

MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION

Species: Mule Deer

Region: 4

Hunting District: 410, 411, 412, 417, 419, and 426

Year: 2024-25

1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).

For the upcoming 2024-25 hunting season in hunting districts (HDs) 410, 411, 412, 417, 419, and 426, it is proposed to:

- Change the mule deer general license regulation in HDs 410 and 417 from “Antlered Buck Only” (AB) to limited-entry (LE) permits for both 6-week archery and 5-week general seasons (quota 100, quota range 25-500);
- Change the mule deer general license regulation in HD 426 such that the first three weeks of the general season remains AB on a general license, but the last two weeks of the general season is restricted to LE permits AB (quota 75, quota range 25-250; no change to archery season—remains general license AB);
- Change all mule deer B-licenses for HDs 410, 411, 412, 417, 419, and 426 to be valid “Only on Private Land;” and
- Maintain current ES/B-license regulations for white-tailed deer in all HDs.

These changes are summarized in Table 1. All tables and figures provided in attached supplemental materials.

These HDs have alternated between ES and AB general license regulations based on trend area aerial surveys and buck harvest data in accordance with FWP’s Adaptive Harvest Management (AHM) guidelines and their long-term averages (LTAs), since the adoption of AHM in 1998. To date, none of these HDs have had an LE permit structure for antlered mule deer. From 2016-2022, these HDs fell under a “Standard” regulation type (ES mule deer/white-tailed deer opportunity) with none to limited numbers of B-licenses. A season change proposal was submitted to change the ES regulation to AB for the 2023 hunting season and approved at the June 2023 Fish & Wildlife Commission meeting.

The attached supplemental materials will further illustrate the following points:

- Typical of prairie breaks environments, deer populations as indexed by buck harvest fluctuate widely across time;
- In recent years buck harvest as a population indicator may be clouded by increased hunter effort (hunter numbers/days/hunter);
- Efforts to increase elk harvest in some HDs may be inadvertently increasing deer hunting pressure and harvest;
- Antlerless harvest has persisted at relatively low levels across HDs 410, 417, and 426 for over two decades (and since 2010, average antlerless harvest is 36 total antlerless mule deer *per district per year*).
- Antlerless harvest in some districts, particularly HDs 410 and 417, is occurring on predominately public lands—mule deer B licenses are intended as a tool to be applied to private lands.

2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.

The objectives of this proposed change are to:

- Reduce buck harvest and deer hunter numbers in HDs 410, 417, and 426;
- Maintain a post-season buck:doe ratio of ≥ 25 bucks:100 does in HDs 410 and 417, and a buck:doe ratio of ≥ 30 :100 in HD 426. These ratios represent the approximate LTAs of HDs 410 and 426, respectively;
- Provide *at least* the current levels of deer hunting opportunity, as the resource allows, in HDs 411, 412, and 419 where the regulations would remain general license AB for the five-week season;

- Eliminate antlerless mule deer harvest on public lands in HDs 410, 411, 412, 417, 419, and 426; while maintaining landowners' ability to manage antlerless mule deer on their properties with existing, limited numbers of B-licenses.

This proposal has been drafted while considering:

- Fawn recruitment and adult female mortality are the primary drivers of mule deer populations, and both are heavily dependent on weather conditions. Controlling weather is beyond FWP's abilities, but adult female mortality can be reduced, to a point, by reducing antlerless harvest. As mentioned above, there is little management direction remaining in these HDs to further reduce adult female mortality via antlerless harvest (i.e., quotas and opportunity are already near their lowest levels and have been for some time).
- Because mule deer populations in prairie-breaks environments fluctuate based on weather conditions (and with a lag effect after favorable conditions), without a consistent, longer-term change in weather (e.g., ample growing season precipitation and mild winters for several years), mule deer populations will not rebound as quickly as desired, *regardless of season structure*.
- Related to the above point, nothing in this proposal is aimed, or could result in, additional fawns produced or recruited. Fawn recruitment is the driving factor in mule deer population dynamics; fawn recruitment is largely dictated by weather, not season structure.
- Fawn:adult ratios may decrease—if these proposed changes reduce buck harvest and buck mortality, more adults will survive to spring. If fawn survival remained constant, then a higher number of adults will result in lower observed fawn:adult ratios in spring surveys. There is also some speculation that bucks may outcompete fawns when resources are limited, which also reduces fawn:adult ratios. If the latter were true, deer numbers may decline over time with lower fawn recruitment. Reduced fawn:adult ratios are expected as a result of this proposal, but it will be difficult to tease out whether this is due to more adult deer surviving vs. fewer fawns recruited.
- Adult buck mortality, even without harvest, is generally higher than adult doe mortality. While this proposal aims to reduce buck mortality (via reduced harvest), adult bucks are still more vulnerable to other mortality factors as opposed to adult does. Body condition going into winter is a major factor in overwinter survival, and bucks are generally in poorer body condition after the rut. Thus, bucks are more vulnerable to overwinter mortality than does, *regardless of season structure*.
- Chronic Wasting Disease (CWD) merits consideration, as one effect of limiting buck harvest may be an increase in the number of older age-class bucks in the population—the very segment most susceptible to contracting and spreading CWD. Currently, there have been no detections of CWD in any of these HDs, however if a positive CWD detection occurs, the area biologist will revisit this proposal and LE permits vs. a general license structure. Given current deer numbers in these districts (compared to area elk populations) CWD *could* be detected first in elk than in mule deer (and given higher prevalence in deer, if detected in elk, CWD would likely also be present in deer). A complete examination of management alternatives for both species would be necessary.
- This proposal “bucks” Montana’s tradition of managing for opportunity—in the 2010 and 2022 mule deer hunter preference surveys, roughly 60% of resident and non-resident hunters favored the opportunity to hunt mule deer every year, while ~40% would forgo this annual opportunity for a higher probability of harvesting a more mature buck. Of Region 4’s 32 hunting districts, only one is strictly an LE permit HD for antlered mule deer bucks, five have combination permit/general license opportunities (similar to what is proposed for HD 426), and the remaining 26 represent general license opportunities. With HDs 410 and 417 being added as LE districts with HD 455, this still represents <10% of Region 4, in which opportunity is truly restricted every year, and including the five other combination season-type HDs (six if HD 426 is included) as a “restriction” still leaves 75% of Region 4 with five-week general license opportunities.
- This proposal is not intended to be permanent, but the likelihood of returning to a general license structure following an LE permit regulation is slim.

3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.

Success of this proposal will be measured via:

- Reduced buck harvest and deer hunter numbers in HDs 410, 417, and 426 as reported in FWP hunter harvest and hunter effort surveys (and as is predicted to happen with LE permit regulations);
- Over time, assuming consistent favorable weather, increased numbers of bucks (and adult bucks) observed during post-season aerial surveys (i.e., ≥ 25 bucks:100 does in HDs 410 and 417, and ≥ 30 :100 in HD 426). These numbers are the LTAs of buck:doe ratios in the trend area.

- Hunters holding mule deer B licenses for HDs 410, 411, 412, 417, 419, and 426 will report harvest on private lands vs. public land (via questionnaires e-mailed to successful applicants);
- No increase in Lewistown-area game damage complaints specific to mule deer. For the 2022-23 game damage season (15 August 2022 through 28 February 2023), MFWP fielded one mule deer-related game damage complaint in each of HDs 417, 419, and 426, and two deer-related game damage complaints in HD 412, but those were centered on urban deer in and around the City of Lewistown.

There are no measures or objectives related to the number of older-age class bucks observed during post-season surveys, or harvested bucks with 4 or more antler points per side, etc. associated with this proposal. With favorable conditions, this is a likely side-effect of LE permit structures. FWP has a number of Special Management Districts (SMDs) with specific buck management objectives; none of these HDs are included among them.

4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).

Outside of AHM guidelines for Prairie-Breaks Population Management Units (PMUs; i.e., total counts, fawn:adult ratios, and buck harvest within specified ranges), there are currently no specific objectives related to these HDs (Table 3). These HDs have had limited antlerless harvest over the last decade (i.e., already similar to a restrictive package, see Section 1 and supplemental materials); thus, a restrictive package as outlined by AHM may not be adequate to meet the needs of the resource.

The attached supplemental materials will further elaborate the following points:

- Mule deer in all HDs are below LTA and meet the requirements of a "Restrictive" regulation package based on either total count, fawn:adult ratio, and/or buck harvest.
- HD 410 is 76% below LTA with a spring fawn:adult ratio of 23:100, and buck harvest in 2022 was 39% below LTA. Buck numbers are also in decline over the long term.
- HD 417's 2022 buck harvest was 41% below LTA; a spring 2023 survey revealed a fawn:adult ratio of 10:100.
- HD 426 is 43% below LTA and 2022 buck harvest was 23% below LTA.
- HD 419 is 41% below LTA and 2022 buck harvest was 13% below LTA.
- HDs 411 and 412 were 59% and 26% below LTA, respectively, for 2022 buck harvest.

5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

The attached supplemental materials will further elaborate the following points:

- Mule deer populations are heavily influenced by weather. Three years of drought (2020, 2021, and 2022) and two relatively severe winters (2017-18 and 2022-23) are the primary drivers of reduced mule deer populations in these HDs.
- Public lands in HDs 410 and 417 have received disproportionate hunting pressure for antlerless mule deer, bucks, or both. As mentioned earlier in this proposal, efforts to increase elk harvest may be putting additional harvest pressure on mule deer, especially in these public land districts.
- With reductions in opportunity, many hunters may be displaced to other areas, which may exacerbate crowding elsewhere. Proposing to move to an LE permit system in HD 410 drives the 417 and 426 hybrid season proposals to account for predicted shifts in hunter distribution to these districts.
- The associated B-license proposal will also aid in maintaining mule deer on public lands while allowing landowners to address localized concentrations of deer on their properties.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

The area biologist for these HDs has been talking with area sportsmen and landowners about these potential season structure changes since December 2022. She also obtained feedback from mule deer B-license holders and elk permit holders/B-license holders on these proposals, as many hunters (deer and elk alike) have

expressed concerns about mule deer in these districts (particularly 410 and 417). The majority of sportsmen approached about this proposal are in broad support. Similar support was offered during public scoping.

Landowners also largely support of this proposal; some landowners in HDs 417 and 426 who experience chronic and localized game damage issues were mildly concerned. However, in areas where game damage is a concern, FWP will draft letters to successful B-license applicants letting them know which landowners (upon those landowners' approval) are experiencing game damage issues and in need of antlerless deer hunters. The combination season structure proposed for HD 426 (i.e., maintaining some general license opportunity in addition to B-licenses) mitigated some of the concerns a landowner expressed about still having "too many deer." Another landowner was concerned about loss of opportunity for local meat hunters but was supportive of the proposal on hearing that HDs 411, 412, and 419 *would remain general license districts*.

A couple of area outfitters were also supportive of the proposal. Area game wardens Shawn Briggs, Joe Horrocks, and game warden sergeant Kyle Andersen support the proposal. BLM biologists and the CMR Refuge manager strongly support the idea of moving to LE permits in HDs 410 and 417.

FWP recently completed a resident/non-resident hunter preference survey, nearly identical to the one conducted in 2010. Among the questions asked were, "given one choice, which of the following would be most favorable... the opportunity to hunt mule deer bucks every year somewhere in Montana (with a lower probability of harvesting a mature buck OR the opportunity to hunt mule deer bucks once every several years somewhere in Montana (with a higher probability of harvesting a mature buck)?" Roughly 60% of respondents preferred the opportunity to pursue mule deer bucks every year (on the understanding that they were less likely to harvest a mature buck), whereas 40% of respondents were in favor of more restrictions for a greater probability of harvesting a mature buck. Currently, 100% of the Lewistown-area districts provide opportunity and 0% have restrictions; this proposal would push the meter closer to a 60-40 or 50-50 split in season types, commensurate with some of these survey results.

Submitted by: **Sonja Andersen**
Date: **May 2023 and August 2023**
Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:



Addendum to the 2024-25 Mule Deer season change HDs 410, 411, 412, 417, 419, and 426 (**Section 1**):

Table 1. Current and proposed mule deer hunting regulations for HDs 410, 411, 412, 417, 419, and 426.

