2020-2021 Deer Hunting Seasons and Quota Range Justifications

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No proposed changes

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

Species: White-tailed deer
Region: 1
Hunting Districts: 100, 103, and 104
Year: 2020-2021

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

Region 1 proposes to increase hunting opportunity in HDs 100, 103, and 104, by adding Over-The-Counter B-licenses for archery and general rifle season, valid for the area within the Libby CWD Management Zone (MZ). Offered during both archery or general rifle seasons, this license would allow 1 additional either-sex white-tailed deer license per hunter and increase overall harvest of white-tailed deer within the Libby CWD MZ.

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 main objective of this proposal is to increase harvest of white-tailed deer within the Libby CWD MZ. Increasing harvest of deer within the Libby CWD MZ will reduce deer densities to effectively reduce the impacts of CWD on the larger white-tailed deer population. Although CWD surveillance in the Libby CWD MZ is ongoing, we have detected 31 positive animals as of the midpoint of the general hunting season, 30 of which have been white-tailed deer. So far, most of the CWD positive animals have been within 5 miles of Libby. FWP will be working with the city of Libby to establish a deer management plan with the goal of significantly reducing deer populations. For the city to be successful in reducing deer densities, deer numbers also need to be reduced in the area surrounding the city.

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 primarily measured using annual harvest surveys, truck-based annual trend surveys, and hunter and landowner reports.

3. 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).

Approximately 20% of the state's white-tailed deer harvest comes from Region 1, where white-tailed deer are the most sought-after big game species. Region 1 HDs are currently surveyed annually via spring road surveys. During green-up, biologists conduct minimum counts of deer along established survey routes to determine numeric population trends and fawn:adult ratios, a measure of population recruitment. These data, along with harvest information, are then used to help establish harvest regimes for the following fall hunting season.

Despite 3 straight snowy winters, the total numbers of white-tailed deer surveyed have remained relatively stable in HDs 100, 103, and 104 (Table 1).

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TABLE 1

HDs	Tot_11	Tot_12	Tot_13	Tot_14	Tot_15	Tot_16	Tot_17	Tot_18	Tot_19	Avg
100	242	217	713	609	604	900	725	623	642	586
103	379	37	379	386	159	194	280	119	172	234
104	266	218	464	234	437	616	363	455	472	392

Recent white-tailed deer harvest survey data is provided in Table 2 (below). Overall, harvest has stayed relatively consistent (e.g., within 100 individuals of the average) for each HD across the past few years.

TABLE 2.

HD	YEAR	TOTAL HARVEST
100	2015	900
100	2016	1266
100	2017	1163
100	2018	1040
103	2015	858
103	2016	934
103	2017	951
103	2018	774
104	2015	472
104	2016	692
104	2017	420
104	2018	456

In May of 2019, Montana FWP detected chronic wasting disease in white-tailed deer in the Libby area. Hunters now need to be aware of the Libby CWD Management Zone (MZ), which includes portions of HDs 100, 103 and 104. All deer, elk and moose harvested within the Libby CWD MZ, including any harvested with a Libby Special CWD Hunt B license and any harvested with any other type of license, must be checked and sampled within three days of harvest.

Following the *Montana CWD Management Plan*, FWP works to keep prevalence low where CWD exists and prevent its spread by doing things like increasing harvest, especially of bucks since they are most likely to be infected and spread it, targeted removal in local areas around detections, and minimizing large groupings of deer by hazing and fencing or removing attractants.

Montana's CWD Management Plan calls for establishing an MZ, which is roughly a 10-mile radius around the location of the CWD positive. Within the MZ, the goal is to collect enough samples to estimate prevalence and distribution of CWD within the deer population. The management plan calls for collecting enough samples to determine CWD prevalence with a 3% margin of error and 95% confidence in cervid populations based on a predicted prevalence of 5%. The number of

samples required differs depending on the size of the population. Increasing the number of samples increases confidence and helps to reduce the margin of error. Increasing hunter opportunity by offering additional, OTC licenses for either-sex white-tailed deer in HDs 100, 103, and 104 would help FWP obtain enough random samples necessary to provide a prevalence estimate with a lower margin of error and higher confidence.

4. 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).

We have seen 3 straight harsh, snowy winters in Region 1. Despite these conditions, overall numbers of white-tailed deer have remained relatively stable in HDs 100, 103, and 104. A 'second green-up', that occurred late into December, during most of the last 3 winters, likely helped maintain deer numbers. With quality second green-up, coupled with late winters in the past 3-4 winters, access has generally not been an issue for white-tailed deer hunters.

5. **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).**

   We have had at least 6 public meetings in Libby to provide updates and information to the public regarding CWD detections in and around Libby, and are also working closely with the City of Libby and Lincoln County to develop a Deer Management Plan. Overall, and thankfully, the local Libby public has been highly supportive of FWP's efforts to reduce deer densities in and around the city of Libby. This public support is in stark contrast to public opinion 8 years ago, when we advanced the idea of a Deer Management Plan to the Libby City Council. In 2011, we began working with the City of Libby to propose reducing deer densities. But when the Council could not garner enough public support, the idea was dropped.

   More recently, most local Libby homeowners present at our meetings have been in favor of increasing opportunity and reducing deer densities through such a change. In our most recent meetings, many homeowners complained publicly about the impacts of Libby's deer on their ornamental shrubs, gardens, and even pets.

   More recent conversations with sportsmen and women both at the Canoe Gulch check station, and on the phone, suggest that this change would be supported, to help reduce the density of deer and add to FWP's management of CWD, while still providing for opportunity. Libby's hunter numbers include a relatively high proportion of meat hunters, and many of these hunters, in particular, have expressed an interest in this proposal.

Submitted by: Tonya Chilton-Radandt, Libby Area Wildlife Biologist

Date: 11/12/19

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Approved:_____.
Jim Williams-Regional Supervisor

Disapproved / Modified by:

Reason for Modification:

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

Species: Deer, Elk
Region: 2
Hunting District: HDs 212 and 213

Year: 2020

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

   In consideration of new boundaries for HDs 212 and 213, it is proposed to:

   - Move all Prison Ranch language, regulations, and season dates from HD 212 to HD 213
     - Note with HD description: Hunters must contact Prison authorities between Aug 1 - Dec 15 of the current license year at 406-846-1320 x2351 for permission to access the Prison Ranch.
     - General deer license valid general rifle season to January 1 for either-sex white tailed deer on Prison Ranch ArchEquip only area.
     - General elk license valid general rifle season to January 1 for antlerless elk or brow-tined bull elk on Prison Ranch ArchEquip only area.
     - WTD OTC B license 213-02 valid on private lands and also valid on Prison Ranch ArchEquip only area from day after general rifle season to January 1.
   - Antlerless elk permit adjustments:
     - Reduce quota range for 212-00 antlerless elk permit to 5-150. Valid district-wide.

  - Increase quota range for 213-00 antlerless elk permit to 25-700, only valid in portion of HD 213 south of Rock Creek. Holders 16 and older may not hunt antlered elk in HD 213.
  - Remove 212-01 antlerless elk permit
  - Add 50 213-02 (range 5-120) only valid in portion of HD 213 south of Boulder Creek road. Holders 16 and older may not hunt antlered elk in HD 213.
- Remove 002-00 B license in HD 212.
- Include HD 212 in the Flint Creek Valley 210-03 private lands antlerless elk permit (see Flint Creek Valley antlerless elk permit justification)
- Replace 002-00 B license in HD 213 with 350 (range 5-500) 213-01 private lands B license from August 15- end of general rifle season.
  - August 15- day before general rifle season:

    Valid on private lands, excluding Weyerhaeuser, Stimson, & Nature Conservancy lands.
  - General rifle season:

    Valid on the above described private lands AND ALSO VALID on DNRC lands outside the National Forest boundary and FWP WMA's. Also valid on Montana State Prison Ranch in compliance with Prison Ranch access regulations.

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.

Objectives are:

- To improve FWP hunting district boundaries by better mirroring landscape-level wildlife populations and management.
- Simplify hunting regulations by removing consistent duplications of deer and elk hunting opportunities in the current HDs 212 and 213.
- Maintain successful management regimes on the landscape by adjusting regulations to match new boundaries.
- Replace the unlimited 002-00 B license with a more controlled tool that is available to landowners facing game damage challenges.
  - 210-03 private lands antlerless elk permit in HD 212
  - 213-01 private lands B license in HD 213

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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 by:

- Elk winter surveys will measure populations in relations to elk management objectives
- Annual hunter surveys will measure harvest estimates for game species, and deer population data will be extrapolated from harvest trends
- Satisfaction with hunters and landowners will be measured by FWP field staff.

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 elk and deer populations of the current HDs 212 and 213 are over objective, though have been declining since introduction of private lands B licenses and shoulder seasons. Due to the frequent travel of large elk groups across the current Racetrack Creek boundary, annual winter surveys of elk groups can introduce variability in population estimates, leading to misleading individual hunting district populations (Figure 4). By changing the districts to different watersheds, future elk data will match the landscape and make elk management more consistent and effective.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

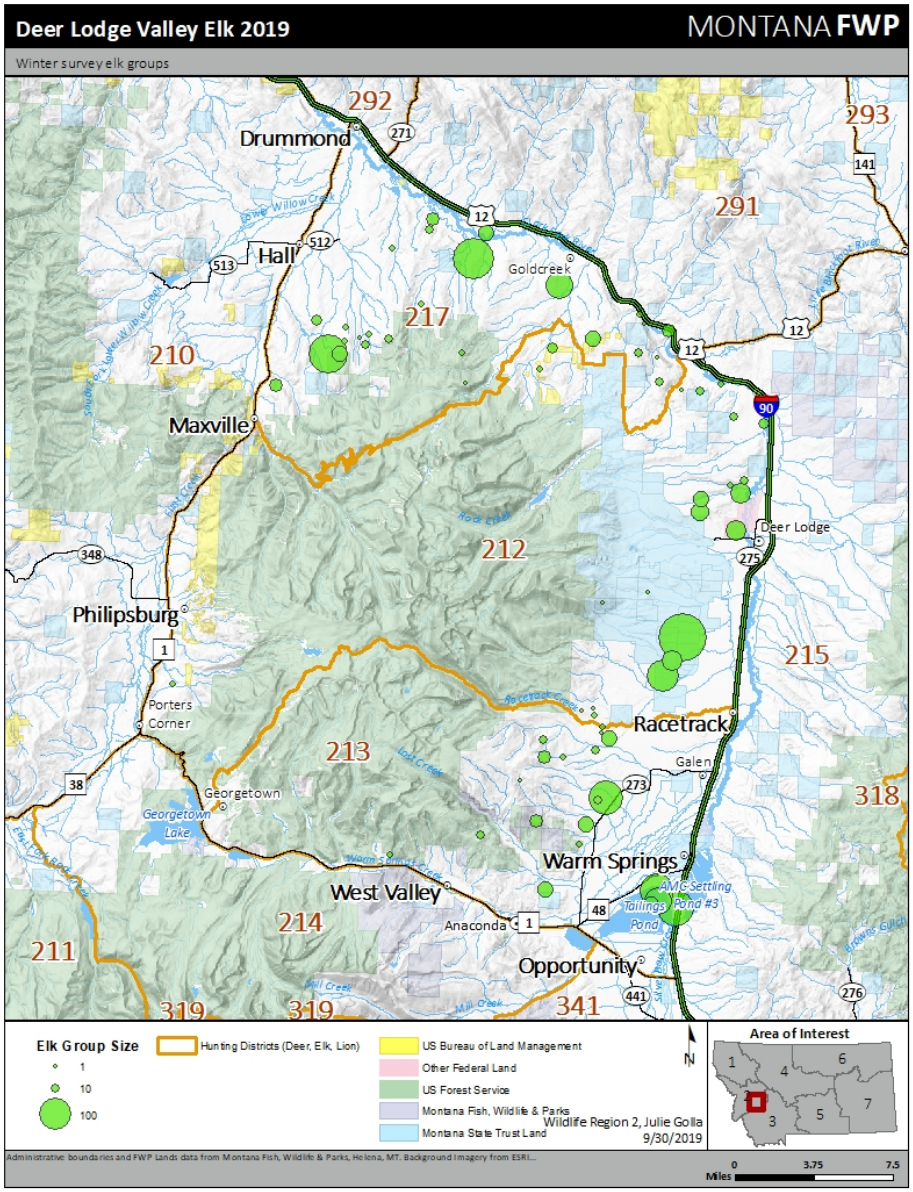


Figure 1. Elk distribution and group size in March 2019 during winter elk surveys.

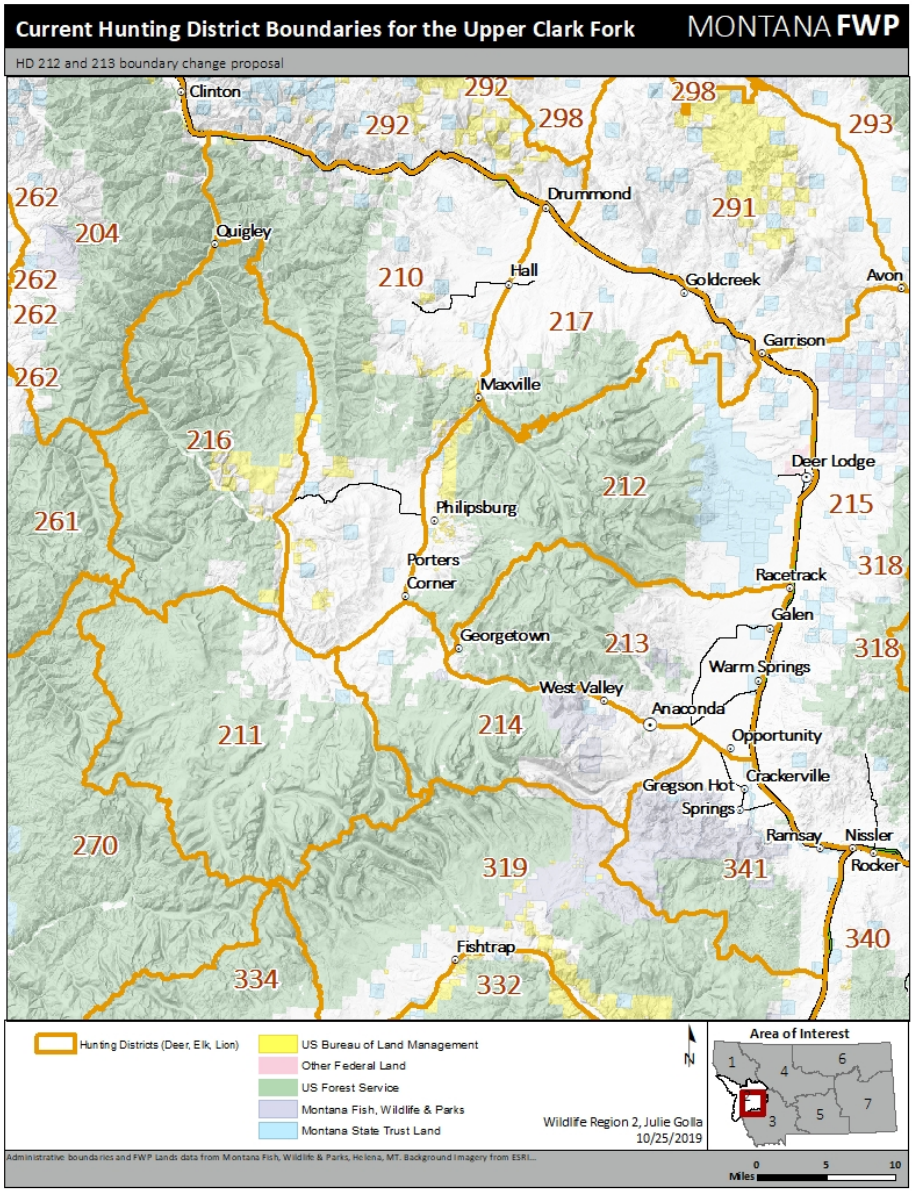


Figure 2. Current hunting district boundaries in the Upper Clark Fork.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

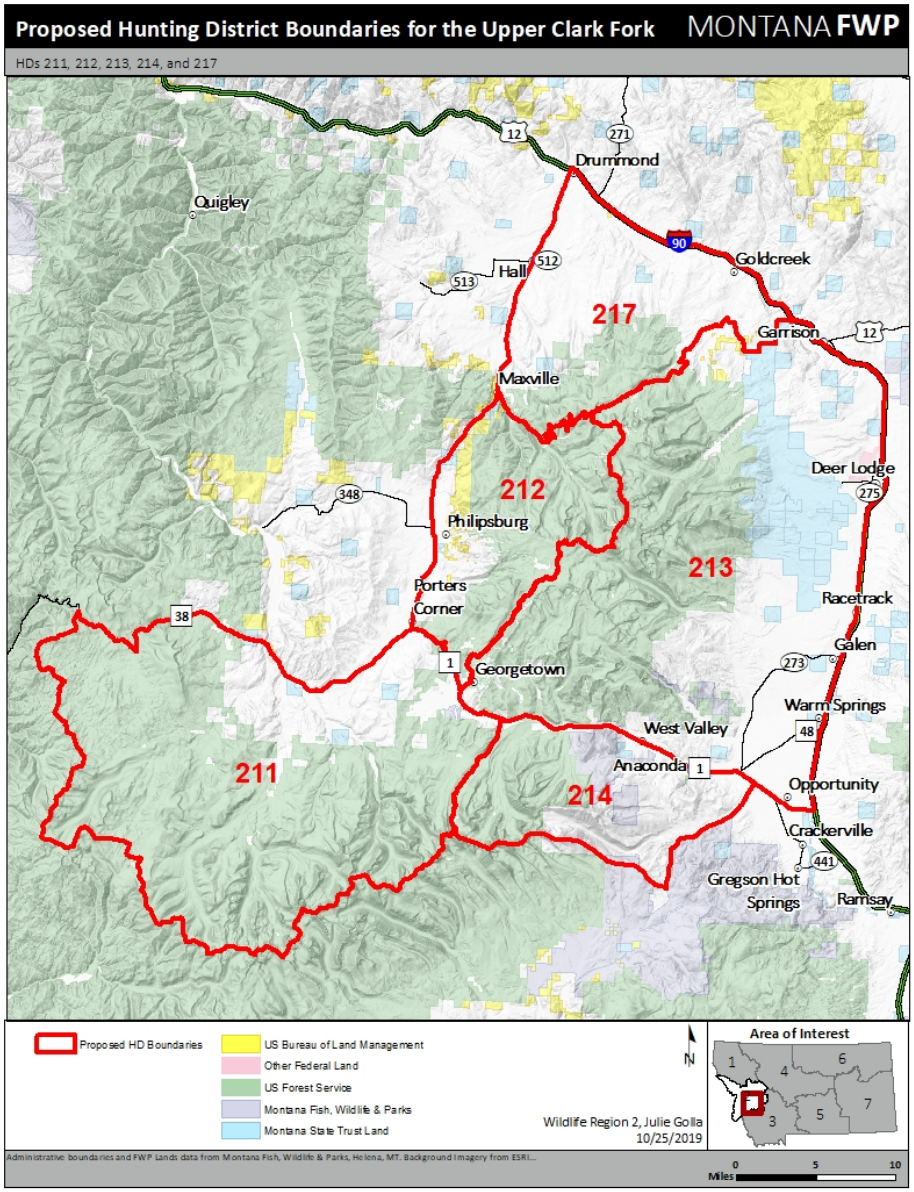


Figure 3. All proposed hunting district boundary changes for 2020 in the Upper Clark Fork. Note the 212 and 213 change along the Flint Creek Mountains divide.

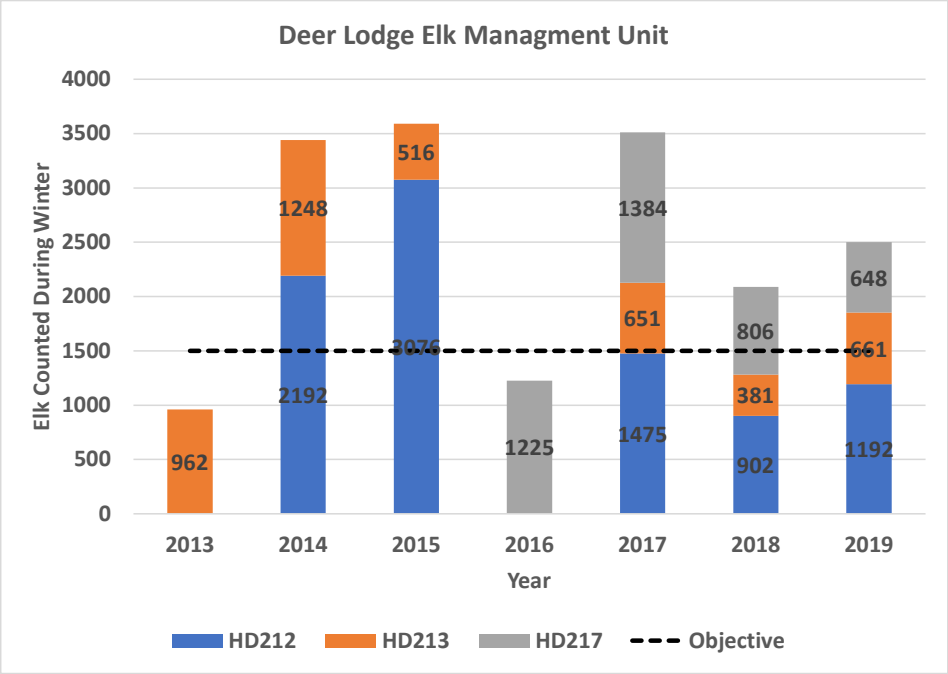


Figure 4. Total elk population numbers from the Deer Lodge elk management unit. Winter elk counts vary between the current HD 212 and HD 213 due to large groups of elk moving across the Racetrack Creek boundary (2014-2015).

