

2 0 1 6   A N N U A L   R E P O R T

# Implementing Utah's Greater Sage-grouse Conservation Plan



UTAH DEPARTMENT OF NATURAL RESOURCES

## CONSERVATION CONTRIBUTORS

Utah Department of Natural Resources

- Division of Wildlife Resources
- Division of Oil, Gas and Mining
- Division of Forestry, Fire and State Lands
- Division of Parks and Recreation

Utah's Watershed Restoration Initiative

Utah Public Lands Policy Coordinating Office

State of Utah School and Institutional Trust Lands Administration

Utah Department of Agriculture and Food

- Grazing Improvement Program

Utah Department of Transportation

Utah Office of Outdoor Recreation, Office of the Governor

Utah Legislature

Participating Utah counties

Utah State University

Utah Community-Based Conservation Program

- Local Working Groups

United States Department of Agriculture

- Natural Resources Conservation Service
- United States Forest Service

United States Department of the Interior

- Bureau of Land Management
- United States Fish and Wildlife Service

The most up-to-date, high-resolution versions of the maps shown in this report are available at [wildlife.utah.gov/sage-grouse](http://wildlife.utah.gov/sage-grouse).

# Implementing Utah's Greater Sage-Grouse Conservation Plan

## *Landscape-scale conservation efforts of the State of Utah and its partners*

### EXECUTIVE SUMMARY

In February 2013, Governor Gary Herbert approved the *Conservation Plan for Greater Sage-grouse in Utah* (also known as the State Plan). It is a wide-ranging plan, developed and implemented by the State of Utah and numerous partners. The plan commits to using the best available science to benefit greater sage-grouse. This report summarizes measures implemented under the direction of the State Plan from Jan. 1, 2016 to Dec. 31, 2016. Utah's State Plan identified 11 Sage-grouse Management Areas (SGMAs), which comprise about 7.5 million acres of land and contain about 94 percent of all greater sage-grouse in Utah. The State Plan also established five major conservation objectives, which serve as benchmarks for achieving

conservation success for sage-grouse in Utah. Those objectives are as follows:

1. Sustain a statewide, 10-year rolling average population of at least 4,100 males on counted leks
2. Enhance 25,000 acres of sage-grouse habitat each year
3. Expand sage-grouse habitat by 50,000 acres each year through habitat restoration
4. Maintain viable populations within each SGMA
5. Protect 10,000 acres of sage-grouse habitat each year through voluntary, incentive-based programs

In 2016, Utah's sage-grouse lek surveys documented 5,183 males, which was a 2.8-percent decrease from the 2015 population



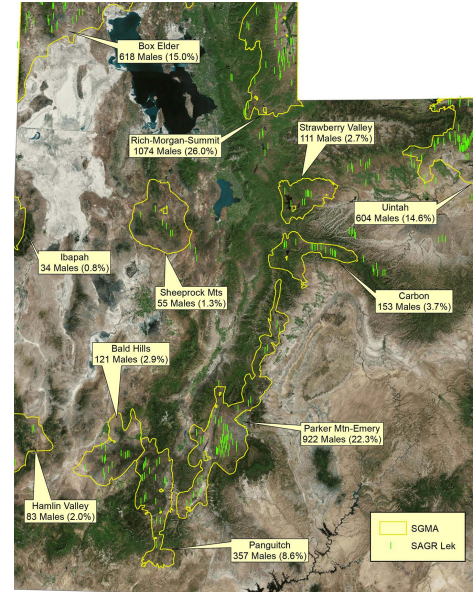
counts. Sage-grouse populations are naturally cyclical and experience population highs and lows in approximately 10-year intervals. Therefore, this decline was anticipated and is likely a result of these natural cycles. Despite this decline, the 10-year rolling average for statewide sage-grouse populations is 4,156, which exceeds the statewide population objective of 4,100 males.

From 2006 to the end of state fiscal year 2015 (June 30, 2016), habitat enhancement and restoration projects were completed on approximately 620,251 acres within Utah's SGMA. Utah's Watershed Restoration Initiative (WRI) enhanced and restored an additional 40,845 acres in SGMA during state fiscal year 2016. The total of 661,096 acres, when combined with the projects implemented and planned by other state and federal part-

ners, exceeded the on-the-ground conservation goals outlined in the State Plan.

Population levels within all SGMA in Utah have remained stable in recent years, with one exception. The population trend in the Sheeprock Mountains SGMA last peaked in 2006 and has declined in recent years. To address this recent population decline, the State of Utah — with collaboration from numerous state, local and federal conservation partners and private landowners — launched an aggressive, adaptive conservation effort.

Finally, since 2013, approximately 28,887 acres have been protected through perpetual conservation easements within SGMA and approximately 5,626 acres through land exchanges within SGMA. On average, approximately 8,628



This map displays the 11 Utah SGMA (yellow outlines) and lek locations (green asterisks). It also shows the number of males counted at leks and the percentage of total males in SGMA in 2016.

acres of habitat in SGMA have been protected each year. For the first time since 2013, this acreage falls short of the habitat protection goal outlined in the state plan. But additional negotiations with private landowners took place during 2016, many of which may be finalized in 2017.

Lawmakers passed Senate Bill 200 during the 2016 General Session of the Utah State Legislature. That bill authorized the Utah Department of Natural Resources to create the State of Utah's Compensatory Mitigation Program for Greater Sage-grouse. That program has been in development since the passage of Senate Bill 200, and is expected to be fully operational during the fall of 2017.

Despite a track record of successful state-led efforts to conserve sage-grouse and their habitats in Utah, the U.S. Bureau of Land Management and the U.S. Forest Service amended their land-use plans in 2015. Those plan revisions continue to place restrictions on the use and management of many federal lands within the state. Utah remains committed to working with its many conservation partners to continue addressing the highest-priority needs of local sage-grouse populations. At the same time, Utah will also work through the courts to address the complexity and local hardships presented in those federal land-use plans.



## CONSERVATION PLAN FOR GREATER SAGE-GROUSE IN UTAH

Implementation of the *Conservation Plan for Greater Sage-grouse in Utah* has been underway since Gov. Herbert approved the plan in 2013.

The State Plan establishes aggressive and quantifiable conservation goals and objectives for greater sage-grouse in Utah. The plan also describes how the State of Utah will manage greater sage-grouse populations and their habitats in order to meet those conservation goals.

On Sept. 22, 2015, the U.S. Fish and Wildlife Service announced that the greater sage-grouse would not be listed under the Endangered Species Act. That decision was at least partially based on the successful implementation of state-led conservation plans and

related conservation work in Utah and other western states.

The State Plan identifies 11 Sage-grouse Management Areas (SGMAs) throughout Utah. These areas are home to approximately 94 percent of Utah's greater sage-grouse. They also comprise 90 percent of Utah's sage-grouse habitat, including its highest quality habitat. These 11 SGMAs encompass 7.5 million acres that meet year-round lifecycle needs for greater sage-grouse. Utah is focusing its habitat-restoration work on the SGMAs because they offer the best opportunity for high-value conservation efforts that directly benefit sage-grouse.

## GOVERNOR'S EXECUTIVE ORDER

In February 2015, Gov. Herbert signed an Executive Order for Greater Sage-grouse in Utah (EO2015/002). That order directed

all appropriate executive branches of Utah government to facilitate the implementation of the State Plan.

As discussed in the 2015 annual report, the Utah Division of Wildlife Resources (DWR) and the Governor's Public Lands Policy Coordinating Office (PLPCO) have finalized a customized memorandum of understanding (MOU) with each of the following state agencies: the Division of Forestry, Fire and State Lands; DWR; Division of Parks and Recreation; Division of Oil, Gas and Mining; Department of Natural Resources; Department of Agriculture and Food; Governor's Office of Out-

door Recreation; PLPCO and the Department of Transportation.

Each MOU identifies the steps each agency will take to help implement the State Plan. To track the effectiveness of these MOUs — and to provide ongoing oversight, coordination and accountability of the commitments made in each MOU — DWR and PLPCO developed an online reporting framework to document past and ongoing agency-coordination efforts that occur statewide.

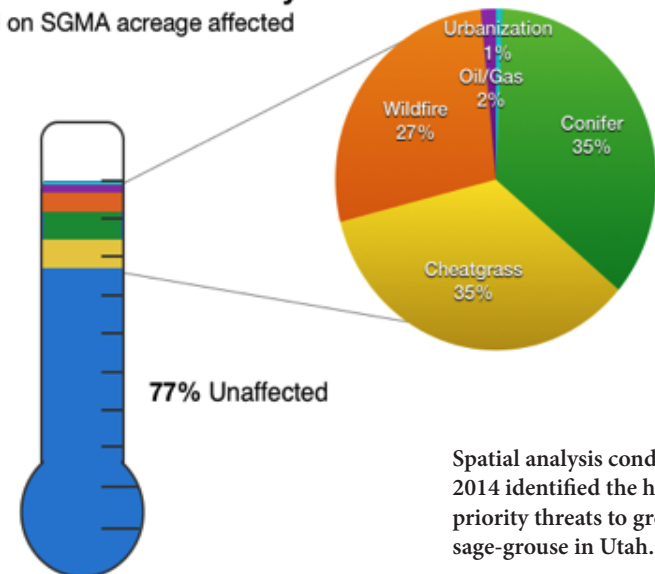
Use of that tracking tool continued throughout 2016. At the time of this writing, 279 coordination records had been entered into the database. Information stored there



Gov. Gary Herbert, joined by state officials, signs the Executive Order for Greater Sage-grouse in February 2015.

## Quantified Threat Analysis

Based on SGMA acreage affected



Spatial analysis conducted in 2014 identified the highest-priority threats to greater sage-grouse in Utah.

includes actions related to the following activities, among others:

- Development of a statewide wildfire risk-assessment tool
- Wildfire response and suppression
- Efforts to avoid, minimize and mitigate disturbances to habitats
- Habitat-improvement projects
- Landowner and grazing assistance

This track record of coordination, when combined with the governor's executive order, provides regulatory certainty that state-led conservation efforts will continue to be effective. With these tools, stakeholders can also better balance the socio-economic interests of the State of Utah and its people.

## THREAT ANALYSIS

To strategically guide the implementation of the State Plan within all 11 SGMAs, the DWR conducted a detailed analysis in 2014. That analysis identified the factors that most threatened greater sage-grouse viability and persistence in Utah.

The assessment determined that 77 percent of all greater sage-grouse habitat within SGMAs remained relatively unaffected by threats. The remaining 23 percent of sage-grouse habitat was threatened by a variety of factors, including the following:

- Invasion of nonnative vegetation, including cheatgrass (35 percent)
- Continued conifer encroachment (35 percent)
- Catastrophic wildfires (27 percent)
- Oil and gas development (2 percent)
- Urbanization (1 percent)

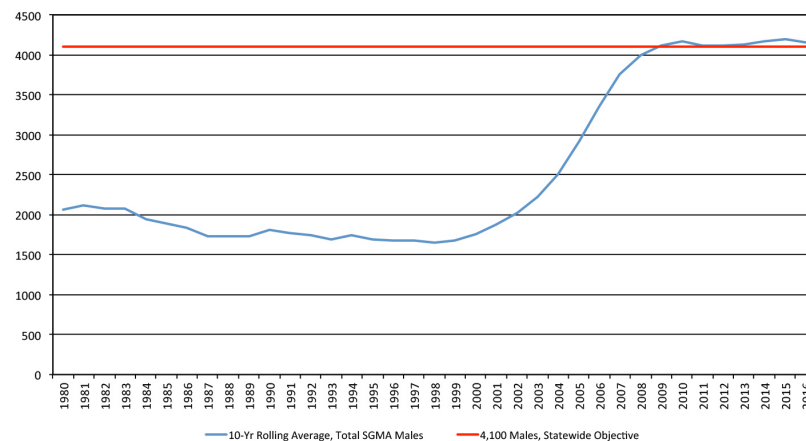
After identifying those factors, the State of Utah and various state, private and federal partners worked aggressively to better understand and mitigate the highest priority threats. The partners then developed customized strategies and solutions that improved the likelihood of successful sage-grouse conservation. Those strategies help the State of Utah and its many conservation partners to meet the conservation objectives outlined in the State Plan.

## ON-THE-GROUND PROGRESS

**State plan objective: Enhance and increase habitat by 75,000 acres each year.**

From 2006 to the end of state fiscal year 2015 (June 30, 2016), habitat enhancement and restoration projects were completed on approximately 620,251 acres within Utah's SGMAs. Utah's Watershed Restoration Initiative (WRI) enhanced and restored an additional 40,845 acres in SGMAs during state fiscal

10-YEAR ROLLING AVERAGE OF MALES COUNTED IN SGMAS 1980-2016



The 10-year rolling average of all male greater sage-grouse counted at leks (blue line) from 1980 to 2016. The red line indicates the statewide population objective.

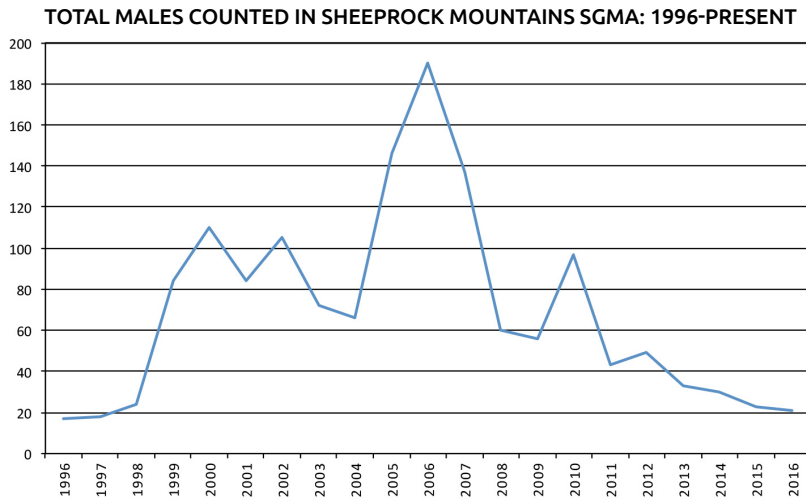
year 2016. The total of 661,096 acres, when combined with the projects implemented and planned by other state and federal partners, exceeded the on-the-ground conservation goals outlined in the State Plan.

## POPULATION MONITORING

**State plan objective: Maintain a 10-year rolling average of 4,100 males counted on a minimum of 200 leks.**

To assess whether Utah's greater sage-grouse are meeting population objectives, biologists monitor population trends every spring during the peak breeding season. They count the number of strutting males on breeding grounds, which are commonly known as

leks. These proven and widely accepted monitoring protocols have been conducted in Utah since 1959. In 2016, Utah's sage-grouse lek surveys documented 5,183 males, which was a 2.8% decrease from the 2015 population counts. Sage-grouse populations are naturally cyclical and experience population highs and lows in approximately 10-year intervals. Therefore, this decline was anticipated and is likely a result of these natural cycles. Despite this decline, the 10-year rolling average for statewide sage-grouse populations is 4,156, which exceeds the statewide population objective of 4,100 males.



The total number of male sage-grouse counted at monitored leks in the Sheeprocks SGMA, 1996 to 2016.

## POPULATION VIABILITY

### *State plan objective: Maintain viable populations within each SGMA.*

Population levels within all SGMAs in Utah have remained stable in recent years, with one exception. The population trend in the Sheeprock Mountains SGMA last peaked in 2006 and has declined in recent years. To address this recent population decline, the State of Utah — with collaboration from numerous state, local and federal conservation partners and private landowners — launched an aggressive, adaptive conservation effort.

In June 2015, the Utah Conservation Plan Implementation Council (PIC) identified the Sheeprocks SGMA as an area of immediate conservation priority. The PIC then directed the DWR to organize a specialized task force to identify the factors limiting population growth in the Sheeprocks SGMA, as well as the steps, resources and activities needed to address those factors.

In July 2015, key stakeholders held an onsite field tour with the West Desert Adaptive Resource Management Committee (WDARM) to discuss ongoing conservation actions. Since that time, the WDARM has functioned as the Sheeprocks SGMA task force, and



The Birch Creek Ranch South easement is one of many perpetual easements negotiated since 2013 with the goal of protecting sage-grouse habitat throughout Utah.

the highest-priority needs have been delegated to various partners within the WDARM. In its role as the task force, the WDARM has accomplished the following:

1. Identified priority areas for habitat restoration and the methods, partners, funds and conservation tools needed to accomplish those projects.
2. Increased predator management efforts SGMA-wide, with added emphasis on corvids and red foxes near known leks.
3. Obtained support and approval to translocate greater sage-grouse from the Box Elder and Parker Mountain-Emery SGMAs to the Sheeprocks SGMA. The support came from

the West Box Elder and Parker Mountain-Emery Adaptive Resource Management Committees and the DWR's Northern and Southern Region Advisory Councils. Final approval came from the Utah Wildlife Board in January 2016. The Sheeprocks SGMA population augmentation began in the spring of 2016, along with focused predator control in and near the release sites.

4. Identified local research needs, secured collaborative long-term funding to complete research, and coordinated the start of that research to monitor the effectiveness of the translocation efforts.



5. Continued meeting regularly to discuss ongoing efforts and challenges. The task force also identified the resources needed to further expedite implementation of these priority conservation actions.

## HABITAT PROTECTION

*State plan objective: Ensure that at least 10,000 acres of habitats are protected within SGMAs annually through conservation covenants, easements, leases or other tools.*

Since 2013, the DWR and various conservation partners have negotiated conservation easements and land exchanges in SGMAs

throughout Utah. The goal of these negotiations is to protect at least 10,000 acres annually. Since the signing of the State Plan in 2013, approximately 28,887 known acres have been protected through perpetual conservation easements in SGMAs. Moreover, approximately 5,626 known acres have been protected via land exchanges in SGMAs.

On average, approximately 8,628 acres of habitat in SGMAs have been protected each year. Various stakeholders are currently negotiating additional agreements, with the goal of meeting the annual habitat-protection objective in 2017.



## ADAPTIVE CONSERVATION

The State Plan promotes the “avoid, minimize and mitigate” approach to habitat disturbance, which is one of its most important tenets. Biologists at the DWR, in collaboration with private partners and stakeholders at all levels of government, seek to avoid permanent disturbance within greater sage-grouse habitat whenever possible. If avoidance is not an option, the State Plan encourages solutions that seek to minimize the scope and scale of any disturbance, wherever and whenever possible.

Records within the MOU coordination database confirm that on-the-ground coordination has led to collaborative, effective conservation solutions. In those instances where disturbance cannot be avoided, mitigation should provide net conservation gain for the species. The State Plan has established a mitigation framework and corresponding mitigation ratios to ensure that the goal is met. Typically, for each acre of sage-grouse habitat that is disturbed, developers are encouraged to provide four acres of new or enhanced habitats (i.e., a 4:1 compensatory mitigation ratio).

To facilitate the implementation of effective and responsible project mitigation, Gov. Herbert’s executive order directed the Department

of Natural Resources to develop a formal compensatory mitigation program. The development of that program continued during 2016, and is expected to be fully functional during fall of 2017. The goal of the program is to help ensure that permanent disturbances to sage-grouse habitats throughout Utah will be compensated for, and will ultimately contribute to the conservation goals specified in the State Plan.

## PARTNERSHIP WITH PRIVATE LANDOWNERS

Private landowners have always played a crucial role in sage-grouse conservation in Utah. Thousands of acres of sage-grouse habitat have been restored and protected on private lands in cooperation with the Natural Resource Conservation Service (NRCS), Utah Department of Agriculture and Food (UDAF), Watershed Restoration Initiative and numerous other partners.

In 2015, NRCS announced the implementation of Sage-grouse Initiative 2.0, which is the second generation of an initiative first launched in 2010. The initiative promotes voluntary, incentive-based sage-grouse conservation actions on private lands. Those actions focus on reducing threats posed by catastrophic wild-



The risk and consequences of large-scale, high-intensity wildfires can be minimized by proper planning, coordination and implementation of fire-suppression tactics.

fires and invasive annual grasses. They also prioritize habitat protection and restoration by focusing on conifer encroachment and mesic brood-rearing habitats. The activities of this initiative complement ongoing state-led efforts throughout Utah.

### CATASTROPHIC WILDFIRES

Through a series of agreements and partnerships among many local, state, federal and private partners, the Utah Division of Forestry, Fire and State Lands (FFSL) ensures that every acre of wildland in Utah — including every acre of sage-grouse habitat — is protected by a firefighting entity.

On all private lands in Utah, this protection is provided by local fire departments that are assisted by FFSL fire wardens and various statewide fire-management staff. Those staff members coordinate statewide access to specialized firefighting equipment, training and grants to ensure that all departments have the resources they need to suppress wildfires as quickly and effectively as possible.

Through Gov. Herbert’s Catastrophic Wildfire Reduction Strategy, combined with the Executive Order for Greater Sage-grouse and related MOUs, FFSL is working proactively and collaboratively to protect sage-grouse habitat from the risk of catastrophic wildfire in

*The most up-to-date, high-resolution versions of the maps shown in this report are available at [wildlife.utah.gov/sage-grouse](http://wildlife.utah.gov/sage-grouse).*

Utah. Some of their strategies include the implementation of fuels reduction, fuel breaks and conifer-removal projects. In addition, starting in 2015, FFSL declared sage-grouse its top priority for resource protection, second only to human life and property. Within that context, FFSL oversaw the development of a statewide GIS-based catastrophic wildfire-risk tool in 2015. The tool includes sage-grouse habitat as a priority reference layer and is now being used regionally and statewide to actively plan and prioritize risk-reduction actions.

During the implementation of the Governor’s Executive Order for Greater Sage-grouse, the DWR and the FFSL worked collaboratively to improve the manner in which fires within SGMAs were reported. As a result of those efforts, more fires, including fires that are less than 0.1 acres, are now reported.

In 2016, there were 73 fires that occurred within SGMAs. Those fires ranged from less than 0.1 acres up to 20,319 acres, with an average of just 438 acres burned per fire. These results point to the value of local planning, coordination and organization. Efforts are underway to further improve upon these results and prepare for fire seasons that pose even greater risks to sage-grouse habitats.

### INVASIVE PLANTS – CHEATGRASS INVASION

Cheatgrass is an invasive, highly flammable type of grass that threatens to overtake important habitats for greater sage-grouse. Cheatgrass degrades sagebrush landscapes by outcompeting beneficial grasses, flowering plants (forbs) and sagebrush. The State of Utah and its many partners have taken aggressive steps to combat this problem, including:

6. As needed, after every wildfire within an SGMA, DWR and its partners in the Watershed Restoration Initiative create site-restoration plans. Those plans include custom-designed seed mixes that are consistent with site-specific ecological conditions and restoration-plan objectives, including the restoration of ecosystem function and wildlife forage.
7. Site-specific restoration is completed following the fire, as conditions allow. The goal of restoration efforts is to establish perennial vegetation that will outcompete invasive species, especially cheatgrass.
8. Before certain burn areas are reseeded — particularly areas that contained invasive plant





species prior to the fire — they are treated with target-specific herbicides. Those herbicides reduce the germination and re-establishment of the invasive species. These extra treatments also help the subsequently seeded perennial species compete with invasive species.

9. Interested stakeholders — including state agencies, municipalities, counties, federal agencies and private landowners — collaborate through cooperative weed management associations across the state. These efforts, combined with annual chemical treatments, help reduce the spread of invasive species on state-owned wildlife management areas.

#### **COORDINATE WITH THE SAGE-GROUSE LOCAL WORKING GROUPS**

Local working groups have been in operation in Utah since 1996. They provide valuable insights on local threats and also help prioritize habitat projects with funding partners like the Watershed Restoration Initiative and NRCS. Input from these groups has led to refinement of habitat maps, site-specific clarification of the baseline habitat-disturbance assessments, and continued development

of private-public partnerships throughout Utah. These efforts are critical in developing local support for ongoing conservation efforts in Utah.

#### **PERFORMING AND REVIEWING ESSENTIAL RESEARCH**

Between 1996 and 2016, scientists, graduate researchers and undergraduate technicians at Utah State University and Brigham Young University completed more than 60 research projects that focused on the ecology of greater sage-grouse populations in Utah.

Sage-grouse benefited from these projects as researchers and managers:

- Gained a better understanding of seasonal habitat uses
- Validated the role of voluntary and incentive-based conservation approaches
- Identified SGMAs that represent the best opportunity and conservation value

These research projects and the many to follow will continue to inform Utah's science-based approach to greater sage-grouse conservation.

## MANAGING PREDATORS

USDA-APHIS Wildlife Services removes predators that pose the greatest risk to sage-grouse populations. These efforts are negotiated and prioritized annually, on a site-specific basis. When necessary, mid-year changes can be made to redirect resources to areas of greatest conservation need (e.g., the enhanced predator-control efforts that are now underway in the Sheeprock Mountains SGMA).

## PROTECTING SAGE-GROUSE ON FEDERALLY MANAGED LANDS

In spite of these extensive state-led efforts, the U.S. Bureau of Land Management and the U.S. Forest Service amended their land-use plans to place additional restrictions on the use and management of many federal lands throughout Utah.

The State of Utah and other western states are in the best position to manage greater sage-grouse. Consequently, in February 2016, the State of Utah announced plans to challenge the federal land-use plans through a lawsuit filed in Utah District Court. Utah remains committed to working with its many conservation partners to continue addressing the highest-priority needs of local sage-grouse populations. At the same

time, Utah will also work through the courts to address the uncertainty, unnecessary complexity and local hardships presented in the new federal land-use plans.

## CONCLUSION

Implementation of the *Conservation Plan for Greater Sage-grouse in Utah* is well underway, and the results of this science-based conservation approach continue to prove successful. Following the guidance within the State Plan, sage-grouse populations in Utah now exceed statewide population objectives.

The State of Utah, along with its extensive network of committed conservation partners, has the capacity and dedication to lead landscape-level habitat conservation projects. These projects will ensure continued population growth without the need for new and burdensome federal land-use policies.



**UTAH DEPARTMENT OF NATURAL RESOURCES**  
1594 W NORTH TEMPLE • SALT LAKE CITY • UTAH 84114