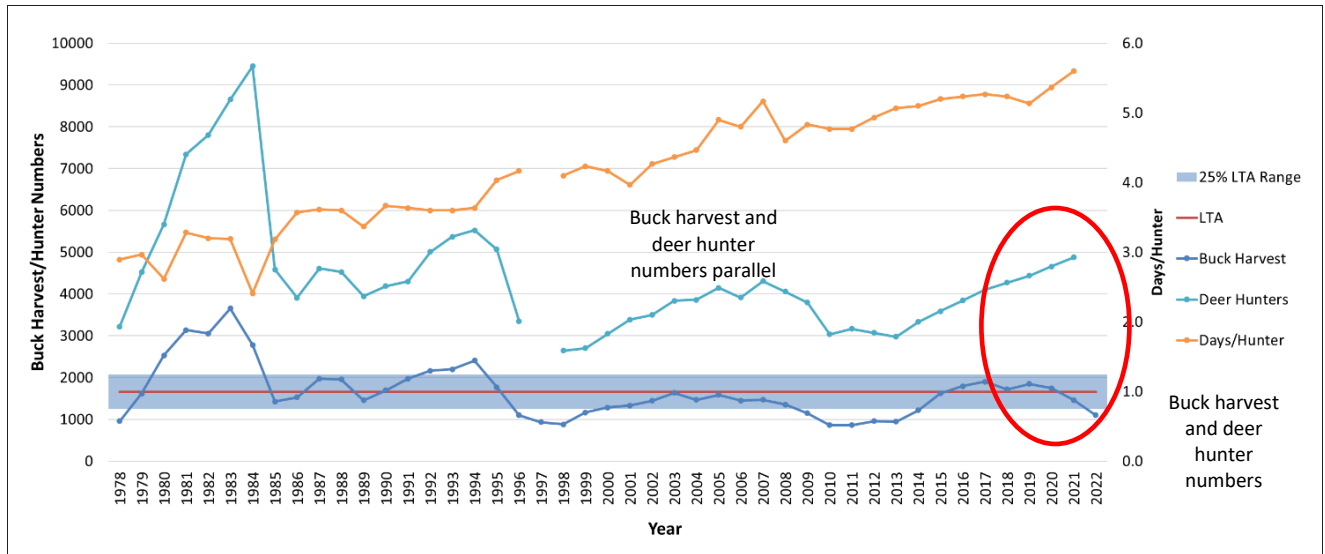
| Regulations (Mule Deer Only) | 410 | 411 | 412 | 417 | 419 | 426 |
|--|-----------------------------|---------|---------|---------|---------|------------|
| Current Structure | | | | | | |
| General License/Permit Type | General | General | General | General | General | General |
| 6-week archery season | AB | AB | AB | AB | AB | AB |
| 5-week general season | AB | AB | AB | AB | AB | AB |
| Split season? | No | No | No | No | No | No |
| B-Licenses | Valid across respective HDs | | | | | |
| Proposed Structure (changes in RED text): | | | | | | |
| General License/Permit Type | LE | General | General | LE | General | General/LE |
| Quota | 100 | n/a | n/a | 100 | n/a | 75 |
| Quota Range | 25-500 | | | 25-500 | | 25-250 |
| 6-week archery season | LE AB | AB | AB | LE AB | AB | Gen. AB |
| 5-week general season | LE AB | AB | AB | LE AB | AB | Split |
| Split season? | Weeks 1-3 | n/a | n/a | n/a | n/a | Gen. AB |
| | Weeks 4-5 | | | | | LE AB |
| B-Licenses | Valid only on Private Land | | | | | |

In areas where buck harvest opportunity is unrestricted (i.e., via general license), buck harvest may be used as an index of mule deer population trends (AHM 2021). Buck harvest in these HDs fluctuates across time; most recently peaking 2016-2020 and abruptly declining the last two hunting seasons, particularly in HDs 410 and 417. Overall, 2022 buck harvest was 34% below LTA for all HDs combined. Meanwhile, hunter numbers and days/hunter have increased, which may cloud interpretation of buck harvest as a metric of population performance in lieu of survey data (Figure 1).

Another consideration is the relationship between elk B licenses and/or elk hunter numbers and buck harvest, particularly in HDs 410, 417, and to some extent, 426. These HDs have ample public land (from a deer hunting perspective), and all HDs have recently seen liberalization of elk hunting opportunities. A significant amount of elk hunting effort occurs on public lands in these districts. Increased numbers of elk B licenses and/or season structure allowing for additional elk hunters may have an unforeseen/exacerbated effect on mule deer buck harvest by bringing in more deer hunters, or opportunistic elk hunters who also hold general deer licenses. In HD 410 for instance, buck harvest (and deer hunter numbers) track very well with elk hunter numbers and elk B licenses issued (Figure 2). In fact, the correlation coefficients for buck harvest/elk hunter numbers and elk B license quota/deer hunter numbers are both >0.75.

Along with environmental conditions' effects on deer populations, antlerless harvest, by design, is the primary lever managers pull to either reduce or aid in the maintenance/increase of mule deer populations. Antlerless harvest fluctuates primarily as a function of the number of B-licenses issued for these HDs, however antlerless harvest also occurs, at low levels, via general licenses during ES seasons. In years where general licenses were valid for ES mule deer, approximately 13% of general license harvest consisted of antlerless mule deer. Since 2010 (i.e., the last 14 years), average total antlerless harvest (B-license and general license combined) has been only 36 antlerless deer, per district, per year (Table 2). Section 4 will describe population statuses in relation to, or despite these low antlerless harvest rates.

Figure 1. Buck harvest (with LTA and 25% range), deer hunter numbers, and days/hunter for HDs 410, 417, and 426 combined from 1978-2022.



Finally, B-licenses are primarily issued as a tool for landowners to reduce problematic, localized deer concentrations, along with the belief that most hunters utilize these licenses on private lands (as intended). However, multiple areas across central and eastern Montana, which are predominately private lands, are seeing reduced levels of public access, thus increasing pressure on nearby public lands. Following the 2022 hunting season, the Lewistown area biologist e-mailed all of the mule deer B-license holders for HDs 410, 411, 412, 417, 419, and 426, specifically asking whether they hunted and/or harvested an antlerless mule deer on public land, private land, or a Block Management Area. In HDs 410, 412, and 417, the majority of antlerless hunting and B-license harvest occurred on public lands. This is an increase from hunter harvest surveys in 1993 and 1998 that indicated the majority of antlerless harvest in all six districts occurred on private lands (Figure 3).

Table 2. General license regulations, B-license quotas, and antlerless harvest in HDs 410, 417, and 426, 1999-2022.

| Year | General License Regulation | | 410 | | 417 | | 426 | |
|------|----------------------------|-----|--------------|--------------------|--------------|--------------------|--------------|--------------------|
| | 410, 417 | 426 | # B-licenses | Antlerless Harvest | # B-licenses | Antlerless Harvest | # B-licenses | Antlerless Harvest |
| 1999 | AB | ES | 0 | 0 | 5 | 16 | 5 | 60 |
| 2000 | AB | ES | 0 | 0 | 50 | 24 | 300 | 319 |
| 2001 | AB | ES | 0 | 0 | 55 | 158 | 550 | 444 |
| 2002 | AB | ES | 0 | 3 | 250 | 132 | 550 | 457 |
| 2003 | AB | ES | 0 | 0 | 300 | 124 | 550 | 495 |
| 2004 | AB | ES | 0 | 43 | 300 | 126 | 550 | 338 |
| 2005 | AB | ES | 0 | 8 | 300 | 140 | 550 | 317 |
| 2006 | ES | ES | 300 | 164 | 300 | 170 | 550 | 302 |
| 2007 | ES | ES | 600 | 315 | 400 | 218 | 550 | 377 |
| 2008 | ES | ES | 600 | 297 | 400 | 167 | 550 | 316 |
| 2009 | ES | ES | 25 | 71 | 50 | 48 | 50 | 47 |
| 2010 | AB | AB | 25 | 14 | 50 | 11 | 50 | 13 |
| 2011 | AB | AB | 5 | 18 | 25 | 9 | 5 | 9 |
| 2012 | AB | AB | 5 | 12 | 5 | 2 | 5 | 8 |

Table 2 (cont'd). General license regulations, B-license quotas, and antlerless harvest in HDs 410, 417, and 426, 1999-2022.

| Year | General License Regulation | | 410 | | 417 | | 426 | |
|------|----------------------------|-----|--------------|--------------------|--------------|--------------------|--------------|--------------------|
| | 410, 417 | 426 | # B-licenses | Antlerless Harvest | # B-licenses | Antlerless Harvest | # B-licenses | Antlerless Harvest |
| 2013 | AB | AB | 5 | 3 | 5 | 2 | 5 | 8 |
| 2014 | AB | AB | 0 | 3 | 0 | 0 | 0 | 3 |
| 2015 | AB | AB | 0 | 0 | 0 | 6 | 0 | 0 |
| 2016 | ES | ES | 0 | 48 | 0 | 12 | 25 | 49 |
| 2017 | ES | ES | 0 | 47 | 0 | 6 | 50 | 44 |
| 2018 | ES | ES | 50 | 46 | 50 | 21 | 100 | 62 |
| 2019 | ES | ES | 50 | 80 | 50 | 39 | 100 | 61 |
| 2020 | ES | ES | 100 | 77 | 100 | 77 | 100 | 70 |
| 2021 | ES | ES | 100 | 113 | 100 | 106 | 100 | 54 |
| 2022 | ES | ES | 100 | 78 | 100 | 48 | 100 | 75 |

Figure 2. Elk B licenses (rifle) issued, deer hunter numbers, and mule deer buck harvest in HD 410, 1999 through 2021/2022 (no hunter effort data/deer hunter numbers collected for 2022 and elk hunter/harvest statistics not available at the time this proposal was submitted).

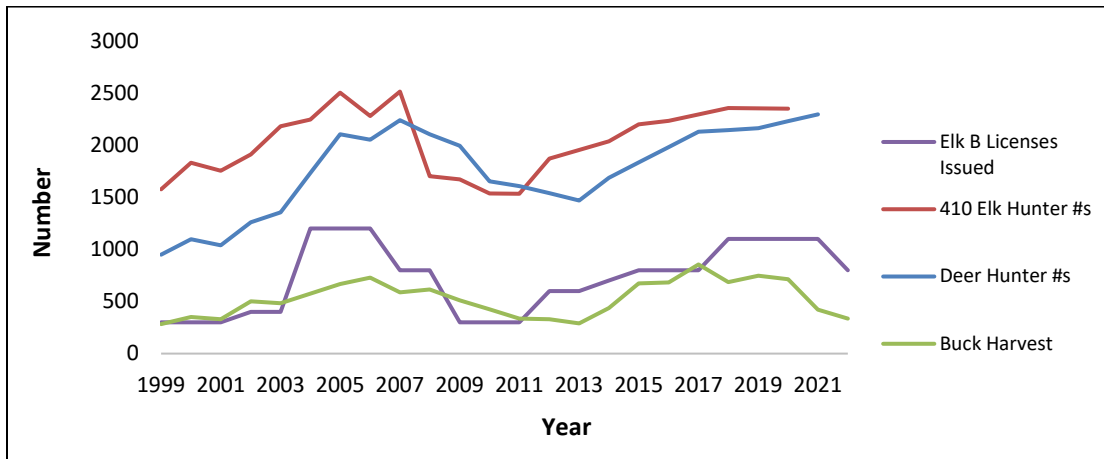
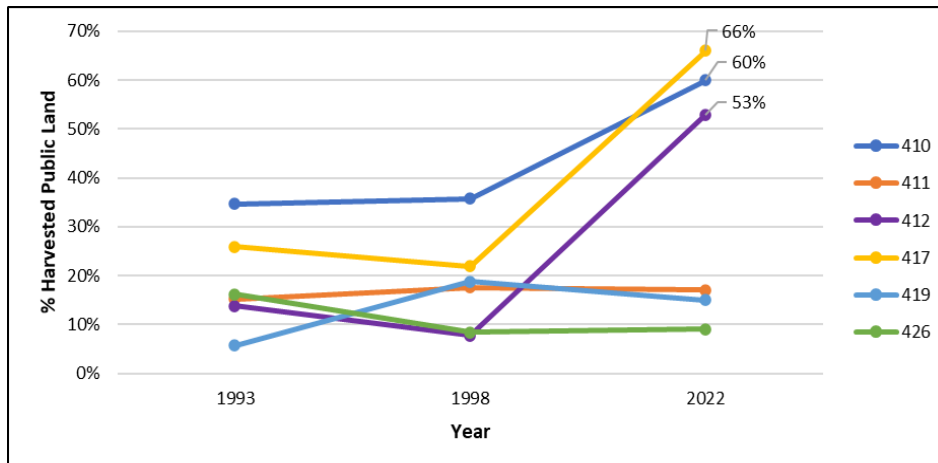


Figure 3. Antlerless mule deer harvest on public lands in HDs 410, 411, 412, 417, 419, and 426 during 1993, 1998, and 2022. In 1993 and 1998, these percentages came from FWP harvest surveys; in 2022, these percentages came from an e-mail survey sent by the area biologist.



Section 4:

HD 410 is the catalyst for the proposed mule deer buck season changes across the Lewistown districts, however low mule deer numbers in all three breaks' HDs call for a structural change. Antlerless harvest aside, observed mule deer buck numbers during post-season surveys have declined in recent years; with January 2022 and 2023 being the lowest on record for HD 410 with 8 total bucks observed in the trend area (5 'mature' bucks in 2022 and 1 'mature' buck in 2023).

