

State of Nevada Alternative

Management Actions for the Conservation of the Greater Sage-Grouse in the Nevada/NE California Sub-Region

The Nevada Alternative – submitted to the Bureau of Land Management (BLM) by the State of Nevada for inclusion in the “*Draft Environmental Impact Statement (DEIS) for the Northeast California/Nevada Sub Region of the National Strategy to Preserve, Conserve, and Restore Sagebrush Habitat*” – is a strategy that, when fully implemented, will adequately manage the sagebrush ecosystem and preclude the need for the Greater Sage-Grouse to be listed as an endangered species by the US Fish and Wildlife Service (USFWS).

Blue = New action Green = Expansion or continuation of current successful activities

Sources Noted in this Table: **(2012 Plan)** = “2012 Strategic Plan for the Conservation of Greater Sage-Grouse in Nevada” produced by Nevada stakeholders at the request of Governor Sandoval
(2010 Plan) = “2010 Nevada Energy & Infrastructure Standards to Conserve Greater Sage-Grouse” produced by Nevada stakeholders at the request of Governor Gibbons
(2004 Plan) = “2004 Greater Sage-Grouse Conservation Plan for Nevada and Eastern California” produced by Nevada stakeholders at the request of Governor Guinn

Notes:

1. All Management Actions in this table will be implemented through a coordinated effort among Local, State and Federal agencies, unless an agency is specifically noted. The Nevada Sagebrush Ecosystem Technical Team is the entity that will help facilitate and ensure this level of coordination.
2. All Management Actions correspond to areas identified on the Sage-Grouse Management Areas (SGMAs) Map contained in the 2012 Plan. The SGMAs include four categories - Occupied Habitat, Suitable Habitat, Potential Habitat, and Non Habitat areas - as defined in the 2012 Plan.
3. The Nevada Sagebrush Ecosystem Council, through recommendations from the Nevada Sagebrush Ecosystem Technical Team that are based on scientific information and field verifications, will further refine the habitat categories within the SGMAs and determine where the best possible habitat exists. Also, it is understood that the final nomenclature for these habitat categories may vary.
4. On Federal lands, activities that have an approved BLM notice, plan of operation, right-of-way, or drilling plan, and on State/Private lands, projects with an approved Nevada Division of Environmental Protection permit, are exempt from any new mitigation requirements above and beyond what has already been stipulated in the projects’ approvals.
5. While the Management Actions in this table emphasize that the Nevada Sagebrush Ecosystem Council, the Nevada Sagebrush Ecosystem Technical Team and the Nevada Sagebrush Ecosystem Mitigation Banking Program place a new priority and focus on the conservation of the sagebrush regional ecosystem, it should also be noted that many of the conservation activities stated herein are currently being carried out in a more general context.
6. Nevada’s threat-based Management Actions reflect the State’s unique wildfire and invasive species challenges.

PROGRAM	PROGRAM MANAGEMENT ACTION
<p>“NO NET LOSS”</p>	<p>The Nevada Sagebrush Ecosystem Council will work to achieve conservation through a goal of “no net loss” in the Occupied, Suitable and Potential Habitat categories within the sagebrush ecosystem for activities that can be controlled such as a planned disturbance or development. As a realistic, quantifiable goal, "no net loss" must be measured through effective mitigation monitoring over a number of years. Timeframes will be determined by the Nevada Sagebrush Ecosystem Council using the best available science.</p> <p>The fundamental hierarchical decision-making policy of "Avoid, Minimize and Mitigate" will be followed:</p> <p><u>Avoid</u> – Wherever possible, eliminate conflicts by relocating disturbance activities in order to conserve Sage-Grouse and their habitat.</p> <p><u>Minimize</u> – 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.</p> <p><u>Mitigate</u> – Only after all appropriate and practicable avoidance and minimization measures have been taken, offset residual adverse effects in Occupied and Suitable 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.</p> <p>Sage-Grouse Management Areas (SGMAs) include Occupied Habitat, Suitable Habitat, Potential Habitat, and Non Habitat, as defined in the 2012 Plan. The Nevada Sagebrush Ecosystem Council – through field verifications and recommendations from the Nevada Sagebrush Ecosystem Technical Team based on the best available science – will further refine the habitat categories within the SGMAs. Also, it is understood that the final nomenclature for these habitat categories may vary.</p> <p>Management Strategy In Occupied/Suitable Habitat</p> <ul style="list-style-type: none"> ▪ Limit habitat disturbance, including habitat improvement projects, in Occupied and Suitable Habitat to not more than five percent per year, per SGMA, unless habitat treatments show credible positive results (<i>Connelly, et al.</i> 2000). This limit does not apply to removal of invasive or encroaching vegetation where such removal actually creates habitat. ▪ 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 Nevada Sagebrush Ecosystem Technical Team (see PMA-2). ▪ Limit habitat treatments in winter ranges to actions that maintain or expand current levels of sagebrush available in winter. ▪ Proactively monitor habitat and manage to ensure that it retains the attributes necessary to support viable Sage-Grouse populations. <p>Management Strategy In Potential Habitat</p> <ul style="list-style-type: none"> ▪ Potential Habitat should be used for habitat enhancement and restoration to expand or restore Occupied or Suitable Habitat that has been adversely impacted either by acts of nature (e.g. wildfire, Pinyon-Juniper encroachment, etc.) or by human activities.

