

## Morgan-Summit Adaptive Resources Management (MSARM) Local Sage-grouse Working Group

The Morgan-Summit Adaptive Resource Management (MSARM) sage-grouse local working group is facilitated by Ms. Lorien Belton. The group met four times in the last year, with several additional meetings of subgroups to address specific issues. The group continues to meet on a regular schedule to review and update their conservation plan.

This year, the group has taken care to outline research and information needs in advance of implementing projects. The focus of specific projects has primarily centered on the Henefer-Divide lek, with direct mortality threats being addressed through public information signage. The group continues to work to expand these efforts to increase awareness of grouse that lek on or near the highway. Future projects will likely address fence collisions and the behavior of visitors to the lek, as well as working with local landowners to begin habitat improvement work.

### Conservation Strategies and Actions

The following updates reflect the individual or joint efforts of MSARM partners from 2010-2011 to address sage-grouse conservation threats identified by the USFWS (2010).

**1. Strategy:** Through 2016, prevent establishment of cheat grass and other non-native vegetation species in sage-grouse habitats.

**1.1. Action:** Seed treated areas, where appropriate, with ecologically suitable seed mixes

**1.2. Action:** Avoid using fire in sage-grouse habitats prone to invasion by cheatgrass or other invasive weed species.

**1.3. Action:** Evaluate all wildfires and prescribed burns and reseed with ecologically suitable seed, where appropriate, to prevent establishment of cheat grass and other invasive weed species.

*The MSARM group has expanded discussions about weed management for sage-grouse, including discussions with a Morgan County commissioner regarding weed management's importance for sage-grouse. In addition, concerns over bulbous bluegrass conversions in sagebrush habitats generated some general project ideas that will hopefully result in WRI project proposals next year. UDWR continues to treat weeds on the two local Wildlife Management Areas (Henefer Echo and East Canyon) as needed. NRCS does many weed control projects with local landowners, although none were targeted specifically at sage-grouse habitat.*



Figure 5. The Morgan-Summit Adaptive Resource Management (MSARM) Sage-grouse Local Working Group Conservation Area consists of 1,608,659 acres located in northern Utah.

**2. Strategy:** By 2016, increase grass/forb understory in sagebrush stands.

**2.1 Action:** Use sagebrush thinning techniques (Lawson aerator, spike, etc) in a mosaic pattern, where possible, to thin sagebrush stands.

**2.2 Action:** Seed, when possible, treated areas with ecologically suitable seeds.

**2.3 Action:** Reclaim and/or reseed areas disturbed by treatments when necessary, using seed mixtures with appropriate grasses and desirable forbs

**2.4 Action:** Restore understory vegetation in areas lacking desirable quality and quantity of herbaceous vegetation where economically feasible.

**2.5 Action:** Conduct vegetation treatments to improve forb diversity (e.g., harrowing, aerating, chaining) and reclaim or reseed disturbed area, if needed

**2.6 Action:** Develop management techniques to increase forb diversity and density in sagebrush steppe, within limits of ecological sites and annual variations

**2.7 Action:** Work with public and private partners to implement rest-rotation grazing systems, where possible

*NRCS works with private landowners to incorporate more sage-grouse friendly seed mixes into projects otherwise done for livestock in the area.*

**3. Strategy:** By 2016, all new water projects will take into account MSARM recommendations to prevent conditions for extraordinary mosquito populations and potential persistence and spread of West Nile Virus in the Resource Area.

**3.1. Action:** Identify key elements of various water projects that are needed to prevent existence of standing water and minimize mosquito populations.