Three years of drought, with variable weather and several harsh winters (particularly 2010-11, 2017-18, and to some extent, 2022-23), increasing elk populations, and increasing hunter numbers (in part to reduce elk populations), are likely the primary causes of the mule deer declines seen across Region 4 Breaks' districts. While AHM does not have specific measures in place beyond the "Restrictive" season package in the above table, there are 28 other HDs across the state with some sort of buck harvest restriction, related to deer population status, buck vulnerability, or some other measure outside of the 11 Special Management Districts detailed in the AHM document. Eight of those 28 districts are managed under a LE permit structure and six are managed with a combination/hybrid split season type. Thus, precedence exists for HDs 410, 417, and 426 to undergo additional restrictions beyond what is described in AHM.

Table 3. AHM guidelines and hunting regulations for Prairie Breaks mule deer PMUs.

| Parameter | Standard | Liberal | Restrictive |
|---|--|--|--|
| Population Indicators | | | |
| Total deer counted in survey area | Within range of 20% above and 30% below LTA | >20% above LTA | ≤30% below LTA |
| AND | | | |
| Recruitment | 30-60 fawns:100 adults | >60 fawns:100 adults | <30 fawns:100 adults |
| OR, in the absence of long-term survey data | | | |
| Buck Harvest | Within 25% of LTA | >25% above LTA | <25% below LTA |
| Hunting Regulations | | | |
| Season Length | 5-week ES | 5-week ES | 5-week AB |
| B-licenses | None-to-moderate (no more than 50% of liberal package) | Liberal numbers with option of issuing more licenses | Limited licenses for localized game damage issues only |
| Archery Season | 6-week ES | 6-week ES | 6-week AB |

HD 410: HD 410 is surveyed biannually; once post-season for total count/buck:doe ratios and once in the spring for total count/overwinter fawn:adult ratios. In April 2023 (spring survey) the area biologist observed 119 total deer with a fawn:adult ratio of 23:100. Prior, during the January 2023 post-season survey, the area biologist observed 67 total deer, with a buck:doe ratio of 19:100 and a fawn:adult ratio of 31:100. Based on these surveys, mule deer in the Sand Creek/Carroll Coulee trend area are 76-86% below the LTA of 488 and the fawn:adult ratio is below the 30:100 threshold as outlined in AHM (Figure 4).

In hindsight, HD 410 should be in a restrictive regulation package (AB) prior to the 2022 season, but mule deer B license numbers have already been at "restrictive" levels (from 2013 to 2022, B-license quotas ranged from 0 to 100) compared to past issuances of up to 600 and the size of HD 410 (1593 mi²; a quota of 100 yields 0.06 B-licenses offered/mi² in HD 410). Given long-term trends in HD 410's deer numbers coupled with reduced/lower antlerless harvest, it is unlikely that the change to AB (as proposed and adopted for the 2023 hunting season) itself would alter the population trajectory.

Specific to bucks, buck:doe ratios as observed on the trend area have also declined over time (Figure 5), and the number of bucks and adult bucks observed in the trend area has also decreased. While buck numbers fluctuate similarly to total population counts, the peaks and valleys are generally lower through time with each undulation. From 1961-2000, the average number of adult bucks was observed 46, but from 2010-2023, that number has decreased to 28. The observed number of post-season bucks and adult bucks on the trend area were the lowest in 2014, 2021, and 2022 in the history of counts (i.e., since 1961). While numbers will undoubtedly increase with better weather conditions and an upswing in the population, they may still not rebound to previous (even sustainable) levels with current hunting pressure.

Figure 4. HD 410 post-season and spring mule deer surveys, and spring fawn:adult ratios, 1961 to present. LTA is also the population objective for mule deer.

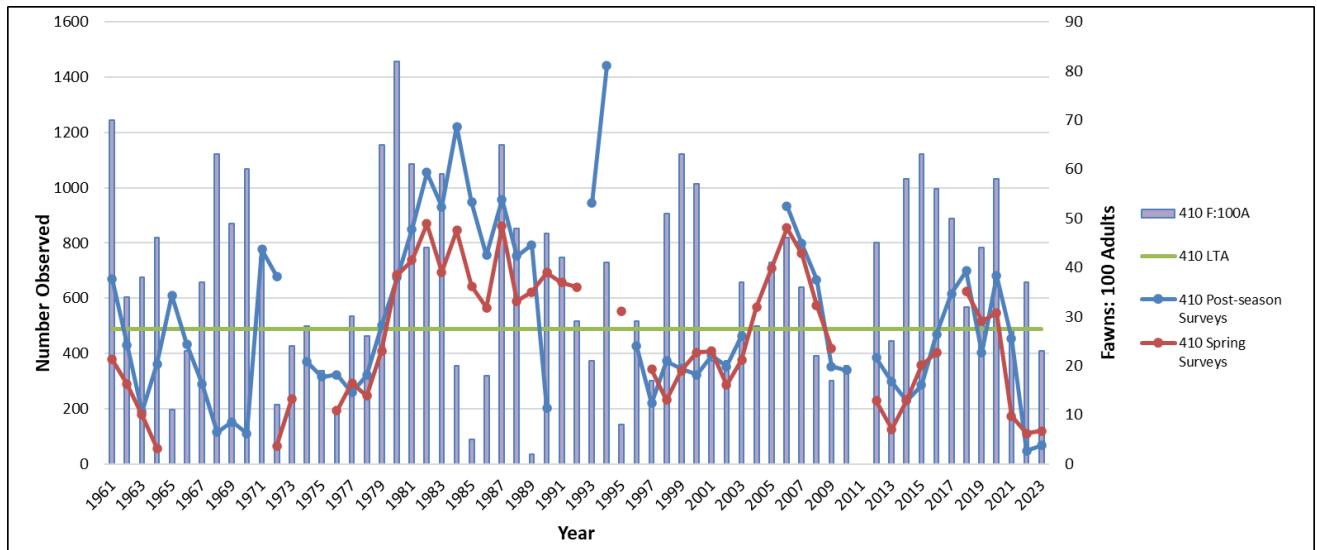
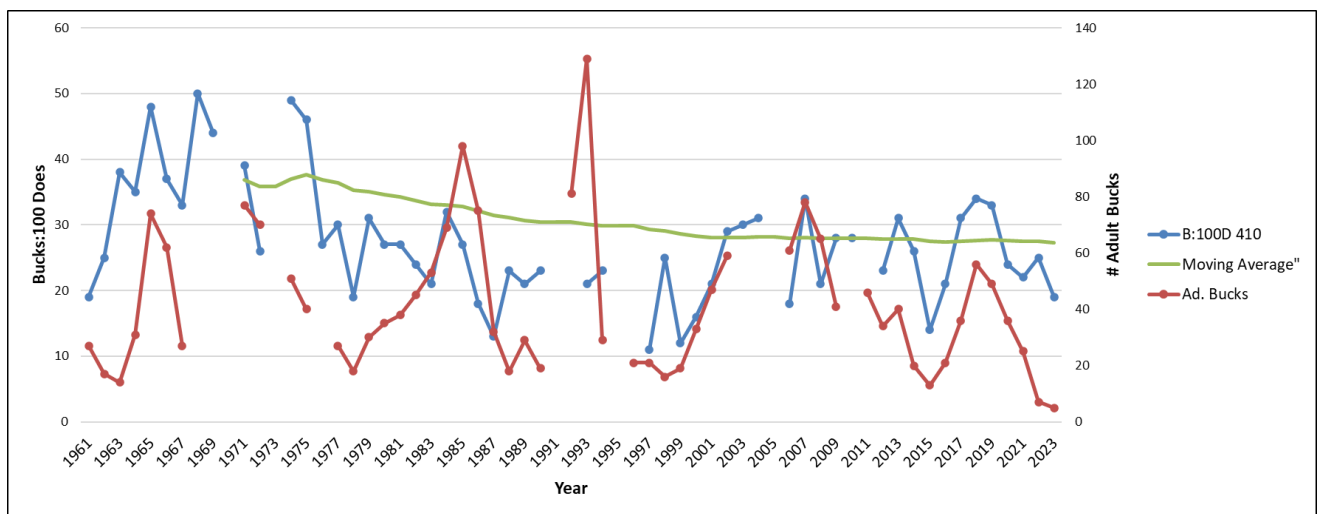


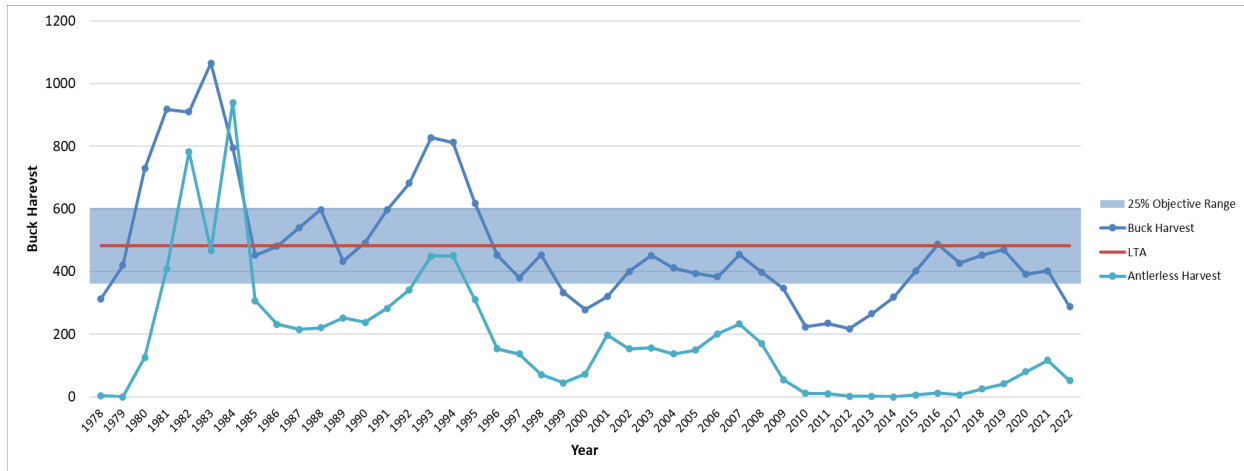
Figure 5. Buck:doe ratios and adult buck numbers from post-season surveys in HD 410, 1961 to present. While each metric fluctuates, they are declining overall across time.



HD 417: HD 417 does not have any long-term aerial survey data; however, the area biologist is establishing a new trend area for the district. She flew this area (the Lower Two Calf drainage) in Spring 2023 and observed 71 total deer with a fawn:adult ratio of 10:100; the observed deer numbers and fawns:100 adults were far lower than what should be expected given past anecdotal observations in the area. Figure 5 shows long-term

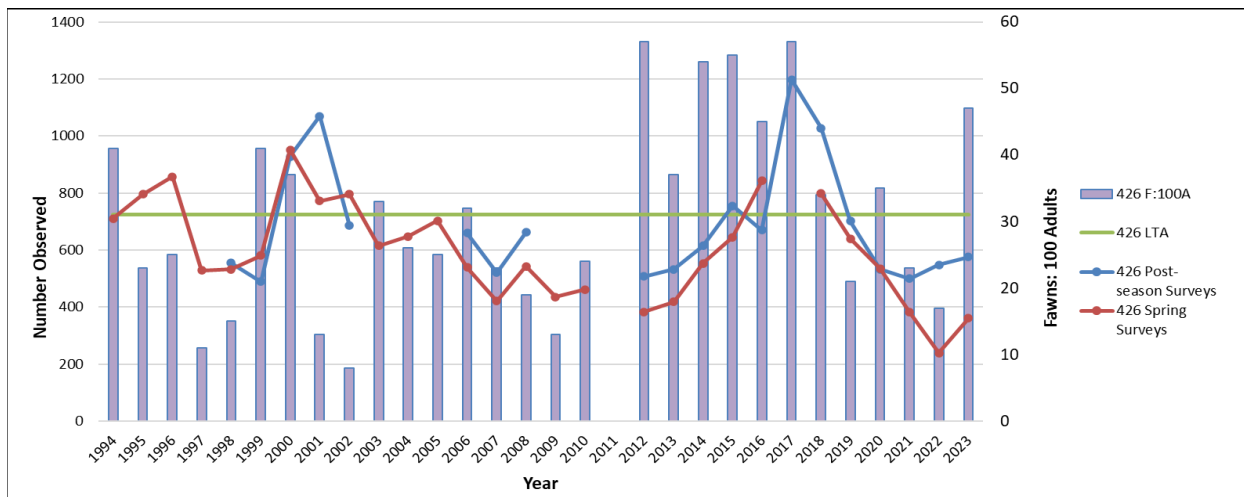
trends in buck harvest in HD 417. Despite low levels of antlerless harvest since 2009, buck harvest (and thus mule deer populations) have not met or exceeded LTA in most years. In 2022, buck harvest was 41% below LTA (Figure 6).

