



Improving Elk Management in Montana

*Achieving sustainable populations, increasing access,
and addressing the concerns of Montana landowners*

A report by the Rural Montana Foundation
February 2021

“Conservation will ultimately boil down to rewarding the private landowner who conserves the public interest.”

—Aldo Leopold, 1934

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Introduction

Elk management in Montana has long been a divisive topic, subject to intense political pressure and widely differing opinions on how best to manage Montana's elk herds. But while this debate has continued over the years, elk populations have ballooned to unhealthy and unsustainable levels in many areas of the state. It's clear that existing policies related to elk management are not working and a new approach is needed.

The Montana Department of Fish Wildlife and Parks has begun the process of updating the statewide Elk Management Plan, the primary tool they use to guide policy related to elk. This report is intended to assist in that process by providing input from Montana landowners who provide elk habitat.

During May 2020, the Rural Montana Foundation surveyed 211 Montana landowners who typically have elk on their property at some point during the year, most frequently during hunting season. These landowners were asked for their input on a number of policy proposals, and invited to share their thoughts on how elk management could be improved. The results of

this survey are included throughout this report.

Landowners with elk are the primary stakeholders in elk management. For everyone else, elk provide aesthetic or recreational value. Hunters, wildlife enthusiasts, and environmentalists gain utility with large elk herds—but they share virtually none of the costs.

Landowners alone bear the financial costs when management policies fail. In that sense, they are the only ones with real skin in the game.

Nearly all landowners are willing to support a reasonable number of elk on their property. But in recent years, with elk populations chronically over objective, the collective patience of landowners is wearing thin, as evidenced by the survey results presented here.

In designing the next phase of elk management in Montana, the focus should be on what the various interests have in common. We all value elk—landowners, sportsmen, and environmentalists alike. But we have to acknowledge that the current approach to elk management is not working, and it has resulted in placing an unfair burden on land-

owners. Positive changes are necessary.

Survey respondents were asked to rate FWP's performance related to elk management on a 100 point scale. The average was 35—a miserable failing grade. Only 25 percent thought that FWP was responsive to landowners.

These results pinpoint why elk management in Montana is failing—FWP has been ignoring the needs of the primary stakeholders, and as a result elk populations have reached unsustainable levels.

The new Elk Management Plan presents an opportunity to change what has been a combative process to a collaborative one.

This report presents problems that landowners see with current elk management practices, and recommends specific solutions to address those problems. These solutions were developed with a landowner perspective in mind, but are intended to benefit all stakeholders.

“A review of the public trust doctrine and its historical evolution reveals that state governments...should share with private landowners the financial benefits of wildlife stewardship—not only the costs.”¹



Summary of Recommended Solutions

1. Eliminate limited permits in districts that are over population objectives.
2. Adopt more flexible season setting to increase hunting pressure in areas that are over-objective.
3. Provide alternatives to the general hunting season for landowners in areas with chronically over-objective elk populations.
4. Implement a publicly-funded, disease risk-transfer tool to mitigate financial risk faced by landowners who provide elk habitat.
5. Expand testing for CWD, with aggressive testing efforts by FWP in areas where CWD has been detected.
6. Eliminate policy of granting game damage assistance only to landowners who give up control of access to their property.
7. Prioritize game damage assistance for landowners in areas with over-objective populations.
8. Liberalize kill permits for landowners who are suffering inordinate game damage.
9. More aggressively relocate problem elk from private property.
10. Increase the amount of the Unlocking Public Lands Program tax credit.
11. Prioritize opportunities for land transfers with private landowners.
12. Increase landowner payments for block management.
13. Establish a wildlife-use agreement program to “rent” ranches for public hunting.
14. Implement transferable big-game permits for landowners in exchange for free hunting access.
15. Increase transparency and base decision-making on objective standards.
16. Require population objectives to be met before considering hunt quality or trophy opportunity.
17. Increase flexibility in season setting.
18. Utilize a liberal general hunting season, with damage and late-season hunts as a last resort.
19. More aggressively manage predators to re-establish historic elk ranges and migration patterns.

Elk populations are chronically over objective

In 1978, FWP estimated 55,000 elk in Montana. That population has tripled over the last 42 years, with an estimated 175,000 elk today.²

Elk populations have exceeded the objective levels in many districts around the state from the advent of the current Elk Management Plan adopted in 2005. In 2008, the first year for which data was collected, FWP reported 36 of 109 districts assessed (33%) were over population objectives.³

In 2017, the last year for which estimated elk numbers are included in the status report, FWP reported 67 of 107 districts assessed (63%) were over population objectives. However, FWP's methodology understates the magnitude of the problem. FWP's designated status of a district—over, at, or below objective—is based on the number of elk counted, not on the estimated number of elk in the district. Using FWP's elk population estimates, 86 of the 107 districts assessed (80%) in 2017 were over objective.⁴

86 of 107 districts assessed (80%) in 2017 were over objective

FWP's obligation to manage elk populations at objective levels is more than good practice—it's the law. MCA 87-1-323 mandates that the Department manage big game populations to reach objective levels. Yet for years FWP has been derelict in its duty to meet the requirements of this law.

