Rural Living Handbook

a guide for living in and enjoying
the natural resources of Jackson Hole

Table of Contents

Introduction to Jackson Hole

Your Land

General Information

Appendix

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Introduction

What is the Teton County Rural Living Handbook and who is Teton Conservation District?

This handbook has been facilitated by Teton Conservation District (TCD), with written contributions from numerous local agencies, organizations, and individuals. Please note the contributors on the credits in each section. TCD received a grant from the University of Wyoming Extension Service to develop and disseminate this handbook as part of a number of education and demonstration projects designed to protect natural resources.

TCD has been a subdivision of Wyoming state government since 1946 and is charged by state statute with the conservation of natural resources. Conservation Districts have the only locally elected Board of Supervisors (5 Members) that are specifically charged with conservation of natural resources. A publicly approved mill levy provides funding for TCD that is also leveraged with partnering efforts such as this one with the University of Wyoming and the contributing partners.

The intent of the handbook and how to use it….

This handbook would not have been possible without the outstanding help of the authoring contributors on a fairly comprehensive list of topics. The intent of this publication is to provide a guide to not only landowners and those who provide land services but also to other citizens who use and enjoy our natural rural environment. It is not meant to contain highly detailed information on a given topic but rather sufficient information that may be used as a general guide and to help stimulate considerations of how to conserve our natural environment and be good stewards while enjoying the natural magnificence of Jackson Hole in conjunction with our rich western heritage.

Landowners and those involved in land management can use this handbook to begin to develop a property management plan. Others who may not own land, but are users and benefactors of the natural resources here, directly or indirectly are also caretakers of the land where we reside and can use the handbook for an increased understanding of the natural environment. Each topic includes contact information for further assistance and there is a Resource Directory located at the back of this publication. The Resource Directory provides a quick reference to contact information for numerous agencies and organizations that may provide further service on the handbook topics and other natural resource conservation information. Please contact Teton Conservation District if you would like more information at (307) 733-2110, or www.tetonconservation.org. This handbook can also be downloaded online at www.tetonconservation.org. ♦

This version of the handbook was last updated in 2011.

A Brief History of Jackson Hole

The story of Jackson Hole begins over ten million years ago as the valley floor uplifted west of a major fault line and dropped to its east creating the majestic Teton Range. The Teton fault remains dynamic even today. Prehistoric people began to use the valley around 11,000 years ago during the last ice age. Until about 200 years ago American Indians lived continually within the valley. Archeological evidence of the presence of these native peoples abounds in vision quest sites, obsidian tools, steatite soft rock cook pots, as well as lodging and hunting sites.

Feeding cattle on winter range, circa 1954. Photo by B.C. McLean. Teton Conservation District archives.

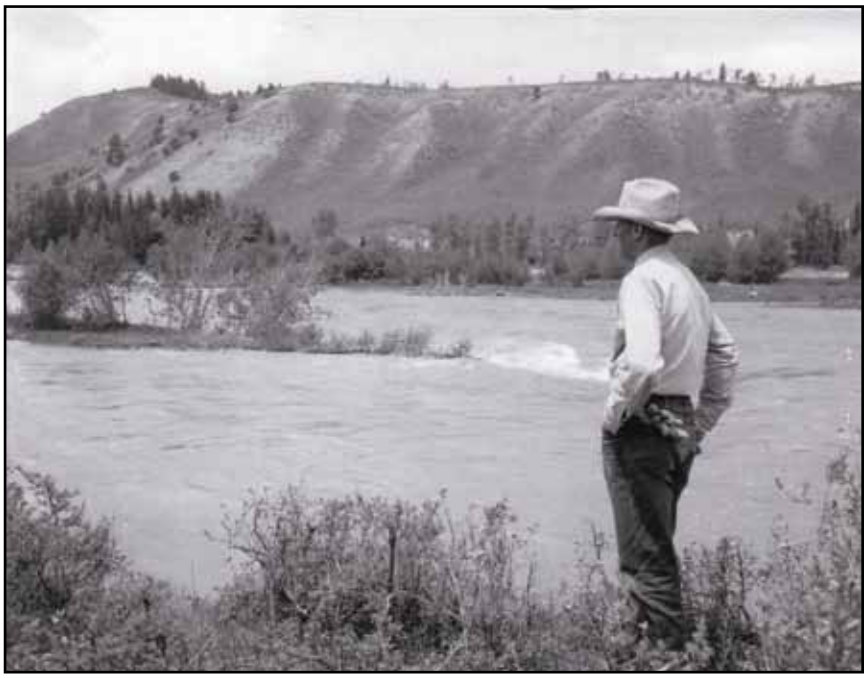
Prior to 1800, there were no written records about Jackson Hole. Reports from the seminal expedition of Meriwether Lewis and William Clark (1803-1806) began to place the west into the imaginations of the general populace. After that time, non-indigenous people (mostly American) began to move into Jackson Hole as the Oregon Territory was explored further. Mountain men left the first accounts of the region, from Jackson Hole to Yellowstone, as they moved through the area trapping beaver and other animals. Theirs was mostly a solitary life until they gathered in other regions for the Rendezvous where the season's pelts were traded for goods that would sustain one for the upcoming year. News was exchanged here and one could sign on with a trapping expedition for the next season. Jackson Hole is named for David E. Jackson, an early partner in what became the famous Rocky Mountain Fur Company.

The fur trade declined around 1840 as beaver hats fell out of fashion. There is virtually nothing about the valley in the historical record again until 1860. Between this time and 1900 the region was explored and pioneers began to homestead the valley, and American Indians continued to use the valley. Because of their extensive knowledge of the geography of the west, many trappers, including Jim Bridger and Richard "Beaver Dick" Leigh, led U. S. government expeditions charged with exploring the west. Others rode with wagon trains bringing emigrant settlers westward to Oregon and California.

With the passage of the Homestead Act of 1862, people could acquire land at the cost of improving it. While the Jackson Hole area was settled later than many parts of the west, its initial development, too, occurred under the Homestead Act. John Holland and John and Millie Carns first settled the valley. Soon many bachelors and several families also proved up homesteads, descendants of whom still call the valley home today. A sizable influx of Mormon settlers came to Jackson as well in the late 19th century.

The inhospitable climate with its very limited growing season soon caused some homesteaders to sell out. Others purchased these available lands to consolidate them into sizeable ranches. They grew hay and 90-day oats and raised beef cattle as cash crops. They fed their families off of wild game and produce gardens on their ranches. Often life was marginal and settlers barely subsisted. Attempts to mine precious metals in the valley were not successful. The remoteness of Jackson Hole gave cover to fringe elements including poachers, elk tuskers (who killed elk for their two ivory teeth leaving the meat to waste), and horse thieves. Outfitting and guiding became a means of supplementing family income in the valley. Big game hunting and sport fishing became important attractions for the valley, ones that survive until this day. The latter brought the first presidential visitor, Chester A. Arthur, to Jackson Hole and Yellowstone National Park.

Life was not easy in the area. As wealthy eastern visitors traveled to the valley, some ranchers determined that wrangling dudes was easier and more profitable than wrangling cows. In the early 20th century, economic downturns further encouraged the development of dude ranches. The Bar BC, the White Grass, and the Triangle X dude ranches became nationally known. Tourism began to become a significant business in the valley. Who would not want to spend their summers hiking, riding, and fishing beneath the Grand Teton?



Teton Conservation District archives.

At the time that cattle and dude ranching were evolving, the town of Jackson grew as well. Typical of frontier towns, it had mercantile stores, a post office, a school, cafes, saloons, the rodeo, churches, hotels, a playhouse, and a jail. In 1920, Jackson elected the first all-women town council in the United States — dubbed the "petticoat government" by the New York Times. The event that had and continues to have the most profound influence on the unique history of the region was the formation of Grand Teton National Park and the designation of other federal lands, including Yellowstone National Park, Bridger-Teton National Forest, and the National Elk Refuge. The expansion of Grand Teton National Park created incredible controversy that was played out on a national stage. It expanded where communities existed, threatening to close land needed for the economic livelihood of residents.

