

**Conservation Summary**

**BI-STATE SAGE-GROUSE DISTINCT POPULATION SEGMENT CONSERVATION SUMMARY**

The U.S. Fish and Wildlife Service’s (FWS) Greater Sage-grouse Conservation Objectives (COT) Report identified Priority Areas for Conservation (PAC) as the most important areas needed for maintaining sage-grouse representation, redundancy and resilience across the landscape. To capture the variability in threats and population resilience across the range, they assessed the presence of threats to each population. The Bureau of Land Management (BLM) and U.S. Forest Service (FS) land use planning strategy was designed to address these threats on priority and general habitat areas. These habitat areas were developed based upon the same State Fish and Game agency data that were used in developing the COT report. Thus, there is substantial overlap between the PACs and the priority habitat areas identified in the Greater Sage-Grouse Bi-State Distinct Population Segment (DPS) Plan Amendment project area. The following summary explains how the conversation measures in the proposed plan address the threats identified within the Bi-State DPS habitat.

The combination of, implementation, mitigation, and monitoring provides the platform to help achieve the goal of the Humboldt-Toiyabe National Forest and Carson/Battle Mountain BLM Bi-State sage-grouse planning strategy to conserve enhance and restore sage-grouse and their habitat.

The combined Forest Service and BLM area to which the amendments would apply (amendment area) contains portions of Lyon, Mineral, Esmeralda, and Douglas counties in Nevada, and in portions of Alpine, Inyo, and Mono counties in California. About 781,700 acres of Bi-State DPS habitat falls within the total amendment area boundary. The total habitat within the Forest Service and BLM administered lands within the amendment area is approximately 648,800 acres (about 223,900 acres of BLM, and about 424,900 acres of Forest Service). Bi-state DPS habitat is also located outside the project area boundary on the Inyo National Forest and public lands managed by the Bishop BLM office.

Eight populations across six population Management units identified for the Bi-State DPS, the PMUs are: Pine Nut (1 population), Desert Creek-Fales (2 populations), Mount Grant (1 population), Bodie (1 population, South Mono 2 populations, and the White Mountains (1 Population). These populations are delineated based on a fair degree of geographic and genetic isolation within the overall Bi-State DPS. Within the Bi-State DPS, all occupied habitat is considered PAC.

<b>Population / Subpopulation: <i>Bi-State DPS</i></b>			
<b>Population/Subpopulation Statistics</b> <i>(For the portion of the population that lies within the planning area.)</i>			
<b>Private</b>	99,682	<b>WAFWA Management Zone</b>	<i>Not Available</i>
<b>State</b>	12,479	<b>Priority Habitat</b>	781,343
<b>BLM</b>	223,753	<b>General Habitat</b>	<i>NA</i>
<b>USFS</b>	424,790	<b>Non-Habitat</b>	2,249,386

## Summary of Threats Facing the Population (As identified in the COT Report)

### Threat 1 – Isolated small size

- **Summary of Threat:** The COT describes the Bi-State DPS as both geographically and genetically isolated from other populations of greater sage-grouse. The long term persistence of the core populations dropping below effective viable populations in the next 100 years is likely. Between 2008 and 2012 the Bi-State DPS population has grown at a consistent rate. This is thought to be in response to a higher precipitation and favorable range conditions (COT Report 2013).
- **Regulatory Mechanism:** The Bi-State DPS Proposed Amendment (PA) includes regulatory mechanisms to improve habitat where it is being impacted by conifer encroachment, and by anthropogenic activities. The Goals, Objectives, Standards, and Guidelines (GOSGs) will address the key threat to the species (decreasing habitat) by requiring no net unmitigated loss of habitat and implementing a 3% anthropogenic disturbance cap. Habitat restoration and improvement direction will target 200,000 acres in the next ten years, and focus on areas with high resilience and resistance to fire, and annual non-native grasses.
- All Bi-State DPS habitat is priority habitat. The PA does not delineate direction by habitat type. All standards apply across the range and are intended to preserve habitat by limiting disturbance or by active restoration. Connective areas are protected to some degree so that the already limited distribution of birds across habitat is not further restricted. With habitat restoration projects some of these connective areas may be converted to occupied and used habitat in the future.

### Threat 2-Sagebrush Elimination

- **Summary of Threat:** With the exception of the South Mono Lake population sagebrush removal is not a widespread threat. The use of prescribed fire to reduce wildland fire threat in sagebrush ecosystems is not an ongoing or planned activity. Neither is the large scale removal of sagebrush from development activities related to mineral work, road construction, or construction of infrastructure. Wildfire poses the largest factor related to the loss of sagebrush.
- **Regulatory Mechanism:** To address the loss of sagebrush due to large wildland fires, the proposed action includes multiple GOSGs established to prevent fires from starting, aggressively attack fires that do start, and restores burned areas as quickly as possible following a fire. The standards include the creation of green strips to help control the spread of fire and the use of fire in areas with high resilience/resistance to improve habitat.
- The PA also includes Standards and Guidelines that limit the ability to build new roads, utilities corridors, or facilities in undisturbed habitat. The Standards and Guidelines require the co-location of roads and utility rights-of-way, and the burial of pipelines and power lines.

### Threat 3- Agriculture Conversion

- **Summary of Threat and Regulatory Mechanism:** Agricultural conversion is identified in the COT as a widespread threat in Bi-State DPS habitat. Agricultural conversion of habitat is not an issue that has been identified on NFS lands or public lands managed by the BLM. There are no regulatory mechanisms identified in the PA. However there is activity around

### Threat 4 -Fire

- **Summary of Threat:** Wildland fire is considered a threat across the PAC. Several large fires over the last few years have impacted the Pine Nut PMU. According to the analysis completed for the project area 50 percent of the area is in Fire Regime Condition Class (FRCC) III (High) and 26 percent is II (Moderate). The high condition class indicates that the vegetation composition, structure, and fuels are very different from the natural regime and predispose the system to high risk of loss of key ecosystem components. Wildland fires are highly uncharacteristic compared to the natural fires regime behaviors, severity and patterns. Disturbance agents, native species, and hydrologic functions are substantially outside the natural range of variability. Having this much area in high and moderate FRCC is a concern because the areas will continue to move further from the reference condition and continue to pose and increasingly greater threat.
- **Regulatory Mechanism:** The PA provides multiple GOSGs that address suppression and prevention of wildfires within Bi-State DPS habitat. The PA includes regulatory mechanisms to help design fuels reduction projects in these high to moderate FRCC areas to reduce the risk of catastrophic wildfire in habitat. Firefighter and public safety and the protection of private property are the highest priority when it comes to wildland fire suppression. Protection of Bi-State DPS habitat is second. The Standards and Guidelines associated with both wildfire, prescribed fire, and fuels treatments are included to help managers react to wildfires and prepare for wildfires through the use of fuel treatments across the Bi-State DPS habitats. Fuel treatments to reduce the risk of wildfire would be guided by Standards and Guidelines that limit the reduction of the sage brush canopy below 15 percent, that prioritize suppression of wild fires in Bi-State DPS habitat only the safety of firefighters and the need to protect life and property is considered. Standards and guidelines would also guide design and implementation of fuels projects by limiting the use in areas with low resilience to the spread of annual invasive grasses and creating fuel breaks and green strips to protect habitat with > 25 percent landscape sage brush cover.

### Threat 5- Conifers

- **Summary of Threat:** As described in the October 28, 2013 Proposed Rule to list the Bi-State DPS pinyon/juniper encroachment represents a major threat to habitat of the Bi-State DPS. The COT also identifies conifers as a widespread threat. The threat is best illustrated in the proposed rule where the expansion over the last decade is estimated to be between 50,000 – 150,000 acres. Treatments have failed to keep up with an estimated 16,000 acres of treatments in P/J occurring during the same period.
- **Regulatory Mechanism:** The PA includes Standards and Guidelines that will guide the selection, treatment, and restoration of habitat where conditions have been affected by the expansion of pinyon/juniper woodlands. The potential treatment areas will be located, primarily in phase I and Phase II pinyon/juniper woodlands where there is the greatest potential to be successfully implemented and meet the habitat restoration Goals and Objectives. To do this the FS and BLM will depend on the Technical advisory Committee recommendations and on assessments of a potential project areas resistance to the spread of invasive species and resilience to recover from disturbance in a way that improves Bi-State DPS habitat conditions. Standard 1a of the proposed action provides the parameters for which all projects should be measured.
  - Standard 1a Habitat restoration projects shall meet one or more of the following habitat needs
    - 1, Promote the maintenance of large, intact sagebrush communities;

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- 2 Limit the expansion or dominance of invasive species, including cheat grass;
  - 3 Maintain or improve soil site stability, hydrologic function, and biological integrity; and
  - 4 Enhance the native plant community.
- To initiate this habitat restoration the Forest has committed to treating nearly 100,000 acres of Bi-State DPS habitat over the next ten years. The treatments will be guided by the GOSG included in the regulatory mechanisms but the treatments on the ground will be what make the difference when considering this threat. The FS commitment alone is for nearly 100,000 acres treated. When combined with the commitments of the other agencies and units with Bi-State DPS habitat the treatment targets will significantly improve and expand habitat into areas that have been impacted by the expansion of conifers.

### Threat 6 -Weed/Annual Grasses

- **Summary of Threat:** Both the COT and proposed rule identify the spread of annual invasive grasses and weeds as a threat to the species and to the habitat. The spread of annual invasive grasses have the potential to greatly alter the fire cycle across much of the habitat. Recent work by Chambers et al. (2014) describes how focusing treatments on areas with high resistance to the invasive species and high resilience to natural disturbance regimes can improve restoration activity success.
- **Regulatory Mechanism:** The concepts identified in Chambers et al. (2014) and in the Fire, Invasive Assessment Team (FIAT) are incorporated into the PA in the form of GOSGs. These regulatory mechanisms focus work on areas with high resistance and high resilience. They identify areas with low resistance (< 12 inches annual precipitation) and provide thresholds for treatments (Fuel treatments shall not reduce sagebrush canopy cover to less than 15 percent of the treatment area...). The PA also includes standards and guidelines that guide treatment methodologies with the intent to prevent the spread of weeds associated with fire suppression and post fuels/post fire restoration activities.

### Threat 7 Energy

- **Summary of Threat:** Energy as a threat in the Bi-State DPS PACs is localized in the Bodie PMU and not known in the South Mono, Pine Nut, Mount Grant, or White Mountains areas. There is not currently an interest in oil and gas development in the area. Large scale commercial wind and solar developments are not being proposed in the areas. There is interest in geothermal development around the Aurora area
- **Regulatory Mechanism:** The PA addresses the potential threat to habitat from energy development by putting in place Standards and Guidelines to limit impacts from these developments. Standards limit surface occupancy in habitat on fluid and geothermal lease block, limit noise production from production activities within the 4 mile lek buffers, and require full reclamation for the restoration of disturbed habitat. Guidelines require incorporation of mitigation measures to offset all proposed surface disturbance that would result in loss of habitat and requiring the leases located in habitat to locate facilities in areas least likely to be harmful to sage-grouse. Currently habitat on NFS lands geothermal leasing could occur only under the No Surface Occupancy lease terms. An alternative in the EIS would remove all areas from future

fluid mineral leasing consideration. Lease blocks in habitat would not be leased once the current leases expire.

- Where there is currently activity exploration would be limited to timing limitations, and mitigations would be required to limit noise, impacts to habitat, the placement and design of pipelines and power lines, the types of drilling systems used, and restoration activity.

### Threat 8-Mining

- **Summary of Threat:** Mining is considered wide spread in the Bodie Hills area, localized in the Pine Nut area and not present in the South Mono and White Mountain Areas. Mining can be from mineral materials (e.g. sand and gravel), locatable (e.g. gold), or solid leasable minerals (e.g. coal and potash). Mineral material sales are discretionary and the right to explore or mine can be denied. Most of the mineral material pits in the project area are Nevada Department of Transportation (NDOT) pits held under a BLM right-of-way. NDOT has the right to mine the gravel until the right-of-way is scheduled for renewal. Then the Standards and Guidelines can be applied. Locatable minerals are non-discretionary due to the 1872 Mining Law and the agencies must approve a reasonable plan of operations that minimizes impacts to wildlife and meets the requirements of the regulations. Impacts are lower for exploration projects due to the short duration, minimal surface disturbance, and protective measures applied. Mining operations can have greater impacts due to the longer term impact (often 5-25 years), larger surface disturbance and infrastructure. There are no current solid leasable mineral leases and the potential is low.
- **Regulatory Mechanism:** Under Alternative B, current gravel pits would be allowed to be used but new deposits to be explored or mined would be permitted. Current gravel pits could expand but would have no net loss of habitat mitigation along with timing limitations, and specific reclamation requirements. Solid leasable mineral leases would have a no surface occupancy stipulation which would only allow occasional driving on existing roads and low impact geophysical surveys. All other activities would not be allowed, so there would be virtually no impact to the habitat or sage-grouse. Locatable minerals would be allowed to continue to explore or mine but with timing limitations, best management practices (BMPs), and sufficient mitigations to eliminate or minimize impacts to sage grouse and the habitat.
- Under Alternative C, mineral material operations would not be allowed subject to valid existing rights. Mineral materials for construction and road maintenance would have to come from outside the habitat. No leasing would be granted for solid leasable mineral exploration or mining and therefore no impact. The BLM would petition to withdraw the locatable mineral rights from the habitat. If the current administration approved the withdrawal (which takes a minimum of two years to process), only valid existing rights from valid existing mining claims prior to withdrawal would be allowed to continue explore or operate. Expansion of operations or new proposals would have to demonstrate valid existing rights and would be subject to timing limitations, BMPs, reclamation requirements, and numerous mitigations to protect the sage grouse and the habitat.

### Threat 9-Infrastructure

- **Summary of Threat:** The potential impacts from infrastructure across the six Bi-State DPS areas are considered as widespread in the COT report.
- **Regulatory Mechanism:** For existing infrastructure, the PA includes standards and guidelines to remove the infrastructure where it is no longer in use or to alter the infrastructure to mitigate

impacts (alteration includes marking fences that cannot be removed, installing perch deterrents, on tall structures, draining tanks and troughs when not in use and installing escape ramps). The PA also includes Standards and Guidelines that require the co-location of new infrastructure with existing infrastructure to limit the disturbance footprint and increase habitat fragmentation, prohibits new recreation facilities in habitat, requires the proper containment and prompt removal of refuse, requires power lines to be buried, and would not authorize new communication sites in habitat.

- As a response to the threats, the PA addresses ten conservation options identified in the COT for infrastructure and the three identified specifically for fences. The PA avoids construction and associated fragmentation by seeking to co-locate roads, and utilities. It includes Standards and Guidelines limiting the spread of noxious weeds commonly associated with infrastructure and requires reclamation/removal of facilities no longer needed. The PA also includes a standard that requires pipelines to be buried. There are Standards for the removal of fences no longer needed within a 4 mile buffer of a lek and marking of fences that cannot be removed. There are also Standards and Guidelines providing direction for the placement and use of corrals, loading facilities, supplement placement, and water developments.

#### **Threat 10- Grazing**

- **Summary of Threat:** While livestock grazing is widespread across the PACs, the potential for impact is from improper livestock management. For the most part, livestock management across the Bi-State DPS PACs is conducted in a way that is responsive to ecological conditions. The FS and BLM use different methods to assess range condition but the outcomes are consistent.
- **Regulatory Mechanism:** The PA includes a set of grazing utilization standards based on sage-grouse habitat objectives. These standards would reduce the available forage in some areas with the goal of conserving the essential habitat components for BSSG. There are also Standards and Guidelines in the PA that address the potential effects of livestock when they are gathered or drawn to an area by water developments, fence lines, supplements or loading areas. These Standards and Guidelines would move some of the activities outside the buffers around leks, require the marking of fences that cannot be removed, and require the active management of water tanks and troughs to limit the spread of West Nile Virus.
- The PA would amend grazing permits, allotment management plans and annual operating instructions to include terms, conditions, and direction to move toward or maintain Bi-State DPS desired habitat conditions.

#### **Threat 11 Free-roaming Equids**

- **Summary of Threat:** The potential for impacts from wild and free roaming equids is widespread across the Bi-State DPS PACs.
- **Regulatory Mechanism:** The PA addresses this potential impact by adopting a Standard which bases the appropriate management level on the structure, condition, and composition of vegetation needed to achieve Bi-State sage-grouse DPS habitat objectives. This standard responds to one of the conservation options identified in the COT to determine if the current management levels (AMLs) maintain suitable sage-grouse habitat parameters. The other conservation options to manage for AMLs within Federal lands and adjust AMLs for drought conditions, develop scientific procedures that can be replicated to count horses so that proper management actions can be implemented when numbers exceed AMLs, and develop a sound

monitoring program with prescriptive management “triggers” to make adjustments are all related to the site (Herd Management Area/Wild Horse and Burro Territory) specific NEPA analysis that would be required to adjust the AMLs. The FS is currently in the process of analyzing the AML on the Powell Mountain Wild Horse Territory. Developing a monitoring strategy for the implementation of the resulting decision will be a critical part of that analysis.

### Threat 12- Recreation

- **Summary of Threat:** Recreation is a fairly widespread occurrence across the Bi-State DPS PACs. Recreational activities within sage-grouse habitats can result in habitat loss and fragmentation (e.g., creation of off-road trails, camping facilities) and both direct and indirect disturbance to the birds (e.g., noise, disruptive lek viewing, hunting dog trials, and dispersed camping).
- **Regulatory Mechanism:** To address some of the threats from recreational activities, the PA includes Standards that prohibit the use of motor vehicles off designated roads and trails on NFS lands and limits the use of motor vehicles to roads and trails on public lands. The PA also includes Standards and Guidelines that limit the operating period (time of day) and season of use on roads and trails during special use events. The PA also includes a Standard that prohibits creation of new recreation facilities in habitat.  
Through these Standards and Guidelines the PA adds regulatory mechanisms that address both of the conservation options identified in the COT and takes additional steps to limit potential impact to the species during critical periods.

### Threat 13- Urbanization

**Summary of Threat and Regulatory Mechanism:** As the proposed actions provide direction to be applied on NFS lands and public lands managed by the Bureau of Land Management there is little opportunity to address the threat of conversion of habitat to urban or ex-urban (populated areas lying outside the suburban areas) landscapes. What the PA does include are Standards that retain all habitat managed by the FS or BLM under the control of the agency. There is also a Standard to identify private inholding should they become available for acquisition. Acquisition of the inholding would be subject to the fair market value of the private property and the agency’s ability to compete with other interested parties.

**Conclusion** – There are 11 threats identified in the COT which the PA can positively address and ameliorate. The PA does so by identifying sets of Standards and Guidelines that directly limit the potential for effects from the activities. It requires the prohibition of certain activities (placement of new communication sites in habitat, new roads, or the leasing of areas for fluid mineral leases). For other resources it avoids impacts by applying distance buffers to activities from sensitive habitat, or it applies timing limitations that allow the activity but within certain times of the year to avoid direct or indirect effects to the sage-grouse. These buffers and timing limitations minimize impacts by reducing the risk to the species. The PA also rectifies the potential impacts of some projects both by requiring the no net loss of habitat from activities conducted in sage grouse habitat but also by setting up Standards and Guidelines that provide for the restoration of degraded habitat. The PA adopts and embraces the concepts of resistance and resilience to guide the prioritization of habitat restoration activities and the response to the threat of wildfire and annual invasive grasses. There are Standards and Guidelines that reduce or eliminate impacts over time (requirements to close unused or expired rights or ways or lease

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block), and provides for opportunities to compensate for the loss of habitat by requiring the replacement or restoration of habitat in other locations. The PA has considered the threats identified in both the COT and in the proposed listing and developed a set of Goals, Objectives, Standards and Guidelines, Actions and Best Management Practices to address those threats.