

STATE OF NEVADA Brian Sandoval Governor

STRATEGIC PLAN FOR CONSERVATION OF GREATER SAGE-GROUSE IN NEVADA

July 31, 2012





Presented To: Governor Brian Sandoval

Presented From: Governor Sandoval's Greater Sage-grouse Advisory Committee

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List of Acronyms

BLM	Bureau of Land Management
DCNR	Department of Conservation and Natural Resources
DOD	Department of Defense
ESA	Endangered Species Act
IMT	Incident Management Team
LAWG	Local Area Working Group
NAC	Nevada Administrative Code
NDEP	Nevada Division of Environmental Protection
NDF	Nevada Division of Forestry
NDOW	Nevada Department of Wildlife
NEPA	National Environmental Policy Act
NGO	Non-governmental Organization
NRCS	Natural Resources Conservation Service
RAC	Resource Advisory Councils
SGI	Sage-grouse Initiative
UNR	University of Nevada, Reno
USDA – ARS	U.S. Department of Agriculture – Agricultural Research Service
USFS	US Forest Service
USFWS	US Fish and Wildlife Service
USGS	US Geological Service

1.0 INTRODUCTION

Nevada has been proactive in conservation of greater sage-grouse since 2000 when then Governor Kenny Guinn appointed a task force representing various interest groups and agencies to develop a plan that would conserve and protect Nevada's sage-grouse and their habitat. In October 2001 the *Nevada Sage-grouse Conservation Strategy* identified challenges, offered potential solutions, and laid the groundwork for the formation of local area working groups (LAWG) and Population Management Units (PMU). It provided guidance for developing conservation plans and subsequent legislative endorsements in 2004 and 2010 reinforced Nevada's commitment to conserve the species.

From 2001 to 2004 the Governor's Sage-grouse Conservation Team under leadership of the Nevada Department of Wildlife (NDOW) completed an intensive planning effort for the state in which LAWGs developed plans for their respective areas and PMUs. In June 2004, the *1st Edition of the Greater Sage-grouse Conservation Plan for Nevada and Eastern California* (2004 State Plan) was completed. Between 2004 and the present, resource management agencies have implemented conservation projects and instituted policies to support the conservation goals in the 2004 State Plan.

On December 9, 2011, in response to the U.S. Fish and Wildlife Service's (USFWS) inadequate regulatory mechanisms finding and to avoid a potential listing, the Bureau of Land Management (BLM) and the United States Forest Service (USFS) began a process to amend their land use management plans affecting sage-grouse habitat to incorporate sage-grouse conservation measures. (See 76 Fed. Reg. 77009 (Dec. 9, 2011); see also 77 Fed. Reg. 7178 (Feb. 10, 2012); 77 Fed. Reg. 12792 (Mar. 2, 2012).)

As a step in implementing a landscape level strategy to benefit the species while maintaining a robust economy in the West, Secretary Salazar invited the states impacted by a potential sage-grouse listing to develop state-specific regulatory mechanisms to conserve the species and preclude the need for listing that could be considered as an alternative in the BLM and USFS management plan revision process. *See* Press Release, Salazar, Mead Reaffirm Commitment toward Development of Landscape Level Greater Sage-Grouse Conservation Strategy in the West (Dec. 9, 2011).

On March 30, 2012, Governor Sandoval issued Executive Order 2012-09, which established the Governor's Greater Sage-Grouse Advisory Committee (Advisory Committee) with a directive to provide this updated strategy and recommended approach for sage-grouse conservation in Nevada.

The recommendations in this document are intended to both guide state level action as well as serve as the basis for BLM to develop an alternative in the resource management planning process for Nevada that will ensure the conservation of sage-grouse and avoid the need to list the species.

1.1 Governor's Goal and Directive

Governor Brian Sandoval's Executive Order fortified Nevada's commitment to sage-grouse conservation, bringing stakeholders and experts together to recommend a course of action that would conserve and enhance sagebrush ecosystems and their values for all Nevadans and meet the purpose of the Endangered Species Act (ESA).

The Committee consisted of a chairman and nine appointed members representing agriculture, conservation and environmental organizations, energy development, local government, mining,

ranching, sportsmen, Tribal Nations, and the general public. Members of the committee are identified in Attachment A.

1.2 Approach

BEST AVAILABLE SCIENTIFIC INFORMATION

The Committee was informed on numerous aspects of sage-grouse management and threats during presentations made by experts and professionals in the fields of livestock grazing, predation, habitat, mitigation banking, invasive species, pinyon-juniper encroachment and other relevant topics. A list of technical experts who provided scientific information to the Committee is included in Attachment 'B'. Committee members also conferred with their respective constituencies for current information and projections of future land uses that may be in conflict with sage-grouse habitat.

THREAT ASSESSMENT

The Committee identified and updated the assessment of threats to greater sage-grouse in Nevada based on the analyses of the threats identified in the US Fish and Wildlife Service 2010 Finding, the 2004 State Plan, population and habitat data from the Nevada Department of Wildlife (NDOW), public comment, and input from Local Area Working Groups (LAWG), and augmented expertise of individual committee members. The Committee noted that threats do not occur uniformly throughout each Sage-Grouse Management Area and specific threats should be assessed and addressed within the context of local conditions.

The committee addressed the following threats from the USFWS 2010 Finding:

- Wildland Fire and Invasive Species
- Improper Livestock Grazing

Mineral Development

- Pinyon-Juniper Encroachment
- Predation
- Wild Horse and Burro Management
- Recreation and Off-Highway Vehicle Use
- Renewable and Other Energy Production, Transmission, and Distribution

MAPPING

In April 2012, NDOW biologists completed a greater sage-grouse habitat map for Nevada based upon known lek locations, bird observations, telemetry data, survey and inventory reports, vegetation cover, satellite imagery data, and soil mapping. Five habitat categories included 1) Essential and Irreplaceable, 2) Important, 3) Moderate, 4) Low Value or Transitional, and 5) Unsuitable. For purposes of the ongoing updates to BLM Land Use Plans and USFS Land and Resource Management Plans, BLM and USFS adapted the NDOW map by combining NDOW map Categories 1 and 2 into 'Preliminary Priority Habitat' and using NDOW map Category 3 as "Preliminary General Habitat."

The Committee used the BLM and NDOW maps, and added a designation representing 85 percent of the core sage-grouse breeding habitat area based on statistical analyses procedures developed by Doherty, et al. (2010). The Committee proposed coarse Sage-grouse Management Areas based on the 85 percent breeding density and on June 24, 2012 these Preliminary Sage-grouse Management Area maps were submitted to LAWGs to verify and propose revisions to boundaries based on on-the-ground habitat and land use conditions.

The Committee's recommended Sage-grouse Management Area Map is discussed in Section 4.0. Mapping used in this report was based on currently compiled information. As new or more complete information becomes available, this information will be added to support this iterative planning process.

These maps are dynamic, represent a broad-scale evaluation of habitat, and should be updated on a regular basis.

PUBLIC PARTICIPATION

Each Committee meeting was held in compliance with the Nevada Open Meeting Law, including multiple opportunities for public comment. Public participation for those unable to attend meetings in Carson City was facilitated through simultaneous videoconference conducted in Winnemucca, Elko, and Ely, Nevada. Local Area Working Groups participated in developing maps of Sage-grouse Management Areas. Public comment was also received through the Committee website (<u>http://sagegrouse.nv.gov/</u>) and via email sent to Committee staff and <u>sagegrouse@gov.nv.gov</u>.

2.0 **DEFINITIONS**

- **Area of Potential Development** Development areas where energy, mining and mineral development may need additional habitat focus and evaluation. Designations on this map should not be interpreted to imply that development will be limited only to these areas.
- **Disturbance** Actions that will either remove or render sage-grouse habitat unusable, or human activities and presence that will cause a negative response from birds.
- **Enhancement, Reclamation and Restoration** Actions intended to alter the vegetative features of a particular area to improve or reestablish sage-grouse habitat.

Reclamation actions return an area to a functional habitat as soon as possible after disturbance, and are generally related to industrial activity.

Restoration actions return an area to physical and functional habitat, often with a lapse between disturbance and replacement, usually after a natural event such as wildfire, or due to conifer encroachment, etc.

- Sage-grouse Management Area (Figure 1) General, broad-scale zones that have been delineated for management and conservation of greater sage-grouse. Delineation of the Sage-grouse Management Area does not imply any degree of regulatory control or impose land-use restrictions for land-use management decisions for these lands. Within Sage-grouse Management Areas there are four levels of importance to sage-grouse. These definitions recognize all current existing land uses and previously authorized activity.
 - Occupied Habitat Areas that are shown (preferably documented within the last five years) as being utilized by sage-grouse, and are essential for sage-grouse when considering the ecological components of soil, vegetation, and climate necessary to provide the biological needs of the birds at some time during their annual life cycle (breeding, nesting, brood-rearing, wintering).
 - Suitable Habitat Areas that have the ecological components of soil, vegetation, and climate necessary to provide the biological needs of the birds at some time during their annual life cycle (breeding, nesting, brood-rearing, wintering). This includes Connectivity or Linkage Habitat which are areas between sage-grouse habitat or populations that are necessary to allow birds to move to seasonal ranges, or to provide opportunity for genetic variability.
 - **Potential Habitat** Areas characterized by the appropriate ecological site description to provide additional sage-grouse habitat, sometimes through enhancement and restoration actions that can provide linkage to occupied sage-grouse seasonal habitat.
 - **Non-Habitat** Areas that are not occupied, suitable, or potential habitat that do not provide any seasonal habitat for sage-grouse.

