

Pah Rah/Virginia Range Population Management Unit (PMU) Habitat Risk Assessment

| RISK FACTOR: Habitat Degradation | Contributing Factor | Risk (Y/N) | Level (H/M/L) | Conservation Measures | Responsible Parties | Monitoring (BLM) | Timeline |
|---|--|-----------------------|--------------------------|--|--|---|--|
| Leks: Open areas within stands of sagebrush inside nesting habitat. Visibility between birds on leks is critical to mating. Aerial predation is a critical factor. | | | | | | | |
| A.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. | BLM/CDFG/NDOW/Pyramid Lake Lake Paiute Trib/BIA NRCS & PRIVATE LAND OWNERS | Monitor for disturbance | On going. |
| A.2.) | Fire | Y | H | Provide for full suppression on sagebrush habitats. Fire rehabilitation will include priority for sagebrush seeding except on lek. | BLM/Pyramid Lake Lake Paiute Trip/NRCS/ARS | Monitor fire plan for effectiveness. Monitor for species diversity and overall vegetation cover as part of ESR Plan | On going. After fire – each year first 3 yrs., than add to standard range land monitoring schedule |
| B.1.) Direct excessive human activity disturbance during strutting | Overzealous human observers venturing too close or onto leks. Use of untrained volunteers. | Y | L | Do not publicize lek locations. Temporary closures if necessary, work with private land owners. Law enforcement if necessary. | BLM/CDFG/NDOW/Pyramid Lake Lake Paiute Tribe/Private Land Owners | Monitor leks for disturbance. | Annually |
| B.2.) | Sheep bedding and grazing on leks. | N | N/A | No sheep permits in these PMU's | BLM/Livestock Operators | | |
| B.3.) | Predator control – aerial gunning. | N | N/A | | BLM/CDFG/Pyramid Lake Lake Paiute Trib/NDOW/Wildlife Services | | |
| B.4.) | OHV Activity | Y | L | Using appropriate, accurate monitoring data restrict OHV use as necessary. | BLM/CDFG/NDOW/Pyramid Lake Lake Paiute Tribe/OHV Groups/Private Land Owners | Normal monitoring. | On going |
| C.1.) Excessive aerial predation | Transmission lines and structures constructed too close to leks. | Y | H | Avoid routing overhead lines and structures within lek viewshed and no closer than 3.2 km. (2 miles). No new corridors. | BLM/CDFG/NDOW/Pyramid Lake Lake Paiute Tribe/Other Permitting Agencies (Public utility Commission, etc.) /Counties | Review all overhead line and structure construction proposals. | As they occur. |

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| D.1.) Direct loss of lek | Paving, surface mining, converting to cultivated agriculture, urban expansion | Y | H | Do not allow utility development which will adversely impact sage grouse leks, and as much as possible do not allow surface mining in winter habitat. Conversion to cultivated agriculture and sales of riparian habitat will be addressed with private landowners. Inventory prior to disposal, retain lands providing habitat for sage grouse, acquire areas or negotiate conservation easements of critical areas. Retain tax delinquent parcels in sage grouse habitat. Require mitigation for unavoidable habitat disturbance. 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. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA PRIVATE LAND OWNERS/ PERMITTING AGENCIES/NRCS | Review all surface mining & paving proposals. | As they occur. |
| E.1.) Loss of Lek to Excessive Vegetation on lek | Juniper encroachment | Y | L | Treat excessive vegetation appropriately for life forms involved | BLM/CDFG/NDOW/NRCS/ PRIVATE LANDOWNERS | Vegetation is monitored as part of annual counts | On going |
| F.2.) Collisions with fences when flying to and from leks. | Construction of fences within flight path of lek, too close to the lek. | Y | L | Do not construct new fences within 0.8 km (0.5 mi.) of a lek. If fence construction cannot be avoided build let-down fences to be lowered during strutting season, and anti-perch fence posts. | BLM/PRIVATE LAND OWNERS | Establish and maintain standard. | On going. |

