Rich County Coordinated Resource Management Sage-grouse Local Working Group

The Rich County Coordinated Resource Management (RICHCO) Sage-grouse Local Working Group is facilitated by Mr. Todd A. Black. The RICHCO consists of state and federal agency personnel, representatives from local government, non-profit organizations, academic institutions, private industry, and private individuals.

In 2010/11, the group met formally three times to discuss strategies and actions and receive research updates. Additionally, one field tour was held to view and discuss research efforts and implement actions and strategies.

Figure 7. The Rich County Coordinated Resource Management (RICHCO) Sage-grouse Local Working Group Conservation Area consists of 661,760 acres located in north-eastern Utah.

This information below summarizes efforts made by individual and partners to address threats and strategic actions for the Rich County Greater Sage-grouse Local Conservation Plan and by the USFWS (2010). This adaptive plan is in effect until the year 2016. RICHCO partners not only reported on specific actions completed or addressed in 2009-2010 but also identified steps to be taken to implement addition actions into subsequent years of the plan. In 2011, RICHCO and USU received funding through the NRCS SGI to begin a multiple year evaluation of the relationship between rotational and season-long livestock grazing and sage-grouse vital rates and habitat-use patterns. This will involve comparing sage-grouse vital rates and habitat-use on Deseret Land and Livestock (DLL, rotational grazing) to the BLM Three Creeks Allotment (seasonlong grazing). The Three Creeks Allotment Project is discussed in detail below. For the complete list of threats identified by the RICHCO group, see page 64 of the conservation plan located on line at http://utahcbcp.org/files/uploads/rich/RICOSAGRPlan_Draft1.pdf

Conservation Strategies and Actions

1. Strategy: By 2016 increase amount of breeding habitat in "good" condition in the northern two-thirds of the County.

1.1. Action: Work with public and private partners to implement rest-rotation/time controlled grazing management strategies, where appropriate.

Three Creeks Allotment consolidation (146,000 acres) work continues to work towards this action. This allotment will convert from 27 individual allotments managed under seasonlong grazing to a single rotational grazing operation to mimic the management in place on Desert Land and Livestock. Scoping and NEPA process will continue over the next 2 years, hopefully to be implemented in 2014. All piping and water work was completed in

efforts towards this project. Work continues in the North Rich Allotment to put two cross fences in large pasture to implement a rest-rotation grazing system. One fence was built in 2009, and the other will be put in summer 2011. The Birch Creek fencing project one built one temporary electric to implement rest-rotation in an 8000 acre pasture of private ground.

1.2. Action: Implement appropriate treatments and seeding in CRP fields and stands dominated by crested wheatgrass.

Approximately 400 acres came out of AGG production and went into CRP with wildlife friendly seed mix.

1.3. Action: Work with NRCS and private partners to implement Farm Bill programs beneficial to sage-grouse.

SGI was introduced in 2010, NRCS partners are working with three different landowners who have signed up and will be implementing projects in subsequent years (2012).

1.4. Action: Work with public and private partners to research/monitor effects of treatments on sage-grouse populations and habitat.

Open Range Consulting is working with DLL and permittees doing some work looking at production and bare ground. Partners have applied for NRCS grants to further research monitoring efforts throughout the county.

Partners: NCRS, BLM, UDWR, CRM, USFS, private partners, USFWS.

Threats Addressed: Vegetation management.

Aspects of Sage-grouse Ecology Addressed: Breeding habitat quality, connectivity of seasonal habitat types.

2. Strategy: Minimize impacts of agricultural conversion on sage-grouse.

2.1. Action: Maintain the CRP program and improve its benefit to wildlife by altering seed mixes to include a greater proportion of ecologically appropriate species.

In 2012, nine CRP renewals and three new sign ups were completed. None of the nine renewals are doing anything to improve or maintain existing cover. Grazing will be done every three years under the new program.

2.2. Action: Maintain or reestablish sagebrush patches of sufficient size and appropriate shape to support sage-grouse between agricultural fields.