It is recognized that sage-grouse and suitable habitat may exist outside of Sage-grouse Management Areas; management policies outlined in this Strategic Plan do not apply to those areas.

3.0 NEVADA CONSERVATION GOALS AND STRATEGIES

The Committee recommends a strategy for Nevada that builds upon past successful efforts, expands a multi-disciplinary approach to greater sage-grouse management under the Executive Branch to include all appropriate State Agencies, and encourages closer coordination with local working groups, BLM, USFS and USFWS, and industry and interest groups.

The Committee recommends the State of Nevada work to achieve conservation through a policy of "no net loss" for activities that can be controlled such as a planned disturbance or development. For natural disasters and acts of God such as wildland fire, the Committee recommends that the State of Nevada aggressively pursue presuppression, initial attack and restoration of affected areas but believes that the State, together with its citizens and industries, should be held harmless for such occurrences that are beyond their control.

The committee recommends that the overriding objective for all management actions in Sage-grouse Management Areas is to "avoid, minimize and mitigate" impacts to sage-grouse habitat.

This is a fundamental hierarchical decision process that seeks to:

- **Avoid** Where ever possible, eliminate conflicts by relocating disturbance activities in order to conserve sage-grouse and their habitat.
- Minimize Modify proposed actions and develop permit conditions to include measures that lessen adverse effects to sage-grouse and their habitat to the furthest extent practical such as reducing the activity footprint, seasonal avoidance, co-location of structures, etc.
- **Mitigate** Only after all appropriate and practicable avoidance and minimization measures have been taken, offset residual adverse effects in occupied and suitable sage-grouse habitat by implementing additional actions that will result in replacement of an asset (mainly habitat) that will be lost as a result of a development action.

Three general conservation policies provide the foundation and vision for a coordinated and cooperative management approach for conservation of greater sage-grouse in Nevada:

- 1. Conserve greater sage-grouse and their habitat in Nevada consistent with maintaining economic vitality of the State.
- 2. In areas of proposed disturbance, project proponents should first expend all means to avoid, then minimize and finally mitigate disturbance of occupied, suitable, or potential sage-grouse habitat.
- 3. Due to the broad reach of sage-grouse habitat, effective management and implementation of sage-grouse conservation actions must be conducted through a collaborative, interagency approach that engages local, private, non-governmental, state, Tribal and federal stakeholders to achieve sufficient conservation of the greater sage-grouse.

The mitigation strategy recognizes impacts and threats and creates the best possible outcome for sage grouse. This includes active efforts to use mitigation funding in areas where sage-grouse will derive the

most benefit, even if those areas are not adjacent to or in the vicinity of impacted populations. Within Sage-grouse Management Areas, confirmation of actual conditions must be completed to understand if a proposed activity or disturbance will occur in occupied, suitable, or potential sage-grouse habitat.

Sage-grouse are known to be an "umbrella species" for many sagebrush habitat-obligate and associated species. Therefore, enhancement and restoration measures that bring resiliency and restore ecological functions to sagebrush-perennial grass habitats also serve to ensure quality habitat for sage thrasher, sage sparrow, Brewer's sparrow, sagebrush vole, pygmy rabbit, pronghorn antelope, mule deer and many other species.

3.1 Management Strategy In Occupied Habitat

- 1. Manage to avoid surface disturbance and habitat alteration to the greatest extent possible. If avoidance is not possible, disturbances greater than or equal to five percent of 640 acres (32 acres) within occupied habitat will trigger habitat evaluations and consultation with the Sage-grouse Technical Team (see Section 4.2). This consultation will occur within the administrative framework of overseeing this Strategic Plan. New activities at any level of disturbance should minimize impacts to sage-grouse and their habitat.
- 2. Limit habitat treatments in winter ranges to actions that maintain or expand current levels of sagebrush available in winter.
- 3. Proactively monitor habitat and manage to ensure that it retains the attributes necessary to support viable bird populations.
- 4. Adequately fund aggressive documentation of habitat used by sage-grouse.

3.2 Management Strategy In Potential Habitat

- 1. Potential habitat should be used for habitat enhancement and restoration to expand or restore sage-grouse habitat that has been adversely impacted either by acts of nature (wildfire, PJ encroachment) or by human activities.
- 2. Limit habitat disturbance, including habitat improvement projects, in potential sage-grouse habitat to not more than twenty percent per year, per Sage-grouse Management Area, unless habitat treatments show credible positive results (Connelly, et al. 2000). This limit does not apply to removal of invasive or encroaching vegetation where such removal actually creates habitat.
- 3. Potential habitat should be prioritized for enhancement, restoration, and mitigation opportunities based on data-driven models that incorporate ecological site potential where the highest priority sites have the greatest potential for successful results.

3.3 Management Strategy In Non-Habitat

1. Use areas designated as non-habitat within Sage-grouse Management Areas to site activities that are not geographically restricted to specific resources and to avoid investing habitat enhancement, restoration, or mitigation funds in areas with little or no potential for effective results.

2. No additional management provisions are proposed for non-habitat areas within Sage-grouse Management Areas.

3.4 Interim Strategy

- 1. Direct relevant State Agencies to adopt and implement the strategies and maps, and propose the policies as an interim policy for the BLM and USFS to adopt in place of their Interim Memorandum Guidance as well as an Alternative in their Land Use Plan updates and USFS Resource Management Plan updates
- 2. Allow ongoing projects or previously authorized activities to move forward without delay.
- 3. Allow mitigation activities to occur and be accounted for without delay.
- 4. Designate NDOW as the primary agency for making habitat determinations consistent with this Strategic Plan, in consultation with the BLM, USFS and USFWS.
- 5. Request federal land management agencies to work with NDOW and incorporate habitat determinations in land use decisions based on timely and complete reviews of existing information.
- 6. Adequately fund NDOW activities to ensure compliance with the policies established in this Strategic Plan.
- 7. Deliver a formal request to the BLM and USFS to coordinate their interim management policies in a manner consistent with the policies proposed in this Strategic Plan.
- 8. As soon as possible, take all steps necessary to establish a functioning Sage-grouse Advisory Council and Technical Team identified in Section 4.0 of this Strategic Plan.
- 9. Advocate for additional federal allocations for sage-grouse conservation and restoration activities.

4.0 IMPLEMENTATION RESPONSIBILITIES

The potential impacts of the listing of the greater sage-grouse under the ESA are well-documented. A listing decision would have significant negative impacts on the State of Nevada. Further, much action is currently underway to conserve the species – a listing decision likely could force engaged parties to cease their actions, pursue expensive litigation and stop work to conserve the greater sage-grouse.

Unless listed under the ESA, management of the greater sage-grouse is the responsibility of the State of Nevada. The Committee believes that it is in the best interests of the State to propose a management strategy that the State can enact. The Committee believes that, if implemented, the recommendations in this report sufficiently conserve the species while enabling the custom, culture and economy of the State of Nevada to continue moving forward. Leadership of the State, from the highest level, has been cited as one of the major reasons for successful conservation strategy implementation and the Committee believes that it is the State's proper role to assume leadership of this important Nevada issue.

4.1 Sage-grouse Advisory Council

OBJECTIVE: Establish a state process to coordinate development activities in Sage-grouse Management Areas. Assure that the Council has the appropriate legislative authority to oversee and implement this Strategic Plan.

The Council should:

- Have membership mirroring that of the Governor's Advisory Committee established by EO 2012-09 and provide a forum for participation from federal resource agencies including BLM, USFS, and USFWS.
- 2. Establish the Nevada Sage-grouse Mitigation Bank program.
- 3. Set and clarify policies and management criteria for occupied, suitable, and potential habitat areas and establish well defined decision thresholds for threat assessments and mitigation (regulatory process).
- 4. Facilitate the resolution of conflicts between industry, land owners, and resource agencies when there is disagreement regarding sage-grouse management.
- 5. Prepare a budget, secure and consolidate funding, and direct expenditures for sage-grouse conservation.
- Pursuant to Attachment D "Inter-Tribal Council of Nevada, Inc. Resolution & Letter of Support," integrate Tribal participation in the statewide conservation effort, and acknowledge traditional Tribal ecological knowledge when available to update Sage-grouse Management Areas.
- 7. Establish policies for the identification and prioritization of landscape-scale enhancement, restoration, fuel reduction, and mitigation projects based upon ecological site potential, state and transition models, and other data that will contribute to decision making informed by science to increase resiliency.

