

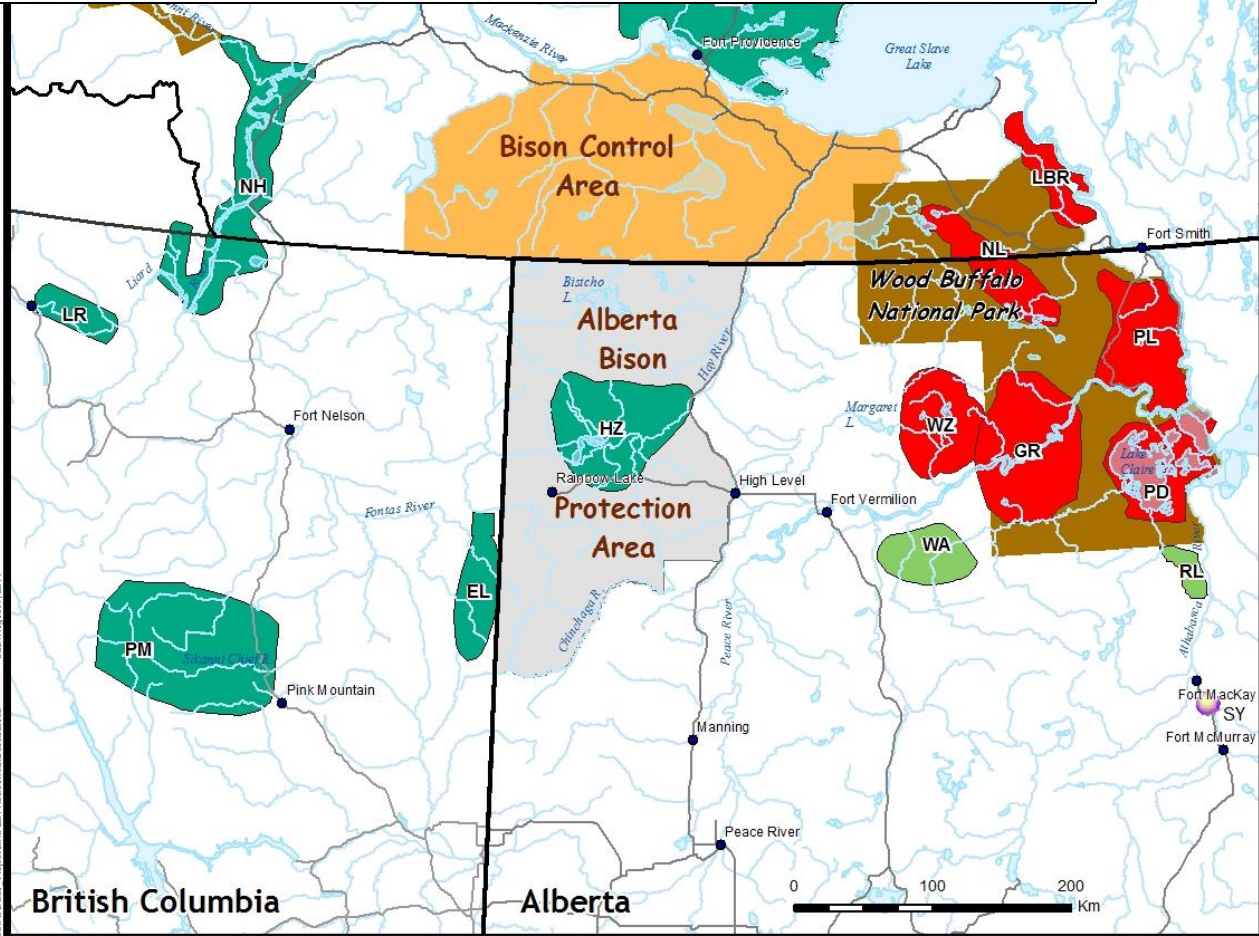
**Bison in NW Alberta
Mackenzie County Council Meeting
Fort Vermilion**

August 22, 2016

Presenter: Nataalka Melnycky, Wildlife Biologist
Environment and Parks, Peace Region

Peace Region Bison

- Hay-Zama
- Wentzel Lake
- Wabasca
- Etthithun Lake (WMU 524)



Bison in Northwest Canada

- ### Diseased Herds
- GR Garden River
 - LBR Little Buffalo River
 - NL Needle Lake
 - PD Peace Athabasca Delta
 - PL Central WBNP
 - WZ Wentzel Lake

- ### Disease-Free Herds
- EL Etthithun Lake
 - Liard Reintroduction
 - HZ Hay - Zama
 - MB Mackenzie Bison
 - NH Nahanni
 - PM Pink Mountain**

- ### Presumed Healthy Herds
- RL Ronald Lake
 - WA Wabasca

** Plains Bison

Current Bison Protect. Area

Base Data provided by Spatial Data Warehouse LTD.
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Peace Region Bison



Managing Disease Risk in Northern Alberta Wood Bison- Outside of Wood Buffalo National Park

Three broad components:

Hay Zama management

- Winter surveys
- Management of Hay Zama hunt
- Disease sampling (CFIA)

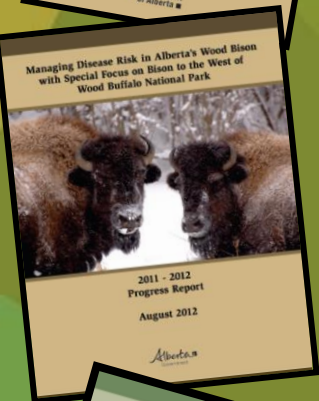
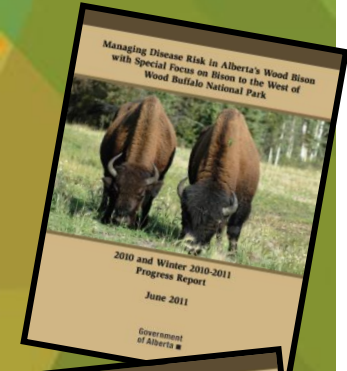
Disease Surveillance and risk reduction east of Hwy 35

- Hwy 35 and Agriculture zone surveillance

Monitoring populations of wild bison east of Hwy 35

- Surveys of Areas 1, 2 and 3 (Wentzel and Wabasca herds)
- Disease sampling

Etthithun overlap into Wildlife management Units 524/536



Hay-Zama History



- 1983 – 29 disease free bison from Elk Island NP moved into paddock.
CWS initiative to reintroduce into 4 jurisdictions in NW Canada
Cooperative program between AFWD, CWS and Dene Tha**
- 1985 – Planned release cancelled due to concerns of these bison contracting diseases from WBNP bison**
- 1989 – Required supplemental feeding, and several adult bulls culled to allow females and calves access to feed.

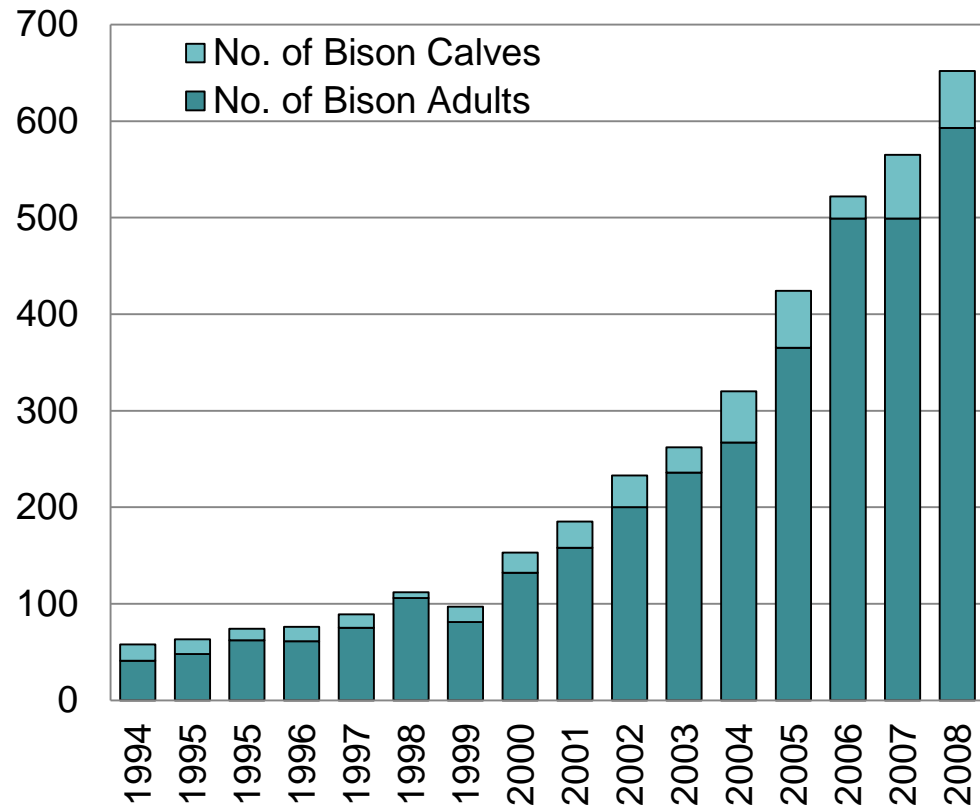
Conditions in paddock were poor, too wet, mortality of calves high.**
- 1994 – Approx. 42 Bison escape from paddock. Fence was not meant for long-term, and untreated posts fell down.**

Hay-Zama

Expansion after release

- Hay-Zama population quickly expanded in number and range, with a peak minimum count of 652 in 2008

