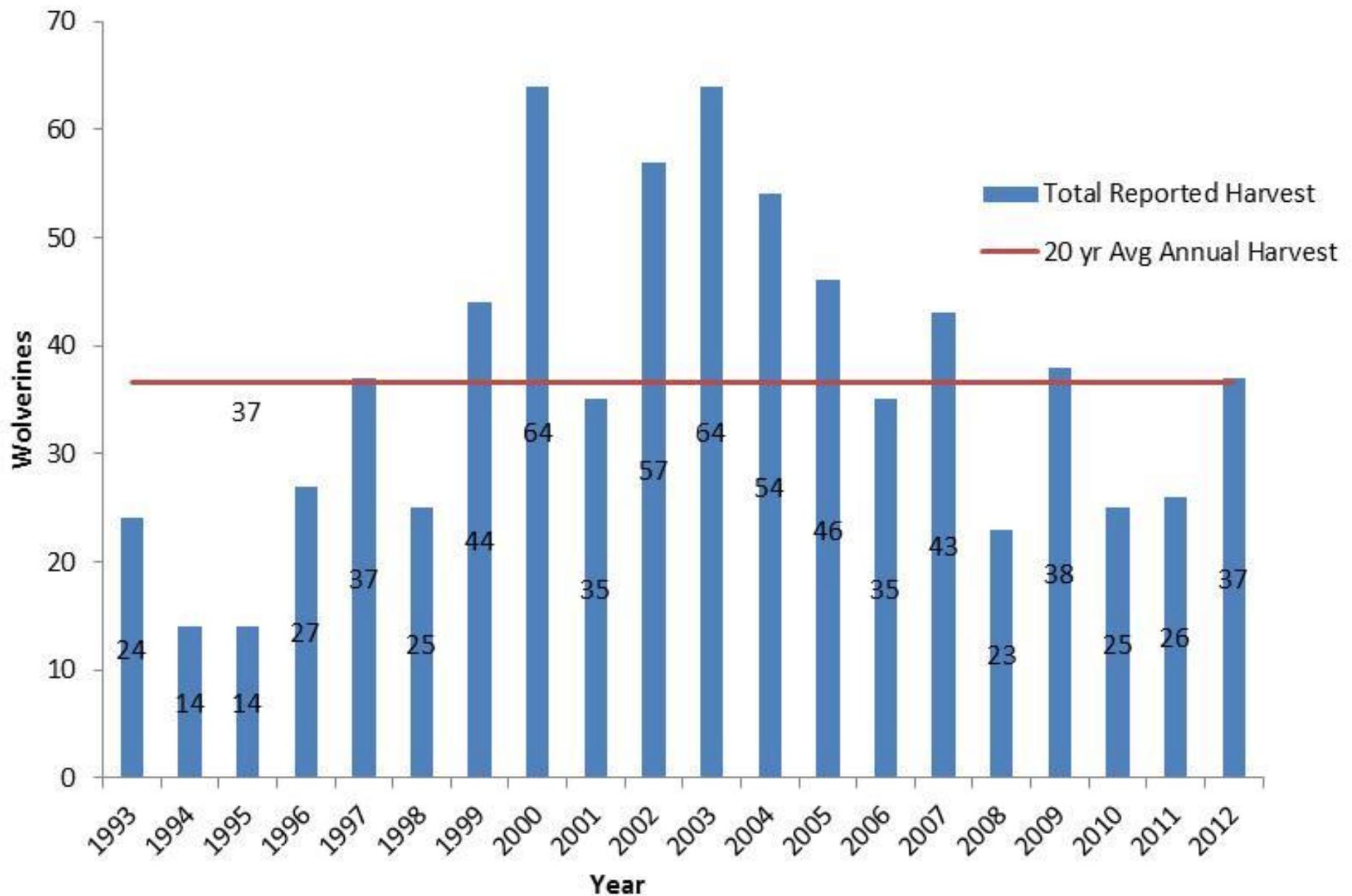
Bag Limit: No limit

- The proposal does not achieve its intended purpose of aligning the Unit 22 hunting and trapping seasons.
- Season dates in April overlap with the denning period for female wolverines

