Utah's Adaptive Resources Management
Greater Sage-grouse Local Working Groups

Accomplishment Report

2008

Photo by Todd Black

June 2009

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Submitted to

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Preface

This report summarizes the status and 2008 accomplishments of Utah's Adaptive Resource Management Greater Sage-grouse (*Centrocercus urophasianus,* hereafter referred to as sage-grouse) Local Working Groups (LWGs). These groups were facilitated by staff affiliated with the Utah Community-Based Conservation Program (CBCP). This report incorporates the information requested under 50 CFR Chapter IV, US Fish and Wildlife Service (USFWS) Policy for Evaluation of Conservation Efforts (PECE) When Making Listing Decisions (USFWS 2003). Specific topics addressed by the LWGs plans include:

1. Staffing, funding, funding sources, and other resources necessary to implement LWG's plans.
2. Legal authority of the partners to implement the plan.
3. The legal procedural requirements (environmental reviews) needed to implement the plans and how this will be accomplished.
4. Authorizations or permits that may or will be needed and how these will be obtained.
5. The type and level of voluntary participation (number of landowners involved, types of incentives used to increase participation).
6. Regulatory mechanisms (laws, ordinances, etc.) that may be necessary to implement the plans.
7. A statement regarding the level of certainty that the funding to implement the plans will be obtained.
8. An implementation schedule to include incremental completion dates.
9. A copy of LWG's approved management plans (These reports are available on our web site www.utahcbcp.org).

The conservation plans discusses the level of certainty that the management efforts identified and implemented will be effective. Specific topics addressed in the conservation plans include:

1. The nature and extent of threats to be addressed by the LWG's plans and how management efforts will reduce the threats described.
2. Explicit objectives for each management action contained in the plans and dates for achieving.
3. The steps needed or undertaken to implement management actions.
4. The quantifiable, scientifically valid parameters by which progress will be measured (e.g., change in lek counts, improved habitat conditions).
5. How the effects of the management actions will be monitored and reported.
6. How the principles of adaptive management resource management are being implemented.

The LWG sage-grouse conservation plans, previous annual reports, and meeting minutes can be accessed at www.utahcbcp.org.

Executive Summary

The Community-based Conservation Program (CBCP) encompasses the historical range of sage-grouse in Utah as identified in the 2002 (2009 revised) Strategic Management Plan for Sage-grouse (Figure 1). The plan, approved by the Utah Wildlife Board on 1 June 2002 *revised 2009), mandated the organization of local sage-grouse working groups (LWGs) to develop and implement sage-grouse conservation plans. The Utah Division of Wildlife Resources (UDWR) in cooperation with Utah State University Extension (USUEXT), private landowners, public and private natural resource, wildlife management, and conservation agencies and organizations have implemented the CBCP.

In 2008, Utah's Adaptive Resources Management Greater Sage-grouse (hereafter referred to as sage-grouse) LWGs continued implementation of their Sage-grouse Conservation Plans (Plan). The LWGs include representatives from state and federal agencies of land and resource management, non-governmental organizations, private industry, local communities, and private landowners.

In this report we summarize efforts of the LWGs to implement the conservation strategies and actions outlined in their Plans. These strategies meet the guidelines set forth by the US Fish and Wildlife Service (USFWS) in their Policy for Evaluation of Conservation Efforts (PECE) standards. The conservation strategies and action address the five USFWS listing factors as they apply to sage-grouse in each LWG area. Plan recommendations and guidance are voluntarily being implemented by all LWGs. The LWGs meet regularly to review actions and encourage adoption of Plan conservation strategies and actions. In 2008, greater emphasis was placed on identifying population and habitat conditions and issues specific to each LWG conservation area.

In this report, each LWG presents a table of ranked threats that currently or potentially affecting sage-grouse and sagebrush habitats in their area. This threat analysis, combined with recommended strategies and actions, provided a framework for LWGs to implement their Plans over the next ten years. Plans are being implemented using an adaptive resource management approach. As new information emerges from local and range wide conservation efforts, the LWGs are using it to update management strategies, and priorities in their area. As of January 2008, 10 Utah LWGs have completed sage-grouse conservation plans. These plans and a summaries of LWG activities can be found on-line at www.utahcbcp.org.