Figure 6. Buck harvest and antlerless harvest in HD 417, 1978-2022.



HD 426: Like HD 410, the area biologist surveys HDs 426 once post-season and once in spring. Based on the spring 2023 survey, mule deer in the Coffee Creek/Arrow Creek trend area are 43% below LTA (Figure 7). The observed fawn:doe ratio was 47:100 (within standard regulation guidelines), higher than the post-season ratio of 17:100 (restrictive regulation). The spring fawn:adult ratio may be skewed from the low numbers of deer observed. In 2022, HD 426 buck harvest was 23% below LTA.

Figure 7. HD 426 post-season and spring mule deer surveys, and spring fawn:adult ratios, 1994 to present. LTA is also the population objective for mule deer.



HDs 411, 412, and 419: These HDs are not intended to be changed to an LE permit structure, but for the purposes of the B-license portion of the proposal, they are included below. HD 419 is surveyed biannually post-season and spring. Based on the spring 2023 survey, mule deer in the Sage Creek/Indian Creek trend area are 31% below LTA (Figure 8). The observed fawn:doe ratio was 46:100 (within standard regulation guidelines) but may also be skewed from the lower numbers of deer observed. In 2022, HD 419 buck harvest was 13% below LTA. Note the mule deer populations do not appear to fluctuate to the degree as they do in HDs 410 and 426. Similar to HD 417, buck harvest is used as a population metric for HDs 411 and 412; 2022

buck harvest is the most recent data available. 2022 buck harvest for HDs 411 and 412 was 59% and 26% below LTA, respectively (Figures 9 and 10).

Figure 8. HD 419 post-season and spring mule deer surveys, and spring fawn:adult ratios, 1985 to present. LTA is also the population objective for mule deer.

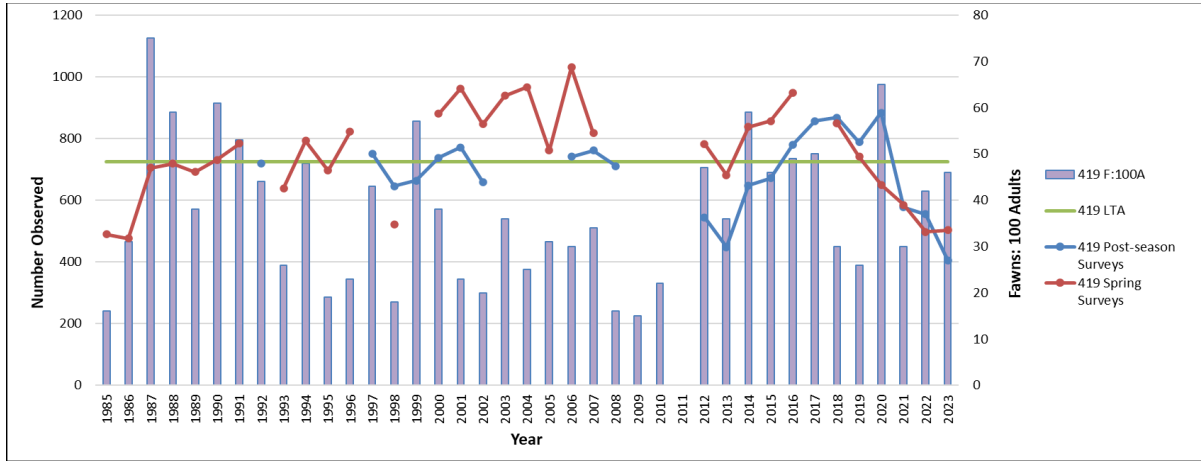


Figure 9. Buck harvest and antlerless harvest in HD 411, 1978-2022.

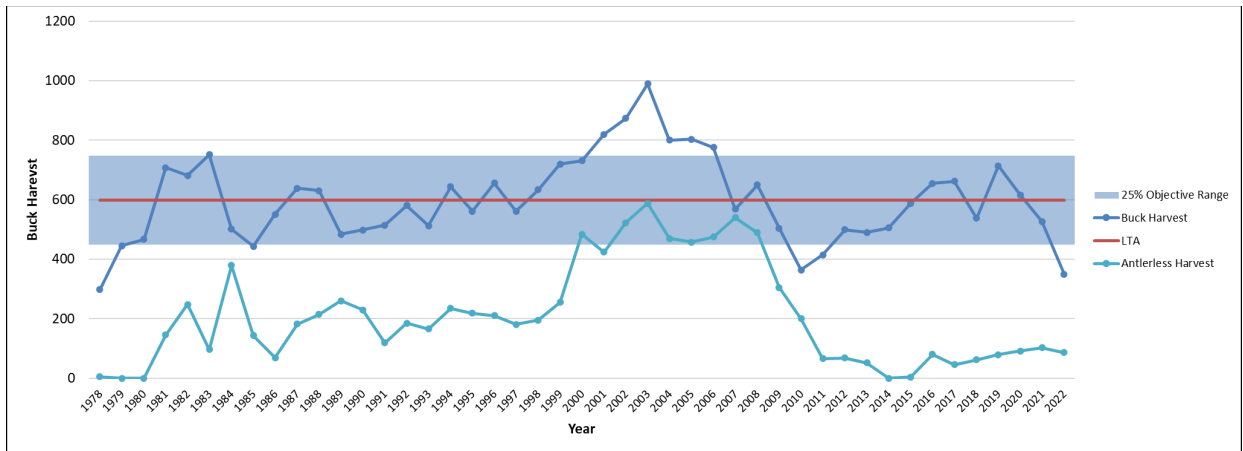
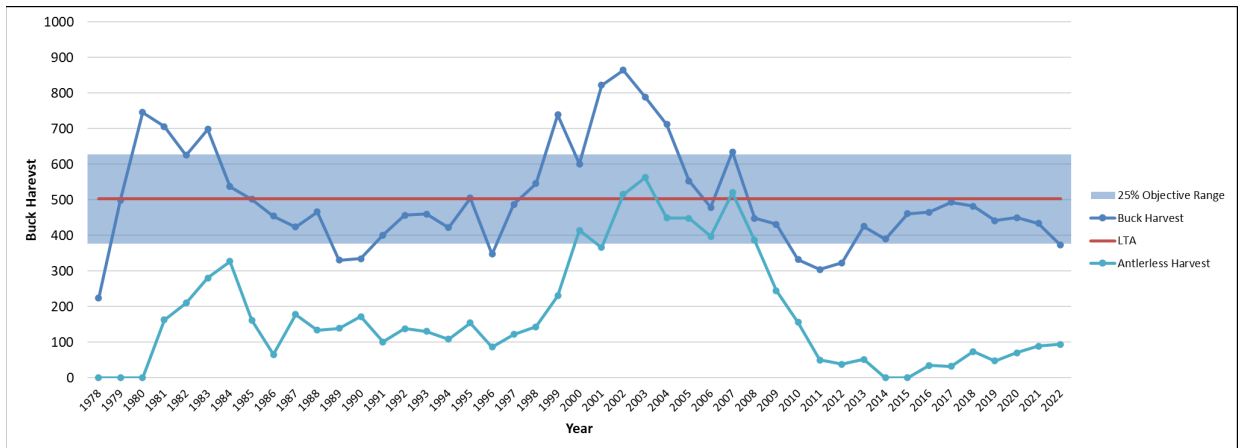


Figure 10. Buck harvest and antlerless harvest in HD 412, 1978-2022.

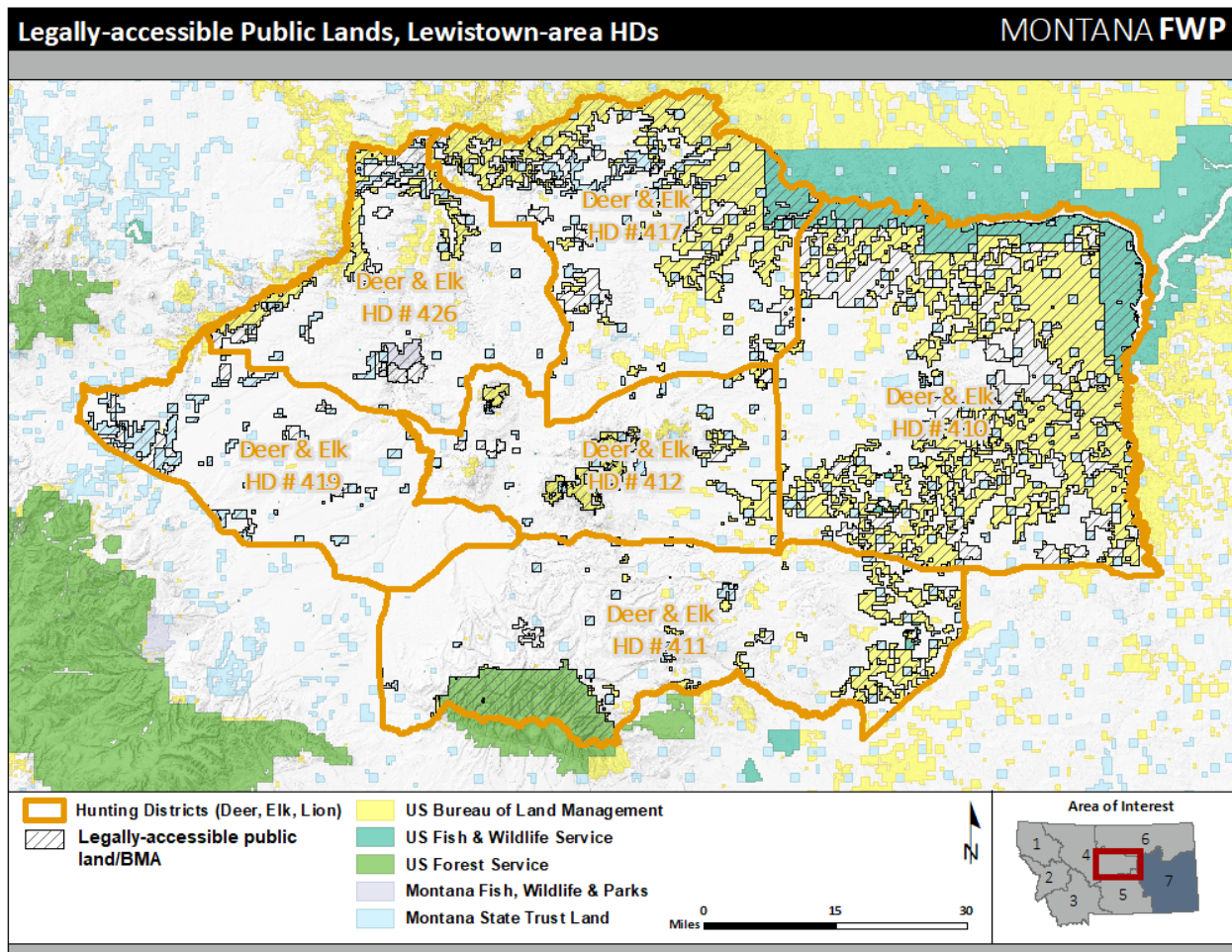


Section 5:

Mule deer population dynamics in prairie-breaks environments are heavily influenced by weather (which can fluctuate greatly year-to-year) and resulting habitat conditions. In their 1989 study of mule deer in the Missouri River Breaks, Hamlin and Mackie found that winter severity and the previous year's spring precipitation were the abiotic factors that could more reliably predict mule deer population dynamics. Recently, in terms of winter severity and drought, 2017-18 was among the more severe winters on record, and growing season precipitation from 2020-2022 has been below average, with near-record drought conditions occurring in 2020-2021.

Hunting district 410 contains ample amounts of publicly accessible lands and Block Management Areas (BMAs; Figure 11), with good deer habitat throughout. Efforts to increase elk harvest in recent years have resulted in more hunters, and more deer hunters in HD 410 (see Section 1 above). Similarly, the northern portion of HD 417 is also predominately public land and also receives a significant amount of deer hunting pressure. (Efforts to reduce an over-objective elk population in HD 417 have also resulted in disproportionate hunter numbers in the northern portion of the district, and during the last aerial elk survey, 0 elk were observed north of Knox Ridge Rd/D-Y Trail). A desired outcome of this proposal for HD 417 would be a reduction in both deer and elk hunter numbers in this area, potentially allowing for both species to redistribute themselves onto these public lands again.

Figure 11. Publicly accessible lands in HDs 410, 411, 412, 417, 419, and 426. Public lands particularly in the northern portions of HDs 410, 417, and 426 receive the most deer hunting pressure.