	<ul style="list-style-type: none"> ▪ Limit habitat disturbance, including habitat improvement projects, in Potential Habitat to not more than twenty percent per year, per SGMA, 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. ▪ Potential Habitat should be prioritized for enhancement and restoration based on data-driven models that incorporate ecological site potential and identify the highest priority sites with the greatest potential for success. <p>Management Strategy In Non Habitat</p> <ul style="list-style-type: none"> ▪ Use areas designated as Non Habitat within SGMAs to site activities that are not geographically restricted to specific resources. ▪ Avoid undertaking habitat enhancement or restoration in Non Habitat areas with little or no potential for success.
<p>NEVADA SAGEBRUSH ECOSYSTEM COUNCIL</p>	<p><u>PMA-1:</u> Through the Nevada Sagebrush Ecosystem Council, a Governor-appointed, broad spectrum stakeholder forum, the following will occur:</p> <p><u>PMA-1.1:</u> Review and approval of a process to coordinate development activities in SGMAs.</p> <p><u>PMA-1.2:</u> Provision of a forum for participation from industry, State and Federal resource management agencies, and the general public.</p> <p><u>PMA-1.3:</u> Oversight of the Nevada Sagebrush Ecosystem Mitigation Bank Program.</p> <p><u>PMA-1.4:</u> Development, review and approval of region-wide policies - in a transparent, consistent process - that respond to sagebrush ecosystem threats.</p> <p><u>PMA-1.5:</u> Setting and clarifying policies and management criteria for SGMAs and establishment of well-defined decision thresholds for threat assessments and mitigation (regulatory process).</p> <p><u>PMA-1.6:</u> Revision of Sage-grouse Management Areas (SGMAs) through field verifications and recommendations from the Nevada Sagebrush Ecosystem Technical Team based on the best available science.</p> <p><u>PMA-1.7:</u> Establishment of 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.</p> <p><u>PMA-1.8:</u> Secure and consolidated funding, and the direction of major expenditures for Sage-Grouse conservation.</p> <p><u>PMA-1.9:</u> Facilitation and the resolution of conflicts between industry, land owners, and resource agencies when there is disagreement regarding Sage-Grouse management.</p> <p><u>PMA-1.10:</u> Receipt and approval of an annual report from the Nevada Sagebrush Ecosystem Technical Team that includes compiled and summarized data on development, enhancement, and restoration activities in SGMAs, Sage-Grouse population trends, and Nevada Sagebrush Ecosystem Mitigation Bank Program (PMA-3) progress. The Nevada Sagebrush Ecosystem Council will submit the annual report to the Governor, USFWS, BLM, USFS, local governments and the general public.</p> <p><u>PMA-1.11:</u> Development of standards and protocols to propose to the BLM and USFS in order to facilitate expedited</p>

	<p>National Environmental Policy Act review for restoration activities in SGMAs.</p> <p><u>PMA-1.12:</u> Encourage and facilitate land management education and training for all SGMA user groups.</p>
<p>NEVADA SAGEBRUSH ECOSYSTEM TECHNICAL TEAM</p>	<p><u>PMA-2:</u> Through the Nevada Sagebrush Ecosystem Technical Team, scientific expertise from State, local and Federal entities will be incorporated to provide a well-defined, consistent and transparent process for permitting, prioritizing and managing activity in SGMAs. The full-time, multidisciplinary Nevada Sagebrush Ecosystem Technical Team will include a team coordinator and representatives from the Nevada Department of Agriculture, the Nevada Department of Conservation and Natural Resources Divisions of Forestry and State Lands, and the Nevada Department of Wildlife. The team will work with individuals from the state’s Conservation Districts, the Nevada Association of Counties, the BLM Nevada State Office, the Humboldt-Toiyabe National Forest Supervisor’s Office, the USFWS, the Nevada Natural Heritage Program and the Natural Resource Conservation Service.</p> <p>The Nevada Sagebrush Ecosystem Technical Team will:</p> <p><u>PMA-2.1:</u> In accordance with the Nevada Sagebrush Ecosystem Council's policy, oversee administration and operation of the Nevada Sagebrush Ecosystem Mitigation Bank Program (PMA-3).</p> <p><u>PMA-2.2:</u> 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 rangeland resiliency prior to and following wildfire.</p> <p><u>PMA-2.3:</u> Foster and maintain collaborative processes with State, local and Federal agencies to expedite permitting. As deemed appropriate by the Nevada Sagebrush Ecosystem Council, decision-making will be extended to the Nevada Sagebrush Ecosystem Technical Team such that permitting will be expedited rather than extended by an added layer of bureaucracy.</p> <p><u>PMA-2.4:</u> Provide consultation for project proponents who want to conduct activities in SGMAs to incorporate “avoid, minimize, and mitigate” practices into project designs. Project applicants will have the opportunity to conduct “ground-truthing” for the presence or absence of habitat.</p> <p><u>PMA-2.5:</u> 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 SGMAs and to determine if additional mitigation is required.</p> <p><u>PMA-2.6:</u> Acquire data to refine SGMAs using best available science.</p> <p><u>PMA-2.7:</u> Solicit grants and private contributions for sagebrush ecosystem conservation and restoration projects.</p> <p><u>PMA-2.8:</u> Establish a repository to maintain the inventory of development and mitigation projects, population data, and monitoring results.</p> <p><u>PMA-2.9:</u> Compile and summarize data annually, and submit an annual progress report to the Nevada Sagebrush Ecosystem Council.</p> <p><u>PMA-2.10:</u> Conduct regular adaptive management evaluations to make management and policy recommendations to the</p>

	<p>Nevada Sagebrush Ecosystem Council.</p> <p><u>PMA-2.11:</u> Engage and coordinate activities with Local Area Working Groups through existing State Conservation Districts.</p> <p><u>PMA-2.12:</u> Coordinate 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 Nevada Sagebrush Ecosystem Council as areas of high importance to Sage-Grouse; b) updating SGMA maps; c) monitoring; d) identifying potential habitat enhancement and restoration projects; and e) other tasks where local, site-specific expertise can provide added value.</p>
<p>NEVADA SAGEBRUSH ECOSYSTEM MITIGATION BANK PROGRAM</p>	<p><u>PMA-3:</u> The Nevada Sagebrush Ecosystem Mitigation Bank Program, a centralized mechanism to coordinate mitigation and pre-impact mitigation across all jurisdictions and land ownerships, will be the system to validate the success of all conservation efforts of Sage-Grouse populations and the sagebrush ecosystem in Nevada. The Nevada Sagebrush Ecosystem Council, through the Nevada Sagebrush Ecosystem Technical Team, will develop a set of metrics and credits to ensure that appropriate mitigation measures are applied consistently and transparently. By establishing this central mitigation bank, the State of Nevada will have a robust system that provides for consistent evaluation, oversight, monitoring, reporting of progress, and adaptive management for long-term certainty.</p> <p><u>PMA-3.1:</u> In determining appropriate mitigation, the functional values lost by the resource to be impacted must be considered and careful consideration must be given to its likelihood of success.</p> <p><u>PMA-3.2:</u> Mitigation will 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.</p> <p><u>PMA-3.3:</u> 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 will 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.</p> <p><u>PMA-3.4:</u> Consideration and credit for appropriate mitigation will 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 mitigation activities regardless of land ownership (i.e. federal, state or private lands).</p> <p><u>PMA-3.5:</u> Recognize and appropriately 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.</p> <p><u>PMA-3.6:</u> Mitigation will not be considered as a method of “avoidance.”</p>
<p>THREAT</p>	<p>THREAT MANAGEMENT ACTION</p>
<p>Wildland Fire - General</p>	<p><u>TMA-1:</u> Protect, maintain and improve sagebrush habitat statewide over time by treating, rehabilitating and restoring at least as many acres of Occupied/Suitable and Potential Habitat as are lost to wildfire. <u>(2012 Plan)</u></p> <p><u>TMA-1.1:</u> Utilize the Nevada Sagebrush Ecosystem Council and the Nevada Sagebrush Ecosystem Technical Team to collect</p>