Staffing

Project Director: Terry A. Messmer, Professor and Associate Director, Jack H. Berryman Institute and Quinney Professorship for Wildlife Conflict Management, UMC 5230, Utah State University, Logan, Utah 84322-5230. Phone 435-797-3975, Fax 435-797-3796, E-mail terry.messmer@usu.edu

Project Staff: S. Nicole Frey, Research Assistant Professor, Jack H. Berryman Institute, Department of Wildland Resources, Utah State University (station in the Department of Biology – Southern Utah University, Cedar City), Mr. Todd Black and Ms. Lorien Belton, Community-based Conservation Extension Specialists, Dr. David Dahlgren, Post-Doctoral Fellow, and Rae

Ann Hart, Assistant to an Executive, Department of Wildland Resources, Utah State University, Logan.

Funding: In July 2006, Utah State University entered into a 5 year agreement with the Utah Division of Wildlife Resources (UDWR) to develop and facilitate the Utah Community-Based Conservation Program. This agreement provides up to $140,000 annually in funding and in-kind matches through June 30, 2011, to conduct the program. Additional funding of up to $160,000 a year is provided through by the Jack H. Berryman Institute through Utah State University Extension. Additional support in terms site and agency specific grants and contracts in the amount of $200,000 were entered into in 2008 to support local working group activities, project monitoring and evaluation.

Legal Authority

The LWG Plans implement Utah's Sage-grouse Strategic Management Plan (Strategic Plan) that was approved by the Utah Wildlife Board in 2002 (UDWR 2002, revised 2009).

Project Goals

1. Protect, enhance, and conserve Utah sage-grouse populations and sagebrush-steppe ecosystems.
2. Establish sage-grouse in areas where they were historically found and the current sagebrush-steppe habitat is capable of maintaining viable populations (Utah Sage-Grouse Management Strategic Plan 2002).
3. Protect, enhance, and conserve other sensitive wildlife species that inhabit Utah sagebrush-steppe ecosystems.
4. Sustain and enhance socio-economic conditions in affected local communities.
5. Complete actions that make listing sage-grouse as threatened or endangered unwarranted and/or assist in recovery if the species are listed.
6. Increase local stakeholders and community involvement and ownership in the species conservation planning processes.
7. Increase LWGs awareness, appreciation, and the application of the use of science in making land use and population management decisions.