Partners are working on the Big Creek area to identify areas that can be treated to design appropriate shape in these areas.

2.3. Action: Work with NRCS and others to maintain the CRP program and enroll important sage-grouse habitats currently in grain production.

Approximately 400 acres came out of agriculture production and went into CRP with wildlife friendly seed mix.

2.4. Action: Encourage use of sage-grouse friendly seed mixes, including bunchgrasses, forbs and sagebrush, in CRP and other grassland plantings.

Partners working with NRCS to develop a good wildlife seed mix to plant in new CRP areas.

2.5. Action: Rehabilitate old low diversity, CRP fields with ecologically appropriate seed mixes including bunchgrasses, forbs, and sagebrush.

No renewals were required to do any maintenance with existing CRP fields.

2.6. Action: Encourage interest and enrollment of key sage-grouse habitats in the Grassland Reserve Program or other relevant Farm Bill programs.

Much focus was put in SGI and several landowners signed up in 2010. The program will continue through 2011.

2.7. Action: Work with NRCS and private partners to identify areas important to sage-grouse that should be given higher priority for CRP.

On going, more areas are being identified as we continue to learn where the grouse are going seasonally and what habitat they are using.

2.8. Action: Work with public and private partners to implement sage-grouse appropriate management of CRP.

The LWG decided to remove in 2011 due to redundancy with other action items.

Partners: NRCS, CRM, private partners, UACD, UFBF.

Threats Addressed: Invasive/noxious weeds, vegetation treatments.

Aspects of Sage-grouse Ecology Addressed: Seasonal habitat quality, connectivity of seasonal habitat types.

3. Strategy: Maintain and/or increase amount of winter habitat in "good" condition in the Southern Subunit through the use of appropriate treatments and/or land management strategies.

Some work was done with the BLM to try and rejuvenate sagebrush with aerator and grazing in the Woodruff Coop WMA/Dog Hollow. Much concern has been expressed with the number of pronghorn. UDWR is working with partners to reduce populations of pronghorn in the southern sub unit and on the Coop.

3.1. Action: Work with public and private partners to manage livestock grazing to increase quality and condition of sagebrush stands, where appropriate.

Some concerns have been expressed with grazing practices and the condition of the winter range. Discussion has been had with the group to work on some of the critical winter range.

3.2. Action: Work with public and private partners to avoid sagebrush-reducing grazing in areas important for winter use, where feasible.

Some concerns have been expressed with grazing practices and the condition of the winter range. Alternative grazing ideas were discussed on DLL, including electric fencing and herding cattle seasonally.

3.3. Action: Plant sagebrush seedlings into crested wheatgrass stands, where appropriate and feasible.

No work re-seeding of sagebrush seedlings has been implemented. Summer of 2011, Ruby Pipeline corridor will be seeded in some areas to a sagebrush mix.

Partners: UDWR, BLM, private partners, NRCS, SITLA, UACD, USFWS.

Threats Addressed: Livestock grazing, vegetation treatments, fire.

Aspects of Sage-grouse Ecology Addressed: Winter habitat quality, population distribution, connectivity of seasonal habitat types, connectivity of populations and subpopulations.

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

4.1. Action: Comment on BLM/USFS fire plans.

Fire plans are discussed with the CRM group.

4.2. Action: Re-seed sites, post-burn, with ecologically appropriate seed mixture to prevent the establishment of cheat-grass and other invasive/noxious species.
No reseeding efforts were conducted in conjunction with the few control burns in Bear Lake Plateau, these areas had good understory in higher elevations.
4.3. Action: Use fire management to reduce sagebrush canopy cover and create diverse sagebrush stands in brood-rearing and summer use areas, where appropriate.
A few control burns in Bear Lake Plateau area were completed on private lands, these areas had good understory in higher elevations.

Partners: BLM, USFS, UDWR, SITLA, private partners, NRCS.
Threats Addressed: Fire, invasive/noxious weeds, vegetation management, *PJ encroachment. Group decided to remove in 2011 due to the absence of PJ in sage-grouse habitat in Rich County.*
Aspects of Sage-grouse Ecology Addressed: Seasonal habitat quality, connectivity of seasonal habitat types.