Moving to LE permits in only HD 410 would undoubtedly cause a shift in hunter distribution to HD 417 and permits in 417 would cause a shift in hunters to HD 426—contributing to increased buck harvest and hunter crowding (particularly on public lands). This is the main reason HDs 417 and 426 are included in this season proposal. Both of these HDs have similar habitat and ample public access for mule deer hunting; however, HD 426 has more private land and localized deer concentrations—thus the need/ability to maintain some general opportunity (i.e., the first three weeks of general season).

In HD 426, there is also a relatively abundant amount of public land hunting opportunities for mule deer, although the area is predominately private land (thus less ideal for a sole-LE permit regulation). However, season-structure changes to 410 and 417 could still redistribute more hunters onto public lands in HD 426. A combination season that is partially general with a shortened season and partially-LE permit for hunting the last two weeks will strike a balance where opportunity would remain possible, yet season type and the private land would leave mule deer less vulnerable from increased harvest/hunting pressure that comes with hunter redistribution, particularly during the rut. This season type also affords the opportunity to compare additional season structures (LE, general, combination) across several HDs in central Montana with similar habitats.

HDs 411, 412, and 419 are predominately private land. Mule deer numbers are also more stable in these districts than they are in the “breaks” areas given the greater propensity of agricultural lands. Maintaining the general season structure in these HDs would sustain adequate opportunity for mule deer hunters in the Lewistown area, but the makeup of private vs. public lands in these HDs would likely afford protection against disproportionate additional general license harvest. While the majority of B-license harvest occurs on private lands already in 411 and 419, adding this regulation for the 411-00, 412-01, and 419-00 mule deer B licenses would maintain consistency in regulations across this area.

MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION

Species: Elk
Region: 4
Hunting District: 410
Year: 2024-25

- 1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.). REMEMBER THIS STEP IS TO BE ACCOMPLISHED BY THE INITIAL ENTRY INTO THE DATABASE—SO FOLKS CAN START THIS NARRATIVE WITH #2 BELOW.**

For the upcoming 2024-25 hunting seasons it is proposed to adjust and following license/permit type (LPT) in HD 410 as follows (also see table at the end of this document):

- For the 410-02 antlerless elk license, remove the shoulder season that extends from the day after general season through February 15th, and remove the 2nd antlerless elk opportunity via general license to holders of the 410-02 LPT.

HD 410 has long been managed under a limited entry structure for both ES (bull) rifle and archery permits, as well as antlerless elk licenses. General license opportunity has only been offered from 2005-2007 where youth could harvest antlerless elk, and at present where 410-02 elk B license holders are permitted to harvest a 2nd antlerless elk south of Crooked Creek using their general license.

Significant structural changes to elk hunting in HD 410 occurred during the 2020 and 2022 biennial season setting processes. In 2020, in an attempt to concentrate elk harvest in the southern portion of HD 410, where there is more private land and thus more game damage issues (compared to the northern, predominately public land), the 410-02 license became valid only south of Crooked Creek only, and a 2nd antlerless elk was permitted with a general license. This license has also been valid during the late antlerless elk “shoulder season” running through February 15, since 2018. FWP simultaneously lowered the quota on the 410-00 elk B license, which is valid district-wide to include lands north of Crooked Creek, to reduce hunting pressure in the northern portion of the district. During 2022 biennial season setting, MFWP removed HD 417 from both the 410-21 ES archery only permit and the 410-01 antlerless archery only license, and reduced the 410-21 quota from 1900 to 1500, based on the estimated proportion of hunters that used this permit to hunt in HD 417, while maintaining ‘current’ levels of archery opportunity in HD 410.

Table 1 shows the breadth and history of antlerless licenses and harvest from the 1999-2022 hunting seasons. Antlerless harvest has fluctuated through time mainly as a function of the number of licenses issued. Success rates are higher overall relative to the rest of the state (likely due to the considerable public access opportunities afforded in HD 410 via public lands, the Block Management Area (BMA) program, and other private landowners that allow hunting access. Antlerless harvest during the 2020 season was significant (652 antlerless elk) by design with concentrated B licenses and the aforementioned addition of a 2nd antlerless opportunity in same area. Harvest statistics are not yet available for the 2022 hunting season, however questionnaires sent to 2022 410-00 and 410-02 elk B license holders indicate harvest success of 45-50% from the responses received based on hunter participation (78-80% of respondents reported hunting). Assuming these percentages are accurate, we could then anticipate 39 antlerless elk harvested with the 410-00 and 328 elk harvested with the 410-02, to include additional general license (26%) harvest for an estimated total of 367 antlerless elk harvested during the 2022 season. These ‘unofficial’ harvest estimates are included in Table 1, below.

Table 1. Antlerless licenses/permits issued, and antlerless elk harvested, 1999 to present.

| Year | Antlerless Quotas | | | Antlerless Elk Harvest by LPT | | | | Total Antlerless Harvest ⁶ | % Success ⁷ |
|-------------------|-----------------------------|-------------------------------------|---|-------------------------------|-------------------------------------|---|------------------------------|---------------------------------------|------------------------|
| | 410-00, 410-80 ¹ | 410-16, 410-81, 410-01 ² | 410-80 ³ , 410-02 ⁴ | 410-00, 410-80 ¹ | 410-16, 410-81, 410-01 ² | 410-80 ³ , 410-02 ⁴ | General License ⁵ | | |
| 1999 | 300 | - | - | 170 | - | - | - | 315 | 64 |
| 2000 | 300 | - | - | 199 | - | - | - | 312 | 76 |
| 2001 | 300 | - | - | 169 | - | - | - | 210 | 63 |
| 2002 | 400 | - | - | 238 | - | - | - | 297 | 69 |
| 2003 | 400 | - | - | 223 | - | - | - | 304 | 64 |
| 2004 | 1200 | - | - | 565 | - | - | - | 637 | 47 |
| 2005 | 1200 | - | - | 400 | - | - | 134 | 561 | 33 |
| 2006 | 600 | - | 600 | 184 | - | 139 | 173 | 547 | 27 |
| 2007 | 400 | - | 400 | 89 | - | 70 | 142 | 360 | 20 |
| 2008 | 300 | 30 | - | 71 | 2 | - | - | 118 | 24 |
| 2009 | 300 | 300 | - | 78 | 0 | - | - | 116 | 26 |
| 2010 | 300 | 300 | - | 127 | 23 | - | - | 191 | 42 |
| 2011 | 300 | 300 | - | 149 | 33 | - | - | 229 | 50 |
| 2012 | 600 | 300 | - | 138 | 32 | - | - | 227 | 23 |
| 2013 | 600 | 300 | - | 239 | 29 | - | - | 312 | 40 |
| 2014 | 700 | 300 | - | 85 | 24 | - | - | 163 | 12 |
| 2015 | 800 | 300 | - | 379 | 39 | - | - | 495 | 47 |
| 2016 | 800 | 300 | - | 257 | 32 | - | - | 386 | 32 |
| 2017 | 800 | 300 | - | 186 | 30 | - | - | 332 | 23 |
| 2018 | 800 | 300 | 300 | 182 | 22 | 61 | - | 381 | 22 |
| 2019 | 800 | 300 | 300 | 185 | 9 | 102 | - | 376 | 26 |
| 2020 | 100 | 300 | 1000 | 20 | 20 | 365 | 157 | 652 | 49 |
| 2021 | 100 | 300 | 1000 | 11 | 11 | 162 | 125 | 396 | 27 |
| 2022 ⁸ | 100 | 300 | 700 | 39 | - | 260 | 68 | 367 | 46 |

¹ From 1999 through 2009, the 410-00 was an antlerless-only permit (holders had to use their general elk license in addition to this permit). From 2010 to present, this has been an antlerless-only elk B license available through the draw (known as 410-80 from 2010-2013 and again as 410-00 thereafter). This LPT is valid district-wide on all lands in HD 410.

² Beginning in 2008, the 410-16 was available as an archery-only antlerless elk permit (2008-2009) available to unsuccessful applicants of the 410-15 ES archery permit if applied for 2nd choice, then became reclassified as a license in 2010 (known as 410-81 from 2010 through 2013 and 410-01 thereafter). This LPT was also valid in HD 417 through 2021, then only valid in HD 410 from 2022 on.

³ From 2006-2007, the 410-80 elk B license was available as a 2nd antlerless elk license, not valid on the CMR.

⁴ In 2018, the 410-02 elk B license was established, valid on private lands only from 2018-2019. In 2020, it changed to be valid on all lands south of Crooked Creek (Sacagawea River). With this change, holders of the 410-02 could also use their general license to harvest a 2nd antlerless elk. From 2018 on, this license (and the general for those holders 2020 and on) was also valid for a late “shoulder season.” This license is not valid on the CMR Refuge.

⁵ From 2005 to 2007, youth (ages 12-14) could harvest antlerless elk with a general license, and from 2020 to present, so could holders of the 410-02 antlerless license in the same area and same duration their 410-02 was valid.

⁶ Total harvest includes antlerless harvest on ES permits not shown in table, as well as additional estimated antlerless harvest. This additional harvest, while included here, is not included in total success calculated in the next column.

⁷ Until 2003, FWP collected hunter effort data by LPT, not by HD, so success is calculated as harvest per number of hunters who reported hunting with the 410-00 license. From 2004 on, success is written as total harvest per total antlerless elk LPTs issued (quotas; general/youth opportunity not included since hunter numbers unknown). Archery only harvest is also not represented in success column; it is included in the table to illustrate additional opportunity provided in HD 410.

⁸ Harvest estimates not completed for 2022. Estimates here are based on biologist’s questionnaire to HD 410 elk B license holders.

2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.

The objective of this proposed change is to reduce antlerless elk harvest in HD 410 to stabilize the population at current numbers. This proposal also fulfills a commitment made to sportsmen and landowners in HD 410 that if/when elk numbers reach objective, the shoulder season would no longer be necessary and thus eliminated. Similarly, the need for additional harvest (i.e., 2nd antlerless elk) no longer exists at this time—harvest over the next biennium will be managed via quota adjustment.

3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints, etc.

The success of this proposal will be measured primarily two ways: 1) a reduction in elk harvest such that elk numbers stabilize at their current levels (i.e., remain at objective), and 2) the number of elk-related game damage complaints for antlerless elk would not substantially increase (from August 15, 2022 through February 15, 2023, FWP received three elk-related game damage complaints specific to antlerless elk). To a lesser extent, hunters would not complain about overcrowding in HD 410 and landowners would receive an alleviation of hunting season calls and drop ins after the general/muzzleloader seasons.

Under this proposal, game damage complaints should not increase. License quotas will remain at 2023 levels until the 2024 HD 410 elk survey is flown to assess changes in the population between now and then.

4. What is the current population’s status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).

Hunting district 410 surveys occur during even years, however given the continual drought across the area, hunter concerns/observations regarding a “lack” of elk, and the development of the new Elk Management Plan (EMP), this HD was also surveyed during winter 2022-23. This survey revealed 2,106 total observed elk: 240 mature bulls (6x6 or larger), 271 raghorn bulls, 90 yearling (spike) bulls, 1,099 cows, and 406 calves, with associated calf:cow and bull:cow ratios of 37:100 and 55:100, respectively (Table 2). The current, 2005 EMP objective for elk in HD 410 is to observe between 2,000 and 2,300 total elk, while maintaining a bull:cow ratio of *at least* 30:100. There is also a subobjective to observe between 500 and 600 total bulls, and 1,100 to 1,200 cows. Elk in HD 410 are now at objective across all metrics, for the first time since 2010.