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 proposed boundary change will help include the private lands of the Deer Lodge valley into one hunting district for simplified wildlife management and game damage mitigation efforts. The Philipsburg Valley has mostly public land until you reach the other boundary of State Route 1.

Weather is similar throughout the area of these hunting districts

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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).

Local landowners and sportsmen support the change in the Racetrack Creek boundary, as it has been a point of frustration with the increased private land hunting access and participation in the Deer Lodge valley. The Prison Ranch will have the same hunting opportunities as it did in HD 212, only a change in hunting district classification will occur for the overall elk management of the new HD 213.

Landowners support the continuation of late shoulder seasons and private lands permits or B licenses to provide an efficient tool to harvest and disperse private lands elk in the region. Landowners do not support ending the permit and B license hunting with general rifle season and would prefer an established late season to February 15 for private lands only.

Sportsmen are split in support when it comes to shoulder seasons. Some see it ethically wrong to hunt elk for 6 months, or during hard winters when they are stressed from weather and prolonged hunting. Other sportsmen actively participate in late season private lands hunt and see it as a way to harvest an elk when physical or weather constraints make harvesting elk in the general season difficult.

Submitted by: Julie Golla

Date: November 20, 2019

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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

Species: Mule Deer

Region: 2

Hunting District: HD240

Year: 2020

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

   This proposal has 2 components:

   1. Eliminate the opportunity to harvest an antlerless mule deer on the general deer license on private land during the first week of rifle season;

   2. Add a limited antlerless mule deer B-license valid for private land only (25, quota range 1-50).

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 these proposed changes is to be able to more closely control antlerless mule deer harvest on private land through limited B-licenses.

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 through the annual hunter harvest phone survey.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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).**

Mule deer are not surveyed in HD240. Antlerless harvest has been less than 10 for the last 4 years, but it is difficult to determine from harvest data if this is due to a lack of deer or an unwillingness to use the general deer license on a mule deer doe.

Game damage from mule deer is generally not an issue in this HD, but our hope is that since the proposed B-licenses are private land only, they will be sought after by landowners who may have issues with mule deer damage, thus focusing harvest in those areas and preventing winter damage.

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).**

HD240 comes with complex big game management challenges because while much of the HD is composed of public land, nearly all the winter range is privately owned. Most, if not all, of the private ground has been fragmented into residential lots with a few large agricultural operations remaining. Winters in the Bitterroot Mountains are harsh, while the valley bottom is generally one of the milder areas in the state with periodic harsh winters (such as the winter of 2018-2019).

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 supported by the Ravalli County Fish and Wildlife Association and game wardens.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Submitted by: Rebecca Mowry

Date: October 28, 2019

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

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

Species: Mule Deer

Region: 2

Hunting District: HD262

Year: 2020

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

   Add a new antlered buck permit valid for youth hunters (ages 12-15). Starting quota of 10, quota range 1-25.

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.**

2020-2021 Deer Hunting Seasons and Quota Range Justifications

The objective of this proposed change is to continue to manage mule deer in HD262—which is almost exclusively private land (housing developments and agricultural operations)—to reduce game damage issues and stem the HD's growing reputation as a trophy district (a reputation which was never intended by FWP and stands in direct opposition to the Special Management Area criteria set forth in the Mule Deer Adaptive Harvest Management Plan).

It is our hope that creating a youth-only permit, rather than just increasing the quota of the existing permit, will address some of the complexity of managing deer in this HD (see Number 4 below).

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 by a reduction in game damage complaints for HD262 and a decrease in demand for both this new permit and the existing permit over time. We also expect trophy quality to gradually decrease.

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).**

HD261 (see Figure 1) was designated a SMA in the 2000 AHM, as mentioned above. In 2014, part of it was removed from the district and, along with parts of HD204, added to the newly-created HD262 in response to chronic game damage problems from elk, white-tailed deer, and mule deer. Neither HD has a mule deer population objective, and neither are currently surveyed.

HD262 is almost exclusively private land, much of it developed for agriculture and the remaining land developed into housing subdivisions. As such, mule deer in this district have access to excellent forage and due to the limited permits for bucks, males in particular do not

experience heavy hunting pressure. This situation has encouraged increasing use of the private farmlands by buck mule deer. This is becoming a problem for multiple reasons:

1. Because the buck permit is so sought-after and difficult to draw, young bucks or non "trophy-quality" bucks are never harvested and cannot be dissuaded from frequenting the high-quality ground in the farmlands.

2. FWP is unable to offer any solutions to affected landowners. Damage from antlerless deer occurs as well, but landowners have significantly more flexibility to harvest this segment of the population, resulting in increasing damage from herds of bucks. Though haystack fencing and rubber slugs are occasionally utilized, landowners have few opportunities to demonstrate game damage eligibility, and the plethora of small-acreage properties are generally excluded from assistance anyway. Kill permits for bucks cannot be authorized because of the HD's trophy status, and hunters with the permit will not waste their opportunity on anything but a trophy animal.

3. It is reasonable to predict that if HD262 remains a trophy area, the demand for trophy-sized deer will continue to increase (to the dismay of agricultural producers or small property owners), as will the temptation for some private landowners to begin demanding trespass fees to harvest trophy deer.

4. Non-agricultural producers (such as small residential acreages and subdivisions) are becoming increasingly frustrated with the density of deer as well as the pestering of hunters and antler-shed seekers frequenting the area.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Here is the list of SMA criteria from the AHM, with 262-specific notes in italics and emphases in

From the Adaptive Harvest Management (AHM) Guidelines, regarding Special Management Areas:

1) The hunting districts should be within that portion of the state where the hunting opportunity for bucks and buck age diversity is low. This will reduce the impact to hunting opportunity statewide and still provide at least one or two areas reasonably close to a hunter's place of residence. *We already have HD270 and HD261 in the Bitterroot, and 202/210/291 in rest of Region 2.*

2) There should be only a few districts chosen because of the impact of such a restriction on hunting opportunity and the statewide impact of the resulting redistribution of hunters.

3) There should be significant hunter interest in managing for older bucks in the area. *There is certainly hunter interest, but it comes at the expense of landowners.*

4) The locations should be accessible to hunting; that is, the hunting district should not be an area with a considerable amount of closed private land. This will increase the shift of hunters

red:

This proposal is a continuation of a long-term plan to reduce the trophy status of this district by incrementally increasing harvest pressure on bucks. The current permit allocation for 262-50 is 40 permits, and if this proposal is adopted, the total for the HD will increase to 50. By doing this incrementally, we will prevent a fast overharvest of mule deer bucks in the unit, and allow the increase in pressure to "encourage" the deer to seek safety in neighboring HDs (such as HD261).

Further, it is our hope that landowners frustrated with mule deer hunters may be more amenable to allowing youth this special opportunity to harvest deer on their property.

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).

HD262 is historic winter range which has been almost entirely converted to residential development or agriculture. Winters are typically milder here than other parts of the state, but snow and cold temperatures still cause an increase in game damage complaints.

Access to harvest big game is difficult because the HD is almost entirely private land, and this has been a factor in trying to find a solution that will decrease deer densities and trophy quality. Many landowners, particularly in housing developments, are frustrated with high deer densities but at the same time do not want to hunt the deer. It is therefore our hope that youth hunters may be more accepted by some landowners, and also may be less likely to "hold out" for trophy quality deer—therefore they may be used as a tool to help alleviate damage issues especially with sub-trophy bucks. They also are more likely to wait until rifle season to hunt, when many of the bigger bucks have already been harvested by bowhunters.

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).**

FWP considered proposing a youth-only permit in HD262 in 2018, which was supported by the Sapphire Chapter of the Mule Deer Foundation (which is currently experiencing leadership changes and could not offer an opinion on this current attempt) and was not supported by the Ravalli County Fish and Wildlife Association (RCFWA), on the basis that (1) it is not fair for youth to have a better chance of drawing a trophy tag that older hunters have been applying for for years, and (2) increasing permits will not increase buck harvest, as access on private land is the limiting factor. RCFWA does not support the current proposal on the same grounds.

A working group of 262 landowners generally supported the proposal, although one landowner/hunter present was reluctant. We also discussed this proposal with legislator Fred Thomas who generally did not want increased pressure in HD262 and wanted to grow bigger bucks, but he was willing to accept the youth permit as long as the regular permit level was

dropped. We plan on bringing this question up during the public comment process with the commitment to adjust quotas, based on public comment, after this season setting process.

Overall, we feel this is a reasonable compromise between the needs of landowners and the wishes of hunters.

Submitted by: Rebecca Mowry

Date: October 28, 2019

Approved: _____

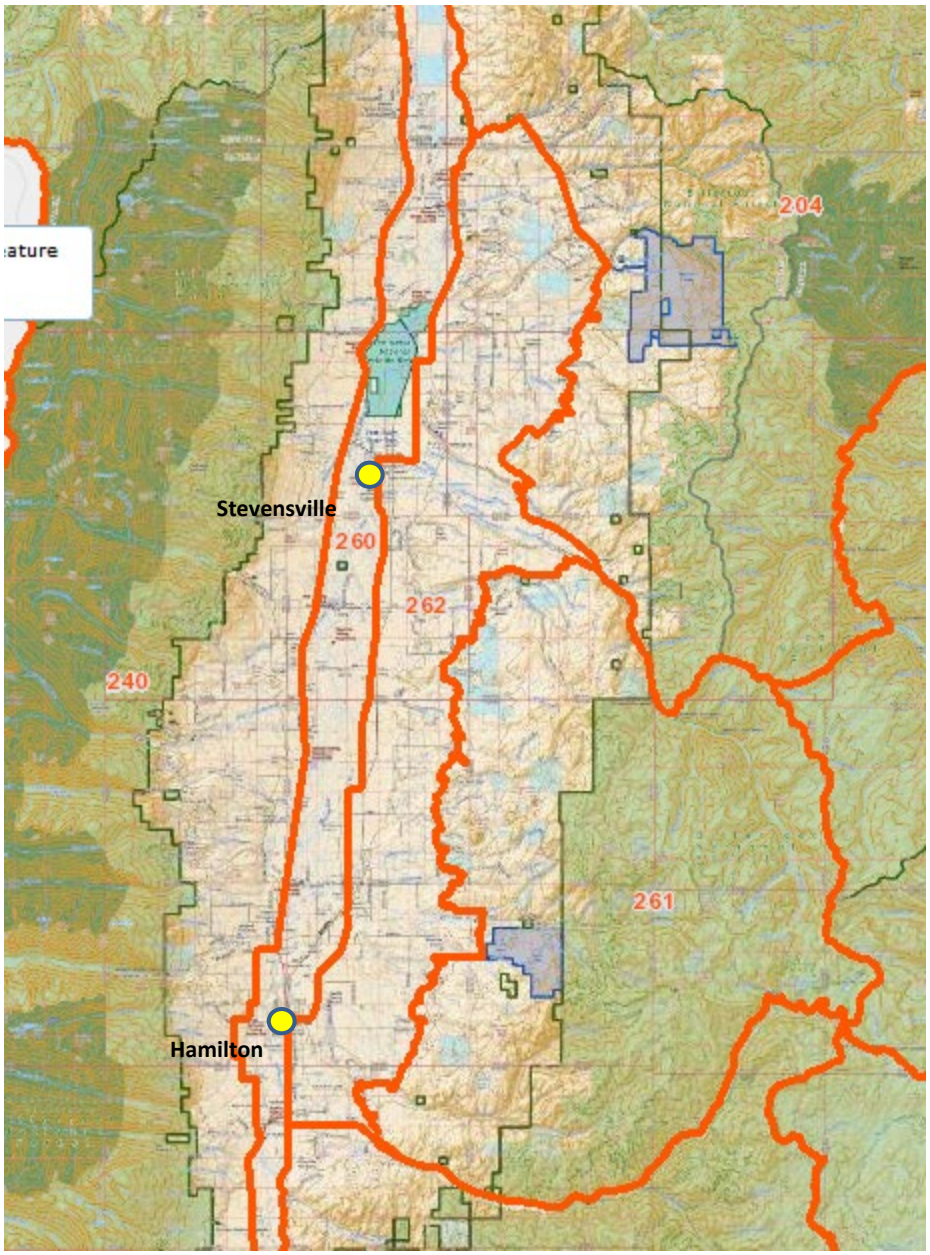
Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

2020-2021 Deer Hunting Seasons and Quota Range Justifications



2020-2021 Deer Hunting Seasons and Quota Range Justifications

Figure 1. Ownership of lands encompassed by HDs 261 and 262.

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

Species: Mule Deer and White-tailed Deer

Region: 2

Hunting District: HD262

Year: 2020

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

This proposal has 3 components, all with the objective to simplify hunting regulations.

1. Eliminate the 262-01 archery white-tailed deer B-license;

2. Add the 260-01 archery white-tailed deer B-license to HD262;

3. Eliminate the 262-03 archery antlerless mule deer B-license.

The 262-03 license was added in 2018 to meet a perceived need (which apparently does not exist) for archery antlerless mule deer hunting. The 262-01 archery WTD tag was kept separate from the 260-01 archery WTD tag, which is valid in nearly all other Bitterroot HDs, out of a desire to haved focused antlerless harvest in 262 where game damage is more severe. This tag was created with HD262 in 2014.

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.**

2020-2021 Deer Hunting Seasons and Quota Range Justifications

The objective of these proposed changes is primarily to simplify hunting regulations by eliminating ineffective LPTs and combining identical hunting opportunities into a single LPT.

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

Not applicable, except perhaps through conversations with enforcement, hunters, and landowners regarding improved simplicity of the hunting regulations for HD262. We would also expect an increase in harvest on the 260-01 license. Game damage complaints may not necessarily be reduced, but should not increase.

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).**

Neither species is surveyed in HD262, which is composed almost exclusively of private land. The management objective here is to keep game damage complaints to a minimum through hunting. In general, populations of both species are high, through increased hunting opportunity may prohibit them from causing chronic damage in isolated locations.

During the 2018 season, harvest on the 262-03 mule deer archery license was only 6 deer out of 50 licenses issued. Many hunters report that they apply instead for the 262-00 mule deer B-license which allows more flexibility on weapon. In both 2018 and 2019, there was surplus of 262-03 licenses available after the initial application period.

Also in 2018, white-tailed deer harvest included 30 antlerless deer on the 262-01 archery license, while the area-wide 260-01 archery license produced a harvest of 504 antlerless deer (primarily in HD260, which is mostly private land). This license has proven useful in managing deer on private land with archery equipment.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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).**

HD262 is historic winter range which has been almost entirely converted to residential development or agriculture. Winters are typically milder here than other parts of the state, but snow and cold temperatures still cause an increase in game damage complaints. The winter of 2018-2019 was particularly harsh, and anecdotal observations of biologists and hunters suggest the white-tailed deer population has declined; however, as the 260-01 license is believed to be a tool primarily used on private land nearer the Bitterroot River bottom, we do not believe that extending its use to another area—an area which experiences chronic game damage caused by white-tailed deer—will result in overharvest. Rather, it will continue to be used to address problematic densities on private land.

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 supported by a working group of landowners from the 262 area, as well as the Ravalli County Fish and Wildlife Association and game wardens. The RCFWA requested the per-person quota on the 260-01 license be reduced from 5 to 3 in response to declines in deer numbers, which FWP will consider after the season setting process.

Submitted by: Rebecca Mowry

Date: October 28, 2019

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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

Species: Mule Deer

Region: 2

Hunting District: HD 270

Year: 2020

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

Add a new antlered buck permit (15 to start; quota range 1-30) with the requirement that harvested bucks have 3 antler points or fewer on one side (not including eye guards). Deer harvested with this permit will also require a mandatory inspection for the first 2 years.

HD270 was designated a Special Management Area in the 2000 Adaptive Harvest Management Plan, and has since become the most coveted special mule deer permit in the state, with 8,291 applicants for 45 buck permits in 2019 (0.54% drawing success). Permit allocation has varied since the HD's designation as a SMA, but has remained at 45 permits for the last 10 years.

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 allow an increase in buck harvest without a perceived threat to the trophy potential of the HD. It is important to note that the objective is **not** to improve trophy potential through "culling" genetically inferior deer, but to decrease the overall buck contingent in an effort to improve overall herd health and prevent the spread of CWD, assuming its eventual arrival in western Montana.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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 by:

a. Observed buck:doe ratios from postseason aerial mule deer counts;

b. Observed fawn:doe and fawn:adult ratios from postseason and spring aerial counts, respectively;

c. Age of bucks (on both permits) as estimated through tooth wear and replacement at the Darby Check Station and through continued cementum aging of incisors collected at the DCS and through voluntary submission;

d. Mandatory inspections of harvested deer;

e. Interviews with game wardens regarding the enforceability of this regulation.

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 mule deer population in HD270 has been in a slow decline since about the year 2000. Deer are surveyed twice, once immediately postseason to assess buck:doe ratios and again during spring green-up to obtain population counts and fawn:adult estimates. Survey quality is highly variable and relatively unreliable due to logistical constraints (primarily helicopter availability), resulting in surveys being flown in less than optimal survey conditions or only portions of the trend area being completed. However, the long-term declining trend is discernible in survey data and is likely reflective of reality.

The most recent spring count (spring 2019) yielded 826 deer, but this is due in part to poor survey conditions and a faster survey due to an incoming weather system. The last survey considered high quality was spring 2017 with a count of 1580 deer (Figure 1). Fawn:doe and fawn:adult ratios observed in postseason and spring show long-term declines since 1997, while the buck:doe ratio shows an increasing trend, as one would expect under a limited entry regulation (Figures 2 and 3). An analysis by Newell and Meredith (2018) suggested that limited permits do in fact result in better buck numbers and age classes, but may indeed result in declines in herd population size and fawn:doe ratios. Whether this is an effect of that regulation or a trend coincident with other, more important factors is difficult to decipher.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

The consensus from managers in western Montana (and other western states) is that we will likely never again reach the high mule deer numbers observed in the 1980s-1990s, due to habitat changes (conifer encroachment, noxious weeds, human development, agricultural conversion, climate change/hotter and drier summers, changes in fire regimes, reductions in abundance of browse species) and huge increases in elk populations (Figure 3). In Region 3, where deer populations are consistently surveyed in more HDs, years of no doe harvest has not resulted in measurable increases in the population. Collectively, these data suggest that deer in western and southwestern Montana may be limited by habitat.

A further risk of high buck:doe ratios on overall herd health is the growing threat of Chronic Wasting Disease (CWD). While CWD has not yet been detected in the Bitterroot Valley, it looms as a particular threat to Special Management Areas. Buck deer in CWD-positive herds are 2-3 times more likely to be infected and are more likely to transmit the infection to other deer due to high contact rates with does and other bucks (WAFWA 2017). Management in response to CWD detection in mule deer typically focuses on increased buck harvest as well as overall reduction in deer density through doe harvest; in SMA HD510, for example, mule deer regulations after CWD detection in 2018 changed from unlimited buck permits to general license either-sex. The WAFWA CWD guidelines recommend harvesting ≥30% of buck deer annually to reduce the prevalence of the disease.

The potential impact of CWD has important implications for HD270. Despite the declining deer numbers, postseason buck:doe ratios generally hover around the AHM target (40 bucks:100 does; Figure 2). Since 2004, permit fill rate has averaged 80% according to the harvest survey (range 63-89%), with an average of 96% of those bucks having greater than or equal to 4 antler points (range 89-100%). In short, bucks are doing well and trophy potential remains good. Efforts to increase permit allocation since 2014, based on good buck:doe ratios, have been met with general disfavor among the public, who worry that higher permit allocations will cause an overharvest of big deer and a detriment to long-term trophy potential.

However, we believe the CWD risk warrants preventive action in SMAs, especially HD270 which is, as mentioned previously, is the most sought-after unit for trophy mule deer. It is our hope that adding an antler-restricted tag (3 points or fewer on one side, not including eye guards) will increase hunter opportunity and buck harvest while minimizing the impact on trophy potential for the existing 270-50 tag. We believe that hunters will use this antler-restricted permit to seek out the biggest bucks that meet the restriction, such as old bucks with declining antler quality and large (old) 3-point bucks. We acknowledge that 15 permits to start is unlikely to have an effect on buck:doe ratios, but it will help FWP evaluate the enforceability of the regulation and, through mandatory inspection and aging, determine what kinds of bucks (age, trophy quality) are being harvested by this tag.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

If deemed successful, and with public input, we will continue the regulation and gradually increase permit allocation with continued monitoring.

