

Executive Summary

Project Title: Implementation and Evaluation of State-wide Local Working Group Sage-grouse Conservation Plans through Utah's Community-Based Conservation Program

Period Covered: 2006 Calendar Year

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Date Submitted: January 2007

Summary: In 2006, Community-based Conservation Program (CBCP) staff focused their efforts and energy on completing sage-grouse (*Centrocercus spp.*) conservation plans for 12 local working groups. We adopted The Nature Conservancy's Conservation Action Planning process as a means to develop local conservation plans for each local working group. We also worked with Utah Partners for Conservation and Development to design, implement, and monitor habitat projects. Ongoing research projects include the Alton-Sink Valley, West Desert, West Box Elder County, San Juan County, and Parker Mountain sage-grouse, aspen, and prairie dog projects. Project specific annual reports and updates are available on the CBCP web site (www.cnr3.usu.edu/cbcp/). During 2006, we continued to expand our communication and outreach efforts by enhancing the CBCP web site, continuing to publish quarterly issues of The Communicator, a newsletter dedicated to issues important to local working group participants and partners, and participating in professional meetings and workshops. In February 2006, at the request of the Utah Division of Wildlife Resources we prepared a proposal that was submitted to the Utah Endangered Species Mitigation Fund for an additional 5 years of funding. In July 2006, we entered into the existing agreement. This agreement will provide up to \$700,000 in funding and in kind matches through June 30, 2011 to conduct the program. Additional funding of up to \$160,000 a year will be provided during the period through a state-appropriation received for the Jack H. Berryman Institute through Utah State University Extension. Additional support in terms site and agency specific grants and contracts were entered into to support local working group activities. To date local working groups have finalized 8 conservation plans, 3 are nearing

completion, and one group (Cache-East Box Elder) is in initial preparation. This plan will primarily focus on conserving Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*).

Introduction

Geographic Area

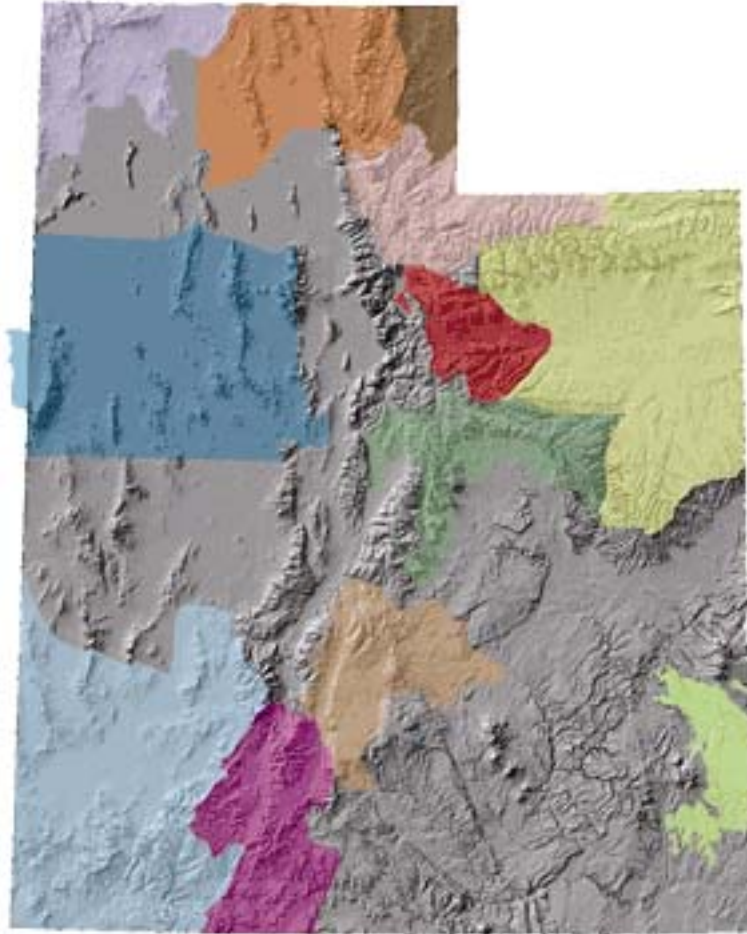
The Community-based Conservation Program (CBCP) encompasses the historical range of Greater and Gunnison Sage-grouse in Utah as identified in the 2002 Strategic Management Plan for Sage-grouse (Figure 1). The plan, approved by the Utah Wildlife Board on 1 June 2002, mandated the organization of local sage-grouse working groups to develop and implement sage-grouse conservation plans. The Utah Division of Wildlife Resources (DWR) 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.