The current history of the valley continues to change rapidly. As a resort community in a world-class setting in the intermountain west, the pressures for growth, development, and change are tremendous. Teton County at the recent turn of the century had the highest construction expenditure per capita than any of the other 3,800 counties in the United States and the third highest number of construction jobs per capita. Yet 97% of the land in the county is public land. Tourists from all over the world, numbering as many as 3 million annually, visit the area for the scenery, the wildlife, the recreational opportunities, the geographic features, and the romance of the American West.

The impacts of these trends on the fragile landscape and the small community are incredible. The relationship between people, water, the landscape, and the environment continues to define the region today. Change occurs so rapidly that it is important that Jackson Hole maintains a sense of its past and its values. The community needs to understand and remember the effects of the evolution of the valley on the human spirit over time, particularly as it defines its future. ♦

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Contributing Author & Sources:
Jackson Hole Historical Society and Museum

Living in Northwestern Wyoming is not only Special – It's Unique!

Jackson Hole and the surrounding countryside lie at the heart of the Greater Yellowstone Area (GYA), also called the Greater Yellowstone Ecosystem, which is the largest intact natural environment in the lower 48 states. This vast and varied landscape encompasses roughly 12 million acres and contains two national parks, one memorial parkway, six national forests, three national wildlife refuges, unreserved public domain (Bureau of Land Management), Bureau of Reclamation facilities, plus other state and private lands. The GYA spans three states: Idaho, Montana and Wyoming, and includes all or parts of 12 counties. Teton County, Wyoming, home to Jackson Hole, consists of 97% federally owned land.

Photo © Branding Images Photography

The GYA is world renowned for its rugged scenery and incomparable wildlife, wilderness, lakes, rivers, geologic and thermal features, and outdoor recreation opportunities. It is an immense and unique area that warrants special recognition and attention because of the valuable natural resources it offers.

As specified in their original congressional mandates, national forests, national parks, and national wildlife refuges have dissimilar missions, and from their inceptions have managed their respective natural and cultural resources differently. National Forests were established on conservation principles the multiple use of natural resources for the economic needs of American citizens. The U.S. Forest Service, an agency of the United States Department of Agriculture, is responsible for management of forests.

National Parks were founded upon the principles of preservation, public enjoyment, and noninterference with natural processes. The National Park Service, an agency of the United States Department of the Interior, is responsible for administration of parks.

National Wildlife Refuges were created to protect, conserve, and restore plants, fish, birds, and other wildlife species and their habitats. The U.S. Fish & Wildlife Service, an agency of the United States Department of the Interior, is responsible for operation of wildlife refuges.

Modern day management decisions, with regard to public lands, are often made through interagency cooperation. However, the various land agencies enforce rules and regulations specific to their own federal jurisdictions. To obtain more information about the policies that apply to each federal agency, visitors and area residents should stop by visitor centers, ranger stations or administrative offices relative to the forest, park or refuge where travel and activities are planned.

The GYA includes: Yellowstone and Grand Teton National Parks, John D. Rockefeller, Jr. Memorial Parkway, Beaverhead, Bridger-Teton, Caribou-Targhee, Custer, Gallatin, and Shoshone National Forests, National Elk Refuge, Red Rock Lakes National Wildlife Refuge, Gray's Lake National Wildlife Refuge and other state and private lands. ♦

Contributing Author & Sources:
Jackie Skaggs, Grand Teton National Park

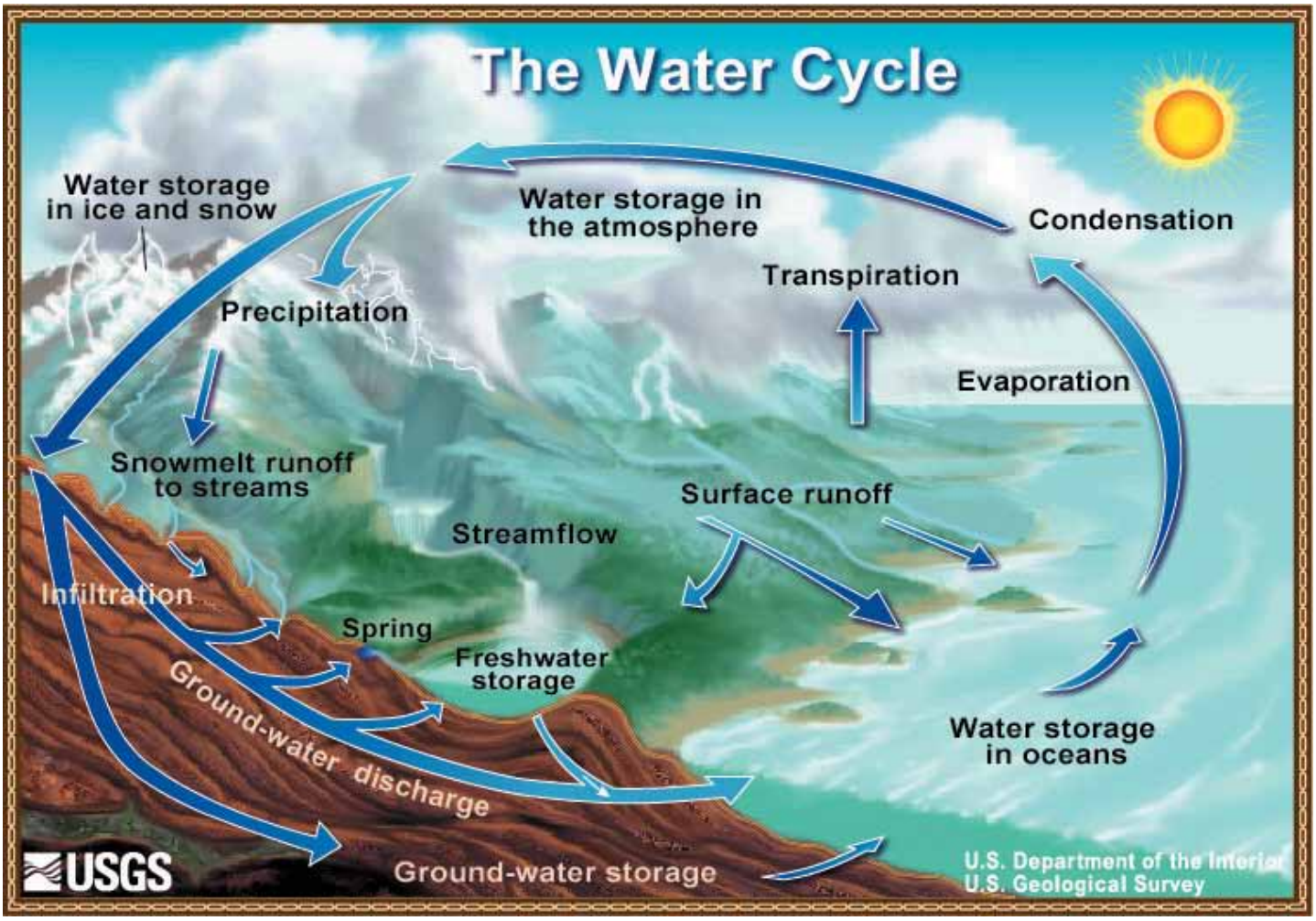
Streams, Riparian Areas, Wetlands, Floodplains, & Groundwater

Streams

Streams offer an aesthetic enhancement to our natural surroundings, as well as important habitat for numerous wildlife species. In Teton County, a stream is a body of running water that is not an identified river or an irrigation ditch and has either or both: 1) an average annual flow of three (3) cubic feet per second or greater; and/or 2) provides a winter habitat for trumpeter swans or serves as a cutthroat trout spawning area. In order to protect these important habitat areas, development along streams must be set back no less than fifty (50) feet, and setbacks are one hundred fifty (150) feet from trout spawning streams. Development in water bodies and floodplains is prohibited in Teton County with very limited exceptions.

