

5.1.2 Wildlife Safer Fence Standards

A. Intent

The Community Vision, as stated in the 2012 Comprehensive Plan, states that preserving and protecting the area's ecosystem is the core of our community character. Ecosystem Stewardship is a Common Value of the Community Character and is integral to our Growth management and Quality of Life Common Values. Quality of Life depends on the health and viability of the ecosystem in which we live.

Therefore, it is the intent of these regulations to discourage fences and when necessary to require fences be built in the manner which is safest to our wildlife. The purpose is to protect the community interests in maintaining healthy populations of wild animal species, while at the same time allowing fences as necessary, for a variety of purposes, including the containment of domestic livestock. These objectives are not mutually exclusive. These LDRs set forth Wildlife Safer Fence Standards (WSFS) for the purpose of enhancing wildlife health, reducing wildlife energy expenditure, wildlife maiming and mortality and to encourage the natural movement of wildlife.

B. Goals

Wildlife safer fence designs should strive to increase fence permeability and visibility for wildlife, allowing easier passage over and/or under the fence, and reducing the chance of entanglements, injury and death. WSFS improve wildlife habitat, allow easier access to food, water, shelter, and reduce stress and energy demands by reducing obstructions to movement. WSFS allow freer passage of daily wildlife movements, as well as seasonal migrations. WSFS are designed so that both mature animals, as well as young offspring, can cross over, under, around or go through the fence, so mothers and babies don't get separated.

C. Findings

1. A fence is a structural element that can create an impediment for wildlife movement, resulting in death and injuries to wildlife, fragmentation of wildlife herds, separation of mother and dependent young, and damage to fences. Fences can limit wildlife access to habitat, thus creating a loss in available habitat and interference with migrations corridors, daily movements and increase energy demands.
2. Problem fence types:
 - are too high or wide to jump;
 - are too low to crawl under;
 - have loose wires;
 - have wires spaced too closely together;
 - are difficult for fleeing animals or birds to see;

- or create a complete barrier.

3. Fences can have detrimental affects on habitat connectivity for wild animals.

4. Fences interrupt free passage of wildlife movement and seasonal migrations, in many ways, from cutting off free passage altogether, to making wildlife expend excess energy to cross unfriendly fencing.

5. Fences injure, maim and kill wildlife each year. One ungulate is killed each year for every 2.4 lineal miles of fence. As an indicator, we need to quantify how many miles of fences there are in Teton County.

6. Fences not properly maintained, or removed, can kill, trap, strangle and maim wildlife.

7. Fences not properly constructed, can keep wildlife trapped in road rights-of-way longer, increasing chances of vehicle/wildlife collisions, injuring or killing people and wildlife.

8. Wildlife can become impaled, and die, on fences topped with points and spikes.

9. Placement of fences is an important WSFS criterion: fence placement must consider the adjacent terrain, slope and vegetation to best allow for wildlife passage. Even fences which meet the WSFS can become a barrier when placed next to a ditch, stream, and swale or on slopes, effectively increasing the distance, width, height to jump, and adding obstacles to a safer landing.

D. Benefits:

1. Wildlife safety fencing is less expensive to maintain as it reduces damage from wildlife, and many designs can be less expensive to install.

2. Wildlife safety fencing is compatible with agriculture and ranching practices, and there are many fence designs that can be wildlife friendlier and meet the needs of agriculture and ranching operations.

3. Wildlife safety fencing reduces injury and mortality to wild animals, and eases daily and seasonal movements.

4. Compliance with WSFS contribute to wildlife health, particularly in the harsh winter months when they have lower energy reserves for energy intensive “detours” over, under, around and through unfriendly fencing.

D. Applicability

1. It is the goal of these provisions to allow opportunities to design fences that are workable for the purpose they serve and safe for wildlife.
2. New fences erected after (insert effective date of code), and sections of fence or whole fences replaced or repaired after this date, shall comply with the standards of this Section. Except that the following shall be exempt from the provision of this Section: Fences built for new riding arenas, as defined in these land development regulations.
3. Fences replaced or modified, shall comply with these standards.

E. Fencing Standards

1. Height

a. Fencing height, for purposes other than livestock control, shall be no higher than 38 inches above the ground to the top of the top wire or rail. Fencing for livestock control shall be no higher than 42 inches above the ground to the top of the top rail or wire. Spacing between the top two wires shall be at least 12 inches, and this is not applicable when the top is a rail or pole. Rails and poles are visually and spatially preferable for wildlife.

2. Materials and Design

- a. Wood (or similar material) top rails, and either wood rails or wire strands are permitted as horizontal elements in fence. The wire strands shall be smooth or barbless. Barbed wires may be used in the middle strands, not the top and bottom strands, when necessary to control livestock.
- b. The required fencing design includes a top level of a wood pole, or similar material, rather than wire. The bottom rail or wire strand shall be at least 18 inches above the ground.
- c. The spacing of fence posts is recommended to be on 12-foot centers unless topography prohibits this spacing, or other wildlife permeable designs such as high tensile, which requires longer post spacing, with approval of the Planning Director. Spacing of the second and third wire shall be evenly spaced. Spacing distances may vary from 6-8 inches.
- d. Buck and rail fencing shall be avoided, and only utilized when necessary, such as in rocky or wet ground. When utilized, it shall meet the following standards or a design that allows greater permeability:

Buck and rail fence shall not be constructed with wires of any kind, or with rails combined with wire, as this creates a three dimensional entanglement hazard for wildlife.