5. Strategy: Maintain and where possible, improve grass/forb component in the understory in nesting and brood-rearing areas.
5.1. Action: Reclaim and/or reseed areas disturbed by treatments when necessary, using seed mixtures with appropriate grasses and desirable forbs.
Ruby Pipeline mitigation will start this summer/fall and will be re-seeding grass/forb/sagebrush mix.
5.2. Action: Restore understory vegetation in areas lacking desirable quality and quantity of herbaceous vegetation where economically feasible.
Birch Creek and Three Creeks projects are working towards this issue. Additionally the aerator project and grazing practices on the Woodruff Coop (grazing association) are working towards this goal as well. In addition, Ruby Pipeline mitigation will start this summer/fall and will be re-seeding grass/forb/sagebrush mix.
5.3. Action: Work with public and private partners to implement rest-rotation/time controlled grazing management strategies, where appropriate.
Three Creeks allotment consolidation (146,000 acres) work continues towards this action. Scoping and NEPA process will continue over the next two years, hopefully to be implemented in 2014. All piping and water work was completed in efforts towards this project. Work continues in the North Rich Allotment to put two cross fences in large pasture to implement a rest-rotation grazing system. One fence was built in 2009, and the other will be put in summer 2011. The Birch Creek fencing project one built one temporary electric to implement rest-rotation in an 8000 acre pasture of private ground.
5.4. Action: Conduct vegetation treatments to improve grass/forb diversity (e.g., harrowing, aerating, chaining) and reclaim or reseed disturbed area, if needed.
BLM aerated areas in the Woodruff Coop WMA.
5.5. Action: Develop management techniques to increase grass/forb diversity and density in sagebrush steppe, within limits of ecological sites and annual variations.
Three Creeks allotment consolidation (146,000 acres) work continues towards this action. Scoping and NEPA process will continue over the next two years, hopefully to be implemented in 2014. All piping and water work was completed in efforts towards this project.

5.6. Action: Avoid land use practices that reduce soil moisture, increase erosion, cause invasion of exotic plants, and reduce abundance and diversity of forbs.
On going. CRM reviews any land use practices. Ruby Pipeline went through the area in 2010/11the CRM group will be visiting areas in their field tour in 2011.
5.7. Action: Design spring improvements/developments that are favorable for livestock and sage-grouse that fall in nesting and brood-rearing areas.
Most current springs are designed (troughs are floated so water stays in the troughs—this keeps springs from drying out and keeps the wet meadow areas intact) to keep the green/wet meadow areas while maintaining water in the troughs for the livestock.

Partners: UDWR, CRM, USFS, NRCS, BLM, private partners, USFWS.
Threats Addressed: Vegetation management, livestock grazing, invasive/noxious weeds.
Aspects of Sage-grouse Ecology Addressed: Breeding habitat quality, summer/late broodrearing habitat quality, connectivity of seasonal habitat types, population distribution.

6. Strategy: Increase information dissemination and education opportunities for public and private partners regarding sage-grouse ecology and habitat needs.

6.1. Action: Develop educational materials (brochures, presentations, etc.) about sage-grouse ecology, habitat needs, and habitat management strategies.
Four issues of Community Based Conservation newsletter were distributed to area stakeholders. A landowner guide for sage-grouse was competed July 2011.
6.2. Action: Share information and educational materials with CRM and other partners through use of printed materials, field tours, websites, reports, and other opportunities.
In addition to the above, there were several (5) field tours with Three Creeks and DLL to discuss projects and future improvements. Partners reported on research activities etc. See http://www.utahcbcp.org/htm/groups/richcounty for more info.
6.3. Action: Support involvement of public and private partners in sage-grouse monitoring (lek counts, brood counts, etc.) and management.
Ongoing process within the CRM.