**3.2. Action:** Develop partnerships with key water management agencies to work cooperatively to both maintain necessary flow regime and prevent conditions for extraordinary mosquito populations

**3.3. Action:** Cooperate with Summit County Mosquito Abatement District.

**3.4. Action:** Assess any new water projects for contributions toward conditions that may enhance mosquito populations

*WNV is not thought to be a concern in the area, in part because the majority of sage-grouse habitat in the MSARM area is higher elevation than WNV mosquitoes are likely to occur. Communication with mosquito districts and water managers will become a higher priority if West Nile becomes a concern at lower elevations. To date, the sage-grouse group has not focused on water projects mosquito concerns.*

**4. Strategy:** By 2016, search additional areas (TBD) for new active lek sites.

**4.1. Action:** Coordinate with UDWR to conduct aerial surveys in areas suspected to contain undiscovered active leks.

**4.2. Action:** Coordinate with public and private partners to conduct terrestrial lek searches in areas suspected to contain undiscovered active leks

**4.3. Action:** Coordinate with public and private partners to conduct count surveys of known active leks.

**4.4. Action:** UDWR to enlist and coordinate private volunteers and/or other agency biologists search for new leks and conduct lek counts on active leks.

**4.5. Action:** Through 2016, test dead sage-grouse for West Nile Virus and any other parasites/pathogens of importance

*UDWR biologists located strutting birds on private land near East Canyon Reservoir, but have yet to determine whether these are in fact new leks. Biologists and others remain alert to the possibility of finding new leks when conducting other activities in the area during lekking season.*

**5. Strategy:** By 2016 decrease populations of sage-grouse predators, especially in areas used by sage-grouse for nesting and brood-rearing.

**5.1. Action:** Support efforts of USDA-WS to remove red foxes, coyotes, and ravens in areas used by sage-grouse for nesting and brood-rearing during spring and early summer

**5.2. Action:** Develop educational materials and distribute to recreationists that provide information on the impact to non-native predator species from littering

*No sage-grouse specific predator control is done by WS in the area. The impact of predators on sage-grouse in the area is unknown because population studies of nest success and mortalities have not occurred. Local agricultural producers do local coyote control. No public education efforts have taken place on this topic.*

**6. Strategy:** Monitor impacts of lek viewing opportunities on lek behavior and lek attendance.

**6.1. Action:** Provide educational material (brochures, presentations, etc.) to interested birding groups about the ecology of sage-grouse and threats they face in the Resource Area.

**6.2. Action:** Increase law enforcement patrols in and around crucial lek sites

**6.3. Action:** Through 2016, include information about MSARM activities in County Extension newsletter

*UDWR biologists and USUEXT have worked with UDOT to obtain approval for signs to put on either side of the Henefer Divide lek, informing motorists to slow down for wildlife on the road ahead. The signs will be permanent folding signs, and only need to be ordered and installed. They should be in the ground before spring of 2012. This has the potential to reduce unintentional road mortalities during the lekking season. In addition, flyers were circulated locally in Henefer and other surrounding communities to inform local drivers of the importance of slowing down when cresting the hill on Hwy 65 near the lek. Presentations were given to both Summit County Council and the Eastern Summit County Planning Commission. The presentations were broad in scope but touched on the issue of road mortalities. The newsletter and the website for the Community-Based Conservation Program highlighted these activities. The group toured the lek to observe the birds strutting this spring on the Henefer Divide lek, and concluded that additional signage or public education on lek-viewing etiquette would be of considerable value to reducing stress and danger to the birds at this visible, accessible lek.*

**7. Strategy:** By 2016, increase funding opportunities for private partners interested in improving sage-grouse habitat on private land.

- 7.1. Action:** Participate in SCD and UPCD northern region team; share Plan Strategies with these groups and encourage funding of Plan Strategies
- 7.2. Action:** Increase information dissemination about funding opportunities to private partners
- 7.3. Action:** Develop educational material about habitat improvement techniques appropriate for sage-grouse habitat improvement and distribute to private partners
- 7.4. Action:** Coordinate habitat projects on private land that meet the needs outlined in Plan and the needs of private partners.

*The NRCS SGI provides EQIP and WHIP funds through regular NRCS channels (EQIP and WHIP) for sage-grouse habitat improvements for the second year. Two rounds of funding signups occurred in the spring of 2011. Through NRCS, range conservationists and landowners have been better educated about sage-grouse issues. NRCS statewide focused on outreach efforts, and local NRCS/UDWR biologists have worked together to increase interest in sage-grouse habitat management projects by private landowners in the area.*

**8. Strategy:** By 2016 increase amount breeding habitat in “good” condition.

- 8.1. Action:** Work with public and private partners to implement rest-rotation/time controlled grazing management strategies, where appropriate
- 8.2. Action:** Work with NRCS and private partners to implement Farm Bill programs beneficial to sage-grouse
- 8.3. Action:** Coordinate with county weed board to implement noxious weed program to reduce impacts on sage-grouse
- 8.4. Action:** Work with NRCS and private partners to monitor effects of treatments on sage-grouse populations and habitat

*No SGI projects were planned or completed in the past year, and none are currently under contract. The local NRCS office has focused on ensuring that livestock-focused projects which do not qualify for SGI funds (because landowners may be unwilling to commit to required grazing management plans that prioritize sage-grouse over livestock needs) are conducted in such a way as to either benefit or at least minimize impact to sage-grouse populations, such as encouraging mosaics and increasing the diversity of forbs in reseeding mixtures. For example, on one brush management project in Echo Canyon, a private landowner did sagebrush treatments for livestock, but NRCS worked with them to get WRI funding to reseed.*

**9. Strategy:** Coordinate fire management practices with public and private partners to prevent loss of crucial sage-grouse habitat and enhance/improve sage-grouse habitat, where appropriate.

- 9.1. Action:** Comment on BLM/USFS fire plans
- 9.2. Action:** Re-seed sites, post-burn, with ecologically suitable seed mixture to prevent the establishment of cheat-grass
- 9.3. Action:** Use fire management to reduce sagebrush canopy cover and create diverse sagebrush stands in brood-rearing and summer use areas

*Wildfires could be a significant concern for sage-grouse depending on the location and the degree to which annual grasses (bulbous bluegrass more than cheatgrass at higher*

*elevations) have taken over the site, so LWG members are cautious about using it to improve sage-grouse habitat. Until more is known about sage-grouse populations, habitat manipulation by fire is unlikely to be a significant tool for sage-grouse habitat improvement. No known fire projects were conducted during the reporting period. The group will work in the future to make fire managers aware of concerns with fire and sage-grouse.*

**10. Strategy:** Improve lek vegetation conditions to allow for predator recognition and visibility.

**10.1. Action:** Open lek areas that have been invaded by sagebrush and other shrubs

**10.2. Action:** Map and inventory leks with potential for restoration

**10.3. Action:** Maintain and enhance desired habitat conditions for leks

*No lek improvement projects were done in 2010 or the first half of 2011, due in part to the complexity of private landownership issues near known leks. One lek is currently being evaluated for potential improvements.*

**11. Strategy:** Improve mesic and riparian areas for sage-grouse and watershed health.

**11.1. Action:** Identify opportunities or needs to create small wet areas, implement such projects where economically feasible

**11.2. Action:** Design and implement livestock grazing management practices to benefit riparian areas

**11.3. Action:** Modify or adapt pipelines or developed springs to create small wet areas

**11.4. Action:** Locate projects to minimize potential loss of water table associated with wet meadow

**11.5. Action:** Protect existing wet meadows and riparian areas where necessary

**11.6. Action:** Manage vegetation and artificial structures to increase water-holding capability of areas.

*Two projects on the Henefer-Echo Wildlife management area were funded through WRI: water and fencing projects to improve grazing in several areas, but a project, primarily for mule deer, that may have sage-grouse benefits as well, is an extensive riparian restoration project including spraying, re-seeding, and fencing the riparian area.*

**12. Strategy:** Minimize the amount of quality sage-grouse habitat eliminated by residential and commercial land development consistent with private property rights.

**12.1. Action:** Participate with County land use decision makers in identifying key sage-grouse habitats

**12.2. Action:** Maintain sagebrush environments of sufficient size and shape around developments in sage-grouse habitat.

