

Program Evaluation

Wildlife Conflict Management

DFWP Wildlife Division



ENVIRONMENTAL QUALITY COUNCIL

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Introduction

The Environmental Quality Council is required to evaluate programs within the Department of Fish, Wildlife, and Parks (DFWP) pursuant to 75-1-324, MCA. That law requires in part that the EQC, “review and appraise the various programs and activities of the state agencies, in the light of the policy set forth in 75-1-103, for the purpose of determining the extent to which the programs and activities are contributing to the achievement of the policy and make recommendations to the governor and the legislature with respect to the policy”.

The policy reads as follows:

The legislature, recognizing the profound impact of human activity on the interrelations of all components of the natural environment, particularly the profound influences of population growth, high-density urbanization, industrial expansion, resource exploitation, and new and expanding technological advances, recognizing the critical importance of restoring and maintaining environmental quality to the overall welfare and human development, and further recognizing that governmental regulation may unnecessarily restrict the use and enjoyment of private property, declares that it is the continuing policy of the state of Montana, in cooperation with the federal government, local governments, and other concerned public and private organizations, to use all practicable means and measures, including financial and technical assistance, in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which humans and nature can coexist in productive harmony, to recognize the right to use and enjoy private property free of undue government regulation, and to fulfill the social, economic, and other requirements of present and future generations of Montanans.

At its June 2015 meeting, the Council allocated 272 hours of staff time, or about 45 hours apiece, to evaluate six programs within the DFWP Wildlife Division. In September 2015, the EQC will begin this review with a look at Wildlife Conflict Management.

According to the DFWP, five main elements spanning multiple bureaus compose Wildlife Conflict Management. They are:

- Game damage (Landowner/Sportsmen Relations Bureau)
- Wildlife health management (Research & Technical Services Bureau)
- Human safety (across multiple bureaus)
- Urban wildlife (Game Management Bureau)
- Livestock depredation (Game Management Bureau)

Financial Snapshot

In Fiscal Year 2015, personal services and operational expenses specifically attributed to wildlife conflict management include 16.4 FTE and \$1.64 million¹. Of that, bear and lion conflict management amounted to 43.4%, wildlife health management accounted for 39.4%, and game damage tallied 17.2%. The majority of the funding came from federal Pittman-Robertson funds (\$577,300 or 35.2%), general license revenue (\$549,000 or 34.7%), and other federal funds (\$411,650 or 25.1%).

Keep in mind, these figures do not reflect the full cost of wildlife conflict management. Aspects of this work are found throughout DFWP's divisions and budget lines. For instance, division administrators, bureau chiefs, wardens, and biologists often play a role in managing and responding to wildlife conflict. However, their time is typically not coded in a way that reflects their involvement.

¹ This figure does not include the \$110,000 that the DFWP pays to the U.S. Department of Agriculture's Wildlife Services for wolf management.

Game Damage

Background

The DFWP uses a combination of proactive and reactive measures to address game damage, ranging from the general hunting season to management hunts², the game damage assistance program, and the issuance of supplemental game damage licenses.

The basic framework of Montana's current-day game damage assistance program was enacted in 1957. Though details are limited, the bill's sponsor, Senator Walter Sagunsky (R-Madison County), discussed "major problems of ranchers living in territory over-run by game" according to the minutes of the Senate Committee on Fish and Game.

The program provides technical and material assistance to private landowners who experience game damage to real property or cultivated agricultural crops³. To qualify, 87-1-225, MCA, says landowners must allow public hunting and may not significantly reduce public hunting through imposed restrictions⁴.

ARM 12.9.803 further states that for eligibility, public hunting must be allowed at levels and in ways sufficient to effectively aid in management of area game populations. The ARM defines restrictions that may significantly restrict public hunting to include:

- (a) species or sex of animals hunters are allowed to hunt;
- (b) portion of land open to hunting;
- (c) time period land is open to hunting;
- (d) fees charged; or
- (e) other restrictions that render harvestable animals inaccessible.

Exceptions are allowed on property where public hunting is denied because of a unique or special circumstance that renders public hunting inappropriate. This includes property where hunting is not permitted because of legitimate safety reasons or game animals are not present during the general season⁵. "Homeowners in subdivisions or locations where primary land use does not involve agricultural crop or livestock production are not eligible for assistance. However, the department can advise them on how they can reduce or eliminate game damage issues they are experiencing."⁶

DFWP is required by 87-1-225, MCA, to investigate a complaint of game damage within 48 hours and arrange to study the situation. The 48-hour provision was enacted by the 1987 Legislature in response to problems that sponsoring Representative Ed Grady said some people had with getting the DFWP to respond in time to save an alfalfa seed crop or a

² Management hunts are currently called management seasons. A name change is proposed via rulemaking in progress. This program evaluation utilizes the proposed name change.

³ Game Damage Program Policies and Guidelines, Department of Fish, Wildlife, and Parks, July 2014, page 2.

⁴ The 1989 Legislature added the public hunting requirements amongst discussion that hunting pressure can help alleviate game concentrations and subsequent damage problems.