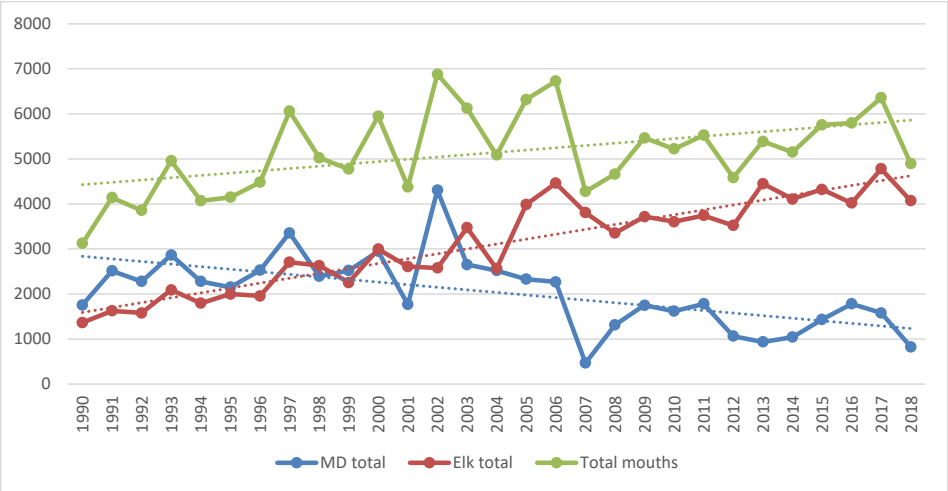


Figure 1. Total counts of mule deer and elk, 1990-2018. Elk surveys are an all-HD census while deer surveys are a trend (only the Sula-Skalkaho portion of HD270; not all portions are surveyed in all years).

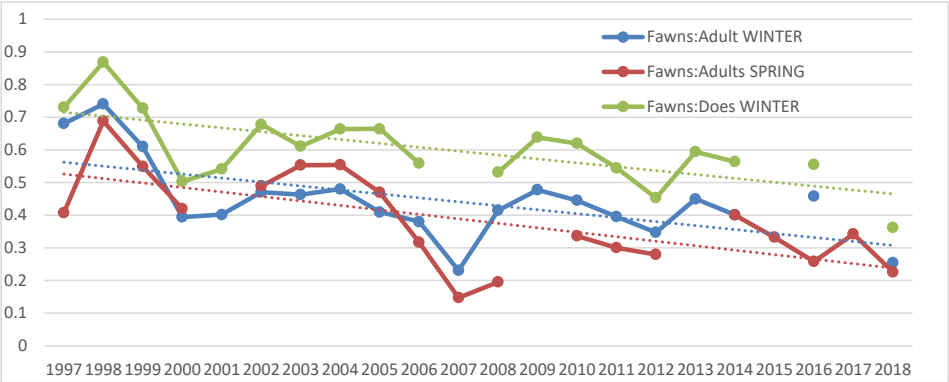


Figure 2. Fawn ratios during postseason (winter) and spring counts, 1997-2018.

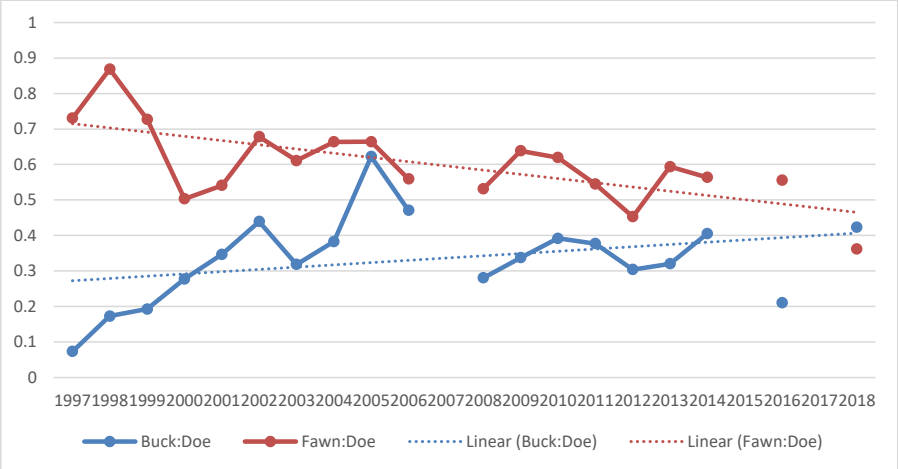


Figure 3. Buck:doe and fawn:doe ratios during postseason trend counts, 1997-2018. Data from 2007 has been censored due to only a very small portion of the HD surveyed, yielding extremely high buck:ratios (over 1:1).

Literature:

1. Newell, J. and E. Meredith. 2018. The effects of special mule deer buck regulations on mule deer populations and harvest. Montana Fish, Wildlife & Parks report.

2. Western Association of Fish and Wildlife Agencies. 2017. Recommendations for Adaptive Management of Chronic Wasting Disease in the West. WAFWA Wildlife Health Committee and Mule Deer Working Group. Edmonton, Alberta, Canada and Fort Collins, Colorado, USA.

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).**

Access in HD270 is generally very good, with a high proportion of public land and network of roads open year-round and seasonally.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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 not supported by the Ravalli County Fish and Wildlife Association on the basis that they do not think the CWD risk is important enough to warrant increased permits. The club has never supported any regulation to increase mule deer buck harvest in HD270.

Game wardens support the proposal.

Submitted by: Rebecca Mowry

Date: October 28, 2019

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

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

Species: White-tailed Deer

Region: 2

Hunting District: 204, 240, 261, 270

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Year: 2020

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

Remove the existing 299-00 license, which is a limited, special weapons, late season on antlerless white-tailed deer. Instead, a new 299-00 license will be over-the-counter (1 per hunter), antlerless white-tailed deer, private land only, valid during archery and general seasons.

White-tailed deer regulations have fluctuated over the years due to efforts at regulations simplification, LPTs not being popular with the public, and changes in deer density/hunter availability on private vs. public land. We feel this proposed change is a simple solution to allow hunters to address higher populations of deer on private land with a single LPT.

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 improve hunter opportunity for private land white-tailed deer, and ideally prevent winter game damage to some degree, using a simpler tool. The previous 299-00 license, which was valid in these same HDs, was for late-season harvest only and experienced a very low license fill rate according to the harvest survey (out of 400 available licenses, only 179 people applied, and only 21 antlerless WTD were harvested).

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 the proposal will be measured through a) harvest through the Darby Check Station, b) harvest as documented through the annual hunter harvest survey, and c) reduction in game damage complaints.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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).**

White-tailed deer are not surveyed in the Bitterroot. Population data is based on harvest, and show relatively stable white-tailed deer populations over time, although the harsh winter of 2018-2019 likely reduced populations to some degree. Reduced hunter opportunity for antlerless WTD typically results in higher buck harvest, which is not a desirable result. Changing this B-license should allow hunters and landowners to address problematic deer densities on private land, while maintaining deer populations on public land where they may be more vulnerable to overharvest.

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).**

White-tailed deer habitat in the Bitterroot Valley is composed of public and private land. On private land, deer hunting is prohibited by numerous landowners especially nearer population centers, reducing the odds that deer will ever be overharvested in the valley bottom. However, on public land, hunting pressure is high, especially when restrictions limit hunter opportunity for other species/sexes. The need to address damage caused by urban/agricultural deer herds must be balanced with the need to preserve populations on public land, and we believe this B-license will be a useful tool.

The harsh winter of 2018-2019 likely did impact white-tail populations throughout the valley, including on private land; however, we are confident that aforementioned security areas located throughout the valley bottom will preclude overharvest.

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).**

2020-2021 Deer Hunting Seasons and Quota Range Justifications

This proposal is supported by the RCFWA and a "working group" of landowners and hunters that have been meeting regularly from the Stevensville area (including parts of HDs 204, 261, and 240).

Submitted by: Rebecca Mowry

Date: October 28, 2019

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

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

Species: White-tailed Deer
Region: 2
Hunting District: HDs 210, 212, 213, 215, 216 & 217

Year: 2020

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

Proposed: For White-tailed deer (WTD) B licenses 210-02, 212-02, 213-02, 215-02, 216-01, and 217-01:

1) Reduce the number of over-the-counter (OTC) licenses from 3 per hunter to 1 or 2 per hunter.
2) Lengthen the rifle hunting season date to January 1.
3) Make B license valid on private land only after General Rifle season in HD 215.
4) Make B license valid on private land and Prison Ranch only after General Rifle season in HD 213.

5) Move wording of Prison Ranch general deer license hunting access from HD 212 to the new HD 213.

Currently, these B Licenses are issued up to 3 per hunter and valid until the end of general rifle season. They are valid outside the National Forest Boundary and NOT valid on FWP WMAs or BLM 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 objective of this proposed change is to extend the hunting period for antlerless WTD in hunting districts that endure annual game damage on private lands in late winter. The harvest for antlerless WTD was very successful with 3 OTC licenses per hunter in 2018. Population reduction is still needed, but the antlerless harvest rate should be reduced. One to two OTC licenses per hunter is adequate to maintain additional antlerless harvest during the general rifle season and December, when WTD game damage can be most burdensome.

In HD 215, WTD habitat cover is limited due to remediation projects along the Clark Fork River. In HD 213, we would like to concentrate late season WTD harvest on private lands and the Prison Ranch. For these reasons, we want to limit the B license to be valid on private lands (HD 215 and HD 213) and the Prison Ranch archery-only area (HD213) only after the general rifle season.

With the new boundaries for HD 213, the Prison Ranch language should be moved from HD 212.

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 by evaluating antlerless harvest estimates from annual hunter phone surveys, as well as communicating with landowners on the status of game damage they incur from WTD.

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).**

Because none of these HDs are regularly surveyed (due to logistical constraints and habitats with low detectability), WTD populations are difficult to estimate; thus, harvest trends have been the primary means of evaluating population trends. WTD population

estimates in these HDs are imperfect at best, and are typically supplemented with anecdotal observations, hunter impressions, and possibly check station data.

Figure 1a.

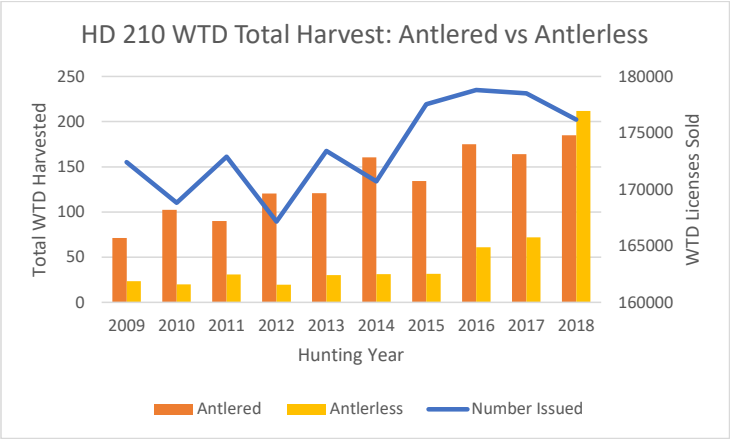


Figure 1b.

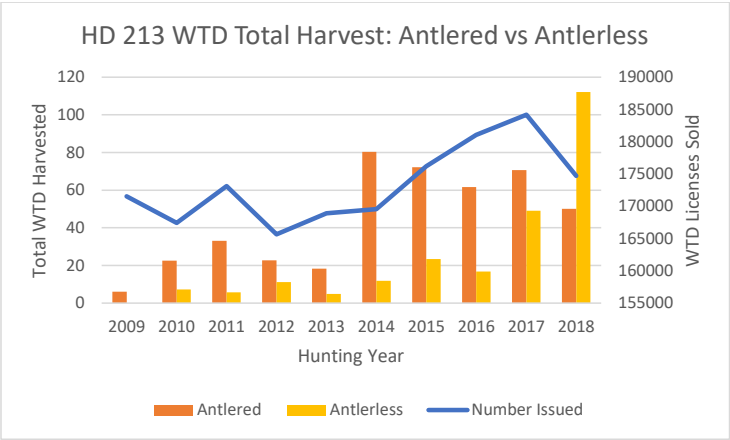


Figure 1c.

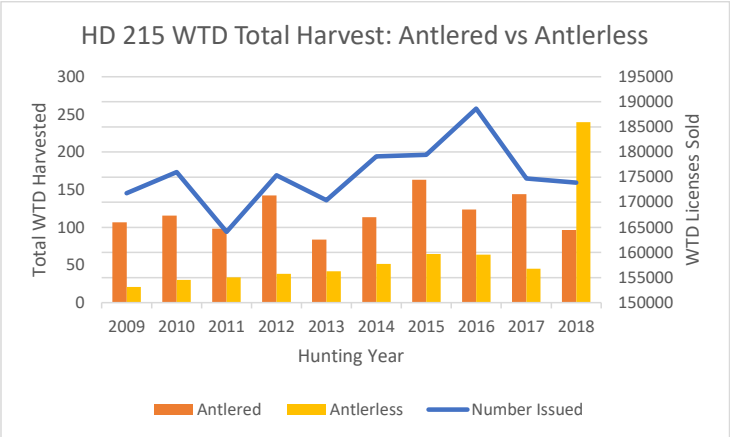


Figure 1d.

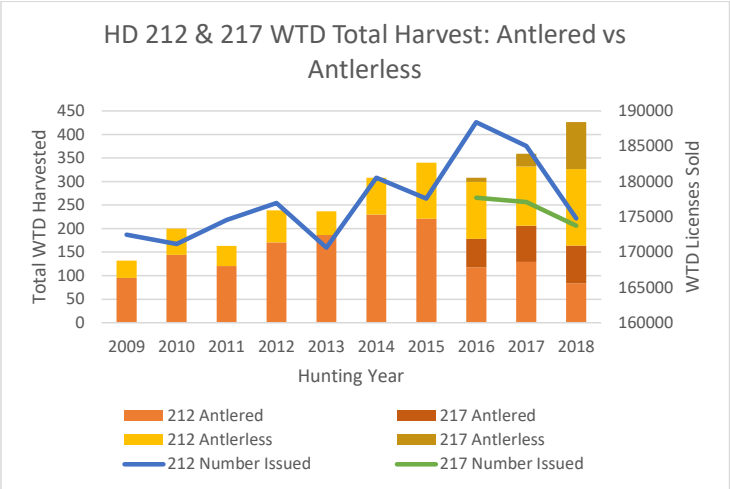


Figure 2a-d. White-tailed deer harvest trends in HDs 210, 213, 215, and 212/217 for years 2009-2018. Over-the-counter WTD B licenses for up to 3 per hunter were implemented in 2018.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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).**

   WTD populations have grown in the Upper Clark Fork as they benefit from agriculture on private lands and limited antlerless harvest opportunity in previous years. Private land hunting access is readily available in each hunting district from landowners in Block Management and those who are encumbered by elk and deer game damage in fall and winter. For these reasons, OTC antlerless B licenses through January 1 are a suitable tool for reducing private land WTD populations and dispersing deer that may cause game damage beyond the general rifle season.

   Heavy snow in the winters of 2017-2018 and 2018-2019 have likely depressed recruitment of deer fawns, which is another reason to lower the number of B licenses offered from 3 per hunter to 1 or 2 per hunter.

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).**

   Local landowners were very supportive of increasing antlerless WTD harvest in hunting districts 210, 212, 213, 215, and 217 during the previous and current season setting processes. Local hunters and sportsmen groups generally supported these B-licenses if it meant limiting competition for areas with struggling mule deer herds. Some hunters objected to losing the additional antlered WTD buck opportunities which were removed in HD 212 when the OTC B-licenses were implemented.

   Local enforcement report seeing very few hunters purchasing and filling 3 OTC tags, so reducing to 1 or 2 per hunter will not adversely affect opportunity for those landowners and sportsmen that participate in antlerless WTD harvest.

Submitted by: Julie Golla

Date: October 28, 2019

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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

Species: White-tailed Deer

Region: 2

Hunting District: HD260

Year: 2020

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

   This proposal has 3 components:

   1. Eliminate the 260-02 antlerless special weapons license;

   2. Allow the 260-20 either-sex license to be valid west of Highway 93 in Missoula County.

   3. Remove the restriction prohibiting the 260-20 license to be used on the Lee Metcalf NWR.

The 262-02 license was added in 2018 with the idea that having a special weapons tag would allow harvest where archery was not effective at addressing problematic concentrations of deer on private land.

The 260-20 either-sex license is a popular license that has existed since 1991 and is regarded as a "second buck" tag even though it is either-sex. The Missoula County restriction has been in effect for several years due to declines in deer resulting from an outbreak of EHD; however, deer have since recovered. The Lee Metcalf restriction was put in place in 1992; we were unable to determine the history of this (i.e. why this restriction was put in place; our best guess is it was because the LMNWR, since it is public land open to hunting, would become overrun with license holders).

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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 these proposed changes is primarily to simplify hunting regulations by eliminating ineffective LPTs and simplifying existing LPTs (i.e. by removing a portion restriction on a hunting district).

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

Not applicable, except perhaps through conversations with enforcement, hunters, and landowners regarding improved simplicity of the hunting regulations for HD260. The 260-20 license generally has a good fill rate and we would not expect this to change. Game damage complaints may not necessarily be reduced, but should not increase. We will stay in contact with the wildlife refuge to determine if hunting pressure on the 260-20 is untenable.

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).**

White-tailed deer are not surveyed in HD260, which is mainly private land except for some DNRC sections and the Lee Metcalf National Wildlife Refuge. In general, the population is high, with periodic episodes of EHD and/or winterkill from harsh winters causing temporary declines. We believe the deer have recovered in the Missoula area following the latest EHD outbreak and that the distinction between the two portions is no longer necessary.

During the 2018 season, harvest on the 260-02 special weapons B-license was only 9 antlerless deer despite the 200-license allocation (with holders being able to purchase up to 2 additional licenses). Only 129 people applied for the 200 licenses.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

About a quarter of the 260-20 licenses are filled annually, with bucks making up the majority of the harvest (60-70%). This license has not valid on the Lee Metcalf National Wildlife Refuge since 1992, a year after the 260-20 license was first developed.

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).**

HD260 is mostly private land, with a few DNRC sections and the Lee Metcalf National Wildlife Refuge. The winter of 2018-2019 was particularly harsh, and anecdotal observations of biologists and hunters suggest the white-tailed deer population has declined. We are planning on reducing the quota of the 260-20 license from 300 to 150 in response to this decline, in a separate proposal later this 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).**

This proposal was supported the Ravalli County Fish and Wildlife Association, game wardens, and the Lee Metcalf National Wildlife Refuge.

Submitted by: Rebecca Mowry

Date: October 28, 2019

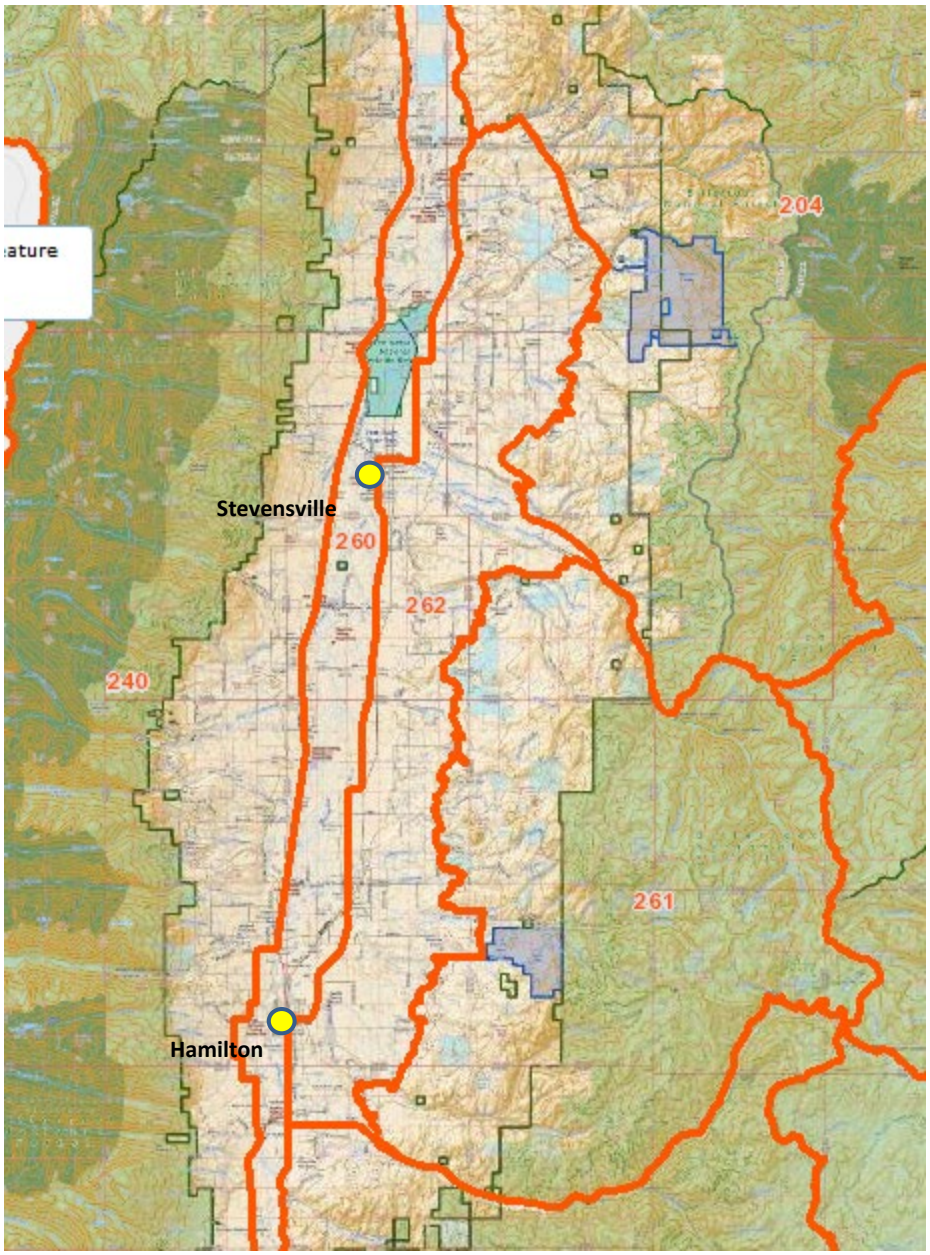
Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

2020-2021 Deer Hunting Seasons and Quota Range Justifications



2020-2021 Deer Hunting Seasons and Quota Range Justifications

Figure 3. Ownership of lands encompassed by HDs 261 and 262.

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

Species: Mule Deer

Region: 3

Hunting District: 309

Year: 2020-2021

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

HD 309 is a weapons-restriction district drawn around the greater Bozeman area. It was created in 2005 to enforce hunter safety by prohibiting hunting with high-powered, long-range firearms in this crowded area of development. The district is 95% private land with the remainder being DNRC, Montana State University, and some MFWP Fishing Access Sites. The objective of deer and elk management in the district is to maintain low numbers to prevent wildlife conflicts and urban wildlife issues.

HD 309 has had up to 25 mule deer B licenses since its creation in 2005, except for 2 years (2014 and 2015) when MFWP eliminated antlerless mule deer hunting statewide. An average of 1.5 antlerless mule deer are harvested on this B license, making it clearly non-essential to population management or hunter opportunity.

This proposal suggests that for the 2020-2021 biennium, either-sex mule deer hunting should be valid on the general deer license for HD 309, and that the 25 mule deer B licenses (309-01) be eliminated.

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 primary objective of this proposal is to institute a liberal regulation to prevent mule deer in the greater Bozeman area from becoming over-numerous and urbanized. A secondary objective of this proposal is regulation simplification through eliminating unneeded license types.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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

This proposal alone may not be enough to prevent urban mule deer challenges, but it should help. The proposal would allow all hunters, not just the 25 B license holders, freedom to harvest mule deer does in the greater Bozeman area. Mule deer harvest data in HD 309 will continue to be monitored annually through hunter harvest survey information. An urban/suburban district, HD 309 not managed for a population objective, so standard AHM guidelines do not apply to this district. The proposal would simplify hunting season regulations by eliminating an unneeded license type.

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).

Mule deer buck harvest in HD 309 is well above long-term average. In 2018, 67 buck mule deer were estimated to have been harvested in HD 309. The 2005-2017 average harvest is 28 (95% CI = 21, 35). The high buck harvest rates indicate the population is likely above average, further supporting the ability and need to introduce antlerless hunting on the general license.

Although regulation simplicity is an overarching goal, the proposed hunting season ending date for mule deer harvest in HD 309 would still be concurrent with the end of rifle season, not with the January 15th ending date for white-tailed deer nor the February 15th ending date currently proposed for elk. White-tailed deer are more numerous and productive than mule deer in the HD 309 area, justifying staggered ending dates.

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).

Wildlife management in this district is challenged by the numerous very small landowners (<100acres), the many areas that do not allow hunting, and the many wildlife attractants.

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).

2020-2021 Deer Hunting Seasons and Quota Range Justifications

This proposal was vetted through hunter harvest reports and through dedicated communications to more than 200 sportsmen and women, agency personnel, NGOs, and landowners. One comment received on this proposal indicated opposition and concern about mule deer doe hunting in general.

Submitted by: Julie Cunningham

Date: October 11th, 2019

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

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

Species: Mule Deer

Region: 3

Hunting District: 390

Year: 2020/21 biennial

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

The proposal would eliminate the unlimited mule deer buck permit in HD 390 and the separate east and west portions in the HD. The entire HD would go to general license either-sex mule deer during the entire general archery and rifle seasons. The current number of B-licenses would be reduced given the general either-sex regulation. An unlimited mule deer buck permit regulation was implemented in the defined west portion of the HD starting with the 2004 general season, while the remaining portion (east portion) of the HD remained under a general license antlered buck regulation. That split regulation has remained in place since the 2004 season. There has been no

legal antlerless mule deer harvest allowed on a general license during the rifle season in the HD since at least 1990 (likely goes even further back). Various number of antlerless mule deer B-licenses have been utilized in the HD over the years with no B-licenses being issued in the HD from 2010-2015.

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 eliminate the split HD portion regulation and simplify the regulations for the HD. Additionally, there is a desire to maintain and/or increase the amount of antlerless mule deer harvest in the HD to some degree with the hope that most of the antlerless mule deer harvest will occur on or near areas of private agricultural land in the HD thereby reducing the number of mule deer in those areas. An either-sex season may also increase the survival of younger buck as hunters won't be forced to harvest only antlered animals, as would be the case with a general antlered buck only season. Some individuals have expressed a concern about the lack of older aged bucks in the HD. The proposal would also allow mule deer buck hunters hunting in the HD to hunt in other general license mule deer buck districts as well.

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

Harvest success will be monitored via the Department's annual telephone harvest survey. Success of the proposal in regards to its potential impact to mule deer associated with private agricultural land areas in the HD will be measured by the number of future mule deer game damage complaints or just general complaints about too many mule deer on private land in the HD that we receive in the future.

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).**

Deer numbers have been quite high in recent years in the HD particularly in areas of private agricultural land; although, numbers have declined the last couple of years from their peak a few years ago.

HD 390 is part of the Mountain Foothills PMU under FWP's AHM Mule Deer Plan. No mule deer trend survey is done in HD 390; therefore, mule deer buck harvest in relation to the long-term

average is used as a surrogate to monitor the population. The 2018 buck harvest in HD 390 (see Table 1) was just above the long-term average (within ± 25% of LT average) which would put the district into a Standard Regulation package. While the current AHM Standard Regulation package calls for a 5-week antlered buck season with low to moderate number of antlerless B-licenses, a 5-week either-sex season is being proposed given that the HD is mostly private land with a large amount of agricultural land. Having an either-sex season will provide landowners a tool to better manage the deer numbers on their private property. An either-sex season may also increase the survival of younger buck as hunters won't be forced to harvest only antlered animals. Some individuals have expressed a concern about the lack of older aged bucks in the HD.

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 proposed regulation change will increase the hunting opportunity for both residents and nonresidents in the HD to some degree given that hunters would be able to utilize just their general license and would have the ability to hunt both bucks and does on a general license. The proposal would allow mule deer buck hunters hunting in the HD to hunt in other general license mule deer buck districts as well which has not been the case in the past for hunters hunting in the unlimited permit portion of the HD. The vast majority of the HD is private land, so private landowners control the access for the most part and access is generally limited, as outfitting and/or just private land with restricted hunting access is common in the HD. There are three small Block Management Areas in the HD, but they comprise a small portion of the HD. There are also only approximately six sections of USFS land in the whole HD, so USFS land comprises a very small portion of the HD as well.

Weather this past winter (2018/19) started out generally mild but then turned severe, so mule deer survival and particularly fawn survival was negatively impacted at least in some areas. This spring/summer/early fall we had good moisture and cooler temps for the most part so forage conditions/quality on native range should have been good. In addition, mule deer found in areas of private irrigated alfalfa fields (areas with large concentrations of mule deer in the HD) have access to a lot higher quality of forage and as such have a higher plane of nutrition and often have higher survival rates than deer found on native range.

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).**

Approximately two-thirds of hunters questioned at area check-stations in 2017 and 2018 were in favor of eliminating the unlimited mule deer permit in the Big Belt Mountains hunting districts. Quite a few landowners in the HD were contacted via mail about the proposal, but no input/comments were received from those regarding the proposal. Members of the Broadwater Rod & Gun Club and Helena Hunters and Anglers were asked for comments/input on the proposal,

but none was received. Some hunters are against eliminating the unlimited mule deer permit and some landowners may be opposed also. One or two comments were received expressing concern about going to an a general either-sex season as opposed to just going to a general antlered buck season while maintaining a healthy number of mule deer B-licenses, while other comments taken have been supportive of an either-sex season. The Townsend area game warden was contacted about the proposal and was supportive of it particularly about putting the whole district under the same regulation.

Submitted by: Adam Grove, Wildlife Biologist - Townsend

Date: 10/14/19

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

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

Species: Mule Deer

Region: 3

Hunting District: 391

Year: 2020/21 biennial

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

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Proposal would eliminate the unlimited mule deer buck permit in HD 391. The entire HD would go to general license either-sex mule deer during the general archery season. For the general rifle season on a general license it would be antlered buck mule deer only on National Forest Land and either-sex everywhere else (i.e. everywhere except on National Forest Land). The current number of B-licenses would be reduced given the general either-sex regulation off national forest land. An unlimited mule deer buck permit regulation has been in place in the HD since 2000. There has been no legal antlerless mule deer harvest allowed on a general license during the rifle season in the HD since at least 1990 (likely goes even further back). Various number of antlerless mule deer B-licenses have been utilized in the HD over the years with no B-licenses being issued in the HD during the 2014 season.

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 eliminate the unlimited mule deer buck permit which would allow mule deer buck hunters hunting in the HD to hunt in other general license mule deer buck districts as well. Additionally, there is a desire to maintain or increase the amount of antlerless mule deer harvest in the HD off national forest land to some degree particularly on or near areas of private land in the HD. The either-sex season off national forest land may also increase the survival of younger buck as hunters won't be forced to harvest only antlered animals, as would be the case with a general antlered buck only season. Some individuals have expressed a concern about the lack of older aged bucks in the HD.

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

At least a portion of the mule deer population in HD 391 is monitored on an annual basis with post-season and spring trend surveys. However, the trend area is believed to mostly monitor deer that migrate to and from national forest land. If these deer are still on national forest land during the hunting season, the antlerless segment would legally not be available for harvest under the proposal. Harvest success will be monitored via the Department's annual telephone harvest survey. Success of the proposal in regards to its potential impact to mule deer associated with private land areas in the HD will be measured by the number of future mule deer game damage complaints or just general complaints about too many mule deer on private land in the HD that we receive in the future.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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).**

Deer numbers have been quite high in recent years in the HD in areas of private land agricultural land; although, numbers have declined to some extent the last couple of years from their peak a few years ago. However, while mule deer numbers associated with private agricultural land have generally been high in recent years in most areas, mule deer numbers associated with national forest land in the Big Belts are believed to still potentially be down some from the long-term average based on the Big Belts mule deer trend survey. The HD 391 (small portion of HD 392 as well) trend survey is believed to monitor mostly migratory deer associated with national forest land. However, while recent spring surveys indicate that mule deer numbers associated with national forest land are still down, spring survey results over the years have been highly variable likely related to survey timing in relation to green-up.

HD 391 is part of the Mountain Foothills PMU under FWP's AHM Mule Deer Plan. Trend survey information (Table 1) in relation to the long-term average (> 25% below the LT average, less than 20 fawns per 100 adults in the spring the last two years) would put HD 391 into a Restrictive Regulation package. The Restrictive Regulation package calls for a general antlered buck season (unless buck:doe ratio is less than 10:100) with a limited number of antlerless mule deer B-licenses to help address localized game damage complaints.

Annual buck harvest in relation to the long-term average can also be used to assess the population status. Given the major boundary change affecting HDs 391/392/451 that was implemented in 2016, it is not possible to compare recent harvest results in HD 391 with harvest results prior to 2016. However, buck harvest in 2018 in HD 391 (265 bucks) was within 25% of the new 3-yr average (2016-18) of 283 which would put the HD in the Standard Regulation package of 5-weeks general antlered buck with low to moderate numbers of B-licenses, if buck harvest is used to assess the population.

As mentioned, while mule deer numbers associated with national forest land in the HD appear to still be down, mule deer numbers associated with the more productive private agricultural land in the HD have generally been high the last few years. We have had localized complaints in the HD regarding mule deer numbers on private land particularly in areas with irrigated alfalfa/sainfoin fields in the last couple of years which is why an either-sex season is being recommended off national forest land. Limiting the proposed either-sex regulation to areas off national forest land (mostly private and DNRC land) in the HD will hopefully help focus harvest pressure on those private lands where landowners feel they have too many mule deer. The proposed either-sex season off national forest land will also help match the HD 391 regulation with the proposed new HD 390 general 5-week either-sex season (very little national forest land in HD 390). The post-season bucks:100 does ratio (Table 1) has generally been above 10 in the HD since the unlimited buck permit regulation was instituted in the HD in 2000 which is why the unlimited buck permit is being proposed to be eliminated.

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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 proposed regulation change will increase the hunting opportunity for both residents and nonresidents in the HD to some degree given that hunters would be able to utilize just their general license and would have the ability to hunt both bucks and does on a general license off national forest land. The proposal would allow mule deer buck hunters hunting in the HD to hunt in other general license mule deer buck districts as well, which has not been the case in the past for hunters with unlimited buck permits. Weather this past winter started out generally mild but then turned severe, so mule deer survival and in particular fawn survival was negatively impacted at least in some areas. This spring/summer/early fall we had good moisture and cooler temps for the most part so forage conditions/quality on native range should have been good. In addition, mule deer found in areas of private irrigated alfalfa fields (areas with large concentrations of mule deer in the HD) have access to a lot higher quality of forage and as such have a higher plane of nutrition and often have higher survival rates than deer found on native range. There are a small number of Block Management Areas in the HD, but they comprise a small 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).**

Approximately two-thirds of hunters questioned at area check-stations in 2017 and 2018 were in favor of eliminating the unlimited mule deer permit in the Big Belt Mountains hunting districts. Quite a few landowners in the HD were contacted via mail about the HD 391 proposal, but no input/comments were received regarding the proposal. Members of the Broadwater Rod & Gun Club and Helena Hunters and Anglers were asked for comments/input on the proposal, but only one comment expressing concern about the either-sex portion of the proposal was received Some hunters are against eliminating the unlimited mule deer permit and some landowners may be opposed also. One or two comments have been received expressing concern about or questioning the need to go to a general either-sex season off national forest land, as opposed to just going to a general antlered buck season while maintaining a healthy number of mule deer B-licenses. The Townsend area game warden was contacted about the proposal and was supportive of it.

Submitted by: Adam Grove, Wildlife Biologist - Townsend

Date: 10/14/19

Approved: _____

Regional Supervisor / Date

Disapproved / Modified by: _____

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Name / Date

Reason for Modification:

Table 1. Mule deer population parameters for Big Belts mule deer trend area.

YEAR	POST-SEASON (Total Deer)	FAWNS:100 ADULTS (Post-Season)	SPRING (Total Deer)	FAWNS:100 ADULTS (Spring Recruitment)	BUCKS:100 DOES
2018/19	118	25.5	340	18.5	19
2017/18	198	42.6	473	15.4	16.2
2016/17	176	53	309	25.6	19.8
2015/16	152	39.8	534	23.2	5.1*
2014/15	82	41.4	308	32.8	13.7
2013/14 - NS					
2012/13 - NS					
2011/12	177	29.3	413	27.5	14.6
2010/11	193	28.2	744	21	10.4
2009/10	282	22.3	298	31.2	14.5
2008/09	283	20.3	602	24.9	12.7
2007/08	241	36.7	814	18.7	23.7
2006/07	578	23.7	647	22.7	20.7
2005/06	263	43.8	296	24.6	8.7
2004/05					
2003/04	346	24.1	910	22.7	14.4
2002/03	627	36.3	977	32.3	15.3
2001/02	558	31.2	761	24.5	14.4
2000/01	420	29.4	1332	22.7	13.6
1999/00	346	35.5	992	31.6	3.3
1998/99	505	37.3	1248	33.7	2.3
1997/98	302	18.4	723	14.6	4.1
1996/97	414	38.6	943	23.4	7

2020-2021 Deer Hunting Seasons and Quota Range Justifications

Average ('96 - '17/18)	**323**	**33.3**	**701**	24.9	12.7

NS - No surveys flown

*Survey flown very late, bucks probably had already started to shed antlers, complete survey area not flown

Table 2. Past mule deer license/permit and harvest information for HD 391.

Year	Total Harvest	M	F	Fawns	# Unlimit Permits	Unlimit Perm Harvest	% Mgmt Success	HD 391 B-Licenses	B-License Harvest	% Mgmt Success	Antl-Harv General
2018	401	265	136	0	742	236	31.7	350	113	32.2	16
2017	363	263	100	0	657	205	31.2	200	78	39	12
2016*	392	321	71	0	690	257	37.2	150	58	38.7	15
2015	215	205	8	1	435	165	38	13	4	30	6
2014	149	146	3	0	482	117	24.3				3
2013	223	182	42	0	493	163	33	50	35	68.8	6
2012	192	164	28	0	524	134	25.6	50	16	22.6	8
2011	223	192	30	0	495	170	34.3	50	25	49.4	6
2010	233	214	19	0	485	191	39.4	50	13	26.4	6
2009	239	187	52	0	464	167	35.9	100	46	46.3	3
2008	321	254	55	0	490	225	45.8	100	53	53.2	12
2007	274	217	57	0	439	178	40.6	100	51	51	0
2006	352	313	39	0	440	204	46.4	50	24	48.8	4
2005	282	244	37	0	429	161	37.5	50	27	54.6	10
2004	231	194	36	1	387	146	37.8	50	27	53	9
2003	262	232	28	2	368	182	49.5	50	22	44	3
2002	250	214	33	2	309	169	54.7	50	20	40	5
2001	208	169	37	1	311	127	40.8	50	24	48	7
Ave '01-'17	**259**	**218**	**40**	**0**	**465**	**174**	**38**	**73**	**33**	**45**	**7**

Fair to considerable amount of reported illegal buck harvest on a general license on an annual basis
Some illegal antlerless mortality reported on buck permits
2015 - Antlerless B-licenses issues for a game damage hunt; use of Deer A for antlerless deer also authorized
*Major HD boundary change implemented in 2016, so numbers not comparable to previous years

2020-2021 Deer Hunting Seasons and Quota Range Justifications

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

Species: Mule Deer/White-tailed Deer
Region: 4
Hunting District: 400, 401, 403, 406
Year: 2020

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

In hunting districts (HDs) 400, 401, 403 and 406, the deer hunting season was 2 weeks in length from 1980-82 and 3 weeks from 1983-present.

Mule deer hunting regulations for these HDs have been buck only mule deer from 1980-83, in 1986-87 and again from 2013-2015. Either-sex mule deer hunting has been allowed from 1984-85 and from 1988-2012. Beginning in 2016 to the present, the season structure has been the standard package (Montana Fish, Wildlife & Parks 2001) with either-sex mule deer regulations. Various numbers of mule deer B Licenses have been offered to address populations objectives.

White-tailed deer hunting regulations for these HDs have been either-sex white tailed deer from 1980 to the present. Various numbers of antlerless white-tailed deer B Licenses have been available in various hunting districts to provide opportunity and address game damage. Regional over-the counter white-tailed deer B Licenses have been available when populations could support additional harvest and are currently available.

For the 2020-21 seasons, it is proposed to change the general deer season length for a general deer license, antlerless mule deer B licenses and Region 4 OTC antlerless white-tailed deer license (LPT 004-00) in HDs 400, 401, 404, and 406 from 3 weeks to 5 weeks while maintaining the standard either-sex/either species regulation package. Further, in HD 406 it is proposed to retain the current level of general season deer access permits (30) for the Marias River WMA evenly distributed in 3 time periods for the 5-week season. Should Chronic Wasting Disease be found in HD 406, limited mule deer access permits to the Marias River WMA would be increased or abandoned in compliance with the Montana CWD Response Plan (2018).

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 use the best available science to comply with management recommendations for Chronic Wasting Disease (CWD) in the long term as identified by Association of Fish and Wildlife Agencies (AFWA, 2018) and the Montana CWD Response Plan. Montana's CWD Response Plan (2018), directs the department to initiate CWD management to keep prevalence low and help prevent spread of the disease following detection. The Plan also allows Montana Fish, Wildlife & Parks (MFWP) to preemptively manage for CWD in hunting districts adjacent to CWD positive areas. In 2017, a mule deer buck tested positive for CWD in HD 401. The following year, a white-tailed buck also tested positive for CWD in HD 400. As of the writing of this proposal, there are no known CWD positive samples from HDs 403 or 406 yet these HDs are included in this proposal to reduce the potential transmission and spread of the disease. Adjacent to HD 401 In WMU 102 in Alberta where CWD prevalence in mule deer averages 12%, the nearest known positive is approximately 12 miles north of the border. In HD 600, the nearest known positive is approximately 15 miles east of HD 401.

Deleted:

Note: Some of the rationale and recommendations in this section were excerpted from the Association of Fish and Wildlife Agencies' "AFWA Technical Report on Best Management Practices

2020-2021 Deer Hunting Seasons and Quota Range Justifications

for Prevention, Surveillance, and Management of Chronic Wasting Disease, (2018) https://www.fishwildlife.org/application/files/9615/3729/1513/AFWA_Technical_Report_on_CWD_BMPs_FINAL.pdf

Once CWD has become established in a population, its eradication is not currently considered feasible. However, opportunities remain to stabilize or suppress CWD prevalence and thereby minimize impacts and potentially irreparable harm. Typical disease control tools such as vaccines, safe and practical agents to eliminate prions from the environment, and effective curative therapies do not exist for CWD. Consequently, to date, most of the attempts to manage CWD have focused on reducing population densities and eliminating areas of CWD foci through a combination of hunter harvest and agency culling (Blanchong et al. 2006, Conner et al. 2007, Pybus 2012, Mateus-Pinilla et al. 2013, Manjerovac et al. 2014). Current modeling and some field observations indicate that harvest can be used to control CWD. Therefore, AFWA (2018) recommends to utilize harvest and/or other removal mechanisms to manage CWD prevalence by: 1) targeting the portion of the population most likely to have CWD, 2) targeting animals in known CWD hotspots, 3) targeting timing of removal to most effectively remove infected animals, and 4) reduce cervid density in CWD positive areas with high density populations.