Program Need and Origin

Sage-grouse in Utah inhabit sagebrush habitats of the Colorado Plateau and the Great Basin geographic regions between 4,000 to 9,000 feet in elevation. The largest populations are found in Rich County, the Park Valley area of Box Elder County, on the Diamond and Blue Mountains in Uintah County, and on the Parker Mountain in Wayne County. Other smaller populations are scattered in the central and southern parts of the state. The DWR believes that all of Utah's 29 counties at one time provided sagebrush habitat suitable for sage-grouse. Pioneer journals indicate that sage-grouse were abundant throughout Utah in the early 1800s. The DWR estimates that sage-grouse in Utah currently occupy less than 50% of their previous habitat and are one-half as abundant as they were prior to the 1850s. In 1996, DWR biologists counted 126 sage-grouse leks. Biologist reported an average of 10 males per lek. This is down 51% from long-term averages. These declines have been largely attributed to land use practices that reduced, eliminated, or fragmented suitable sagebrush habitats. The DWR estimates that about 50% of the remaining sage-grouse habitat and population are on private land.

Sage-grouse population declines have prompted several organizations to petition the USFWS to list the species as endangered or threatened under the federal Endangered Species Act (ESA). However, even prior to these actions, concerned stakeholders in the Utah began organizing working groups to increase local ownership and involvement in the development of sage-grouse conservation plans. Working group participants believe that implementation of these conservation plans and agreements will assist state and local governments and private landowners in conserving these species and their habitats while also achieving local, social, and economic objectives.

The DWR organized a Statewide Sage-grouse Working Group in 1998 to identify management issues and concerns and serve as a network for disseminating information needed to complete area conservation plans. This effort culminated in the Utah Sage-grouse Strategic Management Plan. Because of the importance of private land to sage-grouse conservation, the statewide



**Sage-grouse local working
group boundaries 01-2007**



Figure 1. Utah Sage-grouse Resource Areas, Utah Strategic Management Plan for Sage-grouse, DWR 2002.

working group identified the formation of local working groups to develop and implement local conservation plans to address local issues as its highest priority.

Species conservation planning efforts are time-consuming. An important component of the process is adequate scoping to identify all possible management, social, and political issues. Because of the complexity and diversity of these issues, the participants must represent diverse interests and backgrounds. Additionally, they require constant communication and commitment on the part the members. We believe the success of these efforts will be directly related to the involvement of local leaders and the presence of an administrative structure. In essence, someone has to provide leadership and administrative support to bring together diverse stakeholders to discuss and address the issues. This leadership is essential to facilitation of a process that allows groups to identify issues, concerns and management strategies; to build group consensus; to schedule and organize meetings; to prepare and distribute meeting minutes; to write drafts of local conservation plans and agreements; and to help implement and monitor management actions identified in the documents. Although federal and state biologists must be part of this process, we believe they should not assume direct leadership positions, but rather lead from behind.

DWR personnel, because of increasing workloads and reduced staffing, lack the time needed to establish and facilitate local working groups. Although DWR personnel must be involved as members of local working groups, their involvement in leadership roles could be perceived by other local working group members as being somewhat counterproductive because of their regulatory authority. This perception is not necessarily held about specific individuals, but more so of governmental agencies in general. Given these perceptions, it will continue to be difficult for government agency representatives to assume leadership roles in species conservation working groups. Thus, DWR administrators believed that the establishment and facilitation of local species conservation working groups may best be achieved through an independent program dedicated to this effort.

To facilitate local working groups in Utah the DWR entered into a cooperative agreement in 2001 with Utah State University Extension (USUEXT) to develop a Utah Community-Based Conservation Program (CBCP). The DWR funded 1 staff specialist position. These funds were matched by USUEXT with funding provided through the Jack H. Berryman Institute and the S.J. and Jessie E. Quinney Foundation to support an additional specialist position and 2 technicians. Because of USUEXT presence in local communities and its strong tradition of delivering educational programming, the cooperators believe that the CBCP specialists would be perceived as a neutral party, not representing any specific government agency or mandate, but working for the good of the species and for those who live and work within the affected communities. The cooperators believed implementation of conservation plans and agreements will make listing of these species as threatened or endangered unnecessary, assist in recovery if the species are listed, and provide affected individuals and local communities with increased ownership of the conservation planning process.