Partners: USUEXT, CRM, NRCS, USU College of Natural Resources, BLM, UDWR, USFS, SITLA, private partners.
Threats Addressed: All
Aspects of Sage-grouse Ecology Addressed: All

7. Strategy: By 2016, increase percentage of riparian areas in Rich County that are functioning properly and provide suitable for sage-grouse brood-rearing habitat.

7.1. Action: Work with public and private partners to implement appropriate grazing management practices in riparian areas.
Working towards this action in Three Creeks and Birch Creek to protect and maintain function of the Riparian areas. Additional information is being collected through Open Range Consulting, Inc.
7.2. Action: Work with public and private partners to implement appropriate management to reduce amount of noxious/invasive weeds in riparian areas.
NRCS partners work with county weed boards to address problem and noxious weeds in riparian areas.

7.3. Action: Modify or adapt pipelines or developed springs to create and maintain small wet areas. Group decided to add 'maintain' above to this action in 2011
Springs are designed (troughs are floated so water stays in the troughs—this keeps springs from drying out and keeps the wet meadow areas intact) to keep the green/wet meadow areas while maintaining water in the troughs for the livestock.
7.4. Action: Manage existing wet meadows and riparian areas, with a focus on those areas in crucial sage-grouse brood-rearing habitats.
Working towards this action with the Three Creeks and Birch Creek projects see above.
7.5. Action: Manage vegetation and artificial structures to increase water-holding capability of areas.
No action taken in 2010/11.
7.6. Action: Install catchment structures to slow run-off, hold water, and eventually raise water tables.
No action taken in 2010/11.

Partners: BLM, NRCS, County Weed Board, USFS, private partners, UDWR.
Threats Addressed: Livestock grazing, vegetation management, drought/weather.
Aspects of Sage-grouse Ecology Addressed: Summer/late brood-rearing habitat quality, connectivity of seasonal habitat types.

8. Strategy: Increase practice of time-controlled, seasonally appropriate, rest-rotation grazing.
8.1. Action: Encourage small operators to combine herds and allotments to provide restoration with minimal fencing.
Accomplished through CRM and partners annually.
8.2. Action: Facilitate cooperation and communication between private livestock operators.
Accomplished through CRM and partners annually.
8.3. Action: Provide educational opportunities for private operators about benefits of time controlled grazing.
Accomplished through CRM and partners annually.
8.4. Action: Provide incentives (habitat project approval from CRM, UDWR, BLM, etc.) for cooperation between private partners.
Accomplished through CRM and partners annually.
8.5. Action: Avoid dividing allotments into pastures, where possible.
Group decided to delete this Action in 2011 due to it being counter intuitive.

Partners: CRM, NRCS, DLL, USUEXT, private partners, County Commission, BLM, USFS
Threats Addressed: Livestock grazing, fences.
Aspects of Sage-grouse Ecology Addressed: Seasonal habitat quality, population distribution, connectivity of seasonal habitat types.

9. Strategy: Minimize the impact of excessive predation.
9.1. 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 problem areas have been identified to modify.

9.2. Action: Remove trees, remove/modify raptor perches, and maintain quality sagebrush habitat, where predation concerns on sage-grouse have been identified.
Group decided to delete this Action in 2011 due to no real problem areas and problem trees.
9.3. Action: Begin site-specific predation management considering all predator species (especially common ravens and red fox) where necessary and appropriate.
WS and local landowners/Rich County coyote bounty are working to reduce coyote populations. No WS work specifically addressing foxes or ravens in 2011.

Partners: USDA-WS, UDWR, CRM, BLM, USFS, private partners.
Threats Addressed: Powerlines, fences, and other tall structures, roads, predators.
Aspects of Sage-grouse Ecology Addressed: Population size, population distribution.

10. Strategy: Improve knowledge of disease in sage-grouse populations.
10.1. Action: Collect grouse parasite and disease organism samples while handling birds for other research.
No samples collected, no apparent disease issues on birds found in 2010/11.
10.2. Action: Monitor radio collared and other grouse for West Nile Virus and other disease outbreaks.
No action taken in 2010/11

Partners: USU, UDWR, BLM, USFS, private partners, CRM.
Threats Addressed: Parasites/disease.
Aspects of Sage-grouse Ecology Addressed: Population size, connectivity of populations/subpopulations.

