

Executive Order 2019-3: Wyoming Greater Sage-Grouse Core Area Protection Strategy

2020 Conservation and Development Activities Report

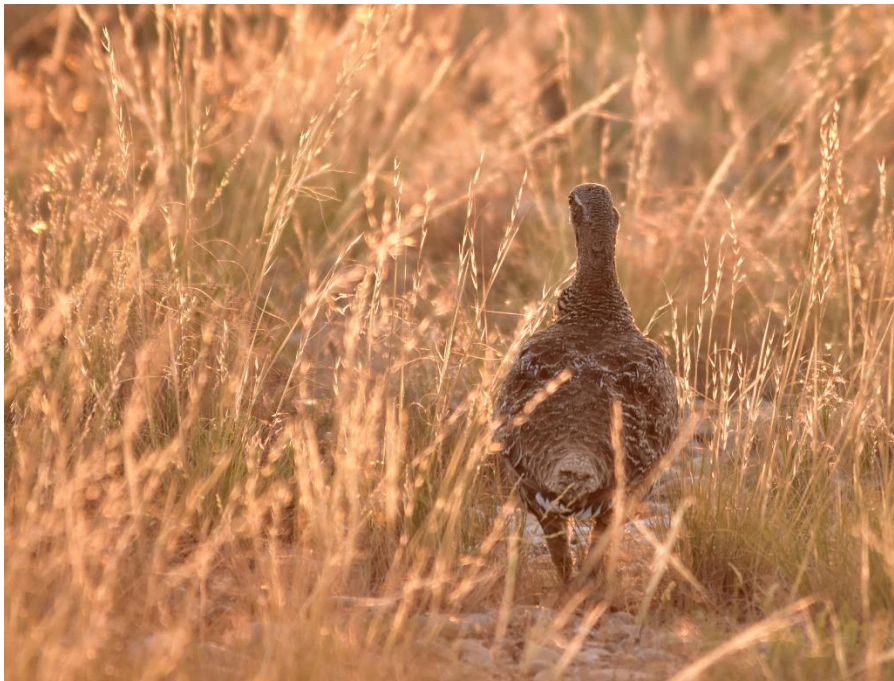


Image Source: U.S. Fish and Wildlife Service Mountain Prairie Region

April 30, 2021

With contributions from the following State of Wyoming and federal agencies:

- Game and Fish Department
- Office of State Lands and Investments
- Department of Environmental Quality
- State Engineer's Office
- Department of Transportation
- Oil and Gas Conservation Commission
- Governor's Office
- U.S. Bureau of Land Management
- U.S. Forest Service
- U.S. Fish and Wildlife Service
- Natural Resources Conservation Service

Introduction

Executive Order (EO) 2019-3, known as “Wyoming’s Greater Sage-grouse Core Area Protection Strategy,” is the State of Wyoming’s primary regulatory mechanism to protect Greater sage-grouse and its habitat. It outlines procedures that seek to avoid and minimize disturbance and incentivize development outside of designated “core population areas” for the species.

Appendix H of the EO 2019-3 recognizes that collecting and analyzing data is essential in assessing the influence of the Core Area Protection Strategy. The EO directs State agencies to collect and analyze Greater sage-grouse population and habitat trend data, identify data gaps and research needs and recommend adaptive management actions as needed, and work with federal partners, researchers, managers, and conservation organizations to aggregate all relevant, non-proprietary data being collected in sage-grouse habitats throughout the state. Appendix H indicates that federal agencies are expected to contribute permitting actions, conservation efforts and other relevant reports annually as well.

Summary of Key Findings

Building upon last year's first annual report on Greater sage-grouse Conservation and Development activities in Wyoming pursuant to EO 2019-3, the 2020 report compiles technical data (Greater sage-grouse population and habitat trend) to establish the effect on populations and habitats of all activities pursued under purview of the Executive Order. This year's report also includes recommendations on how State of Wyoming agencies will improve data collection methods to enhance available information relative to the goals of this report.

Goals of this Annual Report

The 2020 Conservation and Development Activities report focuses evaluates relevant data, analyzes what can be gleaned from the available data in terms of population and habitat trends, and identifies recommendations for data collection improvement.

Summary of Limitations

Directly relevant habitat data are collected by the agencies to indicate a possible direct tie to disturbance (i.e. - number of acres disturbed). However, these data are inconsistently collected or recorded and do not necessarily indicate actual project completion on the ground. Moreover, some data points overlap between agencies (i.e.- the Wyoming Department of Transportation (WYDOT) tracks the number of compliance reviews completed under the Density Disturbance Calculation Tool (DDCT), which would also show up in Wyoming Game and Fish Department's (WGFD) DDCT report).

In the early years of implementing the requirements under Greater sage-grouse Executive Orders, the WGFD requested that State agencies report certain information on an annual basis. After a few years, it was clear that the information overlapped across various agencies or was not clear for them to utilize in an objective manner. Consequently, some agencies stopped collecting information specifically for the purposes of reporting on activities as it relates to the EO.

Today, many State agencies continue to collect Greater sage-grouse information, as outlined below. However, in most instances the data these agencies collect have been determined not to be easily extractable. Additionally, multiple permits may be issued across state agencies for the same activity. Most agencies have an established a process to ensure each activity only requires one consultation with WGFD, when appropriate. For data collection purposes, a similar type of protocol will need to be developed to ensure the same activity recorded across agencies is not counted multiple times.

Recommendations for Next Steps

This report focuses on conveying actual, on-the-ground impacts to Greater sage-grouse and their habitat through permitting data and conservation activities. State agencies recognize the

importance of identifying opportunities to track realized (“as-built”) disturbance on the ground within their permitting processes, and some of these considerations are discussed in this report.

After further exploration of possible pathways to capture as-built disturbance that may or may not be available, State agencies met with the Wyoming Geographic Information Science Center (WyGIS) at the University of Wyoming to discuss conceptual needs for adding the as-built functionality into the current DDCT compliance process. DDCT is used by the State of Wyoming to track and help maintain compliance with Governor Gordon’s Sage Grouse Executive Order 2019-3. It was decided that the best touchpoint to collect the information would be to enable a new step during the DDCT review that occurs at project completion. This step would allow project proponents to update initial project boundaries with actual, as-built disturbance footprint boundaries. The new step would also allow for phased annual updates for multi-year projects and a final update upon project completion. The overarching goal would be to make the tool easy to use (that is, it could be completed in 2-3 steps) and utilize the already existing process to capture the as-built information. WyGIS is currently in the process of building and testing the added functionality to further evaluate its feasibility.

Summary of Data Sources

Below is an outline of available data points as of 2020. Relevant sources of data are indicated in parentheses:

1. Population (WGFD)

- Lek counts/surveys
- Harvest statistics

2. Habitat Trends

- Indicators of disturbance
 - DDCT (WGFD)
 - Compensatory Mitigation (WGFD)
 - State Permitting
 - Oil and Gas Development (OGCC)
 - Highways and Roads (WYDOT)
 - Water Impoundments (SEO)
 - Environmental Disturbances (DEQ)
 - Land Transactions (OSLI)
 - De Minimis Activities (WYDOT, SEO, OSLI)
- Conservation efforts
 - WyCED data (WGFD)

3. Populations of Concern

- Jackson Local Working Group
- Northeast Wyoming Local Working Group

4. Federal Agency Data

Summary of 2020 Population Data*

*Please reference the “2019 Wyoming Sage-Grouse Job Completion Report” prepared by the Wyoming Game and Fish Department for further details on Greater sage-grouse population history, trends and current status.

Background

Greater sage-grouse are relatively common throughout Wyoming, especially southwest and central Wyoming, because sage-grouse habitat remains relatively intact compared to other states. However, available datasets and anecdotal accounts indicate long-term declines in Wyoming sage-grouse populations over the last six decades.

Past analyses suggest Wyoming sage-grouse populations are cyclic. While weather and climate undoubtedly influence sage-grouse population cycles, such influences have not been quantified and factors other than weather (predation, disease) may also play a role. It is important to acknowledge and control for the cyclic nature of sage-grouse when conducting impact studies and monitoring grouse response to management.

Key Findings from 2019-20 Population Report (WGFD)

Lek counts/surveys

There are about 1,800 known occupied sage-grouse leks in Wyoming. WGFD personnel and others visited 80% of these leks in the spring of 2020. Results of the survey indicate 988 leks were confirmed active, 340 confirmed inactive, and 78 unknown or unchecked. The average number of males observed on leks was 19.6/active lek, a -2% change from the 20/active lek observed in the spring of 2019, suggesting a slight population decrease. However, this figure is substantially higher than the low of 13/active lek reported in 1996.

Harvest Statistics

Due to concerns over low populations, the statewide hunting season was shortened and the daily bag limit decreased to two sage-grouse in 2002 and has remained very conservative since that time. Hunting Areas 2 and 3 in eastern Wyoming and the Snake River Drainage in northwest Wyoming are closed to sage-grouse hunting. Hunting Area 1 in the central part of the state ran from September 21-30th, 2019 (reported for 2020) and September 21-23th for Area 4 in northwest Wyoming.

The number of sage-grouse wings collected from hunters decreased by 23% in the 2019 hunting season. In 2019, 1,631 wings were recorded, which is 21% of the estimated harvest. This is similar to the 10-year average of 20% with most changes between years being minor. The 2019 hunting season chick:hen ratio (based on harvested wing analysis) was 1.1 chicks per hen. This level of productivity is typically associated with a declining population. This is

consistent with the 2020 lek data (all lek checks), which indicated a 2% decrease in the average numbers of males on leks.

Additional data

See the 2019-20 Population Report prepared by the WGFD for further details regarding weather, habitat, conservation strategies, policy issues and management recommendations.

Summary of Habitat Trend Data -- Indicators of Disturbance

The following section describes various data points that are connected to potential developments within the regulatory purview of the State of Wyoming. These data points have been reviewed by relevant state agencies, in context to the goals for reporting as established by EO 2019-3 and the SGIT, to convey possible information that may be helpful for evaluating possible indicators of disturbance. Each section describes the purpose of the data accordingly.

DDCT

The Density and Disturbance Calculation Tool (DDCT) is a spatially based application managed by the Wyoming Geographic Information Science Center at the University of Wyoming that calculates the number of disruptive activities averaged per square mile and total surface disturbance within the DDCT assessment area, which is the project area relative to core area and core area leks. Proponents of surface disturbing activities in Greater sage-grouse Core or Connectivity Areas must submit their project footprints through this tool to complete their permitting process. If the proposed activity DDCT is at or above Executive Order thresholds, the project proponent, WGFD and the permitting agency identify opportunities to avoid or minimize impacts to Greater sage-grouse in accordance with EO 2019-3 Appendix E: Permitting.

The WGFD reviews and tracks projects in EO-delineated habitats (Core Areas, Connectivity Areas, Winter Concentration Areas, and Non-Core Areas) for compliance with EO 2019-3. Upon review, the agency records the number of projects that require a DDCT (located in Core or Connectivity Areas) and those that do not ("Non-DDCTs").

Tables 1 and 2 detail the number of DDCTs that the WGFD performed in 2020 compared to 2019. From this information, we can infer that the Executive Order does not prohibit development activity in Greater sage-grouse Core or Connectivity Areas. A majority (87%) of the projects proposed in Core or Connectivity Areas are compliant/consistent with the parameters of the Executive Order.

Table 1: Number of DDCTs performed

	<u>2020</u>	<u>2019</u>
# of DDCTs completed through policy review	73	100
# of DDCTs deemed compliant with the SGEO	43	66
# of DDCTs deemed consistent with the SGEO	21	18
# of DDCTs deemed exception to the SGEO	6	16
# of DDCTs deemed non-compliant with the SGEO	3	0
# of potential disturbance acres added in core area	721.35	2,032.56
De minimis DDCT disturbance acres	171.69	18.48

Table 2: Number of Non-DDCTs performed

	<u>2020</u>	<u>2019</u>
# of non-DDCT projects reviewed for compliance with the SGEO	98	76

Compensatory Mitigation

EO 2019-3 stipulates protective measures that are designed to avoid, minimize and mitigate impacts to the species, with compensatory mitigation employed only where avoidance and minimization are either inadequate or impossible. Should mitigation measures be determined to be required, the State applies the Compensatory Mitigation Framework as outlined by EO 2019-3 Appendix F: Compensatory Mitigation.

The process to identify the potential need for compensatory mitigation starts when a project proponent submits a proposed project for review that does not comply with EO 2019-3 disturbance thresholds or requests relief from EO 2019-3 stipulations. WGFD works with the project proponent to review site and project specific factors and identify avoidance and minimization measures. WGFD evaluates the exception request, including coordination with other agencies as described in EO 2019-3 Appendix A, and makes a recommendation to the permitting agency. When Compensatory Mitigation is required, WGFD determines and includes the amount of compensation required (“debits”) in its recommendations (for further details on this process, see Appendix E of EO 2019-3).

Table 3 details the number of exception requests reviewed by the WGFD in 2020 as well as the number of compensatory mitigation debits calculated under these reviews, where applicable. Three of these exceptions applied to the 5% or 1 per 640 acres disturbance thresholds under EO 2019-3; 3 exceptions applied to Timing Limitation Stipulation (TLS) relief in Non-Core Areas.

Table 3: Exceptions and Compensatory Mitigation Debits Reviewed

	<u>2020</u>	<u>2019</u>
# of exception requests reviewed	6	26
# of exception requests granted with compensatory mitigation	4	21
# of exception requests granted without compensatory mitigation	2	4
# of debits calculated	30.34	460.2
# exceptions not approved	0	1

Limitations

- WGFD does not track the number of projects actually completed. The agency can tell to some extent if the credits were purchased by looking on the Regulatory In-lieu fee and Bank Information Tracking System (RIBITS) site, which is a tracking system developed by the United States Army Corps of Engineers to monitor wetland mitigation banking.
- To confirm any actual, on-the-ground development of projects that are reviewed under the DDCT and for which compensatory mitigation debits are required, the WGFD would have to cross reference its determinations with the permitting agencies.

State Permitting

EO 2019-3 directs all State of Wyoming permitting agencies to comply with the Core Area Protection Strategy during the permitting process, including consultation with the Wyoming Game and Fish Department. These state agencies include, but are not limited to:

- Office of State Land and Investments (OSLI)
- Department of Environmental Quality (DEQ)
- State Engineer's Office (SEO)
- Department of Transportation (WYDOT)
- Oil and Gas Conservation Commission (OGCC)

Under the EO, the State of Wyoming is directed to collect and analyze Greater sage-grouse population and habitat trend data, identify data gaps and research needs and to also recommend adaptive management actions as needed. EO 2019-3 Appendix E: Permitting outlines detailed permitting coordination requirements that include the process for state permit review and determining project compliance with EO 2019-3. The State is further directed to work with federal partners, researchers, managers, and conservation organizations to aggregate all relevant, non-proprietary data being collected in sage-grouse habitats throughout the state.

This report is a compilation of the above listed data, analyzed to establish the effect on populations and habitats of all activities pursued under purview of EO 2019-3.

The following sections break down relevant sage-grouse permit data that State agencies have determined to be relevant for the purposes of this report. Table 4 details common data points that can be reported across agencies.

Table 4: Common State Agency Permit Data Points

Parameter	Agency
DDCTs	WGFD
	WYDOT
Proposed Disturbance (acres)	WOGCC
	WYDOT
	DEQ -- LQD
Compensatory Mitigation (debits/credits)	WOGCC
	WYDOT
Number of Activities proposed in Core Area	WOGCC
	SEO
	DEQ – WQD
Number of exceptions	WOGCC
De Minimis activities	WYDOT
	SEO Ground Water Division

Oil and Gas Development (WOGCC)

Wyoming Oil and Gas Conservation Commission (WOGCC) is the administrative agency that governs oil and gas operations in the State. The Commission has statutory authority to establish drilling and spacing units and to govern the location of wells. Before operators can drill a well, regardless of mineral type, they must obtain a permit to drill from the WOGCC. Only one well is allowed per drilling and spacing unit when a drilling and spacing unit is established. When additional wells are needed, any operator may file an application to increase the number of wells per formation.

2020 data

WOGCC permitted 5 wells spud in Core Areas from 4 well pads during 2020 and 37 wells spudded in 2020 were located in a Sage-Grouse Population Area with timing stipulations. Drilling of wells in locations subject to timing limitations occurred outside the stipulation period.

Limitations

- WOGCC does not generally regulate the size of well pads, therefore information on disturbance acreage is sporadic.

Opportunities for improved data collection

- The new DDCT functionality for as-built footprints will best address this gap for OGCC related activities.

Highways and Roads (WYDOT)

WYDOT engineers and technical support staff perform a wide range of tasks in the course of maintaining and improving Wyoming's transportation infrastructure. WYDOT oversees development of plans and specifications for improvement plans for highways, bridges and related infrastructure.

When a project is proposed by WYDOT, the agency must consult with the WGFD to determine if a DDCT is required. The project is reviewed to determine if it is located in EO-delineated habitats.

Below is a summary of the information tracked by WYDOT for projects with a possible EO 2019-3 nexus:

2020 data

- 20 activities ranging from fence replacements, asphalt/pavement work, bankslope/erosion/landslide repairs, culvert lining, bridge and right-of-way fence replacement, mill and overlay
- 10 activities performed a DDCT
- 9 activities required stipulations -- Noise restrictions, seasonal restrictions
- 1 activity required compensatory mitigation -- 10 credits total
- 6.03 acres of new disturbance

Limitations

- WYDOT does not track information regarding what type of EO-delineated habitat a proposed project may be located.

Opportunities for improved data collection

- Some challenges are posed by rectifying project proposal boundaries with capturing as-built information. There is no construction or quality control process currently within the agency that would help identify as-built footprints.

- There could be benefit to capturing “under-built” as-built projects. The new DDCT functionality for as-built footprints will best address this gap for WYDOT related activities.

Water Impoundments (SEO)

The State Engineer's Office collects, analyzes, maintains and provides water related information for ensuring the appropriate management and regulation of Wyoming's water resources. The SEO transmits relevant surface water and groundwater permit data to WGFD on a monthly basis with information for every permit that undergoes review for its location within Core Areas and a De Minimis Sage Grouse Condition of Approval is attached.

Below is a summary of the information tracked by WYDOT for projects with a possible EO 2019-3 nexus:

2020 data

- *Surface Water Division*
 - Total permits reviewed and issued in Core Area -- 23
 - Total DDCTs performed -- 2
 - Total de minimis permits reviewed and issued in Core Area -- 21
 - 22.7 acres of proposed surface disturbance associated with the above permits issued
- *Groundwater*
 - Total permits reviewed and issued in Core Area -- 7
 - Total de minimis permits reviewed and issued in Core Area -- 182

Limitations

- The information tabulated by the Surface Water Division only captures facilities that are completed in the calendar year of 2020, which means this could potentially also include some facilities that were previously constructed but not permitted.
- No data are being reported for new permits that were issued on existing facilities since they do not currently collect any data on when an existing facility was constructed, only that it was constructed prior to permitting.
- Generally speaking, the information tabulated by the Groundwater Division does not capture how much land was proposed to be or actually disturbed in the process of someone developing their water well or spring development.

Opportunities for improved data collection

- SEO permits only capture areas of use, not the total disturbance area associated with development. Disturbance estimates could be utilized but would not reflect exact figures that have been verified on the ground. Permits are tied to completion dates, not commencement.

- As-built will normally line up with permitted boundaries but the agency doesn't get drawings; only de minimis may vary.

Environmental Disturbances (DEQ)

The Wyoming Department of Environmental Quality (DEQ) can identify which permits required consultation with the Wyoming Game and Fish Department (WGFD) and identify the location of those permitted activities. Aggregating this information within each of DEQ's multiple permitting programs varies in difficulty and resource intensity, trending towards resource intensive. One division, Abandoned Mine Lands, can provide information about its reclamation and conservation efforts. At this time, DEQ does not capture information relative to exceptions, exemptions (except for limited cases within the Industrial Siting Division), compensatory mitigation or actual disturbance.

If a permit required consultation with WGFD and WGFD provided SGEO recommendations, DEQ appends those to the permit. When a facility is inspected, DEQ inspector's review the recommendations provided by WGFD during an inspection and records information on compliance forms. Below is an overview of DEQ.

For the 2020 data report, data updates were available from all divisions except the Air Quality Division; Solid and Hazardous Waste Division activities are not located in EO delineated habitats.

Industrial Facilities (Industrial Siting Division)

The Industrial Siting Division is statutorily required to collaborate with nineteen state agencies in the process of reviewing applications for industrial facilities. WGFD routinely participates in this process, including for sage grouse consultation. When the Industrial Siting Council issues a permit, a standard condition in conformance with the SGEO is included. The ISC permit is primarily focused on ensuring preconstruction and construction activities occur in a certain manner, with specific focus on mitigating the socio-economic and environmental impacts which occur during development. After construction is completed, ISD's primary role is to ensure the financial assurance of an entity for bonding purposes, when applicable. Permits are in effect through the life of a project, which would allow for additional coordination on wildlife issues, as necessary.

A majority of the permits the ISC has issued recently are for wind energy projects, which are not compatible with sage-grouse in core areas. The ISC has issued permits for electric transmission infrastructure, which are exempt from the SGEO if built within a designated corridor. The transmission lines have been sited within these corridors, with limited exceptions. Where minimization or compensatory mitigation has been required, ISD receives notice of these recommendations. The ISD relies on the WGFD to be the primary entity housing this information.

Reclamation Activities Associated with Mining (Abandoned Mine Lands Division)

The primary activities AML performs are reclamation-focused, including restoration of abandoned mine lands to wildlife habitat and functioning rangeland. AML strives to reestablish native vegetation in areas that it reclaims, and therefore, habitat is typically restored through AML activities rather than being negatively impacted. AML collects information on the number of acres of land reclaimed, in general.

The AML Division consults with WGFD before each project in Sage-Grouse Core Area, soliciting suggestions and requesting concurrence with the project revegetation plans. Whenever timing or distance stipulations apply, AML's projects are scheduled around such stipulations in consistent with the SGEO.

2020 data

Reclamation (AML) -- During the 2020 construction year (January 1, 2020 to December 31, 2020), AML reclaimed approximately 168.3 acres of unproductive abandoned mine lands (AML). Of that, 32.4 acres were within designated Sage-Grouse Core areas, and 90.3 acres were adjacent to Sage-Grouse Core Areas. These reclamation efforts concentrate on revegetating barren lands, and repairing some of the habitat fragmentation caused by past mining. A large portion of AML's work in 2020 was concentrated on underground actions to abate mine subsidence under developed areas and infrastructure, rather than surface revegetation efforts. Many of the surface mined areas AML works on, such as virtually all of the Gas Hills, excluded from core area.

Land Quality

The Land Quality Division (LQD) has the authority to require permitting and licensing of all operator actions of surface and underground mine facilities. LQD permit application forms or required Annual Report formats do not collect Core Area disturbance data. The process as currently structured determines: 1) if the proposed action is in Core Area or within two miles of an occupied lek; 2) if mitigation will apply; and/or 3) if seasonal restrictions are to be imposed.

The MIDAS (LQD's database) digital system currently has a check box to capture if the permitting action is in Core Area and/or within two miles of an occupied lek. The WGFD's determination and any DDCT calculations are kept in the Temporary File Number correspondence folder of the respective application. The attached table details the total number of LQD permitted disturbances associated with mining in Calendar Year 2020.

Table 5: Disturbance Activities Associated with Land Quality Division – 2020

Permit Type	Total TFNs Approved	TFNs with new Approved Acreages in Core	TFNs with new Approved Acreages - 2 mi of occupied lek	New Acres Approved to Affect Core	New Acres Approved to Affect - 2 mi of Occupied Lek
Coal Drilling Notification	2	0	0	0	0
Noncoal Drilling Notification	24	0	3	0	0.2
Coal Permits (Large Permit)	90	0	1	0	57.9
Noncoal Permits (Large and Small Permits)	85	2	10	18.3	441.5
License to Explore	13	0	0	0	0
Limited Mining Operation	27	0	0	0	0
Coal Research and Development License	2	0	0	0	0
Noncoal Research and Development License	1	0	0	0	0
Total	244	2	14	18.3	499.6

Water Quality

Underground Injection Control Program Permits

Only Class I and Class V permits are relevant for this reporting. Currently, the UIC Program has:

- 168 of these individual permits active, 134 of which are Class V and 34 of which are Class I.
- 21 permits were issued either wholly or partially in sage grouse core area - 17 Class V and four Class I.
 - Of these 21, there are three in Sweetwater, three in Fremont, one in Sublette, one in Converse, two in Carbon, one in Big Horn, two in Natrona, and eight in Teton.

Wyoming Pollution Discharge Elimination System -- Stormwater permits

In 2020, 118 new construction stormwater authorizations were issued. Of these, six (6) were in or partially in Sage Grouse core area and two (2) were either partially or completely within the two-mile buffer of occupied non-core area Sage-Grouse leks.

Of the six authorizations issued in Sage Grouse core area, two were in Carbon County, one was in Park County, two were in Sublette County, and one spanned both Fremont and Hot Springs Counties. Two of the six authorizations in Sage Grouse core area were considered de minimis (one in Sublette County and one in Park County). The two authorizations that were issued for projects within the two-mile buffer of occupied non-core area Sage Grouse leks were in Johnson and Fremont Counties. This data aggregation required a physical review of each permit issued in 2020 as currently there is not a mechanism to capture it.

Land Transactions (OSLI)

The Office of State Lands and Investments (OSLI) is the administrative arm of the Wyoming Board of Land Commissioners and Wyoming State Loan and Investment Board. Collectively, these programs serve the trust beneficiaries and include the management of easement conveyances, forest product sales and trust land sales, exchanges and acquisitions, to name a few.

Since it is not a permitting agency, OSLI does not collect information concerning Greater sage-grouse. However, in the case of easements OSLI requires hard copy surveys of the "as-builts." OSLI records the associated acreage in an ad hoc manner and not in a normalized way.

Opportunities for improved data collection

- Capturing as-built associated acreage would require a rule change and potentially lease changes as well. The new DDCT functionality for as-built footprints will best address this gap for OSLI related activities and could be beneficial for proponents to voluntarily enter information.

De Minimis Activities

EO 2019-3 recommends general stipulations for all activities in Core Population Areas, with the exception of exempt ("de minimis") actions defined in Appendix G or specifically identified activities. The specific industry and/or activity stipulations are considered in addition to the general stipulations.

During the permitting process, State agencies exercise discretion regarding which activities fall within the "de minimis" parameters as defined by the EO. Agencies that do not have regulatory

authority over permitting but are subject to the requirements of the EO, such as WYDOT and the Office of State Lands, are still required to submit projects to WGFD for review.

2020 data

- WYDOT -- 5 projects
- SEO -- 92 groundwater wells; unknown surface water impoundments
- Office of State Lands and Investments (OSLI) -- unknown (this information can be tracked but has not been formally conducted to-date)

Limitations

- For all agencies, de minimis information has not been consistently tracked across the board. To some extent this information can be reported however it is important to consider that some de minimis activities do not have a permit associated with it (i.e.- maintenance on a power line).

Conservation Efforts

The State of Wyoming has been collecting information documenting conservation efforts to benefit Greater sage-grouse since 2015. Such data are provided by a variety of state and federal agencies, as well as energy companies and non-governmental organizations.

The Wyoming Conservation Efforts Database (WyCED) is a web application specifically designed to provide a portal for entities to upload their spatial and project information. This application was designed in coordination with the U.S. Fish and Wildlife Service and their Conservation Efforts Database (CED) so that Wyoming's data can be fed into their database to inform species review and reporting.

WyCED is available through the Wyoming Geographic Information Science Center's OneSteppe web application at: <https://onesteppe.wygisc.org/>.

Federal and Non-Federal Reporting

Federal agencies will report their efforts directly to the U.S. Fish and Wildlife Service CED on an annual basis. State agencies and partners in the private and county sectors should report their efforts to the WyCED on an annual basis.

For projects occurring on private land, private land reporting units will be used to generalize the actual location of conservation efforts to protect the identity of private landowners. The private land reporting units were developed by the U.S. Fish and Wildlife Service range-wide to encourage the reporting of efforts on private lands while not disclosing landowner names. Project proponents can use the true project footprint on private lands and the WyCED will automatically obscure the data. The uploaded true footprint is never stored.

Type of Data and Timeline for Reporting

Annually, by March 31st, the following information may be submitted:

- Conservation-related projects in sage-grouse core area and other Executive Order 2019-3 delineated habitats (connectivity, winter concentration, non-core area).

Projects are considered to be beneficial to sage-grouse if they specifically address Conservation Objectives Team (COT) threats (<https://www.fws.gov/greatersagegrouse/documents/COT-Report-with- Dear-Interested-Reader-Letter.pdf>).

In Wyoming, projects benefiting habitat can include:

- Treatment of noxious weeds and annual grasses

- Vegetation treatments aimed to improve vegetation composition and diversity
- Removal of juniper
- Riparian habitat enhancements
- Prescribed burns
- Infrastructure removal efforts or modifications
- Abandoned mine land restoration
- Modifying fences to reduce sage-grouse collisions
- Conservation easements

All of these types of projects can be entered by authorized users in the WyCED on an annual basis. Table 6 details the types of conservation activities entered in to WyCED and associated number of acres in 2020 compared to 2019.

Table 6: WyCED Activities

Conservation activity (WyCED)	# acres	
	<u>2020</u>	<u>2019</u>
Riparian, wet meadow, or spring restoration	0	100
Annual grass treatment	24,015	45,884
Conifer removal	250	653
Vegetation management/habitat enhancement	6,049	1,744
Noxious weed treatments	49,826	22,361
Total	80,139.50	70,742

Populations of Concern

Jackson Local Working Group (LWG)

Low counts of male sage-grouse on leks in 2019 prompted the Upper Snake River Basin LWG to notify the Statewide Adaptive Management Working Group (S-AMWG) of a possible soft trigger. The S-AMWG identified Technical Team members and chair. The Technical Team met several times in Jackson and submitted a suite of recommendations back to the S-AMWG. The S-AMWG recognized the Technical Team's in-depth, thoughtful analysis then responded with a letter identifying information gaps, which the Wyoming Game and Fish Department has been following up on over the past year. Pertinent points from the Technical Team's suite of recommendations follows.

The Upper Snake River Basin Conservation Area (USRBCA) consists of two sub-populations of sage-grouse within the Jackson Core Area: Jackson Hole and the Gros Ventre. These two sub-populations are both isolated and genetically distinct, although the Gros Ventre does show some ancestral connectivity to birds in the Green River Basin. Recognition of these sub-populations is important with respect to recommendations generated by the Technical Team.

Lek counts in 2019 for the Jackson Core Area reached their lowest point since consistent monitoring efforts began in 1986. Although a similar number of birds were seen in 1999, several leks were not known at that time, resulting in 2019 being the lowest recorded with respect to the average number of males per lek. Lek surveys in spring 2019 documented 43 males in the Jackson Hole subpopulation, making it the lowest count on record. Seven males were observed in the Gros Ventre subpopulation in 2019 for a grand total of 50 male sage-grouse in the Jackson Core Area in 2019. Substantial loss of critical winter habitat (23% since 2003) in the recent past, and above average snow depths in two of the last three winters, has reduced the availability of these critical habitats. Efforts are currently underway to minimize risk of further loss of sage grouse habitats. These two sub-populations are isolated and at-risk with some unique genetic attributes; however, population size/persistence concerns may outweigh genetic issues.

Predation is likely not the primary cause of current population decline. Other potential impacts such as mineral development and livestock grazing are not having a substantial influence on sage-grouse or their habitats in the Jackson Core Area. Current recreation levels and patterns are likely not the primary cause for the current population decline.

The Technical Team suggested current population status warrants management action to prevent further declines. Recommendations to address this situation include: habitat conservation, habitat restoration and enhancement, re-establishment of connectivity (Jackson Hole to Gros Ventre to Upper Green River), and translocation. In the Jackson Hole subpopulation, thresholds and responses should be based on past performance and recovery. If

2020 lek counts result in >52 males (>21% increase), then the Technical Team recommendation is to continue to monitor. If 43-51 males (0-20% increase) are observed on leks, then the Technical Team recommendation is to either conduct translocation or continue to monitor. If <43 males are observed on leks, then the Technical Team recommendation is to conduct a translocation. The Technical Team advised this to be a population in need of action to avoid extirpation.

Lek counts in 2020 resulted in 61 males on leks in the Jackson Hole subpopulation, and 3 males in the Gros Ventre subpopulation for a grand total of 64 male sage-grouse in the Jackson Core Area. Following the Technical Team's recommendation for the Jackson Hole subpopulation specifically (i.e., 61 is greater than 52), the plan is to continue to monitor the Jackson Hole subpopulation in 2021. Discussions regarding the Gros Ventre subpopulation are ongoing. Of the 61 males observed in the Jackson Hole subpopulation, 12 of those males were observed on a geophagy site and it was unclear if they were attending the nearby lek. In other words, 12 of those males might have been double-counted in 2020.

The S-AMWG's letter identified 5 information gaps: habitat suitability, Gros Ventre history, identifying an acceptable source population for any translocation, recognizing WGFD's draft guidelines for translocating sage-grouse, and the issue of predator control. During summer 2020, the WGFD, US Forest Service, and local working group volunteers measured habitat suitability in the Gros Ventre drainage. The results of that fieldwork and other investigations into the 5 information gaps are summarized in the draft WGFD document titled "Supplementary Information Related to a Proposal to Translocate Sage Grouse into the Gros Ventre River Drainage" dated 2/2/2021.

Northeast Wyoming Local Working Group (LWG)

The causal factor for the Buffalo Connectivity soft trigger was primarily the Tidwell fire that started in Montana and continued to burn southeast into Wyoming. The wildfire (known as Deer Creek in Wyoming) bisected the Buffalo Connectivity Area by consuming the majority of fuels in-between the very north and south ends of the Connectivity Area. This and other smaller wildfires in the summer of 2017 consumed over 15,000 acres or about 6.3% of the Buffalo Connectivity Area. The Northeast Local Working Group identified this as a soft trigger in 2018 and notified the Statewide Adaptive Management Working Group (S-AMWG) in September 2019. The S-AMWG identified members and a chair of the Technical Team in October 2019.

The Technical Team met several times in 2020, and is currently circulating a draft document of recommendations within the Technical Team. The document identifies baseline factors such as the region's sage-grouse population status, existing disturbance, genetic connectivity, and private landowner relationships. The Technical Team performs a situational assessment on the specific initial wildfires and restoration efforts. The document then expands the situational assessment to wildfires in general, invasive species, West Nile virus, and predators. Finally, the Technical Team summarizes their findings and provides recommendations on priority areas,

landowner outreach, research recommendations, monitoring fire restoration efforts, and suggestions for future Technical Teams. When the document is finalized, the Technical Team will submit it to the S-AMWG.

Federal agency data

Appendix A of EO 2019-3 recognizes that successful conservation of Greater sage-grouse requires a shared stewardship vision among states, local governments, private citizens, landowners, federal land management agencies, and partners to ensure that each state can manage the habitat within its borders for the particular needs of its landscapes and communities. Each federal agency plays an important role in contributing information about the various types and distribution for conservation activities across the state.

Federal agencies' roles

- *United States Fish and Wildlife Service (USFWS)* -- Under the Endangered Species Act (ESA), the USFWS administers protective and recovery requirements for threatened and endangered species as well as the ecosystems upon which they depend. The USFWS' "not-warranted" determination for Greater sage-grouse relies on the effective implementation and reporting of federal and state land-use plans.
- *Bureau of Land Management (BLM) and United States Forest Service (USFS)* -- As federal land management agencies, the BLM and USFS manage Greater sage-grouse habitat as part of the agencies' multiple use missions under applicable regulations.
- *Natural Resources Conservation Service (NRCS)* -- NRCS offers technical and financial assistance to help agricultural producers voluntarily conserve private lands and associated leased lands. NRCS' Greater sage-grouse efforts are part of Working Lands for Wildlife (WLFW), through which NRCS helps agricultural producers voluntarily conserve private lands and associated leased land by targeting Environmental Quality Incentives Program (EQIP) and Agricultural Conservation Easement Programs (ACEP) funds.

Conservation Efforts Database

The USFWS Conservation Efforts Database (CED) collects information from partners about the various types and distribution of conservation activities and to evaluate their effectiveness in reducing or eliminating threats contributing to sagebrush habitat loss and degradation across the ecosystem. This standardized way of collecting information allows USFWS to work with partners and stakeholders to monitor implementation and aid in assessing the long-term benefits realized through effective implementation of conservation efforts.

In Wyoming, all conservation efforts from non-federal partners are first recorded in the Wyoming CED for further reporting to the USFWS CED. Information from federal agencies is also entered into the database and then provided to the Western Association of Fish and Wildlife Agencies

(WAFWA) to support its 2020 Sage-Grouse Conservation Assessment. Additional details on select federal agencies have been provided as follows:

- *USFWS*
 - As the lead CED agency, the USFWS sends conservation actions through the CED. USFWS then pushes that national information (of which all federal agencies report in to) back to the Wyoming Game and Fish Department so that it can be combined with the State's data. Since the agency is not involved with consultations regarding the State's permitting processes, there are no disturbance data points that can be provided.

- *NRCS*
 - The NRCS' WFLW Sage Grouse Initiative (SGI) is a voluntary incentive partnership between state and federal agencies, non-governmental organizations, private landowners, universities and conservation districts to conserve rangelands and benefit Sage grouse. Aggregated SGI conservation practice totals from 2015-2019 were reported into the CED utilizing the CED Private Lands Sagebrush Reporting Units. The aggregated information was reported by the units appropriate (acres, feet, etc.) to the practice that is addressing the threat.
 - NRCS SGI has worked from 2015-2019 to voluntarily conserve 816,000 acres of working rangeland with 96 ranchers in Wyoming, along with enrolling 29,400 acres in permanent conservation easements on 12 additional ranches to protect against fragmentation pressures. In 2020, Wyoming ranchers voluntarily built on past years SGI efforts and worked with NRCS on conserving another 131,000 acres and protecting 2,500 acres with easements.
 - In 2020, NRCS started putting together new 5-year frameworks to continue WFLW SGI Farm Bill investments towards conserving rangelands in the Sagebrush biome and Great Plains Grasslands in Wyoming and the West. The new frameworks were released in April of 2021 and are now starting to be implemented.

- *BLM*
 - The BLM participated in the first CED in 2015 and was one of the largest contributors of both spatial and non-spatial information to the CED. The BLM participated in the first CED in 2015 and was one of the largest contributors of both spatial and non-spatial information to the CED. The BLM again provided a suite of data and information related to sage-grouse conservation efforts implemented or planned between 2015 and 2018 to the CED. In 2020, the BLM drafted a Land Use Plan Monitoring Report for the Conservation Assessment

Team's 5-year review. The final version of this report should be available to the public later in 2021.

- BLM datasets queried for inclusion were the National Fire Plan Operations and Reporting system (NFORS), National Invasive Species Information Management System (NISIMS), Vegetation Treatment Geodatabase (VTRT), Density and Disturbance Calculation Tool (DDCT), Range Improvement Project System (RIPS), Rangeland Administration System (RAS), Wildhorse and Burro Statistics (WHB), Land Use Plan Allocation Decisions, and Legacy Rehost System (LR2000).