Table 2. HD 410 elk surveys, 1992 to present.

| Survey Year | -----Bulls----- | | | Bull Total | -----Antlerless Elk----- | | | Total | Calves: | Bulls: |
|-------------|-----------------|---------------|------------|------------|--------------------------|-------------|--------------------------|-------------|-----------|-----------|
| | Spike Bulls | Raghorn Bulls | Mat. Bulls | | Calves | Cows | Unclassified Cows/Calves | | 100 Cows | 100 Cows |
| 1992 | 195 | 104 | 123 | 422 | 441 | 853 | 0 | 1716 | 52 | 49 |
| 1995 | 145 | 107 | 121 | 373 | 480 | 1240 | 0 | 2093 | 39 | 30 |
| 1996 | 237 | 163 | 164 | 564 | 256 | 943 | 0 | 1763 | 27 | 60 |
| 1999 | 194 | 196 | 238 | 628 | 559 | 1202 | 0 | 2389 | 47 | 52 |
| 2002 | 249 | 316 | 255 | 820 | 580 | 1606 | 0 | 3012 | 36 | 51 |
| 2004 | 278 | 264 | 231 | 773 | 815 | 2068 | 0 | 3656 | 39 | 37 |
| 2006 | 216 | 228 | 250 | 694 | 513 | 1019 | 0 | 2226 | 50 | 68 |
| 2008 | 192 | 231 | 238 | 661 | 420 | 1075 | 0 | 2156 | 39 | 61 |
| 2010 | 111 | 96 | 224 | 431 | 483 | 1183 | 0 | 2107 | 41 | 36 |
| 2012 | 198 | 200 | 286 | 684 | 528 | 1508 | 561 | 3281 | 35 | 45 |
| 2014 | 240 | 225 | 383 | 848 | 588 | 1735 | 113 | 3284 | 34 | 49 |
| 2016 | 358 | 171 | 479 | 1008 | 674 | 1805 | 0 | 3487 | 37 | 56 |
| 2018 | 304 | 223 | 494 | 1021 | 870 | 1786 | 0 | 3677 | 49 | 57 |
| 2020 | 220 | 272 | 298 | 790 | 755 | 1583 | 125 | 3253 | 48 | 50 |
| 2022 | 305 | 252 | 383 | 940 | 423 | 1372 | 0 | 2735 | 31 | 69 |
| 2023 | 90 | 271 | 240 | 601 | 406 | 1099 | 0 | 2106 | 37 | 55 |

5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

HD 410 is characterized by agricultural lands and sagebrush grassland interspersed with the Missouri and Musselshell River breaks. The larger river breaks contain conifer stands that provide excellent hiding cover, especially further south in the HD when juxtaposed with adjacent agriculture, supplemental forage and in some cases, additional security via private land limitations on hunting.

However, HD 410 is relatively unique, considering the amount of accessible public lands and BMAs that do contain elk throughout the hunting season. While HD 410 is not immune to changing land uses and values which have resulted in reduced hunting on some private lands, the prevalence of hunting access across the HD still allows for effective management. Season-structure changes primarily affecting the elk B licenses, in concert with three years of drought, have resulted in a reduction of the elk population to objective.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

Via conversations with archery, rifle permit, and antlerless license holders over the past year, there is majority support from sportsmen and women regarding these proposed season changes. Following the 2022 hunting season, the area biologist for HD 410 sent surveys out to all of the 410 license/permit holders. From responses, one thing common across all license/permit types (LPTs) was the importance of public land and BMAs in HD 410. The vast majority of hunter effort occurred on public land/BMAs, and between 55% and 82% of elk harvest occurred on public land/BMAs. Some of the feedback from permit holders included a lack of elk observed in general and a suggestion to reduce cow elk harvest. Elk B license holders spoke to the difficulty in finding cow elk across the district and many commented in support of quota reductions for cow elk. Additionally, multiple elk B license holders spoke in favor of ending the shoulder season and 2nd antlerless elk regulation.

Winnett ACES, a group of area producers, whose collaboration has fostered improved elk management in HD 410, was also consulted with the proposals. Regarding these proposed changes, their feedback was neutral; many have lived with over-objective elk populations in the area for over a decade, and some members were concerned about a rapid increase in the population following a quota reduction occurring for the 2023 season. Once they were made aware quotas could be increased for the 2024 season if needed, there was more support. One landowner mentioned he trusted the biologist's judgement and recommendations. Other HD 410 landowners that have been contacted support this proposal, as does a local outfitter. Area game wardens Shawn Briggs and Joe Horrocks, in addition to Game Warden Sergeant Kyle Andersen, support the proposal. BLM biologist Matt Comer and CMR Refuge Manager Paul Santavy, who work and hunt in HD 410, are also in full support of the proposal.

Submitted by: Sonja Andersen

Date: May 7, 2023

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

Language in the 2024 Montana Hunting regulations for Elk in HD 410 would read (changes highlighted in RED):

| License or Permit | Opportunity | Apply by Date | Quota | Quota Range | Early Season Dates | Archery Season Dates | General Season Dates | Heritage Muzzleloader Season Dates | Late Season Dates | Opportunity-specific Details and/or Restrictions |
|---|----------------|---------------|-------|-------------|--------------------|----------------------|----------------------|------------------------------------|-------------------|--|
| HD 410 – Missouri River Breaks | | | | | | | | | | |
| NOTE: HD 410 Check Restricted Area Legal Description (p. 26-28) Charles M. Russell (CMR) National Wildlife Refuge and U.S. Army Corps of Engineers. | | | | | | | | | | |
| NOTE: CMR National Wildlife Refuge and U.S. Army Corps of Engineers (ACOE) regulations may differ from these regulations, to included closed or weapons restricted areas. Hunters should contact the CMR at 406-538-8706 or ACOE at 406-526-3411. | | | | | | | | | | |
| NOTE: Elk hunters in HD 410 may also hunt on islands in the Missouri River adjacent to where their elk permit is valid. Island is defined as land completely surrounded by water at the time of the hunt. | | | | | | | | | | |
| Elk | | | | | | | | | | |
| Elk Permit: 410-20 | Either-sex Elk | April 1 | 75 | 50-250 | - | Sep 02-Oct 15 | Oct 21-Nov 26 | - | - | Permit must be used with valid General Elk License. Holders may not hunt Antlered Elk in any other HD during these described season dates. |
| Elk Permit: 410-21 | Either-sex Elk | April 1 | 1000 | 1,000-1,900 | - | Sep 02-Oct 15 | Oct 21-Nov 26 | Dec 09-Dec 17 | - | 1 st and 2 nd choice only. Permit must be used with valid General Elk License. Holders may not hunt Antlered Elk in any other HD during these described season dates. |
| Elk B License: 410-00 | Antlerless Elk | June 1 | 50 | 50-800 | - | Sep 02-Oct 15 | Oct 21-Nov 26 | Dec 09-Dec 17 | - | |
| Elk B License: 410-01 | Antlerless Elk | June 1 | 300 | 50-300 | - | Sep 02-Oct 15 | - | - | - | Only valid in HD 410. |
| Elk B License: 410-02 | Antlerless Elk | June 1 | 400 | 100-1,200 | - | Sep 02-Oct 15 | Oct 21-Nov 26 | Dec 09-Dec 17 | Nov 27-Feb 15 | Only valid south of Crooked Creek (Sacagawea River). Not valid on CMR Refuge. 410-02 license holders may use General Elk License to harvest 2nd antlerless elk in the same area and for the same duration the 410-02 is valid. |

**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

Species: Elk
Region: 4
Hunting District: 413
Year: 2024-2025

1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).

For the upcoming 2024-25 hunting season in hunting district (HD) 413, it is proposed to:

- Add a regulation establishing a late shoulder season from January 1 to February 15 in the portion of HD 413 EAST of Highway 89. The General License and Elk B License 004-00 will be valid for harvest of antlerless elk outside the National Forest boundary.
- Maintain the current General License regulation of brow-tined bull or antlerless elk during the 6-week archery and 5-week general season.
- Maintain the current elk B License 004-00 regulation of antlerless elk only during the 6-week archery and 5-week general season with unlimited quota.

HD 413 has had the current regulation structure of brow-tined bull or antlerless harvest valid on the General License and antlerless elk only valid on elk B License 004-00 (valid across Region 4 except HD 455) since 2014. This portion of HD 413 was historically HD 432. The shoulder season structure proposed here has been in used across the state and Region 4 since 2015.

| Regulations (Elk Only) | 413 |
|--|---|
| Current Structure¹ | |
| General License/Permit Type | Brow-tined Bull or Antlerless Elk |
| 6-week archery season | Brow-tined Bull or Antlerless Elk |
| 5-week general season | Brow-tined Bull or Antlerless Elk |
| B-Licenses | 004-00: Antlerless Elk |
| Quota | Unlimited |
| Quota Range | Unlimited |
| Proposed Structure (changes in RED text): | |
| General License/Permit Type | Brow-tined Bull or Antlerless Elk |
| 6-week archery season | Brow-tined Bull or Antlerless Elk |
| 5-week general season | Brow-tined Bull or Antlerless Elk |
| January 1—February 15 | Antlerless Elk; Not valid on Forest Service lands; Valid east of Highway 89 only. |
| B-Licenses | 004-00: Antlerless Elk |
| Quota | Unlimited |
| Quota Range | Unlimited |

2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.

The objective of this proposal is to reduce game damage complaints by allowing additional opportunity for antlerless elk harvest outside the National Forest boundary and independent of a game damage scenario.

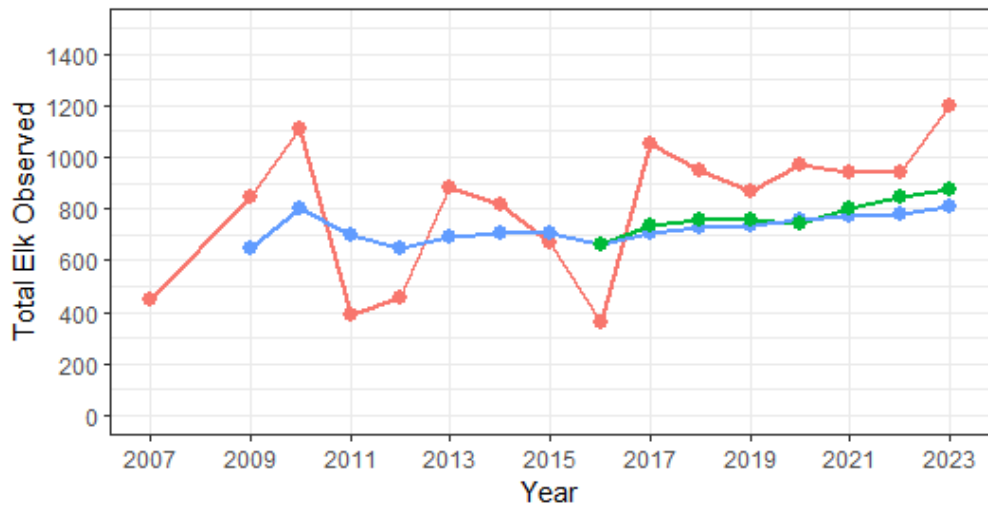
This proposal is a response to chronic game damage complaints concerning problematic elk distributions on private land, primarily in the Otter Creek drainage. Distributions are most problematic from January-February, and do not always occur on private land during the general hunting season. Since January 1, 2017, 19 game damage complaints have been lodged in this portion of the hunting district.

3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.

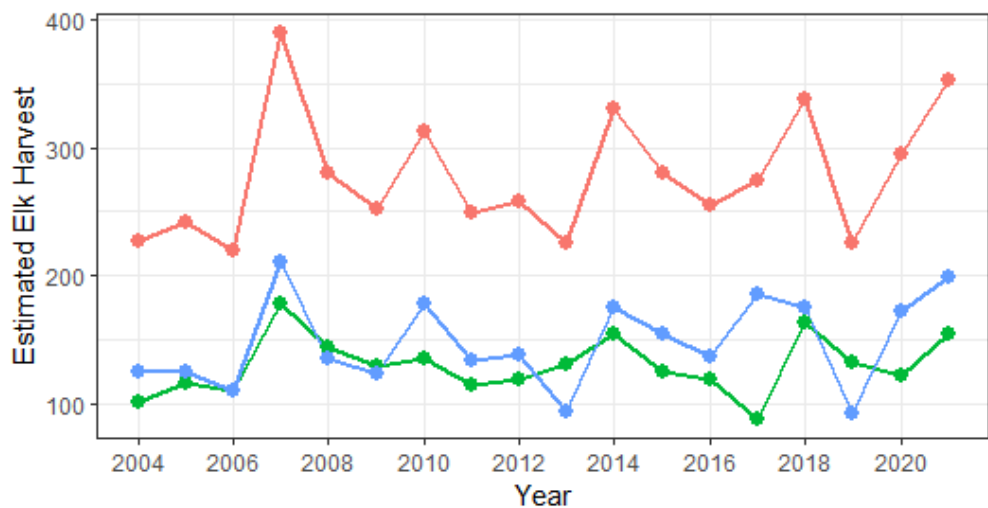
This proposal will be successful if game damage complaints are reduced and landowners with chronic elk problems late in winter receive some assistance via hunter harvest.

4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).

The total number of elk counted in HD 413 during the 2022-2023 winter survey was 1200. This count is 322 elk above the 10-year average and 393 elk above the long-term average when historical data from HD 432 is added to that of 413 for comparison with survey year 2022-2023. The 2005 Elk Plan indicates an upper population objective of 990 elk when objectives for HD 413 and HD 432 are combined. Harvest in HD 413 in 2021 was the second highest on record. Bull harvest is generally higher than antlerless harvest in this HD.