11. Strategy: Minimize impacts of utilities lines in sage-grouse habitat.
11.1. Action: Avoid new construction during important periods and re-route lines where technically and economically feasible to avoid impacts. If new power lines must be installed, route them along existing roads if possible.
No action/no lines in 2010/11.
11.2. Action: Schedule maintenance to minimize important periods, however, maintenance in emergency situations will be unrestricted.
No action/no lines in 2010/11.
11.3. Action: Install raptor deterrents when applicable.
No action/no lines in 2010/11.

Partners: BLM, USFS, UDWR, CRM, private partners.
Threats Addressed: Powerlines, fences, and other tall structures, roads.
Aspects of Sage-grouse Ecology Addressed: Population size, connectivity of seasonal habitats, connectivity of populations and subpopulations.

12. Strategy: Minimize impacts of exotic, invasive, and undesirable plant species.
12.1. Action: Identify areas where undesirable vegetation is encroaching on sage-grouse habitat.
No action taken to date.

12.2. Action: Treat areas where undesirable vegetation has become or is at risk of becoming a factor in sage-grouse habitat loss or fragmentation.
No action taken to date.
12.3. Action: Work with existing weed management programs to incorporate sage-grouse habitat needs.
No action taken to date.
12.4. Action: Identify large areas of introduced plant species that are not meeting sage-grouse habitat needs and reseed with native species where appropriate.
No action taken to date.
12.5. Action: Identify areas where pinyon or juniper trees are encroaching on good quality sagebrush habitat and treat as needed.
No areas identified in the county at this time.
12.6. Action: Manage fire, transportation, and vegetation treatments to minimize undesirable vegetation where possible.
No action taken to date.

Partners: UDWR, NRCS, County Weed Board, USUEXT, BLM, USFS, private partners.
Threats Addressed: Invasive/noxious weeds, fire, roads, vegetation treatments, *PJ encroachment not currently a problem in resource area*
Aspects of Sage-grouse Ecology Addressed: Seasonal habitat quality

13. Strategy: Minimize the amount of quality sage-grouse habitat eliminated by residential and commercial land development consistent with private property rights.
13.1. Action: Participate with County land use decision makers in identifying key sage-grouse habitats.
No urban development occurred in 2010/11.
13.2. Action: Maintain sagebrush environments of sufficient size and shape around developments in sage-grouse habitat.
No urban development occurred in 2010/11.
13.3. Action: Encourage the voluntary use of conservation easements and other land protection vehicles with willing sellers in sage-grouse habitats.
NRCS conservation easement is in the works for certain areas in Duck Creek (440 acres). USFWS is implementing their Bear River Conservation Efforts that will allow funding for Easements.
13.4. Action: Educate rural residents about the importance of good grazing management in keeping small tracts weed free and capable of providing wildlife habitat.
Group decided to delete this Action in 2011 due to redundancy.

Partners: UDWR, CRM, Rich County Commission, Rich County Planning Department, USUEXT.
Threats Addressed: Home/cabin development, roads, powerlines and other tall structures.
Aspects of Sage-grouse Ecology Addressed: Connectivity of seasonal habitats, seasonal habitat quality.

14. Strategy: By 2016, increase population and habitat monitoring efforts in Rich County.

14.1. Action: Encourage public and private partners to use techniques from Connelly et al. (2003b) "Monitoring of Greater Sage-grouse Habitats and Populations".
Group accomplished this through the CRM process.
14.2. Action: UDWR biologists will coordinate with private partners to identify sage-grouse lek sites and count birds on private lands.
Ongoing working with landowners and partners. In 2011, several potential lekking sites were discovered on private lands west of Randolph.
14.3. Action: UDWR to enlist and coordinate private volunteers and/or other agency biologists search for new leks and conduct lek counts on active leks.
CRM partners, USU researchers and QRM have done lek searches through on the ground surveying and aerial surveys. Seven new strutting grounds were located in 2011 consisting of over 150 males. The locations were reported to the UDWR for inclusion in the sage-grouse lek database. These leks will be monitored in future years and additional areas will be searched.
14.4. Action: Encourage, reimbursement for volunteers for mileage, etc.
No action taken in 2010/11. Given reduction in state and federal budgets the role of volunteers in implementing LWG actions will become more important.
14.5. Action: Test dead sage-grouse for West Nile Virus and any other parasites/pathogens of importance.
Group decided to delete this Action in 2011 due to redundancy.

Partners: UDWR, CRM, USU, USUEXT, BLM, USFS, UFBF, private partners.
Threats Addressed: Parasites and disease
Aspects of Sage-grouse Ecology Addressed: Population size, population distribution

15. Strategy: Minimize impacts of oil and gas development on sage-grouse and their habitat.
15.1. Action: Coordinate and communicate with BLM to ensure that adequate information/data is available for decision making process.
Accomplished through CRM process. Several proposals for new wells have been given to BLM and the County.
15.2. Action: Support recommendations that provide for temporal avoidance, minimization of tall structures, and avoid crucial habitat or use areas, where possible.
Accomplished through input from the CRM to the county or BLM.
15.3. Action: Reduce fragmentation of sage-grouse habitat by oil and gas development activities.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.4. Action: Minimize disturbance to sage-grouse associated with oil and gas development.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.5. Action: Reduce cumulative impacts of oil and gas development.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.6. Action: Use directional drilling where feasible to minimize surface disturbance, particularly where will density exceeds 1:160 acres.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.7. Action: Minimize pad size and other facilities to the extent possible, consistent with safety.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.

15.8. Action: Plan and construct roads to minimize duplication.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.9. Action: Cluster development of roads, pipelines, electric lines and other facilities.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.10. Action: Use existing, combined corridors where possible.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.11. Action: Use early and effective reclamation techniques, including interim reclamation, to speed return of disturbed areas to use by sage-grouse.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.12. Action: Reduce long-term footprint of facilities to the smallest possible.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.13. Action: Avoid aggressive, non-native grasses (e.g. intermediate wheatgrass, pubescent wheatgrass, crested wheatgrass, smooth brome, etc) in reclamation seed mixes.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.14. Action: Eliminate noxious weed infestations associated with oil and gas development disturbances.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.15. Action: Minimize width of field surface roads.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.16. Action: Avoid ridge top placement of pads and other facilities.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.17. Action: Use low profile above ground equipment, especially where well density exceeds 1:160 acres.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.18. Action: Avoid breeding/nesting season (March 1 – June 30) construction and drilling when possible in sage-grouse habitat.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.19. Action: Limit breeding season (March 1 – May 1) activities near sage-grouse leks to portions of the day after 9:00 a.m. and before 4:00 p.m.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.20. Action: Reduce daily visits to well pads and road travel to the extent possible in sage-grouse habitat.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.21. Action: Utilize well telemetry to reduce daily visits to wells, particularly where well density exceeds 1:160 acres.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.22. Action: Locate compressor stations off ridge tops and at least 2,500 feet from active sage-grouse leks, unless topography allows for closer placement.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.23. Action: Avoid locating facilities within a minimum of ¼ mile of active sage-grouse leks, unless topography allows for closer placement.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.24. Action: Plan for and evaluate impacts to sage-grouse of entire field development rather than individual wells.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.

15.25. Action: Study, and attempt to quantify, impacts to sage-grouse from oil and gas development.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.26. Action: Evaluate need for near-site and/or off-site mitigation to maintain sage-grouse populations during oil and gas development and production, especially where well density exceeds 1:160 acres.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.27. Action: Implement near-site and/or off-site mitigation as necessary to maintain sage-grouse populations.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.28. Action: Share sage-grouse data with industry to allow for planning to reduce and/or mitigate for impacts.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.
15.29. Action: Update setbacks, mitigation requirements, and spatial and temporal avoidance recommendations as new information becomes available.
No action taken in 2010/11 but several proposals for new wells have been given to BLM.