Management efforts toward CWD suppression should focus on strategies that exploit or complement current management activities. As mentioned earlier, modeling and some field observations indicate that harvest could be used to control CWD (Wild et al. 2011, Jennelle et al. 2014, Geremia et al. 2015, Potapov et al. 2016, Al-Arydah et al. 2016). Male deer have a higher likelihood of CWD infection than females (Miller et al. 2000, Grear et al. 2006, DeVivo et al. 2017). Mule deer have a higher prevalence that white-tailed deer. Therefore, much of this proposal focuses on mule deer buck harvest management. Focusing harvest of sufficient intensity on the segment of the population most likely to be infected should help reduce disease prevalence and subsequent transmission (e.g., Potapov et al. 2016). Exploiting potential biases in removal of infected animals via harvest (e.g., Conner et al. 2000) also could be used to enhance the efficacy of harvest as a CWD control strategy (Wild et al. 2011). For example, targeting mature bucks via increased harvest pressure during or after the breeding season may selectively remove a higher proportion of infected individuals than harvest in early autumn (Conner et al. 2000). Such strategies would allow agencies to modify existing harvest management approaches to emphasize CWD suppression and thus should be relatively sustainable in the long-term with minimal additional personnel time or cost.

Therefore, an increase in harvest intensity on male deer and maintaining or reducing buck:doe ratios, targeting mature male deer during the rut, and maintaining or reducing deer density should maintain the prevalence at a low level and reduce the potential for spreading the disease.

Various research has evaluated the effects of season types on mule deer population and harvest characteristics in Montana and elsewhere (Bergman et. al. 2011, Newell 1996, Newell and Lukacs 2011, Newell and Meredith 2018, Olson 1996, Thompson 2007). From a CWD management context, those metrics most relevant are buck:doe ratios, number of bucks in the harvest, number of mature bucks in the harvest and hunter effort (number of hunters and number of hunter days).

No research is available on the effects of extending the season from a shortened season (3-weeks) to an unrestricted season (5-weeks). Most research in Montana (Olson 1996, Newell 1996, Thompson 2006) focused on changing from an unrestricted season to either limited permits or a shortened season. Newell and Lukacs (2011) and Newell and Meredith (2018) modelled predicted results of implementing various season types but did not directly compare the differences between season types. Nevertheless, some inferences can be drawn from this research about potential effects of lengthening the season.

Olson (1996) and Newell (1996) showed an increasing trend in buck:doe ratios in HDs that changed from unrestricted season (5-week season) to limited permits in a portion or all of the season. Similar

results were found in Colorado where Bergman et. al. (2011) saw a significant increase in buck:doe ratios in areas considered to be moderately limited. However, moderately limited in Colorado was much more restrictive than any limited seasons in Montana.

Newell and Lukacs (2011) similarly found clear evidence that season restrictions affected population and harvest parameters. They found shortened season HDs had a slightly higher buck:doe ratios than HDs with no restrictions. Thompson also saw an increase in buck:doe ratios following a change to a shortened season (3-week general season) from an unrestricted season. Given the above, removing restrictions by changing from a shortened season to an unrestricted season could result in the desired effect of lower buck:doe ratios. The extent of that effect is uncertain. However, modelled trends demonstrated buck:doe ratios in a shortened season exceeded those in an unrestricted season (Newell and Lukacs 2011, Newell and Meredith 2018) although not statistically significant. It should be noted that surveys are conducted post-season and reflect ratios post-harvest. Thus, observed buck:doe ratios include effects of season type on the harvest of bucks.

Effects vary in the research between the effects of shortened seasons versus unrestricted seasons and the harvest of bucks. Newell and Lukacs (2011) found that shortened season HDs statistically were not different than HDs without restrictions, for the proportion of bucks with ≥4 points on at least one antler, for the number of bucks harvested annually, and for total number of ≥4 point bucks harvested. Thompson (2007) supported this finding in his research in HD 640. He found no significant difference between the mature buck harvest in a shortened season type or an unrestricted season type. Thompson's (2007) data further suggested that there was no difference in percent of mule deer bucks harvested (total or mature) during a 3-week season and 5-week season.

However more recently, Newell and Meredith's (2018) findings differed when evaluating season structure on harvest density. Their results indicated that both number of bucks and number of bucks with ≥4 points harvested per 100 mi^2 declined following implementation of a buck restriction, followed by a declining annual trend for all season types. Newell and Meredith (2018) attributed the difference in this finding to increased sample sizes for all harvest response variables resulting in lower variance of their results. Consequently, changing from a shortened season to an unrestricted season should result in an increase in both the number of bucks and the number of mature bucks harvested per 100 mi^2. Yet it may be difficult to determine the effect of such a season structure change in a smaller area and in the short term due to small sample sizes and variability.

Newell and Meredith (2018) showed a decreasing trend for the number of bucks per 100 square miles in the harvest for all season types (Figure. 1) following the implementation of each season structure type. Eventually, all season types would end in 0 bucks being harvested which is unrealistic and only a function of the linear models. However, the model does show that all HDs with restrictions had a lower number of bucks harvested per 100 mi^2 than HDs with no restrictions at all years past implementation.

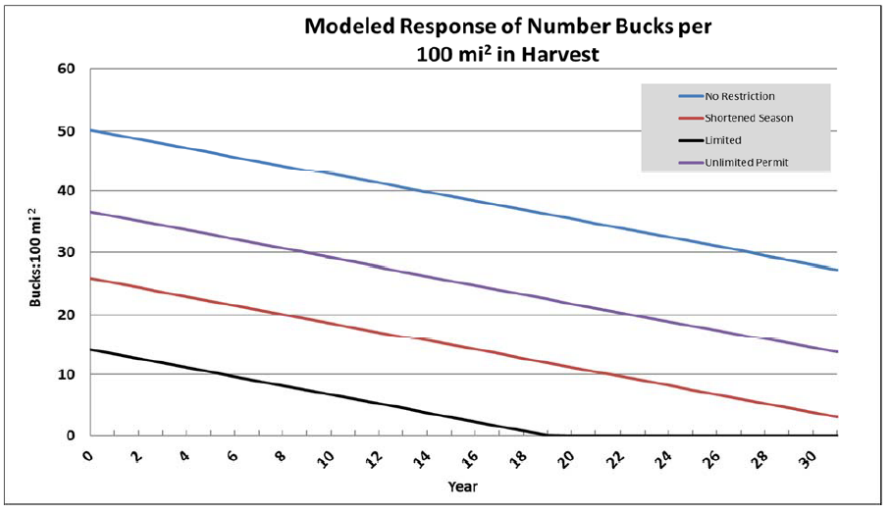


Figure 4. Predicted average effects of season type and year on number of bucks harvested per 100 square miles following implementation of season type.

Newell and Meredith (2018) also showed that HDs with a shortened season and limited permits had a significantly lower number of 4-point bucks harvested per 100 mi^2 than HDs with unlimited permits or unrestricted seasons (Figure 2). Consequently, changing to an unrestricted season from a shortened season should see an increase in the number of mature bucks harvested.

The amount of increase in either the number of bucks or the number of bucks with 4 or more points per 100 mi^2 is difficult to estimate. However, as an example, in these 4 HDs in 2018, there was an average of 13.9 bucks with 4 or more points per 100 mi^2 harvested. If the season extension resulted in a 5% increase, that number would increase to 14.7. A 10% increase would result in 15.29 bucks per 100mi^2 in the harvest, or an increase of approximately 70 mature bucks across all 4 HDs.

Newell and Meredith (2018) supported previous findings of Newell and Lukacs (2011) and Thompson (2007) in their results of no significant difference when comparing the unrestricted season type to the shortened season in the proportion rather than density of bucks with 4 or more points in the harvest (Figure 3).

Newell and Meredith (2018) results were similar to previous findings of Newell and Lukacs (2011) and Thompson when looking at hunter effort. They did find that HDs with shortened seasons had hunter densities that were lower than HDs without restrictions, though this difference was not significant (Figure 4). Newell and Meredith (2018) also found no significant difference between the number of hunter days per 100 mi^2 in a shortened season and an unrestricted season (Figure 5).

2020-2021 Deer Hunting Seasons and Quota Range Justifications

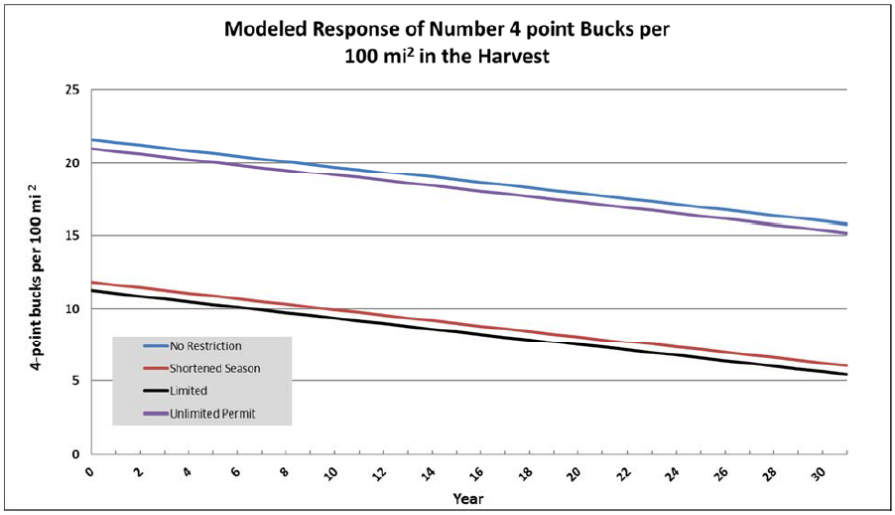


Figure 5. Predicted average effects of season type and year on number of 4 - point bucks harvested per 100 mi^2.

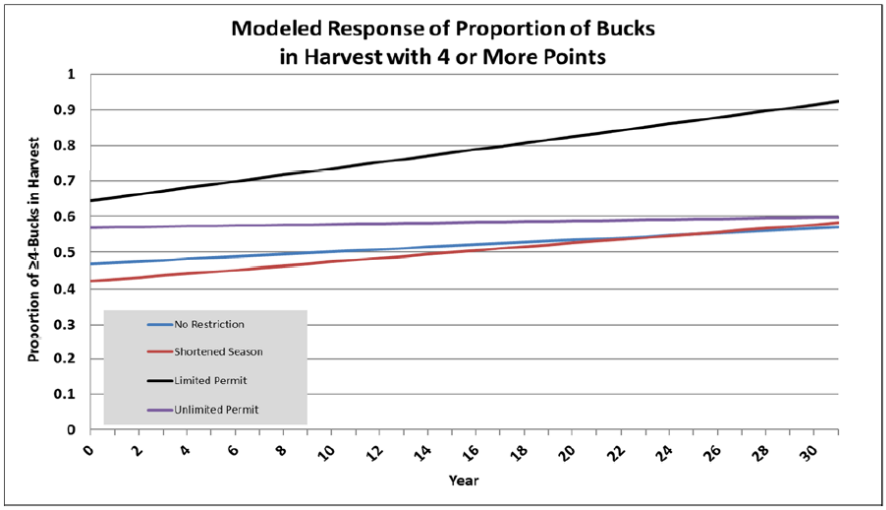


Figure 3. Predicted average effects of season type and year on proportion of bucks in harvest with 4 or more points.

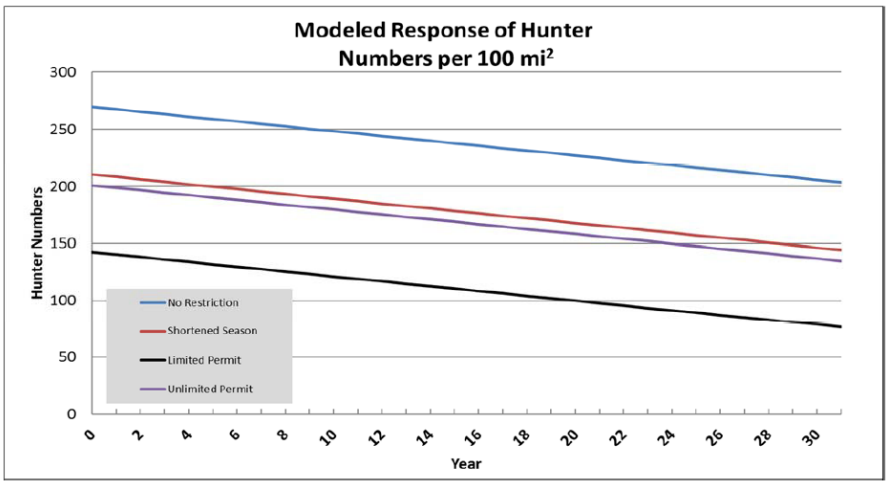


Figure 4. Predicted average effects of season type and year on number of hunter per 100 mi2.

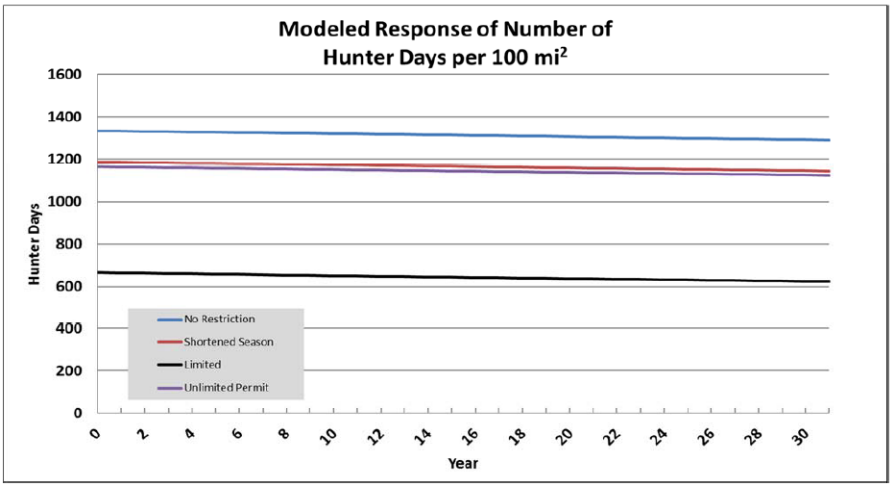


Figure 5. Predicted average effects of season type and year on number of hunter days per 100 mi2.

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

The intent of this proposal is to in comply with AFWA (2018) and Montana's CWD Response Plan (MFWP, 2018) by increasing harvest, especially antlered deer to maintain or reduce the prevalence of CWD and to limit the potential for spread of the disease. CWD prevalence in HD 401 was determined during 2018 surveillance to be 0.01 (0-0.05) in male mule deer with 1 known positive.

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Prevalence in HD 400 in white-tailed deer during the same time period with 1 known positive is estimated at 0.06 (0.01 – 0.26), a higher rate primarily due to insufficient sample sizes. CWD has yet to be detected in mule deer in HD 400. Samples will be collected from both HDs during the 2019 hunting season to further define the prevalence. Surveillance in these districts and elsewhere in north-central Montana is scheduled to occur in the fall of 2021. In lieu of surveillance, monitoring of the effectiveness of this management strategy would occur in either 5 or 10 years. Success of this proposal would be maintaining or reducing prevalence below 5 percent in HDs 400 and 401 and reducing the potential spread of CWD to adjacent HDs 403 and 406.

A complete and accurate understanding of CWD prevalence in HDs 400, 403 and 406 is not known at this time given the small sample sizes. Relatively few samples have been collected from HD 403 and 406. We cannot say with confidence, CWD is not present in these two HDs.

Modelling has shown that it will take some time to determine the effects of this proposal on population metrics. In previous efforts, Newell and Lukacs (2018) noted that due the great amount of variability among HDs, it is often difficult to detect differences among regulation types and that a high amount of variability sometimes masked meaningful results. Given the relatively small area of these HDs and the relatively small harvest (compared to statewide in Newell and Meredith, 2008), rigorous statistics may not be achievable. Nonetheless, these population metrics will be monitored through normal means and evaluated annually.

AFWA (2018) recommended harvesting animals, especially bucks, during the rut would reduce the potential for transmission and spread of the disease. To that extent if adopted, this proposal would be successful.

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 400, 401, 403 and 406 are in the Prairie/Breaks population management unit (PMU) as defined in MFWP's (2001) Adaptive Harvest Management document. The objective for this PMU is to maintain the total number of mule deer observed during spring green-up surveys within the range of 20% above and 30% below the long-term average (at least 10 years). Historically, only post-season surveys are completed in these HDs and are used for compliance with AHM. The Standard Hunting Regulation is implemented during those years when the population size is near average, and recruitment is moderate.

The triggers for the Standard Hunting Regulation are:

1. The total number of deer counted on the survey area is within the range of 20% above and 30% below the long-term average; AND
2. Recruitment is between 30 and 60 fawns:100 adults.

The season structure for the Standard Hunting Regulation for these HDs is either-sex mule deer for 3 weeks with none to moderate number of antlerless B licenses.

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Population data for HD 400 is shown in Table 1. Most recent data show the population more than 20 percent above the long-term average and recruitment between 30 and 60 fawns:100 adults. Therefore, data indicates that the standard hunting regulation should be applied. HD 400 currently has 200 antlerless mule deer B licenses available.

Population data for HD 401 is shown in Table 2. The most recent survey (2019) was only a partial survey due to weather conditions and is not indictive of the total number observed. Therefore 2018 survey data is used for the number of deer observed and is within the standard regulation package (22.4 % below long-term trend). Using 2019 data, recruitment is also within

standard season package at 30 fawns:100 adults. HD 401 currently has 200 antlerless mule deer B licenses available.

Population data for HD 403 is shown in Table 3. The population is significantly higher than 20 percent above the long-term average trigger, yet, recruitment is below 60 fawns:100 adults. Therefore, data indicates that the standard hunting regulation should be applied. HD 403 currently has 50 antlerless mule deer B licenses available.

Population data for HD 406 is shown in Table 4. While the population is 34 percent above the long-term average, recruitment is less than 60 fawns:100 adults. Therefore, data indicates that the standard hunting regulation should be applied. HD 406 currently has 100 antlerless mule deer B licenses available.

Except for HD 401, all HDs within this proposal are above long-term average for mule deer populations in the trend survey areas and within the range of 30-60 fawns:100 adults. All four HDs are above long-term buck:doe ratios. These data indicate the mule deer buck population in these HDs can sustain increase harvest pressure as a result of this proposal without adverse effects to the population.

Antlerless mule deer B licenses for all 4 HDs would be adjusted appropriately to maintain or reduce population density as recommended by AFWA (2018) and the Adaptive Harvest Document (MFWP 2001).

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).

In general, mule deer numbers in these Prairie-Breaks Districts fluctuate more widely than Mountain/foothill or other mule deer populations across Montana, with “higher” highs and “lower” lows. These fluctuations are due primarily to weather conditions and changes in land use.

The northwest HDs in the Prairie-Breaks unit include a portion of the Golden Triangle where much of the land use is production agriculture. Recent conversion of CRP to crop production has resulted in a reduced carrying capacity for mule deer. Much of the CRP loss is adjacent to mule deer and white-tailed deer habitat. Mule deer populations have been less influenced in areas of more traditional mule deer habitat. However, recent production of pulse crops, esp. peas, has provided some alternative winter forage.

The winter of 2017-18 was moderately severe yet appears there was good overwinter survival. The winter of 2018-19 was mild except for the months of February and early to mid-March. Good winter survival and good summer climates has led to stable or increasing mule deer production and recruitment.

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).

In the past, there have been moderate to strong opposition regarding establishment of a 5-week general rifle season. A similar proposal was brought forth in 2006. The justification for the 2006 proposal centered on an increase in mule deer populations, additional opportunity for hunters, and an additional option for landowners to reduce the potential for game damage. The proposal was unsuccessful. While there was various levels of support for the proposal, concerns were expressed in the tentative season setting meetings about landowners closing property to hunting, potential for

increased outfitting, overharvest of deer, cooperators pulling out of Block Management, a perceived need for addition local law enforcement, a potential increase in the number of hunters, a perception of an increased crime rate.

In 2011, research was conducted on resident mule deer hunting preferences. I recently examined responses from local communities. Local preferences did not vary from Regional preferences. Mule deer hunting was either one of the most or the most important hunting activity for 72% of respondents. The majority of respondents (59.7%) supported hunting mule deer during the rut while 10.8% opposed hunting during the rut. The remining 29.5% had no opinion. Further, 53% of respondents, felt it was important or very important to be able to hunt mule deer during the week that includes the Thanksgiving holiday.

Landowners and hunters have commented about reduced opportunity to hunt deer locally than other areas with 5-week seasons.

The topic was briefly discussed at a CWD informational update for the R4 CAC meeting on Aug 13, 2019. Some cited previously mentioned concerns. The differences between a 3 -week season and 5-week season was discussed in Chester on September 9, 2019 at a CWD informational meeting. Primary concerns raised was potential loss of access. There was some present that voiced support for a 5-week season for CWD management.

At a recent meeting of the Russell Country Sportsmen, three officers present voiced support for this proposal.

Two CWD informational meetings were held in Conrad and Shelby. Approximately 20 people attended the Conrad meeting and 15 attended the Shelby meeting. Two landowners in Conrad expressed support for extending the season to 5 weeks. No one spoke in opposition to the proposal. In Shelby, one landowner expressed concerns about the lack of security cover in HD 403. No one spoke against the proposal.

Submitted by: Ryan Rauscher
Date: 10/25/2019
Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date
Reason for Modification:

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2020-2021 Deer Hunting Seasons and Quota Range Justifications

Table 1. Mule Deer Numbers Recorded on the Pondera Creek Mule Deer Survey Route, H.D. 400.

Mule Deer Census Routes						
HD	YEAR	TOTAL	F/100 D	F/100 Ad	B/100 D	MD/sq. Mile
400	78	102	0	53	0	2.9
400	79	120	0	80	0	3.4
400	80	244	0	76	0	7.0
400	81	226	0	84	0	6.5
400	82	196	0	106	0	5.6
400	83	389	0	65	0	11.1
400	84	260	0	63	0	7.4
400	85	200	49	47	5	5.7
400	86	87	31	20	5	2.5
400	87	194	38	37	4	5.5
400	88	207	77	68	13	5.9
400	89	249	78	68	14	7.1
400	90	220	92	85	8	6.3
400	91	264	80	76	6	7.5
400	92	196	62	53	18	5.6
400	93	155	102	85	20	4.4
400	94	291	76	67	13	8.3
400	95	238	87	76	16	6.8
400	96	160	75	63	18	4.6
400	97	250	69	66	5	7.1
400	98	134	89	79	14	3.8
400	99	230	64	59	9	6.6
400	2000	210	84	71	19	6.0
400	2001	291	67	55	23	8.3
400	2002	240	60	50	20	6.9
400	2003	335	80	65	23	9.6
400	2004	189	54	42	29	5.4
400	2005	247	76	64	19	7.1
400	2006	184	83	60	39	5.3
400	2007	196	52	43	21	5.6
400	2008	279	70	58	22	8.0
400	2009	131	53	46	17	3.7
400	2010	155	67	55	22	4.4
400	2011	250	55	43	27	7.1
400	2012	89	52	40	31	2.5
400	2013	94	59	49	21	2.7
400	2014	74	53	28	30	2.1
400	2015	85	75	63	18	2.4
400	2016	222	89	71	25	6.3
400	2017	242	77	67	15	7.1
400	2018	-	-	-	-	-
400	2019	307	63	49	26	8.7
AVE.		203	57	61	15	5.8

Mule Deer – White-tailed Deer Justification List
December 2019

Table 2. Mule Deer Numbers Recorded on the Sweet Grass Hill Mule Deer Survey Route, H.D. 401.

Mule Deer Census Routes						
HD	YEAR	TOTAL	F/100 D	F/100 Ad	B/100 D	MD/sq. Mile
401	83	1133	69	55	26	18.9
401	85	1226	54	41	30	20.4
401	86	871		33		14.5
401	88	1187	68	55	23	19.8
401	90	2044	78	61	29	34.1
401	95	1302	65	49	33	21.7
401	96	1387	86	68	27	23.1
401	97	1897	44	35	26	31.6
401	98	928	59	47	25	15.5
401	98	1187		48		19.8
401	99	1274	65	54	20	21.2
401	2000	1567	80	60	32	26.1
401	2001	1421	60	48	27	23.7
401	2002	1679	65	49	33	28.0
401	2003	804	57	45	27	13.4
401	2004	1394	72	53	35	23.2
401	2006	1873	57	44	29	31.2
401	2007	1904	58	43	35	31.7
401	2008	1994		42		33.2
401	2009	1519		44		25.3
401	2010*					
401	2011*					
401	2012*					
401	2013	1212	50	37	35	20.2
401	2014	1389	51	43	18	23.2
401	2015	988	50	43	17	16.5
401	2016*					
401	2017	870	64	49	30	14.5
401	2018	1033	54	44	22	17.2
401	2019**	534	44	30	49	
AVE.		1331	61	47	29	23

* No survey completed
**Partial Survey

Mule Deer – White-tailed Deer Justification List
December 2019

Table 3. Mule Deer Numbers Recorded on the Kevin Rim Mule Deer Survey Route, H.D. 403.

Mule Deer Census Routes						
HD	YEAR	TOTAL	F/100 D	F/100 Ad	B/100 D	MD/sq. Mile
403	79	78	88	71	24	2.6
403	80	84	0	89	0	3.4
403	81	74	97	90	8	3.0
403	82	214	87	81	7	8.6
403	83	120	71	67	6	4.8
403	84	167	0	63	0	6.7
403	85	128	75	71	6	5.1
403	86	200	44	43	3	8.0
403	87	139	72	71	1	5.6
403	88	93	89	80	11	3.7
403	89	201	102	97	5	8.0
403	90	124	62	55	13	4.9
403	91	239	87	77	13	9.5
403	92	169	68	63	7	6.8
403	93	145	71	67	6	5.8
403	94	245	65	60	8	9.8
403	95	204	98	81	21	8.2
403	96	241	94	84	12	9.6
403	97	64	80	71	12	2.6
403	98	105	76	71	7	4.2
403	99	110	65	59	10	4.4
403	2000	205	83	70	18	8.2
403	2001	233	72	63	14	9.3
403	2002	194	72	63	15	7.8
403	2003	239	87	75	15	9.6
403	2004	242	79	62	27	9.7
403	2005	179	66	55	21	7.2
403	2006	282	71	59	19	11.3
403	2007	234	57	50	13	9.4
403	2008	268	59	52	15	10.7
403	2009	247	62	55	13	9.9
403	2010	159	67	55		6.4
403	2011	324	72	65	9	13.0
403	2012	164	58	55	6	6.6
403	2013	287	54	48	13	11.5
403	2014	446	57	50	15	17.4
403	2015	263	69	62	12	10.5
403	2016	421	71	62	14	17.0
403	2017	436	67	60	12	17.6
403	2018	333	66	52	22	14.4
403	2019	276	61	47	32	11.0
AVE.		209	70	66	11	8

Mule Deer – White-tailed Deer Justification List
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Table 3. Mule Deer Numbers Recorded on the Marias River Mule Deer Survey Route, H.D. 406.

Mule Deer Census Routes						
HD	YEAR	TOTAL	F/100 D	F/100 Ad	B/100 D	MD/sq. Mile
406	79	85	77	69	11	1.2
406	80	133		82		1.9
406	82	285		74		4.1
406	83	374	86	78	10	5.3
406	84	164		55		2.3
406	85	334	78	73	6	4.8
406	87	317	63	58	9	4.5
406	88	377	81	75	8	5.4
406	89	450	80	67	19	6.4
406	90	456	88	78	13	6.5
406	91	609	113	100	13	8.7
406	92	462	79	66	20	6.6
406	93	516	82	68	20	7.4
406	94	444	72	61	18	6.3
406	95	491	78	70	11	7.0
406	96	456		57		6.5
406	97	429	62	54	14	6.1
406	98	305	60	55	8	4.4
406	99	261	60	48	25	
406	2000	451	76	64	18	6.4
406	2001	611	83	61	36	8.7
406	2002	503	81	62	30	7.2
406	2003	434	74	59	25	6.2
406	2004	526	89	69	30	7.5
406	2005	448	82	60	36	6.4
406	2006	690	66	50	32	9.9
406	2007	479	61	44	38	6.8
406	2008	445	53	40	31	6.4
406	2009	480	61	46	33	6.9
406	2010	521	74	52	43	7.4
406	2011	582	58	43	36	8.3
406	2012		-	-	-	-
406	2013	480	50	41	11	6.9
406	2014	571	55	43	26	8.2
406	2015	560	55	43	29	8.0
406	2016	611	76	63	20	8.7
406	2017	605	67	51	38	8.5
406	2018	636	60	44	37	9.1
406	2019	606	61	46	33	8.7
AVE.		452	72	60	23	7

Mule Deer – White-tailed Deer Justification List
December 2019

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

Species: Mule Deer
Region: 5
Hunting District: 590
Year: 2020

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

There is currently no quota range in the database for mule deer B licenses in Hunting District 590. From 2001 until 2013, 350 either-sex licenses were issued. In 2014 we changed from either-sex to buck only in HD 590 and reduced the number of mule deer B licenses to 95. In 2016 we returned to an either sex season and maintained a minimal amount (100) of B licenses (Table 1). The proposal is to create a quota range for mule deer B licenses from 5 to 1000.

Table 1. Deer season types in hunting district 590, 1986-2018. General A-License

Year	Mule Deer	Whitetails	MD B-licenses	WT B-licenses
1986	Buck Only	Either-sex	300[1]	1000[2] & 600[3]
1987	Buck Only	Either-sex	1230 A-tag permits	5004
1988	Either-sex	Either-sex	0	0
1989	Either-sex	Either-sex	938[5]	347[6]
1990	Either-sex	Either-sex	750	500[6]
1991	Either-sex	Either-sex	992[5]	1000[6]
1992	Either-sex	Either-sex	1000	1000[6]
1993	Either-sex	Either-sex	500	1000[6]
1994	Either-sex	Either-sex	200	3007
1995	Either-sex	Either-sex	200	5007
1996	Either-sex	Either-sex	50	5007
1997	Either-sex	Either-sex	50	5007
1998	Buck Only	Either-sex	0	5007
1999	Buck Only	Either-sex	50	6007
2000	Buck Only	Either-sex	200	649[7,8]
2001	Either-sex	Either-sex	350	750[7]
2002	Either-sex	Either-sex	350	300[7]
2003	Either-sex	Either-sex	350	300[7]
2004	Either-sex	Either-sex	350	600[7,9]
2005	Buck Only	Either-sex	350	600[7,9]
2006[11]	Either-sex (portion)	Either-sex	350 (200 portion)	600[7,10]
2007	Either-sex	Either-sex	350	600[7,10]
2008	Either-sex	Either-sex	350	600[7,10]
2009	Either-sex	Either-sex	350	600[7,10]
2010	Either-sex	Either-sex	350	600[7,10]
2011	Either-sex	Either-sex	350	150[7,10]
2012	Either-sex	Either-sex	350	150[7,10]
2013	Either-sex	Either-sex	350	150[7,10]
2014	Buck Only	Either-sex	95	0
2015	Buck Only	Either-sex	95	0
2016	Either-sex	Either-sex	100	200[7]
2017	Either-sex	Either-sex	100	200[7]
2018	Either-sex	Either-sex	100	500[7]

1 B-licenses valid for either species.
2 1,000 either-sex B-licenses valid anywhere in Region 5,
3 600 B-licenses valid in 500, 502, 510, 520, 560, 575, and 590.
4 500 B-licenses valid in 500, 511, 570, 580 and 590.
5 In 1989 and 1992 1000 B-licenses were offered.

Mule Deer – White-tailed Deer Justification List
December 2019

[6] Whitetail B-licenses valid in 502, 510, 520, 575 and HD 590 in Yellowstone and Big Horn Counties.
[7] Whitetail B-licenses valid in 500, 530 and 590.
[8] Issued 750 whitetail licenses, 649 sold.
[9] Valid through December 15.
[10] Offered unlimited R-5 single region b-licenses for antlerless whitetails.
[11] In 2006 the season was changed from Antlered buck to either sex mule deer in the southern portion of this hunting district at the August Commission following two large fires in hunting district 590 (see text).

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 allow flexibility for management of mule deer in HD 590 as needed for events including disease and changing population trends.

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

   Success will be measured using annual aerial surveys and telephone harvest surveys to monitor the population and harvest success for current licenses issued.

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 590 is in the Prairie/Breaks Habitat as defined in the mule deer Adaptive Harvest Management Plan (AHM). Current buck harvest is within 25% of the long-term average (Table 2) resulting in continued Standard Hunting Regulations in accordance with the AHM.

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).**

No impacts to public and private land use are anticipated from this proposal

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).**

   No landowners or sportsmens groups have been consulted and no comments have been received from them in support or opposition to this proposal.

Mule Deer – White-tailed Deer Justification List
December 2019

Table 2. Deer harvest in hunting district 590, 1986-2018

	Mule Deer Harvest		Whitetail Harvest	
Year	Bucks	Ant-	Bucks	Ant-
1986	946	197	508	365
1987	1015	190	279	179
1988	1402	402	279	128
1989	1585	1174	259	231
1990	1727	952	355	259
1991	1419	992	335	245
1992	1430	984	346	301
1993	1179	680	414	307
1994	1200	551	468	267
1995	1279	589	482	287
19961	1130	397	497	477
1997	792	385	413	316
1998	844	52	466	358
1999	915	53	570	361
2000	1244	183	624	583
2001	1153	438	271	284
2002	1150	478	405	219
2003	946	513	395	262
2004	1056	385	463	302
2005	1091	201	447	305
2006	1262	343	472	462
02007	1093	291	292	434
2008	1091	414	400	464
2009	1231	474	365	515
2010	1047	407	388	495
2011	1093	447	264	351
2012	1263	445	354	354
2013	937	415	277	253
2014	893	36	281	66
2015	1325	36	367	85
2016	1370	328	363	107
2017	1363	322	404	193
2018	1207	296	377	183
Avg. 1986-17	1171	430	392	306
% Dev from Avg.	3	-31	-4	-40

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

Species: White-tail deer
Region: 5
Hunting District: 500, 530 and 590
Year: 2020-2021

1. **Describe the proposed season / quota 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.**

Increase the quota range on the 597-00 from 100-1000 to 100-1500.

Mule Deer – White-tailed Deer Justification List
December 2019

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.

These populations have recovered from their EHD outbreaks in 2013 and are now at or above the long-term average along the trend areas in these hunting districts. The objective of the change is to increase our flexibility to respond to increased whitetail numbers along these trend areas following the 2020 spring surveys. We also expect to see an increase in whitetail buck harvest back to average levels now that these populations are at or above the long-term average on these trend areas.

The proposed change is necessary in response to increasing white-tail numbers across the three hunting districts in which the 597-00 B license is valid. Whitetails can rebound rapidly after a population low. Anecdotal reports from hunters and landowners indicate whitetail numbers are increasing in traditional whitetail habitats along the Yellowstone and Musselshell Rivers. FWP wants to maintain enough harvest to allow the population to increase slowly at a manageable rate. Without these B licenses the population may increase too quickly and reach higher levels than are desirable by landowners and agricultural producers, resulting in game damage complaints.

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

Success will be measured using annual trend count surveys on the Lower Musselshell trend area within HD 500 as well as the Yellowstone River trend area in HD 590. The first specific goal is to maintain whitetail numbers near long term average on the trend areas. The second, and resulting goal, is to provide increased buck harvest and doe harvest now that the populations are at or above long-term average. Ideally whitetail harvest will increase to long term average levels in the future providing increased hunter opportunity.

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).

Table 1. History of Season Types and License Levels for White-tail Deer in HD's 500, 530, 590.

Year	General Season	White-tail B Licenses
2000	ES WT	750 DF WT B lic valid in HD 500, 530, 590
2001	ES WT	649 DF WT B lic valid in HD 500, 530, 590
2002	ES WT	300 DF WT B lic valid in HD 500, 530, 590
2003	ES WT	300 DF WT B lic valid in HD 500, 530, 590
2004	ES WT	600 DF WT B lic valid in HD 500, 530, 590
2005	ES WT	600 DF WT B lic valid in HD 500, 530, 590
2006	ES WT	600 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2007	ES WT	600 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2008	ES WT	600 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2009	ES WT	600 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2010	ES WT	600 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2011	ES WT	600 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter

Mule Deer – White-tailed Deer Justification List
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2012	ES WT	150 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2013	ES WT	150 DF WT B lic valid in HD 500, 530, 590 Single Region WT B 1/hunter
2014	ES WT	0 WT B licenses
2015	ES WT	0 WT B licenses
2016	ES WT	200 WT B lic valid in HD 500, 530, 590
2017	ES WT	500 WT B lic valid in HD 500, 530, 590
2018	ES WT	500 WT B lic valid in HD 500, 530, 590
2019	ES WT	800 WT B lic valid in HD 500, 530, 590

Region 5 has no defined whitetail deer population objectives. However, as with mule deer, we attempt to maintain total populations near their long-term averages. We also attempt to maintain harvest levels near their long-term averages to provide consistent hunter opportunity while keeping deer numbers at a level where game damage is minimal.

Lower Musselshell Trend Area: This area includes the Musselshell River bottoms and associated agriculture fields between Shawmut and Lavina along the northern boundary of HD 500 (Table 2). During the 2019 spring recruitment survey of this area 277 whitetails were observed, 38% above the long-term average.

Whitetail buck harvest can also be used as a reliable metric of population trend. Buck harvest reached a low point from 2011-2014. However, buck harvest has been increasing since 2015 and in 2018 buck harvest was 4% above the long-term average.

All population and harvest data indicate the whitetail population in these districts is increasing. Given the ability of whitetail populations to increase rapidly during favorable conditions, we expect whitetail numbers in these districts to continue increasing in the coming year. Therefore, the increase in the whitetail B license quota range is necessary to allow FWP to increase B licenses in the future if this population continues to increase.

Table 2. Counts and classification of White-tail Deer in HD 500 1997-2019.

Year	Ad.	Fawns	Unc.	Total
1997-98	NA	NA	163	163
1998-99	NA	NA	257	257
1999-00	45	24	176	245
2000-01[2]	4	3	0	7
2001-02	38	10	64	112
2002-03	47	16	75	138
2003-04	NA	NA	NA	NA
2004-05	NA	NA	NA	NA
2005-06	75	33	130	238
2006-07	NA	NA	292	292
2007-08	NA	NA	345	345
2008-09	NA	NA	422	422
2009-10	NA	NA	341	341
2010-11	NA	NA	240	240
2011-12	NA	NA	98	98
2012-13	NA	NA	39	39
2013-14	NA	NA	65	65
2014-15	76	44	31	151

2015-16	NA	NA	117	117
2016-17	NA	NA	246	246
2017-18	36	10	261	310
2018-19	18	3	256	277
			Average	212
		% Dev. from Avg.		38%

[1]D/F= All unclassified deer were does and fawns.
All= Deer unclassified were does, fawns and bucks.
[2] Not flown in 2000-01, classification from ground.

Yellowstone River Trend Area: This area includes the Yellowstone River bottoms and associated agriculture fields between Waco and Billings in HD 590. During the 2019 spring recruitment survey of this area 449 whitetails were observed. Total whitetail numbers on this trend area were 27% below average (Table 3).

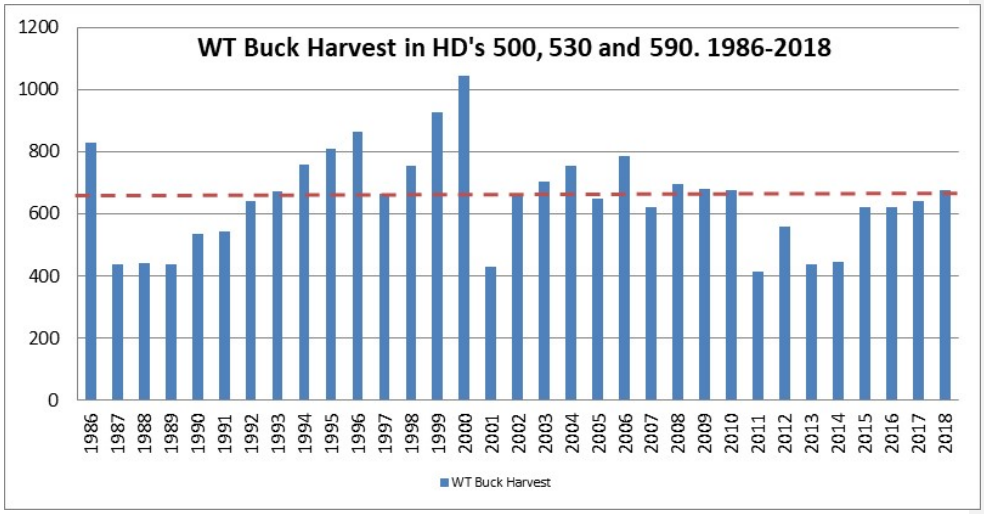
Table 3. Counts and classification of White-tail Deer in HD 590 1997-2019.

Year	Ad	Fawn	Unc.	Total	Pop. Est.[3]
1997-98[1]	102	53	83	238	590
1998-99	250	155	111	516	1279
1999-00	227	127	122	476	1180
2000-01	NA	NA	NA	NA	NA
2001-02	266	138	130	534	1324
2002-03	194	104	87	388	962
2003-04	NA	NA	NA	NA	NA
2004-05	NA	NA	NA	NA	NA
2005-06	241	113	53	407	1009
2006-07	NA	NA	NA	NA	NA
2007-08	NA	NA	NA	NA	NA
2008-09	NA	NA	NA	NA	NA
2009-10	NA	NA	NA	NA	NA
2010-11	200	80	82	362	898
2011-12	160	73	34	267	662
2012-13	231	134	209	574	1423
2013-14	229	81	NA	310	769
2014-15	NA	NA	241	241	598
2015-16	NA	NA	424	424	1051
2016-17	NA	NA	566	566	1403
2017-18	NA	NA	615	615	1525
2018-19	NA	NA	449	449	1113
			Average	423	1048
		% Dev. from Avg.		-27%	-27%

[1]After 1987-88 only a portion of the river was flown and we estimate that we count .4033 of the population.

Figure 1. White-tail buck harvest from the Hunter Harvest Survey for HD's 500, 530, 590 (Hunting districts covered by the LPT 597-00), 1986-2018 (Long term average harvest shown with red dashed line).

Mule Deer – White-tailed Deer Justification List
December 2019



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, temperature/precipitation information).**

   Snow condition survey information: Record breaking snow conditions this past winter caused some areas of the whitetail populations along the Yellowstone River trend area to be below average. However, the Musselshell River trend area remained 38% above the long-term average. Whitetail numbers along Flatwillow Creek on the northern portion of HD530 also appeared to be high and have survived the winter well. This quota range increase allows us flexibility to respond to increased white-tail numbers next year if we have a mild winter and white-tail numbers increase.

   Describe access problems related to change, etc.
   The primary whitetail deer habitat within the 597-00 area is found on private lands. Most private land deer access is limited but not overly restricted; some block management areas exist throughout the districts. No access problems are anticipated. More landowners appear to be willing to allow access for deer hunting as the deer population increases.

   Overwinter survival information (i.e. bad winter lost what % of population)
   Winter conditions were harsh this past winter but over winter survival of whitetails appear normal in most hunting districts allowing deer numbers to recover from the EHD outbreaks that reduced their populations 7 years ago.

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).**

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No significant changes in overall deer hunter numbers within the district are anticipated. It will increase hunter opportunity in the districts by increasing the number of hunters with B licenses. No impacts to public and private land use are anticipated from this proposal. The proposal will help to reduce or eliminate most game damage situations that may arise as whitetail numbers increase.

Some ranchers in HDs 500, 530 and 590 have commented over the last year that they would like to see more antlerless harvest opportunity for whitetail deer to help reduce game damage on their lands. A few comments have also been taken from hunters wanting more antlerless whitetail hunting opportunity. No conflicts with landowners, sportsmen or other members of the public are anticipated.

Submitted by: Ashley Taylor/October 2019

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

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

Species: Deer/Elk

Region: 6
Hunting District: 620

Year: 2020-2021

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

This proposal aims to shift the north boundary of Deer/Elk HD 620 to run the entire length of Highway 2, opposed to dropping to the Milk River from Dodson to Malta as this is a point of confusion a lot of hunters (Fig 1). In addition, the LPT quota range will be increased to account for a population of mule deer that has increased dramatically over the past few years and current licenses are at the quota maximum. There should be no impact on the elk hunting LPTs or opportunity based on this boundary move.

Legal Description for proposed Deer/Elk HD 620 (Figure 1) and proposed quotas and quota ranges:

Those portions of Phillips and Valley Counties lying within the following-described boundary: Beginning at a point west of Dodson where US Highway 2 crosses the east boundary of the Fort Belknap Indian

Mule Deer – White-tailed Deer Justification List
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Reservation, then continuing southerly and westerly along said boundary to US Highway 191, then southwest along said highway to the Dry Fork Road, then easterly along said road to the Second Creek School, then north and easterly to First Creek Hall, then southeasterly to the Sun Prairie Road, then northerly along said road to Content Road, then northeasterly along said road to the Content-Larb Creek Road, then southeasterly along said road to Larb Creek Road, then northerly along said road to US Highway 2 at Saco, then westerly along said highway to the Fort Belknap Indian Reservation eastern boundary, the point of beginning.

- Mule Deer B-License: Proposed Range 50-2,000; Proposed Quota 500

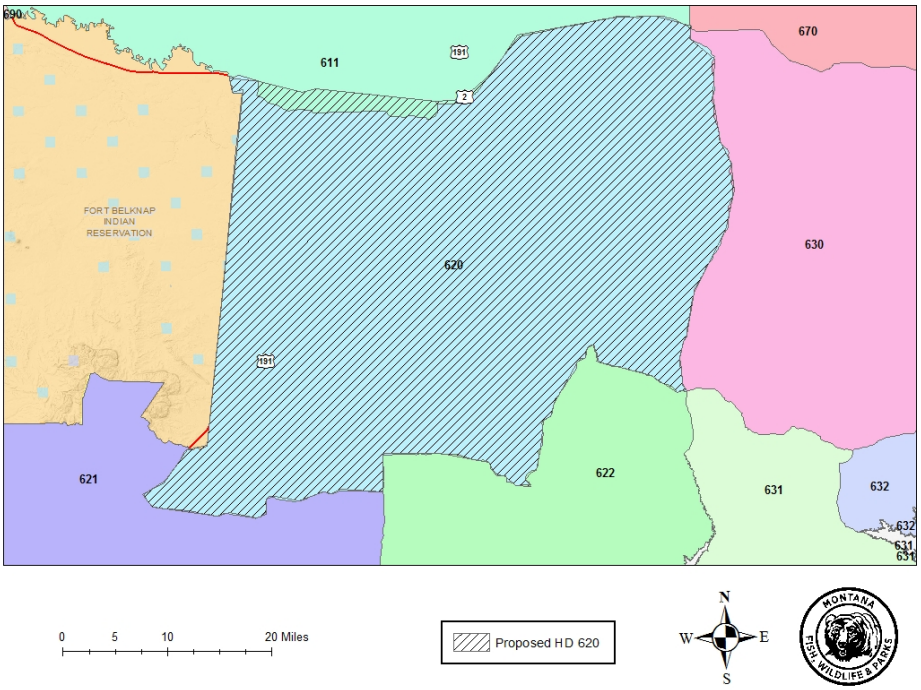

Figure 1. Current hunting districts relative to the proposed Deer/Elk HD 620.

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.

Mule Deer – White-tailed Deer Justification List
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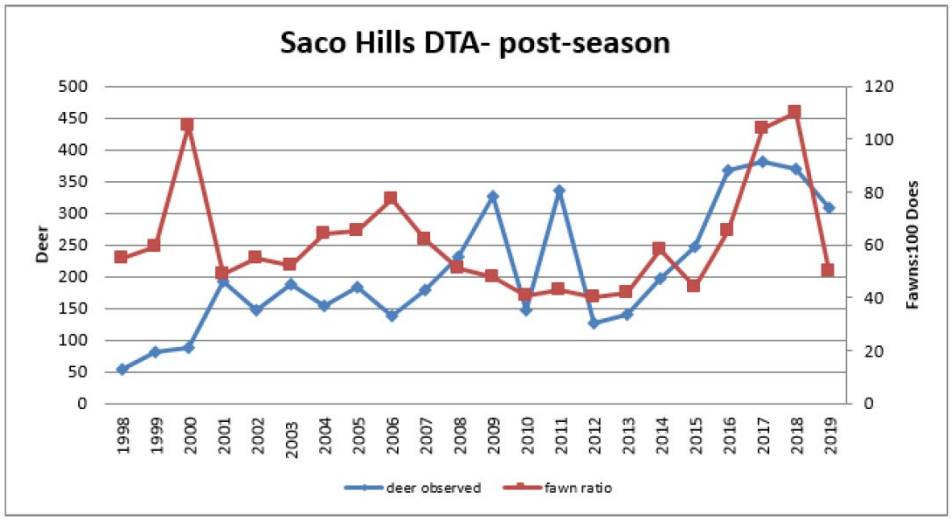
The overall objective is simplification of the HD's and boundary language and with the boundary change moving from the Milk River between Dodson and Malta to Highway 2 between those two towns the proposed change will make a cleaner line and the HD will encompass everything south of the highway.

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

   Trends in mule deer populations are monitored by completing post-season and spring aerial surveys on one mule deer trend area in HD 620. Total number of mule deer observed, as well as fawn ratios from these surveys, are measured against population objectives within AHM to determine population status and trend of mule deer across the region as well as within hunting districts. Success of this proposal will be measured by the continual monitoring of the above parameters within HDs included in this proposal. Secondarily, harvest surveys provide harvest estimates across the region as well as by HD. Mule deer harvest estimates provide another measure of population level and availability of mule deer for harvest, as well as prior year removal from the population and effectiveness of the proposed B-licenses types.

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).**



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December 2019

Figure 2. Region 6 Post Season Mule deer trend in Saco Hills DTA (HD 620), 1998-2019.

Total mule deer observed in the Saco Hills during the 2019 survey was 47% above the long-term average, fawn ratios were 50 fawns: 100 does (17% below LTA) and the buck ratio of 36 bucks: 100 does was 57% above LTA.

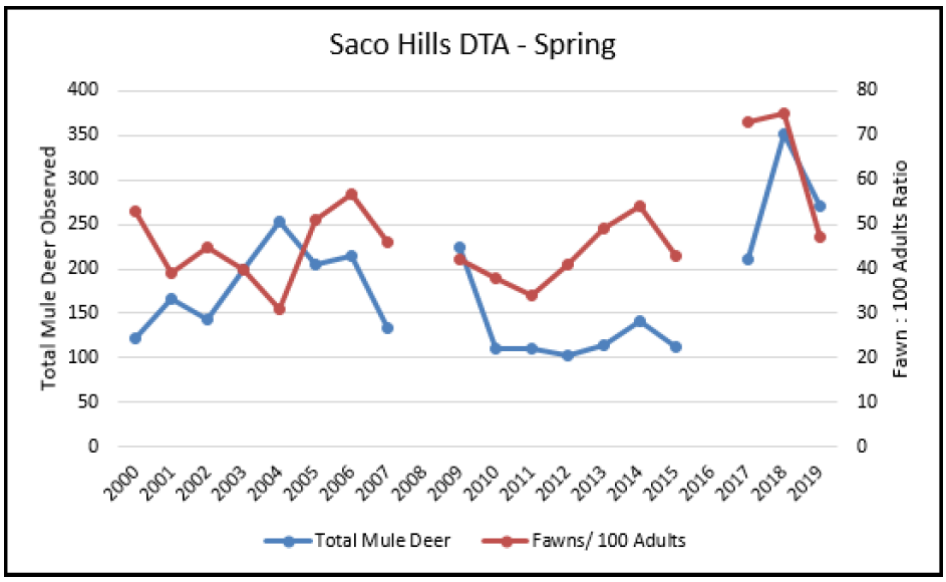

Figure 3. Region 6 Spring Mule deer trend in Saco Hills DTA (HD 620), 1998-2019.

Total observed mule deer during the 2019 spring flight was 21% above long-term average and the fawn ratio (47 fawns: 100 does) was down 15% from the long-term average.

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 area has been recovering slowly since the 2010-2011 winter and has shown an upward trend since then. Hunter access across this hunting district is very high with large amounts of public lands and private lands enrolled into the block management program.

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).**

Mule Deer – White-tailed Deer Justification List
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In talking with this potential HD change in public meetings (discussed at the Breaks Elk Working Group Meeting) as well as while conversing with sportsmen it is agreed that this will be a move in the right direction to simplify regulations while maintaining great opportunity. Additionally, discussions with hunters and landowners about deer numbers has been that they are at elevated levels and ability to increase licenses to account for increased populations of mule deer across the HD would be beneficial from an opportunity standpoint, but also to help minimize game damage. With the concern of Chronic Wasting Disease and the goal to manage the disease through population management is another priority in the region. Much of the public understands that maintaining lower deer densities and concentrating harvest on areas of higher deer densities is the best way to minimize the spread and manage the disease.

Submitted by: Brett Dorak, Malta Area Wildlife Biologist

Date: 10/21/2019

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

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

Species: Deer/Elk
Region: 6
Hunting District: 640
Year: 2020-2021

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

   This proposal aims to consolidate HD's 640, 641 and parts of HD 670 and HD 651 into one hunting district (640). More specifically, the proposal is to change the HD 640 boundary back to HWY 24 on the northwest boundary and move the southeast boundary to the Missouri River (currently HWY 2), thus eliminating HD 641 and associated LPT's (Fig 1). Currently HD 641 is a general hunting district for deer and elk and is part of the current 670 Antelope HD. Note: An antelope HD change is also proposed so that deer, elk and antelope Hunting District 640 will be the same.

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Historically the only LPT that was directly tied to the HD 641 was the antlerless MD license (641-01) and usually at small quotas (currently 200, range 50-200) due to lower mule deer populations within the HD, generally along the Missouri River corridor. HD 640 historically has a higher mule deer population and a higher LPT quota annually (currently 800, range 100-900).

Legal Description for proposed NEW HD 640 (Figure 1) and proposed quota and quota range:

- 640 Northeast Montana: Those portions of Daniels, Sheridan, Roosevelt and Valley Counties lying within the following-described boundary: Beginning at a point where State Route 24 crosses the Canadian border, then southerly along said route to the Fort Peck Indian Reservation boundary, then easterly along said boundary to Big Muddy Creek, then southerly along said creek to the Missouri River, then easterly down the Missouri River to the North Dakota border, then north along said border to the Canadian border, then westerly along said border to State Route 24, the point of beginning.

- Mule Deer B-License: Range 100-1,500, Proposed Quota 1,000

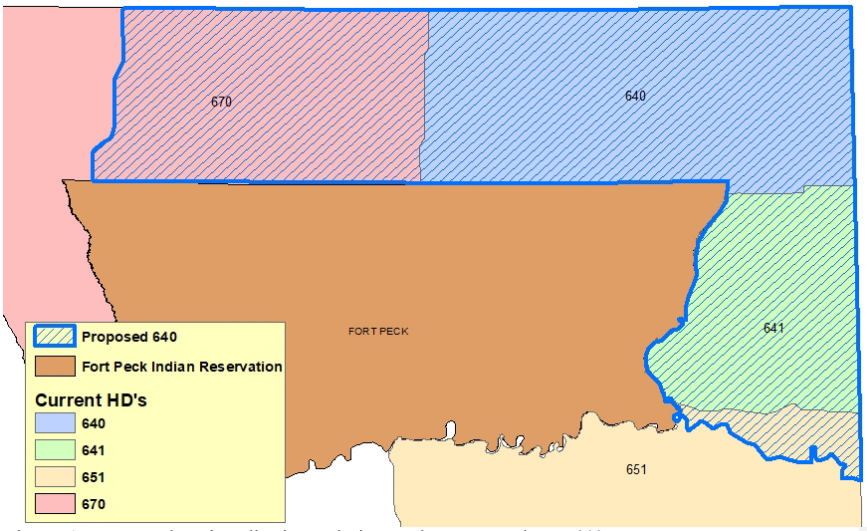


Figure 1. Current hunting districts relative to the proposed HD 640.

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 overall objective is simplification of the HD's and boundaries and to reduce the number of Hunting Districts and LPT's in Region 6. Because HD 641 is a HD with only one LPT with little management objective and the eastern part of the current HD 670 has more similar habitat and landownership to HD 640, the consolidation and boundary change will create a more uniform HD and result in one less HD and LPT. There is no reason to have this HD in the region as a standalone and will be much simpler consolidated with HD 640 to become one large HD.

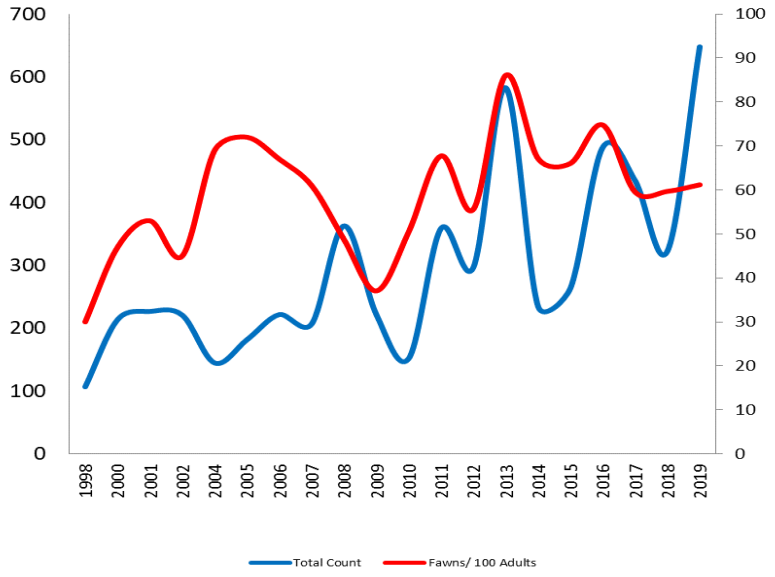
Also, with the boundary change to the Missouri River, the new HD will encompass everything north of the Missouri River. This change will more accurately reflect the mule deer population trends and movements on the north side of the river and remove a small area of HD 651 that lies between HWY 2 and the Missouri River. This simplifies the regulations and allows hunters to access mule deer on the north and south side of HWY 2 while hunting on one LPT.

With this change, the objective will continue to be to manage mule deer populations within the range of 20% above and 30% below the long-term average LTA as stated under Mule Deer AHM (2001). The Hunting District included in this B-license proposal are currently above this range so providing additional antlerless harvest is needed as a deer management tool.

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

Because the goal will be to consolidate and adjust boundaries, the B-license quotas and quota ranges for the proposed HD will reflect the current HD 640, HD 641 and portion of HD 670. Because of the boundary change that will encompass part of HD 670, the quota range and quotas will also reflect what the assumed hunting pressure and harvest is in that area.

Trends in mule deer populations are monitored by completing post-season and spring aerial surveys on one mule deer trend areas in the proposed HD 640. Total number of mule deer observed, as well as fawn ratios from these surveys, are measured against population objectives within AHM to determine population status and trend of mule deer across the region as well as within hunting districts. Success of this proposal will be measured by the continual monitoring of the above parameters within HDs included in this proposal. Secondarily, harvest surveys provide harvest estimates across the region as well as by HD. Mule deer harvest estimates provide another measure



of population level and availability of mule deer for harvest, as well as prior year removal from the population and effectiveness of the proposed B-licenses types.

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).**

   During post Season surveys, total deer numbers increased are 116% above long-term post season average. Fawn ratios were well above average with a ratio of 83:100 does, up 12% from the LTA. Buck ratios also saw a large increase by 73% from 2017 and are 106% above LTA. Total deer numbers during the spring green up surveys are 120% above long-term spring average. Fawn ratios were slightly above average with a ratio of 61:100 adults, up 4% from the LTA and 2% above the 2018 spring survey.

   Figure 2. Region 6 Spring Mule deer trend on Whitetail Cr DTA (HD 640), 1998-2019.

   Both of these population metrics within the proposed HD are within the range of the liberal mule deer regulation packages as defined by Mule Deer AHM (2001), which is either-sex mule deer during the archery and general seasons, with liberal numbers of B-licenses.

   There are no trend areas within the current HD 641 or within the area of the current HD 670 that the proposed boundary change will encompass, so population trends are extrapolated to those areas.

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).**

   This change will help with the state and regional goal to simplify regulations and HD's within the region. The agreement is that there are too many HD's in the region and the eliminating and consolidating HD's is the goal of the Management Biologists and Game Wardens. This consolidation will eliminate one hunting district and one LPT, working towards the simplification process. This also allows hunters more freedom and a larger area to locate mule deer across a mixture of private and public lands throughout the larger 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).**
   There is a growing frustration with current regulations, the number of LPT's and number of HD's. A reoccurring concerning theme is the number of hunting districts in an area of a region that is managed as general hunting districts for deer and elk. Some public has also expressed the desire to have more freedom to go "where the deer are" and consolidating the 2 HD's and expanding the boundaries will allow more freedom to access public lands and more deer herds on one LPT.

   With the concern of Chronic Wasting Disease and the goal to manage the disease through population management is another priority in the region. Much of the public understands that maintaining lower deer densities and concentrating harvest on areas of higher deer densities is the best way to minimize the spread and manage the disease. We have heard very little concern about simplifying the regulations, HD's and LPT's in this part of the region.

Mule Deer – White-tailed Deer Justification List
December 2019

Submitted by: **Ryan Williamson, Plentywood Area Wildlife Biologist**

Date: **10/15/2019**

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

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

Species: Deer/Elk
Region: 6
Hunting District: 650
Year: 2020-2021

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

   This proposal aims to consolidate HD 650 and HD 651 into one hunting district (650), thus eliminating HD 651 and associated LPT's (Fig 1). Currently HD 651 is a general hunting district for deer and elk and is part of the current 650 Antelope HD. Note: An antelope HD change is also proposed so that deer, elk and antelope Hunting District 650 will be similar.

   Historically the LPT that was directly tied to the HD 651 was the antlerless MD license (651-00), with a quota range of 100-500. The current LPT for HD 650 (650-00) has a quota range of 50-500.

   Legal Description for proposed NEW HD 650 (Figure 1) and proposed quota and quota range:

   - That portion of McCone,Richland and Dawson Counties lying within the following-described boundary: Beginning at Circle, then northeast along State Route 200 to the North Dakota Border, then northerly along said border to the Missouri River, then westerly along the Missouri River to the Fort Peck Dam, then easterly along the north shore of Fort Peck Reservoir to the Fort Peck Dam Spillway, then southerly along State Route 24 to State Route 200, then easterly along said route to Circle, the point of beginning.

   - Mule Deer B License 650-00

     - Range 50 - 1,500, with a Proposed Quota 800

Mule Deer – White-tailed Deer Justification List
December 2019

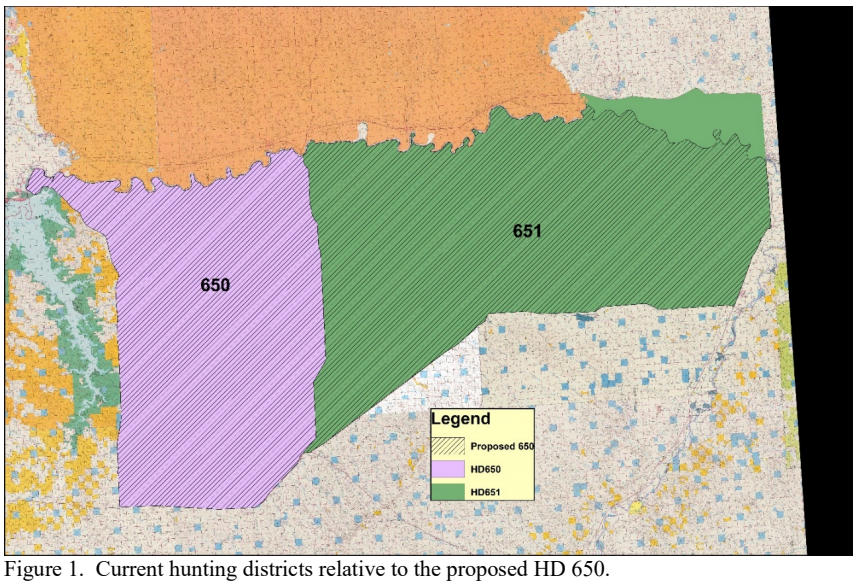


Figure 1. Current hunting districts relative to the proposed HD 650.

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 overall objective is simplification of the HD's and boundaries and to reduce the number of Hunting Districts and LPT's in Region 6. Because HD 651 is a HD with only one LPT, the consolidation and boundary change will create a more uniform HD and result in one less HD and LPT. There is no reason to have this HD in the region as a standalone and will be much simpler consolidated with HD 650 to become one large HD.

   Also, with the boundary change to the Missouri River, the new HD will encompass everything south of the Missouri River. This change will more accurately reflect the mule deer population trends and movements on the south side of the river and remove a small area of HD 651 that lies between HWY 2 and the Missouri River.

   With this change, the objective will continue to be to manage mule deer populations within the range of 20% above and 30% below the long-term average LTA as stated under Mule Deer AHM (2001). The Hunting District included in this B-license proposal are within this range so providing additional antlerless harvest is needed as a deer management tool.

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

   Because the goal will be to consolidate and adjust boundaries, the B-license quotas and quota ranges for the proposed HD will reflect the current HD 650 and HD 651.

Mule Deer – White-tailed Deer Justification List
December 2019

Trends in mule deer populations are monitored by completing post-season and spring aerial surveys on two mule deer trend areas in the proposed HD 650. Total number of mule deer observed, as well as fawn ratios from these surveys, are measured against population objectives within AHM to determine population status and trend of mule deer across the region as well as within hunting districts. Success of this proposal will be measured by the continual monitoring of the above parameters within HDs included in this proposal. Secondarily, harvest surveys provide harvest estimates across the region as well as by HD. Mule deer harvest estimates provide another measure of population level and availability of mule deer for harvest, as well as prior year removal from the population and effectiveness of the proposed B-licenses types.

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).**

   During spring surveys, total deer numbers in HD 651 were 39%, and in HD 650 were 27% above long-term average. Both of these counting units have metrics within the proposed HD that are within the range of the liberal mule deer regulation packages as defined by Mule Deer AHM (2001), which is either-sex mule deer during the archery and general seasons, with liberal numbers of B-licenses.

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).**

   This change will help with the state and regional goal to simplify regulations and HD's within the region. The agreement is that there are too many HD's in the region and the eliminating and consolidating HD's is the goal of the Management Biologists and Game Wardens. This consolidation will eliminate one hunting district and one LPT, working towards the simplification process. This also allows hunters more freedom and a larger area to locate mule deer across a mixture of private and public lands throughout the larger 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).**
   There is a growing frustration with current regulations, the number of LPT's and number of HD's. A reoccurring concerning theme is the number of hunting districts in an area of a region that is managed as general hunting districts for deer and elk. Some public has also expressed the desire to have more freedom to go "where the deer are" and consolidating the 2 HD's and expanding the boundaries will allow more freedom to access public lands and more deer herds on one LPT.

   With the concern of Chronic Wasting Disease and the goal to manage the disease through population management is another priority in the region. Much of the public understands that maintaining lower deer densities and concentrating harvest on areas of higher deer densities is the best way to minimize the spread and manage the disease. We have heard very little concern about simplifying the regulations, HD's and LPT's in this part of the region.

Submitted by: <u>Drew Henry, Glasgow Area Wildlife Biologist</u>

Mule Deer – White-tailed Deer Justification List
December 2019

Date: **10/21/2019**

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date

Reason for Modification:

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

Species: Deer/Elk

Region: 6
Hunting District: 670

Year: 2020-2021

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

This proposal aims to consolidate HD's 611 and parts of HD 670 into one hunting district (670). More specifically, the proposal is to add all of the HD 611 from Harlem-Turner Road (Route 241) into HD 670 all the way to the new eastern boundary of HD 670, HWY 24, and move the southern boundary to be Highway 2, thus eliminating HD 611 and associated LPT's (Fig 1). Currently HD 611 is a general hunting district for deer and elk and is part of the current 600 Antelope HD. Note: An antelope HD change is also proposed so that deer, elk and antelope Hunting District 670 will be the same.

Historically the only LPT that was directly tied to the HD 611 was the antlerless MD license (611-01) with a moderate quota of currently 500 and a range 50─500. HD 670 historically has a higher mule deer population and a higher LPT quota annually (currently 1000, range 200─2000).

Legal Description for proposed NEW HD 670 (Figure 1) and proposed quota and quota range:

Those portions of Blaine, Phillips, and Valley counties lying within the following-described boundary: Beginning at a point where the Harlem-Turner Road (Route 241) joins the Canadian line, then southerly along said road to US Highway 2 at Harlem, then east and south along said highway to the Milk River Bridge at the Fort Belknap Indian Agency, then easterly along the Milk River to the Milk River Bridge on

Mule Deer – White-tailed Deer Justification List
December 2019

US Highway 2 west of Dodson, then easterly along said Highway to Nashua, then northerly along Porcupine Creek to the West Fork of Porcupine Creek, then northerly along said creek until the north boundary of the Fort Peck Indian Reservation, then easterly along said boundary until MT Highway 24, then northerly along said highway to the Canadian border, and then westerly until Harlem-Turner Road (Route 241), the point of beginning.

- Mule Deer B-License: Range 100-3,000, Proposed Quota 1,500

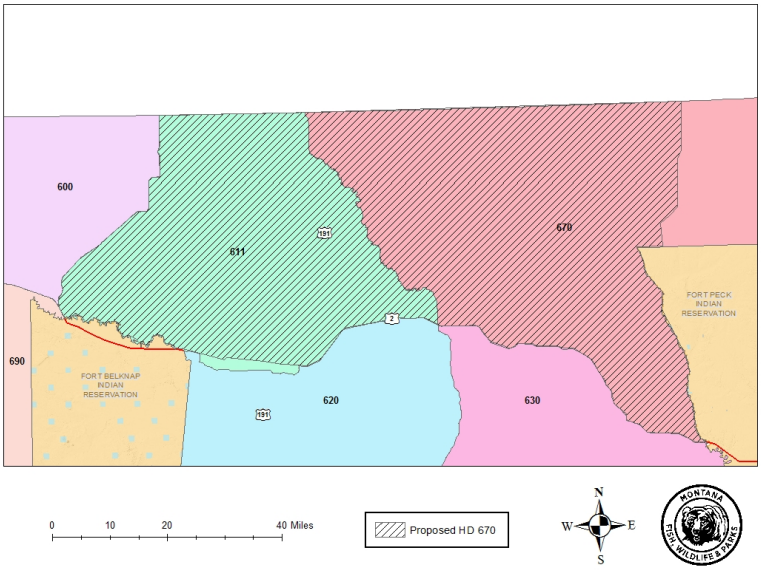


Figure 1. Current hunting districts relative to the proposed HD 670.

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 overall objective is simplification of the HD's and boundaries and to reduce the number of Hunting Districts and LPT's in Region 6. Because HD 611 is a HD with only one LPT and has similar habitat and landownership to the western half of HD the consolidation and boundary change will create a more uniform HD and result in one less HD and LPT. There is no reason to have this HD in the region as a standalone and will be much simpler when consolidated with HD 670 to become one large HD.

Also, with the boundary change moving from the Milk River between Dodson and Malta to Highway 2 between those two towns the proposed change will make a cleaner line and the new HD will encompass everything north of the highway outside of the reservations.

With this change, the objective will continue to be to manage mule deer populations within the range of 20% above and 30% below the long-term average LTA as stated under Mule Deer AHM (2001). The Hunting Districts included in this B-license proposal are currently above this range so providing additional antlerless harvest is needed as a deer management tool.

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

Because the goal will be to consolidate and adjust boundaries, the B-license quotas and quota ranges for the proposed HD will reflect the current HD 611 and portion of HD 670 and quotas will also reflect what the assumed hunting pressure and harvest is in that area.

Trends in mule deer populations are monitored by completing post-season and spring aerial surveys on one mule deer trend areas in the proposed HD 670. Total number of mule deer observed, as well as fawn ratios from these surveys, are measured against population objectives within AHM to determine population status and trend of mule deer across the region as well as within hunting districts. Success of this proposal will be measured by the continual monitoring of the above parameters within HDs included in this proposal. Secondarily, harvest surveys provide harvest estimates across the region as well as by HD. Mule deer harvest estimates provide another measure of population level and availability of mule deer for harvest, as well as prior year removal from the population and effectiveness of the proposed B-licenses types.

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).**

   There are currently two deer trend areas flown annually during a post season and spring green up flights and their respective data are below.

Mule Deer – White-tailed Deer Justification List
December 2019

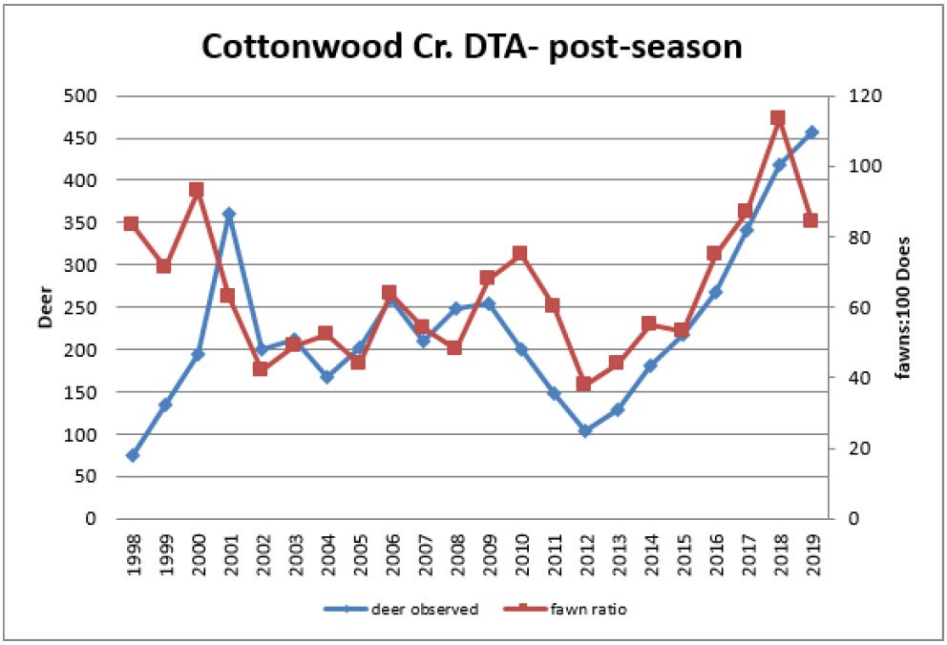


Figure 2. Region 6 Spring Mule deer trend on Cottonwood Cr DTA (HD 611), 1998-2019.

During post Season surveys, total deer numbers are 68% above long-term post season average. Fawn ratios were well above average with a ratio of 84:100 does, up 38% from the LTA. Buck ratios 30 bucks: 100 does is right at LTA. Total deer numbers during the spring green up surveys are 74% above long-term spring average. Fawn ratios were near average with a ratio of 49:100 adults, down 2% from the LTA. Population metrics within the proposed HD are within the ranges of the standard and liberal mule deer regulation packages as defined by Mule Deer AHM (2001), which is either-sex mule deer during the archery and general seasons, with liberal numbers of B-licenses.

Mule Deer – White-tailed Deer Justification List
December 2019

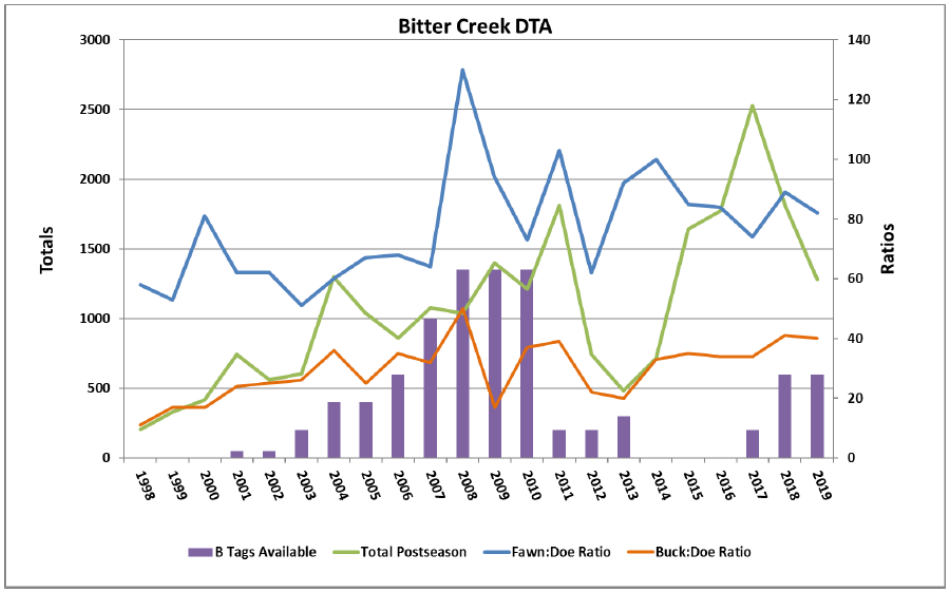


Figure 3. Region 6 Spring Mule deer trend on Bitter Cr DTA (HD 670), 1998-2019.

During post Season surveys, total deer numbers are 30% above long-term post season average. Fawn ratios were well above average with a ratio of 82:100 does, up 14% from the LTA. Buck ratios 40 bucks: 100 does was 48% above LTA. Total deer numbers during the spring green up surveys are 12% above long-term spring average. Fawn ratios were slightly below average with a ratio of 49:100 adults, down 14% from the LTA. Both population metrics within the proposed HD are within the range of the standard mule deer regulation packages as defined by Mule Deer AHM (2001), which is either-sex mule deer during the archery and general seasons, with moderate numbers of B-licenses.

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).

This change will help with the state and regional goal to simplify regulations and HD's within the region. The agreement is that there are too many HD's in the region and the eliminating and consolidating HD's is the goal of the Management Biologists and Game Wardens. This consolidation will eliminate one hunting district and one LPT, working towards the simplification process. This also allows hunters more freedom and a larger area to locate mule deer across a mixture of private and public lands throughout the larger HD.

Mule Deer – White-tailed Deer Justification List
December 2019

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).**

There is a growing frustration with current regulations, the number of LPT's and number of HD's. A reoccurring concerning theme is the number of hunting districts in an area of a region that is managed as general hunting districts for deer and elk. Some public has also expressed the desire to have more freedom to go "where the deer are" and consolidating the 2 HD's and expanding the boundaries will allow more freedom to access public lands and more deer herds on one LPT.

With the concern of Chronic Wasting Disease and the goal to manage the disease through population management is another priority in the region. Much of the public understands that maintaining lower deer densities and concentrating harvest on areas of higher deer densities is the best way to minimize the spread and manage the disease. We have heard very little concern about simplifying the regulations, HD's and LPT's in this part of the region during public engagement during working group meetings and while out in the field.

Submitted by: Brett Dorak, Malta Area Wildlife Biologist

Date: 10/21/2019

Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____

Name / Date

Reason for Modification:

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

Species: Deer/Elk
Region: Region 6
Hunting District: 680/690
Year: 2020

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

Mule Deer – White-tailed Deer Justification List
December 2019

This proposal is to combine the Deer/Elk Hunting Districts 680 and 690 into one combined Hunting District (HD 690). Currently mule deer hunting in these districts is either-sex either species on a general license with an additional 700 mule deer B licenses available in HD 690 and 500 mule deer B license available in HD 680. There are currently 3000 white-tailed deer B licenses valid region-wide in Region 6 in addition to the single region white-tailed deer license. Elk hunting in these districts is currently only available through limited draw (although another proposal this year is to allow antlerless elk hunting on a general license in this hunting district). All elk permits and licenses in these districts are already valid in both HD 680 and 690 and combining these districts would not affect elk quotas or ranges.

Table 1. Mule Deer License Quotas in HD 680 & 690

Current LPT	2017	2018	2019	Proposed LPT	Proposed
690-00	550	550	700	690-00	1100
680-00	350	350	500		

Table 2. Mule Deer B license Quota Ranges in HD 680 & HD 690

Current LPT	Current Quota Range	Proposed LPT	Proposed Range
680-00	100-1000	690-00	100-2000
690-00	100-1000		

2. What is the objective of this proposed change?

The objective of this change is to reduce regulation complexity and increase flexibility for hunters. Elk permits and licenses are currently valid in both hunting districts and combining these two districts will reduce hunter confusion on where their licenses are currently valid. Combining these districts for deer hunters will reduce the number of districts and the number mule deer LPTs in the hunting regulations and allow hunters added flexibility when hunting. This change will also ensure the deer/elk hunting boundary is the same as the antelope hunting district for this area.

3. How will the success of this proposal be measured?

The success of this proposal will be seen through the simplification of the 2020 deer/elk hunting regulations and through decreased hunter confusion. The proposal is not expected to have a significant impact on deer or elk harvest in these districts.

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).**

Currently, mule deer counts in HD 680 are 31% above the long-term average and the fawn:adult ratio of 37 fawns:100 adults is within objective (30-60 fawns:100 adutls). Mule deer in HD 690 were 5% below the LTA and the fawn:adult ratio was 36 fawns:100 adults which is also within objective.

Table 3. Spring Mule Deer Aerial Trend Survey Data for Hunting Districts 680 & 690 2011-2017

HD	2013	2014	2015	2016	2017	2018	2019	LTA

Mule Deer – White-tailed Deer Justification List
December 2019

680	Total Count	146	115	207	353	278	180	235	179
	Fawn:Adult Ratio	44	47	38	49	43	49	37	42
690	Total Count	225	245	156	290	352	221	240	253
	Fawn:Adult Ratio	42	45	48	61	49	35	36	47

Table 4. Mule Deer Harvest in HD 690 2011-2018.

	2012	2013	2014	2015	2016	2017	2018	LTA
General License 680	273	291	294	324	440	421	424	300
General License 690	1002	1126	873	1226	1400	1358	1204	940
B-License (680-00)	105	127	0	0	51	168	133	124
B-License (690-00)	213	225	0	0	99	281	247	158

Elk numbers in the Elk Management Unit were below objective in the 2019 survey, but this was mostly due to poor survey conditions. The previous year's survey was 158% above the objective of 250 elk.

Table 5. Bears Paw Elk Management Unit Aerial Survey Data 2014-2019

	2014	2015	2016	2017	2018	2019
Total Count	731	415	435	523	647	190
Calf:Cow	37	33	49	46	43	32
Bull:Cow	73	33	50	22	40	29

Overall harvest in this elk management unit has averaged 104 elk during the last 5 years. However, antlerless elk harvest has only averaged 64 elk. The average antlerless elk harvest success during the past five years has been 13%

Table 6. Bears Paw EMU Elk Harvest 2014-2018

LPT	2014	2015	2016	2017	2018
690-00 Antlerless Youth	3	6	2	0	2
690-01 Antlerless	22	84	39	33	43
690-20 (Either-sex)	23	26	30	22	21
690-21 Either-sex Archery	23	21	15	17	14
696-00 Antlerless Shoulder Season	--		11	8	10
697-00 Antlerless Permit	--		20	6	17
Total	71	137	117	86	107

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 winter of 2017-2018 was a more severe weather and mule deer populations in this area did experience higher levels of winter mortality based on the 2018 spring surveys, but weather conditions

since then have been favorable and deer numbers have rebounded in most areas. Hunting District 690 is mostly private land and access for elk hunting in this district has been a limiting factor for elk harvest.

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 proposal to combine deer and elk hunting districts was presented to the Breaks Elk Working Group. As a result of comments received during that meeting this proposal was modified to address some of the comments received. This proposal has been presented to some of the landowners in the area and most of the comments received have been favorable. There have been some comments for sportsmen that would like to see Hunting District 680 or portions of this district included with HD 621 rather than with HD 690.

Submitted by: Scott Hemmer
Date: 10/21/19
Approved: _____
Regional Supervisor / Date

Disapproved / Modified by: _____
Name / Date
Reason for Modification: