

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

Accomplishment Report

2009-2010



Photo by Todd Black

November 2010

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

Submitted to

Michael, J. Styler, Executive Director, Utah Department of Natural Resources

Jim Karpowitz, Director, Utah Division of Wildlife Resources

Submitted by

**Noelle Cockett, Vice President for University Extension and Agriculture,
Utah State University, Logan**

Staff Members

**Terry A. Messmer, Lorien Belton, Todd Black, S. Nicole Frey, Rae Ann Hart
Utah Community-Based Conservation Program, Jack H. Berryman Institute
Department of Wildland Resources, Utah State University, Logan.**

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Preface

This report summarizes the 2009 and early 2010 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 discuss 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 2009-2010, 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. 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 during the period towards its completion. 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 actions 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 2009-2010, additional emphasis was placed on identifying population and habitat conditions and issues specific to each LWG conservation area.

Each LWG plan contains 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. All 10 Utah LWGs have completed sage-grouse conservation plans. These plans and summaries of LWG activities can be found online at www.utahcbcp.org.

In 2010, the USUEXT/UDWR LWG partnership (Utah Community-based Conservation Program) was recognized by the Utah Center for Rural Life at Southern Utah University with a 2010 Utah Rural Honors Award. The award was presented by Gov. Gary Herbert at the 2010 Utah Rural Summit, held in Cedar City, Utah on the SUU campus. The award recognizes the unique partnership for engaging Utah rural communities in proactive efforts to conserve sage-grouse and other sagebrush obligate species.

Staff

Project Director:

Terry A. Messmer, Professor and Associate Director, Jack H. Berryman Institute, 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).

Todd Black and Lorien Belton, Community-based Conservation Extension Specialists, Utah State University, Logan.

David Dahlgren, Post-Doctoral Fellow, and Rae Ann Hart, Program Assistant, 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 \$136,000 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 \$300,000 were entered into in 2009-2010 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.

