

3.2 Acts of Nature – Fire and Invasive Species

3.2.1 Conservation Objectives –

Short Term:

- Reduce the ~~rate-amount~~ of sage-grouse habitat loss due to large acreage wildland fires and subsequent invasion by non-native species.

Long Term:

- Maintain an ecologically healthy and intact sagebrush ecosystem that is resistant to the invasion of non-native species and resilient after disturbances, such as wildfire.
- Restore naturally occurring wildfire return intervals to within a healthy spatial and temporal range of variability that supports sustainable populations of sage-grouse.

The Greater Sage-grouse Advisory Committee, using the best available science, identified fire and invasive species, principally cheatgrass, as the primary threat to sage-grouse and their habitat in the state of Nevada. The State acknowledges these threats must be adequately addressed in order to truly achieve the conservation goal for sage-grouse within the state of Nevada; however, it is not economically or ecologically feasible to restore all fire damaged or invasive species dominated landscapes at this point, nor is it possible to prevent all fires. The State will put forth a best faith effort to reduce the rate of sage-grouse habitat loss due to fire and invasive species. This objective will be measured by evaluating the rate of habitat lost due to fire and subsequently invaded by non-native species over a five year period.

3.2.2 Conservations Policies – Paradigm Shift

In order to address the threat of fire and invasive species, which has long challenged land managers throughout the western United States, the State proposes a paradigm shift. This would entail a more proactive, rather than reactive approach, to stop the dominance of invasive species and restore fire to within its natural range of variability. These policies include:

1. A shift in focus and funding from wildland fire suppression to pre-suppression.
 - a. Dedicate federal, state, and local funding for pre-suppression activities separate from funding for suppression and post-fire rehabilitation activities. Post fire rehabilitation/restoration funding should be available for up to three years following each incident in order to monitor effectiveness and to accommodate for poor initial success.
 - b. “Hold the line” against fire and invasive species near priority sage-grouse habitat. Develop a prioritized pre-suppression plan that focuses on priority sage-grouse habitat, similar to the Wildland Urban Interface planning analysis.
 - c. Emphasize “Strategic Fuels Management”. Location of fuels management projects should be identified at the broad landscape level to provide protections to areas of sage-grouse habitat that have compromised resilience and resistance resilience, resistance, and heterogeneity. They should also be implemented to protect against catastrophically large wildfires and allow for repeated attempts to suppress active fires.

Provide consistent funding for maintenance of fuels management projects. Establish effective monitoring plans to learn from implementation of these tools and subsequent effectiveness during suppression. Fuels management tools may include: fuels reduction treatments, greenstripping, brownstripping, and maintaining riparian areas as natural fuels breaks by managing for Proper Functioning Condition (PFC).

2. Wildland fire should be used strategically and should not be suppressed in all instances. Allow fires to burn naturally if ~~it is they occur~~ in areas that may benefit sage-grouse habitat and would not risk the spread of invasive species, if lives and property are not at risk. Continue to suppress wildland fires that may cause the spread of invasive species into sage-grouse habitat. Use ecological site descriptions and associated state and transition models to identify such areas.
3. Manage wildland fires in sage-grouse habitat to retain as much habitat as possible. Interior islands of vegetation in areas of habitat should be protected through follow-up mop-up of the island's perimeter and interior, when fire crew safety and welfare are not at risk.
4. Post-fire rehabilitation efforts should be collaborative and strategic in approach. A wide variety of agencies, representing multiple disciplines should be involved in order to leverage funding opportunities and provide knowledge on appropriate site-specific treatments. Rehabilitation efforts should focus on preventing the spread of invasive species, particularly in or near sage-grouse habitat.
- 3-5. Subsequent shrub seeding or live plantings may need to occur once native or locally adapted grasses and forbs species are established initially. This will encourage more significant and timely recruitment and transition into a grass-shrub community.
- 4-6. Ecological site descriptions and associated state and transition models will be used to identify target areas for restoration. Areas that are in an invaded state that will likely transition to a cheatgrass monoculture if a disturbance occurs and are located within or near sage-grouse habitat should be prioritized for restoration efforts to increase resistance and resilience.
- 5-7. Emphasize continued research and provide funding to enhance knowledge and understanding of how to prevent catastrophic wildfire, ~~and the subsequent~~ invasion of cheatgrass, and reclamation/ restoration techniques.

3.2.3 Adaptive Management

Fire and the subsequent reestablishment of plant species (native or not) is a natural process, and consequently this threat is extremely challenging across the western United States as humans are still limited in our ability to directly control this cycle. However, scientific understanding of ecological processes and resource management techniques continue to improve. A commitment by the State to address this issue through adaptive management will lead to a greater understanding of the ecological mechanisms that drive these processes and will subsequently lead to improvements in resource management practices that prevent catastrophic wildfire and the subsequent invasion of cheatgrass.

The SETT will evaluate and assess the effectiveness of these policies at achieving the stated objective of reducing the rate of loss of sage-grouse habitat due to fire and invasive species and will provide a report to the SEC annually. The objective will be met if there is a decrease or leveling off of the rate of habitat ~~rate of~~ loss due to fire and subsequent invasion by annual grasses over a five year period. If the State and federal ~~falls~~ agencies fall short of this ~~its~~ objective, the SEC will reassess and update policies and management actions based on

recommendations from the SETT using the best available science to adaptively manage sage-grouse habitat..

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