Count Type — Total Count — 10 Year Average — Long Term Average



Harvest Type — Total Harvest — Antlerless Harvest — Bull Harvest

5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

Judith Basin County experienced drought conditions in 2021 and 2022 and above average winter severity in 2023. The Otter Creek elk herd was observed in new areas and at lower elevations resulting in an increased number of game damage complaints from the area. The portion of HD 413 east of Highway 89 that this proposal concerns is primarily private and National Forest lands and small, largely inaccessible parcels State and BLM. The State lands near the Surprise Creek Colony SW of Stanford would be valid for antlerless elk harvest during the proposed shoulder season, but elk are rarely seen in this portion of the HD.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

I have spoken with many landowners in the Otter Creek drainage regarding this elk herd and have received positive support for a shoulder season in this portion of the HD. No additional comments were lodged during the online or in-person scoping meetings regarding this proposal. I received a call from a sportsman concerned about the current lack of access available in the area during the general season and the possibility of shootouts occurring.

Submitted by: Shane Petch

Date: Updated 7/31/2023

Approved:

Regional Supervisor / Date

Disapproved / Modified by:

Name / Date

Reason for Modification:

MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION

Species: Elk
Region: 4
Hunting District: 415
Year: 2024-25

- 1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.). REMEMBER THIS STEP IS TO BE ACCOMPLISHED BY THE INITIAL ENTRY INTO THE DATABASE—SO FOLKS CAN START THIS NARRATIVE WITH #2 BELOW.**

FWP proposes to change elk regulations in HD 415 from Brow-tined Bull or Antlerless Elk to Antlered Bull Elk for both the Archery Season and General Season.

Elk season in this HD has varied. Prior to 1990, the general season was 1 week either-sex elk then 4 weeks antlered bull elk. For 1991 and 1993, the general season was 2 weeks either-sex elk followed by 3 weeks antlered bull elk. The general season returned to 1 week either-sex elk followed 4 weeks antlered bull elk until 2014 when it changed to either-sex elk for the entire general season. During this time, the archery season was either-sex elk. In 2022, the archery and general season were changed to brow-tine bull or antlerless elk to comply with Regulations Simplification.

- 2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.**

The objective of the proposed change is to comply with the current Elk Management Plan (2005) to reduce antlerless harvest when the observed number of elk is below 160.

- 3. How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints, etc.**

If adopted, this proposal will be successful in reducing antlerless elk harvest in HD 415. The average annual harvest of antlerless elk for the past 10 years is 13 elk which may result in an increasing elk population. However, since this elk population is a shared resource with the Blackfeet Reservation, it will be difficult to measure success by increasing number of observed elk.

- 4. What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

The 2005 Montana Elk Management Plan describes the population objectives and season types for HD 415.

For HD 415, the population management objective is +/- 20% of 200 (160 -240) observed elk. The Standard Regulation for antlered elk is at least 15 bulls per 100 cows are observed post-season. The most recent survey (2023) indicates 40 bulls per 100 cows (see HD 415 Table). The Standard Regulation for antlerless elk is first week of the general season either-sex elk, remainder of season any bull regulation if the number of observed elk is within the management objective. The most recent survey (2023) indicates the number of observed elk is below the management objective at 154 elk (see HD 415 Table).

In the past 5 years, the number of observed elk has declined from above objective to below objective. The Plan calls for limited antlerless permits if the number of observed elk is below objective for 2 consecutive years. While the number of observed elk has only been below objective for 1-year, proposed regulation changes are due prior to the ability to collect data form the 2023 post season survey.

The risk of waiting for the availability of these data is additional antlerless harvest and potential additional population decline. Further, given recent trend and climatic conditions, it is not anticipated the number of observed elk to rise significantly above the lower objective threshold in the near future. Additionally, limited antlerless permits are generally no longer used by the department. The minimum number of elk B-licenses is 50 licenses which would not reduce antlerless harvest. Therefore, closing the antlerless season is the most viable option to reduce/eliminate antlerless harvest.

5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

Climatic conditions have been relatively normal albeit periods of severe winter weather. The winter of 2022-23, although not severe was prolonged. Much of HD 415 has burned in the recent past reducing elk security cover and wintering range. Some historic burn areas have significant amount of deadfall making large areas unsuitable for elk. Recent drought (2022) reduced elk calf production to below long-term average. Use of elk winter range by feral horses has precluded use by elk.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

This proposal was discussed with two outfitters that use the area. Both outfitters favor eliminating antlerless elk harvest. One outfitter prefers retaining the brow-tined bull regulation while the other prefers the additional opportunity of the antlered bull elk regulation. The proposal was discussed with the head of the Blackfeet Fish and Game. Previous discussions with area hunters favor eliminating the antlerless harvest.

Submitted by: Ryan Rauscher, Conrad Area Wildlife Biologist

Date: 5/22/2023

Approved: _____
Regional Supervisor / Date

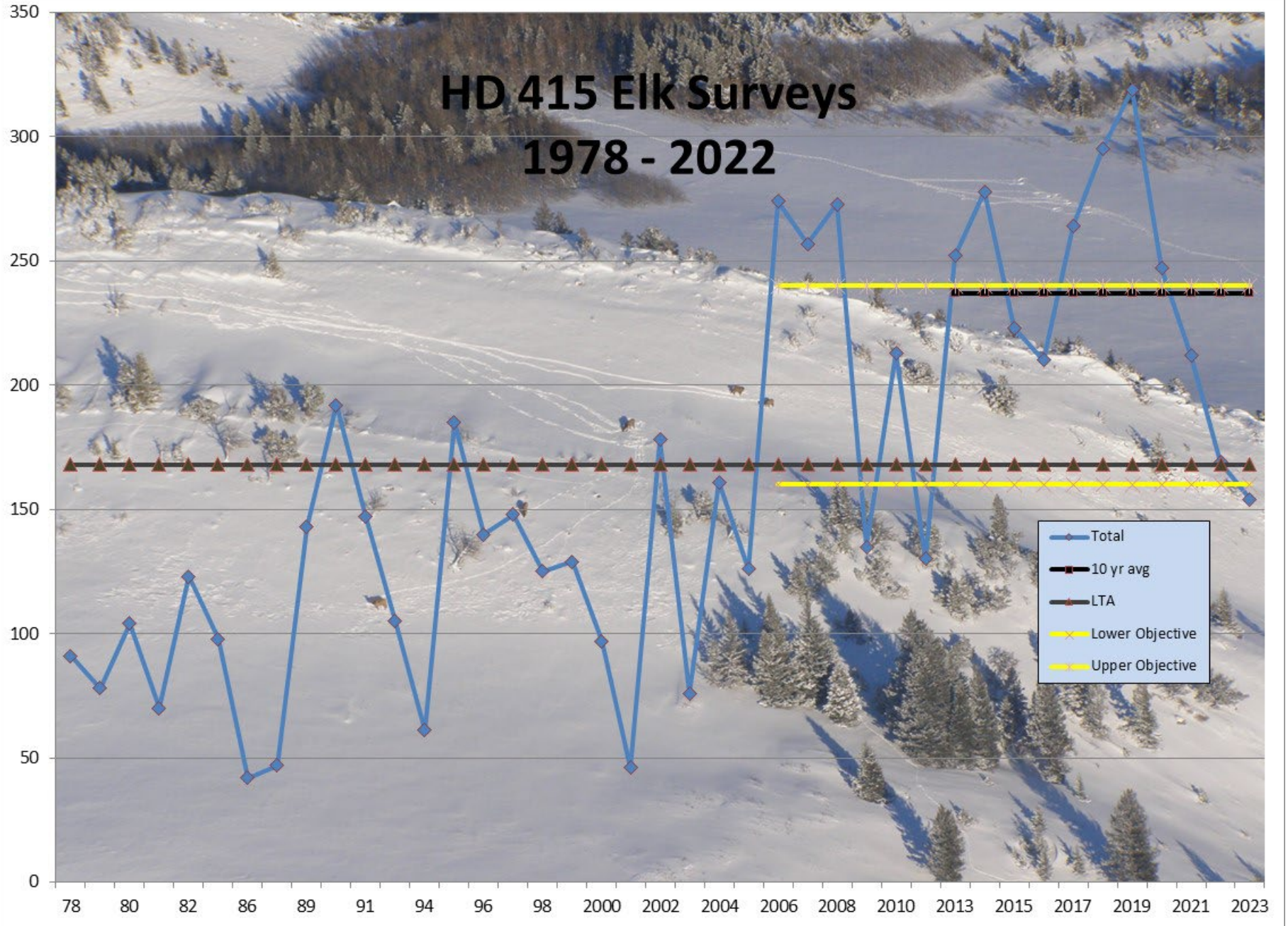
Disapproved / Modified by: _____
Name / Date

Reason for Modification:

Maximum Winter Elk Counts and Production Ratios, HD 415

| Year | Total | Bulls | BTB | Spk | Cows | Calves | Uncl | Yng/100F | B/100F | Survey Type |
|-------------------|-------|-------|-----|-----|------|--------|------|----------|--------|-------------|
| 11/20/1978 | 91 | 14 | | | 35 | 16 | 26 | 46 | 40 | FW-P |
| 4/25/1979 | 78 | | | | | 18 | | | | FW-P |
| 12/28/1979 | 104 | 7 | 5 | 2 | 40 | 22 | 35 | 55 | 18 | FW-P |
| 3/13/1981 | 70 | 3 | | | | | 67 | | | H-P |
| 2/22/1982 | 123 | 8 | | 8 | 90 | 25 | | 28 | 9 | FW-P |
| 3/15/1985 | 98 | 6 | 1 | 5 | 61 | 28 | 3 | 46 | 10 | G-P |
| 3/5/1986 | 42 | | | | 27 | 10 | 5 | 37 | | H-P |
| 2/9/1987 | 47 | | | | 37 | 6 | 4 | 16 | | FW-P |
| 4/7/1989 | 143 | 16 | 2 | 14 | 84 | 39 | 4 | 46 | 19 | G-P |
| 2/26/1990 | 192 | 11 | 5 | 6 | 89 | 22 | 70 | 25 | 12 | FW-P |
| 3/14/1991 | 147 | 11 | 5 | 6 | 70 | 35 | 31 | 50 | 16 | G-P |
| 4/1/1993 | 105 | | | | 24 | 5 | 76 | | | FW-P |
| 4/29/1994 | 61 | | | | | | 61 | | | FW-P |
| 3/7/1995 | 185 | 22 | 16 | 6 | 1 | | 162 | | | FW-P |
| 3/6/1996 | 140 | 10 | 2 | 8 | 68 | 18 | 44 | 26 | 15 | H-P |
| 2/5/1997 | 148 | 13 | | | 57 | 20 | 58 | 35 | 23 | FW-P |
| 5/8/1998 | 125 | 16 | | | | | 109 | | | FW-P |
| 3/17/1999 | 129 | 17 | 9 | 8 | 86 | 26 | | 30 | 20 | H-P |
| 3/4/2000 | 97 | 10 | 4 | 6 | 72 | 15 | | 21 | 14 | H-P |
| 1/9/2001 | 46 | 2 | | 2 | 35 | 9 | | 26 | | H-P |
| 2/25/2002 | 178 | 17 | 15 | 2 | 69 | 19 | | 28 | 25 | FW-P |
| 2/24/2003 | 76 | | | | | | 76 | | | FW-P |
| 3/11/2004 | 161 | 5 | 1 | 4 | 126 | 30 | | 24 | | H-C |
| 5/13/2005 | 126 | | | | | | 126 | | | FW-P |
| 2/18/2006 | 274 | 28 | 15 | 13 | 89 | 31 | 126 | 35 | 31 | FW-C |
| 2/24/2007 | 257 | 19 | 8 | 11 | 151 | 54 | 3 | 36 | 13 | FW-C |
| 1/16/2008 | 77 | 2 | | 2 | 21 | 4 | 50 | | | FW-C |
| 2/17/2008 | 273 | 20 | 20 | | 12 | 1 | | | | FW-C |
| 1/26/2009 | 135 | 31 | 18 | 13 | 76 | 22 | 3 | 34 | 41 | FW-C |
| 2/17/2009 | 264 | 13 | 6 | 7 | 121 | 37 | 93 | 30 | | FW-P |
| 1/6/2010 | 213 | 19 | 11 | 8 | 134 | 42 | 18 | 31 | 14 | FW-C |
| 1/31/2011 | 130 | 45 | 42 | 3 | 67 | 18 | | | | FW-C |
| 2/10/2011 | 201 | 7 | | 7 | 152 | 42 | | | | FW - Carney |
| Total 2011 | 331 | 52 | 42 | 10 | 219 | 60 | | 27 | 24 | |
| 2/14/2013 | 252 | 10 | | | 197 | 45 | | 23 | 5 | FW-C |
| 2/25/2014 | 278 | 19 | 13 | 6 | 204 | 55 | | 27 | 9 | FW-C |
| 2/16/2015 | 223 | 10 | 3 | 7 | 149 | 64 | | 43 | 6 | FW-C |
| 1/1/2016 | 210 | 10 | 2 | 8 | 112 | 56 | 32 | 50 | 5 | FW-C |
| 2/2/2017 | 264 | 30 | 22 | 8 | 165 | 69 | | 42 | 18 | FW-C |
| 4/12/2017 | 226 | | | | | | 226 | | | FW-P |
| 2/15/2018 | 295 | | | | | | 295 | | | FW-C |
| 2/14/2019 | 319 | 60 | 52 | 8 | 183 | 49 | 27 | 27 | 33 | FW-C |
| 2/18/2020 | 247 | 43 | 33 | 10 | 163 | 41 | | 25 | 26 | FW-C |
| 2/12/2021 | 212 | 54 | 45 | 9 | 115 | 43 | | 37 | 47 | FW-C |
| 3/9/2022 | 169 | 25 | 20 | 5 | 99 | 44 | | 44 | 25 | FW-C |
| 3/12/2023 | 154 | 37 | 24 | 13 | 93 | 24 | | 26 | 40 | FW-C |

HD 415 Elk Surveys 1978 - 2022



**MONTANA FISH, WILDLIFE & PARKS
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**

Species: Mule Deer
Region: 4
Hunting District: 448
Year: 2024-2025

1. Describe the proposed season / quotas changes and provide a summary of prior history (i.e., prior history of permits, season types, etc.).

