

**MONTANA FISH, WILDLIFE & PARKS  
HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION  
Mountain Goat 2022  
Goat 326 327 combo**

**Hunting Districts:** 326 and 327

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

The purpose of this proposal is to seek to combine small hunting districts to make larger districts where possible.

It proposes to combine mountain goat districts 326 and 327, both in the southern Madison Mountain Range.

**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 is to combine hunting districts following regulation simplification guidelines.

**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 in making the hunting season regulations simpler is implicit, as it reduces the number of hunting 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).**

Mountain goat counts in HD 326 and 327 are recovering from recent low levels. HD 327 was recently combined with very small HD 328, an area of less than 40 square miles. HD 326, 327, and 328 were originally part of a much larger hunting district, and were separated in 1984 to distribute hunting pressure across the landscape. At the time, 30+ licenses were issued between the three districts. At that time, mountain goat populations had been growing exponentially still following their release and colonization of this mountain range.

Over time, the number of licenses issued in each district was pared down until only 4 licenses were being issued across this area. Hunter distribution in this area is no longer a problem or concern, and the mountain goat habitat is continuous through the area. There is no reason to assume there are different goats in HD 326 and 327. Notably, in 2019, counts improved in 326 and 327. In the future, there could be ability to increase goat licenses again.

**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).**

**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).**

Julie Cunningham reached out to the Rocky Mountain Goat Alliance, who did not express concern over this proposal. It represents no net loss of hunter opportunity.

Due to the abbreviated timeline of this regulations change process, fewer than normal contacts have been made.

**MONTANA FISH, WILDLIFE & PARKS**  
**HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**  
**Mountain Goat 2022**  
**324 goat quota reduce**

**Hunting Districts:** 324

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

The current quota is for 6 either-sex mountain goat licenses.

The proposed change is a within-quota range change from 6 licenses to 4 licenses.

**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 change is to maintain a sustainable harvest rate commensurate to the number of mountain goats counted in the hunting district.

**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 through subsequent counts.

**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).**

Spanish Peaks goats had increased through the 2000s, and 6 either-sex licenses were issued. However, the two most recent counts (2019 and 2021) both showed a decline. Just 56 goats were counted in the 2021 survey, but this survey was likely an undercount. The proportion of females in harvest has been low, which is a benefit to the population. To balance what may be a real decline in goats with the fact that the 2021 survey was an undercount and hunters have been overwhelmingly targeting males, this proposal suggests offering 4 licenses, a harvest rate of 7% of observed animals which is on the high end of acceptable range according to several sources.

**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).**

**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 within quota range adjustment was sent out via email to a list of >250 interested persons.

One comment back was that he did not think I should reduce the quota.

**MONTANA FISH, WILDLIFE & PARKS**  
**HUNTING SEASON / QUOTA CHANGE SUPPORTING INFORMATION**  
**Mountain Goat 2022**  
**HD 442 - 20 Mountain Goat Quota**

**Hunting Districts:** Mountain Goat HD 442

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

Reopen mountain goat HD 442 to one (1) either-sex license with a quota range of 1-3.

This area has a long and storied history related to some of the earliest mountain goat management and research efforts within Montana. In addition to being a significant source for mountain trapping/transplant efforts (1941-1957 – upper Deep creek area), mountain goat management along the RMF has most recently been divided into three hunting districts – 414, 415 and 442 to include separate HD specific quotas. Historically, significant harvest occurred on RMF goats from 1954 – 1973 (Joslin 1986; Smith and DeCesare 2017). From 1954 – 1969, harvest quotas ranged from 10-100 in HD 414 (this included the entire RMF area open to hunting). Average annual harvest over this same period was 32 goats (18 Billies, 11 Nannies, 3 Unknown). Thompson (1981) also reported significant harvest occurring across this same area during the same period. Joslin (1986) summarized from 1960 to 1970, 70 mtn. goats were harvested from the Deep Creek area and 22 were taken from Ear Mtn. Beginning in 1970, HD 414 was split into two units – HDs 414 and 415. Somewhere around this same time the Deep-Sun segment (HD 442) was removed from HD 414. Hunting was closed altogether from 1974 through 1977 in HD 414. Limited licenses were reallocated in 1978 until the season was once again closed in 2018. HD 415 never had a season closure but did have licenses significantly reduced from former levels around this same time. Beginning in 2002, a new HD was created for the Deep-Sun Segment (HD 442) with a license level set at 1, which remained until 2018 when the season was closed due to concerns of harvest impacts on the local goat population.

New Boundary removing the excessive prairie land to the east previously incorporated into this HD: Those portions of Teton County lying within the following described boundary: Beginning at the intersection of the Teton River and Bellview Roads, then westerly along the Teton River Road to USFS Road 144, then northwesterly along USFS Road 144 to the West Fork Teton parking lot, then westerly along USFS Trail 114 to the Continental Divide at Teton Pass, then southwesterly along the Continental Divide to Sun River Pass, then southerly along USFS Trail 110 to the north fork of the Sun River near the mouth of Lick Creek, then southerly along the north fork of the Sun River to USFS Trail 110 near the mouth of Dryden Creek, then southeasterly along USFS Trail 110 to Trail 128, then easterly and southerly along USFS Trail 128 to USFS Trail 168 near the mouth of Erosion Creek, then northerly along USFS Trail 168 to the north fork of Deep Creek near the intersection with USFS Trail 135, then easterly along the north fork of Deep Creek to the intersection with the Deep Creek road, then northerly along said road to the intersection of the Bellview Road, then westerly and northerly along said road to the Teton River Road, the point of beginning.

**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.**

Given recent past and current goat observations in this HD, the objective of this proposed change is to allow for limited hunter opportunity based on most recent survey and inventory data while not negatively impacting overall population performance across the area. Although the license is for either-sex opportunity, emphasis would be placed on attempting to harvest males (billies). Additional regulations/language adopted (illegal to hunt a female mountain goat accompanying a kid or a female mountain goat in a group that contains one or more kids) since this HD was closed will help focus this harvest on individuals in the population having less impact on the overall population.

For added perspective, unlike other ungulates, mountain goat harvest appears to be largely additive to natural mortality (Hamel et al. 2006). Therefore, suggested harvest rates for mountain goats are low, albeit variable. Gonzalez-Voyer et al. (2000) suggested a herd of 100 could only sustain a harvest of 1 or 2 adult males per year. Cote and Fest-Bianchet, (2001) reported that native mountain goat populations may not sustain a yearly harvest

greater than 2%, primarily because kid production is low, age at first reproduction is late and goats typically only produce one kid (compared to other species where twinning is more common). They suggested that the best management strategy for native populations of goats is to combine a 2-3% annual harvest of a population with a strong encouragement to harvest adult males. Many Jurisdictions do not support hunting mountain goats with less than 50 individuals in the population (Alaska, Alberta, British Columbia, Idaho, Oregon, and Washington; Mountain Goat Management Team, BC, 2010). British Columbia does not hunt mountain goats with a population that is less than an estimated 50 adult goats (Mountain Goat Management Team, 2010). At a minimum this suggests harvest should be avoided on populations less than 50 individuals. For perspective, harvest rates in this HD before the 2018 season closure were certainly higher than the recommended rates noted above based on observed numbers at the time, although only 6 goats were harvested during the 15-year period it was open, which, was also somewhat of a concern – much lower harvest rates in time (40%) compared to the average statewide success rate of 70%.

**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 determined by first and foremost acceptance from the FW Commission and public. If adopted, additional success of this opportunity will primarily be measured by balancing hunter harvest success in tandem with observing at least overall population maintenance (at a minimum, see population status section for more information), if not growth, within the HD. As previously stated, success will also be gained with hunters' ability to focus their harvest on males as much as reasonable. Lastly, the ability to demonstrate at least maintenance of existing known population distribution within the HD, and, perhaps population expansion over time with respect to known historical distribution in the area is important.

**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 no clearly defined management objectives for mountain goats in HD 442. The best measure of mountain goat population/distribution potential relates to historical survey data. Casebeer et al. (1950) estimated the population in this area to be at approximately 70 goats, although it was noted that only two areas were estimated for this segment (Castle Reef and SF Deep creek). The authors also went on to describe a "solid mass of mountain goat occurrence" over much of what is later described as the significant portions of HD 442. A horseback survey conducted in August of 1948 reported 115 mtn. goats in the Deep Creek-South Fork Teton area (McLucas et al, 1948). Based on mountain goat research and survey work completed by Joslin (1986), an estimate of 51 goats was calculated. Since that time, routine aerial goat surveys have been completed within the HD, although generally producing low observed numbers (total average observed number = 18, 1994 – 2020). It is important to note that goat observability can vary significantly from year to year pending survey conditions.

When this HD was closed in 2018, part of the commitment was to better understand overall goat numbers and distribution within this area. In July 2020, a large scale, coordinated ground survey, involving 25 individuals (13 survey teams) was organized and completed over a 2-3 day period. Surveyors cumulatively recorded a total of 33 goat groups representing 153 individual goat observations. Each observation was evaluated based on location, time, group composition and behavior (during and after initial observation) to determine whether it was likely a unique observation or a repeat observation of the same individuals (based on other surveyor's records). After analysis, it was determined a minimum total of 56 mountain goats were observed during the effort. This included 17 billies, 19 nannies, 8 yearlings/subadults (2 billies, 1 nanny, 5 unclassified.), 11 kids, and 1 goat of unknown age or sex (assumed to be an adult given its location and solitariness). A follow up aerial helicopter survey completed over the same area 3 days later, produced 2 additional adult goats not observed during the ground effort based on location. In a smaller scale, more focused follow up to this survey, in September 2021, another ground survey was completed using the same survey criteria, although with a total of 16 individuals (10 survey teams). Although fewer goats were observed (n=40), a wider distribution of locations was found. Thus, providing more food for thought about how to expand and/or refine these sort of efforts down the road to better understand overall numbers and distribution depending on season.

As was described in the FWP 2018 season closure justification, a potential target minimum observation of 35-40 individual adult goats (non-kid/yearlings) was stated as one means to justify considering re-opening a hunting season for this HD with a quota level of one license. As was further described in this justification and for additional

perspective, using a 60% aerial observability rate (Mountain Goat Management Team, 2010) for helicopter-based goat surveys and considering a total of 18 adult goats were observed on the July 11, 2020 survey, this would place total adult goats in this HD at approximately 30, or 15-25% below this minimal objective. Using this same observability rate and the latest aerial survey total count, a total of 45 goats could be expected to be found in this HD. In comparison, the July 2020 ground survey produced a minimum observed number of 36 adult goats and a total of 56 goats (58 goats if the two adult goats from the aerial survey are included, as previously noted). An estimate of 35-50 goats was believed to inhabit this HD (Smith and DeCesare 2017), which is again, below observed numbers found on the ground survey. Further, overall observed current and more recent production and recruitment appears to be in the mid to low end of the range of variation (McWhirter and Roop 2007). In summary, the current population status in this HD is higher than what was previous thought, albeit with the majority of the population strongly skewed towards a relatively small portion of the HD. Although and as previously mentioned, the most recent September 2021 ground survey portrayed overall better distribution within the area (seasonal change in distribution or actual new/different goats found?).

To summarize, the ground survey data gathered supports re-opening HD 442 to a hunting license quota level of one (1) while maintaining a defensible and conservative harvest rate. Using the 2020 observed ground survey data, a license quota of one would produce a harvest rate of just under 2% of the entire observed number and just under 3% of the observed adults (if the additional two adults observed on the aerial survey are included). This would maintain a conservative harvest rate, especially as there is unknown observability from our ground-based efforts and the actual total population will be something higher than what was observed further reducing the true harvest rate. Realizing this is certainly new and encouraging information and such data is only one point in time, future similar and more refined survey efforts will also hopefully help confirm these most recent observations (as the 2021 survey attempted to do). However, there is still cause for concern over other harvest metrics that were being met with low success when a hunting season was in place, such as much higher than preferred adult nanny harvest, low overall hunter success and focused harvest occurring in the primary source area for goats (Headquarters Pass area). Much of the latter depends on hunter ability and effort and preference for a billy vs. any goat. It also falls onto the shoulders of FWP to continue to educate hunters and others of such concerns emphasizing how such can have long lasting impacts over time. Along these lines and as previously described, new regulations in place that limit a hunters ability to harvest a nanny associated with a kid or associated with a group that contains kids is one step in that direction and may also help to limit some of these concerns.

**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).**

Because the observed population is considered to be at a minimum threshold status, other factors such as habitat changes, predation, and weather events can become more critical limiting factors beyond just hunting mortality impacts. However, overall good, suitable mountain goat habitat exists in this area. The primary seasonal and year-round mountain goat habitat is located on public land (USFS and some limited BLM) so hunter access is not a concern. For the most part, weather (winter especially) in this area is not considered to be any more of a significant factor compared to weather in previous years/decades when goat numbers were better. Fall storm events (snow) can and does limit hunter access into some of this area. Late spring/early summer weather events could potentially have impacts at times on kid survivorship. This area does have the full gamete of predators (wolves, mountain lions, golden eagles, grizzly and black bears, coyotes, etc.) throughout the range and likely contributes to some level of mortality of adults and young.

From a distribution perspective, the primary remaining stronghold of goats in this HD is located in the greater Headquarters Pass/Rocky Mountain area, although goats are present in other areas (2021 survey data). There is some concern of the impacts of additive harvest on this local population and what it may mean for long term goat recovery, at least specific to this area. Continuing ground and aerial based survey efforts to gauge mountain goat population and distribution within this area is paramount. Thought was given to refine or expand the HD boundary to focus harvest where goats are known to be present and perhaps be less impactful on the population and/or current known distribution. However, it is believed maintaining the existing boundary is appropriate to allow hunter flexibility in hunting opportunity (hunting locations), potentially spread out harvest in time over a large area, while minimizing impacts to sub-populations within the general area.

**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 general idea of reopening this HD to mountain goat hunting has been communicated to the Upper Sun Wildlife Team and no comments have been taken opposing the idea. This group was and has been involved with many mountain goat related management discussions over the years and was an advocate of closing this HD in 2018. Further anecdotal, individual conversations have been had with respect to this proposal and no opposition has been noted given the latest survey data to justify such. Having said that, there still is likely some level of opposition to the proposal given overall numbers well below historic potential.

Reopening this HD provides opportunity for the mountain goat SuperTag and Auction license holders to hunt in a new area and opportunity and with that, there is concern that impacts of such potential harvest would be unnecessarily additive to mortality population status in time. State law does not preclude this new opportunity for these license holders. Such additive harvest will have negative impacts and threaten the need to once again, consider closure of this HD as/if such were to occur in time. Since the primary focus of the early public 'scoping period' relative to this year's regulations simplification process was focused on primarily deer and elk, this proposal was not formally proposed/vetted during that process.