Youmans, H. 1999. Effects of recreation on Rocky Mountain wildlife: A review for Montana. Committee on Effects of Recreation on Wildlife, Montana Chapter of The Wildlife Society, September 1999. 307 pp.

Appendix C.3. Public Hunting

As Montana's population grows, new or expanding subdivisions impact the hunting of wildlife and, consequently, wildlife and wildlife habitat. When a new subdivision is developed in an area where hunting has traditionally occurred, conflicts can arise. This section contains information about the recommended subdivision design standards pertaining to public hunting.

Description

Hunting is an important tradition in Montana, as well as an important management tool for certain wildlife populations (especially game animals). Hunting seasons are currently conducted in the state for most game animals (deer, elk, moose, antelope, mountain sheep, mountain goat, mountain lion, bear, and wild buffalo), migratory game birds (waterfowl, including wild ducks, geese, and swans; cranes; coots; common snipe; and mourning doves), and upland game birds (grouse, pheasant, gray partridge, wild turkey, and chukar). Montana Fish, Wildlife & Parks (FWP) manages all wildlife in the state, including the hunting of wildlife. More information on current hunting regulations and seasons can be found at: http://fwp.mt.gov/hunting/.

Location

Hunting takes place throughout Montana on public and private land, in uplands as well as along rivers and streams. Hunters need to have permission to hunt on private land. They do *not* need permission to hunt on most public land, including U.S. Forest Service, Bureau of Land Management, and state school trust lands. Migratory bird hunters also do not need permission to hunt on land below the high-water mark on rivers and streams.

Objectives of Recommended Design Standards

- Maintain FWP's ability to manage wildlife effectively.
- Maintain public hunting, including hunting with rifles, as an important tool for wildlife management.
- Maintain healthy wildlife populations.
- Minimize safety concerns of future lot owners.
- Avoid conflicts between different land uses (e.g., game damage on adjacent agricultural lands due to wildlife displacement or habituation; problematic concentrations of big game animals in the proposed subdivision due to landscaping, vegetable gardens, and the creation of a "safe haven" no-hunting zone; annoyances created by hunters and subdivision residents finding themselves in close proximity to one another).

Conflicts between Subdivision Development and Hunting

New subdivisions in an area where hunting has traditionally occurred can negatively impact hunters, wildlife, and wildlife habitat; in turn, hunting in close proximity to new subdivisions can negatively impact the residents. Areas of conflict are outlined below.

Examples of how hunting may impact subdivisions, especially in rural areas:

- Subdivision residents living near a river and its associated sloughs and wetlands may encounter and object to lawful waterfowl hunting and the associated discharge of shotguns from a half hour before sunrise through sunset, during the season, which can run from September into January.
- Subdivision residents living close to public lands (e.g., state wildlife management areas, school trust lands, federal waterfowl production areas, and national wildlife refuges) may experience and object to the sights and sounds of big game, upland game bird, and migratory game bird hunting during the various hunting seasons.
- "Some subdivision residents may oppose hunting in general, and nearly all residents do not want animals dying on or near their property" (Thompson and Henderson 1998). (Vore 2012, p. 10)
- Habituated game animals can cause several types of problems in residential settings, from personal property damage and landscape/garden destruction to expensive animal/vehicle collisions. It is not easy or cheap to keep unwanted game animals away (Vore 2012).

Examples of how subdivisions may impact hunting and, as a result, wildlife and wildlife habitat:

- New subdivisions where hunting is discouraged or prohibited can become safe havens for wild animals. Big game may be drawn to those safe havens, habituate to people, and end up in conflict situations that do not end well for the animals. "Habituation of big game to development is a problem . . . : (1) it 'cheapens' people's perception of big game; (2) big game often come into conflict with people; (3) it can change the ecology and native habitat use of a big game population; (4) it can severely limit wildlife management options; (5) it can impact hunting and other wildlife-related recreational opportunities over a large area, including the big game's entire year-round home range; and (6) such negative interactions with wildlife may undermine people's attitudes toward conservation" (Vore 2012, p. 9).
- Hunting with rifles (and even archery hunting) near residential dwellings can become impossible because of public safety reasons and covenant restrictions (Vore 2012).
- "Hunting becomes a less viable management tool due to increased restricted areas surrounding new exurban development" (Harden et al. 2005; Haggerty and Travis 2006). (Polfus 2011, p. 13)
- Big game winter range becomes less functional, as FWP's ability to use hunting as a wildlife management tool is reduced (Vore 2012).