MCA § 87-1-323. Viable elk, deer, and antelope populations based on habitat acreage—reduction of populations as necessary

(1) *Based on the habitat acreage that is determined pursuant to 87-1-322, the commission shall determine the appropriate elk, deer, and antelope numbers that can be viably sustained. The department shall consider the specific concerns of private landowners when determining sustainable numbers pursuant to this section.*

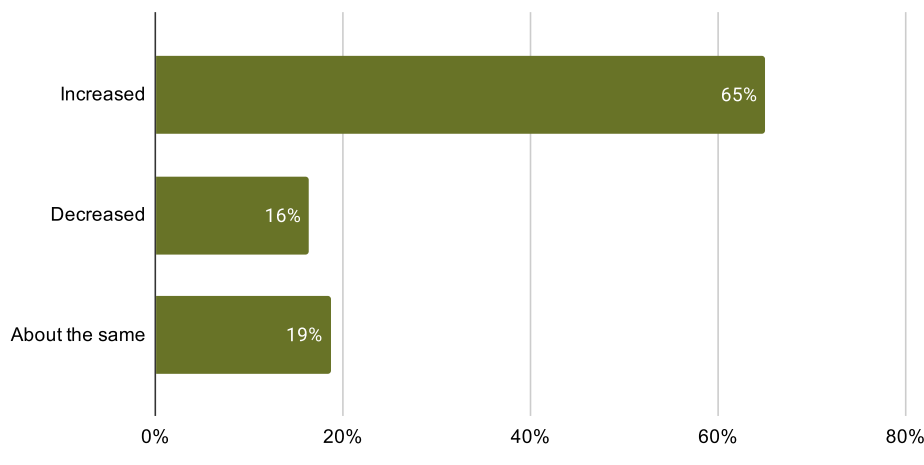
(2) *Once the sustainable population numbers are determined as provided in subsection (1), the department shall implement, through existing wildlife management programs, necessary actions with the objective that the population of elk, deer, and antelope remains at or below the sustainable population. The programs may include but are not limited to:*

- (a) *liberalized harvests;*
- (b) *game damage hunts;*
- (c) *landowner permits; or*
- (d) *animal relocation.*

(3) *The department shall:*

- (a) *manage with the objective that populations of elk, deer, and antelope are at or below the sustainable population number by January 1, 2009; and*
- (b) *evaluate the elk, deer, and antelope populations on an annual basis and provide that information to the public.*

Would you say the number of elk on your property has increased or decreased over the last decade?



Sixty-five percent of survey respondents reported both an increase over the past decade in the number of elk on their property and the frequency with which they see elk. Only 16 percent reported a decrease.

Survey respondents were also asked what they thought of elk populations in their area. Fifty-five percent thought elk populations were greater than they should be, with 37 percent responding that populations are “far greater than they should be.”

FWP has limited hunting opportunity even in districts that have been over objective year after year. For instance, FWP has limited permits in some areas in order to create “trophy” hunting opportunities. These policies fly in the face of FWP’s statutory obligation to manage populations to objective levels.

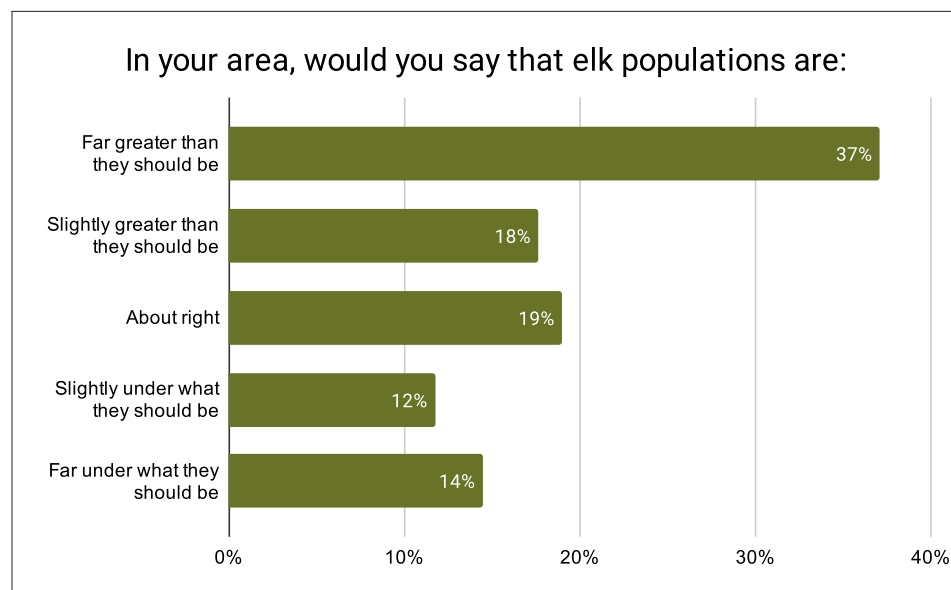
A large majority of landowners—sixty-four percent—oppose FWP’s practice of adopting limited permits, or other policies, that limit hunting in an area that is over objective.

FWP most frequently uses limited permits in Central and Eastern

Montana districts, rarely in Western Montana districts. This uneven treatment in policy has led to resentment by landowners who are struggling with over-objective populations.

Limiting hunting opportunity in areas that are over objective is nonsensical. Liberal general seasons should be utilized, and FWP should adopt a policy of prohibiting limited permits in any area that is at or over objective levels.

“The North American Model of Wildlife Conservation was born out of wildlife scarcity, but in the 21st century, we have a new challenge: wildlife abundance.”⁵



Recommendations:

- Eliminate limited permits in districts that are over population objectives.
- Adopt more liberal seasons to increase hunting pressure in areas that are over-objective.
- Provide alternatives to the general hunting season for landowners in areas with chronically over-objective elk populations.

Disease transmission represents a massive catastrophic risk for landowners who provide elk habitat

The prospect of disease transmission—between wildlife and livestock as well as between different wildlife species—is a catastrophic risk, and should be treated as the foremost concern in the Elk Management Plan.

The emergence of chronic wasting disease (CWD) in Montana cervid populations is a cause of grave concern. The prion that causes this fatal disease can be found throughout the body of an infected animal and could be transmitted to humans through meat consumption. The disease can be transmitted through the urine, feces, saliva, or blood of an infected animal.

The quarantine cost for a herd of 400 breeding cattle infected by brucellosis is estimated at \$140,000.

“Prions are known to remain infectious for very long periods of time in the environment...at least several years.”⁶ Decontaminating an infected area is virtually impossible, as prions survive deep cold, high heat, and ionizing radiation.⁷

CWD was first detected in Montana in 2017, and it has been found in elk, deer, and moose. “The number and distribution of infected wild and captive cervids has been steadily increasing.”⁸

The tail risk of CWD is massive. It would spell the end of hunting as we know it if the disease proliferates

through wildlife populations. Today fewer than 100 cases are being reported in Montana annually, but the numbers are trending up. If the disease continues to spread, a public health crisis could ensue, with meat consumption and carcass processing putting human populations at a high degree of risk.

There is also risk that CWD could jump to livestock populations. A fatal, decontamination-resistant prion disease found in livestock that could be transmitted to humans through meat consumption would be a perfect storm of disaster for Montana’s agriculture economy.

Montana FWP has developed a plan to monitor for CWD, including free testing of harvested animals. This is a good first step, but a more aggressive and comprehensive plan should be implemented to ensure CWD is contained. This must be a primary component of the next Elk Management Plan.

Brucellosis has long been a disease of concern related to elk. Brucellosis is caused by a bacterial infection that can be transmitted from an infected animal to livestock and humans. Hunters are at increased risk of exposure when field dressing an infected animal, although brucellosis in humans is treatable with antibiotics, and is rarely fatal.

Of greater concern are the health effects on livestock. In cattle, brucellosis causes “decreased milk production, weight loss, abortion, and infertility.”⁹ Though brucellosis has largely been eradicated from cattle herds nationwide, “sporadic transmission from wildlife to cattle

in and around the Greater Yellowstone Ecosystem has been on the increase.”¹⁰

Brucellosis presents a substantial risk for ranchers who provide elk habitat. The quarantine cost for a herd of 400 breeding cattle infected by brucellosis is estimated at \$140,000.¹¹

Under the current Elk Management Plan, the entirety of the financial risk from brucellosis in public elk herds has been transferred to ranchers who provide habitat. This scenario creates an obvious inequity as well as a stark limiting factor on landowner tolerance of elk.

“If we improve habitat (for elk) we’re basically shooting ourselves in the foot because of the increased brucellosis risk.”¹³

Mitigating the risk presented by CWD, brucellosis, and other diseases should be of paramount importance in the next Elk Management Plan.

PERC has suggested the idea of a financial-risk transfer tool that would operate as insurance for landowners to help defray losses related to disease transmission from public wildlife:

“(Cost) sharing could be in the form of directly reimbursing ranchers for wildlife-related costs or, more likely, in the form of paying the premiums for an insurance mechanism that

would reimburse ranchers for (disease)-related losses. The third party could be any public or private entity—or combination thereof—who benefits from elk and is interested in improving elk habitat on private lands.”¹²

A disease risk-mitigation program would most effectively be implemented through a collaboration of the Department of Livestock and the Department of Fish Wildlife and Parks, with the former running the program and the latter provid-

ing funding support.

Though it is up to the legislature to design a disease risk-mitigation program, the next iteration of the Elk Management Plan can provide important direction and parameters.

Addressing disease transmission is of primary importance to both landowners and sportsmen, and needs to have prominent role in elk management discussions.

“People who directly benefit from wildlife conservation should share in the costs that wildlife impose.”¹⁴



Recommendations:

- Implement a publicly-funded, disease risk-transfer tool to mitigate financial risk faced by landowners who provide elk habitat.
- Expand testing for CWD, with aggressive testing efforts by FWP in areas where CWD has been detected.

Landowners are suffering increasing crop and forage damage

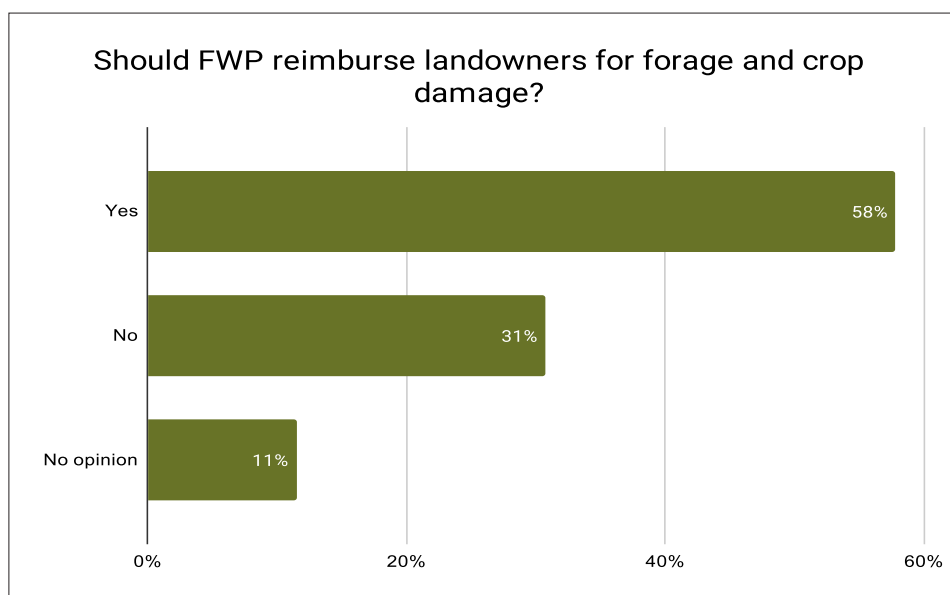
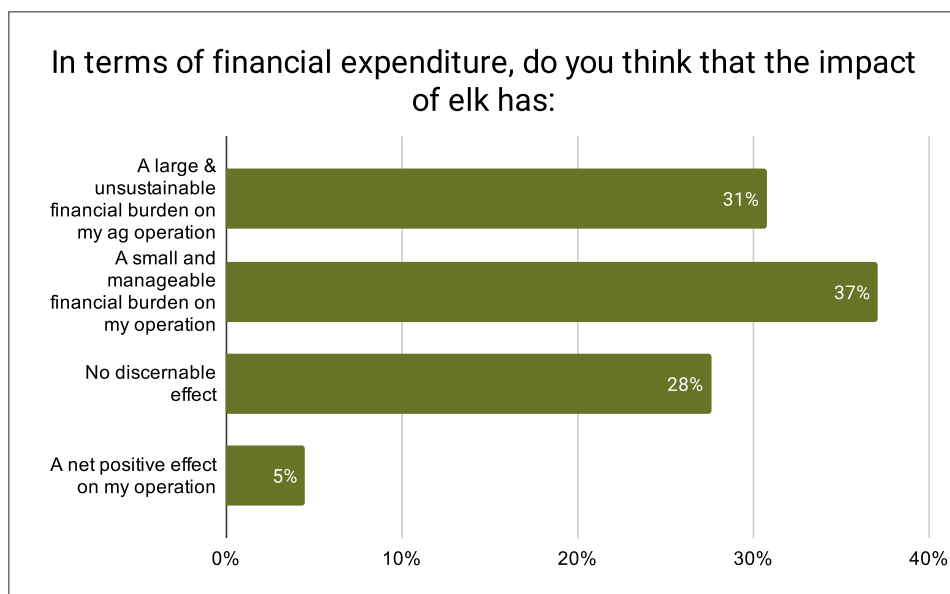
It's estimated the value of forage on private land consumed by elk in Montana is \$24.4 million annually.¹⁵ If elk populations were at their objective levels (92,000 animals), the value of forage consumed would be \$12.7 million annually. In other words, chronically over-objective elk populations cost Montana landowners \$11.7 million annually in forage alone.

Some elk herds in Montana "spend up to 80 percent of their time in winter on private lands."¹⁷

Writing in 2006, Jim Knight, wildlife specialist at the Montana State University Extension Service attempted to quantify the cost of big game to landowners:

"A study in southwestern Montana looked at the rancher's cost of having elk. The study found that without elk the ranches could support from 86 to 166 more cattle. The added income to these ranches would be (\$4,960) to (\$24,550) if they had no elk to support...Another study in Montana showed big game caused an average monetary loss of (\$7,412) per landowner due to forage consumed on hay fields."¹⁶

Sixty-eight percent of landowner respondents to our survey reported a financial burden related to elk on their property. Thirty-one percent responded that elk have "a large and unsustainable financial burden."

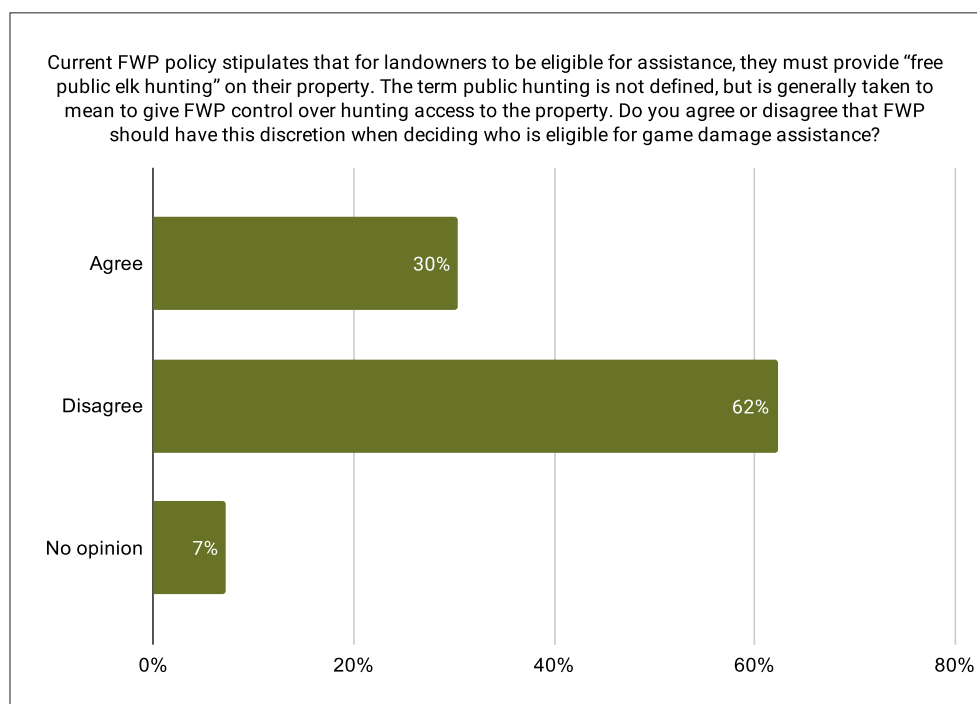


Survey respondents showed a great deal of support for game damage assistance programs, with 61 percent favoring the program as an effective management tool. However, of those, only 12 percent were satisfied with the current structure of the program—there was a strong sentiment that "FWP's policies are too restrictive" and that "FWP should expand the availability of game damage assistance."

There was strong opposition to FWP's existing policy of only allowing game damage assistance to landowners who allow FWP to control hunting access to their property—by a 2 to 1 margin landowners disapproved of the policy.

Responses to Survey Question 8—Game damage assistance from FWP has primarily been in the form of fencing materials to protect haystacks. Which statement most agrees with your view of FWP’s use of game damage assistance?

- *Our experience with requesting fencing materials from FWP was very negative. We were told that we needed to provide pictures of the elk actually doing the damage, cost estimates of the damage, dates, times and a few other items of documentation. Plus participate in their “Block Management Program”. Yet two parties on the Powder River told us that FWP provided all the materials, some of the labor and brought lunch (!) to their construction of stack yards. We certainly didn’t get that treatment.*
- *I build my own elk fence because I want to control who hunts on my land. I do allow free hunting for elk for people I do not know, but I want to control who and when. I am not happy about letting people hunt when I have lived here for 37 years and have never got a rifle permit. So I am suppose to let these people hunt while I repair damage from elk. Seems like a bunch of crap to me.*
- *Need to increase budget for game damage. FWP keeps buying more land, but the game damage funds are always gone before years end. Not enough to go around.*



Recommendations:

- Eliminate policy on granting game damage assistance only to landowners who give up control of access to their property.
- Prioritize game damage assistance for landowners in areas with over-objective populations.
- Liberalize kill permits for landowners who are suffering inordinate game damage.
- More aggressively relocate problem elk from private property.

FWP provides few incentives to landowners to provide access for elk hunting

An FWP survey of 1,418 landowners provides insight into the type of access provided by landowners with elk. Ninety-six percent of landowners with elk allow some form of hunting on their property. Of those who allow hunting, 16 percent were enrolled in Block Management and receive compensation from the state, 80 percent allowed hunting with no compensation, and only 4 percent utilized outfitting, lease arrangements, or access fees.¹⁸

According to data compiled by Montana FWP, 96 percent of Montana landowners with elk allow the public to access their property for elk hunting with no fee to the hunter.

It's important to recognize that the costs that come with elk hunting will tend to incentivize landowners to place limits on how much access they provide—whether they are compensated for that access or not. Those costs include time required to manage hunters, and time and money required to repair property damage.

Through incentive programs, the state has the capacity to bring into alignment the interests of hunters and landowners, a point emphasized by economists like Reed Watson:

One approach to minimizing wildlife-landowner conflicts is to share the benefits and burdens of wildlife stewardship between the state and

private landowners—in essence to unify the split estate so that private habitat owners have an incentive to act as stewards of the public's wildlife resources.¹⁹

Providing incentives to landowners has been a woefully underutilized tool by Montana Fish Wildlife & Parks.

FWP's only program to incentivize landowners to open access to their property is Block Management. However, the program has seen reduced participation from landowners in recent years, likely the result in reduced payments over time.

The enhanced block management program was established in 1995. At that time, the maximum a landowner could get for a hunter day was \$10.²⁰ Block management payments have not been increased over the ensuing 25-year period, resulting in their real value today being roughly half of the original.

Over those 25 years, the recreational value of land has increased. Agriculture real estate now has a premium value if it provides good habitat for big game.

These diverging trends—a decrease in the amount the state is willing to pay for access and an in-

crease in the private market for access—will over time result in less opportunity for public hunters.

FWP should recognize they are in the same market as private individuals. To increase hunting opportunity for the public, FWP should

Block management payments have been reduced by nearly half over the past 25 years

be willing to pay more for block management.

At one time, block management had 9 million acres enrolled. By 2015, enrollment was down to 7.4 million acres, roughly a 20 percent decrease.²¹ It's clear block management needs to be reformed in order to increase landowner participation and hunter opportunity.

A majority of survey respondents had a negative view of the current block management program, with 12 percent saying the program is not effective and should be eliminated, and 41 percent agreeing that it could be an effective tool but that the “program should be reformed in order to attract more landowners to participate.”



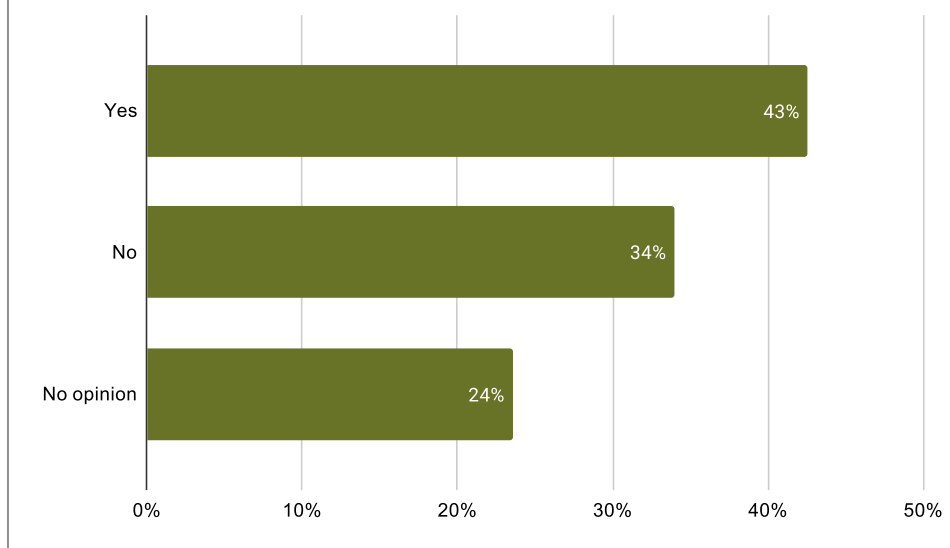
But block management is only one tool in FWP's toolkit. Other incentive programs need to be developed in order to achieve effective elk management. One solution to increase hunter access, as well as landowner tolerance of elk, are wild-life-use agreements, or "elk rents," a concept developed by PERC:

The agreements could compensate ranchers for the costs of allowing elk to migrate across their lands or of separating elk and cattle during calving season. Such an "elk rent" program could be funded with private funds raised by willing conservation interests and organizations that support wildlife migrations or by a public-private partnership and would be guided by real-time observations of elk movements, densities, and occupancy times. In the process of developing a model for wild-life-use agreements, the ecological, financial, and policy dimensions of such agreements need to be carefully considered and incorporated into their design.²²

FWP could adapt the wild-life-use agreement concept to "rent" entire ranches to provide a high-quality hunting opportunity for public hunters while meeting the needs of private landowners.

Another incentive solution that has worked well in other states are transferable landowner hunting

Several states have had success in using public-private partnerships for elk management that incentivize landowners to provide more free hunting access and improve habitat in exchange for transferrable big-game hunting permits.



tags. Transferable tags would reward landowners who provide good habitat for elk and access to the public. In exchange for meeting certain access and habitat requirements, landowners would receive tags that would be valued at market rates.

The states of Washington, Oregon, California, Nevada, Utah, Colorado, and New Mexico utilize transferable tags as part of their elk management plans.²³

Simply put, landowners have not been given the right incentives to open their property to hunting.

"Whether private landowners manage their property for the benefit or detriment of the public's wildlife depends on private landowners' view of wildlife as either an asset or a liability."²⁴

Recommendations:

- Increase landowner payments for traditional block management.
- Establish a wildlife-use agreement program to "rent" ranches for public hunting.
- Implement transferable big-game permits for landowners in exchange for free hunting access.

About 4 percent of public land in Montana is landlocked and inaccessible for hunting without landowner permission

It's estimated there are about 1 million acres of public land with elk that are landlocked by private land and not accessible without permission from private landowners.²⁵

A 2013 analysis by the Department of Fish, Wildlife, and Parks found that 3,116,800 acres (4,870 square miles) of public land cannot be accessed by a legal road or water access. Of the inaccessible land...a total of 978,647.6 acres (1,529.13 square miles) lies in areas elk may inhabit.²⁶

That's about 4% of public land in Montana that lies within territory occupied by elk.²⁷

In 2015, the legislature enacted a tax credit for landowners who give access across their property to reach public land that is otherwise inaccessible. SB 309 (2015) increased the Unlocking Public Lands Program tax credit to \$750, and capping the eligibility for the credit at \$3000 per taxpayer.

96% of public land in Montana is accessible for elk hunting.

However, the Unlocking Public Lands Program has not succeeded in gaining much access for hunters.

The issue is likely that the amount of the credit is set too low. FWP should be given the authority to negotiate with landowners who want larger amounts to compensate them for the costs that come with allowing members of the public to cross their property.

In addition, FWP should prioritize opportunities for land swaps with landowners who have landlocked parcels. Though accessibility to public land is a minor problem in the grand scheme of elk management, there are simple fixes at hand to improve access.



Recommendations:

- Increase the amount of the Unlocking Public Lands Program tax credit.
- Prioritize opportunities for land transfers with private landowners.

The general hunting season has not been effective at managing elk populations

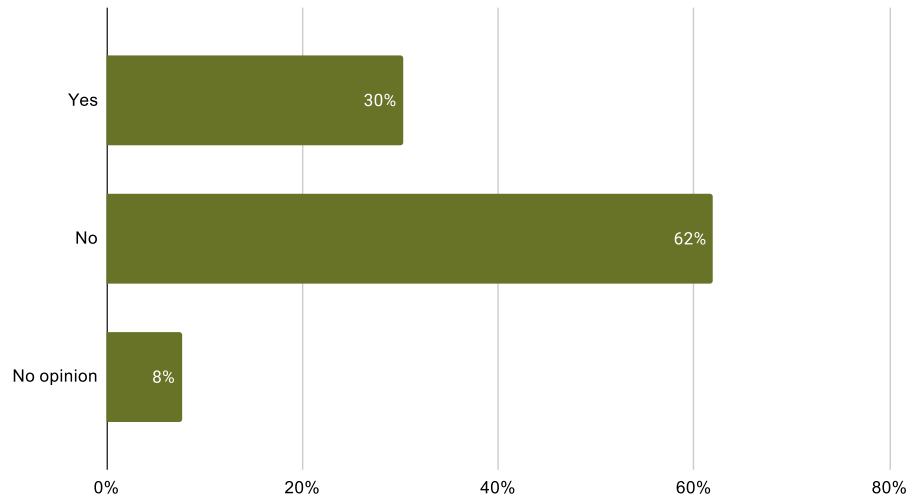
Over the past twenty years, the Department has focused on using the General hunting season as the primary management tool for elk. However, as escalating elk populations show, this policy has failed.

Almost 2/3 of survey respondents agreed that the general hunting season was not an effective management tool in their particular area, indicating that FWP needs to employ other tools to control elk populations.

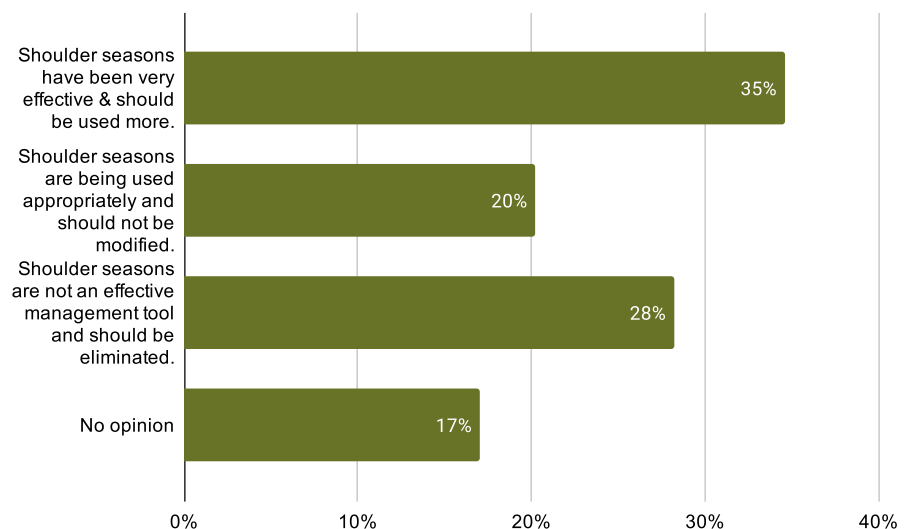
Respondents were split on whether the general hunting season should be based on a set calendar duration (42 percent favoring) or if the season should be open ended until a harvest quota is met (37 percent favoring).

Though current policies have failed, effective elk management is possible through the general season if the proper incentives are in place for landowners. A liberal hunting season should be utilized, with late season and damage hunts used as a last resort.

The general hunting season is FWP's primary tool for managing elk populations. Has the general hunting season been an effective management tool in your area?



Which statement most agrees with your view of shoulder seasons?



Recommendations:

- Increase flexibility in season setting
- Utilize a liberal general hunting season, with damage and late season hunts as a last resort.

License policies need to reflect science, not politics

There is a perception among landowners that FWP's policy setting is highly susceptible to political pressure and that the Department is more responsive to politics than science. This attitude is reinforced when populations are chronically over-objective and FWP is perceived as not doing enough to relieve pressure on landowners.

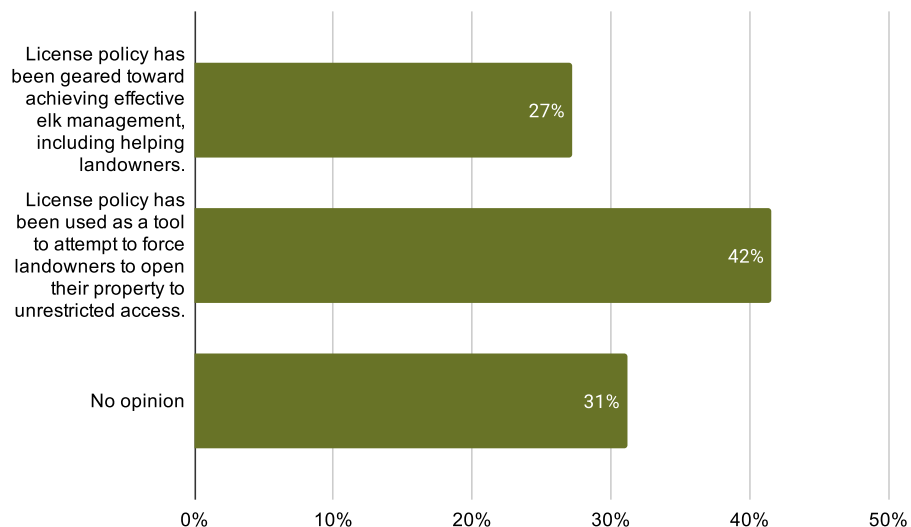
The result has been that landowners do not trust FWP.

The Department of Fish Wildlife and Parks needs to address this perception problem by increasing transparency in decision making, and avoiding ambiguous and subjective policies (for example, defining the term "public hunting").

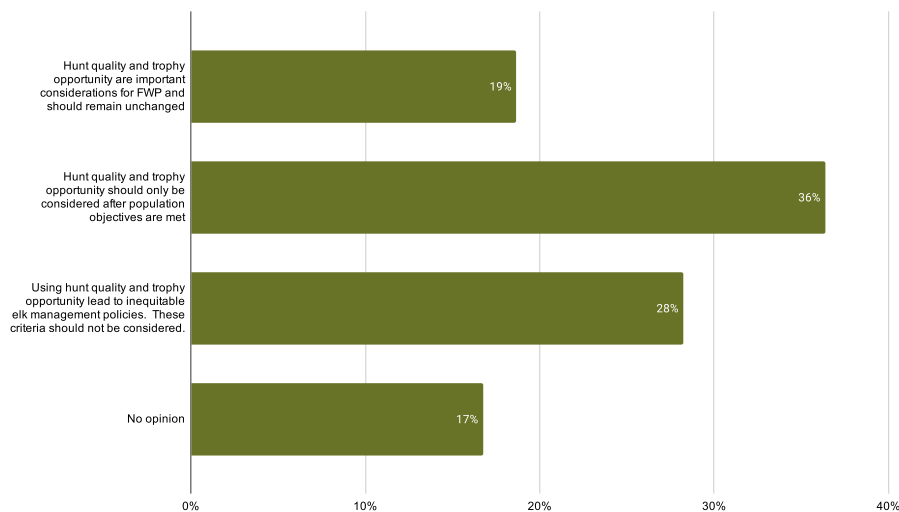
A primary example of the arbitrary nature of FWP management policy is in limiting hunting in some areas in order to create trophy opportunities, despite populations remaining over-objective. This is the type of policy outcome that results when politics trumps science in FWP decision making.

Elk management is improved overall when decisions are transparent and based on objective standards.

Which statement most agrees with your view regarding FWP's policies on elk licenses:



FWP has set management policies in some areas (mostly Eastern Montana) to emphasize trophy opportunity and hunt quality, while adopting more liberal management policies in other areas (mostly Western Montana). Which statement regarding hunt quality and trophy opportunity do you most agree with?



Recommendations:

- Increase transparency and base decision-making on objective standards.
- Require population objectives to be met before considering hunt quality or trophy opportunity.

More aggressive predator management will help distribute elk

Increasing wolf and grizzly populations have resulted in more elk seeking refuge on lower ground, which has exacerbated pressure on landowners.

Several respondents to our survey identified predator management as integral to elk management. Increasing pressure from predators has caused elk to seek refuge in lower areas, which tend to be private property. Reducing predator numbers will relieve pressure on private land and result in more elk on public land.



Select survey responses:

- *Wolf management is my issue. We never had this many elk on our place until wolf reintroduction happened. Our mountains are sterile and landowners like me pick up the tab with what's left of our elk herds living full time in the valleys eating my alfalfa and giving birth on the place free of wolves. The public now views me as a elk laden landowner not willing to give permission to every Tom, Dick, and Harry that wants to kill an elk, when I realize the numbers are low and they need a break from the natural pressures.*
- *Less wolves and bears to keep elk in their historic ranges and migration patterns.*
- *Continue with the landowner preference until wolf numbers are low enough that elk will return to the mountainous terrain and thrive in numbers. Otherwise you are mis-appropriating monies that be spent on wolf mitigation and management.*
- *Landowners should be reimbursed when elk damage hay stacks or crops do to hunting pressure pushing elk on them or predators doing the same. Wolf and grizzly bears push elk onto private property to seek safety.*

Recommendations:

- More aggressively manage predators to re-establish historic elk ranges and migration patterns.

Conclusion

Poor elk management has resulted in chronically over-objective elk populations in many areas of the state. The costs of that mismanagement are borne entirely by Montana landowners. An update to the statewide Elk Management Plan presents an opportunity to remedy this situation in order to treat landowners more equitably and improve hunting opportunity.

This report presents several policy prescriptions that would improve elk management in Montana.

Each option should be viewed with the goals of achieving sustainable populations, increasing hunting opportunity, and addressing the problems that poor elk management has created for Montana landowners.

If we want landowners to provide good habitat for our big game populations, we have to provide the right incentives. Today the benefits of large elk herds are enjoyed by sportsmen and other who value elk, but the costs are borne by landowners. To continue to shift this burden

to landowners is unfair and unsustainable.

Elk management need not be divisive or punitive. Solutions are at hand that would benefit all stakeholders. Let's focus on those policy prescriptions that bring people together.

Fundamentally landowners are the only ones with real skin in the game. Policy failures hit them squarely in the pocketbook. It's time management policy prioritizes their needs.



Endnotes

- 1 “Public wildlife on public land: Unifying the split estate to enhance trust resources,” Reed Watson, Duke Environmental Law & Policy Forum, 2013
- 2 “Roads, Land, & Big Game Harvest,” Environmental Quality Council House Joint Resolution No. 13, August 2015 Draft Report, pg. 2. <https://leg.mt.gov/content/Committees/Interim/2015-2016/EQC/Committee-Topics/hj-13/hj13-draftreport-forcommentaugust2016.pdf>
- 3 “2008 Elk Objective and Status,” Montana Fish Wildlife and Parks, <http://fwp.mt.gov/fwpDoc.html?id=36361>. An additional 52 districts were not assessed for various reasons in 2008.
- 4 “2017 Elk Objectives and Status, Montana Fish Wildlife and Parks, <http://fwp.mt.gov/fwpDoc.html?id=81897>
- 5 “Rethinking the North American Wildlife Model,” Brian Yablonski, June 2019, <https://www.perc.org/2019/06/19/rethinking-the-north-american-wildlife-model/>
- 6 “Chronic Wasting Disease,” Montana Fish Wildlife and Parks, <http://fwp.mt.gov/fishAndWildlife/diseasesAndResearch/diseases/chronicWastingDisease/default.html>
- 7 “Prions, prion diseases and decontamination,” M.J. Jung et al, 2003, <https://pubmed.ncbi.nlm.nih.gov/14981553/>
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- 9 “Brucellosis Health Program,” Montana Fish Wildlife and Parks, <http://fwp.mt.gov/fishAndWildlife/diseasesAndResearch/health-Programs/brucellosis/>
- 10 “Brucellosis Health Program,” Montana Fish Wildlife and Parks
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