Riparian Areas

Riparian areas are the interface between land and water. While these areas make up less than five (5) percent of the landscape, they contain up to seventy five (75) percent of our plant and animal diversity. Technically, a riparian area is the land adjacent to a river or stream that is periodically influenced by flooding. Periodic flooding is an important component of the successful natural maintenance of the riparian area because it determines the type and productivity of vegetation found along a watercourse. Typical riparian vegetation consists of willows, alders, cottonwoods, Colorado blue spruce, as well as numerous shrubs, flowering plants, grasses, and aquatic vegetation. Riparian areas generally have soils with high permeability and a high water table, making them unsuitable for traditional septic systems. Check with an engineer and county and state (Department of Environmental Quality) regulations to avoid groundwater contamination.



Wetlands

Wetlands are areas where water is at, near, or above the land surface long enough to support aquatic or hydrophytic (growing in water or soil too waterlogged for most plants to survive) vegetation and which has soils indicative of wet conditions. Determination of wetlands is based upon the 1989 Army Corps of Engineers definition of jurisdictional wetlands, which excludes irrigation-induced wetlands. Wetlands are protected on the federal, state, and local levels, therefore, obtaining a local permit for developing a wetland does not absolve a developer from obtaining all other state (DEQ) or federal (Army Corp. of Engineers) permits necessary to develop wetlands.

Floodplains

The ten-year floodplain means the land which is subject to a ten percent (10%) or greater chance of flooding in any given year. Flooding is a temporary condition of partial or complete inundation of normally dry land areas from the overflow of inland waters and/or the unusual and rapid accumulation or runoff of surface waters from any source. Teton County has established a Floodplain Management Resolution that includes ordinances, regulations, and building codes, which provide standards for flood damage prevention and reduction.

Groundwater

Groundwater is stored in, and moves slowly through, moderately to highly permeable rocks called aquifers. An aquifer may be a layer of gravel or sand, a layer of sandstone or cavernous limestone, a rubbly top or base of lava flows, or even a large body of massive rock, such as fractured granite, that has sizable openings. In terms of storage at any one instant in time, groundwater is the largest single supply of fresh water available for use by humans. Groundwater is replenished by precipitation and, depending on the local climate and geology, is unevenly distributed in both quantity and quality. Most rural landowners in Teton County rely on a well for their drinking water. Wells have the potential to become contaminated if groundwater is not protected from water pollution. ♦

To prevent water pollution and protect your drinking water:

- Establish and maintain shrubs and grasses along streams and around animal confinement areas to trap and absorb pollution-laden runoff before it reaches streams or groundwater.
- Locate corrals and other livestock confinement areas away from streams. Properly dispose of manure, feed and bedding wastes by spreading them on your cropland. Be sure soil isn't too wet or frozen to absorb it. This will reduce your need for expensive commercial fertilizers. Avoid over-irrigation that can cause valuable topsoil, fertilizer, and pesticide runoff.
- Locate corral and septic systems downslope of your drinking water well. Make sure you know where your neighbors' well and septic systems are located. Their systems can pollute your well and vice versa. Have your septic tank pumped every three to five years.
- Do not mix, apply, or dispose of weed-control chemicals, used motor oil, or other toxic substances near streams or where they can leak into groundwater. Only use enough of the product to get the job done. Avoid household products with hazardous ingredients, or handle them with extreme care. Many toxic ingredients in paint thinners and drain cleaners can contaminate water sources. Never dump hazardous products down drains, the toilet, or near flowing water, ponds or lakes. Do not dump them on the ground. Contact Integrated Solid Waste & Recycling (www.tetonwyo.org/recycling) for proper methods of disposal.

Wildlife Considerations

Critical Winter Range closures on national forest lands December 1 through April 30, annually.

Photo © Branding Images Photography

We may be desperate for snow, but recreating in winter wildlife closure areas is not the way to find it. That's the message several government agencies, environmental groups and recreation clubs have been spreading through the "Don't Poach the Powder" campaign. The groups want to let residents and visitors know that "poaching" wildlife closures on foot, skis, snowboards or snowmobiles can be as harmful to wildlife populations as poaching with a rifle. These winter range closures are mostly around Snow King and south of town and have been in place for well over 10 years.

Why is it harmful to violate winter range closures?

- Human presence stresses wildlife, causing them to use precious energy they need to survive until summer.
- Deep snow, cold temperatures, and a lack of food make winter a stressful time for wildlife.
- Large ungulates such as elk, mule deer, moose and bighorn sheep rely on windswept south facing hillsides for winter food.

What can you do to help?

- Respect wildlife and their habitat by knowing the location of closed areas before entering the Forest and avoid wildlife winter range. Closures are in effect from December 1 - April 30.
- Obtain a free winter travel map from any Forest Service office or the Jackson Hole and Greater Yellowstone Visitor Center at 532 N. Cache in Jackson.
- Help spread the word about winter closures with your friends. Many of the violations are not intentional and could be avoided if the people knew where the closure areas were located.
- Obey the closures even when the snow is beginning to melt and dry areas are exposed. Hikers, paragliders, horseback riders and bicyclists can have the same dire impacts on weakened wildlife just coming out of the winter season. Spring is an important time for wildlife to restore depleted energy resources.
- Stop at the information kiosk at major forest trailheads. The winter closure maps and information are generally posted in these areas as well.
- Report offenders to the Bridger-Teton National Forest at 739-5500.

Contributing Authors & Sources:
Mary Cernicek, Bridger-Teton National Forest;
Jackson Hole Wildlife Foundation

Wildlife Feeding Facts

Teton County and Town of Jackson regulations took effect in July 2003 that prohibit wildlife feeding by private citizens. In plain English, the rules state that no private citizen shall feed wildlife including big game, bears, or predators such as wolves and coyotes.

Why?

For the welfare of wildlife and the safety of people. Feeding habituates wildlife to human activity and leads to a loss of fear of humans. Food-habituated wild animals become bold and aggressive, and may become dangerous to people and pets. Feeding unnaturally concentrates animals, leading to the spread of disease among them, increased mortality on roads, and damage to surrounding vegetation. Concentrations of deer or elk have in the past attracted predators such as mountain lions into residential areas. Wyoming Game and Fish euthanized an unprecedented 30 bears in 2001, most of them due to having become food-habituated problem bears. Because educational efforts have not been successful in curtailing the private feeding of wildlife, the regulation was put in place.

What about feeding birds?

From April 1 to Nov. 30, all bird feeders shall be hung at least ten feet from the ground and four feet from any structure, tree or limb, and shall have a catch pan under the feeder that is 4" larger in diameter than the widest diameter of the feeder itself. (See page 43 of this handbook for more information.)

Am I in violation of the law if a bear raids my garbage?

Bear-resistant garbage containers are required if you live in the areas mapped as Conflict Priority Area 1, which includes all areas of the County excluding: Town of Jackson, Rafter J, Melody Ranch, 3 Creek, and Saddle Butte. (See page 42 of this handbook for more information.) If you live in an area where bear-resistant garbage containers are not required, wild animals might still find their way into your garbage. We suggest all citizen invest in bear-resistant garbage containers or otherwise secure garbage cans, dog food, and other attractants such that bears can't get into them.

What about the hay and feed I put out for my horses/llamas?

If hay meant for livestock attracts wildlife, a representative from the Town, County, or Wyoming Game and Fish might visit with the property owner and advise ways of securing the feed so it is out of reach of wildlife. Only if there is an evident intent on the part of the property owner to feed wildlife does a violation occur. Agricultural operations taxed as such are exempt from the regulations.

Who enforces this law, and what is the penalty?

The planning and zoning enforcement officer of Teton County and the Town of Jackson Police, as well as Wyoming Game and Fish, are in charge of enforcement. The fine for violation is up to $750 per day and each day is considered a separate offense. In most cases, the first offense would result in a notice of violation letter and no fine.

What do I do if I suspect a violation?