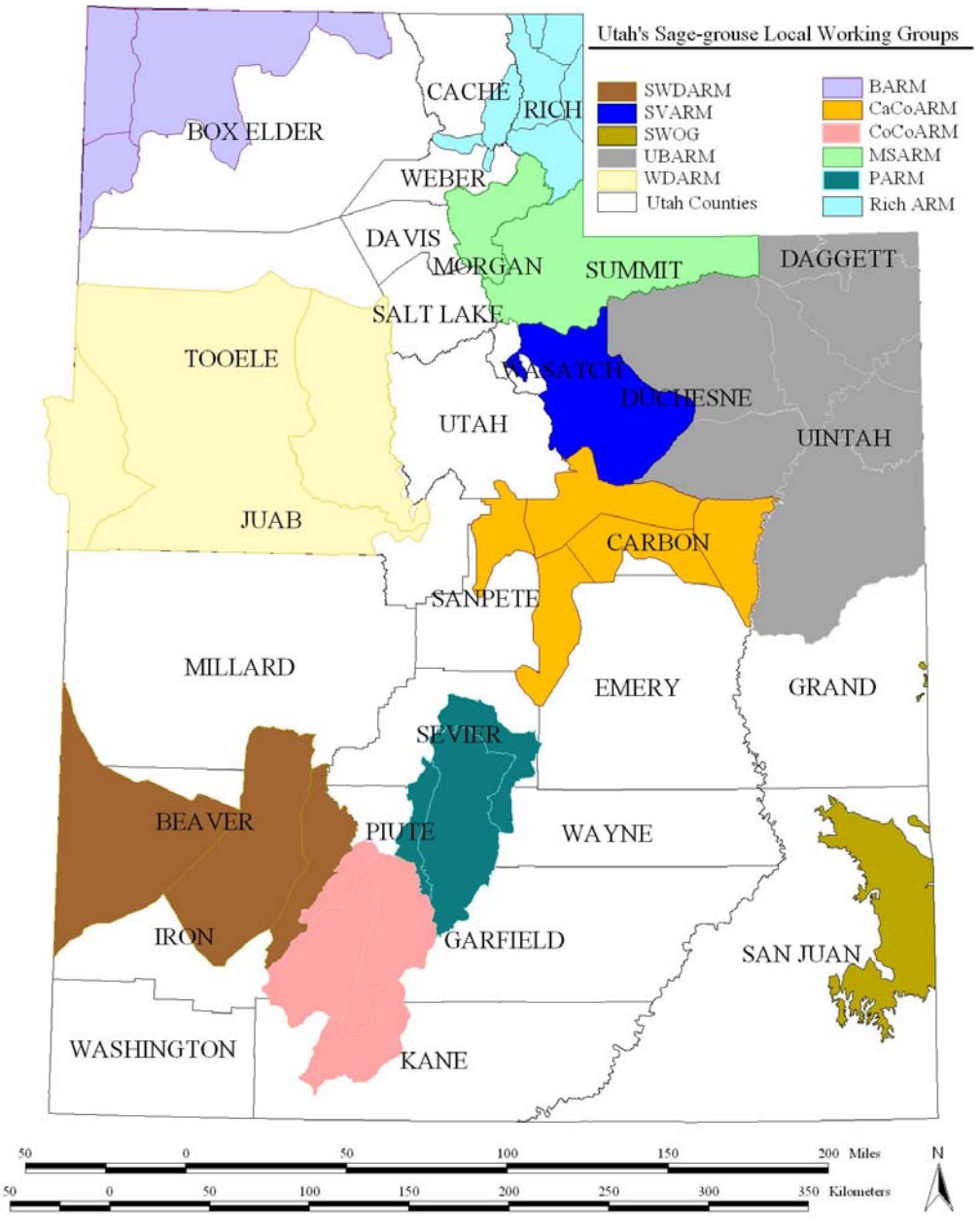

Figure 1. Utah Sage-grouse Conservation Areas, Utah Strategic Management Plan for Sage-grouse (UDWR 2009). (Note this report summarizes conservation actions completed to benefit greater sage-grouse. Thus no it does not include Gunnison sage-grouse conservation actions. This species inhabits San Juan County).

Box Elder County Adaptive Resources Management (BARM) Sage-Grouse Local Working Group

The West Box Elder Adaptive Resource Management Plan (BARM) Sage-grouse Local Working Group was organized in 2001 by Dr. Terry A. Messmer. The group is currently facilitated by Mr. Todd A. Black. BARM is comprised of state and federal agency personnel, representatives from local government, non-profit organizations, academic institutions, private industry, and private individuals.

In 2008, BARM met formally three times to discuss strategies and actions and review research findings. Additionally, BARM members participated in two field tours. One field tour was held in conjunction with West Box Elder Soil Conservation District (SCD). The other was held with BARM members and invited guests from Utah State University (USU) and Bureau of Land Management (BLM) to tour recent fires and discuss potential management practices to protect critical sage-grouse lekking and wintering habitat in the Grouse Creek Valley.

Figure 2. The Box Elder Adaptive Resource Management (BARM) Sage-grouse Local Working Group Conservation Area consists of 1,702,251 acres located in northwestern Utah.