⁵ Game Damage Program Policies and Guidelines, Department of Fish, Wildlife, and Parks, July 2014, page 2.

⁶ Game Damage Program Performance Audit 14P-06, Montana Legislative Audit Division, May 2015, page 7.

haystack. (At the time, the DFWP had an internal policy of responding to complaints within 48 hours. But agency officials said a court ruling requiring overtime for enforcement hours in excess of 40 hours per week hampered its abilities in a number of response areas, including game damage⁷.)

If the DFWP substantiates a game damage complaint, the department may then decide to open a special season on the game (known as a game damage hunt) or, if a special season is not feasible, 87-1-225, MCA, says DFWP may destroy the animals causing the damage or authorize the holders of the property to kill or destroy a specified number of the animals.

ARM 12.9.802 allows for nonlethal methods as well, including:

- (a) herding as a temporary measure;
- (b) employing a variety of dispersal methods, such as airplanes, snowmobiles, cracker shells, and scareguns;
- (c) using repellents as temporary solutions;
- (d) using fencing if the problem is chronic and involves haystacks and other stored crops; and
- (h) netting or mechanical devices to reduce tree damage.

Physical barriers such as fencing and stackyards account for half of all assistance provided.⁸

A recent legislative performance audit found that elk are the biggest source of game damage (56%), followed by deer (32%).⁹ The DFWP says complaints vary year-to-year depending on climate conditions.

The DFWP's elk and deer management plans incorporate game damage objectives, implementing them largely through general season hunting activity. In addition, the DFWP may use management hunts "as a proactive tool to prevent or reduce potential damage caused by large concentrations of game animals"¹⁰ that are the result of:

- seasonal migrations;
- extreme weather conditions;
- restrictive public hunting access on adjacent or nearby properties during the general season; and
- other factors that render animals otherwise unavailable during the general season¹¹.

The DFWP says management hunts are larger in scope than game damage hunts and typically involve multiple properties. To qualify to be included in a management hunt, landowners must meet the same public hunting requirements as the game damage assistance program. The DFWP says management hunts have replaced late season hunts, which the department moved away from in 2006.

⁷ Minutes, House of Representatives Fish and Game Committee, January 22, 1987, page 4.

⁸ Game Damage Program Performance Audit 14P-06, Montana Legislative Audit Division, May 2015, page 11.

⁹ Ibid, pages 11-12.

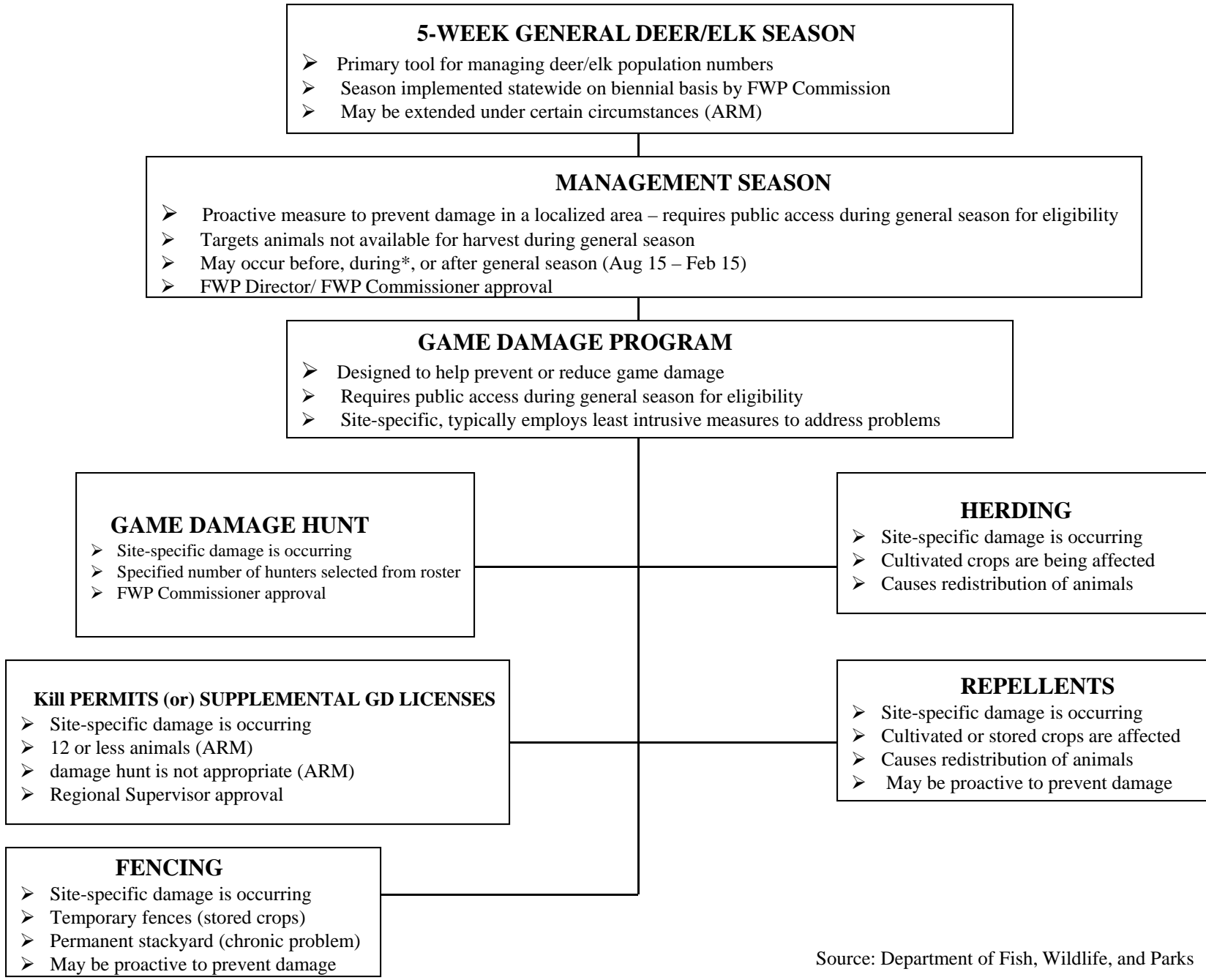
¹⁰ Management Seasons Policy/Guidelines, Department of Fish, Wildlife, and Parks, November 2014, page 1.