Provide this information to the offending party, or report it to the Town of Jackson Police through Law Enforcement Dispatch (733-2331) or the Teton County Planning and Zoning Enforcement Officer (733-3959).

What will happen to the animals that are used to being fed?

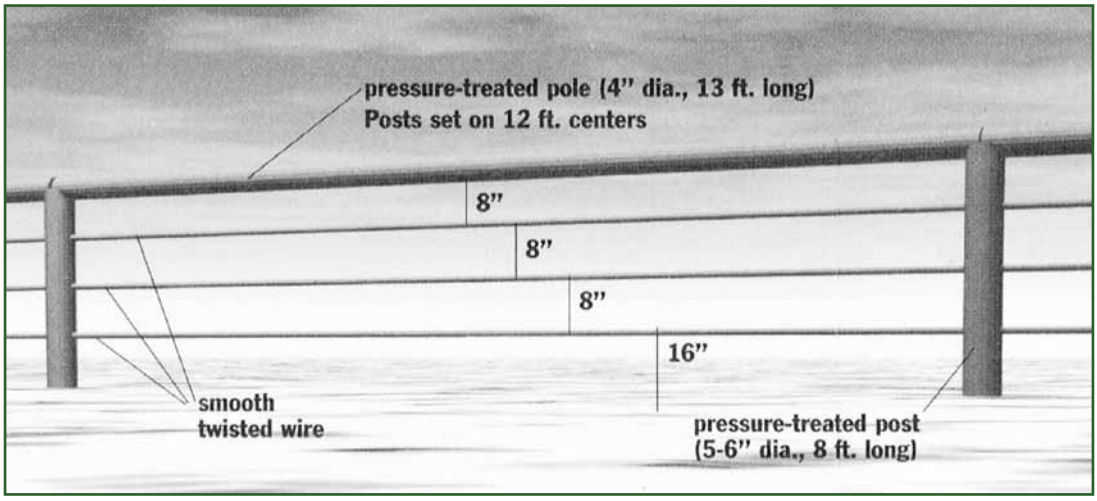
MOST of the animals will move on when no food is to be had. They will find natural forage areas and in the long run be healthier. Some animals may go hungry, some may show aggression, and some may even die. This will be a human-caused problem, and continued feeding will only worsen the problem. Wyoming Game and Fish (733-2321) stands ready to help as some animals may need to be relocated or euthanized.

How can people help wildlife in county neighborhoods?

Leave old growth and snags for cavity nesting birds. Rid your property of noxious weeds that replace natural forage. If you have a fence, make it wildlife friendly. (Information about how is available from the Jackson Hole Wildlife Foundation at 739-0968.) If you have an old barbed wire fence, contact the Wildlife Foundation for help with its removal. An excellent resource for more information is Charlie Craighead's book, *Who Ate the Backyard*, available at the Jackson Hole Visitor Center, local bookstores, and the Teton County Library.

On wildlife-friendly fencing of private property:

We share Jackson Hole with many different species of wildlife and some that are unique to this area. Certain animals such as elk and deer migrate back and forth between the mountains and the valley floor. Others live as year-round residents on ranchlands or in river bottom corridors. Fences act as barriers, and can lead to needless wildlife deaths something that most people would work to prevent if they could. So what is the "ideal" fence? From wildlife's standpoint, it is one that can be seen (and not run into) and one that can be leapt over or scurried under without injury. Or one that isn't there at all when it isn't needed. Some ranchers use lay-down fence that is only up during the summer when cows are in the pasture. Here are some ideas for fencing that meet the needs of both landowners and wildlife. There are a few things to consider when planning your fencing project. Fences are used for a variety of purposes: to delineate a property boundary, to contain livestock or pets, to prevent trespassing, to enclose gardens and barns. There are many options available to meet these needs. Wildlife-friendly fencing is now a requirement of the Teton County Land Development Regulations (Section 49220, Wildlife Friendly Fencing). See the box below for specifics.



Example of a Wildlife-Friendly Fence

Fencing Considerations (Teton County LDRs, Section 49220)

- Fencing Height: Fencing, for purposes other than livestock control, shall be no higher than thirty-eight (38) inches above the ground. Fencing for livestock control shall be no higher than forty-two (42) inches above the ground. For both of the above fence types, spacing between the top two wires or top pole/rail and adjacent wire shall be at least 12 inches.
- Fencing adjacent to intersections is subject to Section 4760, Clear View of Intersecting Streets.
- Wood (or similar material) top poles, and either wood rails or wire strands are permitted as horizontal elements in fencing. The wire strands shall be smooth or twisted wire. Barbed wires may be used in the middle strands, not including the top and bottom strands, when necessary to control livestock.
- The required fencing design includes a top level of a wood (or similar material) pole rather than wire. The bottom rail or wire strand shall be at least sixteen (16) inches above the ground.
- The spacing of fence posts shall be on 12-foot centers unless topography prohibits this spacing. The posts shall have extra height to allow for any necessary lower or raising of the top rail. Spacing of the second and third wire shall be evenly spaced. Spacing distances may vary from 7-8 inches depending on the height of the fence.
- Buck and rail fencing shall be avoided. When buck and rail fencing is necessary due to rocky soil, a portion of the fence shall be laid down or constructed to a lower height, not to exceed thirty-eight (38) inches, to allow wildlife movement.
- The top level of a newly constructed fence shall be flagged immediately after construction. The flagging shall be white and maintained for at least one (1) year.
- Special Purpose Fencing: The Planning Director may issue exemptions to the requirements above for a special purpose provided that the area fenced is the smallest necessary to achieve its designated task. 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, fencing for winter livestock feeding sites, and fencing for 4-H projects), securing a construction site, swimming pool enclosure, screening of refuse facilities, recycling containers, dumpsters, and small yard enclosures.

Photo © Branding Images Photography

Highways and wildlife don't mix — preventing road kill:

Did you know that an average of 194 elk, deer and moose are killed on Teton County roads each winter? Road kill is probably one of the greatest sources of winter mortality for moose and deer in Teton County. For nearly a decade the Jackson Hole Wildlife Foundation has launched a multifaceted road kill reduction campaign, designed to reduce wildlife/vehicle collisions. The program began with an analysis of road kill data to identify the exact locations of problem areas or "hot spots" for collisions within the valley. Wildlife Foundation volunteers have collected additional data to help document the incidence of road kill on Teton County highways. The results of this work have been compiled, along with statistics provided by both the Wyoming Department of Transportation and the Wyoming Game and Fish Department, among other sources to determine the extent of the problem and help devise new ways to reduce the amount of road kill. With this information in hand, we will be better able to focus our efforts to protect both people and wildlife. Anyone interested in collecting data should call the Wildlife Foundation at 739-0968. To obtain a copy of the 2003 roadway and wildlife crossing study, go to www.jhwildlife.org to download a PDF. The primary action you can take to help is slow down and be aware that wildlife may be on the road.

Water Considerations

- Fenced waterways can lead to the deaths of large waterfowl such as trumpeter swans, great blue herons and sandhill cranes by blocking critical takeoff and landing paths. Swans need at least 100 unobstructed feet to takeoff. Swan losses due to fence-related deaths have taken a toll on the struggling population of trumpeter swans in Jackson Hole that already teeters dangerously close to being listed as an endangered species.

- Highly visible fences with wooden top rails help trumpeter swans avoid hitting fences.

- Avoid the use of barbed wire at all costs. If no other alternative is available put a plastic PVC sleeve on sections of each strand of wire for better visibility. If all else fails, even the use of inexpensive florescent flagging tied onto the fence will help. ♦

For More Information:

Wyoming Game & Fish: 733-2321
Teton County Planning Dept.: 733-3959
Teton County Weed & Pest: 733-8419
Town of Jackson: 733-3932
Law Enforcement Dispatch: 733-2331
Jackson Hole Wildlife Foundation: 739-0968

Contributing Authors & Sources:
Mary Cernicek, Bridger-Teton National Forest;
Jackson Hole Wildlife Foundation

Domestic Stock & Wildlife Disease Issues

Chronic Wasting Disease (CWD)

Chronic wasting disease (CWD) is a transmissible spongiform encephalopathy (TSE) of deer and elk. To date, this disease has been found only in cervids (members of the deer family). First recognized as a clinical "wasting" syndrome in 1967 in mule deer in a wildlife research facility in northern Colorado, it was identified as a TSE in 1978. CWD is typified by chronic weight loss leading to death. There is no known relationship between CWD and any other TSE of animals or people.

In the mid-1980s, CWD was detected in free-ranging deer and elk in contiguous portions of northeastern Colorado and southeastern Wyoming. Species that have been affected with CWD include Rocky Mountain elk, mule deer, white-tailed deer, and black-tailed deer. Other ruminant species, including wild ruminants and domestic cattle, sheep, and goats, have been housed in wildlife facilities in direct or indirect contact with CWD-affected deer and elk with no evidence of disease transmission. There is ongoing research to further explore the possibility of transmission of CWD to other species.

About 100 cases of CWD have been reported in wild mule deer, white-tailed deer, and elk, and only eleven of those cases were in Wyoming. The number of cases has gone up in recent years — no one knows whether that is because we're looking harder for the disease or because more deer are infected now. At this point, chronic wasting disease remains rare in the wild, and it is confined to a few hunt areas in north-central Colorado and southeastern Wyoming. And in the thirty years we have known about the disease, no human has ever come down with it.

Chronic wasting disease can take several years to claim its victims, and the vets running the studies expect to continue them for as much as a decade. In the meantime, the Wyoming State Veterinary Laboratory will continue to cooperate in the national watch for BSE, and the Game and Fish Department will continue to test for chronic wasting disease to keep tabs on how many animals are affected and where the disease is found.

Even in the parts of Wyoming and Colorado where chronic wasting disease is found, less than six percent of deer are infected. In these areas and in other places where big game animals may carry different diseases, a few precautions are sensible:

- Don't shoot an animal that is acting abnormally or looks sick.
- Wear rubber or latex gloves when you field-dress your animal.
- In areas where chronic wasting disease has been reported, minimize your contact with a dead deer's brain and spinal cord and wash your hands after contact.
- Don't eat deer brains or spinal cord.
- Bone out your deer meat and discard the brain, spinal cord, eyes, spleen, and lymph nodes.

Clinical Signs

Most cases of CWD occur in adult animals. The disease is progressive and always fatal. The most obvious and consistent clinical sign of CWD is weight loss over time. Behavioral changes also occur in the majority of cases, including decreased interactions with other animals, listlessness, lowering of the head, blank facial expression, and repetitive walking in set patterns. In elk, behavioral changes may also include hyper-excitability and nervousness. Affected animals continue to eat grain but may show decreased interest in hay. Excessive salivation and grinding of the teeth also are observed. Most deer show increased drinking and urination.

Contributing Authors & Sources:
www.aphis.usda.gov,www.gf.state.wy.us

West Nile Virus (WNV)

West Nile virus (WNV) is a mosquito-borne disease that can cause encephalitis or brain infection. Mosquitoes spread this virus after they feed on infected birds and then bite people, other birds, and animals. WNV is not spread by person-to-person contact, and there is no evidence that people can get the virus by handling infected animals. Surveillance for West Nile virus was initiated in Wyoming in 2001 and currently involves the reporting and testing of dead birds and the testing of sick horses.

Suspected human cases are also tested in the Wyoming Department of Health's Public Health Lab. People with mild infections may experience fever, headache, body aches, skin rash, and swollen lymph glands. This is called West Nile fever. People with more severe infections may experience high fever, headache, neck stiffness, stupor, disorientation, coma, tremors, convulsions, and paralysis. This is called West Nile encephalitis. If you have any of these symptoms, contact your health care provider. Please see your primary care physician for more details.

West Nile virus human cases in Wyoming occur primarily in the late summer or early fall, although the mosquito season is April through October. The majority of people who get infected with the virus have no illness, or at most, have an infection similar to a mild flu with fever, headache and fatigue. Rarely will the virus multiply in the central nervous system and cause the brain disease called West Nile encephalitis. However, two-thirds of people who do develop encephalitis or meningitis will have serious long-term health problems and some people never fully recover.

Horses are affected by West Nile virus (WNV) much more often than any other domestic animals. Many horses infected with WNV do not develop any illness, but of horses that become ill, about 30 percent die or need to be euthanized. Other livestock and poultry do not commonly show any illness if infected with WNV. In 2002, more than 15,000 equine were diagnosed with cases of illness caused by WNV. Of those, it is estimated that approximately 33 percent died or were euthanized. This does not rule out the possibility that other horses may have been infected with the virus. It is likely that many horses recover from infection without clinical illness. No treatment is currently available for WNV; however, APHIS Veterinary Services is working to assist all companies interested in producing a vaccine. On August 1, 2001, USDA issued a conditional license to Fort Dodge Animal Health of Fort Dodge, IA, a division of Wyeth, for a vaccine intended to aid in the prevention of the disease in horses. In November 2002, a full license was granted for this product. Use of this product is restricted to licensed veterinarians.

Preventing animals' exposure to mosquitoes is essential. The best way to do this is by removing any potential sources of water in which mosquitoes can breed. Dispose of any water-holding containers, including discarded tires. Drill holes in the bottom of containers that are left outside. Clean clogged roof gutters on an annual basis. Turn over wading pools or wheelbarrows when not in use, and do not allow water to stagnate in bird baths. Aerate ornamental pools or stock them with fish. Clean and chlorinate swimming pools that are not in use and be aware that mosquitoes can breed in the water that collects on swimming pool covers. Use landscaping to eliminate standing water that collects on your property; mosquitoes can breed in any puddle that lasts more than 4 days. Thoroughly clean livestock-watering troughs on a weekly basis, if possible. In locations where eliminating mosquito breeding areas is not a practical alternative, larviciding is the most effective control measure. Several biologically-based larvicides are available to the public. Local mosquito-control authorities can help in assessing the mosquito-breeding risks associated with your property. The Teton County Mosquito Abatement Program can be reached at 733-1896 or see www.badskeeter.org for more information.

Contributing Authors & Sources:
www.badskeeter.org

Brucellosis

Brucellosis is an infectious disease caused by the bacteria of the genus Brucella. These bacteria are primarily passed among animals, and they cause disease in many different vertebrates. Various Brucella species affect sheep, goats, cattle, deer, elk, pigs, dogs, and several other animals. Humans become infected by coming in contact with animals or animal products that are contaminated with these bacteria. In humans brucellosis can cause a range of symptoms that are similar to the flu and may include fever, sweats, headaches, back pains, and physical weakness. Sever infections of the central nervous systems or lining of the heart may occur. Brucellosis can also cause long-lasting or chronic symptoms that include recurrent fevers, joint pain, and fatigue.

Photo © Branding Images Photography

Brucellosis causes fetal abortions in cattle and is carried by some of the free-ranging bison in Yellowstone National Park. For more than a decade, scientists, local citizens, and veterinarians have debated the risk posed when bison cross park boundaries onto lands grazed by cattle. After years of controversial bison removals while managers tried unsuccessfully to develop an acceptable interagency bison management plan, the State of Montana sued the federal government to speed resolution of the issue.

While under NPS policy of managing for natural processes Yellowstone bison herds have grown in size, apparently unaffected by the disease, a separate goal of the U.S. Department of Agriculture Animal and Plant Health Inspection Service (APHIS) has been to eradicate brucellosis. Somewhere in between are park neighbors: the U.S. Forest Service, custodians of multiple land uses, including permitted livestock grazing; the Montana Department of Fish, Wildlife, and Parks, managers of game — which by state definition does not include bison but does include the very huntable elk, who also carry brucellosis. Environmental groups and some researchers point out the lack of demonstrated brucellosis transmission from wild bison to cattle, and note the double standard in assessing risk of disease from the more abundant and widespread elk.