- 8. Receive and approve an annual report from the Technical Team that includes compiled and summarized data on development, enhancement, restoration, and mitigation activities in occupied, suitable, and potential sage-grouse habitat. The Council should submit the annual report to the Governor and the Public.
- 9. Develop standards and protocols to propose to the BLM and USFS in order to facilitate expedited National Environmental Policy Act review for restoration activities in sage-grouse habitat.
- 10. Council activities should not add additional regulatory provisions or oversight for sage-grouse management beyond the scope of the recommendations provided in this Strategic Plan.
- 11. Encourage and facilitate land management education and training for all user groups of sagegrouse habitat.

4.2 Sage-grouse Technical Team

OBJECTIVE: Implement a multi-disciplinary approach for administration of this Strategic Plan that incorporates scientific expertise from Federal and State agencies, and provides certainty to industry that there is a well-defined process for permitting activity in Sage-grouse Management Areas.

Creation of the "Technical Team" will establish a place and a process for on-the -ground decision making using the 'Tahoe Conservation Team' as a successful example of inter-agency team management to achieve a specific resource objective. The Technical Team should:

- Be staffed by personnel from the Nevada Department of Agriculture, the Nevada Department of Conservation and Natural Resources: Division of Forestry, Division of State Lands, Natural Heritage Program, the Nevada Department of Wildlife, and ideally, representatives from the Nevada Association of Counties, the BLM Nevada State Office, the Humboldt-Toiyabe National Forest Supervisor's Office, the USFWS and Natural Resource Conservation Service (NRCS)
- 2. In accordance with Council policy, oversee, administer or operate the Nevada Sage-grouse Mitigation Bank program identified in this Strategic Plan.
- 3. Identify and prioritize landscape-scale enhancement, restoration, fuel reduction, and mitigation projects based upon ecological site potential, state and transition models, and other data that will contribute to decision making informed by science to increase resiliency following wildfire.
- 4. Foster and maintain collaborative processes with state and federal agencies to expedite permitting. Decision-making should be extended to the Technical Team such that permitting will be expedited rather than extended by an added layer of bureaucracy.
- 5. Provide consultation for project proponents who want to conduct activities in occupied or potential sage-grouse habitat to incorporate the avoid, minimize, and mitigate practices into project designs.

- 6. Assist the BLM and USFS as appropriate to evaluate the cumulative effects of individual small projects (less than five acres) to avoid exceeding a tolerable level of disturbance in occupied and suitable sage-grouse habitat and to determine if additional mitigation is required.
- 7. Acquire data to refine Sage-grouse Management Areas to identify occupied, suitable, potential, and non-habitat areas.
- 8. Solicit grants and private contributions for sage-grouse conservation projects. A partial list of potential funding opportunities in Nevada is included in Attachment C.
- 9. Establish a geographic database repository to maintain the inventory of development and mitigation projects, population data, and monitoring results. The Technical Team will compile and summarize data annually and submit an annual progress report to the Council.
- 10. Conduct periodic adaptive management evaluations to make management and policy recommendations to the Council.
- 11. Project applicants should have the opportunity to conduct robust ground-truthing for the presence or absence of habitat.

4.3 Local Area Working Groups

The LAWGs provide all stakeholders with an opportunity to work together in actively managing and restoring landscapes across boundaries. Even with collaboration there is a realization that to be successful there is a need for more investment from all sources to achieve sage-grouse conservation objectives. LAWG membership includes representation from private land owners, tribes, federal land management agencies, local governments, USFWS, USGS, NDOW, NGOs, USDA-ARS, UNR, USDA-NRCS, DOD, sportsmen, mining, energy, OHV users, agricultural and environmental interests.

The State of Nevada should:

- 1. Formalize, support, and adequately fund operation of LAWGs under existing State Conservation Districts.
- 2. Assure continued engagement of proven collaborative successes by charging LAWGs with responsibilities such as a) Developing and implementing site-specific plans to accomplish enhancement and restoration projects on federal lands that are identified by the Council as areas of high importance to sage-grouse; b) Updating Sage-grouse Management Area maps; c) Monitoring; d) Identifying potential habitat enhancement and restoration projects; and e) Other tasks where local, site-specific expertise can provide added-value.

5.0 SAGE-GROUSE MANAGEMENT AREA MAP RECOMMENDATIONS

On July 12, 2012 the Committee utilized a collaborative process that incorporated the LAWG recommendations and additional habitat recommendations provided by NDOW to locate and designate **Sage-grouse Management Areas** in Nevada (Figure 1). The Sage-grouse Management Area Map defines the overall area where resources will be managed to maintain and expand sage-grouse populations. This map was further refined by the Committee on July 25 to alleviate previously unresolved conflicts.

This first edition of the Sage-grouse Management Area Map is based on the best biological information and knowledge at this time, taking into account the 85 percent breeding bird density, NDOW's Preliminary Priority and General Habitat maps, and areas of known resource conflicts. The map represents a broad-scale evaluation of habitat. Individual projects will be evaluated at the local scale. Mapping is dynamic and refinement will be a regular and ongoing process. These mapping refinements will contribute to achieving the Nevada Conservation Goals and Strategies by providing guidance to industry to consider avoidance, minimization and mitigation during the project design phase.

The State of Nevada should:

- 1. Continue with further mapping refinements as new data becomes available and landscape changes occur.
- 2. Reconcile Sage-grouse Management Area boundaries across state lines with California, Idaho, Oregon, and Utah.
- 3. Use areas designated as non-habitat to site activities that are not geographically restricted to specific resources and to avoid investing habitat enhancement, restoration, or mitigation funds in areas with little or no potential for effective results.
- 4. Use existing sage-grouse telemetry data, ecological site descriptions, and state and transition models and adequate ground-truthing to further refine the Sage-grouse Management Area Map using a scientifically-defensible/robust method to map sage-grouse distribution, identify occupied, suitable, and potential seasonal habitat, and generally identify priority areas for conservation, enhancement and restoration at the landscape level to improve resiliency in sagebrush ecosystems. Engage the LAWGs to provide additional mapping information and verify maps as informed by the best available information and emerging science. Pursue opportunities to acquire additional knowledge from Native American Tribes to refine mapping of occupied, suitable, and potential sage-grouse habitat.
- 5. Recognize the previously authorized activities in Sage-grouse Management Areas. Specifically, projects with an approved BLM Notice, BLM or USFS Plan of Operation, Right of Way, Drilling Plan, or Nevada Division of Environmental Protection (NDEP) permit should be exempt from additional regulation.
- 6. Substitute the Sage-grouse Management Area Map (Figure 1) for the map previously submitted to the USFWS.

Known areas of potential development within Sage-grouse Management Areas were submitted to the Committee by industry and the general public, and compiled as shown in Figure 2.

6.0 THREAT ASSESSMENT AND RECOMMENDED ACTIONS

Habitat-based threats were identified to be the greatest priority statewide. Loss, degradation, and fragmentation of sagebrush ecosystems from wildfire and subsequent dominance by invasive species - primarily cheatgrass and pinyon-juniper encroachment into sagebrush ecological sites - were identified as the most serious threats to greater sage-grouse habitat in Nevada. In some areas, predation was identified as a direct threat to sage-grouse recruitment.

6.1 Fire and Invasive Species

Large and severe wildland fires in sagebrush ecosystems have occurred across the state resulting in the loss of needed sagebrush habit (Figure 3). This habitat degradation and loss from fire is facilitated and exacerbated by the presence of invasive species such as cheatgrass. These deteriorating landscape conditions place sage-grouse habitat as well as human lives and communities, other wildlife, water quality, and long-term soil productivity at great risk of further decline.

OBJECTIVES: Actively manage Sage-grouse Management Areas across all jurisdictions with the goal of restoring the appropriate role of wildfire to establish resiliency, and actively engage in prevention, suppression and restoration of the effects of fire and invasive species.

Support the development of a statewide comprehensive wildfire management program that engages all interagency partners, (federal, state & local), to reduce the threats of catastrophic wildfire, rapidly suppress wildfires when small, and rehabilitate wildfire damaged lands after a wildfire such as the Nevada Division of Forestry's proposed "Wildland Fire Protection Program."

The following actions are recommended for State and federal agencies to improve habitat resiliency following wildfire and maintain healthy sagebrush landscapes throughout Sage-grouse Management Areas:

- 1. Establish and implement a framework across all land jurisdictions for pre-suppression actions to minimize ignitions and alter fuel conditions in order to avoid to the extent possible large damaging conflagrations.
- 2. Develop and implement fire suppression plans and strategies across all land jurisdictions for occupied and suitable sage-grouse habitat areas.
- 3. Following fires, plan and implement sagebrush enhancement and restoration treatments consistent with sage-grouse management objectives in appropriate ecological sites.
- 4. Where appropriate, support market-based, flexible, proactive solutions that take advantage of economies of scale.

<u>Pre-Suppression Objective</u>: Occupied and suitable sage-grouse habitat should be managed to establish resilient ecosystems by implementing the following strategies and actions to protect, maintain and improve sagebrush steppe habitat.

Federal, State, and Local Fire Agency Actions

- 1. Strengthen and improve interagency wildfire prevention activities statewide through targeted wildfire prevention messages including education on habitat loss, updating interagency agreements, conducting wildfire prevention workshops, and demonstration projects.
- 2. Establish an entity that can collect and consolidate funding and develop common criteria and requirements for habitat protection and monitoring such as the Sage-grouse Advisory Council or Technical Team.
- 3. Complete landscape level habitat assessments in, and in proximity to, priority sage-grouse habitat areas to identify those habitat areas that are at the highest risk of wildland fire.
- 4. Construct targeted, well designed fuel breaks and "green strips" to break up fuel continuity, reduce fire size, and create safe areas for fire suppression activities. Use the best adapted plant materials to revegetate green strips with fire resistant species. Fund and schedule regular maintenance activities of green strips as needed. Avoid locating fuel breaks in occupied and suitable sage-grouse habitat unless no other options are available that will result in the same level of habitat protection.
- 5. Support a business environment that incentivizes beneficial uses of biomass and excess fuels (e.g. stewardship contracting, landscape level/long term projects, etc.).
- 6. Identify state and county highway/road and utility right of ways for fuel breaks, replacing invasive, fire prone species with fire resistant species and other fuels reduction treatments.
- Identify and utilize all cross-boundary authorities available to improve project coordination and implementation on the ground. Support reauthorization and expansion of "Good Neighbor" authorities to include all states.
- 8. Utilize NDF Conservation Camp Crews for fuels reduction project implementation and as federal grant match.

Federal Agency Actions

- 1. Review current processes and, if necessary, develop authorities and expedite the process to implement vegetative treatments for fuels reduction projects in strategic areas for protection of sagebrush habitat.
- Review current processes and, if necessary, develop authorities and expedite the process to utilize a suite of active vegetative treatments (e.g. mechanical, targeted livestock grazing, prescribed fire, chemical, etc.) to reduce weed invasion and maintain resilient post-fire landscapes and control excessive fuel loading throughout the Sage-grouse Management Area and constructed fuel breaks.

<u>Suppression Objective</u>: Manage wildland fires in the Sage-grouse Management Area to reduce the number of wildfires that escape initial attack and become greater than 300 acres.

Federal, State, And Local Fire Agency Actions

- 1. Identify and develop suppression plans, including mapping of occupied and suitable sage-grouse habitat, to improve initial attack suppression actions.
- 2. Update Fire Management Plans, dispatch run cards, and relevant agreements to ensure "closest forces" concepts are being utilized at all times, particularly non-federal suppression resources (e.g. NDF helicopters, crews, and volunteer fire departments).
- 3. Establish and utilize Nevada Interagency Incident Management Teams for wildfires in occupied, suitable, and potential sage-grouse habitat areas.
- 4. Increase initial attack capability by training and equipping Nevada Volunteer Firefighters, agricultural, and industry work forces such as the Wildfire Support Group for assignment during periods of high fire activity. Trained volunteers who are remotely located should serve as first responders as necessary and appropriate.
- 5. Integrate suppression resource locations with occupied, suitable, and potential habitat areas and pre-position resources as conditions dictate.
- 6. Develop a "suitcase" interagency suppression task force for pre-positioning during high wildfire hazard periods.
- 7. Within occupied, suitable, and potential habitat areas, eliminate the tactic of "burning out" unless there are direct life safety threats.

Federal Agency Actions

1. Utilize the interagency Fire Planning Assessment (FPA) system¹ to optimize utilization of fire suppression resources (e.g. engines, aircraft, water tenders, hand crews, etc.).

¹ Fire Program Analysis (FPA) enables local and national planners to evaluate the effectiveness of alternative fire management strategies for the purpose of meeting fire and land management goals and objectives.. <u>www.fpa.nifc.gov</u>

Federal, State, And Emergency Management Agency Actions

1. Designate occupied, suitable, and potential habitat as a "high priority value" for suppression resource allocation in the Geographical Area Coordination Centers and within the FEMA-Fire Management Assistance Grant criteria.

Federal And State Agency Actions

- 1. Develop a specific and concise package of information on sage-grouse habitat for incoming Incident Management Teams (IMTs) to ensure an understanding of Nevada conservation priorities that will be included in all 'Delegations of Authority' and 'Fire Management Plans.'
- 2. Assign a local, trained resource advisor with sage-grouse expertise on all fire suppression responses in occupied and suitable sage-grouse habitat areas.

<u>Restoration Objective</u>: Carefully review and evaluate all burned areas within Sage-grouse management areas in a timely manner to ascertain the reclamation potential for reestablishing sage-grouse habitat, enhancing ecosystem resiliency, and controlling invasive weed species.

Federal And State Agency Actions

- Complete burn severity assessments and identify ecological site potential in, and in proximity to, occupied, suitable, and potential sage-grouse habitat areas to identify the areas with the highest potential for restoration of habitat functions following fires. Focus rehabilitation efforts on areas of highest potential success based ecological site conditions (soils, precipitation zone, and geography). Utilize revegetation seed mixtures that include native and adapted plant seed that will quickly stabilize soils, help to provide long term hazardous fuels reduction, and increase ecosystem resiliency in appropriate locations.
- Expand and improve the NDF Seedbank & Plant Material program in conjunction with federal partners. Utilize NDF Conservation Camp Crews for native seed collection and rehabilitation activities.
- 3. Develop plans and acquire the necessary resources (e.g. seed collection, seeding equipment pools, trained staff, etc.) for post fire rehabilitation activities and warehouse viable seed stockpiles.

Stakeholder Actions

- 1. Identify funding opportunities from federal, state, local, industry and land users dedicated to implementing prioritized habitat enhancement, restoration, and conservation activities.
- 2. Continue to focus research and monitoring efforts through demonstration projects on improving rehabilitation and revegetation successes in harsh environments.

6.2 Pinyon-Juniper Encroachment

Pinyon-juniper encroachment is ranked as the second-highest concern in the state, and has the highest degree of reliability for habitat enhancement and restoration results in the appropriate sites identified by ecological site potential. Loss and fragmentation of sage-grouse habitat in Nevada is exacerbated by expansion of pinyon pine and juniper into sagebrush habitat types (Figure 4). Encroachment from historical times occurs in large part due to fire suppression.

Phases of woodland encroachment have been described as follows: Phase I, trees are present but shrubs and herbs are the dominant vegetation that influence ecological processes on the site; Phase II, trees are co-dominant with shrubs and herbs and all three vegetation layers influence ecological processes on the site; and Phase III, trees are the dominant vegetation and the primary plant layer influencing ecological processes on the site (Tausch, et al. 2009). Recent research in Nevada shows that sage-grouse actively avoid pinyon and juniper when patch sizes are greater than 200 meters wide (Coates 2012 Personal Communication). Shrub cover in Phase I and Phase II sites are generally thought to be recoverable with treatments to remove invasive trees. Phase III sites cannot be recovered by removal of trees alone and require extensive restoration treatment to reestablish sagebrush cover important for sage-grouse habitat.

Research has found that in Nevada, 50,000 to 60,000 acres of pinyon and juniper move into a state of non-recovery (Phase III) each year. The urgency of reversing this trend cannot be overstated (Tausch Personal Communication 2012). Large areas of pinyon-juniper-encroached sagebrush habitat and over stocked pinyon-juniper woodlands are in need of restoration. Overstocked stands are further stressed by vast areas of insect- and disease-caused tree mortality and are now experiencing uncharacteristically large and severe wildland fires.

OBJECTIVE: Initiate landscape level treatments in potential sage-grouse habitat areas to reverse the effects of pinyon and juniper encroachment and restore healthy, resilient sagebrush ecosystems.

Federal, State, and Local Area Working Group Actions

- 1. Inventory and prioritize areas for treatment of Phase I and Phase II encroachment in occupied, suitable, and potential sage-grouse habitat areas to restore habitat resiliency, reduce avian predator perches, and increase forb and grass cover.
- Prioritize areas for treatment of Phase III pinyon-juniper encroachment in strategic areas to break up continuous, hazardous fuel beds. Treat areas that have the greatest opportunity for recovery to suitable sage-grouse habitat based on ecological site potential. Old growth trees should be protected on woodland sites.

Federal and State Agency Actions

1. Aggressively implement plans to remove Phase I and Phase II encroachment and treat Phase III encroachment to reduce the threat of severe conflagration and restore occupied and suitable sage-grouse habitat where possible.

- 2. Allow temporary road access to Phase I, Phase II, and Phase III treatment areas. Construct temporary access roads where access is needed with minimum design standards to avoid and minimize impacts. Remove and restore temporary roads upon completion of treatment.
- 3. Allocate sufficient resources to fully address habitat loss and degradation in the next ten years.
- 4. Share project funding between all appropriate agencies and jurisdictions by designing and completing NEPA for large-scale, watershed-based treatments over a period of years, rather than ad hoc projects.
- 5. Incentivize and assist in the development of bio-fuels and other commercial uses of pinyon and juniper resources.
- 6. Increase the incentives for private industry investment in biomass removal, land restoration, and renewable energy development by authorizing stewardship contracts for up to 20 years.
- 7. Establish a target goal for number of acres to be treated annually. Monitor and report progress to the Council.