	<p>and consolidate funding and develop common criteria and requirements for habitat protection, restoration and monitoring. <u>(2012 Plan)</u></p> <p><u>TMA-1.2:</u> Actively manage SGMAs 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. <u>(2012 Plan)</u> Limit the use of fire as a management tool in Wyoming Big Sagebrush and Black Sagebrush plant communities.</p> <p><u>TMA-1.3:</u> Support the Nevada Division of Forestry’s “Wildland Fire Protection Program,” a statewide comprehensive wildfire management program that engages all interagency partners (federal, state & local), to reduce the threats of catastrophic wildfire, rapidly suppress wildfires, and rehabilitate lands damaged by wildfire. <u>(2012 Plan)</u></p> <p><u>TMA-1.4:</u> Continue the expansion and implementation of a framework across all land jurisdictions for pre-suppression actions to minimize ignitions and alter fuel conditions in order to avoid, whenever possible, large damaging conflagrations. <u>(2012 Plan)</u></p> <p><u>TMA-1.5:</u> Continue the expansion and implementation of fire suppression plans and strategies across all land jurisdictions for SGMAs. <u>(2012 Plan)</u></p> <p><u>TMA-1.6:</u> Following fires, continue the expansion and implementation of sagebrush enhancement and restoration treatments consistent with Sage-Grouse management objectives in appropriate ecological sites. <u>(2012 Plan)</u></p> <p><u>TMA-1.7:</u> Continue the expansion and implementation of proactive solutions that are market-based, flexible, and take advantage of economies of scale. An example is the “good of the state” contract for fire fuels reduction services initiated by the State Purchasing Division in November 2007 that facilitates the contracting for forest management hand crew services, forestry equipment, hauling services, road construction and rehabilitation, and controlled fire burns. Agencies within the state use these services including the Nevada Division of Forestry and the Tahoe Resource Team to meet fuel reduction objectives. <u>(2012 Plan)</u></p>
Wildland Fire - Pre-Suppression	<p><u>TMA-2.1:</u> 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. <u>(2012 Plan)</u></p> <p><u>TMA-2.2:</u> Continue successful landscape level habitat assessments in, and in proximity to, SGMAs to identify those habitat areas that are at the highest risk of wildland fire. <u>(2012 Plan)</u></p> <p><u>TMA-2.3:</u> Continue the construction of 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 SGMAs unless no other options are available that will result in the same level of habitat protection. <u>(2012 Plan)</u></p> <p><u>TMA-2.4:</u> Continue to support a business environment that incentivizes beneficial uses of biomass and excess fuels (e.g. stewardship contracting, landscape level/long term projects, etc.). <u>(2012 Plan)</u></p>

	<p><u>TMA-2.5:</u> Continue to identify State and County highway/road and utility rights of way for fuel breaks; replacing invasive, fire prone species with fire resistant species and performing other fuels reduction treatments. <u>(2012 Plan)</u></p> <p><u>TMA-2.6:</u> Continue to identify and utilize all cross-boundary authorities available to improve project coordination and implementation on the ground. <u>(2012 Plan)</u></p> <p><u>TMA-2.7:</u> Continue to utilize Nevada Division of Forestry conservation camp crews for fuels reduction project implementation and as federal grant match. <u>(2012 Plan)</u></p> <p><u>TMA-2.8:</u> Continue to successfully treat existing areas of invasive vegetative that pose a threat to SGMA through the use of herbicides, fungicides or bacteria to control cheatgrass and medusahead infestations.</p>
<p>Wildland Fire – Pre-Suppression <i>Federal Agency Actions</i></p>	<p><u>TMA-2.9:</u> Review current processes and, if necessary, the Federal agencies should obtain authority and expedite the process to implement vegetative treatments for fuels reduction projects in strategic areas for protection of sagebrush habitat. <u>(2012 Plan)</u></p> <p><u>TMA-2.10:</u> 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 SGMA and constructed fuel breaks. <u>(2012 Plan)</u></p>
<p>Wildland Fire –Suppression and Emergency Management</p>	<p><u>TMA-3:</u> Manage wildland fires in SGMA to reduce the number of wildfires that escape initial attack and become greater than 300 acres down to two to three percent of all wildfire ignitions over a ten year period. In this context, fire should not be used in Phase III Pinyon-Juniper areas due to a lack of a sufficient sagebrush seed stock in the ground. <u>(2012 Plan)</u></p> <p><u>TMA-3.1:</u> Identify and develop suppression plans, including mapping of SGMA, to improve initial attack suppression actions. <u>(2012 Plan)</u></p> <p><u>TMA-3.2:</u> 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. Nevada Division of Forestry helicopters, crews, and volunteer fire departments). <u>(2012 Plan)</u></p> <p><u>TMA-3.3:</u> Establish and utilize Nevada Interagency Incident Management Teams (IMTs) for wildfires in SGMA. Nevada currently has five Type 3 IMTs that are federally sponsored and comprised of qualified federal, state and local government employees. Having five Nevada based IMTs ensures that the State has IMT members with knowledge of Nevada’s issues and natural resources, a key advantage over out-of-area IMTs that come to manage a Nevada fire with no local understanding. <u>(2012 Plan)</u></p> <p><u>TMA-3.4:</u> Increase initial attack capability by training and equipping volunteer firefighters, as well as agricultural and other industry work forces for assignment during periods of high fire activity. Trained volunteers who are remotely located will serve as first responders when necessary and appropriate. <u>(2012 Plan)</u></p> <p><u>TMA-3.5:</u> Integrate suppression resource locations within SGMA and pre-position resources as conditions dictate. <u>(2012 Plan)</u></p> <p><u>TMA-3.6:</u> Develop a “suitcase” interagency suppression task force (defined as a highly-mobile that could move throughout</p>