The CBCP has been successful in increasing state and local awareness of and support for implementing sage-grouse conservation plans designed to benefit the species and the affected communities. As an example, the Parker Mountain Adaptive Management working group

(PARM) has been designated an En Libra Project by the Western Governor's Association. Parker Mountain was also selected by the Utah Section of the Society for Range Management "Range of the Year" for 2004. In addition, Parker Mountain was recently awarded the largest Natural Resources Conservation Service (NRCS) Wildlife Habitat Incentive Program (WHIP) cost-share (\$350,000) ever awarded to implement conservation practices to benefit sage-grouse.

In addition to completing conservation plans, local working groups are implementing experimental management designed to help them learn more about what management practices will result in the greatest benefits for Sage-grouse (Greater and Gunnison), other wildlife species, private landowners, and local Utah communities. More recently, the Box Elder (BARM) and Southwest Desert Adaptive Management (SWARM) working groups were awarded over \$200,000 in NRCS Environmental Quality Incentive Program (EQIP) funding to implement conservation practices to benefit sage-grouse and other sensitive wildlife species. These projects will be implemented using experimental designs that in addition to providing local working groups with information to guide future management will provide scientific information on the effects of shrub-steppe restoration practices on wildlife and vegetation.

Lastly, to assist local working groups in Utah and range wide in monitoring and evaluating the effect of their conservation efforts on local sage-grouse populations and their habitats, USUEXT in cooperation with NRCS has implemented the Sage-Grouse Restoration Project (SGRP web address www.sgrp.usu.edu). The purpose of the SGRP is the identification, development, and evaluation of conservation technologies and strategies that can assist NRCS field staff in the planning and implementation of habitat projects and practices on private lands. These projects will contribute to range-wide sage-grouse conservation efforts. The SGRP will result in the development of an online "landscape library" that will provide farmers and ranchers with visual information and real time data regarding the role NRCS conservation practices in increasing their productivity and natural resource conservation. This information will allow them optimize the benefits of conservation planning.

Because sage-grouse occupy diverse landscapes each exhibiting different land ownership patterns and issues, each of the sage-grouse management areas identified by the DWR must be viewed as being unique. The success of each working groups rests on the ability of the specialists to understand and incorporate this uniqueness of each environment in the CBCP process. Achieving this understanding requires increased coordination and contact with members and good information about the effects of specific management practices on sage-grouse and other sensitive species that may inhabit the conservation areas.

Although the scientific literature contains good information on sage-grouse ecology, there is limited information on the effects of specific conservation practices that can be directly applied to management. In addition, land uses are extremely variable across these areas thus requiring site-specific management information to address population declines and socio-economic needs.

In many areas our ability to improve management of sage-grouse populations is hampered by the fact that little, if any, historic population and habitat condition information exists. Although historical lek counts may provide information about overall population trends, they often do not provide a true picture of the population status.

Increased public interest in sage-grouse viewing opportunities may benefit current conservation. However if these visitations are not properly managed, they can cause lek disturbances that decrease the breeding success of populations. Education regarding proper lek-viewing etiquette and establishment of viewing protocol may help to alleviate some of this.

Implementation of projects that include grazing management, water developments, shrub-steppe restoration, predator management, and aspen and pinyon/juniper restoration have been identified as priorities by many local working groups. To accomplish this work there is a great need for additional funding for fencing, chemicals, equipment, manpower, and technical assistance. Monitoring and timely reporting of the effects of management actions undertaken by local working groups to benefit sage-grouse and other species will be crucial to document the positive contributions of local CBCP efforts in species conservation. This will require the development and implementation of innovative programs that engaged trained volunteers in monitoring efforts. Lastly, because the local working groups process is still in its infancy, it will continue to need assistance in the near future with writing grants, coordinating on-the-ground management actions, and maintaining coordination and communication among members and partners.

