Southwest Desert Adaptive Resource Management (SWARM) Sage-grouse Local Working Group

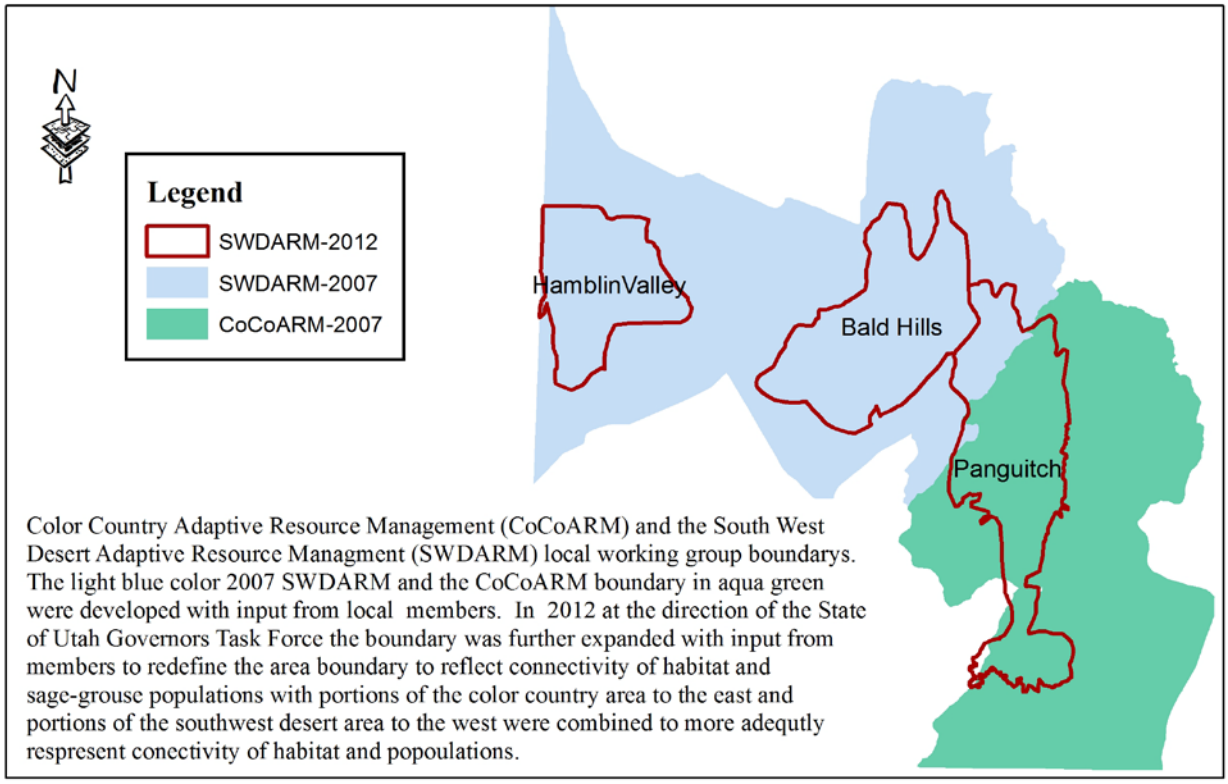

Figure 9. The Southwest Desert Adaptive Resource Management (SWARM) Sage-grouse Local Working Group and new Sage-grouse Management Area (SGMA). The SWARM area includes the Hamblin Valley and Bald Hills SGMA.

The Southwest Desert Adaptive Resource Management sage-grouse local working group (SWARM) consists of community members from Beaver and Iron Counties and is facilitated by Dr. Nicki Frey. We continue to meet every other month to discuss issues and concerns with grouse management and conservation in our region.

One of the main purposes of LWG plan is to provide a framework of strategies and associated actions that can be implemented to abate threats, address information gaps, and guide monitoring efforts. Several other documents and publications provide recommendations and guidelines for management of sage-grouse populations and their habitats, many of which were reviewed in the Introduction of our plan. The Governor's Task Force has recommended the development of two SGMAs in the LWG conservation area; Hamlin Valley and Bald Hills (Figure 9).

Description of Area and General Population Information

The Bald Hills Management Area is located in southwestern Utah, in Beaver and Iron Counties, and is considered a population stronghold for this region of Utah. This population uses a series of leks throughout the habitat area, with males visiting more than one lek per season. Currently, the population is constrained to the Management Area by vegetation fragmentation and human development; however future improvements could connect this population to the Hamlin Valley Management Area to the west, and further north into Beaver County. The primary land uses in this Management Area are grazing, agriculture, and swine production; predominant land ownership is Bureau of Land Management and private. The BLM manages the Bald Hills for multiple uses including conservation, recreation, energy development, and big game hunting. Residential development is present in Minersville, in the north of the Management Area, where most of the agriculture production also occurs. There is potential for wind energy production as well as current and future power transmission lines.

The Hamlin Valley Management Area is located in southwestern Utah, in Beaver and Iron Counties, on the border of Utah and Nevada and is considered a population stronghold for this region of Utah. Although currently isolated from other habitat areas, habitat restoration could link this population to the Bald Hills Management Area. The primary land use in this Management Area is grazing; predominant land ownership is the Bureau of Land Management. The BLM manages Hamlin Valley for multiple uses including wild horse conservation, recreation, and big game hunting. Development is limited to scattered houses, generally in the southern portion of the Habitat Area.

Project and Research Highlights

BLM Cedar City Field Office fuels team has started coming to the meetings to discuss fire rehabilitation projects, seed mixes, and project fuels treatments. There are many WRI projects in action in this region, we have requested that the WRI data be capable of filtering by target species so that we could find those projects that are working directly for Greater sage-grouse. Then we could be proactive in assisting with management plans for all agency projects.

To date, many project leaders discuss projects potentially affecting GRSG with the local working group, particularly those of BLM. But often, we won't know of a project until the WRI projects are presented in December/January of each year.

The big project in our local working group is the Sigurd to Redbutte Transmission line project. The transmission line is a project by Rocky Mountain Power/Pacificorp; the work is conducted in the Bald Hills WMA. The mitigation for the project includes off-site mitigation in the form of habitat treatments, mostly pinyon-juniper removal, and Greater sage-grouse monitoring.

BLM has conducted vegetation treatments to increase connectivity in the landscape that will help grouse and several other species. We reviewed those treatments in our annual field tour in June 2014. We are very excited about the possibilities of this project and how we think grouse in the Parowan Gap and Long Hollow regions will respond.

Dr. Frey initiated a satellite telemetry study in 2014 to monitor sage grouse response to transmission line development. The acquisition of this project was a direct result of the collaboration of SWARM members over the last 10 years. This graduate research project monitors 20 grouse from the Mud Springs and Little Horse Valley leks. The research will also answer questions regarding movement patterns, timing of movements, use of habitat treatments and connectivity. Only 4 months into data collection, we have already documented some very interesting movements. We have demonstrated connectivity across Interstate 15, which is extremely exciting.

The success of the Sigurd-Red Butte telemetry study has renewed interest in studying Hamlin Valley, a key population of grouse in southern Utah. Hamlin Valley may provide connectivity of Utah grouse to Nevada. We are discussing this project with in SWARM currently.

We hosted a field tour in June 2014 to highlight the activities of the Sigurd-Red Butte mitigation projects, and to discuss fire rehabilitation in the Bald Hills area. The "objectives based" field tour was attended by 10 people, including 2 representatives of Rocky Mountain Power.

In 2013, Dr. Frey initiated her Wildlife Research Education Network program. In this program, she instructs high school students on the scientific method, using actual data to allow students to investigate. In 2013, she instructed 34 students from Iron County during a 6-day module. In this time, students used real-timed data collected from a satellite telemetry study to pose questions and formulate hypotheses about Greater sage-grouse. They analyzed the data using Excel, created graphs and tables, and used power-point to present their results to the class. Two students were interested enough to carry-on with their research. Dr. Frey mentored them for 2 months to continue to evaluate the grouse data; they presented their research at an FFA contest in Logan, Utah, in March 2014, winning second place.

Table 7. Relative importance/contribution of individual threats to reducing or degrading aspects of sage-grouse populations in the SWARM Resource Area. Threats are described in the "Threat Analysis" section of this Plan. Ranks are defined according to TNC (2005).

	Aspects of Sage-grouse population in the SWARM Resource Area							
Threat	Lack of key habitat type connectivity	Poor condition of surrounding communities	Degradation of winter habitat quality	Loss of breeding quality (leks and nesting) habitat	Loss of brood-rearing habitat quality	Loss of riparian area quality	Reduction of population size	Reduction of population distribution
Enhanced native and domestic predators	Medium	Low	Low	High	High	Medium	High	High
Recreational use	Medium	Medium	Medium	High	High	High	Medium	Medium
Invasive/alien vegetation species	High	High	High	Very High	High	Medium	High	High
Concentrated wildlife and/or livestock use	High	Medium	Medium	High	High	Medium	Medium	Medium
Fire and vegetation management	High	Medium	Medium	High	High	High	High	High
Development of roads or utilities	High	Medium	Low	Very High	High	Medium	Medium	High
Lack of communication among public parties	Medium	Medium	Low	High	Medium	Medium	Medium	Medium
Diseases and parasites	Medium	Medium	Low	High	Medium	Medium	High	High
Alternative land uses (mining, wind power, water development)	High	High	Medium	High	High	High	High	High
Dramatic weather events	High	Medium	Medium	Very High	High	High	High	High