	<p>the state rapidly) for pre-positioning during high wildfire hazard periods. Activate up to three interagency "suitcase" task forces and pre-position them during Red Flag and predicted lightning events in SGMAs for initial attack response. <u>(2012 Plan)</u></p> <p><u>TMA-3.7:</u> Within SGMAs, eliminate the tactic of “burning out,” including backfiring unless there are direct life safety threats. <u>(2012 Plan)</u></p> <p><u>TMA-3.8:</u> Designate Occupied and Suitable Habitat in SGMAs as a “high priority value” for suppression resource allocation in the Geographical Area Coordination Centers and within the FEMA Fire Management Assistance Grant criteria. <u>(2012 Plan)</u></p>
<p>Wildland Fire –Suppression and Emergency Management- <i>Federal Agency Actions</i></p>	<p><u>TMA-3.9:</u> Utilize the interagency Fire Planning Assessment system to optimize utilization of fire suppression resources (e.g. engines, aircraft, water tenders, hand crews, etc.). Fire Program Analysis 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>(2012 Plan)</u></p> <p><u>TMA-3.10:</u> Encourage use of the State's Air National Guard C-130 Unit with the Modular Airborne Firefighting System (MAFFS) for aerial firefighting support.</p> <p><u>TMA-3.11:</u> Increase the fleet of available heavy air tankers and develop a system for prioritizing their use to fight fires when needed.</p> <p><u>TMA-3.12:</u> Eliminate policy and operational inconsistencies by returning jurisdiction over Nevada BLM lands that are currently managed by the California Surprise Field Office; placing that jurisdiction into the Carson City and Winnemucca Field Offices.</p> <p><u>TMA-3.13:</u> Develop a specific and concise package of information on SGMAs 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.’ <u>(2012 Plan)</u></p> <p><u>TMA-3.14:</u> Assign a local, trained resource advisor with Sage-Grouse expertise on all fire suppression responses in SGMAs. <u>(2012 Plan)</u></p>
<p>Wildland Fire - Restoration</p>	<p><u>TMA-4:</u> Carefully review and evaluate all burned areas within SGMAs in a timely manner to ascertain the reclamation potential for reestablishing Sage-Grouse habitat, enhancing ecosystem resiliency, and controlling invasive weed species. <u>(2012 Plan)</u></p> <p><u>TMA-4.1:</u> Complete burn severity assessments and identify ecological site potential in, and in proximity to, SGMAs 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. <u>(2012 Plan)</u></p> <p><u>TMA-4.2:</u> Continue the expansion of, and improvements to, the Nevada Division of Forestry Seedbank & Plant Material program in conjunction with Federal partners. Utilize Nevada Division of Forestry conservation camp crews for native seed collection and rehabilitation activities. Improve storage capabilities for native seed and desirable species that provide a</p>

	<p>competitive advantage over invasive species and improve storage capabilities to promote longevity of available seed. <u>(2012 Plan)</u></p> <p><u>TMA-4.3:</u> Continue developing plans and acquiring the necessary resources (e.g. seed collection, seeding equipment pools, trained staff, etc.) for post fire rehabilitation activities and warehouse viable seed stockpiles. <u>(2012 Plan)</u></p> <p><u>TMA-4.4:</u> Continue identifying and obtaining funding opportunities from Federal, State, local, industry and land users dedicated to implementing prioritized habitat enhancement, restoration, and conservation activities. <u>(2012 Plan)</u></p> <p><u>TMA-4.5:</u> Continue to focus research and monitoring efforts through demonstration projects on improving rehabilitation and revegetation successes in harsh environments. <u>(2012 Plan)</u></p>
<p>Wildland Fire - Ongoing Successful Activities</p>	<p><u>TMA-5:</u> Through the Nevada Sagebrush Ecosystem Council, utilizing the “avoid, minimize and mitigate” strategy, and with the goal of restoring the appropriate role of wildfire, the following successful Nevada Division of Forestry programs that are a benefit to Sage-Grouse will continue:</p> <p><u>TMA-5.1:</u> Continue statewide resource programs, including:</p> <ul style="list-style-type: none"> • Native seed collection, cleaning, bagging, storage, and application with quad seeders and seed drills. • Private landowner technical assistance, project implementation and cost share grants for Pinyon-Juniper removal (Forest Health) in sagebrush habitats; fuels reduction; green stripping; prescribed fire; and related habitat improvements on non-federal lands. • Federal and State land project implementation through contracts for numerous vegetation improvement projects, water developments, timber stand improvements, fuels reduction, green stripping, etc. <p><u>TMA-5.2:</u> Continue statewide fire programs, including:</p> <ul style="list-style-type: none"> • Fuels reduction planning, technical assistance, cost share grants and project implementation on state and private lands as well as assisting federal agency projects. • The Nevada Division of Forestry Wildland Fire Program to improve wildfire management in participating counties through strengthened initial attack, landowner education, improved coordination with federal land managers, and fuels reduction. <p><u>TMA-5.3:</u> Continue the Nevada Division of Forestry Conservation Camp Program that:</p> <ul style="list-style-type: none"> • Provides a trained statewide labor force that can be utilized for numerous Sage-Grouse mitigation activities and for wildland fire suppression. <u>(2004 Plan)</u>
<p>Invasive Species</p>	<p><u>TMA-6:</u> Through the Nevada Sagebrush Ecosystem Council, utilizing the “avoid, minimize and mitigate” strategy, and with the goal of restoring the appropriate role of wildfire, the following successful Nevada Department of Agriculture programs that are a benefit to Sage-Grouse will continue:</p> <ul style="list-style-type: none"> • NDA per Nevada Revised Statute is charged with enforcing regulation that require landowners to remove and or control invasive, noxious plants species that would otherwise alter habitat.