Brucellosis is a problem of particular concern to wildlife managers in western Wyoming because elk herds associated with feed grounds there carry this disease. While the disease is not fatal to adult elk, it typically causes fifty percent of infected females to abort their first calves following infection. Even more important are the consequences of elk infecting cattle with brucellosis. If this ever happened, it could interfere with cattle sale and shipment in Wyoming. The state's livestock industry could face dire economic impacts. In such circumstances, Wyoming's elk could face a crisis of their own. If ranchers found that elk were infecting their cattle, there might well be a call for compensation payments from the state and/or extreme control measures. The state might be forced to reduce elk herds. A testing program could be required in which all elk testing positive were immediately slaughtered. There might be pressure to eliminate elk feed ground, since feedground elk are more likely to carry brucellosis than elk wintering on native habitat.

Brucellosis is a problem in elk of the Yellowstone area, not only because it is a contagious disease, but because it has focused intense political pressure on a treasured wildlife resource. Both wildlife managers and livestock managers are interested in preventing the spread of brucellosis among elk, bison, and cattle, but reaching that goal won't be simple. The best way to begin is with at combination of strategies that address both the causes and potential effects of the disease. For more information, please access the Greater Yellowstone Interagency Brucellosis Committee website at www.nps.gov/gyibc/home.htm. ♦

Contributing Authors & Sources:
"Beating Brucellosis," National Elk Refuge publication;
www.nature.nps.gov (see brucellosis);
www.cdc.gov/ncidod (see brucellosis)

Owning Land

Buying land in Teton County will most likely be a rural land purchase. Buying land in a rural area is definitely different than buying land in the city. Accessing your land can also be more difficult in the country, where access roads may be owned by the county, state, or federal government, or even your neighbor.

Utilities

The local provider of gas and electric is Lower Valley Energy (www.lvenergy.com). If you are outside of the service area for gas, but would like to utilize propane, it is important to remember that all utilities in Teton County must be installed underground, including propane tanks.

Telephone and electrical service may not be available in all areas of Teton County. It is important to determine the proximity of electrical power. It can be very expensive to extend power lines to remote areas. It may be necessary to cross property owned by others in order to extend electrical service to your property in the most cost-efficient manner. It is important the proper easements are in place to allow lines to be built to your property. Cellular phones may not work in all areas.

Water

Wyoming's first State Engineer adopted a comprehensive water rights code in 1890. To this day, the 1890 code serves as the basis for regulating Wyoming's water resources. Wyoming uses a permit system, administered by the State Engineer, to grant water rights to unappropriated water. If you will be using well water, prior to drilling the well, you must obtain an "Application to Appropriate Groundwater" from the Building Department, which must be completed and submitted to the State Engineer's Office. Upon completion of well drilling, developing and testing of well yield, a "Completion Report" is sent to the State Engineer's Office, which details soil layers, water level, gallons per minute, etc. All surface water rights in Wyoming have either been adjudicated or exist within the permit system. Water rights have the status of property and may be sold or conveyed. Any ponds created on a property require a Reservoir Permit from the State Engineer's Office. When an irrigation ditch is used to create and supply water features the basic rule is that the same amount of water entering the property should leave the property, which typically results in lined ponds. Alteration of a ditch requires the permission of all irrigation right holders. State statute holds that the subdivision of a property with a ditch through it requires the property owner to alert all downstream users prior to subdividing.

Avoid Frozen Pipes

Once pipes are frozen, they can be very difficult and costly to unfreeze. An ounce of prevention is worth a pound of cure!

- Check your crawl space and make sure your pipes are properly insulated and your venting is closed.
- Trailer skirting should be in place.
- It is recommended to leave non-compacted snow over water and sewer lines to act as an insulating barrier.
- Keep cabinet doors under sinks open, and if in doubt, leave a thin stream of water running.
- Irrigation systems should be blown out to prevent winter freeze-ups.

Septic Systems

Where a public sanitary sewer system is located within 500 feet and legal access is obtainable, it is required to connect to the system, which can be expensive. If a public sanitary system is not available, lot owners are required to install individual septic tanks and sewer disposal systems, which must be approved by the County Sanitarian. In many parts of Teton County where the water table is high, mound systems are the only acceptable septic method and are quite a bit more expensive than traditional systems. In areas where sewer lines exist, the lines that extend from your home to the mains (pipe in the middle of the street) are your responsibility. This probably includes pipe located under a paved street. Repairs and maintenance on lines should be planned in the summer and fall.

Access to Your Land

The fact that you can drive to your property does not necessarily guarantee that you, your guests, and emergency service vehicles can achieve that same level of access at all times. Please consider that emergency response times (sheriff, fire suppression, medical care, etc.) cannot be guaranteed.

Establishing a new access to your land from a County road requires many permits required by Teton County. For more information please contact the Teton County Planning and Development Department at 733-3959.

There can be problems with the legal aspects of access, especially if you gain access across property belonging to others. To establish access through private land or off a private road, you should obtain legal advice and consult with a local title company to be sure access is available to your piece of property.

Working on the Mathieu Ranch. Teton Conservation District archives.

Many rural properties are served by private roads that are not maintained by county personnel. Be sure you know what type of maintenance to expect and who will provide that maintenance. You may need to drive your children to the nearest county road so they can get to school. In extreme weather even county and state maintained roads can become impassable. You may need a four-wheel drive vehicle with chains for travel during those episodes, which can last for several days. Unpaved roads generate dust and increase vehicle maintenance costs, which is a fact of life for most rural residents.

Your Property

There are many issues that can affect your property. It is important to research these items before purchasing land. Easements may require you to allow construction of roads, power lines, water lines, sewer lines, etc. across your land. Check these issues carefully.

You may be provided a plat of your property, but unless the land has been surveyed by a licensed surveyor, you cannot assume that a plat is accurate.

Many subdivisions have covenants that limit the use of the property. It is important to obtain a copy of the covenants and make sure that you can live with the rules. Homeowners' associations are required to take care of common elements, roads, open space etc., and dues are almost always a requirement. ♦

Contributing Authors & Sources:
Susan Johnson, Teton County Planning and Development;
Teton County Public Works Department www.townofjackson.com

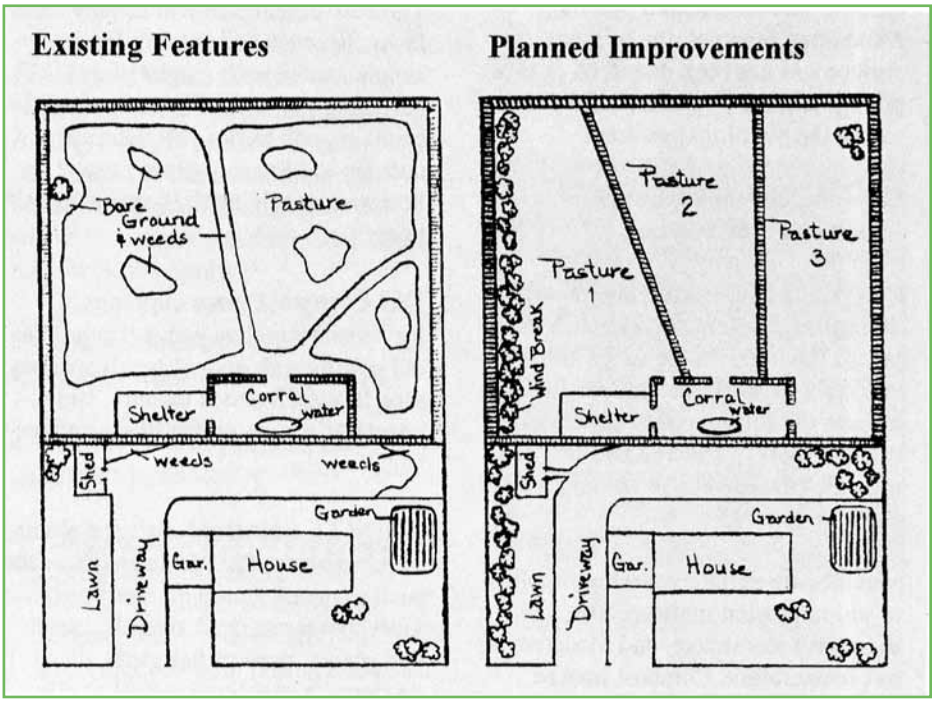
A Property Management Plan

When developing property in Teton County there are numerous federal, state, and local agencies that can be of assistance for both regulatory information and advisory services. Please see page 63 for these agencies. The first step to successful land and natural resource management is a "Management Plan." Any landowner can easily design one, and all should. Before you begin developing your plan, look over your property, make a sketch and take a few notes about your property.