6.3 Predation

While predator control may not be a long-term solution to declines in populations of sage-grouse, it has been shown to be an effective tool during the breeding season to gain increased survival through the nesting and early brood life cycle stages (Coates 2012). The common raven was identified as the most frequent predator during nesting in sage-grouse predator studies conducted by USGS in the Great Basin (Coates personal communication). Raven populations have increased 600 percent in the Great Basin over the last 20 years based upon USGS breeding bird survey results. Subsidized food sources such as land fills and road kill, elevated nest platforms provided by transmission lines, and landscape alterations can increase predator populations. Predation is often tied to habitat quality, particularly in areas where an interface exists between wildfire and remaining habitat.

OBJECTIVE: Implement a predator control program to reduce transient raven populations for nest protection and increased chick survival throughout the interim period while habitat enhancement and restoration projects become established.

Federal and State Agency Actions

- 1. Maintain a mosaic of shrub cover conditions ranging from 20 percent to 40 percent in nesting habitat to provide both habitat resiliency and preferred nesting conditions for sage-grouse in areas with high raven populations.
- 2. Initiate predator control programs based on biological assessments appropriate to local conditions. Conduct predator control to coincide with the life stage impacted by predation.
- 3. Eliminate external food sources for ravens, particularly land fills, waste transfer facilities, and road kill that subsidize raven populations. Enforce existing State laws that require daily covering of landfills.

- 4. Address and eliminate conflicting regulations between the Migratory Bird Treaty Act and the Endangered Species Act. Pursue additional take permits in excess of the current 2,000 bird limit from the USFWS for raven control.
- 5. Identify and apply appropriate habitat management practices (e.g. livestock management, vegetation treatments, control of artificial nest and roost sites) that decrease the effectiveness of predators. Monitor effects of predator control to determine causal relations with sage-grouse survivability and adapt control strategies accordingly.
- 6. When downward population trends and nesting success are detected in occupied sage-grouse habitat areas initiate predator surveys and identify responsible predator species to target and implement an effective predator control effort.

6.4 Wild Horse and Burro Management

Grazing by wild horses and burros and expansive herd populations can impact vegetation cover of herbaceous and shrub species, damage riparian habitat and stringer meadows, and adversely affect sage-grouse habitat if not managed within appropriate management levels (AML). Current regulatory mechanisms to manage horse herds at appropriate management levels in herd management areas are difficult to enforce due to prolonged litigation and limiting program capacity for successful placement and adoption of excess horses.

OBJECTIVE: Manage wild horses at appropriate management levels (AML) to avoid and minimize impacts to Sage-grouse Management Areas.

Federal Agency Actions

- 1. Maintain wild horses at appropriate management levels in designated herd management areas (HMA) throughout Sage-grouse Management Areas.
- 2. Evaluate conflicts with HMA designations in occupied, suitable, and potential sage-grouse habitat areas and modify Land Use Plans and Resource Management Plans to avoid negative impacts to sage-grouse. If necessary, resolve conflicts between the Wild and Free Roaming Horse and Burro Act and the Endangered Species Act.

6.5 Improper Livestock Grazing

Livestock grazing is the most wide-spread use on pubic lands and is managed under federal agency permits, which provide schedules, numbers, areas, and adjustment clauses for drought, fire, etc. Livestock permits are monitored for permit compliance and periodically reviewed and modified as needed.

Improperly managed livestock grazing is problematic to sage-grouse and can remove desired vegetation and change plant communities from desired ecological states to undesirable states where invasive and other undesirable plant species predominate. Where those relationships can be documented, corrective measures are best addressed through existing Standards and Guidelines identified by local Resource Advisory Committees (RAC), Local Area Working Groups, and Permit Terms and Conditions. The NRCS Sage-grouse Initiative (SGI) includes Conservation Practice Standards to alleviate threats to sage-grouse while improving the sustainability of working ranches (USFWS 2010). The Committee recognizes that proper grazing practices as described in the NRCS SGI Prescribed Grazing Practice 528 (Attachment E) may be applied to improve or maintain desired species composition and vigor of plant communities, improve or maintain quantity and quality of food and cover available for wildlife, and manage fine fuel loads to achieve desired conditions.

OBJECTIVES:

Ensure that existing grazing permits maintain or enhance sage-grouse habitat in Sage-grouse Management Areas.

Utilize livestock grazing as a management tool to improve sage-grouse habitat quantity, quality, or to reduce wildfire threats.

Based on a comprehensive understanding of seasonal sage-grouse habitat requirements and in conjunction with flexibility of livestock operators, encourage land management agencies to cooperatively make timely, seasonal range management decisions to respond to vegetation management objectives, including fuels reduction.

Federal Land Management Agencies and Allotment Permittee Actions

- 1. Implement appropriate prescribed grazing conservation actions at scales sufficient to influence a positive population response in occupied and suitable sage-grouse habitat areas such as NRCS Conservation Practice Standard 528 for prescribed grazing.
- 2. Allow flexibility in management that will utilize targeted grazing management to reduce the fuel load and fire risk to enhance and protect seasonal habitats for sage-grouse.
- 3. Address incompatible grazing strategies when compelling and credible cause-and-effect relations have been identified cooperatively by the land management agency and the allotment permittee through rangeland management monitoring techniques appropriate in the Great Basin and consistent with sage-grouse habitat objectives.
- 4. To the extent possible, design water developments (springs/well overflow areas, etc.) to include water and mesic habitats for sage-grouse in Sage-grouse Management Areas.
- 5. Assess fences for high potential for bird strikes near lek areas and mark appropriately.

6.6 Mineral Development

Development of mineral resources in Nevada is a vital component of the State economy, and most mineral development can be managed temporally or spatially to minimize impacts to sage-grouse. The nature of mineral exploration is such that new understanding of geologic terrains, geology, geophysics, geochemistry, orogenesis, and other aspects of mineral exploration will result in areas not currently identified with exploration activity and/ or mineral potential becoming exploration targets and potentially mineral developments (i.e. mines).

The mining industry has worked successfully with NDOW to plan projects that incorporate wildlife objectives. A three-year advanced planning window, often used at this time, allows the opportunity to incorporate avoid, minimize, and mitigate concepts in project design and to identify appropriate mitigation.

OBJECTIVE: Foster a strong conservation ethic in the mining industry through implementation of effective avoidance management, and enhancement and reclamation of disturbed lands to preserve, protect, and improve habitat in occupied, suitable, and potential habitat areas.

Federal and State Actions

- 1. Implement a centralized impact assessment process overseen by the Council that provides consistent evaluation, reconciliation, and guidance for project development that avoids or minimizes conflicts with sage-grouse in occupied, suitable, and potential sage-grouse habitat.
- Consistent with BLM 43 CFR 3809 regulations for Notice-level operations and USFS 36 CFR 228A
 regulations governing mining and exploration, allow exploration and other mineral-related
 activities that create not more than five acres of surface disturbance and that are subjected to
 BLM and USFS existing discretionary authority to consider other information including
 cumulative impacts.
- 3. Follow a strategy that seeks to avoid conflict with sage-grouse by locating facilities and activities in non-habitat wherever possible.
- 4. Recognize existing state and federal regulatory mechanisms that govern mining and exploration activities, including BLM 43 CFR 3809 surface management regulations for hard rock mining, USFS 36 CFR 228A regulations governing mining and exploration, and NAC 519A regulations for reclamation of mining and exploration projects, that are adequate to conserve sage-grouse and sagebrush habitats in the interim until future suitable conservation plans are approved by the Council.
- 5. Aggressively engage in reclamation efforts as projects are completed, and target reclamation where the ecological site potential exists in occupied, suitable, and potential sage-grouse habitat. Focus efforts on habitat that has the greatest potential for use by sage-grouse as guided by ecological site descriptions and other restoration priorities established by the Council.
- 6. Recognize that stipulations for other species (e.g. raptors) may impede the ability to effectively reclaim areas of impact and remove those barriers in order to achieve immediate and effective reclamation.
- 7. Prioritize areas for habitat improvement utilizing sound resource information including soil surveys, ecological site descriptions, and sage-grouse population data.
- 8. Design exploration projects for mineral access and the betterment of habitat. Ensure roads and other ancillary features that impact sage-grouse habitat are designed to avoid where feasible and otherwise minimize and mitigate impacts in the short and long term.

9. Differentiate between short- (exploration) and long-term (active mining) impacts and manage timing of operations and physical disturbance accordingly.

6.7 Renewable and Other Energy Production, Transmission and Distribution

The development, transmission, and distribution of renewable and other energy sources is a high priority for the State of Nevada. Energy development can be managed spatially or temporally to minimize impacts to sage-grouse.

To meet both renewable energy goals and sage-grouse conservation measures close coordination is required with various groups within the West. Transmission corridors within Nevada, such as pipelines, roads, and overhead electrical transmission/distribution lines, are generally well defined at the present time (Figure 5). There are a series of transmission corridors currently being studied to consider the longer term transmission needs required to meet the nation's renewable energy demands.

OBJECTIVE: In occupied and suitable sage-grouse habitat areas, limit conflict through avoidance and minimization of impacts, adaptive management, and appropriate mitigation.