Partners: UDWR, USFS, BLM, private partners.
Threats Addressed: Renewable and nonrenewable energy development, roads, powerlines and other tall structures, seasonal habitat quality, connectivity of seasonal habitats, connectivity of populations and subpopulations.
Aspects of Sage-grouse Ecology Addressed: Seasonal habitat quality, invasive/noxious weeds, connectivity of seasonal habitat types, connectivity of populations and subpopulations.

16. Strategy: Minimize impacts of utilities lines in sage-grouse habitat.
Group decided to delete this Action in 2011 due to redundancy.
16.1. Action: Avoid new construction during important periods and re-route lines where technically and economically feasible to avoid impacts.
16.2. Action: Schedule maintenance to minimize important periods, however, maintenance in emergency situations will be unrestricted.
16.3. Action: Install raptor deterrents when applicable.

Partners: BLM, USFS, USFWS, UDWR, private partners.
Threats Addressed: Powerlines and other tall structures, fire, invasive/noxious weeds, roads, vegetation management, predation.
Aspects of Sage-grouse Ecology Addressed: Connectivity of seasonal habitats, seasonal habitat quality, connectivity of populations and subpopulations, population size.

17. Strategy: Monitor and manage lek viewing opportunities to make sure they do not become harmful to sage-grouse populations.
17.1. Action: Occasionally conduct lek viewing tours to facilitate access to leks.
No action taken in 2010/11. Currently there has not been any interest expressed by anyone to have a need for this activity.
17.2. Action: Provide educational materials to local birding groups on appropriate lek viewing behavior.

No action taken in 2010/11. Currently there has not been any interest expressed by anyone to have a need for this activity.

17.3. Action: Discourage viewing of sensitive lek areas through access restrictions, increased law enforcement patrols, and effective use of trespass laws.

No action taken in 2010/11. Currently there has not been any interest expressed by anyone to have a need for this activity.

Partners: UDWR, BLM, USUEXT, private partners.
Threats Addressed: None.
Aspects of Sage-grouse Ecology Addressed: Population size, population distribution, breeding habitat quality.

18. Strategy: Initiate and/or maintain monitoring and research efforts to address information gaps identified in this Plan and in future adaptive planning efforts.

18.1. Action: Explore funding opportunities to further scientific research into information gaps identified in this Plan and in future adaptive planning efforts, as needed.

CRM is doing this through applying through various contracts and grants.

18.2. Action: Participate in the Northern Region WRI Regional Team and GIP to develop cooperative relationships with those partners.

Ongoing, accomplished by CRM partners.

18.3. Action: Develop research and/or monitoring protocols to address information gaps identified in this plan and in future adaptive planning efforts.

Ongoing, accomplished by CRM partners.

18.4. Action: Cooperate with USU and other academic institutions to establish graduate student projects designed to investigate information gaps identified in this Plan and in future adaptive planning efforts.

Ongoing, accomplished by CRM partners, several new research projects have been started and/or are scheduled to start in future years.

Partners: CRM, UPCD, NRCS, BLM, USFWS, UDWR, USU, USFS, private partners.
Threats Addressed: All
Aspects of Sage-grouse Ecology Addressed: All

Major Needs and Concerns

Much of what will happen in Rich County over the next 3-5 years will depend greatly on the Three Creeks allotment changes and grazing plan. Research will be initiated in 2011-2012 to collect baseline date on sage-grouse vital rates and seasonal habitat-use. The research is designed compare the effects of season long grazing systems to rest rotation/high stocking rates and short frequency grazing systems on sage-grouse production and habitat quality.

There continues to be concern over oil/gas development that is likely to occur on private lands. Many actions and strategies are in place to deal with oil/gas development but those may not be applicable on private lands. CRM will likely look to the County to assist in the implementation of these actions.