This information below summarizes efforts made BARM and its partners to mitigate threats and implement conservation actions identified in the Box Elder Adaptive Resources Management Greater Sage-grouse Local Conservation Plan, October 2006. This adaptive plan is in effect until the year 2016. BARM partners reported on specific actions completed or addressed in 2008 and identified steps to be taken to implement addition actions into subsequent years of the plan. Please note that if a strategy or an action number is missing from this report or no comments are reported under a specific strategy; it means that no action(s) were reported in 2008 towards its completion. The "key ecological aspects (KEA)" were not changed in 2008. The BARM will re-assess KAE's in 2009 to determine if changes are warranted. For a complete list of threats identified by the BARM group, see page 64 of the conservation plan located on line at http://utahcbcp.org/files/uploads/BARM/BARMfnl-10-06-web.pdf

Conservation Strategies and Actions: 2008 Accomplishments

1. **Strategy**: By 2016, identify P/J stands within the resource area that encroaching in key sage-grouse habitat.
   1.1. **Action**: Revisit and make recommendations to retreat as needed P/J removal sites.

BARM partners identified Cove Canyon drainage north and south of Highway 30 east of Park Valley as a sight where P/J needs to removed. Raft River sub unit.

BLM identified Kimball Creek, Keg Springs, and Cook Canyon, North Grouse Creek area, and Pole Creek in the Grouse Creek subunit as potential area to thin and reduce encroaching P/J.

West Box Elder SCD identified Big Hollow drainage, Lynn Valley around Lynn Reservoir, Bally Mountain, George Creek Drainage (Raft River subunit), as a place to remove P/J. Raft River sub unit.

1.2. Action*:* Work with partners to ensure that any P/J removal projects are not detrimental to other wildlife species.

Above projects were approved by BARM partners, Utah Partners for Conservation and Development (UPCD), and Utah Division of Wildlife Resources (UDWR).

2. **Strategy:** By 2011 make an assessment of cheat grass and other non-desirable species in sage-grouse habitats.

2.1. Action: Review and monitor all vegetative sampling by all partners (range trend crew completed surveys in 2006 and again in 2011).

BARM data suggests that cheatgrass is increasing in abundance and at higher elevations.

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

Some work is being done and is in progress with Dr. Tom Monocco, USDA Forage and Range Research Lab, Utah State University.

2.3. Action*:* Evaluate all wildfires and prescribed burns and reseed with appropriate species to prevent establishment of cheatgrass and other invasive weed species.

BLM seeded state and private lands around the Devils fire (1588) 380 acres Curlew Valley area (Raft River subunit Scooby fire). Lynn seeding was done as a control burn (800 acres) and will be reseeded.

2.4. Action*:* Work with and identify other partners (County Utah Department of Transportation, and private industry) to establish fire breaks in key areas to protect important sage-grouse habitat.

BARM partners met with BLM to discuss areas to establish fire breaks to protect key wintering and lekking areas for sage-grouse in and around Badger Flats, Dairy Valley, and Curlew Junction.

3. **Strategy**: By 2011, complete an assessment and condition of available existing water/riparian sources and identify potential new water sources.

   3.1. Action*:* Identify key elements of various water projects by developing partnerships to work cooperatively to maintain existing water sources.

   A mile and a half of the Fisher Creek pipe line was repaired and replaced by Park Valley Grazing Association and the Utah Grazing Improvement Project (GIP).

   3.2. Action: Identify key elements of various water projects by developing partnerships to work cooperatively to develop new water sources.

   3.3. Action: Work with partners to identify projects to protect and make improvements upon existing water sources and making it more available/protected for wildlife uses**.**

   BLM worked on restoring and fixing Mew Canyon pipeline.

4. **Strategy**: By 2011, identify key public, private, and Utah School and Trustlands Administration (SITLA) lands in the Conservation Area (specific locations to be selected) that are protected and/or managed so as to conserve/improve sage-grouse nesting habitat.

   4.1. Action*:* Encourage use of defined desired conditions for state, private, and federal lands and influence management actions in order to move toward those conditions.

   BARM partners discuss these areas as projects come up.

   4.2. Action: Support partner efforts for special designations that protect sage-grouse nesting habitat on public, private, and SITLA lands.