- 1. Follow a strategy that seeks to avoid conflict with sage-grouse by locating facilities and activities in non-habitat wherever possible.
- 2. Site new linear features in existing corridors or, at a minimum, co-locating with existing linear features in occupied, suitable, and potential sage-grouse habitat areas.
- 3. Aggressively engage in reclamation/weed control efforts during pre- and post-project construction.
- 4. Apply measures to deter raptor perching and raven nesting on elevated structures.

6.8 Recreation & Off-Highway Vehicle Use

OBJECTIVE: In occupied, suitable, and potential sage-grouse habitat, avoid, minimize and mitigate recreation and OHV impacts to sage-grouse habitat.

Numerous benefits to sage-grouse conservation may be derived from the implementation of Nevada Senate Bill 394. The Act provides a mechanism and a funding source to educate users on how to responsibly use off-highway vehicles while minimizing adverse effects on public land resources including important or restricted-access to sage-grouse habitats. The Act further provides a funding source to allow the State to join with its federal partners to better plan, develop, and manage a coordinated and designated system of off-road vehicle trails in Nevada. The off-highway vehicle registration system allows state law enforcement personnel to access vehicle registration information and identify vehicle titleholders in instances where state or federal laws pertaining to off-road access or use are violated.

- 1. Study the impact caused by recreational and OHV use in sage-grouse habitat.
- 2. Work collaboratively through LAWGs, state, and federal agencies to designate OHV areas outside of Sage-grouse Management Areas.

7.0 DE MINIMIS ACTIVITIES

Existing land uses and landowner activities in greater sage-grouse occupied, suitable, and potential habitat that do not require state agency review for consistency with this Strategic Plan include the following:

- 1. Existing animal husbandry practices including branding, docking, herding, trailing, etc.
- 2. Existing farming practices excluding conversion of sagebrush/grassland to agricultural lands.
- 3. Existing grazing operations that utilize recognized rangeland management practices included in allotment management plans, NRCS grazing plans, prescribed grazing plans, etc.
- 4. Construction of agricultural reservoirs and aquatic habitat improvements of less than ten surface acres and drilling of agriculture and residential water wells including installation of tanks, water windmills and solar water pumps more than 0.6 miles from the perimeter of the lek. Within 0.6 miles from leks, no review is required if construction does not occur from March 15 to June 30 and construction does not occur on the lek. All water tanks shall have escape ramps.
- Agricultural and residential electrical distribution lines and substations more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur from March 15 to June 30 and construction does not occur on the lek. Raptor perching deterrents should be installed on all poles within 0.6 miles from leks.
- 6. Agricultural water pipelines if construction activities are more than 0.6 miles from leks. Within 0.6 miles from leks no review is required if construction does not occur March 15 to June 30 and construction is reclaimed.
- 7. New fencing greater than 1.25 miles from leks and maintenance of existing fencing. For new fencing within 1.25 miles of leks, fences with documented high potential for strikes should be marked.
- 8. Irrigation (excluding the conversion of sagebrush-grassland to new irrigated lands).
- 9. Spring development if the spring is protected with fencing and enough water remains at the site to provide mesic (wet) vegetation.
- 10. Herbicide use within existing road, pipeline and power line rights-of-way. Herbicides application using spot treatment. Grasshopper/Mormon cricket control following Reduced Agent-Area Treatments (RAATs) protocol.
- 11. State and county road maintenance.
- 12. Cultural resource pedestrian surveys.
- 13. Emergency response.

8.0 MITIGATION

A determination of the amount and appropriate type of mitigation should be done through a consistent, timely and well-defined process, through honest communication during the impact assessment process prior to project initiation. Mitigation should be coordinated and tracked throughout and across occupied, suitable, and potential habitat areas to ensure efforts are as effective as possible and to provide feedback to the adaptive management process.

OBJECTIVE: In determining appropriate and practicable measures to offset unavoidable impact, such measures should be appropriate to the scope and degree of those impacts and practicable in terms of cost, existing technology, and logistics in light of overall project purposes. The determination of what level of mitigation constitutes "appropriate" mitigation is based solely on the values and functions of the habitat that will be impacted, as practicable.

- 1. Establish a centralized mechanism to coordinate mitigation and pre-impact mitigation across all jurisdictions and land ownerships though a mitigation program or bank that will validate, track, and monitor the success of those efforts on sage-grouse populations. By establishing this central mitigation bank, the State of Nevada will have a robust system that provides for consistent evaluation, oversight, monitoring and reporting of progress.
- 2. In determining compensatory mitigation, the functional values lost by the resource to be impacted must be considered. In determining the nature and extent of habitat development of this type, careful consideration should be given to its likelihood of success.
- 3. Mitigation should generally involve creation of habitat, restoration of habitat, long-term preservation of existing habitat, or enhancement of habitat to compensate for the unavoidable, residual adverse impacts of habitat disturbance.
- 4. To ensure that mitigation efforts to create, restore or enhance habitat are not intentionally disturbed in the future, long-term conservation easements or a record of restrictive covenant should be established over the property. If public lands are used for mitigation purposes, adequate long-term maintenance or replacement of mitigation objectives must be considered while recognizing existing uses.
- 5. Recognize and value mitigation measures that address threats, such as funding for wildfire equipment and training, predator control, radio telemetry and GPS monitoring, etc. when on-site mitigation has marginal chance for success.
- 6. Mitigation may not be use as a method to avoid habitat impacts.
- 7. Consideration and credit for compensatory mitigation should include habitat based efforts (i.e. sagebrush habitat enhancement and restoration) along with other options such as fuels reduction, green stripping, fire suppression support and long-term habitat conservation agreements. Project proponents may receive credit for compensatory mitigation activities regardless of land ownership (i.e. federal, state or private lands).

9.0 MONITORING AND ADAPTIVE MANAGEMENT

Adaptive management as it relates to sage-grouse and their habitat is a structured, iterative process of robust decision making in the face of uncertainty, with an aim to reduce uncertainty over time through continued monitoring. Because adaptive management is based on a learning system, it improves long term management outcomes. The challenge in using the adaptive management approach lies in finding the correct balance between gaining knowledge to improve management in the future and achieving the best short-term outcome based on current knowledge (Allan and Stankey 2009).

- 1. Monitoring of mitigation sites must be included in all plans with detailed protocols to assess specific metrics and determine trends for habitat quantity and quality and sage-grouse populations.
- 2. Develop consistent monitoring protocols and methods to be used across all land jurisdictions and agencies. Compile all monitoring data into one sage-grouse database managed by the Technical Team.
- 3. Submit all monitoring data to the centralized geographic database and compile annual reports of habitat trends.

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ATTACHMENT A

Governor Sandoval's Sage-grouse Advisory Committee Membership

Mayor Bob Crowell Carson City, Nevada	Chairman
Bevin Lister Pioche, Nevada	Agriculture Representative
Tina Nappe Reno, Nevada	Conservation/Environmental Representative
Jeff Ceccarelli Reno, Nevada	Energy Representative
Kent McAdoo Elko, Nevada	General Public Representative
Carl Erquiaga Fallon, Nevada	Local Government Representative
Allen Biaggi Minden, Nevada	Mining Representative
JJ Goicoechea Eureka, Nevada	Ranching Representative
Jack Robb Reno, Nevada	Sportsmen Representative
Beverly Harry Nixon, Nevada	Tribal Nations Representative

Technical assistance provided by:

John McLain, Sheila Anderson, and Don Henderson, Resource Concepts, Inc.

Committee Staff:

Cory Hunt, Policy Analyst, Office of the Governor



Executive Order 2012-09

Establishing a Greater Sage-grouse Advisory Committee

WHEREAS, the Greater Sage-grouse (*Centrocercus urophasianus*) is an iconic species that inhabits much of the sagebrush-steppe habitat in Nevada;

WHEREAS, the United States Fish and Wildlife Service ("USFWS") has determined that the Greater Sage-grouse species is warranted for listing as a threatened or endangered species under the Endangered Species Act (ESA), but is precluded by other higher priority species;

WHEREAS, the United States District Court for the District of Idaho ruled on February 2, 2012 that the USFWS must re-evaluate the status of the Greater Sagegrouse by September 30, 2015;

WHEREAS, the United States Secretary of the Interior has invited the eleven western states, including Nevada, impacted by the potential listing of the Greater Sagegrouse to develop state-specific regulatory mechanisms to conserve the species and preclude the need to list under the ESA;

WHEREAS, the development of a state-specific strategy in Nevada will be critical in demonstrating to the USFWS that the species does not warrant federal protection under the ESA;

WHEREAS, the Bureau of Land Management ("BLM") is currently implementing national Instruction Memoranda to guide interim management of public lands and to develop sage-grouse conservation measures for incorporation into the agency's existing Resource Management Plans (RMPs) by September 2014;

WHEREAS, the development of a state-specific strategy will enable the BLM to incorporate the State's plan as an alternative in its environmental analysis pursuant to the National Environmental Policy Act (NEPA);

WHEREAS, the State of Nevada has management authority over Greater Sagegrouse populations in Nevada;

WHEREAS, the State of Nevada under the leadership of Governor Kenny Guinn's Sage-grouse Conservation Team developed the First Edition of the Greater Sage-grouse Conservation Plan for Nevada and Eastern California in 2004;

WHEREAS, it is in the interest of this State to bring stakeholders and experts together to recommend a course of action that will provide for conservation measures sufficient to preclude the need to list the Greater Sage-grouse;

WHEREAS, the listing of the Greater Sage-grouse would have a significant adverse affect on the custom, culture, and economy of the State of Nevada; and

WHEREAS, Article 5, Section 1 of the Nevada Constitution provides that, "The Supreme Executive Power of this State shall be vested in a Chief Magistrate who shall be Governor of the State of Nevada."

NOW, THEREFORE, by the authority vested in me as Governor by the Constitution and laws of the State of Nevada, I hereby direct and order as follows:

- 1. The Governor's Greater Sage-grouse Advisory Committee ("Committee") is hereby created. The Committee shall be appointed by and serve at the pleasure of the Governor until July 31, 2012.
 - a. The Committee shall be comprised of nine (9) members, representing the various geographic areas, non-governmental organizations and industries of the State within the range of the species.
 - b. The Office of the Governor will assist in staffing this Committee. My office may rely on the services of other Governors or any member of my Cabinet in staffing this Committee.
- 2. The Committee members shall be appointed from the following categories:
 - a. Agriculture
 - b. Conservation and Environmental
 - c. Energy
 - d. General Public
 - e. Local Government
 - f. Mining
 - g. Sportsmen
 - h. Ranching
 - i. Tribal Nations
- 3. The Committee shall provide the Governor recommendations on policies and actions, using the 2004 Nevada Sage-grouse Conservation Plan, BLM Interim Memorandum Guidance, National Technical Team Report and other existing strategies and on-going activities as a basis for developing a state-wide strategy to preclude the need to list the species. The recommendations must be based on the following objectives and/or criteria:
 - a. Conserve the species and its habitat while maintaining predictable and multiple uses of private, state and public lands;
 - b. Tailor the management recommendations to the importance of the habitat and is attuned to the interests of the State;
 - c. Address the following primary threats to the species as identified by the USFWS:
 - i. Habitat fragmentation due to wildfire and invasive species;
 - ii. Conversion and encroachment of habitat caused by development;
 - iii. Lack of appropriate regulatory framework.
 - d. Address the secondary threats to the species as identified by the USFWS, as appropriate;
 - e. Identify opportunities for pro-active sage-grouse habitat enhancement projects; and
 - f. Recognize, encourage and incentivize land use practices that are actively maintaining or improving sage-grouse habitat as evidenced by improvements in habitat quality and quantity, and monitoring which indicates stable/increasing populations of the species.
 - g. Identify a long-term adaptive management structure that engages local working groups and ensures the effective implementation of these recommendations.
- 4. The duties of the Committee are solely advisory.
- 5. The Committee will provide its recommendations to the Governor no later than July 31, 2012.

- 6. The Committee may request consultation, information and technical expertise from Directors or their designees of state agencies regarding the biological needs of the species, activities in state, federal and private lands potentially impacted by the status of the species, and requirements of the ESA and other relevant statutory requirements, including but not limited to the members of the Nevada Legislature, the Nevada Department of Wildlife, the Nevada Department of Conservation and Natural Resources, the Nevada Department of Agriculture, the Nevada Governor's Office of Energy, and the Nevada Indian Commission.
- 7. The Committee may request comments, information and technical expertise from the universities of the State, federal agencies, including but not limited to the USFWS, the BLM, the U.S. Forest Service and the Natural Resources Conservation Services, and members of the public including members of existing local sage-grouse working groups
- 8. The Director of the Nevada Department of Wildlife shall retain an independent contractor to provide technical assistance for the task force from such funds as are available in the Wildlife Trust Fund provided in NRS 501.3585.
- 9. The Nevada Sage-grouse Conservation Team established in 2000 by Governor Guinn shall hereby cease to exist.
- 10. Local sage-grouse working groups are encouraged to continue in their efforts to conserve the Greater Sage-grouse in the State of Nevada and are advised to participate in the development of the recommendations here ordered, in consultation with the Nevada Greater Sage-grouse Advisory Committee.
- 11. The Committee may establish procedural bylaws to aid it in the performance of its duties.
- 12. The Committee may establish subcommittees comprised of members of the Committee to aid it in the performance of its duties.
- 13.All records documenting the Committee's activities shall be retained and transferred to the State Archives for permanent retention in accordance with the State record retention policy.
- 14. The Committee shall cease to exist on July 31, 2012.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the Great Seal of the State of Nevada to be affixed at the State Capitol in Carson City, this 30th day of March, in the year two thousand twelve.

Governor of the State of Nevada

By the Governor:

Secretary of State Deputy Secretary of State



ATTACHMENT B

Technical Presentations to the Advisory Committee

Date	Name and Title	Presentation Title
15 May 2012	Bob Budd, Executive Director	Litigation and the Endangered Species Act
	Wyoming Wildlife and Natural Resource Trust	The Wyoming Plan
15 May 2012	Amy Lueders, Nevada State Director	BLM Land Use Plans Update
	Bureau of Land Management	Interim Memorandum
15 May 2012	Ken Mayer, Director	Bi-State Distinct Population Segment Action Plan
	Nevada Department of Wildlife	Agency Roles and Responsibilities
		Western Association of Fish and Wildlife Agencies (WAFWA) and National Technical Team Reports
15 June 2012	Shawn Espinosa, Upland Game Staff	2004 Conservation Plan
	Specialist	Local Area Working Groups
	Nevada Department of Wildlife	
15 June 2012	Leo Drozdoff, PE, Director	Governors' Task Force
	Nevada Department of Conservation	
	and Natural Resources	
11 June 2012	Quinton Barr, Range Consultant	Sage-grouse and the Endangered Species Act
	Western Range Service	
11 June 2012	Ted Koch, State Supervisor	Sage-grouse and the Endangered Species Act
	U.S. Fish and Wildlife Service	
18 June 2012	Jeremy Sokulsky, PE, MBA, President	Mitigation Banking: Overview
	Environmental Incentives, LLC	
18 June 2012	Ted Koch, State Supervisor	Predation
	U.S. Fish and Wildlife Service	
18 June 2012	Pete Anderson, State Forester	Wildland Fire
	Nevada Division of Forestry	
18 June 2012	Mike Pellant, Coordinator and	Invasive Species
	Rangeland Ecologist	
	BLM Great Basin Restoration Initiative	

Date	Name and Title	Presentation Title
18 June 2012	Dr. Robin Tausch, Supervisory Range Scientist and Plant Ecologist	Pinyon Juniper Woodland
	USDA Forest Service Research Station	
18 June 2012	Dr. James Young, Senior Range Scientist (Ret.) USDA Agricultural Research Service	Constraints of Restoration: Habitat Quantity and Quality
19 June, 2012	Dr. J. Wayne Burkhardt, Range Scientist and Professor Emeritus (Ret.)	Grazing in Sage-grouse Habitat
	University of Nevada Reno	
19 June 2012	Dr. Peter Coates, Research Biologist	Predation
	U.S. Geological Survey	
2 July 2012	David Spicer, President	Success Story: Amargosa Toad Precluded from ESA
	STORM-OV, Inc.	Listing
12 July 2012	Dr. Peter Coates, Wildlife Biologist	Habitat Recommendations
	USGS Western Ecological Research Center	
12 July 2012	Ted Toombs, Regional Director	Habitat Mitigation Crediting: Market, Metrics, and
	Center for Conservation Incentives	Regulatory Assurances
	Environmental Defense Fund	
12 July 2012	Michael Cameron	Monitoring
	The Nature Conservancy	
13 July 2012	Jim Lawrence, Administrator	Conservation Banking in Nevada: Tahoe Land
	Nevada Division of State Lands	Coverage Bank
25 July 2012	Eric Noack, Waste Management Bureau Chief Nevada Division of Environmental Protection	Nevada Landfill Regulations

ATTACHMENT C

Partial List of Potential Funding Opportunities

Source	Comment
Q-1	
SNPLMA	
NDOW Partners in Conservation Gift Account	
Nevada Sportsmen Fund (Pittman-Robertson)	
BLM / USFS End-of-year Funds	
WAFWA North America Ecosystem Conservation Act	
Ruby Pipeline Mitigation Funds	
Falcon-Gondor Transmission Line	
Nevada Legislature	
Donations	
Conservation License Plates	
NRCS	
DOD	
BLM 8100 Funds	
Industry	
U.S. Fish & Wildlife Service	\$40,000 dedicated 7/31/12
Nevada Department of Agriculture	
ON-line "One Nevada" Transmission Line	

ATTACHMENT D

Inter-Tribal Council of Nevada, Inc. Resolution

1. 2012 2:57PM



INTER-TRIBAL COUNCIL OF NEVADA, INC.

680 GREENBRAE DR., SUITE 265 • SPARKS, NV 89431 P.O. BOX 7440 • RENO, NV 89510 PHONE (775) 355-0600 • FAX (775) 355-0648

RESOLUTION NO. 12-ITCN-06

No. 8788

P. 1

RESOLUTION BATTI E MOUNTAIN BAND COUNCIL OF CARSON COLONY INTER-TRIBAL COUNCIL OF NEVADA, INC. COMMUNITY COUNCIL DRESSERVILLE COMMUNITY COUNCIL DUCK VALLEY SHOSHONE-PAIUTE SAGE GROUSE MANAGEMENT AREA ON TRIBAL LANDS BUSINESS COUNCIL DUCKWATER SHOSHONE TRIBAL COUNCIL ELKO BAND The Inter-Tribal Council of Nevada, Inc., is organized and WHEREAS. COUNCIL operates in accordance with its Constitution and By-Laws, ELY SHOSHONE COUNCIL amended in November 1974; and FALLON BUSINESS COUNCIL FT. McDERMITT the purposes of Inter-Tribal Council of Nevada, Inc. (ITCN), are PAIUTE-SHOSHONE WHEREAS, TRIBES stated in its Constitution, Preamble; and GOSHUTE BAND COUNCIL LAS VEGAS PAJUTE TRIBAL COUNCIL the Executive Board, a body comprised of the twenty-seven WHEREAS, LOVELOCK TRIBAL (27) representatives of the federally recognized member COUNCIL tribes in the State of Nevada and whose Charter is ratified by MOAPA BUSINESS COUNCIL these same tribes; and PYRAMID LAKE TRIBAL COUNCIL RENO/SPARKS TRIBAL COUNCIL the Inter-Tribal Council of Nevada has a continuing interest in WHEREAS, SOUTH FORK the health, education and well-being of their Indian people; BAND COUNCIL and STEWART COMMUNITY COUNCIL SUMMIT LAKE PAIUTE COUNCIL WHEREAS, the Inter-Tribal Council of Nevada respects the sovereign to TE-MOAK TRIBAL sovereign relationship between the Tribes and the State of COUNCIL TIMBISHA SHOSHONE Nevada and the federal government; and TRIBE WALKER RIVER PAIUTE TRIBAL COUNCIL a Memorandum of Agreement may be sought on behalf of WHEREAS, WASHOE TRIBAL COUNCIL each individual Tribe to further develop the efforts needed for WFLLS BAND the management, monitoring, and surveying for sage grouse. COUNCIL WINNEMUCCA COLONY COUNCIL WOODFORDS COMMUNITY COUNCIL YERINGTON PAIUTE TRIBAL COUNCIL

YOMBA TRIBAL COUNCIL

2:57PM 1. 2012 Aug.



BAND COUNCIL

DRESSERVILLE

DUCK VALLEY

DUCKWATER SHOSHONE TRIBAL COUNCIL ELKO BAND COUNCIL

ELY SHOSHONE COUNCIL

FALLON BUSINESS COUNCIL

PAIUTE-SHOSHONE

LAS VEGAS PAIUTE

TRIBAL COUNCIL

LOVELOCK TRIBAL COUNCIL

MOAPA BUSINESS COUNCIL

PYRAMID LAKE TRIBAL COUNCIL **RENO/SPARKS** TRIBAL COUNCIL SOUTH FORK

BAND COUNCIL

SUMMIT LAKE PAIUTE COUNCIL

TE-MOAK TRIBAL

COMMUNITY COUNCIL

TIMBISHA SHOSHONE

STEWART

COUNCIL

COUNCIL

COUNCIL WELLS BAND

COUNCIL WINNEMUCCA

TRIBE WALKER RIVER PAIUTE TRIBAL

FT. McDERMITT

TRIBES **GOSHUTE BAND** COUNCIL

CARSON COLONY

No. 8788 **INTER-TRIBAL COUNCIL OF NEVADA, INC.**

P. 2

680 GREENBRAE DR., SUITE 265 · SPARKS, NV 89431 P.O. BOX 7440 . RENO, NV 89510 PHONE (775) 355-0600 · FAX (775) 355-0648

BATTLE MOUNTAIN the sage grouse (Centrocercus urophasianus) is a valued native WHEREAS, avian species with declining populations that have been COMMUNITY COUNCIL severely impacted by habitat degradation, by declining big COMMUNITY COUNCIL sage populations, by invasive plants, by increased predation, by mining interest, by recreational use, and by livestock SHOSHONE-PAIUTE **BUSINESS COUNCIL** grazing; and

> the ITCN recognizes the need for tribes to protect and WHEREAS, conserve, to the greatest extent possible, the existing wildlife habitat of sage grouse within and/or adjacent to the boundaries of all tribal lands within Nevada; and

the cooperative efforts will involve survey and monitoring WHEREAS, activities, conservation planning, and protecting key habitat areas to assist with all sage grouse life stages which include brooding, migration and lek habitat; and

the sage grouse is recognized by Nevada tribes traditional WHEREAS, song and dance, language, and stories/legends and there is presence of Traditional Ecological Knowledge (TEK) regarding sage grouse and their habitat be protected for tribes' value and conservation efforts; and

the ITCN acknowledges the valiant effort to protect existing WHEREAS, sage grouse populations through the development of a Sage Grouse Conservation Plan for the State of Nevada; and

COLONY COUNCIL WOODFORDS COMMUNITY

WASHOE TRIBAL

COUNCIL YERINGTON PAIUTE TRIBAL COUNCIL

YOMBA TRIBAL COUNCIL

Aug. 1. 2012 2:57PM



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No. 8788

P. 3

WHEREAS, the ITCN Executive Board endorses the attachment 1 of approved language that would be updated into the final State of Nevada Sage Grouse Conservation Plan.

NOW THEREFORE BE IT RESOLVED that the Executive Board, on behalf of their membership, hereby supports the statewide Sage Grouse Conservation Plan effort by including any applicable Nevada tribal lands within Sage Grouse Management Areas through a Memorandum of Agreement for direct involvement for the purposes of monitoring, surveying, developing recommended conservation measures, funding, and protecting the sage grouse and its sagebrush habitat.

CERTIFICATION

The foregoing resolution was adopted by poll vote of the Inter-Tribal Council of Nevada's Executive Board, completed on the 25th day of July, 2012, by a

Vote of __12__ FOR, __0__AGAINST, and __0__ ABSTENTIONS.

Daryl Crawford, ITCN Executive Director for Bryan Cassadore, Secretary ITCN Executive Board

BATTLE MOUNTAIN BAND COUNCIL

CARSON COLONY COMMUNITY COUNCIL DRESSERVILLE

COMMUNITY COUNCIL DUCK VALLEY

SHOSHONE-PAIUTE BUSINESS COUNCIL

DUCKWATER SHOSHONE TRIBAL COUNCIL

ELKO BAND COUNCIL

ELY SHOSHONE COUNCIL

FALLON BUSINESS COUNCIL

FT. McDERMITT PAIUTE-SHOSHONE TRIBES

GOSHUTE BAND

LAS VEGAS PAIUTE TRIBAL COUNCIL

LOVELOCK TRIBAL COUNCIL

MOAPA BUSINESS COUNCIL

PYRAMID LAKE TRIBAL COUNCIL

RENO/SPARKS TRIBAL COUNCIL

SOUTH FORK BAND COUNCIL

STEWART COMMUNITY COUNCIL

SUMMIT LAKE PAIUTE COUNCIL

TE-MOAK TRIBAL COUNCIL

TIMBISHA SHOSHONE TRIBE

WALKER RIVER PAIUTE TRIBAL

COUNCIL WASHOE TRIBAL

COUNCIL

WELLS BAND COUNCIL

WINNEMUCCA COLONY COUNCIL

WOODFORDS COMMUNITY COUNCIL

YERINGTON PAIUTE

YOMBA TRIBAL COUNCIL

ATTACHMENT E

NRCS SGI Conservation Practice Standard 528

Conservation Practice Standard: Prescribed Grazing (528) (FACILITATING MANAGEMENT PRACTICE)

Definition: Managing the harvest of vegetation with grazing and/or browsing animals.

Purpose: This practice may be applied to improve or maintain desired species composition and vigor of plant communities, improve or maintain quantity and quality of forage for grazing and browsing animals' health and productivity, improve or maintain surface and/or subsurface water quality and quantity, improve or maintain riparian and watershed function, reduce accelerated soil erosion, and maintain or improve soil condition, improve or maintain the quantity and quality of food and/or cover available for wildlife, and manage fine fuel loads to achieve desired conditions. In sage-grouse habitat, this practice is critical to ensure rangelands are managed sustainably to provide habitat requirements for all life stages of sage-grouse.

Resource concerns: Unrestricted livestock grazing can remove desired vegetation and change plant communities from desired ecological states to undesirable states where invasive and other undesirable plant species predominate. Additionally, unrestricted grazing may lead to overharvest of plant resources, decrease residual cover, decrease plant litter on the soil surface, increase bare ground, accelerate soil erosion rates, decrease water quality, and reduce the overall habitat quality for wildlife, including sage-grouse.



Date: 7/31/2012 Prepared by Resource Concepts Inc.



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Date: 7/31/2012 Prepared by Resource Concepts Ind

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