**12.3. Action:** Encourage the voluntary use of conservation easements and other land protection vehicles with willing sellers in sage-grouse habitats

**12.4. Action:** Educate rural residents about the importance of good grazing management in keeping small tracts weed free and capable of providing wildlife habitat

*Currently, many easements and other land protection mechanisms (including Cooperative Wildlife Management Units [CWMUs], agricultural, and other easements held by Utah Open Lands, Summit Land Conservancy, and FFSL) exist in the area, but a comprehensive*

*understanding of the relationship between them and how they may help sage-grouse is lacking. MSARM is working with Summit County employees to develop a more comprehensive understanding of protected areas in sage-grouse range, which will include a comprehensive map of protected areas and sage-grouse habitat. Summit County hopes that this information will help guide future land preservation strategies. No specific education efforts have been undertaken. MSARM is working to develop relationships with easement holding entities, and will bring critical properties for sage-grouse to their attention as those areas are identified. Presentations were given to the Summit County Planning Commission and the Summit County Council about sage-grouse issues in the area, including the development concerns. Morgan County Council has become engaged in the sage-grouse issue, and received an information flyer outlining basic sage-grouse ecology and relevant local threats. Efforts have been made to ensure that Summit and Morgan county employees (particularly in planning) are aware of the updated shape files of sage-grouse habitat and other opportunities to incorporate wildlife concerns into development planning. In addition, Summit County employees involved in the working group are working on ways to incorporate wildlife sensitivity concerns into planning code.*

**13. Strategy:** Encourage monitoring programs that are consistent with NRCS practices and Connelly et al. (2003).

**13.1. Action:** Coordinate with MSARM partners to facilitate data collection

**13.2. Action:** Schedule and/or advertise educational opportunities, disseminate printed materials

**13.3. Action:** Coordinate with academic institutions to utilize students in monitoring efforts

**13.4. Action:** Hold annual field tours of habitat improvement projects

*A research study to better understand the area's sage-grouse populations has been designed and partially funded by Kern River Pipeline. As soon as matching funds are found, the study will be conducted. A field tour took place in the summer of 2010. The group visited several sage-grouse habitat and lek sites. An additional tour occurred during lekking season, and members of MSARM were able to view sage-grouse at the Henefer-Divide lek prior to a spring meeting.*

**14. Strategy:** Improve efforts to increase size of sage-grouse population in the Resource Area.

**14.1. Action:** Explore possibility of initiating translocations of hen sage-grouse from other areas within Utah with stable or increasing populations

**14.2. Action:** Continue existing predator management activities as called for by UDWR, USDA-WS, and other participating agencies and organizations

*No translocations or sage-grouse related predator control has occurred in the area.*

**15. Strategy:** Provide for a level and system of domestic livestock grazing that maintains and improves both the long-term stability of sage-grouse populations and habitats and the livestock industry in the Resource Area.

**15.1. Action:** Coordinate grazing management with livestock operators to reduce resource and timing conflicts on leks and prime nesting habitat when possible

**15.2. Action:** Apply grazing management practices to achieve desired conditions including maintenance of residual herbaceous vegetation appropriate for the site

**15.3. Action:** Encourage implementation of grazing systems that provide for areas and times of deferment while taking into consideration the resource capabilities and needs of the livestock operator

*In many cases in the resource area, livestock grazing is perceived as one of the most compatible land uses (particularly compared to development scenarios for the land) with sage-grouse habitat. Normal grazing is not considered a substantial threat to sage-grouse, although NRCS works to ensure that projects – such as sagebrush treatments by private landowners for livestock forage – are done in such a way as to reduce or eliminate possible negative impacts to sage-grouse habitat. In addition, projects on the Henefer Echo WMA (mentioned previously) have been designed to decrease livestock impact on sagebrush and riparian habitats that might be used by sage-grouse.*

### **Major Needs and Concerns**

The Morgan-Summit group continues to have two primary challenges: a lack of specific knowledge of area populations sufficient to recommend habitat improvement projects, and a large amount of private land. In addition, the overlapping boundaries of two UDWR and UDOT regions in the area make coordination slightly more complex. The last two years have seen many advances in relationship building, and careful discussion and planning to ensure that efforts undertaken by the group truly benefit sage-grouse, starting with the development of key research project design, which has only to be fully funded to form the basis for future work in the area.