   The BARM group identified the Rosebud/Muddy/Upper Dove Cr./Upper Grouse Cr./Cotton Thomas/Upper Meadow Cr. lek complexes as areas that need special protection and consideration. Almost 80% of all west Box Elder lekking birds and the corresponding nesting occur in an area from Immigration road north to middle/upper Dove Creek, upper Lynn Valley west to Kimbell Cr., north through Cotton Thomas Basin and southwest into the upper Meadow Cr/Joe Dahr Cr. Basin. This relatively small area is the core of the BARMS sage grouse population with corresponding metapopulation extensions into Idaho and NE Nevada.

   4.3. Action: Use available grouse and brood telemetry data to identify key nesting/brooding habitat areas within the Grouse Creek sub unit.

   Ongoing. USU research is identifying important areas.

   4.4. Action: Pursue habitat improvement projects (to meet Desired Conditions) on private and SITLA lands in areas used by sage-grouse for nesting habitat.

All habitat improvement projects are approved and presented to UPCD and have BARM support.

5. **Strategy**: By 2011, identify key public, private, and SITLA lands in the Conservation Area (specific locations to be selected) are protected and/or managed so as to conserve/improve sage-grouse lekking areas/habitat.

   5.1. Action: Encourage use of defined desired conditions for state, private, and federal lands and influence management actions in order to move toward those conditions.

   On-going

   5.2. Action: Support partner efforts for special designations that protect sage-grouse lekking habitat on public, private, and SITLA lands.

   BLM and UDWR have been working with the Ruby River pipe line people to protect lekking areas along the proposed pipe line corridor.

   5.3. Action: Pursue habitat improvement projects (to meet Desired Conditions) on public, private, and SITLA lands in areas used by sage-grouse for lekking.

6. **Strategy:** Minimize the impact of excessive predation.

   6.1. Action: Begin site-specific predation management considering all predator species (especially common raven) where necessary and appropriate.

   No action taken. BARM will review options once USU research is completed.

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

   No action taken. See 6.1

7. **Strategy**: Through 2016, avoid natural resource development within important sage-grouse use areas. If development does occur, work with industry to minimize impacts. (Ruby River gas line and wind turbines)

   7.1. Action: Participate in county planning efforts for natural resource exploration and development to ensure that biodiversity impacts are minimized.

   7.2. Action: Cooperate with partners (BLM/USFS/SITLA/NRCS) planning efforts to minimize impacts on sage-grouse and sage-grouse habitat.

   BLM and UDWR have been working with the Ruby River pipe line people to protect lekking areas along the proposed pipe line corridor. UDWR has met Wasatch Wind who has put up

wind stations in Grouse Creek area and Lynn Divide Ridge to determine potential wind power generation. BARM partners will continue to monitor their efforts.

8. Strategy: By 2016, identify measures to protect key wintering areas available to sage-grouse.

8.1. Action: Use available grouse telemetry data in the Grouse Creek sub unit and local knowledge in other sub units to map these areas.

No action taken in 2008 work will begin on 2009 to map these areas.

8.2. Action*:* Work with public and private partners to identify areas through winter locations (Dry Basin, Montgomery Ranch, South Kilgore, Dakes Pass).

Ongoing USU research has identified additional wintering areas. These areas have been mapped. BARM partners met with BLM to discuss areas to establish fire breaks to protect key wintering and lekking areas for sage-grouse in and around Badger Flats, Dairy Valley, and Curlew Junction.

8.3. Action: Use UDWR fixed wing winter surveys for big game to identify areas.

9. Strategy: By 2009, maintain or increase populations of sage-grouse in the Conservation Area.

9.1. Action: Support continued sport hunting within current UDWR models.

BARM group supports current UDWR harvest recommendations and models.

9.2. Action: BARM group will consider support of any translocation of sage-grouse hens from the Conservation Area.

No birds were translocated in 2008.

9.3. Action: Work with UDWR to explore other methods (Selected lek or lek complexes counts and statistical inferences,

Group counting efforts, involved recruiting and training dedicated hunters to search for new sage-grouse leks. These volunteers searched areas of potential lekking habitats—a report of these efforts will be summarized after searches and counts in 2009.

10. Strategy: Increase cooperation and coordination between BARM and other public and private partners.

10.1. Action*:* Continue with quarterly BARM meetings. Review and assess our local plan and MOU.

BARM partners meet 3-4 times a year as a group, three meetings were held in 2008.

11. Strategy: Through the duration of the plan, continue looking at and evaluating current predator management strategies especially in areas used by sage-grouse for nesting and brood-rearing.

11.1. Action: Modify power lines and wood fence posts (to remove raptor perches) in important sage-grouse areas, where feasible and where predator concerns have been identified.

USU is currently monitoring a new fence in Grouse Creek and will summarize efforts in 2009.

11.2. Action: Remove trees, remove/modify raptor perches, and maintain quality sagebrush habitat, where predation concerns on sage-grouse have been identified.

BLM completed lop and scatter and brush hog work east of Badger flat and up Pole Creek and Dry Canyon area.

11.3. Action: Maintain or increase site-specific predation management to consider all predator species (especially common ravens and red fox) where necessary and appropriate.

11.4. Action: Initiate research on direct and indirect impacts of predation during each sage-grouse life history phase.

11.5. Action: Coordinate management and research with USDA-WS.

11.6. Action: Support efforts of USDA-WS to remove mammalian predators and corvids in areas used by sage-grouse for nesting and brood-rearing during spring and early summer.

Wildlife Services aerial gunned coyotes on several areas in the Raft River and Grouse Creek subunit early spring 08.

11.7. Action: Identify additional sources of funding to continue current predator removal efforts.

Major Needs and Concerns

Wildfire and subsequent invasive species still remains the biggest overall threat to sage-grouse in the conservation area. Additionally, there are concerns with nest predation and little or no raven control in critical nesting habitat. USU research indicates high nest predation over the past 2 years in the Grouse Creek area. It is believed similar predation rates occur on the Park Valley side of the mountain as well. A further concern the BARM group has is the new Ruby River pipeline that is proposed to go through the conservation area and the impacts it may have in certain areas.

Summary of Sage-grouse Conservation Threats

In 2007, BARM identified and ranked major threats to sage-grouse conservation in the Box Elder County (Table 1). This threat ranking is used by BARM to prioritize conservation actions. The BARM will review the threat ranking in 2009 to ensure immediacy.

Table 1. Relative importance/contribution of threats to sage-grouse populations in Box Elder County, Box Elder County Adaptive Resources Management (BARM) Sage-grouse Local Working Group Conservation Area. Rankings are as follows: L = low; M = medium; H = high; and VH = very high.

BARM							
Threat	Reduced Population Size	Population Distribution	Reduced Breeding Habitat Quality	Reduced Late Summer/Fall Habitat Quality	Reduced Winter Habitat Quality	Reduced Connectivity of Seasonal Habitat Types	Reduced Connectivity of Populations & Sub-populations
Altered Water Distribution	-	VH	VH	H	L	L	H
Drought and Weather	M	M	M	H	L	L	L
Existing and New Fences	-	M	M	M	-	M	-
Home and Cabin Development	-	M	M	M	M	M	M
Power lines and Other Tall Structures	-	M	M	M	-	M	-
Renewable and Non-renewable Energy Development	-	M	M	M	-	L	L
Roads	-	M	M	M	M	M	M
Vegetation Management	M	M	M	M	M	M	M
Hunting	M	M					
Fire	-	-	VH	VH	VH	H	M
Livestock Grazing	-	-	H	H	L	L	L
Recreation	VH	VH	H	M	VH	M	M
Invasive/Noxious Weeds	-	-	VH	VH	H	H	M
Parasites and Disease	M	M	-	-	-	-	-
Predation	VH	M	-	-	-	-	-
Pinyon-Juniper Encroachment	-	-	H	H	H	H	-
Conversion to Agriculture	-	-	L	L	-	-	-