¹¹ Ibid.

The DFWP is currently considering adding shoulder seasons before or after the archery or general rifle season where needed to reduce elk populations that are over objective. The seasons could be used August 15 to February 15. Public comment was recently sought on the idea. The Fish and Wildlife Commission is expected to make a final decision on whether to include shoulder seasons as an option in the 2016 and 2017 hunting seasons at its October 8, 2015, meeting.

Another game damage tool authorized by the Legislature in 2001 is the issuance of supplemental game damage licenses. The DFWP says these are used for a quick, surgical strike on a property where fewer than 12 animals are involved. The licenses only authorize the take of antlerless animals and may be issued in lieu of issuing a kill permit to the landowner.

A chart detailing the DFWP's current game damage tools is found on the next page.



Source: Department of Fish, Wildlife, and Parks

Fiscal Overview

As previously noted, aspects of wildlife conflict management and response, including game damage, can be found throughout the DFWP's divisions and budget lines. The time a warden or biologist spends responding to a call may not be specifically recorded to the game damage program, which makes a full accounting of expenses difficult.

In Fiscal Year 2015, the DFWP specifically attributed \$172,457 in operating expenses and \$110,481 in personal services (2.12 FTE) to game damage (see below table). The program is funded entirely with general license revenue.

| FY 2015 Game Damage Conflict Expenditures* | | | | | | | | | |
|--------------------------------------------|--------------|---------------|---------------|---------------|---------------|--------------|--------------|---------------|----------------|
| | Region 1 | Region 2 | Region 3 | Region 4 | Region 5 | Region 6 | Region 7 | HQ | Total |
| Game Damage PS | 3,118 | 37,069 | 12,373 | 29,818 | 10,940 | 1,279 | 1,659 | 11,220 | 107,476 |
| Game Damage OE | 194 | 10,804 | 4,863 | 15 | 179 | 445 | 1,406 | 124 | 18,030 |
| Wildlife Crop Damage PS | - | 29 | 197 | 1,479 | - | - | - | 1,301 | 3,005 |
| Wildlife Crop Damage OE | 123 | 21,389 | 37,671 | 39,994 | 35,247 | 2,251 | 4,181 | 2,158 | 143,013 |
| Beehive/Bears OE | - | 4,818 | - | 732 | 184 | - | - | - | 5,735 |
| Other OE | 41 | 1,203 | 2,159 | 160 | 1,743 | 146 | 228 | - | 5,678 |
| Total | 3,476 | 75,312 | 57,263 | 72,198 | 48,292 | 4,122 | 7,473 | 14,803 | 282,938 |

PS = Personal Services
 OE = Operating Expenses
 *All funding for game damage conflict expenditures comes from general license revenue.

According to the recent legislative performance audit, the DFWP spent approximately \$1.5 million in Fiscal Years 2010 through 2014 on game damage materials, such as fencing, cattle panels, and stackyards.¹²

Table 2
Game Damage Material Expenditures
 Fiscal Years 2010 through 2014

| Fiscal Year | Region 1 | Region 2 | Region 3 | Region 4 | Region 5 | Region 6 | Region 7 | Total |
|--------------|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| 2010 | \$ 5,216 | \$ 61,834 | \$ 75,176 | \$ 52,962 | \$ 41,271 | \$ 54,982 | \$ 50,322 | \$ 341,763 |
| 2011 | 2,555 | 84,682 | 67,320 | 68,176 | 13,876 | 87,801 | 71,847 | 396,256 |
| 2012 | 2,187 | 72,413 | 30,157 | 58,928 | 33,997 | 55,025 | 36,923 | 289,630 |
| 2013 | 3,273 | 78,091 | 49,956 | 44,990 | 8,804 | 4,048 | 10,126 | 199,288 |
| 2014 | 3,002 | 68,201 | 47,740 | 90,922 | 7,904 | 40,895 | 66,950 | 325,614 |
| Total | \$16,232 | \$365,222 | \$270,349 | \$315,978 | \$105,852 | \$242,751 | \$236,167 | \$1,552,551 |

Source: Compiled by the Legislative Audit Division from department records.

