

### Buffalo/Skedaddle Population Management Unit (PMU) Habitat Risk Assessment

| RISK FACTOR:<br>Habitat Degradation   | Contributing<br>Factor   | Risk<br>(Y/N) | Level <sup>1</sup><br>(H/M/L) | Conservation<br>Measures  | Responsible<br>Parties                         | Monitoring<br>(BLM)  | Timeline   |
|---|--|---------------|-------------------------------|---|--|--|--|
| <b>Leks:</b> Open areas within stands of sagebrush inside nesting habitat. Visibility between birds on leks is critical to mating. Aerial predation is a critical factor. |  |               |                               |   |  |  |  |
| 1. Loss of sagebrush cover around lek.  | Sagebrush spraying   | Y             | L                             | No herbicide spraying of sagebrush within 6 km (3.75miles) of lek unless it is shown to be a benefit to sage grouse. RMP will establish this as a rule. | BLM/CDFG/NDOW<br>NRCS & PRIVATE<br>LAND OWNERS | Establish center of lek with GPS. GPS boundary of lek, load into GIS.          | Inventory is in progress will be in monitoring phase by 2005 |
|   | Fire   | Y             | M                             | Fire rehabilitation will include priority for sagebrush seeding except on lek.  | BLM  | Monitor for species diversity and overall vegetation cover as part of ESR Plan | After fire – each year first 3 yrs., than every 5 – 10 yrs.  |
| 2. Direct excessive human activity disturbance during strutting   | Overzealous human observers venturing too close or onto leks. Use of untrained volunteers. | Y             | M                             | Establish one viewing lek with a marked viewing platform or site. Educational signs to establish proper   | BLM/CDFG/NDOW/<br>PRIVATE LAND<br>OWNERS       | Normal monitoring occurs during lek counts. Periodic law enforcement patrols.  | Each spring during strutting season.                         |

<sup>1</sup> Risk Level is based on current management and land health. Should the current management or land health change the Risk Level will change accordingly.

| <b>RISK FACTOR:<br/>Habitat Degradation</b> | <b>Contributing<br/>Factor</b>     | <b>Risk<br/>(Y/N)</b> | <b>Level<sup>1</sup><br/>(H/M/L)</b> | <b>Conservation<br/>Measures</b>   | <b>Responsible<br/>Parties</b>               | <b>Monitoring<br/>(BLM)</b>   | <b>Timeline</b>  |
|---|------------------------------------|-----------------------|--------------------------------------|--|--|---|--|
|   |                                    |                       |                                      | behavior. New RMP will address more managed recreation during strutting season.  |  |   |  |
|   | Sheep bedding and grazing on leks. | Y                     | L                                    | Not bedding or grazing of domestic sheep on leks is a part of licensing.   | BLM/LIVESTOCK OPERATORS                      | Normal monitoring occurs during lek counts.   | Through licensing and cooperation this is currently the mode of operation. |
|   | Predator control – aerial gunning. | Y                     | L                                    | During strutting aerial gunning is restricted to after 9:30 am within 2 miles of a lek. No direct “fly over” is allowed. | BLM/CDFG/NDOW/USDA WILDLIFE SERVICES         | Normal monitoring occurs during lek counts. Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact. | Normal monitoring is ongoing.  |
|   | OHV Activity                       | Y                     | H                                    | Using appropriate, accurate monitoring data restrict OHV use as necessary. Development of the Eagle Lake RMP will        | BLM/CDFG/NDOW/OHV GROUPS/PRIVATE LAND OWNERS | Normal monitoring occurs during lek counts. Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact. | OHV monitoring began during 2002, <i>and is ongoing</i>                    |