The following discussion more fully explains how subdivision development can restrict FWP's use of public hunting as an important tool for wildlife management, and how such restriction in turn can impact wildlife and wildlife habitat.

It is not uncommon for the covenants of residential subdivisions in rural or suburban areas to prohibit hunting on the subdivided lands (see Examples of Subdivision Covenants in Montana, under References section below). When hunting is removed as a tool for managing wildlife populations in a given area, game animals can become more numerous and more vulnerable to disease as they habituate to human presence, find safety and security among the houses, and enjoy easy access to food sources such as residential landscaping and/or the hayfields of neighboring agricultural producers (Byron 2009). In some cases, these animals become nuisances, even safety threats, and need to be killed. In 2003, the Montana legislature gave communities the ability to create an urban wildlife management plan, in cooperation with FWP, in order to handle urban wildlife problems. The City of Helena, for example, has adopted and implemented a plan that authorizes local officials to trap and lethally remove a targeted number of mule deer residing within city limits (Lemon 2006). Other communities rely upon archery hunters as the primary tool to manage deer inside city limits.

Game damage occurs when animals like elk, deer, and antelope concentrate on private farms and ranches and damage crops and property. The potential for farmers and ranchers to suffer game damage increases where big game concentrations are facilitated by residential subdivisions next door. In response to this management issue, FWP has had to institute game damage hunts and management seasons in an attempt to address such situations (FWP website 2012).

For perhaps obvious reasons, locating a residential subdivision next door to an area where the hunting of big game, upland game birds, and/or waterfowl occurs can cause conflicts between residents on the one hand, and hunters and FWP wildlife managers on the other. Subdivision residents upset with the occurrence of shooting next door may seek to restrict the hunting activity on FWP wildlife management areas and block management areas, state school trust lands, federal lands, and other adjacent lands and waters. Conversely, the noise of shotgun fire may disturb some subdivision residents, and occasional stray bullets can threaten their safety or damage their homes. Within the boundaries of at least one wildlife management area, FWP has had to restrict the area where public hunting can occur, in response to the complaints of neighboring residents (FWP 2007, 2008, 2010).

When subdivision development locates in winter range and curtails FWP's ability to employ hunting, "the most effective tool for managing big game populations" (Vore 2012, p. 10), the quality of that winter range is diminished. To keep functional winter range working as healthy habitat available at the right time of year to support big game populations, FWP must be able to employ ". . . all options for effective big game management, including hunting with rifles . . ." (Vore 2012, p. 11).

Recommended Standards

The recommended standards offer a suggested approach to subdivision design, and a suggested approach to subdivision review.

Approach to Subdivision Design

The subdivision applicant is encouraged to consult with the local FWP wildlife biologist before or during the pre-application process, on the question of whether or not development of the subject property could affect wildlife management options and public hunting opportunities in the vicinity, and if so, how. If consulted, the FWP biologist has an opportunity to evaluate the potential effect of the proposed subdivision on wildlife management options and public hunting opportunities, based on review of the information compiled by the applicant, site assessments by other professionally trained biologists, FWP's own field knowledge and hunting area maps, and any other applicable information. FWP may recommend steps the subdivider can take to avoid or reasonably minimize negative impacts, such as careful building envelope locations, careful road and trail layouts, other ways of addressing line of sight issues, and the continuation of certain types of public hunting.