# Harvest Summary RY1993 – RY2012

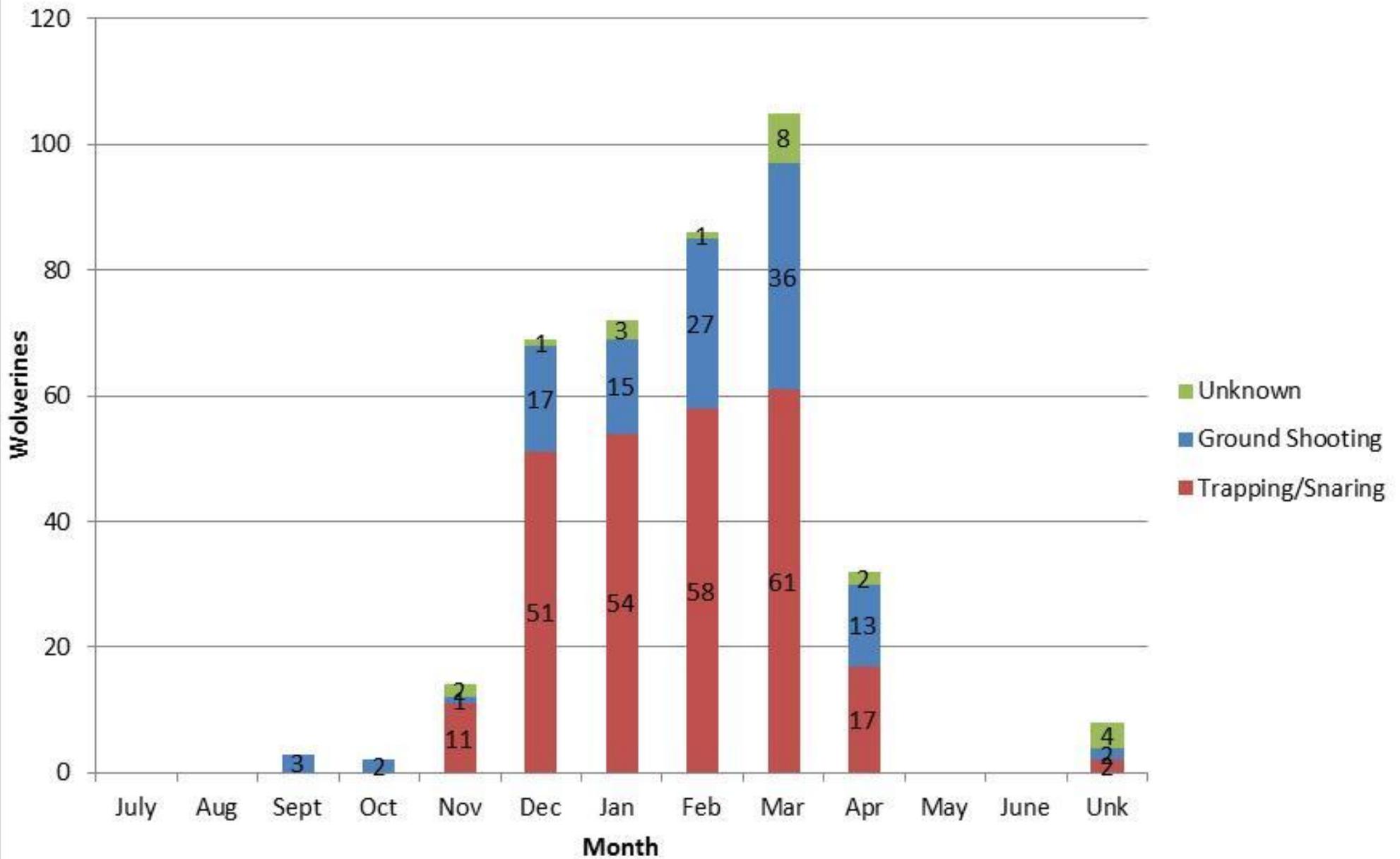
- **20-yr Avg Annual Harvest = 37 Wolverines**

Unit 22 Yearly Wolverine Harvest 1993-2012



# Harvest Summary RY2003 – RY2012

## Cumulative Unit 22 Harvest Chronology 2003-2012



# Reproduction and Recruitment

- Females
  - Reproductive Age: 1.5 yrs
  - 2-3 kits per litter
  - Often only produce young in alternate years
- Denning Period
  - Begins February and early March
  - Extends into May
- Foraging Behavior
  - Females range widely to support kits
  - Vulnerable to late winter harvest
- Low productivity
  - Harvesting reproductive females negatively effects recruitment

# Population and Future Harvest

- The department does not have a Unit 22 wolverine population estimate.
- Increased harvest is expected during a season in April
  - Effect on population is unknown
  - Research suggests hunter harvest increases the mortality rate (additive mortality)

# Population and Future Harvest

- Additional opportunistic harvest
  - Increasing opportunity
    - Increased use of snowmachines for recreation
    - Hunters pursuing other big game species (Brown Bear, Caribou)
  - Vulnerability to harvest
    - Females travel extensively for food to meet the demands of lactation
    - Territorial males travel extensively throughout their territories
    - Juvenile males disperse

# Considerations and Conclusions

- Reproductive females are vulnerable to harvest during the denning period
- A portion of the increased harvest will include reproductive females.
- Harvest of reproductive females may negatively affect future recruitment and productivity.
- Department Recommendation: **Oppose**

– End –

**Questions?**