	<ul style="list-style-type: none"> • Biological control program obtains, releases, and monitors a variety of agents (invertebrates & fungi) which have been approved by USDA-APHIS, to control specific noxious weeds to restore and retain natural habitat. • Seed lot inspections are conducted to ensure the viability of seed and the absence of invasive, noxious plant species for rangeland restoration projects conducted by the BLM, FS, and other local agencies, governments and groups. • Pesticide applicator education, training, and licensing to ensure that pesticide applications are conducted properly on and around habitat. <p><u>TMA-6.1:</u> Continue Nevada Department of Agriculture statewide surveys for the detection of incipient invasive and noxious plants in conjunction with USDA-APHIS and the Nevada Department of Transportation.</p> <ul style="list-style-type: none"> • Conducts and attends numerous workshops, field days, booth and other events to promote education, awareness, and outreach to limit introduction and spread of invasive and noxious plants on public lands and natural habitat. • Statewide Cooperative Weed Management Area (CWMAs) Support Program: <ul style="list-style-type: none"> • Provide technical assistance, project success monitoring and financial support to CWMAs through federal and state funding for projects performing the following tasks: <ul style="list-style-type: none"> • Noxious weed and invasive plant treatments on lands degraded by infestations. • Early Detection, Rapid Response (EDRR) surveying for new noxious weed species that are not already established in the state and pose new threats to healthy native plant ecosystems. • Native planting and reseeding on previously treated sites or in areas susceptible to invasion in order to improve habitat and/or the overall health of lands. • Educational activities directed toward local communities regarding the negative impacts of noxious weeds and the importance of infestation spread prevention and the implementation of integrated weed management plans. • Provide technical assistance, project success monitoring and financial support to areas across the state that were previously burned and currently threatened by fires due to noxious weed infestations and/or fire fuels. Non-federal land projects tasks include: <ul style="list-style-type: none"> ○ Fuels reduction through noxious weed decadent material removal, noxious weed and invasive plant treatments, and other forested and riparian area fire fuel load thinning. ○ Native planting and reseeding in cleared areas and degraded riparian habitat areas. ○ Private landowner assistance in fire and invasive plant invasion prevention and land management plans. <p><u>TMA-6.2:</u> Continue statewide Weed Seed Free Forage and Gravel Certification Program</p> <ul style="list-style-type: none"> • Inspect and certify gravel and forage products as weed-free to prevent noxious weeds from spreading onto valuable Forest Service lands where these products are required and/or onto any other regions of the state where these products are transported or used.
Conifer Encroachment	<p><u>TMA-7:</u> Initiate landscape level treatments in SGMAs to reverse the effects of Pinyon-Juniper encroachment and restore healthy, resilient sagebrush ecosystems. <u>(2012 Plan)</u></p>

	<p><u>TMA-7.1:</u> Inventory and prioritize areas for treatment of Phase I and Phase II encroachment in SGMAs to restore habitat resiliency, reduce avian predator perches, and increase forb and grass cover. <u>(2012 Plan)</u></p> <p><u>TMA-7.2:</u> 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 SGMAs where possible, especially in areas in close proximity to Occupied and Suitable Habitat. <u>(2012 Plan)</u></p> <p><u>TMA-7.3:</u> 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 SGMAs based on ecological site potential. Old growth trees should be protected on woodland sites. <u>(2012 Plan)</u></p> <p><u>TMA-7.4:</u> 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. <u>(2012 Plan)</u></p> <p><u>TMA-7.5:</u> Allocate sufficient resources to fully address habitat loss and degradation in the next ten years. <u>(2012 Plan)</u></p> <p><u>TMA-7.6:</u> 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. <u>(2012 Plan)</u></p> <p><u>TMA-7.7:</u> Continue to incentivize and assist in the development of bio-fuels and other commercial uses of Pinyon-Juniper resources. <u>(2012 Plan)</u></p> <p><u>TMA-7.8:</u> 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. <u>(2012 Plan)</u></p> <p><u>TMA-7.9:</u> The Nevada Sagebrush Ecosystem Council will establish a goal for the number of acres to be treated annually and work to accomplish that goal over time. <u>(2012 Plan)</u></p>
Infrastructure	<p><u>TMA-8:</u> Through the Nevada Sagebrush Ecosystem Council, meet both renewable and non-renewable energy goals and Sage-Grouse conservation measures through close coordination with interest groups; focus attention on the series of transmission corridors currently being studied to consider the longer-term transmission needs required to meet the State and Nation’s renewable energy demands. <u>(2012 Plan)</u></p> <p><u>TMA-8.1:</u> Follow a strategy that seeks to avoid conflict with Sage-Grouse by locating facilities and activities in Non Habitat wherever possible. <u>(2012 Plan)</u></p> <p><u>TMA-8.2:</u> Site new linear features in existing corridors or, at a minimum, co-locate with existing linear features in SGMAs. <u>(2012 Plan)</u></p> <p><u>TMA-8.3:</u> Aggressively engage in reclamation and weed control efforts during pre-and post-project construction. <u>(2012 Plan)</u></p> <p><u>TMA-8.4:</u> Apply measures to deter raptor perching and raven nesting on elevated structures. <u>(2012 Plan)</u></p>
Predation	<p><u>TMA-9:</u> 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.</p>