Approach to Subdivision Review

FWP recommends that the governing body consider the effects of the proposed development on wildlife management by hunting, as part of its subdivision application review for impacts on "wildlife and wildlife habitat."

Substantial Evidence for Public Hunting Recommendations

This section offers the rationale and substantial evidence supporting the recommended public hunting standards, including pertinent scientific studies and professional opinions.

- ". . . [H]unting is an important tool for wildlife management. Hunting gives resource managers a valuable tool to control populations of some species that might otherwise exceed the carrying capacity of their habitat and threaten the well-being of other wildlife species, and in some instances, that of human health and safety" (USFWS 2010).

- "Wildlife professionals with resource management agencies want the public to understand that, besides being a legitimate and closely regulated activity, hunting and trapping are also important wildlife management tools that help them maintain healthy ecosystems and wildlife populations. Professionally managed hunting and trapping are key tools helping them achieve an acceptable balance between wildlife populations and human tolerance for the problems sometimes caused by wildlife" (IAFWA 2005).

- In a recent article discussing concerns about elk feeding grounds and brucellosis transmission from bison and elk to cattle in the Yellowstone area, Montana's state veterinarian Marty Zaluski noted the health risks that result when large elk herds congregate on private lands where hunting is not allowed: "You put any animals in close concentration, you're going to exacerbate these disease issues" (Brown 2010, p. 1).

- The projectile range of firearms varies from less than one mile to more than five miles (FWP website 2012). Besides the fact that bullets and pellets may travel a significant distance beyond the boundaries of an area where hunting occurs, there are noise and other factors that may be perceived to conflict with residential land use. Two examples

of FWP review comments on proposed subdivision applications where the potential for subdivision-hunting conflict exists are provided below:

1. FWP Region 2, Missoula area. ". . . Because the Bitterroot River is very close to this subdivision, there is the potential for possible conflicts between waterfowl hunters and subdivision residents. The discharge of shotguns may create some concern by subdivision residents, and lawful waterfowl hunting can occur from early morning until sunset, and the season can run from September into January" (FWP 2007, p. 1).

2. FWP Region 1, Kalispell area. ". . . The entire WPA (Waterfowl Production Area, located adjacent to this particular proposed subdivision) is open to rifle and shotgun hunting during the legal hunting seasons . . . Placing development or trails within approximately 300 feet of the public land boundary puts these people or homes at risk of being impacted by shotgun fire . . . None of the [proposed] buffers are adequate to completely mitigate use of a rifle for hunting. There is little or no forest or other vegetation or topography that would deter bullets if discharged towards the development. This presents a clear risk to public safety within the proposed development or raises the question of whether the area within a mile of the development can continue to be hunted using rifles . . . If the development is built, hunters' ability to hunt portions of the WPA in a responsible manner will be limited" (FWP 2008, p. 5).

- In nearly all cases, Montana state law prohibits the hunting of game animals or game birds "on, from, or across any public highway or the shoulder, berm, or barrow pit right-of-way of any public highway, defined in 61-1-101, in the state"[3] (MCA 2010). Arizona state law prohibits "the discharge of a firearm while taking wildlife within one-fourth mile of an occupied farmhouse or other residence, cabin, lodge, or building without permission of the owner or resident."[4] Similarly, the Administrative Rules of the Montana Department of Natural Resources and Conservation prohibit the discharge of firearms on state lands within one-quarter mile of an inhabited dwelling or outbuilding without permission of the inhabitant (DNRC 2012).

- In an e-mail conversation during June 2008, FWP wildlife managers considered whether or not they could recommend a "safe" distance between the boundary of land where hunting occurs and the structures or roads of an adjacent subdivision. Their conclusion was that each proposed subdivision should be evaluated on a case-by-case basis, so that the physical lay of the land can be taken into account. Key points from this discussion included:

  1. "There's really no standard distance (within reason) that will be 'safe' in all situations. And to try and spell out all the situations that might occur is impossible" (FWP e-mail 2008).

[3] 87-6-403, MCA. The sole exception is found in 87-2-803(4), MCA, which allows a person who is certified by FWP as disabled to be issued a permit to hunt from a vehicle, along a non-state or non-federal highway.

[4] 17-309.4., ARS.

2. "We have been able to influence some subdivision in R3 [FWP Region 3] with regard to placement of houses or cluster of houses in the subdivision development process on large proposed developments. The two scenarios involved houses or clusters of houses that were to be placed adjacent to publicly accessible State Land or a ranch that is in block management. We argued for moving a cluster and/or house placement that took into account 'line of sight' from the State Land and/or BM area. Our arguments were based on the fact that the subdivider wouldn't be the one dealing with the safety issue in the future. It would be the individual lot owner, us, and the adjacent landowner. We argued (successfully) that now, in subdivision and lot layout, would be the time to minimize management conflicts in the future by being thoughtful in the above. I agree . . . that there is NO set distance . . . it all depends on topography, etc. (if topography even exists), which is a subdivision by subdivision effort where appropriate" (FWP e-mail 2008).

- "We had to close a portion of a popular wma [Kuhns Wildlife Management Area in FWP Region 1] due to homes popping up on the boundary" (FWP e-mail 2010).

- FWP conducts game damage hunts and management seasons in order to prevent or alleviate the negative impacts of game damage on landowners, primarily agricultural producers. Whereas game damage hunts are a response to game damage, "A management season is a proactive measure to prevent or reduce potential damage caused by large concentrations of game animals resulting from seasonal migrations, extreme weather conditions, *restrictive public hunting access on adjacent or nearby properties* [italics emphasis added], or other factors" (FWP website 2012).

- The Wyoming Fish and Game Department recognizes that "increasing human populations with their expanding housing subdivisions and new agricultural lands have dramatically reduced big game habitat, forcing some of these animals to feed on agricultural crops for survival. Resulting big game depredation to lands and property can be minimal or substantial . . . Hunting is the most effective method for reducing depredation losses to big game species. Hunting in or near the depredated fields removes those animals causing damage and discourages others from using the area" (WY 1994, pp. 1 and 5).

- Residential growth on the urban fringe has created urban wildlife problems in several Montana communities. The congregation of ungulates in large groups is associated with disease, influx of predators, and human conflicts (Lemon 2006).

References

Animal Use Issues Subcommittee, International Association of Fish and Wildlife Agencies. Updated May 25, 2005. Potential costs of losing hunting and trapping as wildlife management methods. Washington, DC.

Arizona Revised Statutes, 17-309.4. Accessed January 5, 2012, at: **http://www.azleg.gov/FormatDocument.asp?inDoc=/ars/17/00309.htm&Title=17&DocType=ARS**.

Brown, Matthew. Associated Press. April 25, 2010. New brucellosis "hot spots" found in Yellowstone area. *Helena Independent Record.* Accessed January 6, 2012, at: **http://helenair.com/news/state-and-regional/new-brucellosis-hot-spots-found-in-yellowstone-area/article_d357ccae-5023-11df-93c1-001cc4c03286.html**.

Byron, Eve. April 30, 2009. Big game challenges. *The Montana Standard.* Accessed January 6, 2012, at: **http://mtstandard.com/special-section/recreation/big-game-challenges/article_0f17aad1-f55e-5183-a38f-1cb4e78b1056.html**.

Examples of subdivision covenants in Montana:

- Sanders County planning covenants example. Accessed January 5, 2012, at: **http://www.co.sanders.mt.us/pdfForms/LandService/example_covenants2009.pdf**.
- Three examples of subdivision covenants in Beaverhead County. Provided 8-10-2010. Available from FWP land use planning specialist.
- Crow Chief Meadows covenants, Stillwater County. Accessed January 5, 2012, at: **http://crowchief.com/covenants.html**.
- Jette Meadows Landowners Association covenants. Accessed January 5, 2012, at: **http://jettemeadows.com/covenants.htm**.

