

BC Sheep Separation Program

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Program Coordinator



Program Background

- 1999 South Okanagan herd die-off galvanized provincial response
- Wild Sheep Society forms the BC Wild Sheep Working Group
- 2012 Gap Analysis supports program coordinator
- Program coordinator role:
 - Collaboration
 - Education
 - Mitigation
 - Legislation



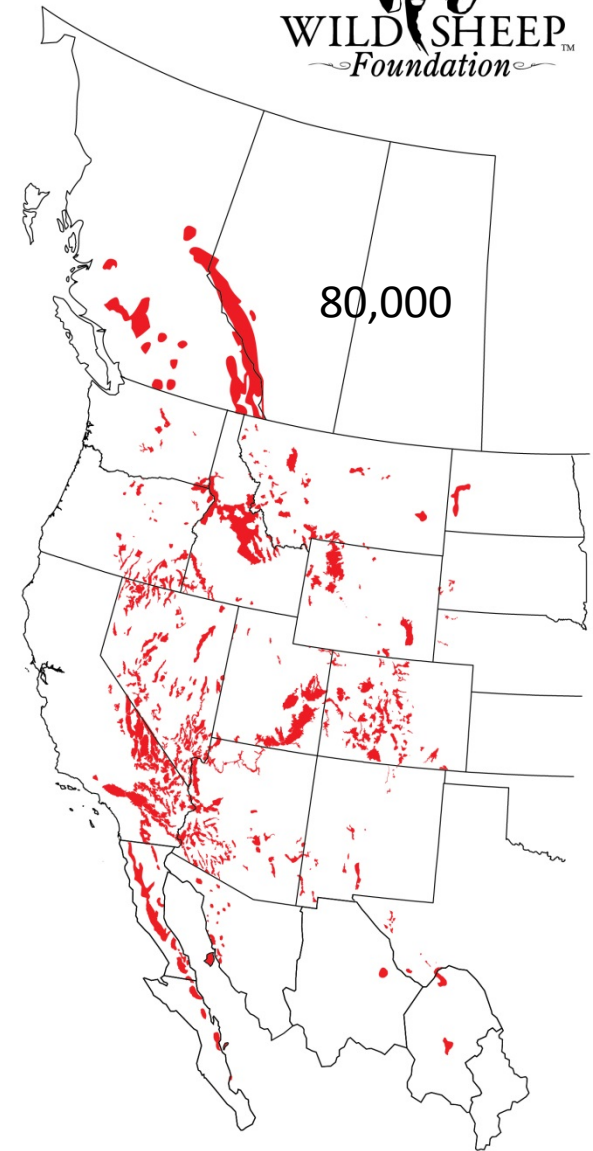
NORTH AMERICAN BIGHORN SHEEP DISTRIBUTION



CIRCA 1850



CIRCA 1960



CIRCA 2012

Challenges to Managing Disease



- Respiratory Disease
 - Bacteria (*Mycoplasma ovipneumoniae*)
 - Old world resistance/New world naive
 - Spread by nose-to-nose contact with domestic sheep
- One interspecies contact can result in a herd die-off
- Domestic sheep and bighorn sheep are attracted to each other
- Bighorn sheep carry out occasional long-distance exploratory movements (forays)
- Private land but public interest in a valued species

Biosecurity: Minimize Contact



- Create physical barrier, prevent disease transfer
- Effective Separation
 - Fencing
 - Farm management
- Bighorn behaviour, Domestic sheep farm productivity
 - Foraging rams during fall rut (Nov-Dec)
 - Ewe nutrition pre-breeding “flushing”
 - Pasture rotation and parasite loads



1. Chasm Herd Mitigation Project



Thompson Region

Farm:

- Clinton BC
- 350+ domestic hair sheep
- Purchased domestic sheep 3 years ago

Bighorns:

- Chasm herd
- Population 91 (2013)
- Declined to 25 (2014)
- No lambs, no rams

High Risk Farm



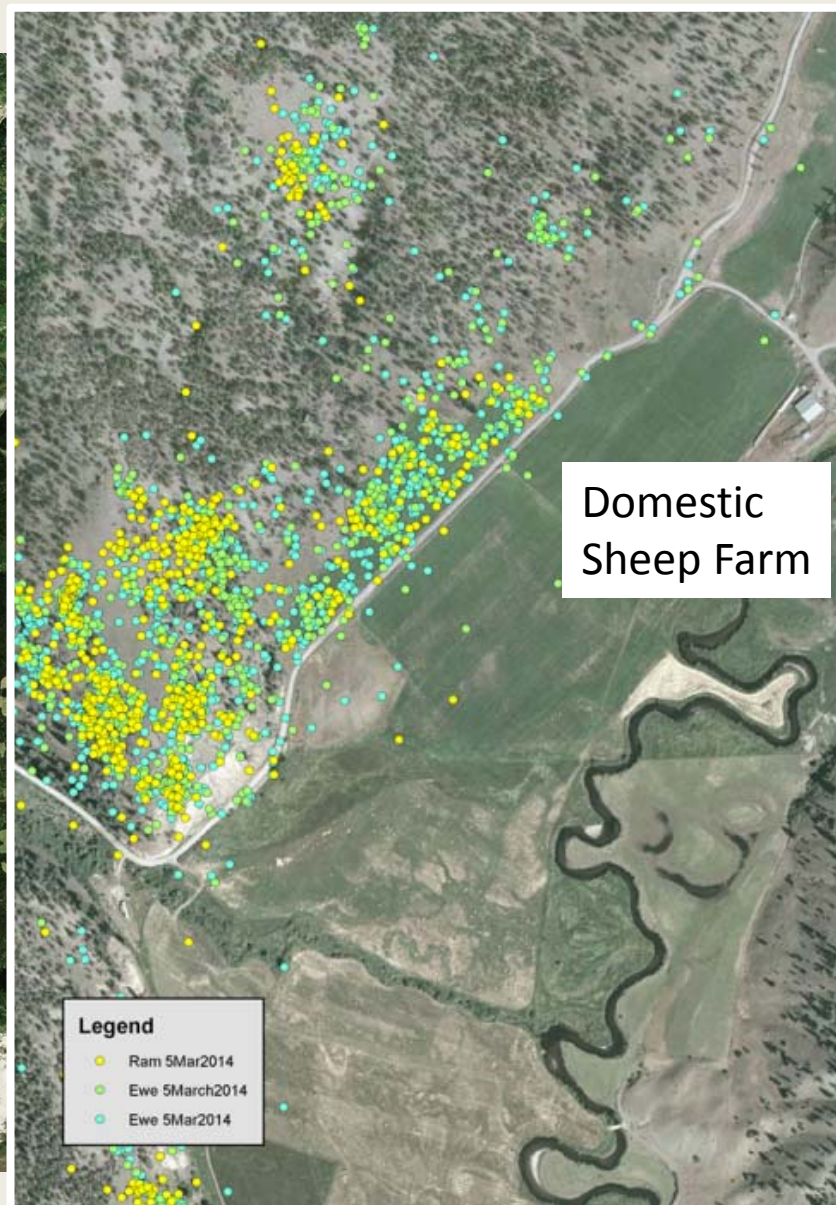
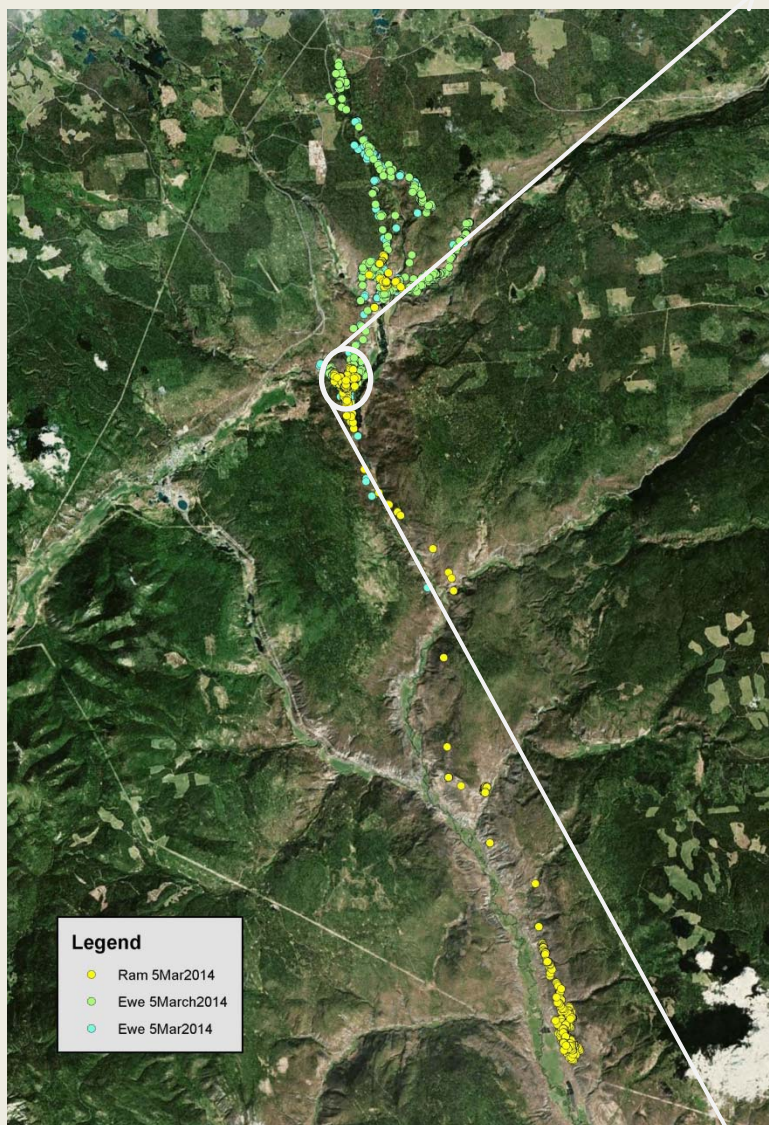
- Arid plateau, irrigated alfalfa
- Within summer/winter range of Chasm herd
- Adjacent Herd Ranges



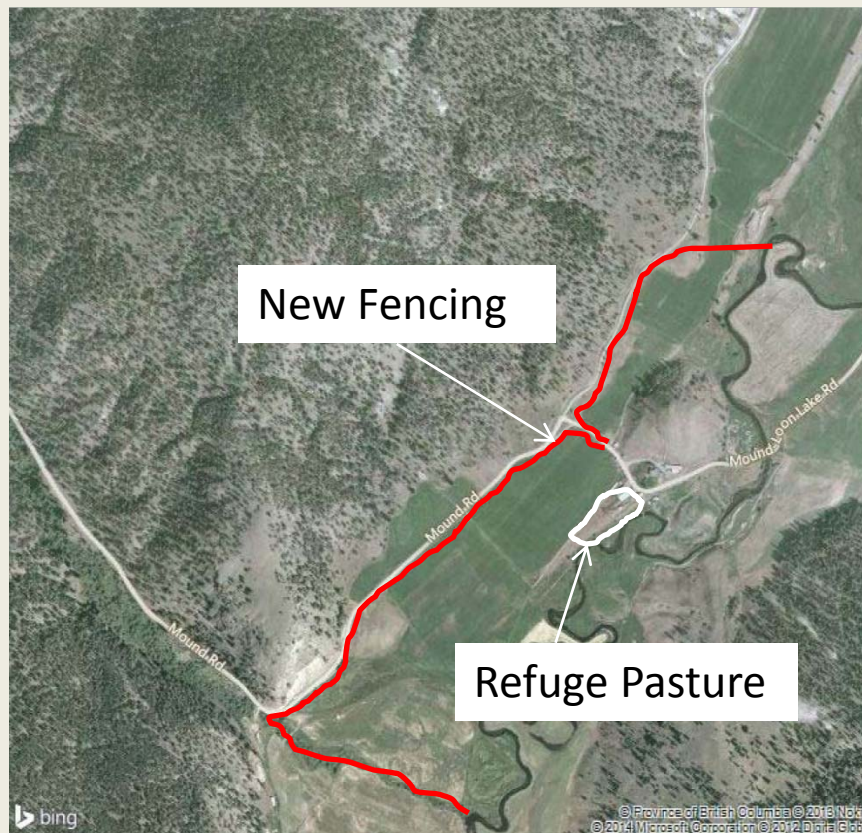
Pre-mitigation Monitoring



- 3 GPS collars (2 ewes, 1 ram)
- Collected blood samples for herd health baseline data
- Remote trail cameras on main game trails accessing fields
- Aerial inventory: November 20, 2014 = 25 sheep



Chasm Fencing Plan: Spring/Summer 2014



- 2600 m of fencing
- Funding: ArdCorp, Crop Damage Program, WSS, WSF
- Refuge Pasture Concept
- 8' perimeter fence
- Fence use agreement
- Guardian dogs
- Temporary electric fencing to create “no-contact”
- Post-mitigation monitoring
- Reporting

2. Bull River Herd Mitigation Project



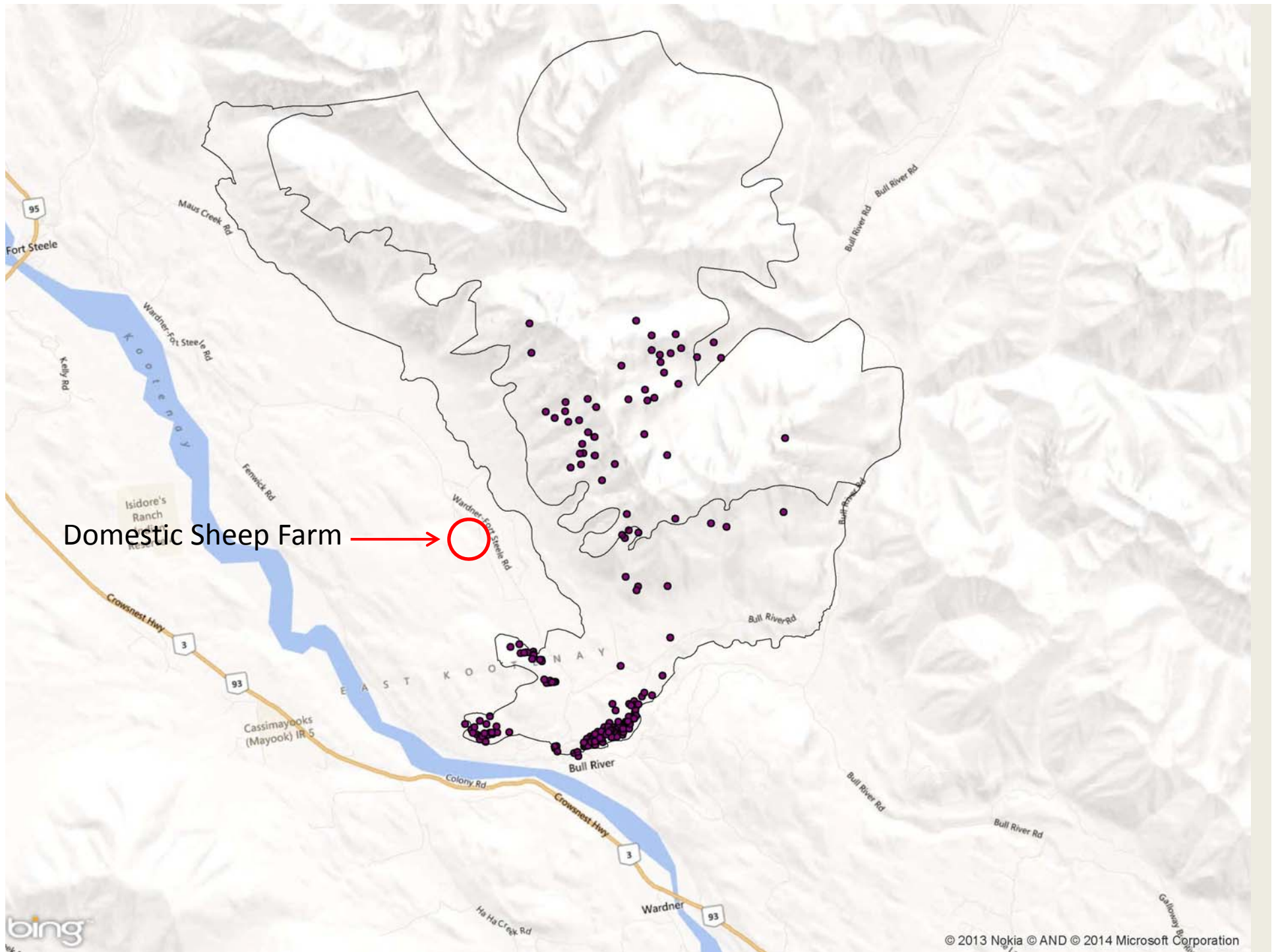
Kootenay Region

Farm:

- Cranbrook BC
- 300 domestic sheep
- Purchased domestic sheep 3 years ago

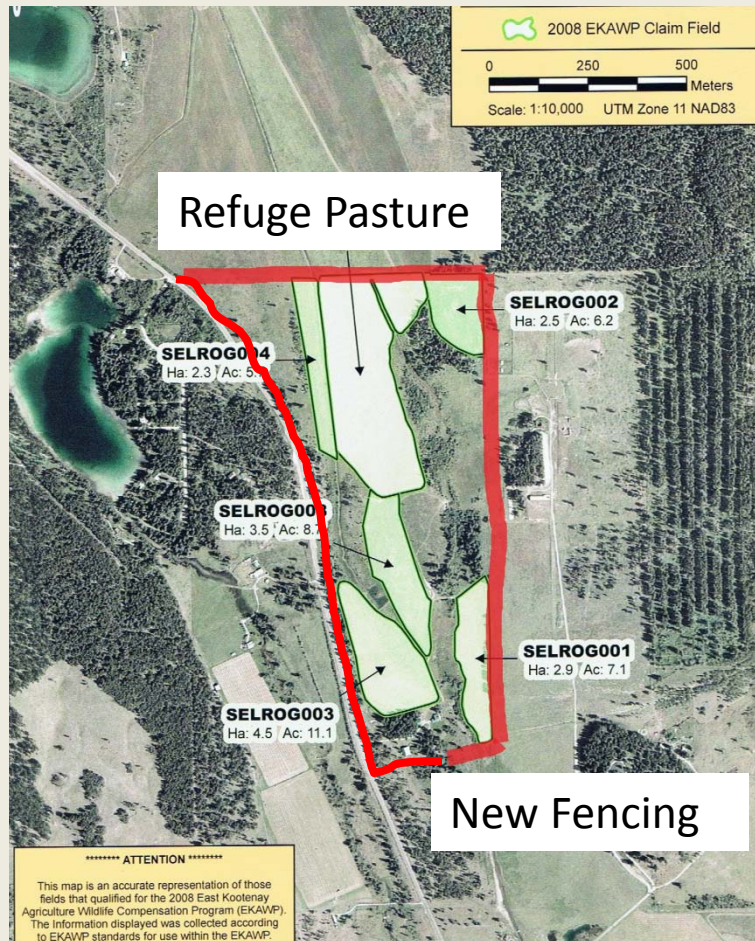
Bighorns:

- Bull River herd
- Population 147 (2013), peaked at 206 (2010)
- Rams foray past farm



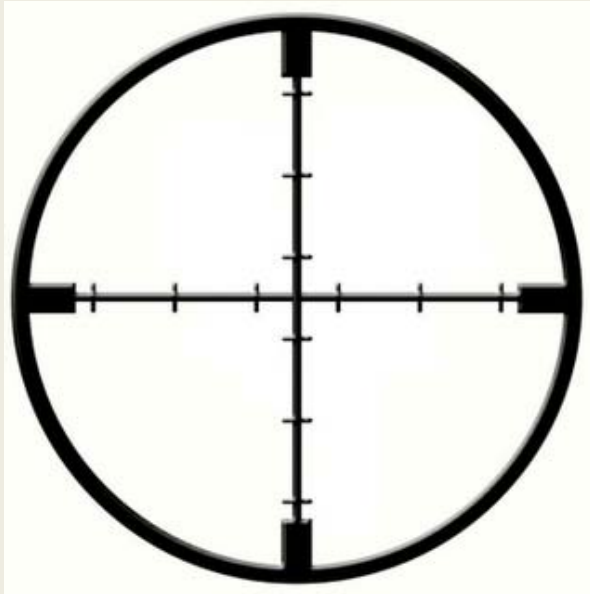
Domestic Sheep Farm →

Bull River Fencing Plan: Spring/Summer 2014



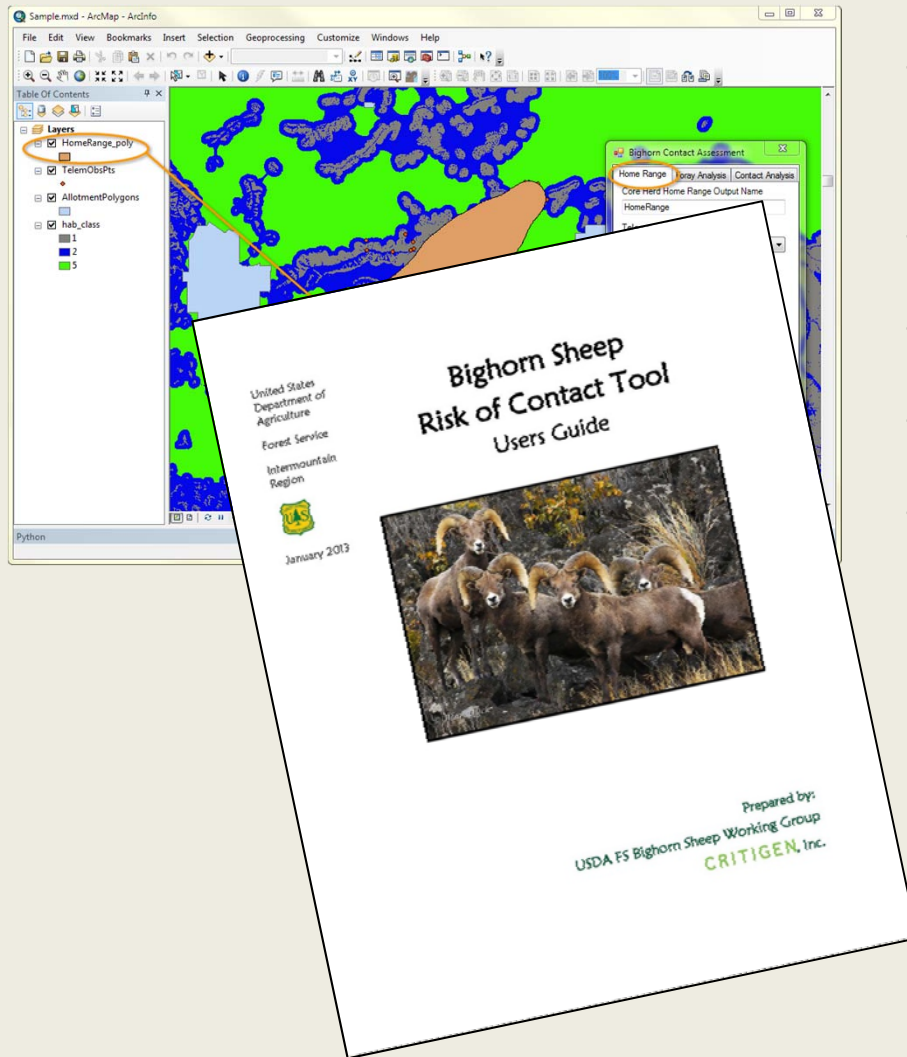
- 3900 m of fencing
- Funding: ArdCorp, Crop Damage Program, Columbia Basin Trust
- Refuge pasture concept
- 8' perimeter fence
- Fence use agreement
- Guardian dogs
- Temporary electric fencing to create "no-contact"
- Post-mitigation monitoring
- Reporting

Legislation: Long Range



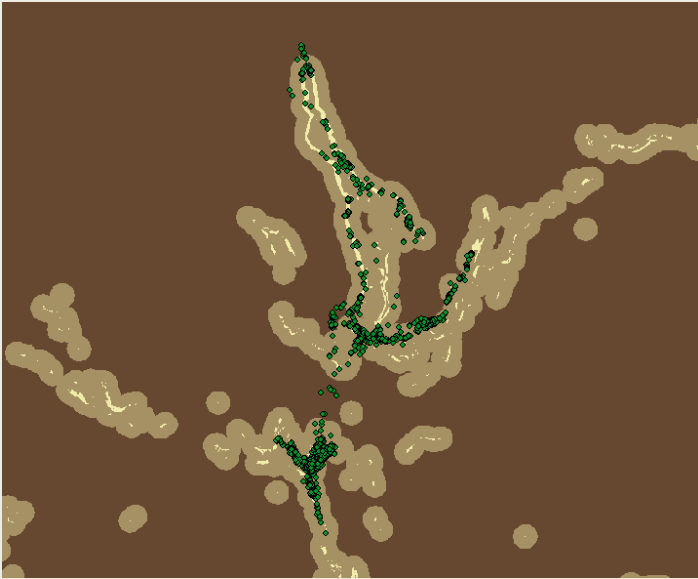
- Regional District Zoning
- Farm Practices Act: The “Right to Farm” Act
- Complaint to Farm Industrial Relations Board
- Normal Farm Practices: define fencing requirements
- Disproportionate impact to public resource
- Identify and defend High Risk Areas

Identify High risk Areas

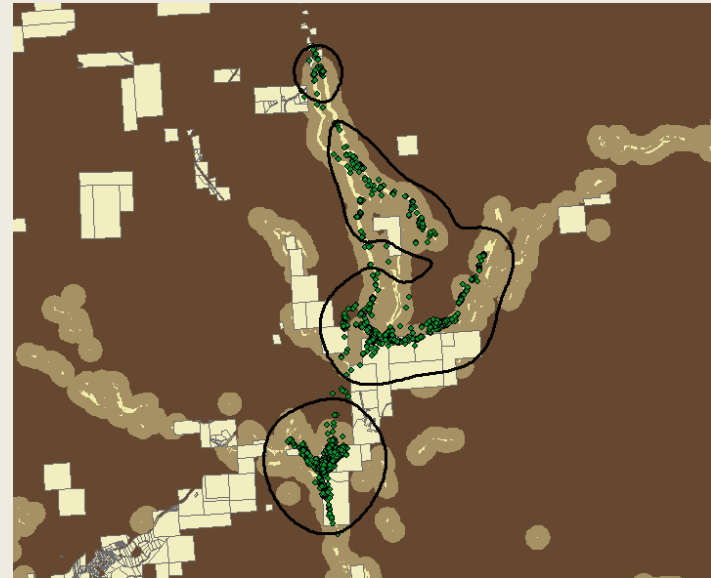


- US Forest Service “Risk of Contact” Tool
- Map-based (GIS) tool
- Scientifically defensible
- Standardized approach
- Support policy makers with good science

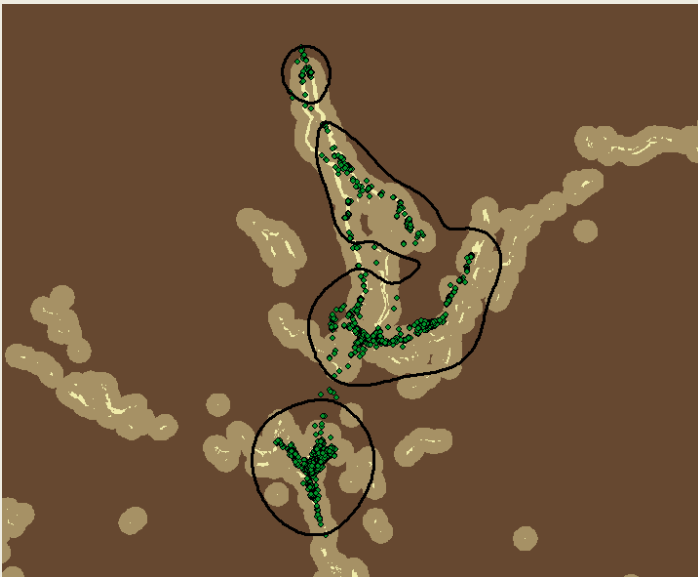
Bighorn sheep habitat



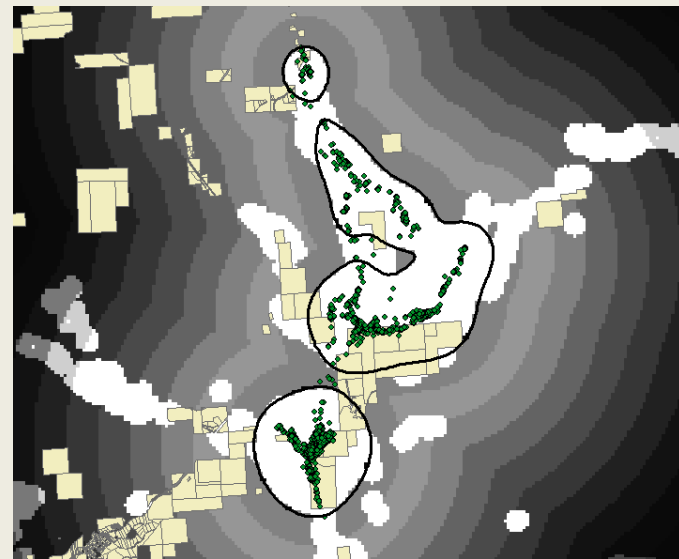
Nearby private property

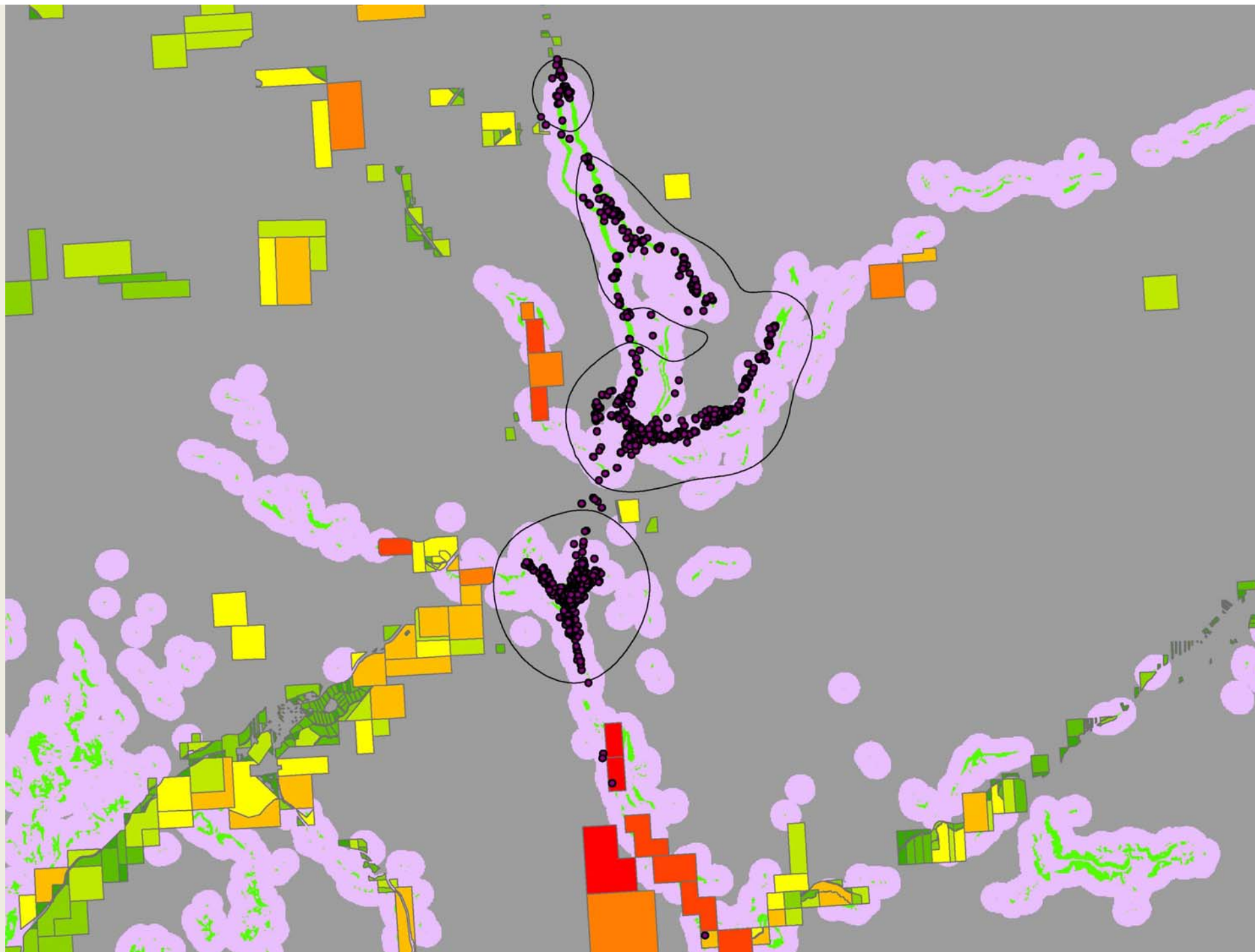


Herd home range



Ewe and Ram Foray Probabilities





Summary



- 2014 successful year for BC Sheep Separation Program
- Challenges with farm-by-farm mitigation
- Long Range: Policy to limit or exclude domestic sheep farms from high risk areas



**Proud to be a Bighorn
Friendly Sheep Farm**