The DFWP hopes that with some of the additional tools it's implementing (e.g., shoulder seasons) that the game damage program workload and expenditures will remain flat or stable.

¹² Game Damage Program Performance Audit 14P-06, Montana Legislative Audit Division, May 2015, page 35.

Audits

The Legislative Audit Division found room to improve the operation of the game damage assistance program in a recent performance audit. The LAD report included the following conclusions:

- Wildlife management plans and staff interviews found resolving game damage issues is a priority for the department. However, addressing game damage has become more complex with the department's shift to managing game populations within the 5-week general hunting season and changing ownership of private land around the state.
- Department staff have varying definitions of the level of public hunting landowners must allow to qualify for assistance.
- Not having a clear definition of the level of public hunting landowners must allow has led to inconsistent decisions on whether landowners qualify for assistance.

The audit included the following recommendations that the DFWP:

- expand and clarify policy for documenting game damage complaints and landowner eligibility reviews;
- expand and clarify timeline requirements for reviewing and approving documentation;
- define the role of regional supervisors, wildlife managers, warden captains, and game damage coordinators in reviewing and approving decisions regarding assistance provided to landowners;
- develop and implement policy for maintaining documentation;
- comply with administrative rule by providing landowners with written decisions, including landowner appeal rights, when assistance is denied;
- comply with administrative rule by submitting copies of written decision documents to the director's office when assistance is denied and landowners appeal;
- establish a clear definition of the public hunting requirements landowners need to meet to qualify for assistance;
- no longer use supplemental game damage licenses in conjunction with game damage hunts and management seasons to address game damage issues;
- amend administrative rules related to supplemental game damage licenses to allow individuals to possess up to two elk licenses as authorized by state law;
- prioritize and implement a management information system to better track, monitor, and improve accountability;
- update administrative rules and policies regarding the use and issuance of cracker shells and ammunition when responding to complaints;
- develop more comprehensive policies regarding oversight and administration of herding contracts;
- establish contracts in all regions that exceed \$5,000 in annual purchases for stackyard materials;
- purchase stackyard materials from contracted vendors in regions that have a contract;
- develop and implement policy on the staff responsibilities and expectations for monitoring contracts for game damage materials; and

- implement inventory controls to track inventory of game damage materials from acquisition to issuance to landowners.

The DFWP concurred with all but one of the audit recommendations and said it would take the necessary actions to clarify and make consistent departmental policies, administrative procedures, and documentation and to complete an information management system to ensure consistent documentation and implementation of the policies and procedures.

The DFWP partially concurred with the recommendation that it no longer use supplemental game damage licenses in conjunction with game damage hunts and management seasons. DFWP says it's not prohibited from using these licenses in this way. But the department agreed that rule and policy revisions were needed regarding how hunters with supplemental game damage licenses are selected for game damage hunts and management seasons. The department is currently rewriting its rules on these points.

The complete audit report is available at <http://leg.mt.gov/content/Publications/Audit/Report/14P-06.pdf>

In 2002, the Legislative Audit Division conducted a performance audit of the DFWP's Big Game Inventory and Survey Process and concluded the agency uses game damage information in its season and quota setting process. The audit found that "discussions for the quotas for most hunting districts included an examination of game damage complaints and if those areas being damaged allowed for public hunting or were next to areas that did not allow public access."¹³

¹³ Big Game Inventory and Survey Process Performance Audit 02P-05, Montana Legislative Audit Division, November 2002, page 49.

Wildlife Health Management

Background

According to the DFWP, wildlife disease is a growing, complex component of the health management and wildlife conflict management arenas. Diseases threaten wildlife populations, have potential economic impacts, and raise human health concerns. Pneumonia in bighorn sheep, brucellosis in bison and elk, and avian influenza are recent examples.

The DFWP's disease management efforts include surveillance, morbidity and mortality investigation, and risk mitigation led by the department's Wildlife Health Program staff in Bozeman. The staff includes the department's veterinarian, a veterinary technician, and a newly hired disease ecologist. The team trains other DFWP staff on wildlife handling and immobilization techniques, leads wildlife capture operations, provides technical expertise for various research projects, investigates human and wildlife conflicts, and performs other investigations/services as needed.

In recent years, the DFWP developed risk assessment and decision analysis tools to help wildlife managers and biologists prioritize and allocate resources for disease management. The resulting framework considered the following:

- discerning the trade-offs of managing disease outbreaks proactively or reactively;
- making decisions at a local (regional) level while reflecting statewide wildlife conservation objectives;
- maximizing wildlife population health;
- minimizing risks posed by wildlife;
- minimizing costs; and
- maximizing public satisfaction.¹⁴

The framework leaves room for alternative management actions that can be adapted to the specifics of each animal population.¹⁵

Before the new framework, the DFWP responded to disease events in a mostly reactive way.¹⁶ An example of more proactive steps the agency is now taking is the planned elimination of an entire herd of bighorn sheep in the Tendoy Mountains southwest of Dillon.