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|-------------------------------------|--|---------------|-------------------------------|---|--|--|----------------|
|                                     |  |               |                               | include<br>establishing<br>more closely<br>managed use<br>in what is now<br>an "open" area<br>particularly<br>during strutting<br>season.   |  |  |                |
| 3. Excessive aerial<br>predation    | Transmission<br>lines and<br>structures<br>constructed too<br>close to leks. | Y             | H                             | Avoid routing<br>overhead lines<br>and structures<br>within lek view<br>shed and no<br>closer than 3.2<br>km. (2 miles).<br>Remove<br>crossarms and<br>structures<br>when<br>abandoned by<br>the utility. | BLM/CDFG/NDOW/<br>OTHER<br>PERMITTING<br>AGENCIES (PUBLIC<br>UTILITY<br>COMMISSION, etc.)<br>/COUNTIES | Review all<br>overhead line and<br>structure<br>construction<br>proposals. | As they occur. |

| <b>RISK FACTOR:<br/>Habitat Degradation</b>             | <b>Contributing<br/>Factor</b>                                 | <b>Risk<br/>(Y/N)</b> | <b>Level<sup>1</sup><br/>(H/M/L)</b> | <b>Conservation<br/>Measures</b>   | <b>Responsible<br/>Parties</b>   | <b>Monitoring<br/>(BLM)</b>                      | <b>Timeline</b>                        |
|---|--|-----------------------|--------------------------------------|--|--|--|--|
| 4. Direct loss of lek                                   | Paving, surface mining, converting to cultivated agriculture   | Y                     | L                                    | Do not allow paving, and as much as possible, surface mining within areas of influence for leks. Private landowners will be advised if they have a lek on their property. Conversion to cultivated agriculture will be addressed on private lands through coordination with the State Wildlife Agencies. | BLM/CDFG/NDOW/<br>PRIVATE LAND<br>OWNERS/<br>PERMITTING<br>AGENCIES/NRCS | Review all surface mining & paving proposals.    | As they occur.                         |
| 5. Loss of Lek to Excessive Vegetation on lek           | Overgrowth from sagebrush, juniper, herbaceous vegetation      | Y                     | L                                    | Treat excessive vegetation appropriately for life forms involved   | BLM/CDFG/NDOW/N<br>RCS/<br>PRIVATE<br>LANDOWNERS                         | Vegetation is monitored as part of annual counts | This is ongoing                        |
| 6. Collisions with fences when flying to and from leks. | Construction of fences within flight path of lek, too close to | Y                     | L                                    | Do not construct new fences within 0.8 km (0.5 mi.)  | BLM/ <i>PRIVATE LAND<br/>OWNERS</i>                                      | Establish and maintain standard.                 | 2003, and through review of proposals. |

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|-------------------------------------|------------------------|---------------|-------------------------------|--|------------------------|---------------------|----------|
|                                     | the lek.               |               |                               | of a lek. If fence construction cannot be avoided build let-down fences to be lowered during strutting season, and anti-perch fence posts. |                        |                     |          |

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|---|---|---------------|------------------|---|---------------------------------|---|---|
| <p><b>Nesting Habitat:</b> 30-80cm (12"-31") tall sagebrush, 15-25% canopy cover within a grass and forb community &gt;18cm (7") tall with &gt;= 15% canopy. Adequate nesting habitat must exist within 1 km to 6 km (0.6-3.75 miles) of lek sites. Two keys components needed: 1. a nest canopy shrub, preferably sagebrush and 2. Adequate screening grass at base &gt;= 18cm (7") tall. Screening grass should be residual cover from the previous growing season. Nesting occurs too early for same season grass growth to be available for nesting at most northeastern California and northwestern Nevada elevations.</p> |   |               |                  |   |                                 |   |   |
| <p>1. Sagebrush and associated grass/forbs densities and heights which are not consistent with nesting habitat needs.</p>   | <p>Natural ecosystems – Wyoming big sagebrush ecosystems do not consistently attain the cover levels attributed to mountain big sagebrush. Wyoming big sagebrush will not support a healthy understory if the shrub canopy cover becomes too great.</p> | <p>Y</p>      | <p>M</p>         | <p>Manage sagebrush ecosystems to their potential in R-1 and R-2 areas. Where R-0 values are achieved sustain them over the long term.</p>      | <p>BLM</p>                      | <p>Continue to monitor for land health.</p>   | <p>Yearly as part of normal landscape monitoring.</p>   |
|   | <p>Levels of grazing - <i>Livestock</i></p>   | <p>Y</p>      | <p>M</p>         | <p><b>Establish &amp; maintain a stubble height of 18cm (7") within the drip line of sagebrush.</b> This primary objective will be achieved</p> | <p>BLM/ LIVESTOCK OPERATORS</p> | <p>Monitor <i>existing vegetation</i> stubble height within sagebrush canopy dripline in each pasture being used-annually. Seedings shall be monitored to</p> | <p>2004 (The Land Use Plan updates will establish stubble heights as part of Guideline 16.)</p> |

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|-------------------------------------|--|---------------|------------------|---|-------------------------------|--|--|
|                                     |  |               |                  | through use of the following applications:<br>1. Sustain R-0 rated nesting habitat over the long term. 2. In R-2 areas where existing species of perennial grass cannot normally reach 18cm (7") of growth reintroduce native grass species that have greater vertical structure. 3. In areas where the 7" stubble heights under sagebrush should, but do not occur, manage livestock grazing to ensure the objective can be met. |                               | determine success, and determine when the seeding may be used for grazing.   |  |
|                                     | Levels of grazing – Wild Horses and Burros | Y             | H                | Maintain WH&B numbers to Appropriate Management Levels (AML).   | BLM/WILD HORSE & BURRO GROUPS | Monitor using counts to determine if AMLs are being maintained. Monitor utilization in pastures rested from livestock grazing to insure an ecological balance is being maintained. | On going. During preparation of the upcoming RMP appropriateness of existing AMLs will be revisited. |

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|-------------------------------------|------------------------|---------------|------------------|---|--|---|---|
|                                     | Fire                   | Y             | H                | Seed appropriate native sagebrush into each fire rehabilitation to accelerate recovery of R-1 lands to R-0, and keep R-4 lands from moving to X-4. Seed appropriate native grasses <b>and forbs</b> into each fire rehabilitation to accelerate recovery of R-2 lands to R-0, and keep R-4 lands from moving to X-4. Establish high priority wildfire suppression response in Wyoming big sagebrush ecosystems. | BLM/CDFG/NDOW  | Quantitatively monitor for seeding success using existing rehabilitation guidelines established for the Eagle Lake Field Office (ELFO). | Each year for 3 years following first growing season after fire, than every other year until determined to be recovered by the Field Office ID Team.      |
|                                     | Herbicide Treatments   | Y             | L                | No broadcast herbicide treatments will occur within nesting habitat unless they are shown to be beneficial to the sagebrush ecosystem.<br><br>Noxious weeds will  | BLM/CDFG/NDOW<br>SWAT/CWMA/NEV<br>ADA<br>AGRICULTURE/N<br>RCS/<br>PRIVATE LAND<br>OWNERS | A quantitative monitoring plan will be part of the Environmental Assessment.  | Each year for 3 years following first growing season after treatment, than every other year until determined to be recovered by the Field Office ID Team. |

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|-------------------------------------|--|---------------|------------------|--|--------------------------------------|--|--|
|                                     |  |               |                  | be controlled using methods focused on the specific infestations.  |                                      |  |  |
|                                     | Juniper encroachment (Sagebrush seedlings present)             | Y             | M                | Areas which are reaching R-3 value (<10% juniper cover) will be treated to reduce juniper competition and retain the sagebrush ecosystem at an R-0 value. Treatments should start prior to juniper cover reaching 10%, and will usually address seedling and sapling trees leaving some mature juniper for use by native species who require the tree structure. | BLM/CDFG/NDOW<br>PRIVATE LAND OWNERS | A quantitative monitoring plan will be part of the Environmental Assessment. | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |
|                                     | Annual non-native grass invasion (Sagebrush seedlings present) | Y             | H                | Areas where annual non-native grass species have invaded a site but the site has not crossed a threshold   | BLM/CDFG/NDOW<br>PRIVATE LAND OWNERS | Quantitative monitoring will be part of the planned action.                  | Each year for 3 years following first growing season after treatment. Every other  |

| RISK FACTOR:<br>Habitat Degradation | Contributing Factor   | Risk (Y/N) | Level (H/M/L) | Conservation Measures  | Responsible Parties                  | Monitoring (BLM)  | Timeline   |
|-------------------------------------|---|------------|---------------|--|--------------------------------------|---|--|
|                                     |   |            |               | (R-4) - appropriate conservation measures will include adjusting grazing levels, increased length of rest to allow existing perennial grasses and forbs to compete, and treatment with reseeded.   |                                      |   | year until determined to be recovered by the Field Office ID Team.   |
|                                     | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into juniper woodlands. | Y          | M             | These X-3 sites will require highly expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large project initiative funding to complete site treatments which include removal of dominant species, and reseeded with a mix of native species. | BLM/CDFG/NDOW<br>PRIVATE LAND OWNERS | Quantitative monitoring will be part of the planned action. | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |

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|---------------------------------------|---|---------------|------------------|---|---|---|--|
|                                       | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into annual grasslands. | Y             | M                | These X-4 sites will require highly expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large project initiative funding to complete site treatments which include removal of dominant species, and reseeding with a mix of native species. | BLM/CDFG/NDOW<br>PRIVATE LAND<br>OWNERS | Quantitative monitoring will be part of the planned action.   | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |
| 2. Indirect limiting of habitat value | OHV use   | Y             | H                | Determine if activity is an adverse affect. If necessary, special buffering will lower or remove the adverse impact.<br><br>New RMP will provide for a management level more restrictive than "open."<br>Roads illegally pioneered into WSAs are being recovered.                         | BLM/CDFG/NDOW<br>OHV GROUPS             | Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact. | OHV potential impact monitoring began in 2002, and will continue until at least 2004.  |

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|--|--|-----------------------|--------------------------|--|--|--|--|
|  | Grazing (primarily domestic sheep- nest trampling).  | Y                     | L                        | Not bedding or grazing on leks appears to be a positive benefit to sage grouse. Little scientific data exists which indicates nest trampling by sheep is an issue. We will determine, through research, if nest trampling by domestic sheep does occur, and if it is an issue.   | BLM/CDFG/NDOW<br>LIVESTOCK<br>OPERATORS                                |  | Begin in 2004 or as soon as funding for studies are available. |
| 3. Increasing Permanent or Long-Term Loss of Nesting Habitat | Conversion to cultivated agriculture, Surface mining, Utility development, Urbanization, and sale of Riparian habitat. | Y                     | L                        | Do not allow utility development which will adversely impact sage grouse nesting, and as much as possible do not allow surface mining in nesting habitat. Conversion to cultivated agriculture and sales of riparian habitat only occur on private lands and will be addressed with private landowners. Private landowners | BLM/CDFG/NDOW<br>/<br>PERMITTING<br>AGENCIES/<br>PRIVATE<br>LANDOWNERS | If the actions do not take place monitoring will not be required. If actions do take place monitoring and mitigation will be part of the permitting process. | As they Occur.   |

| <b>RISK FACTOR:<br/>Habitat Degradation</b> | <b>Contributing<br/>Factor</b> | <b>Risk<br/>(Y/N)</b> | <b>Level<br/>(H/M/L)</b> | <b>Conservation<br/>Measures</b>                           | <b>Responsible<br/>Parties</b> | <b>Monitoring<br/>(BLM)</b> | <b>Timeline</b> |
|---|--------------------------------|-----------------------|--------------------------|--|--------------------------------|-----------------------------|-----------------|
|   |                                |                       |                          | will be advised if<br>nesting occurs on<br>their property. |                                |                             |                 |

| RISK FACTOR:<br>Habitat Degradation   | Contributing<br>Factor   | Risk<br>(Y/N) | Level<br>(H/M/L) | Conservation<br>Measures  | Responsible<br>Parties  | Monitoring<br>(BLM)  | Timeline  |
|---|--|---------------|------------------|---|---|--|---|
| <p><b>Brood Rearing Habitat:</b> 40-80 cm (16"-31") tall sagebrush with 10-25% canopy cover. Early brood rearing habitat often contains greater densities of forbs and grasses (&gt;15%) than of sagebrush. Insect rich and forb rich sites are preferred; usually characterized by an abundance of ants and beetles. Late (&gt;mid-June) brood rearing sites usually require substantial movements by sage grouse to more mesic (wet), forb rich sites. Late summer and early fall sites may include cropland edges and meadows that are lower in grass cover but higher in forb cover, sometimes due to previous livestock grazing.</p> |  |               |                  |   |   |  |   |
| <p>1. Sagebrush and associated forb densities and heights not consistent with needs.</p>  | <p>Naturally occurring issues – Wyoming big sagebrush type. Wyoming sagebrush does not produce the level of forb diversity found in higher elevation big sagebrush communities. Basin big sagebrush found along edges of meadows will produce a forb diversity higher than Wyoming big sagebrush but like Wyoming big sagebrush, as shrub canopy increases forb diversity decreases.</p> | <p>Y</p>      | <p>M</p>         | <p>Manage big sagebrush ecosystems to the highest possible level of health as described in Technical Reference 1734-6, 2000, <i>Interpreting Indicators of Rangeland Health</i>.</p> <p>Low sagebrush sites either in association with big sagebrush or standing alone will be managed for R-0 value and land health.</p> | <p>BLM/CDFG/ND<br/>OW<br/>PRIVATE<br/>LAND<br/>OWNERS<br/>LIVESTOCK<br/>OPERATORS</p> | <p>Continue Land Health Assessment (LHA) and monitoring. Reclamation efforts will require quantitative methodology to measure reclamation success.</p> | <p>LHA is continuing. Quantitative reclamation monitoring will occur 3 years after the reclamation effort is completed.</p> |
|   | <p>Levels of Grazing</p>   | <p>Y</p>      | <p>M-H</p>       | <p>1. Sustain R-0 rated habitat over the long term. 2. Graze existing</p>   | <p>BLM/<br/>LIVESTOCK<br/>OPERATORS</p>   | <p>Monitor for utilization which is consistent with</p>  | <p>Monitoring is a continual process.</p>   |

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|-------------------------------------|----------------------|------------|---------------|---|--|---|--|
|                                     |                      |            |               | vegetation in a manner that provides an opportunity for herbaceous perennial plant seedling establishment (grass and forbs), and facilitates understory vigor.  | & WILD HORSE & BURRO MANAGEMENT                                  | Guideline 16 of Livestock Grazing Guidelines  |  |
|                                     | Fire                 | Y          | M             | Seed appropriate native sagebrush into each fire rehabilitation to accelerate recovery of R-1 lands to R-0, and keep R-4 lands from moving to X-4. Seed appropriate native grasses <b>and forbs</b> into each fire rehabilitation to accelerate recovery of R-2 lands to R-0, and keep R-4 lands from moving to X-4. Establish high priority wildfire suppression response in Wyoming big sagebrush ecosystems. | BLM/CDFG/ND OW   | Quantitatively monitor for seeding success using existing rehabilitation guidelines established for the Eagle Lake Field Office (ELFO). | Each year for 3 years following first growing season after fire, than every other year until determined to be recovered by the Field Office ID Team. |
|                                     | Herbicide Treatments | Y          | L             | No broadcast herbicide treatments will occur within brood-rearing habitat unless they are shown to be beneficial to the sagebrush   | BLM/CDFG/ND OW<br>SWAT/CWMA/<br>NEVADA<br>AGRICULTURE<br>PRIVATE | A quantitative monitoring plan will be part of the Environmental Assessment.  | Each year for 3 years following first growing season after treatment,  |

| <b>RISK FACTOR:<br/>Habitat Degradation</b> | <b>Contributing<br/>Factor</b>                                 | <b>Risk<br/>(Y/N)</b> | <b>Level<br/>(H/M/L)</b> | <b>Conservation<br/>Measures</b>   | <b>Responsible<br/>Parties</b>                 | <b>Monitoring<br/>(BLM)</b>  | <b>Timeline</b>  |
|---|--|-----------------------|--------------------------|--|--|--|--|
|   |  |                       |                          | ecosystem.<br><br>Noxious weeds will be controlled using methods focused on the specific infestations.   | LAND OWNERS                                    |  | than every other year until determined to be recovered by the Field Office ID Team.  |
|   | Juniper Encroachment (Sagebrush seedlings present)             | Y                     | M                        | Areas that are reaching R-3 value (<10% juniper cover) will be treated to reduce juniper competition and retain the sagebrush ecosystem at an R-0 value. Treatments should start prior to juniper cover reaching 10%. Encourage wood and biomass cutting with reseeding of native perennial species. | BLM/CDFG/ND<br>OW<br>PRIVATE<br>LAND<br>OWNERS | A quantitative monitoring plan will be part of the Environmental Assessment. | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |
|   | Non-Native Annual Grass Invasion (Sagebrush seedlings present) | Y                     | H                        | Areas where annual non-native grass species have invaded a site but the site has not crossed a threshold (R-4) - appropriate conservation measures will include adjusting grazing levels, increased length of rest to allow existing   | BLM/CDFG/ND<br>OW<br>PRIVATE<br>LAND<br>OWNERS | Quantitative monitoring will be part of the planned action.                  | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by                           |

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|---|---|-----------------------|--------------------------|--|--|---|--|
|   |   |                       |                          | perennial grasses and forbs to compete, and treatment with reseeding with a mix of native perennial species.   |  |   | the Field Office ID Team.  |
|   | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into juniper woodlands. | Y                     | M                        | These X-3 sites will require highly expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large project initiative funding to complete site treatments which include removal of dominant species, and reseeding with a mix of native species. Encourage wood and biomass cutting with reseeding of native perennial species. | BLM/CDFG/ND<br>OW<br>PRIVATE<br>LAND<br>OWNERS | Quantitative monitoring will be part of the planned action. | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |
|   | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into annual grasslands. | Y                     | M                        | These X-4 sites will require highly expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large project initiative funding to complete site  | BLM/CDFG/ND<br>OW<br>PRIVATE<br>LAND<br>OWNERS | Quantitative monitoring will be part of the planned action. | Each year for 3 years following first growing season after treatment. Every other year until determined to be  |

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|---|---|-----------------------|--------------------------|--|--|--|---|
|   |   |                       |                          | treatments which include removal of dominant species, and reseeding with a mix of native species.  |  |  | recovered by the Field Office ID Team.  |
| 2. Permanent or Long-Term Loss of Brood rearing Habitat | Conversion to cultivated agriculture, Surface mining, Utility development, Urbanization, and degradation of riparian habitat. | Y                     | M                        | Do not allow utility development which will adversely impact sage grouse nesting, and as much as possible do not allow surface mining in brood-rearing habitat. Conversion to cultivated agriculture and sales of riparian habitat only occur on private lands and will be addressed with private landowners | BLM/CDFG/NDOW/<br>PERMITTING AGENCIES/<br>PRIVATE LANDOWNERS | If the actions do not take place monitoring will not be required. . If actions do take place monitoring and mitigation will be part of the permitting process. | As they Occur.  |
| 3. Indirect limiting of habitat value                   | Human activities including OHV use, camping, etc.   | Y                     | H/M/L                    | If a cause and effect relationship exists adjust or eliminate the adverse impact.  | BLM/CDFG/NDOW<br>PRIVATE LAND OWNERS                         | Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact.  | Begin in 2004 or as soon as funding for such studies are available. New RMP will establish a management level more restrictive than "open." Roads illegally pioneered |

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|--|---|-----------------------|--------------------------|---|--|---|---|
|  |   |                       |                          |   |  |   | into WSAs are being recovered.  |
| 4. Overgrowth and stagnation of meadow vegetation        | Overprotection of springs and meadows by agencies and land owners involved.   | Y                     | M                        | If agencies or land owners are enclosing a meadow to exclude over utilization or degradation the agency(s) involved must establish adaptive management goals and actions such as grazing the meadows as necessary to maintain appropriate vegetation structure.         | BLM/CDFG/ND<br>OW<br>PRIVATE<br>LAND<br>OWNERS | Monitor enclosure objectives using quantifiable data. | Establish baseline at the time each meadow is enclosed. Monitor annually to determine when thresholds needing action are reached. |
| 5. Damage to unprotected springs and meadows (wetlands). | Over grazing by livestock, and wild horses and burros resulting in loss of vegetation, and trampling of springs and meadows. Inappropriate use of OHVs causing damage to wet areas. | Y                     | M                        | Maintain or achieve Proper Functioning Condition (PFC) and proper sage grouse habitat criteria of wetlands through application of the utilization levels prescribed in Livestock Grazing Guideline 16. Manage OHV use to enhance healthy riparian/wetland conservation. | BLM/CDFG/ND<br>OW<br>PRIVATE<br>LAND<br>OWNERS | Monitor wetlands for utilization and impacts to PFC.  | This is a continuing process.   |