For the upcoming 2024-25 hunting season in hunting district (HD) 448, it is proposed to:

- Add a 448-00 deer B license that is valid for antlerless mule deer with a quota of 100 for the 2024-2025 biennium. The proposed quota range is 5-250. The license will be valid outside the National Forest boundary.
- Maintain Antlered Buck Only (ABO) general license regulation for mule deer.
- Maintain current Either Sex (ES) and B-license regulations for white-tailed deer.

| Regulations (Mule Deer Only) | 448 |
|--|------------------------------------|
| Current Structure¹ | |
| General License/Permit Type | ABO |
| 6-week archery season | ABO |
| 5-week general season | ABO |
| B-Licenses | No mule deer B-Licenses available |
| Proposed Structure (changes in RED text): | |
| General License/Permit Type | ABO |
| 6-week archery season | ABO |
| 5-week general season | ABO |
| B-Licenses | Not valid on National Forest lands |
| Quota | 100 |
| Quota Range | 5-250 |

This change, outlined above and in red in the table below, will make mule deer regulations in HD 448 consistent with regulations in neighboring HD 413. HD 448 has alternated between ES and ABO general license regulations based on survey and buck harvest data in accordance with Montana’s Adaptive Harvest Management (AHM) guidelines and their long-term averages (LTAs), since the adoption of AHM in 1998. From 2004-2013, mule deer B-license opportunity in HD 448 varied, with a maximum quota of 200 in the early 200’s and a minimum quota of 25 licenses from 2011 to 2013. The HD has had an ABO regulation in place since 2014 with no opportunity for antlerless harvest.

2. What is the objective of this proposed change? This could be a specific harvest amount or resulting population level or number of game damage complaints, etc.

The objective of this proposal is to reduce game damage complaints by allowing opportunity for antlerless mule deer harvest outside of a game damage scenario. Successful license holders would be directed to landowners who have isolated high concentrations of mule deer and are asking for hunters to help address the problem.

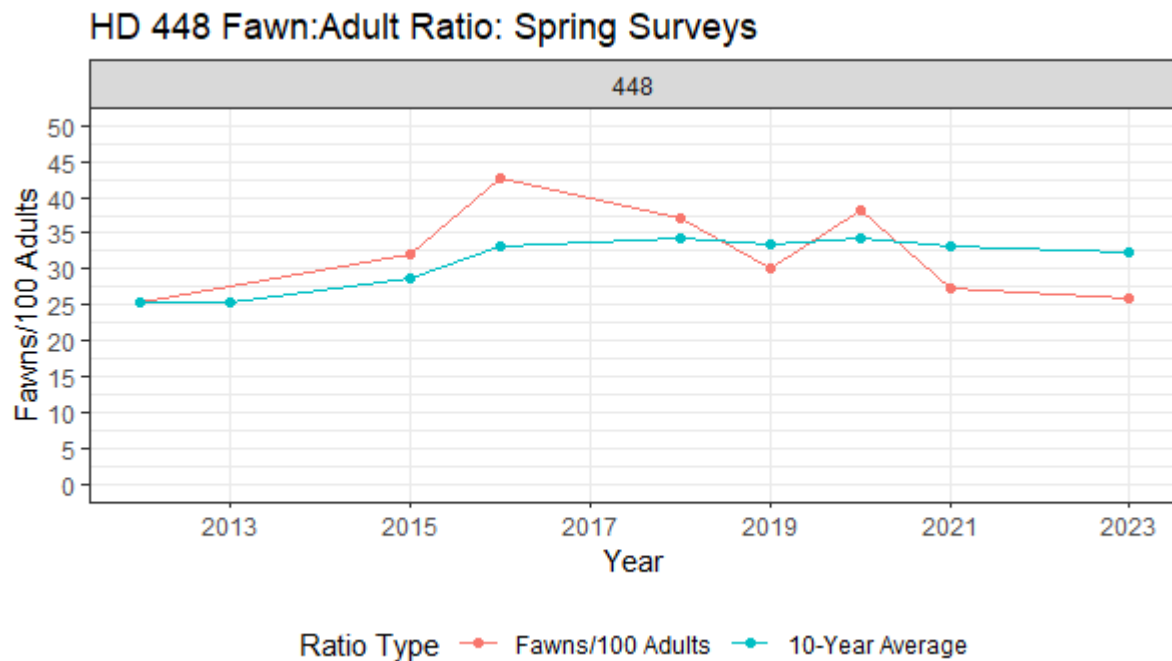
This proposal is a response to chronic game damage complaints concerning problematic mule deer distributions on private lands. Distributions are most problematic from January-February, but landowners report consistent mule deer presence throughout the year. Since January 1, 2017, 13 game damage complaints have been documented and addressed. These occur consistently on the same 4 properties. A management hunt was approved in January 2023 and met with some success, but damage complaints continued to occur.

3. **How will the success of this proposal be measured? This could be annual game or harvest surveys, game damage complaints.**

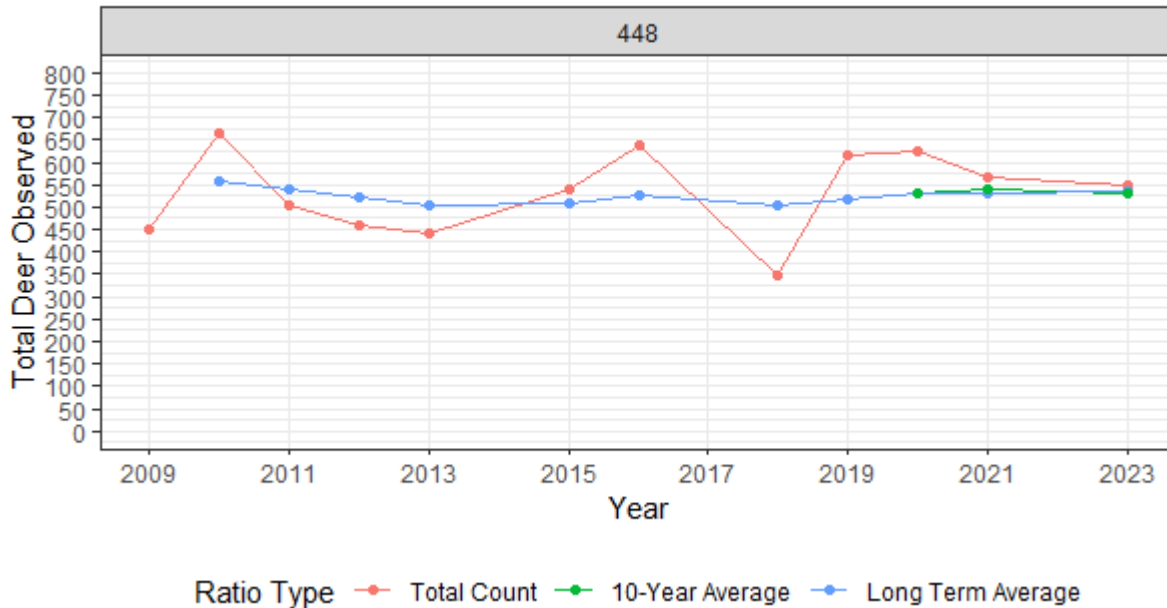
This proposal will be successful if game damage complaints are reduced and landowners with chronic deer problems receive some assistance via hunter harvest.

4. **What is the current population's status in relation to the management objectives? (i.e., state management objectives from management plan if applicable; provide current and prior years of population survey, harvest, or other pertinent information).**

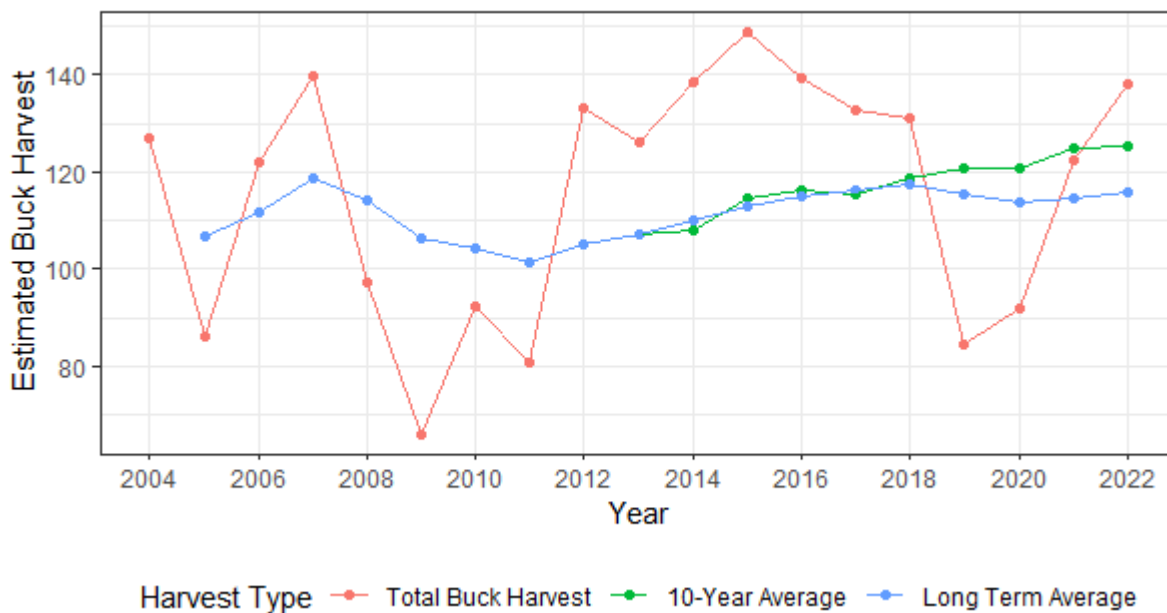
HD 448 is currently under a restrictive harvest package due to fawn recruitment that has been below 30 fawns:100 adults since 2021. This year's spring survey resulted in a count of 26 fawns:100 adults, below the long term average (LTA) of 32 fawns:100 adults. However, a total of 547 deer were counted in HD 448 this spring, 2.62% above the LTA of 533 total deer. Buck harvest in 2022 was 20% above the long-term average for the HD.



HD 448 Total Deer: Spring Surveys



HD 448 Buck Mule Deer Harvest



5. Provide information related to any weather/habitat factors, public or private land use or resident and nonresident hunting opportunity that have relevance to this change (i.e., habitat security, hunter access, vegetation surveys, weather index, snow conditions, and temperature / precipitation information).

Judith Basin County experienced drought conditions in 2021 and 2022 and above average winter severity in 2023. Reports of winter kill have not been widespread, though one report of small numbers of apparent winter killed mule deer from HD 448 was received. So far, 2023 has been wetter than average and spring green up conditions appear excellent. There are three Block Management areas in HD 448. Many landowners allow reasonable access for hunting, particularly those most affected by mule deer game damage. There appear to be groups of deer that are private land residents throughout the year.

6. Briefly describe the contacts you have made with individual sportsmen or landowners, public groups or organizations regarding this proposal and indicate their comments (both pro and con).

I have spoken with many landowners in the area who feel that there are more deer than they can tolerate. They also feel they do not have the options necessary to manage antlerless deer numbers on their properties given the ABO mule deer regulation currently in place and no B-Licenses available. No comments were lodged online or at the Stanford public meeting during the public scoping process. At the Great Falls meeting, one attendee asked if the proposed quota of 100 might be lowered to 50; I feel that the quota of 100 will allow for adequate harvest to alleviate game damage problems without having a negative impact on the population.

Submitted by: Shane Petch

Date: Updated 7/31/2023

Approved:

Regional Supervisor / Date

Disapproved / Modified by:

Name / Date

Reason for Modification: