

ISSUES SUBMITTAL FORM

Date: 12/20/2024

ISSUE: Should CPW require the purchase of a permit, in addition to a small game license, to take greater sage-grouse, Columbian sharp-tailed grouse and white-tailed ptarmigan?

DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):

The objective of this issue paper is to identify and enact a means of improving annual harvest estimates for greater sage-grouse (GRSG), Columbian (commonly known as "Mountain") sharp-tailed grouse (CSTG), and white-tailed ptarmigan (WTPT). Under current regulations, all can be taken on the annual small game license, small game/fishing combination license, and a one-day small game license. CPW currently uses hunter responses to GRSG, CSTG and WTPT specific questions in the Harvest Information Program (HIP) survey to reduce the size of the potential sample pool. The following stratified HIP question provides CPW with some information about the registrant's likelihood to hunt GRSG:

How likely are you to hunt sage-grouse in 20xx?
Strata 1 = Not likely
Strata 2 = Somewhat likely
Strata 3 = Very Likely
Strata 4 = Very likely for ≥ 3 years (This stratum is developed by CPW by looking at past HIP responses in conjunction with current stratum 3 respondents.)

HIP also contains questions of similar design for CSTG and WTPT.

CPW then randomly selects harvest survey participants from the respondents to those questions. CPW developed this protocol in 1998 with the advent of HIP, theorizing that using the HIP data to direct survey sample selection would improve the precision of harvest estimates. For some species, particularly those that are widely hunted by large numbers of hunters, HIP does help to estimate harvest precisely. Unfortunately, for species that relatively fewer hunters pursue, like, GRSG, CSTG, and WTPT, the HIP response data does not improve the precision of harvest estimates. GRSG have a very dedicated public that hunts annually; however, the number of GRSG hunters is very small when compared to the total number of hunters annually registering in the HIP database (currently n=101,000) or the total small game license purchasers (n=326,000). Estimates for the number of sage-grouse hunters have ranged from 300 to 1,400 since 1998; however, these data were derived from HIP driven surveys and are considered imprecise due to the difficulty of identifying the hunters that actually pursued GRSG. Fewer hunters pursue CSTG, ranging from 100 to 900 since 1998. Similarly, previous surveys estimate that 500 to 1,500 hunters pursue ptarmigan in a given year.

The relatively low numbers of hunters that hunt these species result in poor harvest data estimates, with large confidence intervals. For example, over the last 5 survey periods, CPW used the methodology described above to survey HIP registrants and estimate GRSG and CSTG harvest. Over that period, the coefficient of variation (which is a measure of the precision of the harvest estimate) has averaged ~26% for sage-grouse and ~34% for CSTG. With variation this high, the harvest estimates are less precise. The harvest estimates produced for WTPT with the current methodology were so unreliable that CPW curtailed harvest surveys for ptarmigan, with the exception of surveys conducted in 2005, 2016 and 2023. From these survey efforts, Colorado averaged around 1,000 hunters pursuing ptarmigan annually, with an average harvest of approximately 1,000 birds. The coefficient of variation for harvest averaged 46.7% for WTPT between these three surveys. In stark contrast to harvest estimates for other small game species,

these survey results indicate that our method for estimating ptarmigan harvest is inadequate. For comparison, over the same period, spring turkey harvest has averaged 3.9% coefficient of variation. While spring turkey is not a perfect comparison, turkeys are representative of a species that requires a single species license to take (spring turkey limited or OTC).

Similarly, CPW addressed this exact same problem of poor harvest estimates for furbearers in 2020 by requiring fur harvesters to purchase a furbearer **permit** in addition to a small game license (or the furbearer license) to take 16 furbearer species. The furbearer permit improved CPW's ability to survey fur harvesters that pursued furbearers, which resulted in more precise harvest estimates and coefficient of variation estimates.

This problem with imprecise harvest estimates, while on a state scale, is similar to the problems encountered by USFWS when surveying band-tailed pigeon (BTPI) hunters from HIP registrations, which resulted in the requirement to purchase a BTPI hunting permit in addition to a small game license. CPW sells the BTPI permit for \$5.

To improve management of these 3 species, CPW is looking for alternatives to provide the agency with data sets that have better statistical support. The challenge is to provide better data sets without unduly creating a barrier to hunting. The primary alternative that has proven successful is the adoption of a permit that the hunter must purchase prior to hunting specific species. CPW suggests that survey data would significantly improve if hunters were required to purchase one (1) \$5 permit annually, in addition to the small game license, to hunt GRSG, CSTG, and WTPT. The sale of this permit would allow CPW to easily identify sage-grouse, CSTG, and ptarmigan hunters from within the huge universe of small game license buyers and HIP registrants, resulting in higher quality harvest survey data for managers and increased survey efficiency for CPW. CPW recommends that this permit needs to cost a small amount simply to encourage hunters to purchase them judiciously, but not costly enough to serve as a barrier to hunting. When permits as listed as free permits there is a tendency for large numbers of hunters to select free inclusions simply because they are free, even when they have little inclination to hunt X species.

CPW proposes the GRSG, CSTG, and WTPT permit go into effect for the 2025 hunting seasons. CPW will continue to evaluate harvest management thresholds and strategies for these species, which will benefit from improvements to the statistical precision of CPW's harvest estimates.

STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:

***IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.**

No stakeholders have been advised or consulted on this matter.

ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):

1. **Preferred Alternative 1:** Require a small game license holder to purchase a greater sage-grouse, sharp-tailed grouse and white-tailed ptarmigan permit to hunt and take greater sage-grouse, Columbian sharp-tailed grouse and white-tailed ptarmigan.

Revise regulations in Chapter W-03 #304 with the following additional language:

F. Greater sage-grouse, Columbian sharp-tailed grouse and white-tailed ptarmigan permit:
 Beginning with the 2025 sage-grouse, sharp-tailed grouse and ptarmigan hunting seasons, no hunter shall take any greater sage-grouse, Columbian sharp-tailed grouse, or white-tailed ptarmigan unless at the time of such taking they have purchased one (1) greater sage-grouse, Columbian sharp-tailed grouse, and white-tailed ptarmigan permit in addition to a small game license. An annual greater sage-grouse, Columbian sharp-tailed grouse and white-tailed ptarmigan permit can be purchased for \$5.00.

2. Status quo.

Issue Raised by:	Ed T. Gorman
Author of the issue paper (if different than person raising the issue):	
CC:	Brad Banulis, Senior Wildlife Biologist; Kathy Griffin, Species Conservation Coordinator; Amy Seglund, Species Conservation Coordinator; Sherri Huwer, Terrestrial Programs Supervisor; Matt Eckert, Terrestrial Section Manager; Jon Runge, Terrestrial Statistical Analyst; Julie Stiver, Senior Wildlife Biologist; Lance Carpenter, Senior Terrestrial Biologist; Jamin Grigg, Senior Terrestrial Wildlife Biologist
APPROVED FOR FURTHER CONSIDERATION BY:	Matt Eckert
REQUIRES NEW SPACE IN THE BROCHURE?	YES
ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?	YES
REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION	TERRESTRIAL
RECOMMENDED FOR CONSENT AGENDA?	NO

ISSUES SUBMITTAL FORM

Date: 12/20/2024

ISSUE: Should the hunting season for greater sage-grouse in four GMUs in Moffat and northwestern Routt counties (GMUs 2, 4, 5, 10) be reopened in 2025?

DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):

Greater sage-grouse hunting in northwestern Colorado has been conducted for a number of years in concert with recommendations in local conservation plans developed by CPW and a variety of local stakeholders. The Northwest Colorado Greater Sage-grouse Conservation Plan (completed by the Northwest Colorado Local Working Group in 2008) includes recommended thresholds for the management of sage-grouse hunting based on a 3-year average of the number of male grouse counted on leks. The conservation plan states "Maintain open hunting seasons by...Management Zone only if the previous 3 year running average (as monitored by spring lek surveys) meets a 100 male minimum." Since the late 1990s sage-grouse management zones and their associated game management units have been recommended for closure when the 3-year lek count average falls below 100 males and, conversely, recommended for opening when the average is above 100. The current hunting season for greater sage-grouse in northwestern Colorado (Moffat and western Routt counties) that these units would be subject to consists of 7 days with a bag limit of 2 birds and possession limit of 4 birds.

Game Management Unit 2

Game Management Unit 2 overlaps greater sage-grouse Management Zone 2 as designated by the NWCO GRSG Conservation Plan. Greater sage-grouse hunting was closed in GMU 2 in 2022 when the three-year running average high male count for Management Zone 2 fell below 100. Based on this year's (2024) lek counts the three-year average for this zone is currently 126 males, above the threshold set in the NWCO GRSG Management Plan that allows for an active hunting season (see Figure 1 below). The current year's lek count total of 237 males is slightly above the long-term (2006 to present) average of 207 males. CPW has robust lek count data for this management zone going back to 2006.

The majority of greater sage-grouse habitat in GMU 2 is found on public land in the Sand Wash and Powder Wash basins. These are fairly arid areas, compared to most other greater sage-grouse habitat in Colorado, but provide extensive suitable habitat for the species. CPW believes that harvest pressure is low in this GMU when it has been open to sage-grouse hunting in the recent past. Sage-grouse hunters generally choose to go to adjacent GMUs 3, 301 and 201 where sage-grouse densities are greater and which represent more traditional hunting spots for sage-grouse hunters. Given relatively low perceived hunting pressure, CPW believes that hunting mortality is not a major factor affecting the trend in annual lek counts in these units. CPW does not have recent wing barrel receipt data that can specifically be attributed to GMU 2.

Game Management Units 4 and 5

Game Management Units 4 and 5 overlap greater sage-grouse Management Zone 4a as designated by the NWCO GRSG Conservation Plan. Greater sage-grouse hunting was closed in GMUs 4 and 5 in 2020 when the three-year running average high male count for Management Zone 4a fell below 100. That three-year average hovered near 100 males from 2021 to 2023 but then increased this year (in 2024) to 145, above the threshold set in the NWCO GRSG Management Plan that allows for an active hunting season (see Figure 2 below). CPW has robust lek count data for this management zone going back to 2004.

CPW chose not to recommend reopening the hunting season for greater sage-grouse in GMUs 4 and 5 in 2023 because the three-year average was hovering around 100. When grouse management zones hover around the 100 male mark under the current harvest management strategy it creates a situation where individual GMUs may be turned on/off in subsequent years creating confusion for hunters and enforcement issues for CPW.

The majority of greater sage-grouse habitat in GMUs 4 and 5 occurs on private land, with the only significant area of publicly available areas to hunt sage-grouse falling within the northwest corner of GMU 4. As a result, these GMUs are not generally considered traditional hunting areas for greater sage-grouse and CPW believes harvest in these units (when they were open in the recent past) was generally low. This is based on running two wing barrels that serve this area where annual wing receipts were generally between 5 and 15 sage-grouse during the most recent years when these units were open. However, these two wing barrels may or may not be representative of harvest in these units as a whole. Given relatively low perceived hunting pressure, CPW believes that hunting mortality is not a major factor affecting the trend in annual lek counts in these units.

Game Management Unit 10

Game Management Unit 10 overlaps greater sage-grouse Management Zone 6 as designated by the NWCO GRSG Conservation Plan. Greater sage-grouse hunting was closed in GMU 10 in 2021 when the three-year running average high male count for Management Zone 6 fell below 100. With an increase in lek attendance observed in 2023 and 2024 the current three-year average for this management zone is 234, well above the threshold set in the NWCO GRSG Management Plan that allows for an active hunting season. The current yearly count for this management zone (374 males) is above the long-term (1998 to 2023) average for this management zone, which is 286 males (see Figure 3 below). CPW has robust lek count data for this management zone going back to 1998.

Game Management Unit 10 is a unit that traditionally attracts a good number of greater sage-grouse hunters because of historically high densities of birds, particularly on the Blue Mountain Plateau, and approximately half of the high quality sage-grouse habitat in the GMU is public land and open/available to hunters. Both resident and non-resident hunters are known to utilize the sage-grouse hunting opportunity in GMU10. Because greater sage-grouse hunting in Utah is completely limited and requires a special permit, hunters from northeastern Utah often choose to hunt in Colorado because opportunity is unlimited and only requires purchase of a small game license. Because GMU10 is the closest unit to population centers in northeastern Utah (e.g. Vernal/Jensen), a number of non-resident hunters choose to hunt in this GMU. Wing receipt numbers tend to be highly variable from three wing barrels that have been run in this GMU in recent years when hunting was open. The number has generally ranged from approximately 15 to 60 wings per season, although it is unclear what proportion of overall harvest this represents for the GMU since harvest estimates for sage-grouse are recorded at the county level and not the GMU level.

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***IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.**

The hunting thresholds in the Northwest Colorado Greater Sage-grouse Conservation Plan were developed through an extensive public process with the Northwest Colorado Local Working Group. Although the conservation plan was not finalized until 2008, CPW has managed greater sage-grouse hunting annually under the terms of the conservation plan since the late 1990s. In general, stakeholders impacted by this proposal will include traditional sage-grouse hunters and members of the Northwest Colorado Greater Sage-grouse Local Working Group that represents local government, federal government, agriculture, energy, and conservation interests. The approach of the Northwest Colorado Local Working Group has always been relatively cautious when it comes to sage-grouse hunting. Several traditional industries that have been active in sage-grouse management in northwest Colorado (namely agriculture and energy) as well as local and county governments that tend to support those industries often question the state's approach to sage-grouse hunting while they feel like they are subject to fairly significant land use restrictions related to sage-grouse. Remaining active Work Group members have not yet been informed of this issue, pending internal review and discussion.

ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):

1. ***Preferred Alternative*:** Open GMUs 2, 4, 5, and 10 to greater sage-grouse hunting in 2025 based on the fact that the current three-year running average count has surpassed 100 males in the associated management zones and therefore meets the thresholds set forth in the Northwest Colorado Greater Sage-grouse Conservation Plan.

2. **Status Quo:** leave GMUs 2, 4, 5, and 10 closed to sage-grouse hunting for the upcoming year.

Issue Raised by:	NW Terrestrial Staff
Author of the issue paper (if different than person raising the issue):	Brian Holmes, Wildlife Biologist
CC:	Travis Black, NW Region Manager; Johnathan Lambert, AWM, Brad Banulis, Senior Biologist; Kathy Griffin, Species Conservation Coordinator; Ed Gorman, Small Game Coordinator; Jared Lamb, DWM; Garrett Smith, DWM; Jeff Goncalves, DWM; Brian Dreher, Terrestrial Assistant Director; David Klute, Species Conservation Unit Supervisor
APPROVED FOR FURTHER CONSIDERATION BY:	Brian Dreher
REQUIRES NEW SPACE IN THE BROCHURE?	NO
ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?	YES
REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION	Terrestrial
RECOMMENDED FOR CONSENT AGENDA?	NO

Figure 1. Northwest Colorado Greater Sage-grouse Population, Management Zone 2 (GMU 2) - Lek Count Trend 2006 to 2024.

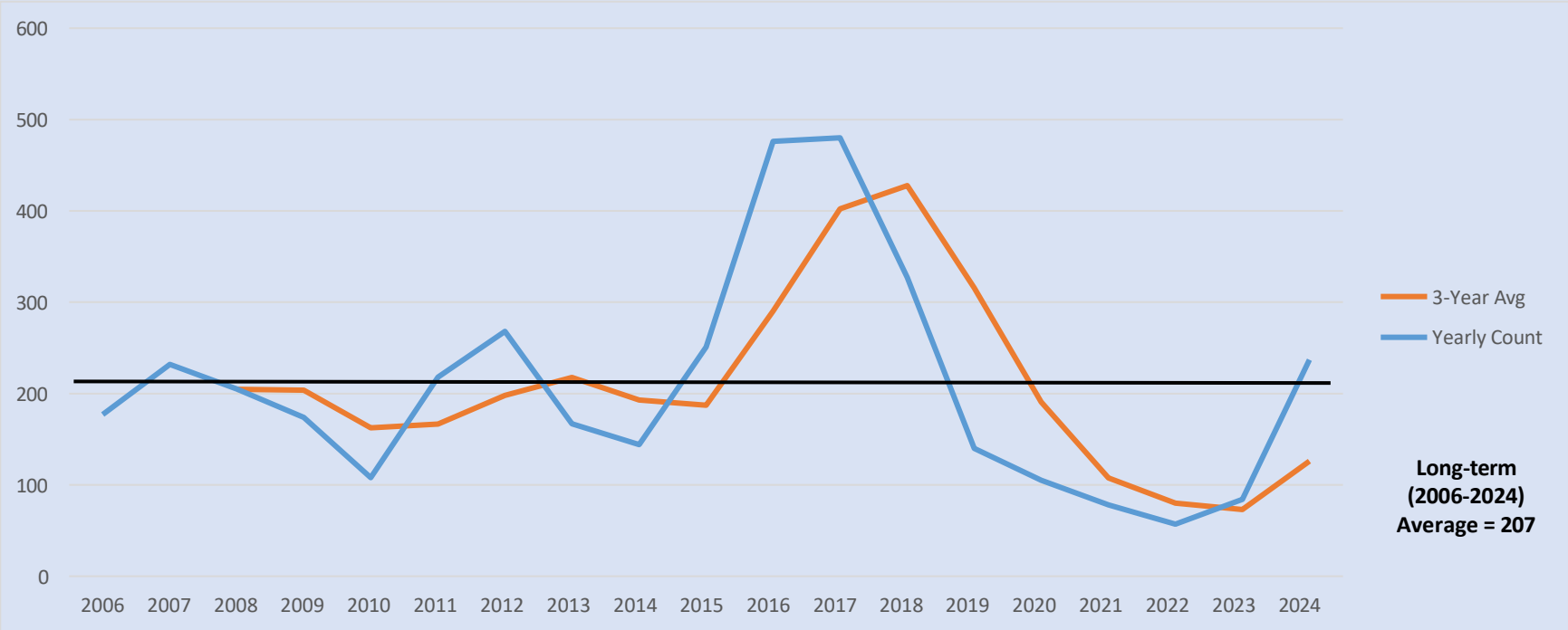


Figure 2. Northwest Colorado Greater Sage-grouse Population, Management Zone 4a (GMUs 4, 5) - Lek Count Trend 2004 to 2024.

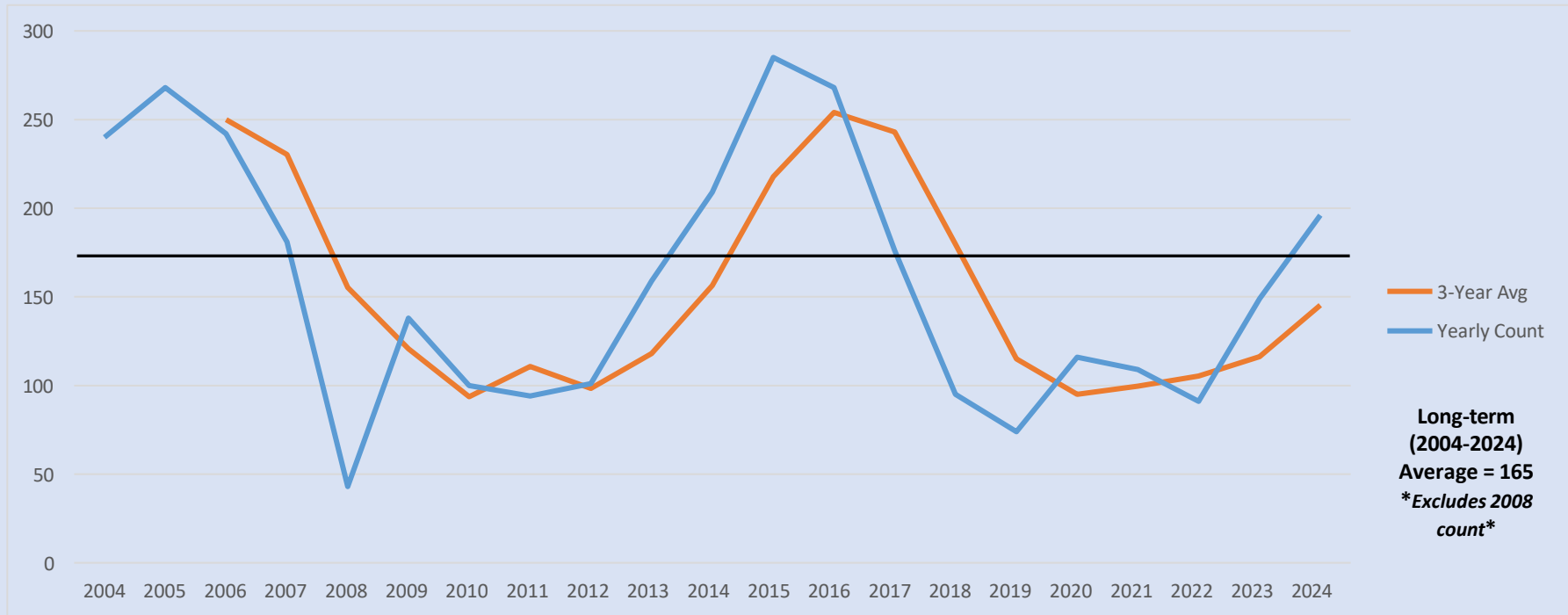
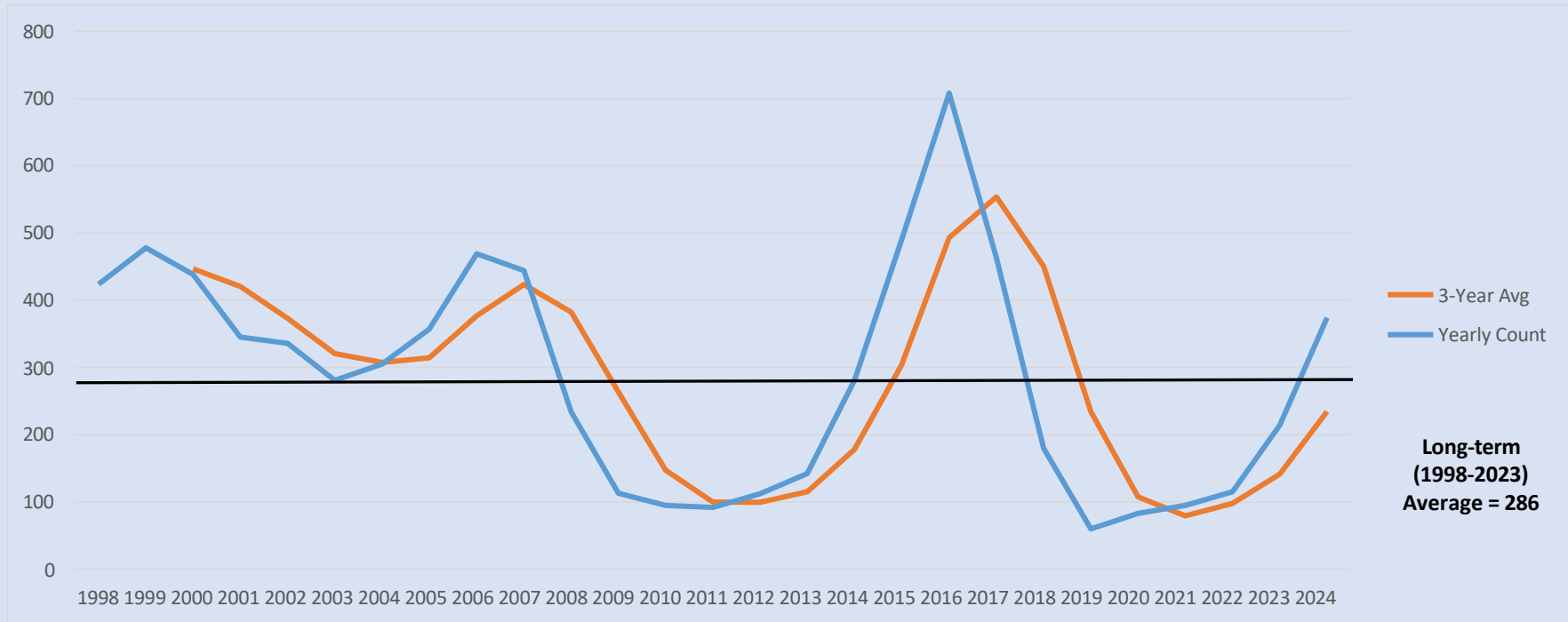
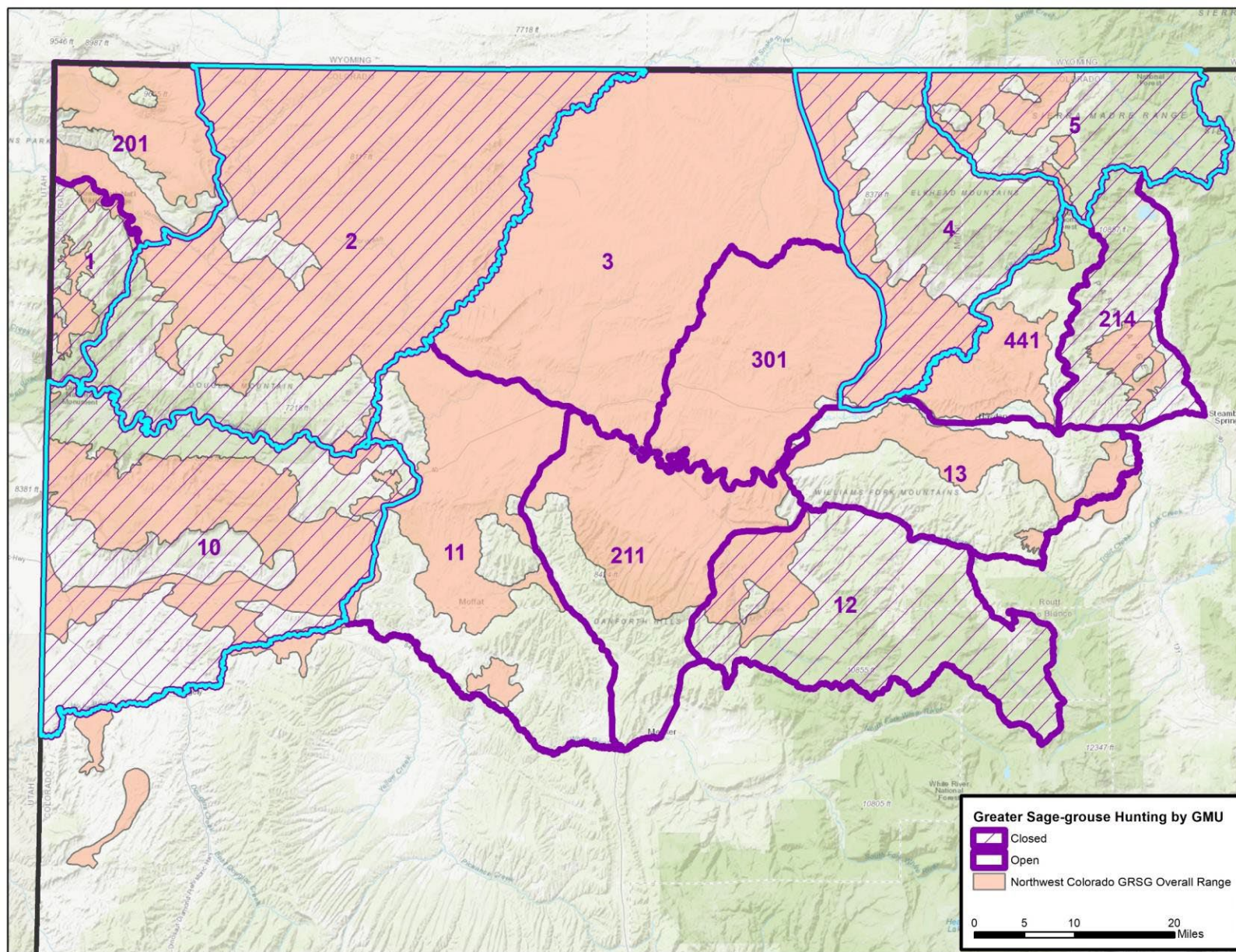


Figure 3. Northwest Colorado Greater Sage-grouse Population, Management Zone 6 (GMU 10) - Lek Count Trend 1998 to 2024.



Map of CPW Game Management Units that overlay the Northwest Colorado Greater Sage-grouse Population. GMUs that are the subject of this issue paper are highlighted in blue.



ISSUES SUBMITTAL FORM

Date: 12/20/2024

ISSUE:	Should the hunting season for Columbian (mountain) sharp-tailed grouse be opened in GMU 23 in 2025?
DISCUSSION (FACTS AND FIGURES, EXPLANATION OF ISSUE):	
<p>Columbian sharp-tailed grouse (also called mountain sharp-tailed grouse), hereafter CSTG, are abundant in northwest Colorado and currently available for harvest during in several GMUs in Moffat, Routt, and Rio Blanco counties. CPW’s understanding of CSTG distribution and abundance continues to evolve with the discovery of additional known lek (breeding) locations and the known breeding distribution of CSTG has increased over the past six years to include a much larger area in eastern Rio Blanco County than previously thought. CPW currently monitors nearly 400 known CSTG leks in northwest Colorado, a dramatic increase from the ~150 leks known in 2001 when Colorado published its “Columbian Sharp-tailed Grouse Conservation Plan.” In the spring of 2024 CPW tallied >4,700 CSTG at 254 active leks in northwest Colorado, the most ever documented in >25 years of formal monitoring of this species.</p> <p>The current hunting season for CSTG is September 1 through the 3rd Sunday in September each year (a 15 to 21-day season length that varies yearly with the calendar) with a daily bag limit of 2 and possession limit of 4. The current Conservation Plan for CSTG has one objective related to hunting and that is to “Provide a level of hunting recreation that does not adversely affect viability of CSTG populations in northwest Colorado.” The current hunting season structure, which has been in place for over 15 years, appears to be highly compatible with maintaining CSTG populations as overall lek counts (subject to some yearly variation) and number of known active leks continue to increase under this management strategy.</p> <p>Since 2012 CPW has discovered, and continues to monitor, 10 additional CSTG leks in GMU23 in eastern Rio Blanco County. These leks have been counted each year since their discovery and the total number of birds counted on these leks in GMU 23 has remained >100 in each year since 2018. While there are currently no specific thresholds or prescriptions for when a unit may be opened to CSTG hunting (as there is for greater sage-grouse in northwest Colorado) CPW biologists and District Wildlife Managers concur that recent data indicates a CSTG population size suitable for harvest. Therefore, CPW proposes that GMU 23 be added to the list of current GMUs open for CSTG hunting during the established 15-day season and that bag/possession limits of 2/4 be the same as for currently open units.</p> <p>The vast majority of occupied CSTG habitat in GMU 23 is on private land. However, two State Wildlife Areas (Jensen SWA and Oak Ridge SWA) would provide public hunting opportunity, as would several scattered parcels of BLM public land in the unit.</p>	
<p>STATE LAW REQUIRES CPW TO SOLICIT INPUT FROM STAKEHOLDERS THAT MAY BE AFFECTED POSITIVELY OR NEGATIVELY BY THE PROPOSED RULES. THE FOLLOWING STAKEHOLDERS HAVE BEEN ADVISED OF AND INVITED TO PROVIDE INPUT ON THE REGULATORY CHANGES PROPOSED IN THIS ISSUE PAPER:</p> <p>*IT IS ASSUMED THAT ALL NECESSARY INTERNAL PARTIES HAVE BEEN NOTIFIED*.</p>	
<p>This issue paper has been vetted through internal CPW stakeholders. There are currently no active working groups for Columbian sharp-tailed grouse (such as we currently have and consult on greater</p>	

sage-grouse issues). However, multiple District Wildlife Managers (both current and retired) that work with CSTG, Terrestrial Biologists, and other CPW staff have been consulted.	
ALTERNATIVES: (POSSIBLE OUTCOMES or POSSIBLE REGULATIONS):	
<p>1. *Preferred Alternative*: Open GMU 23 to Columbian (mountain) sharp-tailed grouse hunting in 2025 based on the presence of multiple active leks with total counts in excess of 100 birds in each year since 2018.</p> <p>2. Status Quo: Leave GMU 23 closed to sharp-tailed grouse hunting.</p>	
Issue Raised by:	NW Terrestrial Staff
Author of the issue paper (if different than person raising the issue):	Brian Holmes, Wildlife Biologist
CC:	Travis Black, NW Region Manager; Johnathan Lambert, AWM, Brad Banulis, Senior Biologist; Kathy Griffin, Species Conservation Coordinator; Ed Gorman, Small Game Coordinator; Brian Dreher, Terrestrial Assistant Director; David Klute, Species Conservation Unit Supervisor; Libbie Miller, Wildlife Biologist; Ross McGee, DWM; Bailey Franklin, DWM
APPROVED FOR FURTHER CONSIDERATION BY:	Brian Dreher
REQUIRES NEW SPACE IN THE BROCHURE?	NO
ARE ADEQUATE STAFF AND FUNDING RESOURCES AVAILABLE TO IMPLEMENT?	YES
REGION, BRANCH, OR SECTION LEADING IMPLEMENTATION	Terrestrial
RECOMMENDED FOR CONSENT AGENDA?	NO