- Background
- Summary of affected herds
- Brucellosis surveillance programs
- Compliance assessment
- USDA Brucellosis review and MT response

The Greater Yellowstone Ecosystem
Designated Surveillance Area Boundaries
Pillars of DSA

- **Traceability**
  - Intact males and females of any age officially identified

- **Change of ownership / movement testing**
  - Animals sold in/from DSA or moved out of DSA tested
    - Any age (males and females) if used for breeding
    - 12 months of age for all others

- **Vaccination**
  - Mandatory vaccination for cattle in entirety of four counties

- **Live capture of elk for brucellosis testing**
  - Test elk for brucellosis
  - Monitors movement of elk to see if positives stay within DSA
Affected Herds
Affected Herd: Madison County

- DSA Madison County herd of 1100 test-eligible cattle
- Index animal detected through pre-slaughter testing as required by Montana regulations.
- 2 more reactors found on a whole-herd test for a herd infection rate of 0.27%.
- All three animals were managed together and most likely represent a single point exposure.
- Index animal had negative test in July 2012.
Affected Herd: Park County

- DSA Park County Herd of 550 test eligible cattle
- 7 month-old bull reactor on a whole-herd test in Sep.
- A herd infection rate of 0.18%.
- The bull’s dam was tested annually since 2010 and remains negative after 5 tests (2010, 2011, 2012, and two tests in 2013).
### Epidemiological Investigations by Year of Detection

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Affected Herd Size</strong></td>
<td>260</td>
<td>28</td>
<td>3250</td>
<td>275</td>
<td>1550</td>
<td>1100</td>
<td>550</td>
</tr>
<tr>
<td><strong>No of Reactors</strong></td>
<td>7</td>
<td>1</td>
<td>14</td>
<td>7</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td><strong>Species</strong></td>
<td>Cattle</td>
<td>Cattle</td>
<td>Bison</td>
<td>Cattle</td>
<td>Bison</td>
<td>Cattle</td>
<td>Cattle</td>
</tr>
<tr>
<td><strong>Affected Herd Quarantine</strong></td>
<td>2 months</td>
<td>3 months</td>
<td>Ongoing</td>
<td>7 months</td>
<td>Ongoing</td>
<td>Ongoing</td>
<td>Ongoing</td>
</tr>
<tr>
<td><strong>Disposition</strong></td>
<td>6</td>
<td>Depopulation</td>
<td>Test out</td>
<td>Test out</td>
<td>Test out</td>
<td>Test out</td>
<td>Test out</td>
</tr>
<tr>
<td><strong>Adjacent Herd Tests done to date</strong></td>
<td>3,100</td>
<td>1,128</td>
<td>7,117</td>
<td>2,693</td>
<td>9,868</td>
<td>2,953</td>
<td>1,037</td>
</tr>
<tr>
<td><strong>Adjacent Herd tests complete</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>&lt;20 to go</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>County</strong></td>
<td>Park / (Carbon)</td>
<td>Park</td>
<td>Gallatin</td>
<td>Park</td>
<td>Madison</td>
<td>Madison</td>
<td>Park</td>
</tr>
</tbody>
</table>
Surveillance numbers
Brucellosis Tests on Cattle and Domestic Bison in MT Since 2007

Over 350,000 brucellosis tests run since 2007
## How sure are we?

<table>
<thead>
<tr>
<th></th>
<th>Fiscal Year 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Producers</td>
<td>280</td>
</tr>
<tr>
<td>Number of Cattle/bison</td>
<td>73,200</td>
</tr>
<tr>
<td>% Area of MT</td>
<td>4.58%</td>
</tr>
<tr>
<td># of tests per year</td>
<td>42,025</td>
</tr>
<tr>
<td>Prevalence detected with 99% confidence at this sample size</td>
<td>0.0078%</td>
</tr>
</tbody>
</table>
Compliance Assessment
All DSA Herds: Resident & Seasonal

- Residents, 192, 69%
- Seasonal, 88, 31%
Herds
Without
Tests, 44,
16%

Herds
With Tests, 236,
84%

Participation in Testing
DSA by Herd

Cattle
Without Tests, 4995,
7%

Cattle
With Tests, 63234,
93%

Participation in Testing of
DSA Cattle by Headcount
17 of 44 non-tested herds representing 672 cattle were in compliance

Compliance Status by Number of Herds

- Market Issues (Resolved), 22
- Other, [VALUE]
Review Commendations

1. Adjustments to the boundaries of Montana’s DSA.
2. Cooperation within DOL between Brands Enforcement and Animal Health Divisions
3. Electronic brands software program at markets.
4. Wildlife surveillance activities
5. Testing and surveillance requirements for domestic cattle and bison in the DSA.
6. Use of individual herd plans for herds located in the DSA
7. 19/40 recommendations suggested “continuing current efforts”
Review
Recommendations

- Clarify testing requirements for slaughter cattle
- Require that breeding cattle of any age require testing
- Require a plate reader for FPA
- Strategic elk management
- Test verification at market
- Revisions to affected herd plan
- Use of forms VS-127 for Yellowstone bison
Thanks

- Eric Liska, DVM
- Leslie Doely
- Board of Livestock
- Christian Mackay
- USDA-APHIS-VS
- Cattlemen and Women
- Department of Fish, Wildlife & Parks