	<p>Sage-Grouse population, nest success and recruitment goals should be established for all SGMAs. (2012 Plan)</p> <p>Focus on a six-point plan that is summarized here and expanded below.</p> <ol style="list-style-type: none"> 1. Control access to garbage dumps and landfills. 2. Control access to road kill. 3. Control access to abandoned animal carcasses. 4. Control access to artificial nesting and roosting structures. 5. Ensure adequate nesting cover for Sage-Grouse. 6. Increase site-specific take of ravens. <p><u>TMA-9.1:</u> Maintain a mosaic of shrub cover conditions ranging from twenty percent to forty percent in nesting habitat to provide both habitat resiliency and preferred nesting conditions for Sage-Grouse in areas with high raven populations. Where this amount of shrub cover is not available (<25%), then perennial grass cover should exceed 10% (<i>Coates, et al. 2011</i>) and annual grass cover should not exceed 5% (<i>Blomberg, et al. 2012</i>) (2012 Plan)</p> <p><u>TMA-9.2:</u> When population, nesting success, and recruitment goals are not met, implement an effective predator control effort for ravens, badgers, and coyotes as needed, based on biological assessments appropriate to local conditions. Conduct predator control to coincide with the life stage impacted by predation. SGMAs should be prioritized for predator control. If a SGMA meets or exceeds the reproductive and population objectives, move predator control to the next lower SGMA priority. (2012 Plan)</p> <p><u>TMA-9.3:</u> Continue successful programs that have eliminated external food sources for ravens, particularly landfills, waste transfer facilities, and road kill that subsidize raven populations. Enforce existing State laws that require daily covering of landfills. Continue to reduce and minimize external food sources for ravens: particularly landfills, waste transfer facilities, and road kill that subsidize raven populations. Continue to enforce existing State laws that require daily covering of landfills. (2012 Plan)</p> <p><u>TMA-9.4:</u> 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. If necessary, pursue additional raven take in excess of the current 2,000 bird limit from the USFWS for raven control. (2012 Plan)</p> <p><u>TMA-9.5:</u> Identify and apply appropriate habitat management (e.g. livestock management, vegetation treatments, etc.), and non-lethal practices (e.g. control of artificial nest and roost sites) that decrease the effectiveness of predators.</p> <p><u>TMA-9.6:</u> Monitor effects of predator control to determine causal relations with Sage-Grouse survivability and adapt control strategies accordingly. (2012 Plan)</p> <p><u>TMA-9.6:</u> When downward population trends and nesting success are detected in SGMAs, initiate predator surveys and identify responsible predator species to target and implement an effective predator control effort. (2012 Plan)</p>
Habitat Conservation for Agriculture	<u>TMA-10:</u> Implement a best practices certification program for ranch management and forage production in consultation with US Department of Agriculture, Natural Resource Conservation Service, and the Nevada Department of Agriculture.
Wild Horse and Burro	<u>TMA-11:</u> Manage wild horses at Appropriate Management Levels (AML) to avoid and minimize impacts to SGMAs. (2012

<p>Management – <i>Federal Agency Actions</i></p>	<p><u>Plan</u></p> <p><u>TMA-11.1:</u> Maintain wild horses at appropriate management levels in designated herd management areas (HMA) throughout SGMAs. <u>(2012 Plan)</u></p> <p><u>TMA-11.2:</u> Evaluate conflicts with HMA designations in SGMAs 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. <u>(2012 Plan)</u></p>
<p>Livestock Grazing</p>	<p><u>TMA-12:</u> Ensure that existing grazing permits maintain or enhance SGMAs. Utilize livestock grazing when appropriate 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. <u>(2012 Plan)</u></p> <p><u>TMA-12.1:</u> Expand the promotion of proper livestock grazing practices that promote the health of perennial grass communities as this condition has been found to suppress the establishment of cheatgrass (<i>Blank and Morgan, 2012</i>).</p> <p><u>TMA-12.2:</u> Grazing management strategies for riparian areas should, at a minimum, maintain or achieve riparian proper functioning condition (PFC). Specific management actions include riparian fencing to provide control of the season, duration or degree of herbivory, providing alternate water sources away from the riparian area, changing the grazing system, or other grazing management practices that promote herbage removal within acceptable limits. <u>(2004 Plan)</u></p>
<p>Livestock Grazing – <i>Federal Agency Actions</i></p>	<p><u>TMA-13:</u> On BLM and USFS-administered lands, meet the standards for riparian vegetation such as outlined in the various Resource Advisory Council (RAC) Standards and Guidelines for Ecological Health to meet the Sage-Grouse habitat requirements. <u>(2004 Plan)</u></p>
<p>Wild Ungulate Grazing</p>	<p><u>TMA-14:</u> See Wild Horse and Burro (TMA-11) Section</p>
<p>Mineral Development</p>	<p><u>TMA-15:</u> Through the Nevada Sagebrush Ecosystem Council, encourage the strong conservation ethic in the mining industry by implementing effective avoidance management, and enhancement and reclamation of disturbed lands to preserve, protect, and improve habitat in SGMAs. On Federal lands, activities that have an approved BLM notice, plan of operation, right-of-way, or drilling plan, and on State/Private lands, projects with an approved Nevada Division of Environmental Protection permit, are exempt from any new mitigation requirements above and beyond what has already been stipulated in the projects’ approvals. <u>(2012 Plan)</u></p> <p><u>TMA-15.1:</u> Implement a centralized impact assessment process overseen by the Nevada Sagebrush Ecosystem Council that provides consistent evaluation, reconciliation, and guidance for project development that avoids or minimizes conflicts with Sage-Grouse in SGMAs. <u>(2012 Plan)</u></p> <p><u>TMA-15.2:</u> 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. The BLM and USFS may exercise existing discretionary authority to consider other information, including cumulative impacts. <u>(2012 Plan)</u></p> <p><u>TMA-15.3:</u> Follow a strategy that seeks to avoid conflict with Sage-Grouse by locating facilities and activities in Non Habitat</p>