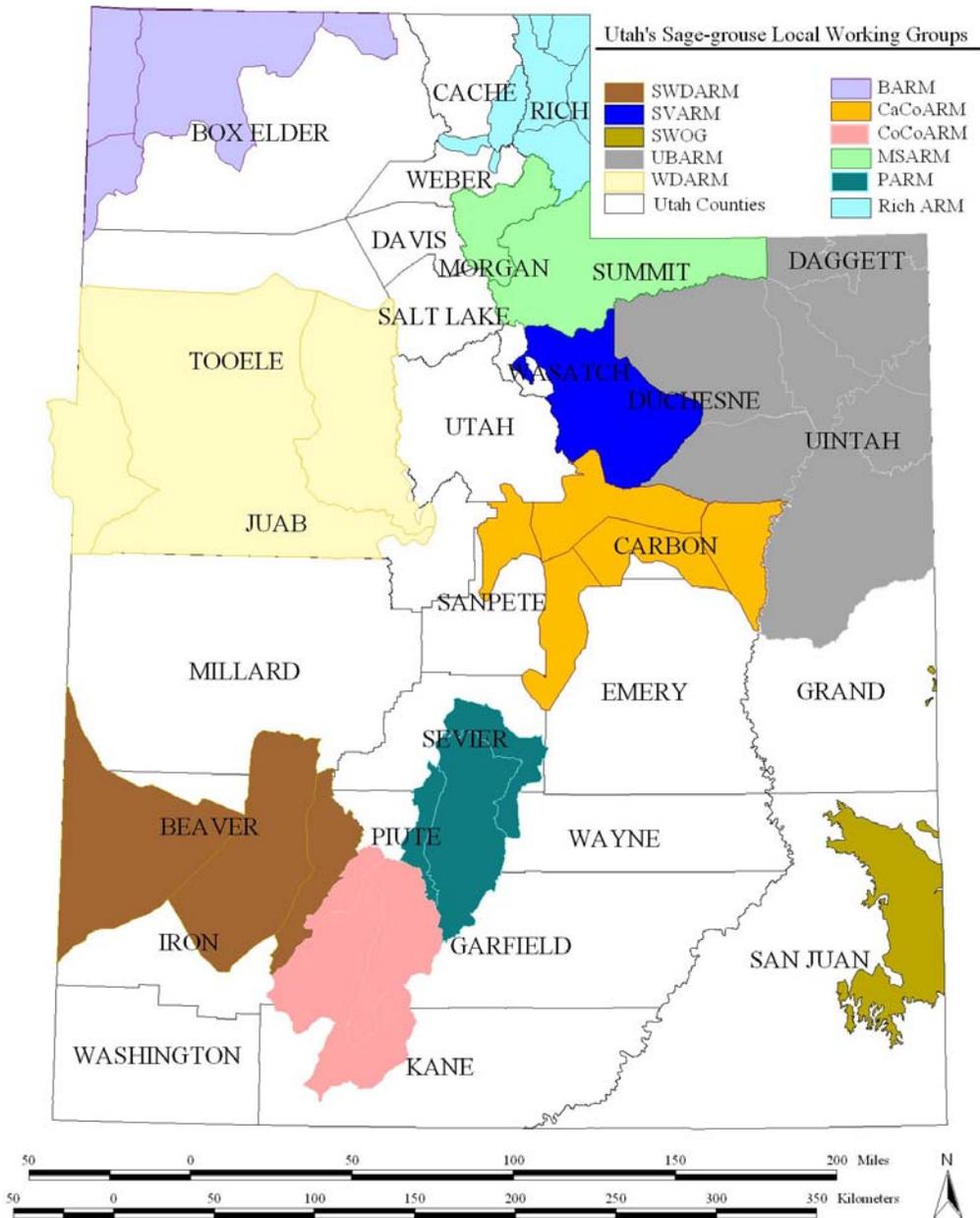


Figure 1. Utah Sage-grouse Conservation Areas, Utah Strategic Management Plan for Sage-grouse (UDWR 2009). (Note this report summarizes conservation actions completed to benefit greater sage-grouse. Thus it does not include Gunnison sage-grouse conservation actions. This species inhabits San Juan County).

Parker Mountain Adaptive Resource Management (PARM) Local Sage-grouse Working Group

The Parker Mountain Adaptive Resource Management Plan (PARM) Sage-grouse Local Working Group was organized in 1997. PARM is facilitated by Mr. Todd Black. The PARM is comprised of state and federal agency personnel, representatives from local government, non-profit organizations, academic institutions, private industry, and private individuals. At that time the group met quarterly to discuss the status of greater sage-grouse on Parker Mountain. The first decision the group made was to radio-collar hens to determine nesting ecology, habitat use, and reproduction. After a 2 year study, the group learned that nesting and brood success was low and this was probably related to poor nesting and brooding rearing cover. The PARM obtained a NRCS Wildlife Habitat Incentive Program cost-share challenge grant. PARM used these funds to implement and evaluate two mechanical methods and one chemical method to reduce sagebrush canopy cover as a means of increasing grass and forb cover. The success of these management experiments set the stage for PARM to design and implement other conservation actions. A history of PARM actions, annual reports, meeting minutes, and their conservation plan can be found on-line at <http://utahcbcp.org/files/uploads/parm/PARMfnl-10-06-web.pdf>

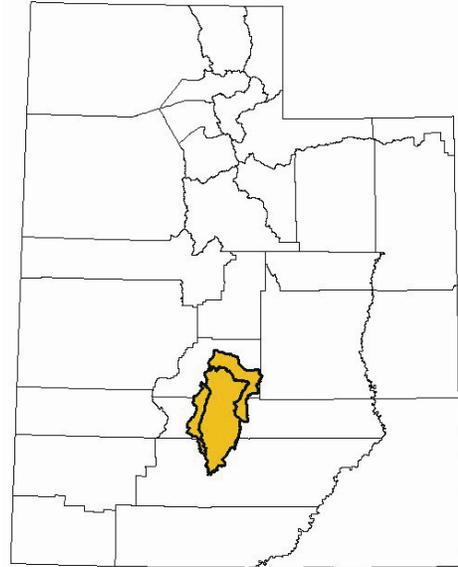


Figure 6. The Parker Mountain Adaptive Resource Management (PARM) Sage-grouse Local Working Group Conservation Area consists of 1,789,644 acres located in south-central Utah.

In 2009-2010, the group met formally three times to discuss strategies and actions and receive research updates. Additionally, one field tours were held to view and discuss research efforts and implanted actions and strategies. The information below summarizes efforts made by individual and partners to address threats and strategic actions for the Parker Mountain Greater Sage-grouse Local Conservation Plan, October 2006. This adaptive plan is in effect until the year 2016. PARM partners not only reported on specific actions completed or addressed in 2006/2007 but also identified steps to be taken to implement addition actions into subsequent years of the plan. For the complete list of threats identified by the PARM group, see page 64 of the conservation plan located on line at <http://utahcbcp.org/files/uploads/parm/PARMfnl-10-06-web.pdf>

Conservation Strategies and Actions: 2009-2010 Accomplishments

1. Strategy: By 2011, assess pinyon-juniper stands in the PARM Resource Area.

1.1. Action: As a PARM group revisit and make recommendations to treat as needed pinyon/juniper sites (North Mytoge Mountain and North of the Fish Lake turn off).

Under the direction of PARM members the Bureau of Land Management (BLM) used Dixie harrow to treat 5000 acres (7 mile allotment) north and east of North Mytoge Mountain. Additionally the Praetor Slope (south of Koosharem Reservoir) area was identified and small P/J trees were identified and treated using hand thinning by Dedicated Hunter Volunteers and supervised by Utah Division of Wildlife Resources (UDWR) habitat managers. In 2008 the SITLA block around Sand Ledges about 2000 acres was assessed and decisions made to treat P/J in these areas to create and enhance potential sage-grouse habitat. USFS personnel assessed areas in and around Cedar Creek approximately 2000 acres in the Fish Lake sub-unit. Preliminary work is being done in Solomon Basin (2000 acres) and Government Creek.

2. Strategy: By 2011, make an assessment of non-desirable/invasive vegetation in sage-grouse habitats.

2.1. Action: Review and monitor all vegetative sampling by all partners and more specifically with UDWR range trend data.

In 2006/2007 UDWR in conjunction with Utah State University Extension (USU/EXT) placed vegetation study plots in Terza Flats and Tommy Hollow to assess the effectiveness of re-seeding these areas. These plots were assessed and read again.

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

No prescribed or control burns in the PARM area in 2009-2010.

2.3. Action: Evaluate all wildfires and prescribed burns and reseed with forage kochia or other fire-resistant species where appropriate to prevent establishment of cheatgrass.

No prescribed or control burns in the PARM area in 2009-2010.

2.4. Action: Identify areas where undesirable vegetation is encroaching on sage-grouse habitat.

PARM members have identified halogeton presence along county maintained roads at lower elevations as a major threat and concern. Additional efforts have identified cheatgrass in localized camp sites and disturbed areas. PARM partners will identify specific areas during the next 3 years. An area north of Koosharem Cemetery on BLM lands was identified as an area of concern to watch over the next few years.

2.5. Action: Treat areas where undesirable vegetation has become, or is at risk of becoming, a factor in sage-grouse habitat loss or fragmentation.

See action 2.1. PARM partners are working towards this action through study with PARM members with study plots in Terza Flats and Tommy Hollow. No Action taken in 2009-2010.

2.6. Action: Work with existing weed management programs to control noxious weeds in the Resource Area.

PARM members have identified halogeton presence along county maintained roads at lower elevations as a major threat and concern. Additional efforts have identified cheatgrass in localized camp sites and disturbed areas. PARM partners will identify specific areas during the next 3 years. Additionally, PARM partners hand treated musk thistle on Parker Knoll. BLM treated Russian knapweed the main Black Point road. Monitoring shows no return of the species in the area. Wayne County weed crew is spraying black henbane on BLM lands on smooth Knoll allotment North Timbered Knoll. In 2008 UDWR and County weed crew sprayed halogeton (2 times) and seeded the area along the long hollow road (east of the county landfill). USFS sprays for thistle and other noxious weeds on USFS properties on the south end of the Parker Subunit.

2.7. Action: Identify large areas of introduced plant species that are not meeting sage-grouse habitat needs and reseed with native species where appropriate.

In 2006/2007 UDWR in conjunction with Utah State University Extension (USU/EXT) placed vegetation study plots in Terza Flats and Tommy Hollow to assess the effectiveness of re-seeding these areas. In 2009-2010 these plots were assessed and read again and determined to basically be a failed project as we see little or no effects of the project and the site is dominated by rabbit brush and other non-desired species.

2.8. Action: Identify areas where pinyon or juniper trees are encroaching on good quality sagebrush habitat and treat as needed.

In 2008 the BLM Dixie Harrowed ~3000 acres in and around the North Narrows area removing some P/J in the upper end of the treatment area (North Narrows UPCD project). BLM is also doing contract work of hand thinning of P/J in this same area—on going work.

2.9. Action: Manage fire, transportation, and vegetation treatments to minimize undesirable vegetation where possible.

No prescribed or wildfires in the PARM area in 2009-2010.

3. Strategy: By 2011, complete an assessment on the condition of available water sources and identify potential new water improvement/development projects.

3.1. Action: Manage vegetation and artificial structures to increase water-holding capabilities of likely habitat.

PARM identified bush spring pond as an area to be improved. Parker Mountain Grazers built one new pond south of Jakes Knoll, repaired breach on Ottys Pond (Ottos Reservoir sage-grouse lekking area) on the Cedar Peak allotment and cleaned out sediments in dog lake pond on the dog lake allotment (USFS lands). In 2008 Parker Grazers cleaned and re-layed existing ponds in 1 in the Parker Lake Allotment, 1 in the Buttes Allotment, and Flossy

Lake Allotment. New ponds were built: South Jakes Knoll pond and the Oscar Pond north of Jakes Knoll.

3.4. Action: Locate/identify projects to minimize potential loss of water table associated with wet meadows.

No action taken in 2009-2010.

3.5. Action: Identify key elements of various water projects by developing partners to work cooperatively to maintain existing water sources/wet meadows.

In 2008, PARM partners discussed the need to maintain existing wet meadow enclosures on the USFS properties—specifically Antelope Springs and Big Lake. No action was taken in 2009-2010.

4. Strategy: By 2011, identify key public, SITLA, and private lands in the Resource Area (specific locations to be selected) that are managed so as to conserve/improve sage-grouse nesting/brooding habitat.

4.1. Action: Encourage use of PARM defined conditions for state and federal lands to influence management actions to move toward improved conditions for sage-grouse.

In order to achieve this action PARM partners determined that we need to have USU graduate work summarized to identify acres treated, treatment sites, and evaluation of these areas. It would be ideal to have document/guidelines that indicate this is what we have done and what we know and management recommendations here. Also look at NRCS WHIP plan. USU will work with graduate students to publish an extension bulletin in 2010 on this work.

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

On going, PARM partners support and encourage efforts to improve grouse nesting habitat.

4.3. Action: Use available grouse and brood telemetry data to identify key nesting habitat areas within the Parker Mountain subunit.

In order to achieve this action PARM partners determined that USU graduate work needs to be summarized to identify acres treated, treatment sites, and evaluation of these areas. Use existing GIS data and nesting/brood rearing locations to address these issues. In 2009, work began to start looking at landscape level questions work will continue in conjunction with Todd Black PhD project with project completion late winter 2011.

4.4. Action: Pursue habitat improvement projects (to meet PARM defined conditions) on SITLA lands in areas used by sage-grouse for nesting habitat.

In 2008 SITLA treated 60 acres with Spike on the South Buttes enclosures. Additionally 50 acres were treated in and around the South Buttes area using sheep to control rabbit brush and improve nesting conditions.

4.5. Action: Identify research needs to address sagebrush treatments at ‘lower’ elevations where the majority of these nesting activities occur.

In 2006/2007 UDWR in conjunction with Utah State University Extension (USU/EXT) placed vegetation study plots in Terza Flats and Tommy Hollow to assess the effectiveness of re-seeding these areas. These sites were monitored and read again in 2008. While the blue gramma grass showed a good response, no significant changes were noticed with the seeded or non-seeded areas.

In 2009-2010 these plots were assessed and read again and determined to basically be a failed project as we see little or no effects of the project and the site is dominated by rabbit brush and other non-desired species.

4.6. Action: Use mechanical or chemical treatments to reclaim and/or reseed areas (when necessary) using suitable seed mixtures.

BLM used Dixie harrow to treat 5000 acres (7 mile allotment) north and east of North Mytoge Mountain and additional acreage on the Praetor Slope (south of Koosharem Reservoir). BLM reseeded and Dixie Harrow (north of Koosharem town and North of Greenwich to Burrville). USFS Pollywog Lake treated 80 acres in ‘07 and will do more in ‘08. Brush was treated by mowing with and additional sites Fish Lake Basin of approximately 400 acres. Additional work was done on this area in 2008 and is about ¾ completed and will continue again in 2009. Sheep Valley ~350 acres was treated (mower) as well and was completed.

4.7. Action: Where economically feasible, restore understory vegetation in areas lacking desirable quality and quantity of herbaceous vegetation.

BLM used Dixie harrow to treat 5000 acres (7 mile allotment) north and east of North Mytoge Mountain and additional acreage on the Praetor Slope (south of Koosharem Reservoir). BLM reseeded and Dixie Harrow (north of Koosharem town and North of Greenwich to Burrville).

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

BLM used Dixie harrow to treat 5000 acres (7 mile allotment) north and east of North Mytoge Mountain and additional acreage on the Praetor Slope (south of Koosharem Reservoir). BLM reseeded and Dixie Harrow (north of Koosharem town and North of Greenwich to Burrville). USFS Pollywog Lake treated 80 acres in 07 and will do more in ‘08. Brush was treated by mowing with and additional sites Fish Lake Basin of approximately 400 acres.

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

In order to achieve this action PARM partners determined that USU graduate work needs to be summarized to identify acres treated, treatment sites, and evaluation of these areas. Use existing GIS data and nesting/brood rearing locations to address these issues. In order to achieve this action PARM partners determined that USU graduate work needs to be summarized to identify acres treated, treatment sites, and evaluation of these areas. Use existing GIS data and nesting/brood rearing locations to address these issues. In 2009, work began to start looking at landscape level questions work will continue in conjunction with Todd Black PhD project with project completion late winter 2011.

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

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

PARM partners identified areas in and around black point lek complex that need to address increasing shrub numbers and density. USU sent DWR (Jason Robinson) a data sheet designed to monitor the condition of habitat in and around leks—including photos.

In 2010, Andy Taft will use his sheep herd to treat several sites. PARM will evaluate sage-grouse lekking response to the treatments in 2011.

5.2. Action: Encourage use of PARM defined conditions for state and federal lands to influence management actions to move toward improved conditions for sage-grouse lekking habitat.

In order to achieve this action PARM partners determined that USU graduate work needs to be summarized to identify acres treated, treatment sites, and evaluation of these areas. Use existing GIS data and nesting/brood rearing locations to address these issues. USU sent DWR (Jason Robinson) a data sheet designed to monitor the condition of habitat in and around leks—including photos.

5.3. Action: Support partner efforts that manage sage-grouse lekking habitat on key public, SITLA, and private lands

PARM partners are encouraged the use of supplement to increase winter grazing efforts by sheep in the Black point lek complex. PARM partners identified 3 specific sites on Black Point that needs to have some brush reduction work done on the lekking sites. USU Extension will follow up with BLM on this.

5.4. Action: Pursue habitat improvement projects (to meet PARM defined conditions) on SITLA lands in areas used by sage-grouse for lekking habitat.

SITLA put sage-grouse discouragers on the fence in and around Morrell pond lek where sage-grouse were colliding/striking into this fence. PARM partners identified 3 specific sites on Black Point that needs to have some brush reduction work completed to open lekking sites.

6. Strategy: Through 2011, avoid natural resource development (oil/gas exploration and development) within important sage-grouse use areas. If development does occur, work with private industry to minimize impacts and follow recommended actions below.

*No action was taken on **action items 6.1—6.21** because no natural resource development (oil gas development) took place within the resource area during 2009-2010.*

7. Strategy: Through 2011, identify high use areas available to sage-grouse during the late summer and early fall brood rearing time period.

7.1. Action: Use available grouse and brood telemetry data and remote sensing data to identify key brood rearing habitat areas within the Parker Mountain subunit.

In order to achieve this action PARM partners determined that USU graduate work needs to be summarized to identify acres treated, treatment sites, and evaluation of these areas. Use existing GIS data and nesting/brood rearing locations to address these issues. In 2009, work began to start looking at landscape level questions work will continue in conjunction with Todd Black PhD project with project completion late winter 2011.

7.2. Action: Work with public and private partners to maintain areas use by sage-grouse during late summer and early fall.

Ongoing process with all partners. In 2009, work began to start looking at landscape level questions work will continue in conjunction with Todd Black PhD project with project completion late winter 2011.

8. Strategy: Through 2016, identify measures to manage key wintering areas available for sage-grouse.

8.1. Action: Use available winter grouse telemetry data and local knowledge to map these areas.

In order to achieve this action PARM partners determined that USU graduate work needs to be summarized to identify acres treated, treatment sites, and evaluation of these areas. Use existing GIS data and nesting/brood rearing locations to address these issues. In 2009, work began to start looking at landscape level questions work will continue in conjunction with Todd Black's PhD project with project completion late winter 2011.

8.2. Action: Work with public and private partners to identify winter locations.

PARM partners directed UDWR/USU EXT to get more wintering locations on birds and work to have a mapping day where PARMs expert knowledge would be used to identify areas. In 2009-2010, work will be completed by USU researchers and results will be posted in a form of a MS thesis by Danny Caudall.

8.3. Action: Use UDWR aerial winter big game surveys to identify and map these areas.

Ongoing process each time UDWR flies and conducts big game surveys. All sage-grouse locations are noted and will be in cooperated in the final model being worked on by USU researchers.

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

9.1. Action: Support and encourage the prevention of illegal harvest of sage-grouse on public lands throughout the year.

PARM partners will work with UDWR to develop and implemented an action plan to address this issue.

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

PARM partners supported UDWR recommendations for 2009 sage-grouse permit allocation numbers.

9.4. Action: Continue with annual PARM group counting/classification efforts with sage-grouse lek surveys.

In conjunction with UDWR, PARM partners conducted their annual 1 day lek counting efforts on Parker Mountain in April 2009. These efforts were continued in 2010.

***9.5 Action:** Work with other Local Working Groups and the State UDWR office to develop a translocation effort state wide to look increasing genetic heterogeneity and expanding existing population distribution. Thirty sage-grouse were captured from Parker Mountain and translocated to Anthro Mountain to augment the population in this area. This work is being evaluated by DWR and USU.

Ongoing, in 2009, PARM members helped trap and translocation sage-grouse to Anthro Mountain to support research efforts and supplement populations in that area.

**new action added to the Area Conservation plan in 2008*

10. Strategy: Through 2009, search additional areas (TBD by PARM) for new/previously undiscovered sage-grouse lekking sites

10.1. Action: Coordinate with UDWR to conduct aerial surveys in areas (Bear Valley, north of Koosharem reservoir, north/Mytoge Mountain, Greenwich) suspected to be undiscovered lekking areas.

In 2009, UDWR flew lek count transects for the entire resource area.

10.2. Action: Coordinate with UDWR, public and private partners to conduct terrestrial lek searches in areas (Bear Valley, north of Koosharem Reservoir, north/Mytoge Mountain, Greenwich) suspected to be undiscovered lekking areas.

In 2008 PARM partners and volunteers searched areas in and around Koosharem and Rex's Reservoir. Additional areas were searched Mytoge Mountain and Greenwich. In 2009, UDWR flew lek count transects for the entire resource area.

10.3. Action: Continue with and expand annual PARM group counting/classification efforts to include the entire Resource Area.

In conjunction with UDWR, PARM partners conducted their annual 2 day lek counting efforts on Parker Mountain in April 2009. These efforts were continued in 2010.

11. Strategy: Increase cooperation and coordination between PARM members and other public and private partners.

11.1. Action: Continue with quarterly PARM meetings.

*Ongoing process, see PARM's web page for news events and meetings
<http://utahcbcp.org/htm/groups/parkermountain>*

11.2. Action: Annual review and assessment of PARM plan.

Through quarterly meetings PARM partners did, and will continue to meet this action item.

11.4. Action: Develop means to inform, involve, and educate the local communities as to the efforts of PARM and sage-grouse.

USU/EXT publishes quarterly newsletters highlight PARM activities. Additionally, the Utah Farm Bureau published an article of a recent PARM range tour in their 2009 newsletter.

12. Strategy: By 2016, work to decrease the populations of sage-grouse predators, especially in areas used for nesting and/or brood-rearing.

12.1. 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.

No action taken in 2009-2010 due to lack of activity

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

No action taken in 2009-2010 due to lack of activity

12.3. Action: Begin site-specific predation management considering all predator species (especially common ravens and red fox) where necessary and appropriate.

In 2009-2010, USDA-WS did egg routes this spring as provided by PARM partners. USDA-WS put up 60 M44 guns in wintering sage-grouse areas.

12.4. 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.

Through quarterly meetings PARM partners did, and will continue to meet this action item.

12.5. Action: Identify additional sources of funding to continue with the current predator removal efforts.

PARM members in conjunction with USU researchers met with WS to identify additional funding resources and needs for future work.

13. Strategy: Provide an appropriate level and system for 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.

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

Grazing plans are continually being followed and monitored and adjusted to improve grazing conditions.

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

Research is continuing looking into to this with USU PhD candidate Mike Guttery and will continue through 2009 with results published in a form of a dissertation in 2010.

13.3. 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.

Through quarterly meetings PARM partners did, and will continue to meet this action item.

14. Strategy: Minimize impacts of utilities lines in sage-grouse habitat.

No action due to lack of development taking place within the resource area.

15. Strategy: Improve knowledge of disease in sage-grouse populations.

15.2. Action: Monitor radio-collared and other sage-grouse for West Nile Virus and other disease outbreaks.

Task was completed by USU graduate students and will continue in subsequent years. No disease birds were identified in 2009-2010.

16. Strategy: By 2016 work to begin to improve understanding of the relationship between livestock grazing and sage-grouse in the Resource Area.

16.1. Action: Conduct study on the affects of different types of livestock use, time of use, and intensity of use on sage-grouse populations.

Research is continuing looking into to this with USU PhD candidate Mike Guttery. Results anticipated by December 2010.

17. Strategy: By 2016 implement a study to better understand of the predator/prey dynamics specific to sage-grouse in the Resource Area.

17.1. Action: Conduct study of the effects of predation on sage-grouse populations.

No action has been taken towards this strategy to date

Major Needs and Concerns

One of the most pressing research needs on Parker Mountain is to look at the effects of increased predation on this population. Intensive predation management that occurred in the area in the past (associated with the sheep industry) is being curtailed. Additionally, USDA-WS had been addressing raven populations for the past several years but may not continue at current levels. The big question that remains unanswered is: Can this population continue to increase without predation management?