Where buck and rail fence is necessary, it shall be constructed as follows:

- Two rails only. Top rail placed at 36"-38" plumb from top of top rail to ground. Spacing needs to achieve 18" of free clearance between the bottom of the top rail and the top of the second rail. This is preferable to 18" between the bottom of the second rail and the ground.
 - No cradling of top rail in the "cross" cradle of the bucks, as this does not allow the rail to "break away" if an animal jumping it, hits it.
 - A splay bar to complete the triangle at the bottom of each buck, for stability and to prevent the bucks from spreading, from such things as snow loading, is permitted.
 - No rub rails or a maximum of one rub rail in every other section (define section in illustration) of fence. Only an "every other section" rub rail is necessary to stabilize a fence, if properly braced with diagonal bracing (need illustration of this also).
 - For seasonal openings and greater permeability, in every fifty to one hundred feet, either drop one end of a removable top rail diagonally to the ground, or place the top rail on the bottom rail, or on the adjacent buck. (We need illustrations of all of this; we need buck, and all elements, in our illustrations named).
 - No additional barbed, smooth or woven wire.
- e. The top level of a newly constructed fence shall be flagged immediately after construction. The flagging shall be white and black clip on fence markers, alternately, and maintained for at least 1 year, unless it is a top rail fence installation, then no markers are required.
- f. All wildlife safer fences (WSF) should have gates or drop downs lowered every 100 yards. These gates, openings and drop downs shall be opened seasonally, when livestock or horses are absent, to the maximum extent possible. Gates and openings to accommodate wildlife are particularly effective and encouraged in fence corners.
- F. Fence Location
1. The location of the fence shall be considered as part of these standards. Fences located next to or adjacent to a ridge, drop off, swale, gully, stream or canal, that effectively widen the crossing or increases the danger of the fence crossing, do not meet these standards for wildlife friendly fence width. Eight to ten foot lateral separations between the fence, and the animal landing area is a necessary standard to achieve, before any obstacles, including those listed. Fences are effectively taller on a slope.
 2. Fences should not be placed in such a manner as to block the natural funneling of wildlife through canyons and areas such as swales, gullies, ridges, canals and streams and other topographic considerations.
 3. Crossings, jumps, open gates, and other wildlife friendly considerations shall be places at these funnel locations, and other appropriate locations. (Illustrate jumps)

4. Fence corners are some of the most important crossing locations for deer and elk and shall be made as wildlife friendly as practicable.

G. Prohibited Fences

1. Fences topped with points or spikes, such as razor wire and decorative iron fences, shall be prohibited unless they are specially approved by the Planning Director for security reasons, are installed at a height above which animals would attempt to jump, and are located to be very visible to wildlife.
2. Zig Zag rail fences or worm fences are prohibited, unless they are constructed to with a maximum height of 36 inches and with an 8-inch gap underneath the bottom rail, with drop downs and openings every 100 feet.
3. Fences which do not meet these standards.
4. Fences for the purpose of illegally entrapping wildlife.

H. Special Purpose Fencing

Notwithstanding the provisions of this Section, the Planning Director may exempt special purpose fencing from this Section provided the fencing:

- Encompasses the smallest area necessary, is the minimum fence as to type, size and style, with the least wildlife impact possible, spatially, temporally and provides seasonal openings when not in use.
- Is constructed for a particular use and requires a specific design to accomplish the purpose of the fence.
- Examples of special purpose fencing include fencing for a dog kennel, certain types of agricultural fencing (such as bull enclosure, pig pens, sheep enclosure, fencing to secure stored livestock feed, stack yards, fencing for winter livestock feeding sites, and fencing for 4-H projects), bear exclusion fencing for bee hives, chicken coops, compost piles and fruit bearing trees, securing a construction site, privacy screening, swimming pool enclosure, screening of refuse facilities, recycling containers, dumpsters, and small yard enclosure.

Resources:

* How Bad are Fences for Wildlife? - Backcountry Chronicles

www.backcountrychronicles.com/how-bad-are-fences-for-wildlife/

* Characteristics of Ungulate Behavior and Mortality Associated with Wire Fences www.backcountrychronicles.com/how-bad-are-fences-for-wildlife/

Justin L. Harrington and Michael R. Conover

Wildlife Society Bulletin (1973-2006)

Vol. 34, No. 5 (Dec., 2006), pp. 1295-1305

* Fence Marking to Reduce Greater Sage-grouse (*Centrocercus urophasianus*)

Collisions and Mortality near Farson, Wyoming Summary of Interim Results

pbadupws.nrc.gov/docs/ML1108/ML110830116.pdf, Tom Christiansen Sage-

Grouse Program Coordinator Wyoming Game & Fish Dept.

tom.christiansen@wgf.state.wy.us October 26, 2009

* Wildlife Society Bulletin; DOI: 10.1002/wsb.142

www.sagegrouseinitiative.com/.../Stevens_Marking-ReduceCollisions-2.pdf

* Original Article: Greater Sage-Grouse and Fences: Does Marking Reduce Collisions?

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* A Landowner's Guide to Fences and Wildlife, Practical Tips to Make Your Fences Wildlife Friendly, Christine Paige, Ravenworks Ecology, Jackson, WY.

* "Rural Living Handbook: A guide for living in and enjoying the natural resources of Jackson Hole," 2011, by the Teton Conservation District