	<p>wherever possible. (2012 Plan)</p> <p>TMA-15.4: 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 Nevada Sagebrush Ecosystem Council. (2012 Plan)</p> <p>TMA-15.5: Aggressively engage in reclamation efforts as projects are completed, and target reclamation where the ecological site potential exists in SGMAs. 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 Nevada Sagebrush Ecosystem Council. (2012 Plan)</p> <p>TMA-15.6: 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. (2012 Plan)</p> <p>TMA-15.7: Prioritize areas for habitat improvement utilizing sound resource information including soil surveys, ecological site descriptions, and Sage-Grouse population data. (2012 Plan)</p> <p>TMA-15.8: 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. (2012 Plan)</p> <p>TMA-15.9: Differentiate between short-(exploration) and long-term (active mining) impacts and manage timing of operations and physical disturbance accordingly. (2012 Plan)</p>
Recreation	<p>TMA-16: In SGMAs, continue successful programs following the “avoid, minimize and mitigate” concept for recreation and Off Highway Vehicle (OHV) impacts to Sage-Grouse habitat. (2012 Plan)</p> <p>TMA-16.1: Study the impact caused by recreational and OHV use in Sage-Grouse habitat. (2012 Plan)</p> <p>TMA-16.2: Work collaboratively through LAWGs, State, and Federal agencies to designate OHV areas outside of SGMAs. (2012 Plan)</p>
OHV Use	<p>TMA-17: See Recreation (TMA-16) Section</p>
Energy	<p>TMA-18: The Nevada Sagebrush Ecosystem Council and the Nevada Sagebrush Ecosystem Technical Team will meet energy goals and Sage-Grouse conservation measures through close coordination with all interest groups and adherence to NRS 701.610 (amended by the 2011 Nevada Legislature) that requires State agency review of all energy development proposals. Attention will be focused on the series of transmission corridors currently being studied to consider the longer term transmission needs required to meet the nation’s renewable energy demands. On Federal lands, activities that have an approved BLM notice, plan of operation, right-of-way, or drilling plan, and on State/Private lands, projects with an approved Nevada Division of Environmental Protection permit, are exempt from any new mitigation requirements above and beyond what has already been stipulated in the projects’ approvals. (2012 Plan)</p> <p>TMA-18.1: Follow a strategy that seeks to avoid conflict with Sage-Grouse by locating facilities and activities in Non Habitat</p>

	<p>wherever possible. (2012 Plan)</p> <p>TMA-18.2: Aggressively engage in reclamation/weed control efforts during pre-and post-project construction. (2012 Plan)</p> <p>TMA-18.3: Apply measures to deter raptor perching and raven nesting on elevated structures. (2012 Plan)</p> <p>TMA-18.4: In SGMAs, limit conflict through avoidance and minimization of impacts, adaptive management, and appropriate mitigation. All actions in Section 18 will be refined pursuant to the "Resource Selection Function Model" (<i>Coates</i>) and other best available science. (2012 Plan)</p> <p>TMA-18.5: Follow a strategy that seeks to avoid conflict with Sage-Grouse by locating facilities and activities in Non Habitat wherever possible. (2012 Plan)</p> <p>TMA-18.6: Site new linear features in existing corridors or, at a minimum, co-locating with existing linear features in SGMAs. (2012 Plan)</p> <p>TMA-18.7: Aggressively engage in reclamation/weed control efforts during pre-and post-project construction. (2012 Plan)</p> <p>TMA-18.8: Apply measures to deter raptor perching and raven nesting on elevated structures. (2012 Plan)</p> <p>TMA-18.9: Energy developers will work closely with State and Federal agency experts to determine important nesting, brood rearing and winter habitats and avoid those areas. (2010 Plan)</p> <p>TMA-18.10: Development or infrastructure features should not be placed within a 0.6 mile (1 km) radius around seeps, springs and wet meadows within identified brood rearing habitats wherever possible. These features can provide a competitive advantage for avian predators; therefore increasing Sage-Grouse mortality during a period when birds may be susceptible. (2010 Plan)</p> <p>TMA-18.11: A company representative will provide environmental training to on-site personnel and be responsible for overseeing compliance with all protective measures and coordination in accordance with the permitting authority. (2010 Plan)</p> <p>TMA-18.12: Vehicle trips shall be limited to those times that least impact nesting or wintering Sage-Grouse. (2010 Plan)</p> <p>TMA-18.13: Current transmission and generation siting and construction practices (2010 Plan) to be reviewed and potentially refined by the Nevada Sagebrush Ecosystem Council and Nevada Sagebrush Ecosystem Technical Team pursuant to the "Resource Selection Function Model" (<i>Coates</i>) and other best available science include proximity to active leks and nesting habitat, relation to migratory and non-migratory populations, and relation to movement corridors.</p>
Transmission and Distribution	TMA-19: See Energy (TMA-18) and Infrastructure (TMA-8) Sections
Urbanization	TMA-20: When a county or city considers a change to its master plan for a land use of higher intensity affecting a SGMA, the county or city should consult with the Nevada Sagebrush Ecosystem Council through its Nevada Sagebrush Ecosystem Technical Team.
MITIGATION	TMA-21: Mitigation will be used to offset controlled disturbances in order to manage towards the goal of "no net loss" of Occupied and Suitable Habitat in SGMAs when avoidance and minimization options are exhausted. (2012 Plan)

	<p><u>TMA-21.1:</u> The Nevada Sagebrush Ecosystem Mitigation Bank Program will be facilitated through the Nevada Sagebrush Ecosystem Council and staffed by the Nevada Sagebrush Ecosystem Technical Team. By establishing this central mitigation bank, the State of Nevada will have a system that provides for consistent evaluation, monitoring and reporting of progress on mitigation efforts. <u>(2012 Plan)</u></p> <p><u>TMA-21.2:</u> The Nevada Sagebrush Ecosystem Technical Team will coordinate mitigation and pre-impact mitigation across all jurisdictions and land ownerships. The team will validate, track, and monitor the success of mitigation efforts. <u>(2012 Plan)</u></p> <p><u>TMA-21.3:</u> Disturbances greater than or equal to five percent of 640 acres (32 acres) within Occupied Habitat will trigger evaluations and consultation with the Nevada Sagebrush Ecosystem Technical Team. This consultation will occur within the administrative framework established by the Nevada Sagebrush Ecosystem Council. New activities at any level of disturbance should minimize impacts to Sage-Grouse and their habitat. <u>(2012 Plan)</u></p> <p><u>TMA-21.4:</u> 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 or residual adverse impacts of habitat disturbance. Efforts will be made to accomplish this at a landscape level. <u>(2012 Plan)</u></p> <p><u>TMA-21.5:</u> In determining measures to offset unavoidable impacts, 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 appropriate mitigation will be based on the values and functions of the impacted habitat. In determining the nature and extent of habitat development, careful consideration should be given to its likelihood of success. <u>(2012 Plan)</u></p> <p><u>TMA-21.6:</u> Limit habitat disturbance, including habitat improvement projects, in Occupied and Suitable Habitat to not more than five percent per year, and in Potential Habitat to not more than twenty percent per year, per SGMA, unless habitat treatments show credible positive results (<i>Connelly, et al. 2000</i>). This limit does not apply to removal of invasive or encroaching vegetation where such removal actually creates habitat. <u>(2012 Plan)</u></p> <p><u>TMA-21.7:</u> Consideration and credit for 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 mitigation activities regardless of land ownership (i.e. federal, state or private lands). <u>(2012 Plan)</u></p> <p><u>TMA-21.8:</u> Recognize and appropriately value measures that address threats, such as funding for wildfire equipment and training, predator control, radio telemetry and GPS monitoring, etc. <u>(2012 Plan)</u></p> <p><u>TMA-21.9:</u> 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. <u>(2012 Plan)</u></p> <p><u>TMA-21.10:</u> Mitigation may not be used as a method to avoid habitat impacts. <u>(2012 Plan)</u></p>
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**MONITORING AND ADAPTIVE
MANAGEMENT**