| <b>RISK FACTOR:<br/>Habitat Degradation</b> | <b>Contributing<br/>Factor</b>  | <b>Risk<br/>(Y/N)</b> | <b>Level<br/>(H/M/L)</b> | <b>Conservation<br/>Measures</b>   | <b>Responsible<br/>Parties</b>  | <b>Monitoring<br/>(BLM)</b>   | <b>Timeline</b>  |
|---|---|-----------------------|--------------------------|--|---|---|--|
| 6. Potential sage grouse die-offs           | Use of very toxic organophosphorus and carbamate insecticides as well as methamidiphos in potato fields, and dimethoate in alfalfa fields. Treatment of BLM administered lands for Mormon crickets, and the sagebrush defoliator moth <i>Aroga websteri</i> . | Y                     | M                        | Discourage use of very toxic insecticides in brooding-rearing habitats. Encourage use of less toxic agrochemicals or biological controls. The land management agencies must insure an insecticide response to naturally occurring defoliation is necessary before allowing insecticide use on lands they administer. Where insecticides must be used on BLM administered lands restrict use to less toxic chemicals, and only spot applications. Private landowners will be advised if brood rearing occurs on their property. | BLM/CDFG/ND<br>OW PRIVATE<br>LAND<br>OWNERS and<br>OTHER<br>INSECTICIDE<br>REGULATORY<br>AGENCIES | A monitoring plan is an integral part of any plan proposing treatment and the environmental documentation.<br>NOTE:<br>Scientifically based insect infestation monitoring is required prior to submitting an treatment proposal to insure we understand the level of infestation. | The timeline begins when a proposed application is approved. |

| RISK FACTOR:<br>Habitat<br>Degradation   | Contributing<br>Factor                              | Risk<br>(Y/N) | Level<br>(H/M/L) | Conservation<br>Measures   | Responsible<br>Parties               | Monitoring<br>(BLM)   | Timeline   |
|--|---|---------------|------------------|--|--------------------------------------|---|--|
| <b>Winter Habitat:</b> In fall sage grouse diets switch from a high percentage of forbs to a greater percentage of sagebrush. Preferred sagebrush heights are 25-35 cm (10"-14") (above snow) with a 10% to 30% canopy. Higher protein (younger) sagebrush sites are selected. Low sagebrush ( <i>Artemisia arbuscula</i> , ssp. <i>arbuscula</i> ) and black sagebrush ( <i>Artemisia nova</i> ) are utilized for forage and cover dependent snow cover. Habitat is a mix of big and low sagebrush. |   |               |                  |  |                                      |   |  |
| 1. Sagebrush mix of heights and densities are not consistent with winter habitat needs.  | Fire (primarily big sagebrush), Chemical treatments | Y             | M                | Sustain R-0 value habitat over the long term. Apply intense fire suppression. Rehabilitation activities will include sagebrush in the seed mixture. No treatments should be allowed unless they are shown to be beneficial to sage grouse habitat. Continue fire planning to develop risk factors for protection activities. | BLM/CDFG/NDOW<br>PRIVATE LAND OWNERS | 1. Monitor for cover and mixture of sagebrush. 2. Rehabilitation monitoring will be quantitative. | Without fire or chemical treatment – every 5 years. Post fire – each year for 3 years, and every third year thereafter until deemed recovered by the ID Team. Complete fire planning in new RMP by 2004. |
|  | Juniper encroachment (Sagebrush)                    | Y             | L                | Areas which are reaching R-3 value (<10%   | BLM/CDFG/NDOW<br>PRIVATE LAND OWNERS | A quantitative monitoring plan will be part of the  | Each year for 3 years following first growing season after treatment.  |