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| <p>Nesting Habitat: 30-80cm (12"-31") tall sagebrush, 15-25% canopy cover within a grass and forb community >18cm (7") tall with >= 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 >= 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>A.1.) Sagebrush and associated grass/forbs densities and heights which are not consistent with nesting habitat needs.</p> | <p>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 Wyoming 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>Low sagebrush sites either in association with big sagebrush or standing alone will be managed for R-0 value</p> | <p>BLM/Pyramid Lake Paiute Tribe/ BIA</p> | <p>Continue to monitor for land health.</p> | <p>Annually</p> |
| <p>A.2.)</p> | <p>Levels of grazing management</p> | <p>Y</p> | <p>M</p> | <p>1 Sustain R-0 rated nesting habitat over the long term. 2. Establish & maintain a residual herbaceous height of 18cm (7"; or as site and species potential will allow) within the drip line of sagebrush. 3. In R-2 areas where existing species of perennial grass do not reach 18cm (7") of growth reintroduce native grass species that have greater vertical structure. Graze vegetation in a manner sufficient to facilitate perennial plant seedling establishment enhance vigor and achieve 18 cm of residual herbaceous cover.</p> | <p>BLM/ Pyramid Lake Paiute Tribe/Livestock Operators & Private Operators/NRCS</p> | <p>Monitor existing vegetation residual herbaceous height within sagebrush canopy dripline in each pasture being used-annually. Seedings shall be monitored to determine success, and determine when the seeding may be used for grazing. Quadric frequency monitoring for seedling establishment.</p> | <p>Annually</p> |

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| A.3.) | <p><i>Levels of grazing – Wild Horses and Burros</i></p> <p>The Pah Rah range is not part of any HMA, however, there are astray horses in this area which may be or become a problem</p> | Y | L-M | Maintain WH&B numbers to Appropriate Management Levels (AML). Remove astray horses | BLM/State/Pyramid Lake Paiute Tribe/ BIA/Wild Horse and 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 |
| A.4.) | 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 and forbs into each fire rehabilitation to accelerate recovery of R-2 lands to R-0, and keep R-4 lands from moving to X-4. Provide for full suppression on sage brush habitats. Consider fire breaks around subdivisions. Reduce cheat grass. Consider green stripping along roads on a site specific basis. Consider naturalized grasses in areas where cheat grass infestation is likely otherwise use a mix (forbs, grasses and brush) of native seeds adapted to the site where seeding is necessary. Where natural | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA/Private Land Owners/NRCS | Monitor for species diversity and overall vegetation cover as part of ESR Plan. Quadric frequency monitoring for seedling establishment. | After fire – each year first 2 yrs., then add to routine range land monitoring schedule |

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| | | | | regeneration of native species is likely artificial seeding will not be implemented. | | | |
| A.5.) | Herbicide Treatments | Y | L | No broadcast herbicide treatments will occur within nesting habitat unless they are shown to be beneficial to the sagebrush ecosystem. Noxious weeds will be controlled using methods focused on the specific infestations. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ SWAT/CWMA/NEVADA Agriculture/NRCS/ Private Land Owners /Home Owners Associations/ County Governments. | 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. |
| A.6.) | Juniper encroachment (Sagebrush seedlings present) Not a factor in Pah Rah, however in parts of the Virginia Range encroachment is a factor. | Y | L | 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 will usually address seedling and sapling trees leaving some mature juniper for use by native species which require the tree structure. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA 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. |
| A.7.) | Annual non-native grass invasion (Sagebrush seedlings present) Pah Rah, is especially vulnerable due to low | 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 | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Land Owners | Quantitative Monitoring will be part of standard allotment management. | Each year for 3 years following first growing season after treatment. Every other year until |

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| | precipitation. | | | include adjusting grazing levels, increasing length of rest to enable existing perennial grasses and forbs to compete more effectively against annual species, inventory, and treatment with reseeded of native grasses, forbs and brush, if necessary. Use appropriate grazing management to increase perennial grasses and forbs. | | | determined to be recovered by the Field Office ID Team |
| A.8.) | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into juniper woodlands. | Y | L | These X-3 sites will require very 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 reseeded with a mix of native species. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Land Owners | Quantitative monitoring will be part of the planned action. | Each year following first growing season after treatment. Every year until determined to be recovered by the Field Office ID Team. |

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| A.9.) | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into annual grasslands. | Y | H | These X-4 sites will require very 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. Graze annual grasses through flowering stage, but prior to boot stage of perennials. Active grazing management maybe cost prohibitive. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ 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. |
| B.1.) Indirect limiting of habitat value | OHV use | Y | H | Determine if activity is an adverse affect. Determine if special buffering will lower or remove the adverse impact. Limit OHV use level, have a plan for southern portion of PMU, develop plan for remainder of PMU. Seasonal closures if necessary. Find out what plan says! | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ OHV Groups | Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact. | On going. |
| B.2.) | Grazing (primarily domestic sheep- nest trampling). No sheep in these PMU's | N | NA | | BLM/CDFG/NDOW LIVESTOCK OPERATORS | | |
| C.1.) Permanent or Long-Term Loss of Nesting Habitat | Conversion to cultivated agriculture, Surface mining, Utility development, Urbanization, and sale of Riparian habitat. Much home development and associated activities have taken and are taking place in and near these | Y | H | 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 | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA PERMITTING AGENCIES/ PRIVATE LANDOWNERS | Resource inventory prior to conveying land or issuing an easement . | On going. |

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| | PMU's | | | sales of riparian habitat will be addressed with private landowners. Inventory prior to disposal, retain lands providing habitat for sage grouse, acquire areas or negotiate conservation easements of critical areas. | | | |

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| Brood Rearing Habitat: 40-80 cm (16"-31") tall sagebrush with 10-25% canopy cover. Early brood rearing habitat often contains greater densities of forbs and grasses (>15%) than of sagebrush. Insect rich and forb rich sites are preferred; usually characterized by an abundance of ants and beetles. Late (>mid-June) brood rearing sites usually require substantial movements by sage grouse to more mesic, 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. | | | | | | | |
| A.1.) Sagebrush and associated grass/forb densities and heights not consistent with needs. | 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. | Y | L | Manage Wyoming sagebrush ecosystems to their potential in R-1 and R-2 areas. Where R-0 values are achieved sustain them over the long term. Low sagebrush sites either in association with big sagebrush or standing alone will be managed for R-0 value | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Land Owners/Livestock Operators | Quantitative monitoring techniques will be utilized. | On going. |
| A.2.) | Levels of Grazing Management | Y | M-H | 1.Sustain R-0 rated broodrearing habitat over the long term. 2. Graze in a manner which facilitates perennial plant seedling establishment, appropriate forb diversity, and vigor. Site specific prescriptions will be written for each allotment to facilitate forb production. | BLM/Pyramid Lake Paiute Tribe/ Livestock Operators & Wild Horse and Burro Management /Private Land Owners | Quantitative monitoring techniques will be utilized to monitor the effects of implementation of prescribed grazing and effects on species composition. | Annually. |
| A.3.) | 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 | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA/ Private Land Owners | Monitor for species diversity and overall vegetation cover as part of ESR Plan. Quadric | After fire – each year first 2 yrs., then add to routine range land monitoring |

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| | | | | moving to X-4. Seed appropriate native grasses and forbs into each fire rehabilitation to accelerate recovery of R-2 lands to R-0, and keep R-4 lands from moving to X-4. Provide for full suppression on sage brush habitats. Consider fire breaks around subdivisions. Reduce cheat grass. Consider green stripping along roads on a site specific basis. Consider naturalized grasses in areas where cheat grass infestation is likely otherwise; use a mix (forbs, grasses and brush) of native seeds adapted to the site where seeding is necessary. Where natural regeneration of native species is likely artificial seeding will not be implemented. | | frequency monitoring for seedling establishment. | schedule |
| A.4.) | Herbicide Treatments | Y | L | No broadcast herbicide treatments will occur within broodrearing habitat unless they are shown to be beneficial to the sagebrush ecosystem. Noxious weeds will be controlled using methods focused on the specific infestations. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ SWAT/CWMA/Nevada Agriculture/Private Land Owners/County Governments. | A quantitative monitoring plan will be part of the Allotment Management Process and weed management projects. | On going. |
| A.5.) | Juniper Encroachment | Y | L | Areas which are reaching | BLM/CDFG/NDOW/Pyramid | A quantitative | Each year for 3 |

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| | (Sagebrush seedlings present) | | | R-3 value (<10% juniper cover) will be treated to reduce juniper competition and retain the sagebrush ecosystem at an R-0 value. Treatments will usually address seedling and sapling trees leaving some mature juniper for use by native species which require the tree structure. | Lake Paiute Tribe/BIA PRIVATE LAND OWNERS | monitoring plan will be part of the Environmental Assessment. | years following first growing season after treatment. Every other year until determined to be recovered by the Field Office ID Team. |
| A.6.) | Annual non-native grass invasion (Sagebrush seedlings present) Pah Rah, is especially vulnerable due to low precipitation. | 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, increasing length of rest to enable existing perennial grasses and forbs to compete more effectively against annual species, inventory, and treatment with reseeding of native grasses, forbs and brush, if necessary. Use appropriate grazing management to increase perennial grasses and forbs. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Land Owners | Quantitative Monitoring will be part of standard allotment management. | 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 |
| A.7.) | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into juniper woodlands. | Y | L | These X-3 sites will require very expensive mechanical treatments. Conservation measures will include taking advantage of grant, or large | BLM/CDFG/NDOW PRIVATE LAND OWNERS | Quantitative monitoring will be part of the planned action. | Each year following first growing season after treatment. Every year until |

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| | | | | project initiative funding to complete site treatments which include removal of dominate species, and reseeded with a mix of native species. | | | determined to be recovered by the Field Office ID Team. |
| A.8.) | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into annual grasslands. | Y | M | These X-4 sites will require very 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 reseeded with a mix of native species. Graze annual grasses through flowering stage, but prior to boot Stage of perennials. Active grazing management maybe cost prohibitive | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ 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. |
| B.1.) Permanent or Long-Term Loss of Brood rearing Habitat | Conversion to cultivated agriculture, Surface mining, Utility development, Urbanization, and sale of Riparian habitat. Much home development and associated activities have taken and are taking place in and near these PMU's | Y | H | 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 will be addressed with private landowners. Inventory prior to disposal, retain lands providing habitat for sage grouse, acquire areas or negotiate conservation easements for long term | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA Permitting Agencies/ Private Landowners | Resource inventory prior to conveying land or issuing an easement. Monitor land status, identify critical areas, monitor compliance on easements. | On going. |

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| | | | | tenure of critical areas. | | | |
| C.1.) Indirect limiting of habitat value | OHV use | Y | H | Determine if activity is an adverse affect. Determine if special buffering will lower or remove the adverse impact. Limit OHV use level, have a plan for southern portion of PMU, develop plan for remainder of PMU. Check on Plan | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ OHV Groups | Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact. Monitor compliance with plan. | On going. |
| D.1.) Overgrowth and stagnation of meadow vegetation | Overprotection of springs and meadows by agencies and land owners involved. | Y | L | If 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 diversity of forbs for brood rearing habitat. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Landowners | Monitor exclosure objectives using quantifiable method. | On going. |
| E.1.) 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. Maintain proper functioning condition, hydrology, land form and vegetation composition, i.e. avoid head cutting, loss of vegetation and encroachment of sagebrush. | Y | M | Manage grazing to promote forbs and structure. Use grazing practices , at a minimum to maintain proper functioning condition and forb diversity. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Landowners | Monitor wetlands for utilization and impacts to PFC. | On going. |
| E.2.) | Roads and other uses which effect the hydrology. | Y | M | Inventory road impacts on riparian areas. Re-rout roads to avoid adverse impacts on the hydrology and wet meadows. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Landowners | Monitor wetlands for utilization and impacts to PFC. | On going and monitor for effectiveness of specific projects. |