TMA-22: Positive outcomes of an effective adaptive management program are realized over the long-term.

Through the Nevada Sagebrush Ecosystem Council, and its Nevada Sagebrush Ecosystem Technical Team, utilizing the “avoid, minimize and mitigate” strategy, the following will occur:

TMA-22.1: Develop consistent monitoring protocols and methods to be used across all land jurisdictions and agencies. Compile all project monitoring data into one Sage-Grouse database managed by the Nevada Sagebrush Ecosystem Technical Team for use in adaptive management and reporting. **(2012 Plan)**

TMA-22.2: Monitoring of mitigation sites must be included in all plans, with consistent protocols to assess specific metrics and determine trends for habitat quantity/quality and Sage-Grouse populations. **(2012 Plan)**

TMA-22.3: All statewide monitoring data will be accessible to the Nevada Sagebrush Technical Team through a centralized geographic database. The team will compile annual reports of habitat trends. **(2012 Plan)** All monitoring plans must include specific objectives and detailed procedures. **(2004 Plan)**

TMA-22.4: Monitor Sage-Grouse activity and demographics with annual assessments and intensive levels of investigation to answer questions about the effectiveness of conservation strategies in terms of measured responses of key demographic parameters (e.g. nest success, chick survival, movement) associated with sites where management activities have been implemented. **(2004 Plan)**

TMA-22.5: Conduct annual lek counts across most Population Management Units. Train volunteers who provide additional manpower in assisting with additional lek counts. Volunteers must be qualified by attending a day-long training session that includes actual field training each year. **(2004 Plan)**

TMA-22.8: Population demographic data is determined from the Sage-Grouse harvest. Hunters shall deposit one wing from each bird harvested in wing barrels located on primary hunting access roads, check stations, or to be delivered to a NDOW Field or Regional Office. Wings shall be separated by geographic locations (county or hunt area). Wings shall be used to identify sex, age, nest success, and number of chicks per hen. Monitoring objectives include 1- Expansion of the wing collection program to enhance the understanding of production of young in areas where grouse are hunted; 2- Collect and summarize wing count data on a PMU basis; and 3- Enhance the leg banding program in areas where grouse are hunted to improve estimation of adult and juvenile survival using standard methods for analysis of band recovery data. **(2004 Plan)**

TMA-22.9: Monitor harvest through the use of the 10% Hunter Questionnaire that randomly polls license holders and through the collection of Sage-Grouse wings from hunter harvested birds. **(2004 Plan)**

TMA-22.10: Regulate harvest by season length and bag limit as set forth by the Nevada Board of Wildlife Commissioners and, consulting recommendations made by the Nevada Department of Wildlife. The Nevada Department of Wildlife has adopted the Sage-Grouse Management Guidelines (*Connelly et al.* 2000) that states populations should not be hunted where < 300 birds comprise the breeding population. Harvest is estimated by the Nevada Department of Wildlife using the 10% Hunter Questionnaire that randomly polls license holders and collecting wings from hunter-harvested birds. Limit Bag and Possession limits to two daily and four in possession; however there are a few special hunts (Sheldon National Wildlife Refuge and Grassy Stevens Camp) where bag and possession limits are 3 and 6 respectively; however, these hunts are limited to successful lottery draw applicants. **(2004 Plan)**

	<p><u>TMA-22.11:</u> In areas that are closed to hunting, wing data are not available for monitoring population demographics such as the number of chicks per hen. For these areas, conduct brood counts along established routes. Brood surveys shall be conducted mid-summer when Sage-Grouse are concentrated on meadow habitats. Established brood count routes shall be surveyed to record average brood size and the number of chicks per hen. <u>(2004 Plan)</u></p> <p><u>TMA-22.12:</u> Satellite telemetry data shall be compiled and provided to the Nevada Sagebrush Ecosystem Technical Team for local plan revisions and updates, and coordinated statewide to determine seasonal habitats such as breeding, nesting, brood rearing; movement patterns; and survival rates. <u>(2004 Plan)</u></p> <p><u>TMA-22.13:</u> Appropriate state and federal agencies will continue to coordinate with the U.S. Geological Survey, Biological Resources Division and associated National Wildlife Health Center to conduct investigations into the effects of West Nile virus and other disease pathogens on Sage-Grouse. <u>(2004 Plan)</u></p>
<p>DE MINIMIS ACTIVITIES</p>	<p><u>TMA-23:</u> Existing land uses and landowner activities in Sage-Grouse habitat that do not require state agency review for consistency with the 2012 Plan include the following: <u>(2012 Plan)</u></p> <ol style="list-style-type: none"> 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. 5. 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.

Note: Regarding #4, #5, and #6 above, The Nevada Sagebrush Ecosystem Technical Team will evaluate these actions and provide recommendation to the Nevada Sagebrush Ecosystem Council pursuant to any new information that is forthcoming from best available science and utilizing the "Resource Selection Function Model" (*Coates*).

TMA 23.1: On Federal lands, activities that have an approved BLM notice, plan of operation, right-of-way, or drilling plan, and on State/Private lands, projects with an approved Nevada Division of Environmental Protection permit, are exempt from any new mitigation requirements above and beyond what has already been stipulated in the projects' approvals.