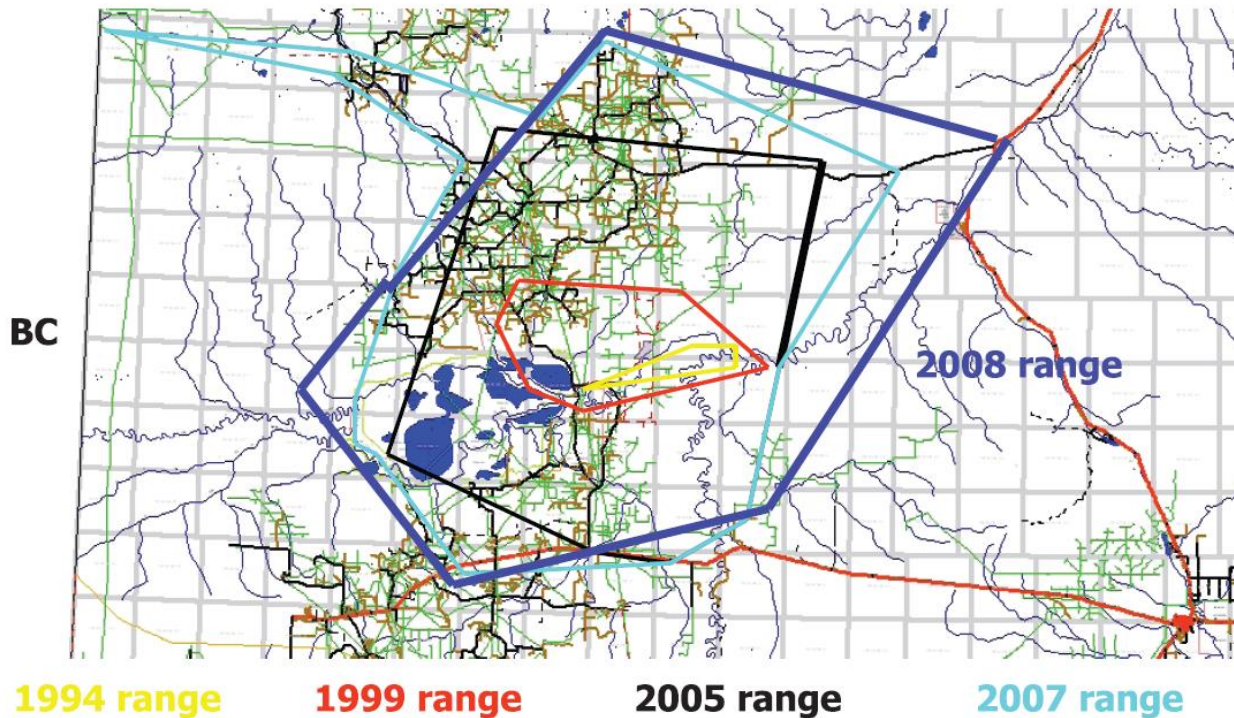
Hay-Zama area Bison surveys, 1994-2008



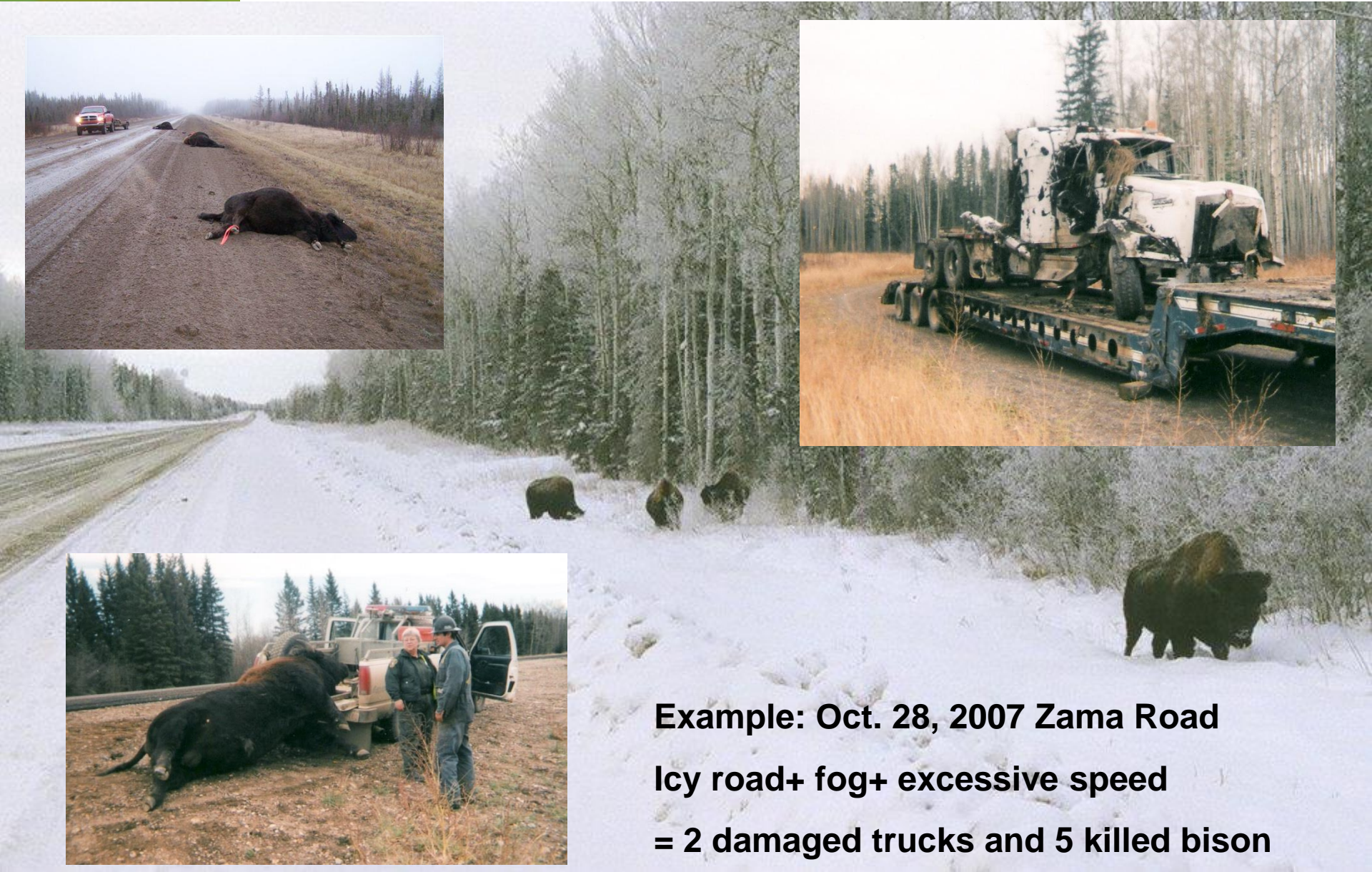
Hay-Zama Range Expansion

- This lead to 3 major concerns:
 - 1) Increased distribution of bison; concern of disease transfer from Wood Buffalo National Park

Hay-Zama wood bison range expansion,
1994 - 2008



2) **Bison on roads causing bison-vehicle collisions on area infrastructure roads (Zama highway, Highway 58)**



**Example: Oct. 28, 2007 Zama Road
Icy road+ fog+ excessive speed
= 2 damaged trucks and 5 killed bison**

Hay-Zama

Expansion after release

- 3) Increased bison conflicts with humans in communities of Zama City and Assumption (P.O. Chateh)



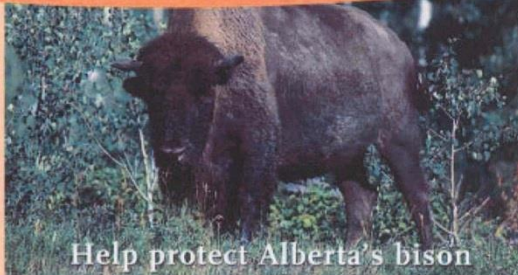
Hay-Zama Education, signage



You are in

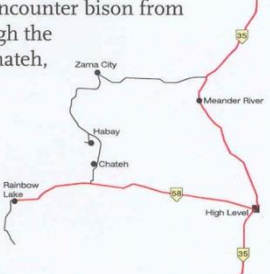
Bison Country

Help protect Alberta's bison



Please **slow down** when you drive through the bison area. The life you save may be your own.


You are most likely to encounter bison from Hwy 35 to Zama, through the oil patch network, to Chateh, and along Hwy. 58 to Rainbow Lake



Bison are drawn to highways for the vegetation and for ease of travel.

Do not approach these animals at any time.

Bison will often be crossing roadways after dark, making them very difficult to see at night. Collisions with these animals have caused enormous damage.



Be sure to report bison collisions to the Fish and Wildlife office, call 926-2238 and leave a message.

Alberta

Hay-Zama Regulated Hunt established

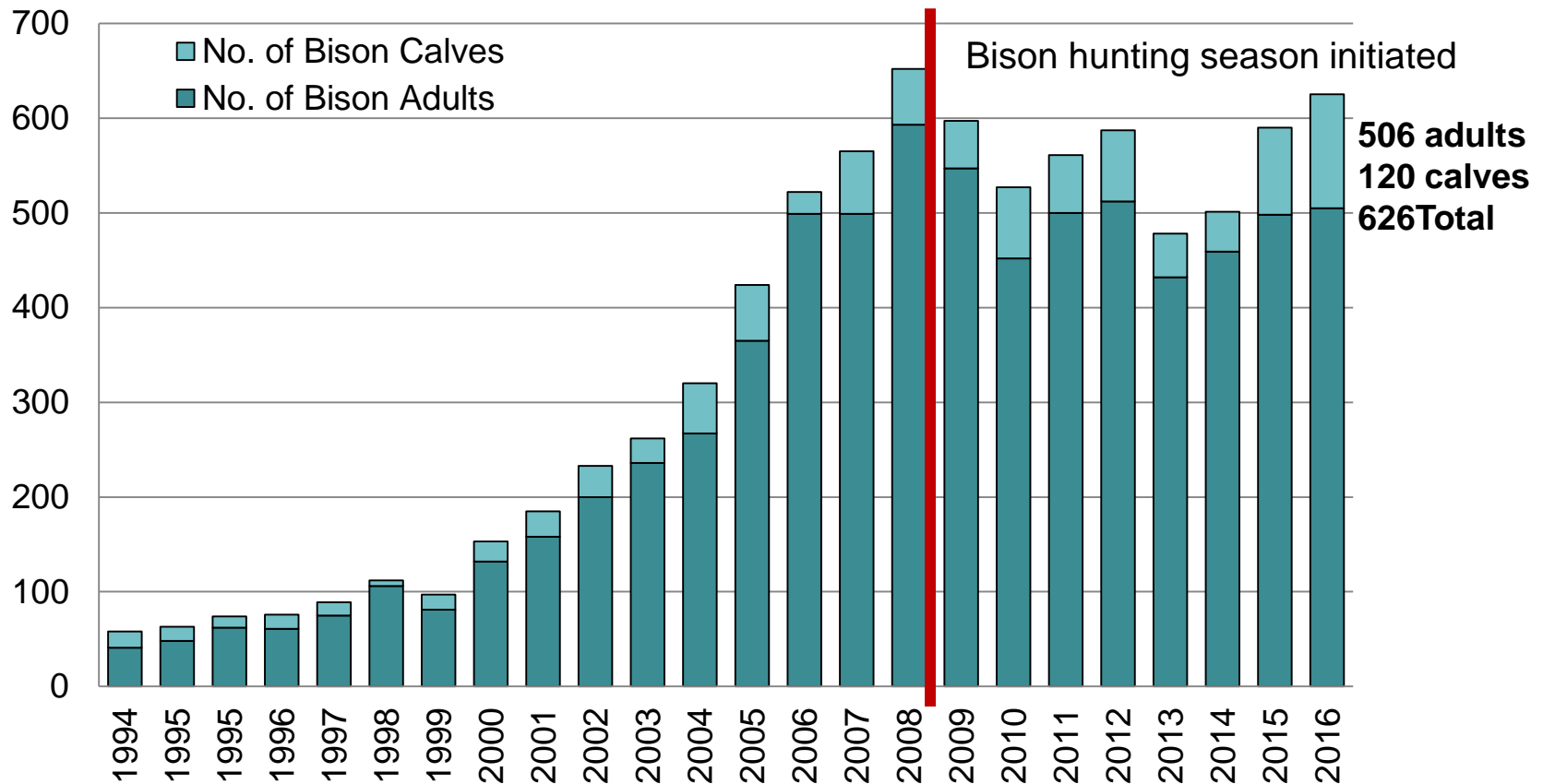
- In spring 2008, began a highly regulated season in order to:
 1. Limit bison distribution eastward towards WBNP
 2. Reduce bison-vehicle collisions on Zama highway and highway 58
 3. Reduce bison conflicts with humans in communities



Hay-Zama Population surveys



Hay-Zama area Bison surveys, 1994-2016



Hay-Zama Licence and Harvest Success 2008-2015



	Licences	Bulls	Cows	Total harvest	Average % success
Aboriginal	1040	237	166	403	40
Non-Aboriginal	520	190	100	290	58
Total	1560	427	266	693	46

Hay-Zama – Disease-free Disease Sampling

279 samples have been collected for disease surveillance of bovine tuberculosis and brucellosis – all negative

Season	Hunters	Harvest	Tested Samples
2008/09	Aboriginal	74	58
	Non-Aboriginal	54	39
2009/10	Aboriginal	98	81
	Non-Aboriginal	57	43
2010/11	Aboriginal	34	8
	Non-Aboriginal	21	13
2011/12	Aboriginal	47	19
	Non-Aboriginal	38	18
2012/13	Aboriginal	42	0
	Non-Aboriginal	57	0
Total		521	279



2016/2017 Disease Sampling

- Anticipate maximum 250 samples
- With the help of CFIA

Peace Region Bison



Managing Disease Risk in Bison Outside WBNP

Three broad components:

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Disease Surveillance and risk reduction east of Hwy 35

- **Hwy 35 and Agriculture zone surveillance**

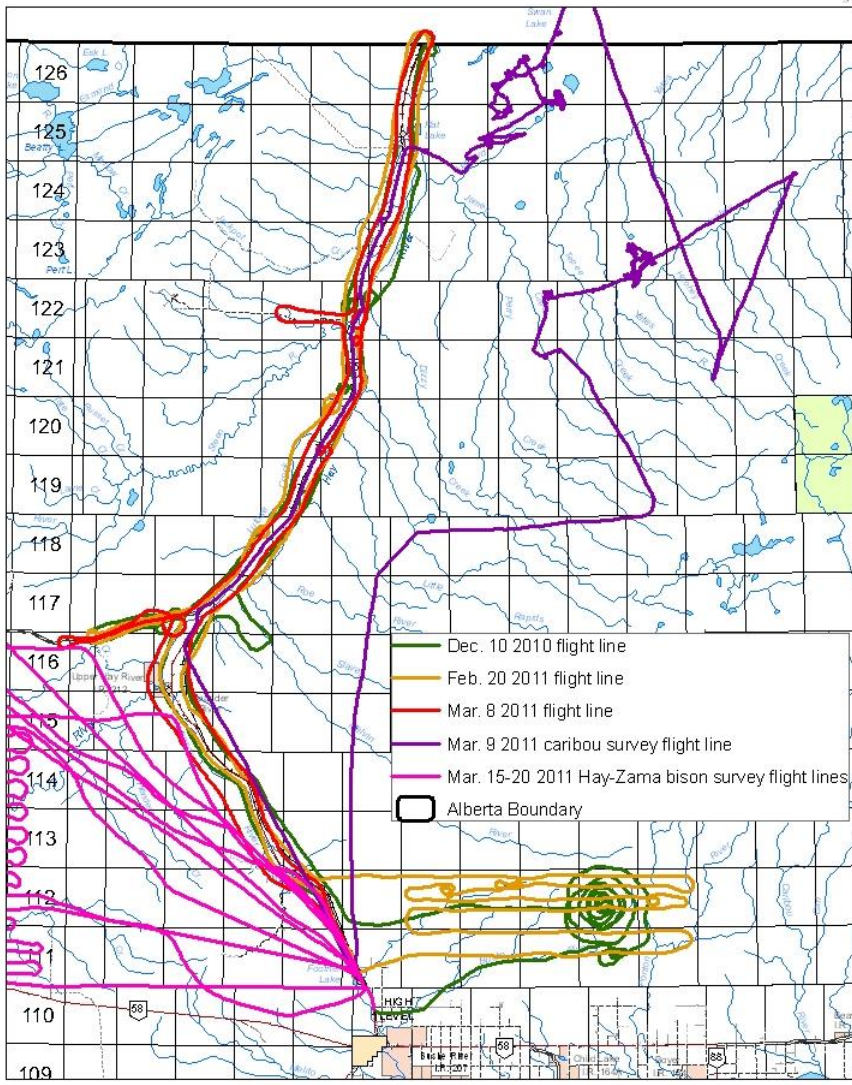
Monitoring populations of wild bison east of Hwy 35

- **Surveys of Areas 1, 2 and 3 (Wentzel and Wabasca herds)**
- **Disease sampling**

**Etthithun overlap into Wildlife management Units
524/536**

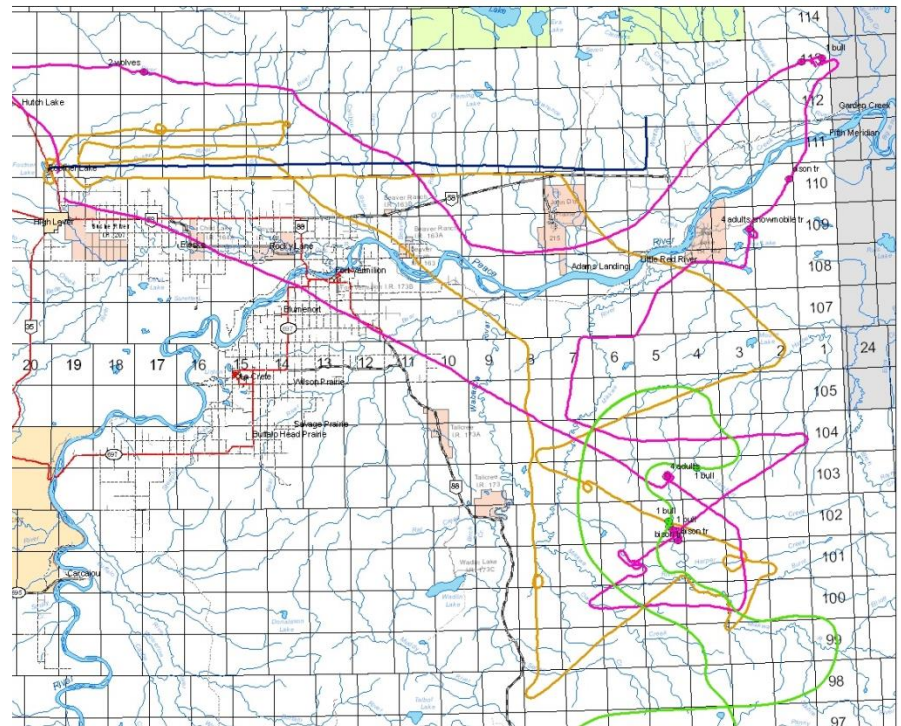
Disease Surveillance and risk reduction east of Hwy 35

Highway 35 bison surveillance flights

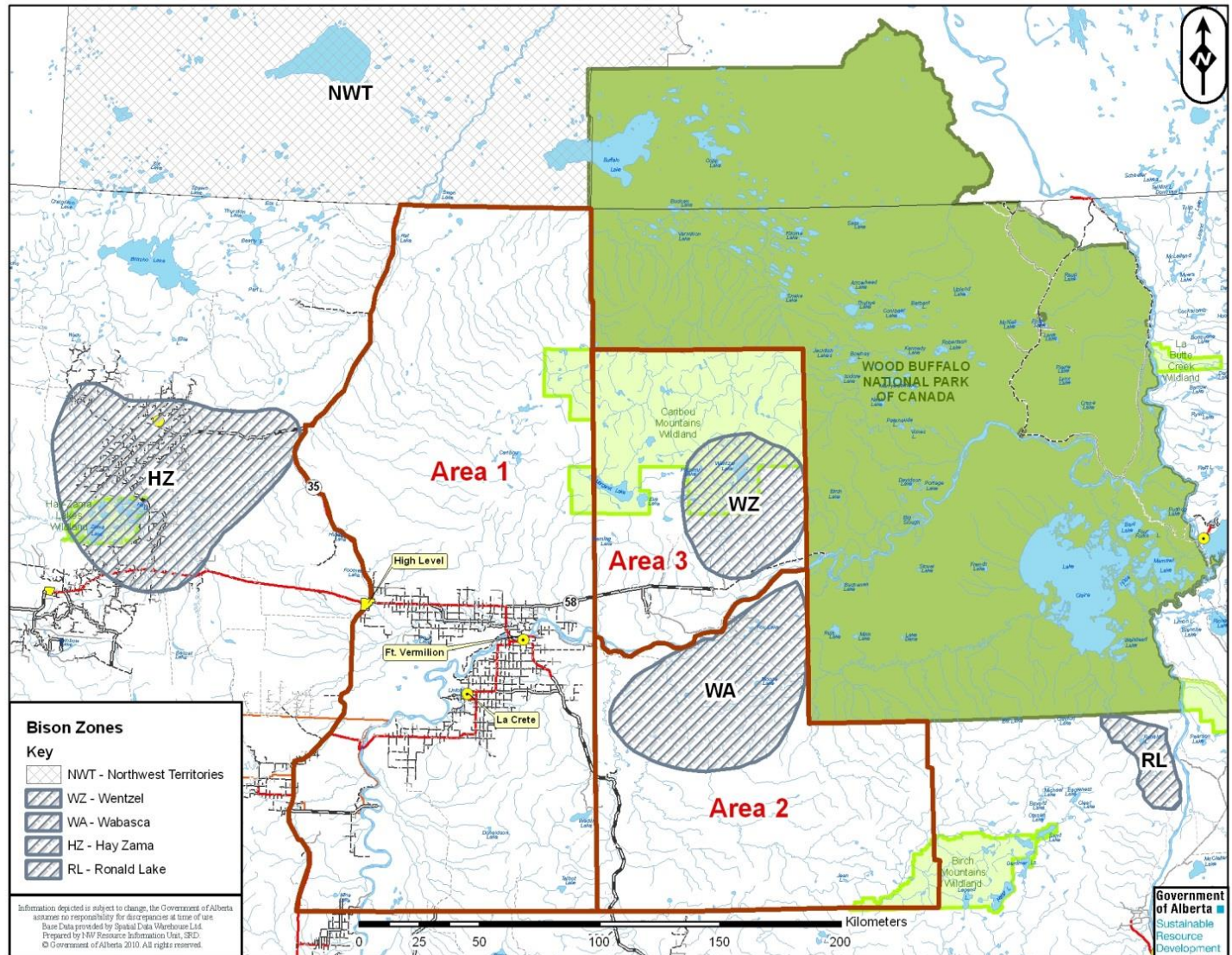


Once a month flights during the winter

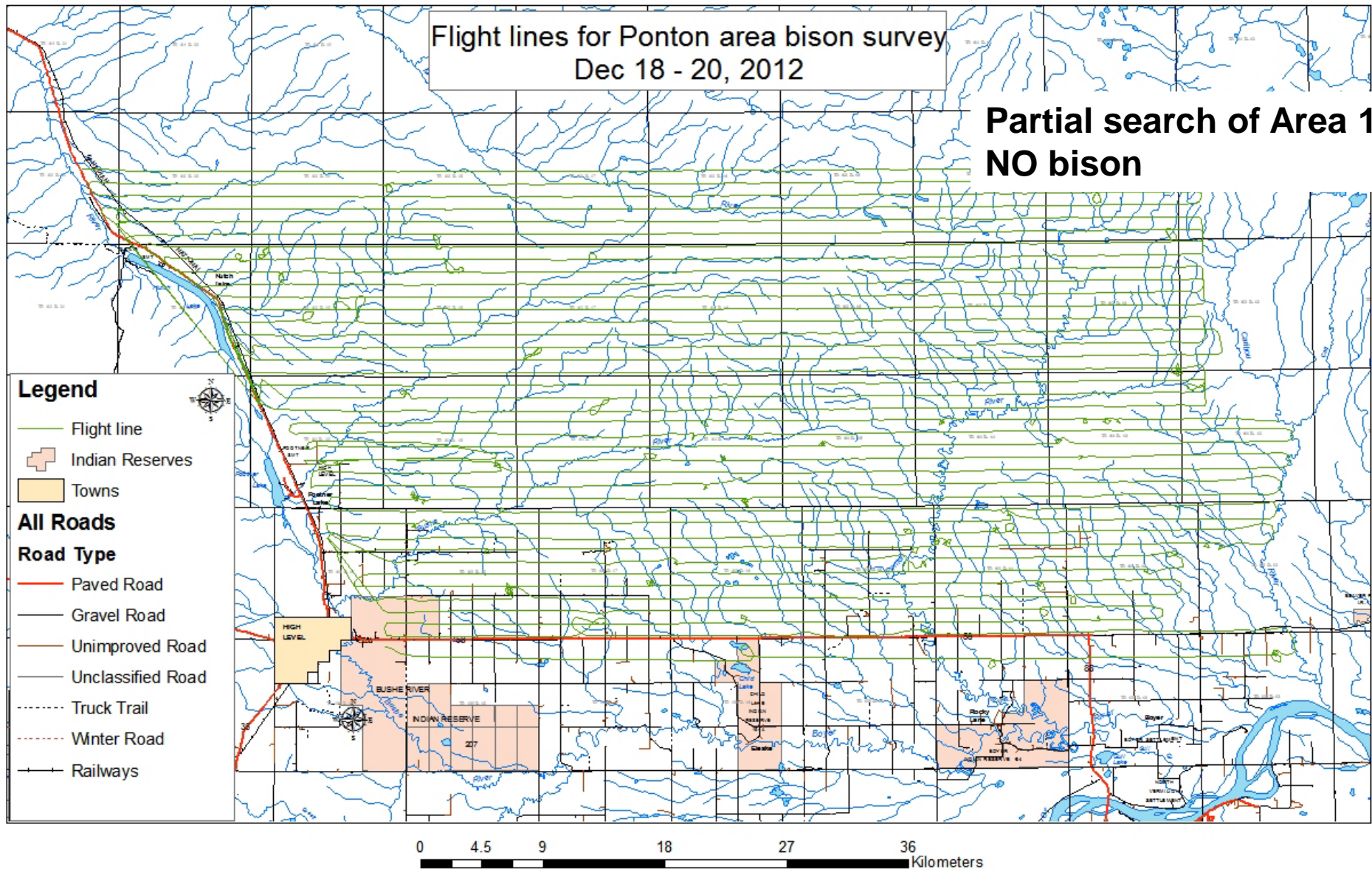
2015/2016 – 4 surveys and no bison seen



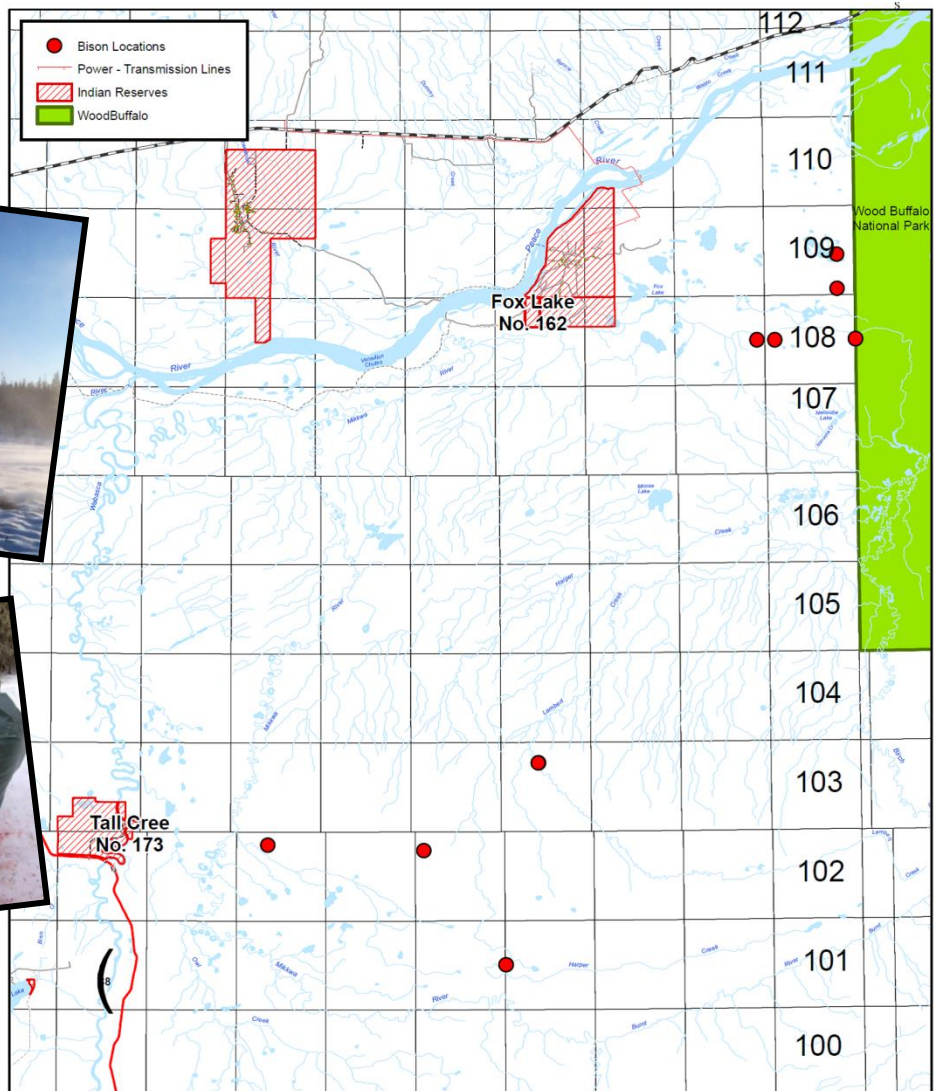
Monitoring populations of wild bison east of Hwy 35



Area 1 Bison locations in 2012



Area 2 Bison locations in 2014 (Wabasca)



15 bison within interior

56 bison just west of WBNP

(2010 survey = 35 bison)

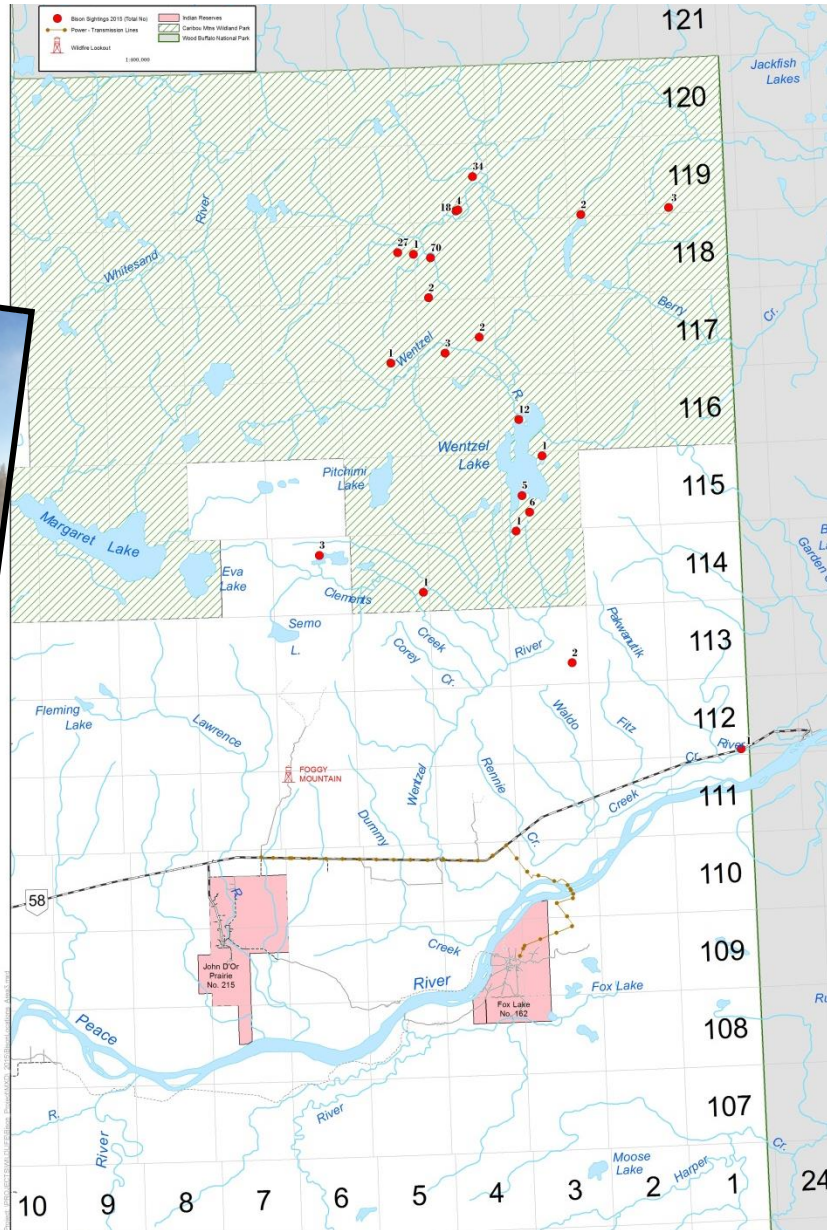
Disease Sampling Wabasca/Mikkwa 2011 and 2012

12 samples

12 negative for TB And brucellosis

Total Samples 2014 = 24, all negative

Area 3 Bison locations in 2015 (Wentzel)



199 bison
193 within Caribou
Mountains Wildland Prov.
Park (CMWPP)

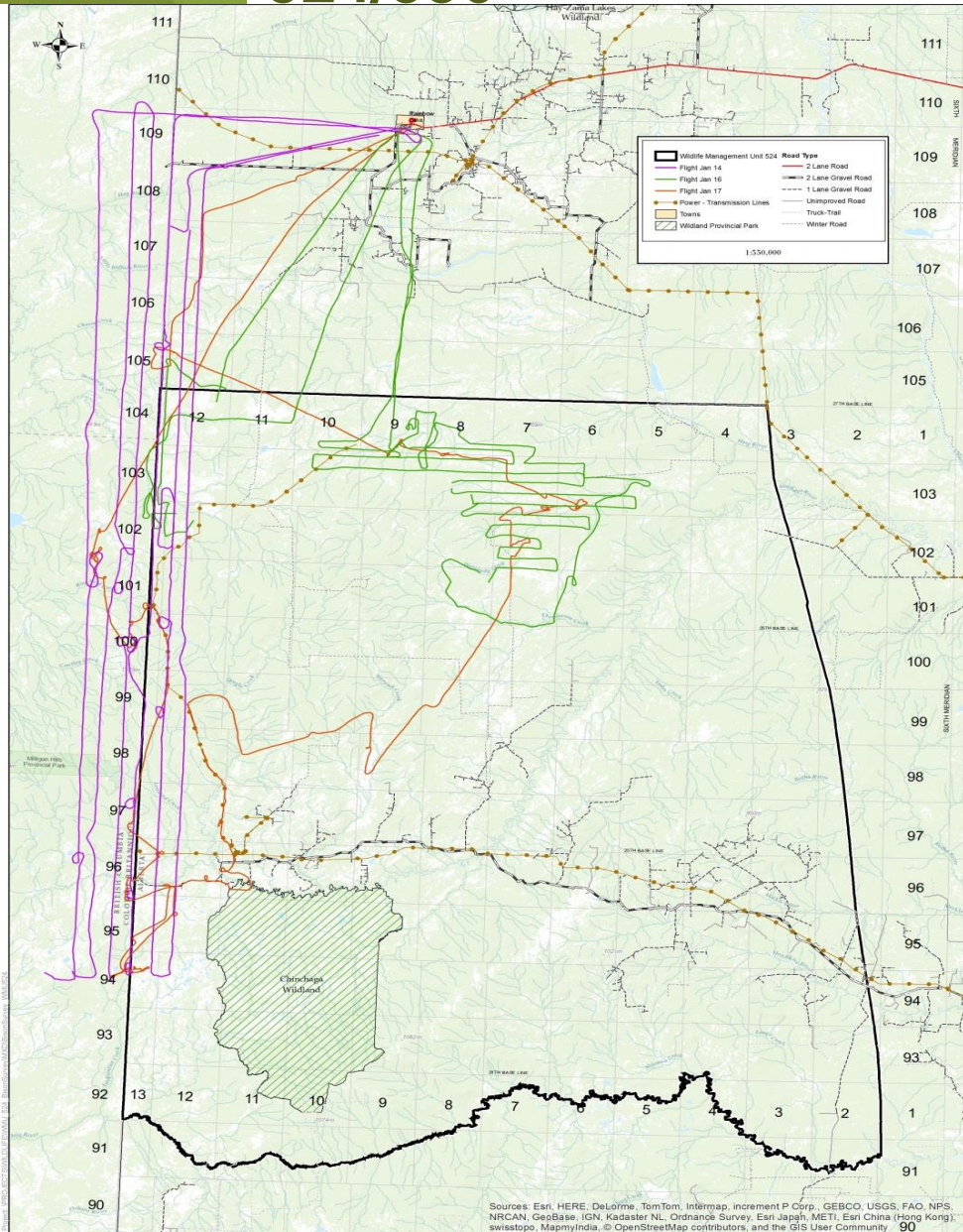
2011 survey = 200 bison
total, 93 bison in CMWPP

Disease Sampling
Wentzel 2011

10 samples
10 negative for TB
5 positive for brucellosis

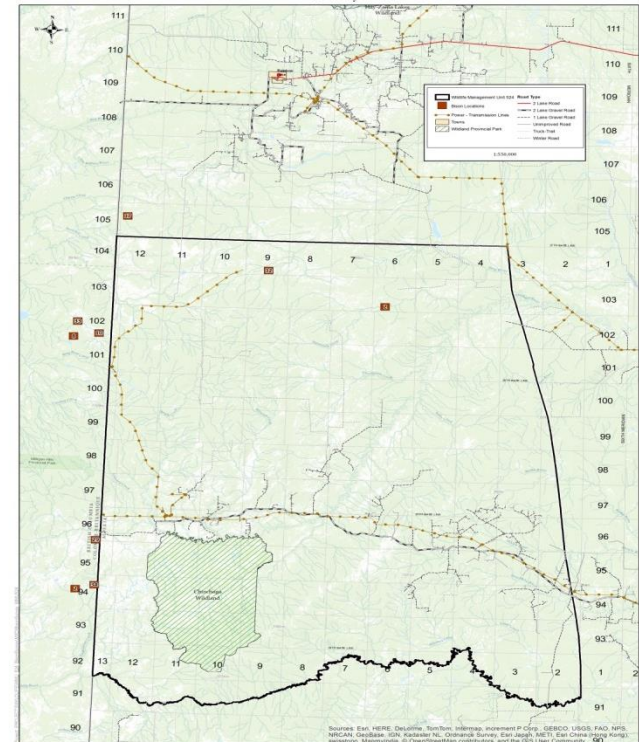


Etthithun overlap into Wildlife management Units 524/536



2015 -167 bison in 9 locations
23%Calves, 34 within WMU 524

2013 – 121bison in 13 locations
15.7% calves, 54 within WMU 524



Upcoming work for 2016-2017

- **Continued Surveillance along Highway 35, and Agricultural zone**
- **Modified Area 3 Survey (South of Caribou Mountains to Highway 58)**
- **Modified Area 2 Survey (Northern half of Area 2)**
- **Hay-Zama hunt and disease sampling (ongoing for 2016-17 season)**
- *** Etthithun Lake Bison Disease Sampling**
- *** Hay-Zama population Survey**

***Pending funding**



Questions?