Property Management Plan: Items to Include in your Sketch & Notes

- property boundaries
- fences & corrals
- buildings
- wells (for humans & stock)
- septic system
- streams, wetlands, & ponds
- bare ground
- roads & driveways
- weeds
- lawn, garden, pasture or crop lands
- trees and/or shrubs
- soil type
- depth to groundwater (ask your well driller)
- neighboring land uses
- topography
- utility lines (phone, gas, electricity, etc.)

Now, visualize what you'd like your land to look like. Decide what things are important to you, what things you want to avoid, and what you want your land to do for you. These are your management goals. Once you've looked at your property and identified your goals, you can begin to develop a management plan for reaching your goals. Remember, even if you like things just the way they are, you will need to do something to keep weeds from coming in and to keep your water clean.



The University of Wyoming Cooperative Extension Service has information available on gardening, lawn care, and native landscaping. They can be reached at 733-3087. The Natural Resources Conservation Service (NRCS) has specialists that can assist you in developing forestry, range, farm, wildlife, and wetland management plans. They administer several federal programs that provide technical assistance and cost-share opportunities. They can be contacted at (307) 886-9001. There are also a host of federal, state and Conservation District funds available to implement Best Management Practices (BMPs). Many are cost-share type programs. They require that a management plan be developed to be eligible for financial assistance. All practices must meet certain standards and be constructed to a set of specifications. These practices must also be maintained by the landowner for a specified period of time. Contact the Teton Conservation District at 733-2110 for information on individual programs. ♦

Contributing Authors & Sources:
"Living on a Few Acres", ID NRCS Ferry County Rural Living Handbook;
Susan Johnson, Teton County Planning and Development

Building Codes and Land Development Regulations

Building Codes

Building codes have been established to safeguard public health, safety, and welfare related to occupancy and use of buildings and structures. Teton County has adopted the 2006 Uniform Building Code (this changed to the International Building Code effective June 1, 2004), published by the International Conference of Building Officials, which can be found in the Teton County Planning and Development Office as the County Building Codes Resolution. This Resolution includes costs of building permit fees, specifications on building heights, roof construction, plumbing and electrical requirements, and inspections.

Land Development Regulations (LDRs)

Teton County's Land Development Regulations are an extensive set of rules, standards, and procedures that are in place to uphold the community's vision and ideals established in the Jackson/Teton County Comprehensive Plan. It includes zoning regulations; natural, scenic, and agricultural resources protection; development standards; administrative procedures; platting and land records; definitions; enforcement; and resolutions adopted as part of the Land Development Regulations. Resolutions include: Jackson Hole Airport, County Building Codes, Floodplain Management, Fire Codes, Fire Protection, Scenic Resources, Solar Access Regulations, Small Wastewater Facility, Transportation Master Plan, and Woodstove Regulations.

Everything you need to know about developing your land in Teton County can be found in the Land Development Regulations. Depending on the degree of development proposed, certified land surveyors, engineers, architects, and environmental consultants can be hired to assist in meeting all the requirements of your development plan. One thing to remember is that almost any disturbance on the land is considered to be development and will require a permit. When in doubt visit the planning office to be sure all requirements are fulfilled before starting any development project. Copies of Land Development Regulations are found on the web at the Teton County government website www.tetonwyo.org or can be obtained at the Teton County Planning and Development Office on the corner of Simpson and Willow. ♦

Land Development Regulations can be found on the Teton County Government website:

www.tetonwyo.org.

Contributing Authors & Sources:
Susan Johnson,Teton County Planning and Development;
Kate Mead, Teton Conservation District Board Member

Wyoming Water Law

The Wyoming Constitution provides that all water of natural streams, springs, lakes or collections of still water within the boundaries of the state are property of the state. Wyo. Const. Art. 8, sect. 1. The Constitution vests supervision of the waters of the state in the State Board of Control. Wyo. Const. Art. 8, sect. 2. Article 8, section 3 provides, "Priority of appropriation shall give the better right…."

Showing streamflow in a cemented ditch. Hanson - Boyle Ditch, circa 1960. Teton Conservation District archives.

Western water law was established in the mining camps of California in the early 1800s. Later termed the doctrine of "prior appropriation," western water law was based on the premise of first in time, first in right. The first person to put water in a stream to beneficial use had the highest priority water right on that stream. Priority is tied to the date when water is first put to beneficial use. Wyoming adopted the doctrine of prior appropriation at statehood and, as stated above, placed the concept in our constitution. In order to obtain a water right in Wyoming, an application is made to the State Board of Control. The application must include detailed information concerning the water source, the point of diversion, the lands upon which the water shall be used, the specific use and, of course, the priority date requested. Engineering and surveying firms are generally experienced in submitting applications for water rights to the State Board of Control. The process can be lengthy requiring notice to the public and specific notice to other water rights holders on a stream. If water is available for appropriation, the Board of Control will issue a certificate of an adjudicated water right bearing a priority date that is notice to all the world of the priority of use.

Most streams in Teton County have historically been used for irrigation. But, beware of helping yourself to water from a stream even if it flows through your property. By law, you must have a certificate from the State Engineers Office to allow you to appropriate the waters of the state. In addition, if an irrigation ditch flows through your property, you may not appropriate water from that ditch unless you have a valid water right to do so.

That being said, irrigation ditches are the source of a great deal of contention in our county. Irrigation ditches may flow from a head gate located on a stream or river, through the land of non water rights holders to the point of use. Such ditches are considered part and parcel of the irrigation right and are a valuable property right. Irrigation ditches may be altered subject to the "no injury rule." This rule requires that no injury may be inflicted on the water rights holders use by any alteration of the ditch. The water rights holders may go on the property of another to maintain his/her ditch. Maintenance can run the gamut from using a shovel to shore up a ditch bank to using a backhoe or track hoe to clean out a ditch. The right to use a ditch across another's property may not appear in the record title of the property crossed. A ditch right is generally viewed as an easement that can be identified by sight.

Water rights attach to the land and are transferred with the land. Subdivisions platted after 1981 were required to either abandon water rights or make other specific provision for them so even if a stream flows through your yard, if you are in a subdivision, in all probability you do not have a right to use water from the stream. If you buy property with a water right attached, have the seller provide you with all certificates issued by the State Board of Control. Because the right transfers with the land, you will hold the right of one of the previous owners of the property with the original priority date. There is no need to transfer the right into your name. Pay attention to the point of use specified on the certificate. The certificate will indicate the acreage that may be irrigated by quarter quarter section. The certificate will also tell you the historical use of the water. If you plan to change the use, contact the State Engineer's Office to learn whether the change of use is authorized under your water right. You may be required to petition the State Board of Control formally for a change of use.

Just how much water can you use on your land?