Greg Lemon. 3-03-06. Growing pains: Subcommittee forms to deal with citified animals. NewWest.net. Accessed January 5, 2012, at: **http://www.newwest.net/main/print/6623/**.

Montana Code Annotated, Title 87, Fish and Wildlife. Accessed January 6, 2012, at: **http://data.opi.mt.gov/bills/mca_toc/87.htm**.

Montana Department of Natural Resources and Conservation. Recreational use of state school trust land. Accessed January 6, 2012, at: **http://dnrc.mt.gov/trust/REMB/statues/recreationaluse.asp**.

Montana Fish, Wildlife & Parks. The following correspondence is available from FWP land use planning specialist.

- 2007. March 30, 2007 letter from Mack Long, FWP Region 2 supervisor, to John Kellogg, developer representative.
- 2008. E-mail discussions by FWP wildlife managers on the subject of "safe building distance from hunting areas."
- 2008. March 26, 2008, letter from James R. Satterfield Jr. PhD, FWP Region 1 supervisor, to Flathead County planning board and staff.
- 2010. April 20, 2010, e-mail from Jim Williams, FWP wildlife manager for FWP Region 1, to FWP land use planning specialist.
- 2012. Game damage hunts and management seasons. Accessed January 6, 2012, at: **http://fwp.mt.gov/hunting/seasons/damage.html**.
- 2012. Hunting Guide. Accessed January 6, 2012, at: **http://www.hunter-ed.com/images/graphics/guns_ranges_distances**.

Polfus, J.L. Literature review and synthesis on the effects of residential development on ungulate winter range in the Rocky Mountain West. Report prepared for Montana Fish, Wildlife & Parks. Helena, MT. Draws from over 80 sources. Accessed on January 3, 2012, at: **http://fwp.mt.gov/fishAndWildlife/habitat/wildlife/publications/**.

U.S. Fish and Wildlife Service. Website on hunting. Accessed January 6, 2012, at: **http://www.fws.gov/hunting/**.

Vore, J. 2012. Big game winter range: Recommendations for subdivision development in Montana: Justification and rationale. Professional paper, Montana Fish, Wildlife and Parks. Helena, MT. Draws from over 75 sources.

Wyoming Game and Fish Department. January 1994. Guidelines for reducing damage from big game animals. Habitat Extension Bulletin No. 58. Accessed January 6, 2012, at: **http://wgfd.wyo.gov/web2011/wildlife-1000616.aspx**.

Appendix C.4. Human/Bear Conflicts

This section contains information about the recommended subdivision design standard for addressing human/bear conflicts. The recommendation pertains to both grizzly and black bears.

Habitat Descriptions and Locations

Grizzly and black bear habitat requirements and distribution information are described below.

Grizzly Bear

Grizzly Bear Habitat Requirements

In Montana, grizzly bears primarily use meadows, seeps, riparian zones, mixed shrub fields, closed timber, open timber, sidehill parks, snow chutes, and alpine slab-rock habitats. Habitat use is highly variable between areas, seasons, local populations, and individuals. Grizzlies have a large vegetative component (more than half) to their diet, but also feed on carrion, fish, large and small mammals, insects, fruit, grasses, bark, roots, mushrooms, and (where available) garbage, birdseed, fruit trees, pet and livestock feed, agricultural crops, and many other human-related food sources. They often cache food and guard it. Annual home ranges in the Swan Mountains in Montana averaged almost 200 square miles for males and about 50 square miles for females; adult home ranges were larger than those for subadults (MT Field Guide 2012; Jonkel, FWP 2012).

Grizzly Bear Locations in Montana

Grizzly bear distribution in Montana is primarily within, but not limited to, three recovery zones: the Yellowstone area in northwest Wyoming, eastern Idaho, and southwest Montana; the Northern Continental Divide Ecosystem of north-central Montana; and the Cabinet-Yaak