| RISK FACTOR:<br>Habitat<br>Degradation | Contributing<br>Factor  | Risk<br>(Y/N) | Level<br>(H/M/L) | Conservation<br>Measures  | Responsible<br>Parties                  | Monitoring<br>(BLM)   | Timeline   |
|--|---|---------------|------------------|---|---|---|--|
|  | seedlings present)  |               |                  | juniper cover) will be treated to reduce juniper competition and retain the sagebrush ecosystem at an R-0 value.  |   | Environmental Assessment.                                   | Every other year until determined to be recovered by the Field Office ID Team.   |
|  | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into juniper woodlands. | Y             | M                | These X-3 sites will require highly expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large project initiative funding to complete site treatments which include removal of dominate species, and reseeding with a mix of native species. | BLM/CDFG/NDOW<br>PRIVATE LAND<br>OWNERS | Quantitative monitoring will be part of the planned action. | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |

| <b>RISK FACTOR:<br/>Habitat<br/>Degradation</b> | <b>Contributing<br/>Factor</b>                                 | <b>Risk<br/>(Y/N)</b> | <b>Level<br/>(H/M/L)</b> | <b>Conservation<br/>Measures</b>   | <b>Responsible<br/>Parties</b>                           | <b>Monitoring<br/>(BLM)</b>                                 | <b>Timeline</b>  |
|---|--|-----------------------|--------------------------|--|--|---|--|
|   | Annual non-native grass invasion (Sagebrush seedlings present) | Y                     | M                        | Areas where annual non-native grass species have invaded a site but the site has not crossed a threshold (R-4) - appropriate conservation measures will include adjusting grazing levels, increased length of rest to allow existing perennial grasses and forbs to compete, and treatment with reseeding. | BLM/CDFG/NDOW<br>CWMA and SWAT<br>PRIVATE LAND<br>OWNERS | Quantitative monitoring will be part of the planned action. | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |

| RISK FACTOR:<br>Habitat<br>Degradation           | Contributing<br>Factor  | Risk<br>(Y/N) | Level<br>(H/M/L) | Conservation<br>Measures  | Responsible<br>Parties  | Monitoring<br>(BLM)  | Timeline   |
|--|---|---------------|------------------|---|---|--|--|
|  | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into annual grasslands. | Y             | L                | These X-4 sites will require highly expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large project initiative funding to complete site treatments which include removal of dominant species, and reseeding with a mix of native species. | BLM/CDFG/NDOW<br>PRIVATE LAND<br>OWNERS                         | Quantitative monitoring will be part of the planned action.  | Each year for 3 years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |
| 2. Permanent or Long-Term Loss of Winter Habitat | Conversion to cultivated agriculture, Surface mining, Utility development, Urbanization                               | Y             | L                | Do not allow utility development which will adversely impact sage grouse winter habitat, and as much as possible do not allow surface mining in winter  | BLM/CDFG/NDOW/<br>PERMITTING<br>AGENCIES/ PRIVATE<br>LANDOWNERS | If the actions do not take place monitoring will not be required. If actions do take place monitoring and mitigation will be part of the permitting process. | As they Occur.   |

| RISK FACTOR:<br>Habitat<br>Degradation   | Contributing<br>Factor  | Risk<br>(Y/N) | Level<br>(H/M/L) | Conservation<br>Measures  | Responsible<br>Parties                  | Monitoring<br>(BLM)  | Timeline   |
|--|---|---------------|------------------|---|---|--|--|
|  |   |               |                  | habitat.<br>Conversion to<br>cultivated<br>agriculture and<br>urbanization will<br>be addressed<br>with private<br>landowners.  |   |  |  |
| 3. Indirect limiting<br>of habitat value | Human<br>activities<br>including OHV<br>use, hunting,<br>and other<br>winter<br>activities. | Y             | L - H            | Adjust use or<br>close areas<br>based on<br>conclusions<br>from<br>quantitative<br>monitoring that<br>properly<br>measures<br>activity impacts.<br>Closure and<br>reclamation of<br>roads illegally<br>pioneered into<br>WSAs will<br>continue. | BLM/CDFG/NDOW<br>PRIVATE LAND<br>OWNERS | Determine if activity<br>is an adverse<br>impact. Determine if<br>special buffering will<br>lower or remove the<br>adverse impact. | Beginning in 2004<br>gather data each year<br>for a minimum of 3<br>years before attempting<br>to reach conclusions. |