Ranch-Level Economic Impacts of Altering Grazing Policies on Federal Land to Protect the Greater Sage-Grouse

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Ranching Economics and Sage-Grouse

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Sage-Grouse and Ranching

• Large expanses of varied habitat
• Alternative forage sources
• Change in season of use or amount has economic impact
  • Overall ranch profitability
  • Risk of negative returns
Impacts*

- Fire
- Habitat changes
- Invasive plant species
- Land use change
- Predation
- Hunting
- Livestock grazing

Social and Economic Issues

- Public Land Ranchers
- Rural Communities
Ranch-level Economic Impacts

Focus

- Representative ranch models
- Oregon, Nevada, Idaho, and Wyoming
Ranch-level Economic Impacts

• Update of models done in the early 2000’s
• Representative ranch – Enterprise budgets
• 40 year model
• Cattle-fax prices
• Impacts
BLM Permit Changes

• Base run

• Sage-grouse management on BLM permit
  • 1 month delay with AUM adjustment*
  • 1 month early with AUM adjustment*
  • 1 month delay and 1 month early with AUM adjustment*
  • 25, 50, 75, and 100% AUM reduction

GAMS Model – Multiperiod, Recursive LP
Wyoming Steer Calf Prices – Adjusted 2012

Average Calf Prices
1980-2012 (adj. to 2012)

- **ID**: 1.4, 1.26
- **NV**: 1.52, 1.34
- **OR**: 1.39, 1.33
- **WY**: 1.57, 1.5

Source: Cattle-Fax 2012
Results of the Sage-Grouse Economic Impact Model
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Season of Use
How does a rancher allocate forage among seasons?
<table>
<thead>
<tr>
<th></th>
<th>Spring</th>
<th>Fall</th>
<th>Spring and Fall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>260</td>
<td>233</td>
<td>224</td>
</tr>
<tr>
<td>Nevada</td>
<td>464</td>
<td>414</td>
<td>348</td>
</tr>
<tr>
<td>Oregon</td>
<td>479</td>
<td>463</td>
<td>370</td>
</tr>
<tr>
<td>Wyoming</td>
<td>590</td>
<td>550</td>
<td>520</td>
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</tbody>
</table>

Changes from Loss of BLM Season of Use

BROOD COWS

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</table>
Probability of Negative Annual Net Returns – BLM Season of Use

- Idaho
- Nevada
- Oregon
- Wyoming

Percent

- Base
- No Spring
- No Fall
- No Spring and Fall
Results of the Sage-Grouse Economic Impact Model

BLM Permit Reductions
How does a ranch adjust when their federal grazing permit is reduced?
Changes from BLM Permit Reductions

<table>
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<th>Region</th>
<th>Change in Net Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho</td>
<td>-$20,000 to -$100,000</td>
</tr>
<tr>
<td>Nevada</td>
<td>-$40,000 to -$100,000</td>
</tr>
<tr>
<td>Oregon</td>
<td>-$60,000 to -$100,000</td>
</tr>
<tr>
<td>Wyoming</td>
<td>-$80,000 to -$100,000</td>
</tr>
</tbody>
</table>

Brood Cows: 25, 50, 75, 100
Model Wrap-Up

- Ranch stays in business unless cash flow forces otherwise
- 100% BLM reduction forces continual borrowing with negative returns over half the time
- Representative ranch model
- Cannot predict how many ranches actually go out of business
Final Thoughts

• Ranchers have opportunities to adjust
• Opportunities have different impacts
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- Off-ranch income critical to maintain way-of-life
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- Major economic impact from public land grazing reductions
  - $150-300/AUM loss in ranch value
  - This economic impact not recognized

- Economic and social impacts must be recognized (section 102 of NEPA)

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