The herd, once numbering more than 150 sheep in the 1990s, now struggles to maintain a few dozen animals.¹⁷ The exact cause of the trouble is unknown, but pneumonia is suspected. There is no effective treatment for wild sheep. A herd can struggle for many years to recover once the disease is endemic in a population. The DFWP augmented the herd three times over the past 2 decades without success.¹⁸

This fall, the DFWP will implement a plan to use hunters to eliminate the herd, which could take at least 2 years. Once completed, the DFWP will bring a new group of bighorns to the

¹⁴ Using Structured Decision Making to Manage Disease Risk for Montana Wildlife, Mitchell, Michael S., et al, *Wildlife Society Bulletin* 37(1), page 107-108.

¹⁵ Ibid, page 109.

¹⁶ Ibid. page 108.

¹⁷ *Cleaning the Slate*, Dickson, Tom, *Montana Outdoors*, July-August 2015, page 27.

¹⁸ Ibid, page 28.

Tendoy. A successful transplant could help reduce populations that are over objective in other areas.

The DFWP is also changing its response to brucellosis in elk, which can be transmitted to cattle. Previously, the DFWP sent thousands of test kits to hunters in an effort to sample various species for disease. Only about 10% were returned and the usability of the samples was spotty.

Now, the DFWP targets its sampling around the border of the Department of Livestock's (DOL) Brucellosis Designated Surveillance Area, which stretches west and north of Yellowstone National Park to Lima, Dillon, Three Forks, and the Park County line east of Livingston. The DFWP captures elk in specific locations and collars about 30% of the animals to monitor their movement. Any cow elk that tests sero-positive for brucellosis and is determined to be pregnant receives a vaginal implant transmitter that the animal expels during birth or abortion. The DFWP tracks the locations of expelled materials and collects samples for brucellosis testing. Contact with birth materials from aborted fetuses is believed to be a primary transmission source for cattle.

Recently, the DFWP signed its sixth annual agreement with the DOL to continue brucellosis surveillance in Montana. Federal funding from the U.S. Department of Agriculture Animal and Plant Health Inspection Service pays for work at a cost of \$290,000 this year.

The DFWP says there is an obvious need to have a proactive wildlife health program, but it is difficult to do when there are so many emerging disease issues to deal with. Chronic wasting disease (CWD), present in Canada, Wyoming, and North and South Dakota, is a big risk for Montana's mule deer. The DFWP has identified the areas of Montana most at risk and is developing a surveillance strategy to detect CWD as fast as possible in order to limit its spread and effects on mule deer.

Another concern is epizootic hemorrhagic disease (EHD), which causes die-offs in antelope, whitetail deer, and mule deer. Die-offs are usually localized and last for a week or two. But in 2013, they were widespread in parts of DFWP Regions 4, 5, 6, and 7. The DFWP says EHD has crossed the Continental Divide in the past couple of years.

As the Wildlife Health Program continues to develop, and with issues and workload poised to grow, the DFWP says additional staff and funding will be needed. The DFWP says little base funding is available, especially for proactive monitoring. Therefore, the DFWP tends to direct its resources toward reacting to outbreaks. The agency seeks outside funding when and where possible.

The 2011 Legislature approved state special and federal spending authority for 3.0 FTE and operational support to implement the DFWP's new elk management strategy in hopes of minimizing brucellosis transmission between elk and livestock. However, the agency eliminated one of the FTE in response to legislatively mandated staffing cuts.

Fiscal Overview

Wildlife Health Management comprises 39.4% of the \$1.64 million in personal services and operational expenses that the DFWP attributes to wildlife conflict management. Wildlife Health is primarily funded with federal dollars – 41.6% from the Pittman-Robertson sporting goods excise tax program and 38.2% from other federal funds (primarily the USDA APHIS brucellosis surveillance funding). “Base” FTE are included FWP’s base budget and “soft” FTE are funded with outside monies, often special federal funding such as the USDA APHIS brucellosis surveillance funding.

| FY 2015 Wildlife Health Management Expenditures | | | | | | |
|-------------------------------------------------|-------------------|-------------------|--------------------|-------------------|----------|----------|
| | General License | Pittman-Robertson | Misc Federal Funds | Grand Total | Base FTE | Soft FTE |
| WILDLIFE LAB | 60,045.39 | 150,537.91 | | 210,583.30 | | |
| Personal Services | 28,849.54 | 86,550.85 | | 115,400.39 | 1.74 | |
| Operating Expenses | 26,145.85 | 48,837.06 | | 74,982.91 | | |
| Equipment & Intangible Assets | 5,050.00 | 15,150.00 | | 20,200.00 | | |
| | | | | | | |
| WILDLIFE VETERINARIAN | 27,583.27 | 82,748.06 | | 110,331.33 | | |
| Personal Services | 24,127.94 | 72,382.46 | | 96,510.40 | 1.00 | |
| Operating Expenses | 3,455.33 | 10,365.60 | | 13,820.93 | | |
| | | | | | | |
| WILDLIFE DISEASE RISK MGMT | 37,403.86 | 36,046.44 | | 73,450.30 | | |
| Personal Services | 17,110.47 | 17,330.17 | | 34,440.64 | 0.67 | |
| Operating Expenses | 20,293.39 | 18,716.27 | | 39,009.66 | | |
| | | | | | | |
| DOL Brucellosis Surv Plan | | | 205,176.89 | 205,176.89 | | |
| Personal Services | | | 38,093.39 | 38,093.39 | | 0.71 |
| Operating Expenses | | | 167,083.50 | 167,083.50 | | |
| | | | | | | |
| DOL Brucellosis Srvl Plan | | | 41,949.90 | 41,949.90 | | |
| Personal Services | | | 30,276.01 | 30,276.01 | | 0.62 |
| Operating Expenses | | | 11,673.89 | 11,673.89 | | |
| | | | | | | |
| Wildlife Disease Risk MGMT | 5,085.40 | | | 5,085.40 | | |
| Personal Services | 2,400.00 | | | 2,400.00 | 0.13 | |
| Operating Expenses | 2,685.40 | | | 2,685.40 | | |
| | | | | | | |
| TOTALS | 130,117.92 | 269,332.41 | 247,126.79 | 646,577.12 | | |
| Personal Services | 72,487.95 | 176,263.48 | 68,369.40 | 317,120.83 | 3.54 | 1.33 |
| Operating Expenses | 52,579.97 | 77,918.93 | 178,757.39 | 309,256.29 | | |
| Equipment & Intangible Assets | 5,050.00 | 15,150.00 | 0.00 | 20,200.00 | | |

Human Safety and Urban Wildlife

Background

The DFWP says it works to prevent conflicts between humans and wildlife through proactive outreach measures. When these are unsuccessful, animals must be captured and relocated or killed.

The DFWP has a long-standing “Living with Wildlife” program focused on responsibly living and recreating with wildlife that share the landscape. On its website, the DFWP provides suggestions on how to deal with wildlife when it enters a neighborhood, backyard, or even a home. Information on the damage that can be caused by wildlife and control tactics that can be used is available for a litany of species, including bats, beavers, bears, birds, deer, dogs, cats, squirrels, mountain lions, gophers, porcupines, rabbits, raccoons, skunks, snakes, ticks, woodrats, and packrats.

Most of the Wildlife Division’s focus is on interactions with bears and mountain lions. The DFWP’s western regions (Regions 1 through 5) field thousands of calls each year about these two species from homeowners, landowners, recreationists, hunters, and livestock producers. Most of the conversations are informational with individuals reporting sightings/observations or seeking information.

In the last 10 years, the DFWP’s Region 1, based in Kalispell, recorded seven incidents involving bears (three involving grizzlies) in which seven people were injured and an eighth was killed. Region 4, headquartered in Great Falls, recorded four grizzly bear/human interactions in which one person was injured.

In Region 2, based in Missoula, the majority of true conflict calls involve black bears. According to the DFWP, the number of black bear encounters recorded there in the last 3 years ranged from 235 in 2013 to 595 in 2012. So far in 2015, there have been about 150 complaints.

The DFWP says the number of complaints depends largely on weather and availability of natural bear foods. In 2012, 91% of the complaints in Region 2 involved residential attractants. The bulk of these were black bears accessing uncontained garbage and pet and livestock feed, bird feeders, and other attractants such as heavily watered lawns or fruit trees. Only 3% of Region 2’s encounters in 2012 involved homeowners, hikers, or hunters and black bears meeting at close range.

The number of mountain lion complaints in Region 2 averaged about 250 annually in the last 4 years. The DFWP says the number of complaints correlates directly to the availability of deer, elk, and turkeys inhabiting the area. In 2012, 77% of the complaints involved mountain lions seeking out natural prey species in and around home sites within riparian and foothill regions. Four percent of calls in 2012 involved humans encountering mountain lions at close range.

The DFWP says human and wildlife interactions within city limits or on the urban-rural interface of many Montana cities and towns continue to increase. Public safety concerns, property damage, concerns for the welfare of wildlife, and debate over growth policies are common elements of this issue.

In 2003, the Legislature authorized cities and towns to adopt plans to control, remove, and restrict game animals (deer, elk, moose, antelope, caribou, mountain sheep, mountain goat, mountain lion, bear, and wild buffalo) within their boundaries for public health and safety purposes. Proponents of the bill spoke about traffic hazards, roadkill removal, and deer jumping off parking structures, crashing through sliding glass doors, and drawing mountain lions into town.

The plans must be approved by the DFWP and may allow hunting and restrict the feeding of game animals. The hunting allowance was added by the 2005 Legislature based on the recommendations of a working group established to help implement the 2003 policy.

The Fish and Wildlife Commission has approved deer management plans for Fort Benton, Colstrip, Glendive, Ekalaka, Roundup, and Helena, though Ekalaka has not used its plan yet.

Most of the approved plans use hunters in “open space” portions of the community or areas outside or adjacent to city limits. The DFWP says larger communities typically have fewer or no opportunities for hunter participation and often struggle reconciling diverse citizen input on how or if deer should be lethally removed.

In Helena, city police or contracted services live-trap and euthanize deer. The meat is given to the local food bank. Between 2008 and February 2014, 670 deer were taken in Helena. According to the DFWP, the Helena program is generally deemed a success with reports of reduced deer-vehicle collisions and fewer instances of aggressive deer.

The DFWP says instances of individual deer, bears, lions, and moose within city or town limits are typically addressed on a case-by-case basis with the DFWP often taking the lead with coordination from city staff. Depending on circumstances, the DFWP says responses vary from monitoring an animal to lethal removal (lions, aggressive deer) to drugging and moving the animal (moose, bear). These responses are not dependent on a formal urban wildlife management plan being in place. Except for periodic instances involving individual moose or bear, the DFWP says urban wildlife are generally not relocated to other areas.

In 2001, the Legislature enacted the provisions of 87-6-216, MCA, which prohibit the intentional feeding of game animals to discourage behavior that promotes human/wildlife conflicts.

That same Legislature clarified that there was no criminal liability for the taking of wildlife that is attacking, killing, or threatening to kill a person or livestock, although for purposes of protecting livestock, a person may not kill or attempt to kill a grizzly bear unless the grizzly bear is in the act of attacking or killing livestock. The bill also allowed that a person may kill or attempt to kill a wolf or mountain lion that is in the act of attacking or killing a domestic dog¹⁹.

In 2013, the Legislature authorized the taking of a wolf by a landowner or a landowner’s agent without a hunting license if the wolf is a potential threat to human safety, livestock, or dogs. ARM 12.9.1302 defines “potential threat” as wolves in the immediate proximity to human dwellings, livestock, or domestic dogs.

¹⁹ 87-6-106, MCA.

The DFWP Wildlife Division is currently trying to elevate wildlife conflict management on the list of agency priorities. The Division says wildlife conflict management needs to be incorporated into work planning efforts, because it's a growing workload as more people move into rural areas and, in the case of grizzly bears, their populations and range expand.

When public safety incidents occur, other work and priorities fall to the wayside. For instance, in the Red Lodge area there are now numerous grizzly bears where there were none a few years ago. With no staff dedicated to bear issues, the Region 5 warden and biologist must respond to conflict calls.

Another concern is that the U.S. Drug Enforcement Agency is taking a harder line on who may access tranquilizing drugs. According to the DFWP, the DEA told some states that such drugs can only be used at the state's "registered location". For Montana, that would be the Wildlife Laboratory in Bozeman.

The DFWP says losing the ability to tranquilize animals in the field would put a damper on the agency's ability to do anything but shoot an animal caught in conflict.

The DFWP says it's taking extra precautions to make sure its policies are shipshape if the DEA comes knocking. This includes requiring all field workers to keep drugs in a locked box, developing a database to track to whom drugs are issued and in what quantities, and disciplinary actions if policies aren't followed.

Fiscal Overview

The financial data available for this portion of the program evaluation centers on bear and mountain lion management, which accounts for the largest portion (43.4%) of the overall \$1.64 million attributed to wildlife conflict management. Again, this is not a full accounting of the cost of bear and lion management as others who don't code their time specifically to wildlife conflict management are often involved.

The chart on the next page shows that the largest portion of funding for bear and lion management comes from the federal Pittman-Robertson program (43.2%). The second largest comes from other federal funds (23.1%) and the third from general license revenue (21.9%).

Regions 1, 2, 3, and 4 employ bear and lion management specialists and assisting technicians for a total of 9.41 FTE. Of those, 5.47 FTE are included in the agency's base budget and 3.94 are funded with "soft" money. This can be a mix of private and federal grants, federal endangered species funding, and support from federal agencies like the U.S. Fish and Wildlife Service and the Bureau of Land Management.

Each specialist addresses a different mix of bear and lion issues, depending on the region's needs. Two of Region 1's specialists predominantly work on grizzly bears. One of those positions is funded by Revett Minerals and the National Fish and Wildlife Foundation as her work is tied to mine mitigation. The third specialist in Region 1 focuses on black bears and lions.

As concerns over workload grow, the Wildlife Division also worries about the impending retirement of multiple, seasoned specialists in the next 5 years. Ongoing funding sources for the positions funded with soft money is another concern. The DFWP is hopeful that the

delisting of grizzly bears is on the horizon. But when the listing goes, so will the related federal endangered species funding.

One of the ways the DFWP tried to address the issue in the 2015 Legislature was to ask to move funding for 3.38 FTE dedicated to grizzly bears and 5.5 FTE that work with wolves into the agency's base budget. The decision packages were not approved, however.

| FY 2015 Bear and Mountain Lion Management Expenditures | | | | | | | | |
|--------------------------------------------------------|-----------------|-------------------|---------------------|--------------------|---------------|----------------|-------------|-------------|
| | General License | Pittman-Robertson | Federal ESA Funding | Misc Federal Funds | Private Funds | Total | Base FTE | Soft FTE |
| Region 1 - Management Specialist and Technician | | | | | | | | |
| PS | 35,121 | 105,362 | | 29,712 | 69,237 | 239,431 | | |
| OE | 7,584 | 22,751 | | 15,785 | 4,953 | 51,073 | | |
| Bear/Lion Conflicts (General OE) | 480 | - | | - | - | 480 | | |
| Region 1 Total | 43,184 | 128,112 | - | 45,497 | 74,191 | 290,984 | 2.00 | 2.10 |
| Region 2 - Management Specialist and Technician | | | | | | | | |
| PS | 9,368 | 26,927 | 21,475 | 24,929 | 9,000 | 91,697 | | |
| OE (includes general OE) | 34,387 | - | - | - | - | 34,387 | | |
| Region 2 Total | 43,755 | 26,927 | 21,475 | 24,929 | 9,000 | 126,085 | 0.87 | 0.84 |
| Region 3 - Management Specialist and Technician | | | | | | | | |
| PS | 17,537 | 52,609 | - | 47,258 | - | 117,404 | | |
| OE | 3,462 | 10,384 | - | 25,366 | - | 39,212 | | |
| Bear/Lion Conflicts (General OE) | 9,278 | - | - | - | - | 9,278 | | |
| Region 3 Total | 30,276 | 62,994 | - | 72,624 | - | 165,894 | 1.00 | 1.00 |
| Region 4 - Management Specialist and Technician | | | | | | | | |
| PS | 26,484 | 79,450 | - | - | - | 105,934 | 1.60 | |
| OE | 3,496 | 10,487 | - | - | 132 | 14,115 | | |
| Bear/Lion Conflicts (General OE) | 2,857 | - | - | - | - | 2,857 | | |
| Region 4 Total | 32,837 | 89,938 | - | - | 132 | 122,906 | | |
| Region 5 | | | | | | | | |
| Bear/Lion Conflicts (General OE) | 2,749 | - | - | - | - | 2,749 | | |
| Region 6 | | | | | | | | |
| Bear/Lion Conflicts (General OE) | 2,950 | - | - | - | - | 2,950 | | |
| Region 7 | | | | | | | | |
| Bear/Lion Conflicts (General OE) | 124 | - | - | - | - | 124 | | |
| HQ | | | | | | | | |
| Bear/Lion Conflicts (PS) | 82 | - | - | - | - | 82 | | |
| Total PS | | | | | | 554,548 | | |
| Total OE | | | | | | 157,225 | | |
| Grand Total | 155,957 | 307,970 | 21,475 | 143,050 | 83,323 | 711,774 | 5.47 | 3.94 |
| PS = Personal Services | | | | | | | | |
| OE = Operating Expenses | | | | | | | | |

Livestock Depredation

Livestock depredation by bears, mountain lions, and wolves is also a component of the DFWP's wildlife conflict management. The DFWP employs wolf and bear specialists who provide technical assistance to landowners to help prevent conflict and employ tactics to discourage depredation.

The Livestock Loss Board, attached to the Department of Livestock, tracks incidents of depredation caused by grizzly bears and wolves and reimburses livestock owners for probable and confirmed losses. In 2014, the deaths of 78 cattle, 9 sheep, and 2 horses were attributed to wolves and grizzly bears. In 2013, the first year the Legislature added grizzly depredation to the board's responsibilities, 66 cattle, 32 sheep, 1 goat, and 3 horses were determined to be probable or confirmed losses. Prior to that, wolves were attributed to have killed an average of 200 livestock animals²⁰ annually since 2008 with a high of 370 in 2009 and a low of 95 in 2011.

The DFWP largely contracts with the U.S. Department of Agriculture's Wildlife Services for response to depredation by mountain lions, wolves, and bears. An MOU outlines each agency's responsibilities. Wildlife Services leads the investigation of depredation complaints, determines the cause of the depredation, and takes action to remove the offending animal(s). The DFWP says Wildlife Services' findings and actions are usually closely coordinated with the local DFWP staff.

An exception to this response process is for depredation on chickens, which are classified as livestock, by grizzly bears. The DFWP responds to most of these complaints as human safety tends to be threatened as well.

The DFWP says the rising popularity of raising free-range chickens and bees in bear country is another contributor to the agency's growing wildlife conflict workload. Electric fencing is often a solution. The DFWP will oftentimes bear the cost of the fencing, as it's cheaper than repeated visits to a location. The group Defenders of Wildlife has shared the cost of some fencing.

The DFWP pays Wildlife Services up to \$110,000 per year to assist with wolf management, including radio collaring, technical assistance, and control.

Since the delisting of wolves and initiation of hunting seasons, wolf depredation on livestock has decreased. The DFWP hopes to see similar trends with the delisting of grizzly bears that could help stabilize the workload and expenses of wildlife control management.

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²⁰ 2-15-3112, MCA, states that reimbursement is available for the probable or confirmed loss of cattle, swine, horses, mules, sheep, goats, llamas, and livestock guard animals.