Project Administration

The project is currently administered by the DWR and USUEXT under the direction of Dean Mitchell, Upland Game Project Coordinator, DWR, and Terry A. Messmer, USU Professor and Extension Wildlife Specialist. The program currently includes 4 staff specialists. These staff specialists are responsible for facilitating, implementing and evaluating the local working group process. In 2006, CBCP Specialists continued to work directly with the local working groups participants and partners to prepare and revise area-wide sage-grouse conservation plans, and develop and implement habitat restoration, and sage-grouse population projects. In accordance with Utah Partners for Conservation and Development (UPCD) guidance, we have implemented The Nature Conservancy's (TNC) Conservation Assessment Program (CAP) to develop sage-grouse populations and habitat viability tables. This analysis is assisting local working groups in identifying and prioritizing conservation actions.

The local working groups are ultimately responsible for implementing, evaluating, and reporting the results of their conservation strategies and habitat management actions to DWR and the U.S. Fish and Wildlife Service (USFWS). This reporting follows the guidelines established in the USFWS Policy for Evaluating Conservation Efforts When Considering Petition to List a Species (PECE). The information obtained from management projects is being used to revise the conservation plans to ensure that the benefits to sage-grouse and other sensitive wildlife species are optimized.

In 2006, CBCP Specialists worked closely with the NRCS staff, UPCD Core and Regional Team members, and local working groups partners to develop, implement, and evaluate management project proposals that qualify for conservation practices cost-share under the Farm Bill, WHIP, EQIP, and Utah Landowner Incentive Program (LIP).

Participating local working groups include the Southwest Desert Adaptive Management Working Group (Iron, Beaver and Milliard Counties), Color Country (South Central and Johns Valley) Adaptive Management Working Group (Kane and Garfield), Parker Mountain Adaptive Management Working Group (Wayne and Piute Counties), West Box Elder Adaptive Management Working Group (West Box Elder), San Juan County Gunnison Sage-grouse Working Group (San Juan County), Rich County Coordinated Resource Management (Rich County), Tooele County Adaptive Management Working Group (Tooele County), Uintah Basin (North and South Slope, and the Book Cliffs) Adaptive Management Working Group (Uintah, Duchesne, and Daggett counties), Strawberry Valley Adaptive Management Working Group (Wasatch County), Castle Valley Adaptive Management Working Group (Carbon and Emery Counties), Cache Valley and East Box Elder (Cache County and East Box Elder County) Adaptive Management Working Group, and Morgan-Summit Adaptive Management Working Group (Morgan and Summit Counties).

Summary of Organizations involved in 2006 CBCP programs and their roles

Partner	Role
Utah State University Extension (USUEXT)	CBCP and local sage-grouse working group program administration and support, reporting, working group facilitation, sage-grouse population and habitat viability analysis, project prioritization and recommendations, coordination, implementation, and evaluation.
Private Landowners and Local Community	Local working group leadership and participation, coordination within the community, cost-share authorization, identification of project sites and project prioritization.
County Commissioners	Local working group support and participation
Natural Resource Conservation Service (NRCS) Farm Service Agency (FSA)	Local working group participant, technical assistance, WHIP, EQIP project proposal preparation, funding
Bureau of Land Management (BLM)	Local working group participant, funding support for monitoring and work group operations, project challenge grants, technical assistance, and identification of project sites
U.S. Forest Service (USFS)	Local working group participant, funding support for monitoring and work group operations project challenge grants, technical assistance, and identification of project sites
Utah Division of Wildlife Resources (DWR)	CBCP oversight and review, work group participant, funding support for monitoring and work group operations, project challenge grants, technical assistance, identification and prioritization of project sites
Native American Tribes	Local working group participant, identification of project sites, cost-share, funding support for monitoring and work group operations

US Fish and Wildlife Service (USFWS)	Local working group participation, funding support for projects and monitoring
Utah School and Institutional Trustlands (SITLA)	Local working group participants, funding support for operations and monitoring
Utah Farm Bureau Federation (UFBF)	Local working group participant, communications with FB membership
Utah Partnership for Conservation and Development (UPCD)	Local working group information clearinghouse, project identification, prioritization, and funding
Utah Cattlemen and Woolgrowers	Local working group participants, communication with membership
Utah Department of Agriculture and Food (UDAF)	Local working group participant, communications, funding support for projects
Utah Rural Coordination and Development Council (Utah RC&D)	Local working group participant, project funding support, communications
Utah Soil Conservation Districts (USCD)	Local working group participation, communications with SCD members, identification and prioritization of project, landowner technical assistance and preparation of project proposals.
Sportsmen Organizations and Dedicated Hunters	Local working group participants, cost-share to support projects, participation in lek counts, population, and habitat monitoring
Conservation/Environmental Organization	Local working group participants, funding to support projects and monitoring
USDA Wildlife Services (WS)	Local working group participant, in-kind support, predation management technical assistance
Local educators, 4-H, Boy/Girl Scouts	Participation in citizen science monitoring programs to support local working groups

CBCP Goals

1. Through strategic planning and technical assistance, help local working groups develop and implement strategies to achieve healthy populations of sage-grouse and other wildlife while maintaining community socio-economic and cultural values.
2. Increase local stakeholders and community involvement and ownership in the species conservation planning processes.
3. Increase local working groups awareness, appreciation, and the application of the use of science in making land use and population management decisions.

Project Objectives

1. Public Process, Research, and Management
 - a. Formalize and institutionalize the local working groups process in Utah by 2012
 - b. Implement a process that engages local stakeholders in activities that result in improved monitoring and reporting of effects of management actions identified in conservation plans on sage-grouse and other wildlife populations.
 - c. Implement at least one flagship project on private lands in each Resource Area by 2010 employing the scientific method and an experimental design that contributes to scientific literature regarding the restoration and managing sagebrush-steppe ecosystems and provides local working groups with information to guide future management actions.
 - d. Track progress on local conservation plan objectives.
2. Population
 - a. Obtain better population estimates of sage-grouse in Utah by 2010.
 - b. Achieve a 10% increase of 2005 baseline sage-grouse densities on private lands within local working groups Resource Areas by 2012.
 - c. Re-establish sage-grouse population on private lands that exhibit suitable habitats.
3. Habitat
 - a. Annually implement management projects and actions in each local working groups Resource Area that increase the quantity and quality of habitat available to sage-grouse and other wildlife and contribute to the local working groups' understanding of sage-grouse conservation.
 - b. Work with local working group partners to evaluate effects of management activities on sage-grouse habitat.

Local Working Group 2006 Reports

Box Elder Adaptive Resource Management Local Working Group (BARM)

BARM met 6 times during 2006 and an additional field tour meeting with key agency personnel. In 2006, the group participated in TNC's Conservation Action Planning process and the bulk of these meetings were focused following this process in efforts to complete a sage-grouse management plan. BARM's sage-grouse management plan is in draft stage. The group is reviewing the plan and anticipates plan completion in March of 2007. The group has 2 flagship projects; one is looking at collecting base line sage-grouse data including seasonal movement patterns, nesting and brood success, and male lek attendance and movement during the lekking season. The other is a WHIP cost-share project funded by NRCS and the Grouse Creek Grazing Association. This project is looking at vegetation and grouse response to 2 different sagebrush management techniques and the effects of a newly constructed fence line on sage-grouse mortalities. In 2007 we will begin collecting post-treatment data on these sites. BARM will meet at least 4 times during 2007 including an appreciation dinner once the plan is completed.

Parker Mountain Adaptive Resource Management Local Working Group (PARM)

PARM met 8 times during 2006 and hosted a field tour for agency personnel. In 2006, the group participated in TNC's CAP process and the bulk of these meetings were focused following this process to complete a sage-grouse management plan. PARM completed this plan in October 2006. A dinner meeting was held and hard copies of the plan distributed. Andrew Taft co-chair of the group indicated how impressed he was with the process and the fact that the group could work together to complete such a task. The group is currently conducting 3 flagship projects. The group has been collecting sage-grouse habitat-use and population since 1998. This project has included seasonal movement patterns of sage-grouse, nesting and brood success, chick movements between broods and survivability, and habitat type selection. This project and the information gleaned from it have led to 2 other projects. PARM is evaluating techniques to regenerate aspen and sage-grouse response to early stages of aspen regeneration. In addition, the group is evaluating if domestic sheep can be used to enhance sage-grouse brooding rearing habitat. The latter projects have been funded by NRCS under the sage-grouse Restoration Project. The BLM, DWR, and USFS are providing on-going funding to support the evaluations and monitoring. PARM will meet at least 4 times during 2007 starting with a meeting in March to determine sage-grouse lek count needs.

Castle Country Adaptive Resource Management Local Working Group (CaCoARM)

CaCoARM met 7 times during 2006 with an additional agency meeting to discuss future research needs. In 2006, the group participated in TNC's Conservation Action Planning process and the bulk of these meetings were focused following this process in efforts to complete a sage-grouse management plan. This plan is finalized and will be distributed (hard copy) at the next meeting scheduled for February 2007. The group is working to fund a flagship project on Wildcat Mesa in cooperation with the USFS and a local mining company. The project will look at sage-grouse ecology on Wildcat Mesa and potential effects of energy extraction activities on habitat use and movement. This information will assist wildlife and land management agencies on how to better mitigate potential effects of energy extraction on sage-grouse. CaCoARM will meet at least 4 times during 2007 starting with a meeting in March to determine course of action for implementation of their conservation plan.

Cache East Box Elder Adaptive Resource Management Local Working Group (CaBeARM)

This group met 3 times in 2006 including a dinner and kick off meeting early in the spring. Two of the meetings were mainly spent discussing the past and pointing fingers. The group facilitator after discussion with CBCP staff and federal and state partners determined the group needed to renew their efforts to identify key players both landowners and agencies that could work together and move forward. The group will also focus their efforts on Columbian sharp-tailed grouse because more is known about the species than sage-grouse. Efforts are currently underway to identify key players and it is anticipated a meeting will be held towards the end of February 2007. Even though group discussions and progress towards a management plan have been slow, the group has identified several potential flagship projects in the area.

Rich County Coordinated Resource Management (CRM) Sage-grouse Subcommittee

The Rich County CRM Sage-grouse Subcommittee met 8 times in 2006. Because they are a subcommittee of the Rich County CRM, the group has not elected chairs. Subcommittee members include the DWR, Wild Utah Project, USFS, BLM, USUEXT, UFBF, Quality Resource Management (QRM), and Deseret Land and Livestock. In 2006, the subcommittee engaged in the TNC's Conservation Action Planning process which resulted in the completion of a final draft Conservation Plan which was submitted to the Rich County CRM in November. The subcommittee is expecting approval of the Plan from the CRM on January 19, 2007. A series of research projects are ongoing in Rich County; however, none at this time are directly related to sage-grouse.

West Desert Adaptive Resource Management Local Working Group (WDARM)

WDARM met 9 times in 2006, including a field tour in June of BLM fire management sites and sage-grouse research areas in the Deep Creeks. WDARM Co-Chairs are private landowners Alan Mitchell and Boyd White. WDARM partners include USUEXT, DWR, BLM, USFS, NRCS, UFBF, Shambip Soil Conservation District, Tooele County, and Tooele County Extension. In 2006, WDARM engaged in the TNC's CAP process which resulted in the completion of a partial draft Conservation Plan. WDARM anticipates completing the Plan in 2007. WDARM's flagship project is a research project being conducted by USU Master's student, Jason Robinson. In addition, the BLM has engaged in several fuel reduction projects in the Resource Area which have been coordinated with WDARM and designed to benefit sage-grouse. Another flagship project supported by WDARM is the joint USFS/private ranch project in Vernon on Benyon Ranch which includes pinyon-juniper removal and brush treatment to increase vegetation diversity and enhance habitat on the ranch and adjacent USFS parcels to benefit livestock and sage-grouse.

Uinta Basin Adaptive Resource Management Local Working Group (UBARM)

UBARM met 7 times in 2006 including a field tour in the Resource Area to look at UDWR habitat restoration projects and Alan Smith's easement. In 2006, UBARM engaged in the TNC's CAP process which resulted in the completion of a final draft Conservation Plan which will be officially released in February 2007. UBARM has two "flagship" projects and several other habitat enhancement projects. The first "flagship" project is a study of the habitat use, survival, and movement patterns of radio-collared sage-grouse being conducted by the USFS. Another flagship project supported by UBARM is a study of sage-grouse use of fire treatments in aspen stands. The second project is being conducted by the USFS in cooperation with USU PhD student Eric Thacker. As mentioned, other projects are being conducted in the Resource Area, primarily by the DWR, to restore sagebrush habitats for sage-grouse and other wildlife species.

Strawberry Valley Adaptive Resource Management Local Working Group (SVARM)

SVARM has met 6 times in 2006 including one breakfast-business meeting and lek count/search that involved several SVARM partners. SVARM has not elected group chairs to date. SVARM partners include USU Extension, Brigham Young University, DWR, NRCS, USFS, UFBF,

Friends of Strawberry Valley, Wasatch County, Wasatch County Extension, and the Utah Mitigation and Reclamation Commission. In 2006, SVARM engaged in TNC's CAP process which resulted in a final Conservation Plan which was distributed in January 2007. SVARM's primary flagship project is a study of sage-grouse that has been ongoing since 1998/1999. Graduate students from Brigham Young University (BYU) have been monitoring radio-collared sage-grouse, both resident and translocated hens, to determine survival, recruitment, movement patterns, and habitat selection. SVARM has also helped to coordinate or support other habitat restoration projects in the Resource Area including seeding on the Alan Smith easement, pinyon-juniper removal, and brush thinning at Trout Creek.

Morgan/Summit Adaptive Resource Management Local Working Group (MSARM)

MSARM met 4 times in 2006. MSARM elected Arlin Judd (landowner) and Darrell Eddington (USUEXT) as Co-Chairs. MSARM partners include USUEXT, Morgan County Extension, Summit County Extension, UFBB, NRCS, USFS, DWR, QRM, and Deseret Land and Livestock. In 2006, MSARM engaged in TNC's CAP process which resulted in the completion of a sage-grouse conservation plan for the local area. In June 2006, the final Conservation Plan was presented to the local chapters of the Summit and Morgan County Farm Bureau in an effort to garner additional support for plan implementation. MSARM has not identified as a major flagship project. The group has discussed the need to evaluate the effects of second home developments on sage-grouse habitat use and movements.

Monticello/Dove Creek Gunnison Sage-grouse Local Working Group

The Monticello/Dove Creek local working group met 3 times in 2006. The group does not currently have elected chairs. Partners in the group include USUEXT, Colorado State University Extension, DWR, Colorado Division of Wildlife, BLM, USFS, UFBB, San Juan County Extension, San Juan County, and TNC. In 2006, the group reformed, combining the existing local working groups in Monticello and Dove Creek into one organization. The group has been working towards meeting objectives outlined in the Rangewide Plan for Gunnison Sage-grouse and has been reporting on their activities, prioritizing strategies and actions, and ranking threats identified in that document. USUEXT, the DWR, the BLM, and several private landowners in Utah are working together on a flagship project investigating the use of wet meadows in Conservation Reserve Program (CRP) fields by sage-grouse and the efficacy of perch deterrents or discouragers to migrate avian predation on sage-grouse. Phoebe Prather, a PhD student at USU, is working on these projects.

Color Country Adaptive Resource Management Local Working Group (CoCARM)

CoCARM met 8 times in 2006. CoCARM has not elected group chairs to date, after the elected chair left the group for another job. CoCARM's active partners include USUEXT, DWR, NRCS, USFS, UFBB, Garfield and Kane County Extension and local residents. In 2006, CoCARM engaged in TNC's CAP process which resulted in a final Conservation Plan which is slated for distribution in February 2007. Currently, CoCARM is creating informational kiosks to inform public of sage-grouse natural history and management. They are also consulting with two groups that whose activities could impact threaten sage-grouse leks in the valley – a home

development company and a mining company. The Alton sage-grouse project is finished its 2nd year. We are in the process of analyzing data collected, with some interesting results already illuminated that will be addressed in the next couple of years. This spring will begin a predator presence/absence survey in the LOCAL WORKING GROUPS focus area to determine the predator community. This spring/summer season we will use artificial nests to determine nest-predators of grouse in the area, prior to determining a predator management strategy.

Southwest Desert Adaptive Resource Management Local Working Group (SWARM)

SWARM met 8 times in 2006. SWARM has not elected group chairs to date, after the elected chair left the group for another job. SWARM's active partners include USUEXT, DWR, NRCS, USFS, UFBF, Iron and Beaver County Extension and local residents. In 2006, SWARM engaged in TNC's CAP process which resulted in a final Conservation Plan which is slated for distribution in February 2007. This fall, we began the first phase of the Hamlin Valley Project. This first research project will determine the impact of a Tebuthiron (Spike) application on the sagebrush-steppe community on vertebrates (particularly sage-grouse), invertebrates, and plant species in the southwest. Additionally, a research project will begin in the spring of 2007 to compare vegetation growth post-wildfire in areas that were seeded to those that were not.

Meetings, Workshops, and Other Activities where CBCP staff participated or presented papers/posters

Sarah Lupis in cooperation with co-authors Terry Messmer and Todd Black published the results of a 2001/2002 study on use of Conservation Reserve Program by Gunnison sage-grouse (*C. minimus*). This study was published in the Volume 34, Issue 4 of The Wildlife Society Bulletin. In February 2006, Sarah Lupis gave an oral presentation at the Utah Chapter of The Wildlife Society Annual Meeting in Moab. The talk, titled "Take Action! The Past, Present, and Future of Sage-grouse Conservation in Utah" won best professional paper of the conference. In May 2006, Sarah Lupis and Nicki Frey attended the Association of Natural Resource Extension Professionals bi-annual meeting in Park City, Utah. Sarah Lupis presented a poster of the "Take Action!" paper at this conference. In June 2006, the Community Based Conservation team attended the Sage- and Colombian Sharp-tailed Grouse Technical Meeting in Spearfish, SD, where Sarah Lupis gave the "Take Action!" talk as an oral paper and the oral paper of the Gunnison sage-grouse paper. David Dahlgren, a USU graduate student, presented the results of management experiments conducted on Parker Mountain. Additionally the group presented a poster of the history of sage-grouse conservation efforts in Utah during the past decade.

In June 2006, Sarah participated in a field tour sponsored by the Utah Partners for Conservation and Development and the Great Basin Research Institute in Utah's West Desert. In August 2006, Sarah completed a training workshop on the population modeling program MARK sponsored by USU and the DWR. In September Sarah, Nicki, and Terry attended the Annual Conference of The Wildlife Society in Anchorage, AK where Sarah again presented the "Take Action!" paper. David Dahlgren presented a poster on the management experiments being conducted by PARM. Terry Messmer presented a paper on the status of local working groups. Also in September 2006, Terry Messmer addressed the Pinedale, Wyoming, sage-grouse local

working group regarding PARM experiences with habitat and predator management. In October 2006, Sarah Lupis was an invited speaker at the TNC/BLM Learning Network Workshop in Park City, Utah, where she spoke about the use of CAP by local working groups and the CBCP team in Utah. In October 2006, Sarah Lupis, Nicki Frey, and Terry Messmer attended the Wildlife Extension Specialists tri-annual conference in Big Sky, Montana. Sarah Lupis presented the "Take Action!" paper. Terry Messmer also presented 2 papers, one on the Sage-grouse Restoration Project and another on Utah's Community-based Conservation program. In November, Todd Black and Sarah Lupis hosted a booth at the Utah Farm Bureau Federation annual meeting in Salt Lake, Utah. In December 2006, Todd Black, Sarah Lupis, and Nicki Frey completed a workshop on facilitation techniques conducted by Leadership Strategies, Inc.

In 2006, we produced 4 newsletters that were distributed quarterly to over 800 partners and program participants. All the newsletters, meeting minutes, and local working group plans can be found on the Community-based Conservation web site (www.cnr3.usu.edu/cbcp/).

2007 Plan of Work

In 2007, CBCP specialist will finalize the remaining 4 plans and begin working with local partners to implement new projects and evaluate on-going work. In addition, we will conduct Utah's Inaugural Sage-grouse Summit in March 2007 and host several field tours of projects sites. Also in 2007, we will work with the DWR Dedicated Hunter Program to identify and train volunteers to assist in conducting sage-grouse lek counts in northern Utah according to DWR protocols. One of the difficulties each local working group faces is the lack of personnel and training to adequately survey and conduct lek counts of strutting males. These data are crucial to monitoring long-term sage-grouse population trends. Based on the results of the 2007 effort, the program may be modified and implemented by the other local working groups. Additionally; we will continue to work to engage local high school and junior high science teachers in local working group project monitoring activities, participate in professional conferences and workshops, and engage in communication and outreach efforts (i.e. Newsletter, web site, etc.). Finally, we will work with local working groups to track and evaluate progress on local conservation plan objectives and adaptively manage local sage-grouse populations and habitats.