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| Winter Habitat: 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> , <i>ssp. arbuscula</i>) and black sagebrush (<i>Artemisia nova</i>) are utilized for forage and cover until covered by snow. Habitat is a mix of big and low sagebrush. | | | | | | | |
| A.1.) Sagebrush mix of heights and densities are not consistent with winter habitat needs. | Fire (primarily big sagebrush), Chemical treatments | Y | H | Sustain R-0 value habitat over the long term. Apply intense fire suppression. Rehabilitation activities will include sagebrush in the seed mixture. No herbicide treatments will be allowed unless they are shown to be beneficial to sage grouse habitat. Continue fire planning to develop risk factors for protection activities. Provide for full suppression on sagebrush habitats. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Landowners | 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. |
| A.2.) | Juniper encroachment (Sagebrush seedlings present) | Y | L | 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 will usually address seedling and sapling trees leaving some mature juniper for use by native species which require the tree structure. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/BIA Private Landowners | A quantitative monitoring plan will be part of the Environmental Assessment for juniper treatment. | 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. |
| A.3.) | Areas that have crossed the threshold from sagebrush | Y | L | These X-3 sites will require very expensive mechanical | BLM/CDFG/NDOW Private Landowners | Quantitative Monitoring will be | Each year following first |

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| | communities (sagebrush seedlings absent) into juniper woodlands. Number of areas and size | | | 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. | | part of the planed action and allotment management. | growing season after treatment. Every year until determined to be recovered by the Field Office ID Team. |
| A.4.) | Annual non-native grass invasion (Sagebrush seedlings present) Number of areas and size | 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 inventory, and treatment with reseeding of native grasses, forbs and brush, if necessary. Use appropriate grazing management to increase perennial grasses and forbs. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Landowners | Quantitative Monitoring will be part of the planed action and allotment management. | The following growing season after treatment. Every year until determined to be recovered by the Field Office ID Team. |
| A.5.) | Areas that have crossed the threshold from sagebrush communities (sagebrush seedlings absent) into annual grasslands. Areas and location, | Y | M | These X-4 sites will require very 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. Graze annual grasses through flowering stage, but prior to boot stage of perennials. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ Private Landowners | 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.1.) Permanent or Long-Term | Conversion to cultivated | Y | H | Do not allow utility | BLM/CDFG/NDOW/Pyramid | Resource inventory | On going. |

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| Loss of Winter Habitat | agriculture, Surface mining, Utility development, Urbanization, and sale of Riparian habitat. Much home development and associated activities have taken and are taking place near and in these PMU's | | | development which will adversely impact sage grouse wintering, and as much as possible do not allow surface mining in winter habitat. Conversion to cultivated agriculture and sales of riparian habitat will be addressed with private landowners. Inventory prior to disposal, retain lands providing habitat for sage grouse, acquire areas or negotiate conservation easements of critical areas. Retain tax delinquent parcels in sage grouse habitat. Require mitigation for unavoidable habitat disturbance. | Lake Paiute Tribe/BIA Private Landowners/Permitting Agencies/Counties | prior to conveying land or issuing an easement . | |
| C.1.) Indirect limiting of habitat value | OHV use | Y | H | Determine if activity is an adverse affect. Determine if special buffering will lower or remove the adverse impact, seasonal closures if necessary (law enforcement), use designated routs within sage grouse habitat. Limit OHV use level, have a plan for the southern portion of PMU, develop plan for remainder of PMU. | BLM/CDFG/NDOW/Pyramid Lake Paiute Tribe/ OHV Groups | Determine if activity is an adverse impact. Determine if special buffering will lower or remove the adverse impact. Law enforcement to insure compliance. | On going. |