Wyoming law allows you to use no more than one cubic foot of water per second of time (CFS) for each seventy acre tract. Since the calculation is a complicated one, contact the Teton Conservation District or an engineering company to assist you in calculating your water use. Don't hesitate to learn from your neighbors if they have a water right. In Teton County, it is common for water rights holders to alternate irrigation days or even an entire irrigation week with other neighbors. Another rule of water law is "use it or lose it." If you have a water right, you must continue to put it to beneficial use at least once every five years. Failure to use your water right for five successive years may result in another appropriator bringing

abandonment proceedings against you. Once again, this procedure is controlled by the State Board of Control. Upon application for abandonment proceedings, the State Board of Control must hold an evidentiary hearing in order to declare a water right abandoned.
Water drawn from groundwater wells is also considered "waters of the state" and a groundwater certificate must be obtained from the State Engineers Office in order to pump water from a well. Groundwater must be put to beneficial use just like surface water and is subject to the same rules as surface water.

Ponds have become popular features of new development in Teton County. If you are considering building a pond, also consider whether it is appropriate in a semi-arid climate. Keeping a pond filled in our climate may be a challenge. Once again, if you use waters of the state to fill your pond, you will need a water right to do so. A one time per season fill permit is available for a pond from the State Engineer's Office. If you intend to keep fish alive in your pond, you will need a flow through right that allows you to run a water supply through your pond. This type of water right is not the same as an irrigation water right and may require an application to the State Board of Control for a change of use if you plan to use an irrigation water right.

Finally, if you are an irrigator, you must take care to make sure that the water you use does not damage other property owners. An unattended irrigation dam can cause a flood in a short period of time. You will be held responsible for damages to the property of others caused by the water you appropriate.

Wyoming is divided into Water Divisions. Teton County is in Water Division 4. The Water Superintendent for Division 4 is Jade Henderson whose office is located in Cokeville, Wyoming. Both Bodean Barney and Jade Henderson will be happy to answer questions regarding water rights. ♦

Bodean Barney
Water Commissioner, Dist. 16
Water Div. IV
(State Engineer's Office)
Phone : (307)732-8245
Fax : (307)739-0770
Email : bbarne@seo.wyo.gov

Jade Henderson
Superintendent
Division IV
Office: (307)279-3441
Fax: (307)279-3217
Email:jhende@seo.wyo.gov

Teton Conservation District Recommended Pond Guidelines


Wildlife-friendly pond

- A watershed analysis should be conducted to identifying seasonal nutrient loading concerns that consider adjacent drainage area landscaping treatment such as fertilizer use, herbicide applications, impervious surface drainage, and overall run off. Incorporate "hemi-marsh" design principles, an approximate 1:1 ratio of open water (>3 ft) to vegetated shallows (<3 ft).
- Incorporate downed logs along the shorelines to provide habitat for macro-invertebrates and amphibians.
- Maximize the sinuosity of the shoreline by varying the shoreline and/or locations of planting zones 2 feet deep or less.
- Incorporate multi-stage shrub plantings into the exterior revegetation plan to provide seasonal habitat for songbirds and ungulates.
- Incorporate multi-stage cottonwood plantings into the exterior revegetation plan to supplement the regeneration of cottonwoods in the historic Snake River floodplain.
- Incorporate native grasses to transition from wetland to upland areas (no sod). Do not mow to the edge of the pond.
- Include a pond maintenance plan that addresses long and short term algal and mosquito control.
- Include a weed control plan with the revegetation plan that addresses potential weed infestations in the disturbed areas and weed control near sensitive aquatic sites.
- Construct low profile island sites with gradual contours of at least 5:1 slope.
- Include safety considerations where a gradual slope of at least 3.1 or flatter is constructed to prevent hazardous situations, such as drowning of children and wildlife.
- If a pond has an existing water right it needs to be approved by the state engineer's office and if required a wetland permit by the US Army Corps of Engineers.
- Ponds should not be placed beneath overhead power lines or in wetlands crossed by fence lines. Power lines and fence lines located in or adjacent to probable flight corridors should be relocated if possible or made visible with markers.
- Precautions should be made when considering the use of aerators in ponds as they pose a risk to wildlife in the winter.
- Incorporate an in and out flow regulator where the quality and amount of flow of the pond can be controlled.
- Include the ability to drain the pond if necessary.
- Line ponds to protect groundwater and other area waterways.

Please contact Teton Conservation District at the (307) 733-2110 for specific suggestions regarding individual pond design.

Contributing Authors & Sources:
Rachel Daluge, Teton Conservation District;
Dan Leemon, Teton Conservation District

Soil: The Foundation of your Operation

Soil consists of mineral and organic matter, soil air, and soil water. Soils differ in appearance, composition, productivity, and management requirements within short distances. The properties of the soil at any given place result from the integrated effects of five factors: parent material, living matter, climate, relief, and time. No single factor is responsible for all soil characteristics. All of the factors act together, but at different rates, to form each individual soil. The relative importance of the factors varies.

Don Lewis, soil scientist, explains the limitations of a shallow site during a 4-H conservation camp. Photo by Jim Rowles, circa 1975. Teton Conservation District archives.

Soil texture is the relative proportions of sand, silt, and clay particles in a mass of soil. The basic textural classes, in order of increasing proportion of fine particles, are sand, loamy sand, sandy loam, loam, silt, silt loam, sandy clay loam, clay loam, silty clay loam, sandy clay, silty clay, and clay. The sand, loamy sand, and sandy loam classes may be further divided by specifying "coarse", "fine", or "very fine." The combination of these textures, as well as the depth to bedrock, the depth to the water table, and the steepness of the slope determine the capacity of the soils. The soil survey, published by the Natural Resources Conservation Service, explains all of these factors. There are published soil surveys for the private lands in the Jackson and Alta areas and for Grand Teton National Park.

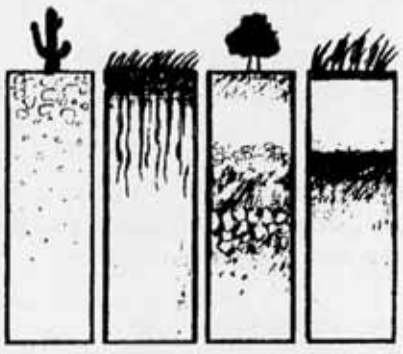
Wyoming soils are very fragile and susceptible to erosion when not adequately protected. Without productive soils we would not be able to grow plants — plants that provide us with food, medicine, industrial products, wildlife habitat, and aesthetics. Vegetation prevents soil erosion from wind and water, on steep slopes, and along streams and rivers. It also increases water infiltration and water-holding capacity. Cover crops, sod-forming grasses, and native plants are excellent soil protectors. Re-seed immediately after any ground disturbing activity with weed-free native grasses.

Soil testing is a good way to determine the nutrient level of the soil. A basic soil test will cost approximately $20.00. You can sample the soil yourself and send it to the lab or you can call the Natural Resources Conservation Service or Teton Conservation District for assistance. If you sample it yourself, use the technique on the following page.

Did you know? All soils are not alike

Soils can vary widely, even across your backyard. The type of soil you have will influence:

- What type and how much grass or crops your land can produce.
- How quickly water moves through the soil.
- If the soil will filter human and animal wastes before they reach groundwater.
- How often you need to irrigate.
- How much fertilizer you need to use.
- Suitable locations for building foundations and septic systems.
- If the area is a wetland.
- What you need to do to prevent soil erosion.



Contributing Authors & Sources:
"Living on a Few Acres," ID Natural Resources Conservation Service;
Natural Resources Conservation Service, Jackson Field Office

Soil Sampling Techniques

Container: Collect the sub-samples in a plastic bucket or stainless steel container. Do not use galvanized or brass equipment of any kind. Samples taken for analysis will be placed in sealable, new, Ziplock Baggies™ or a comparable product.

Sample Volume: 1 quart per depth zone

Preservative: Air-dry soil samples within 12 hours of collection. Air drying samples prevents microbes from mineralizing soil organic matter. Microbial activity can result in less accurate nitrogen fertilizer recommendations.

Holding Time: 12 hours; 6 months if air-dried

Prior to sampling, consider each of the following:

1. **Field Area:** A composite soil sample should represent a uniform field area. Each area should have similar crop and fertilizer history for at least the last two years. Exclude small areas within a field that are obviously different. These odd areas can be sampled separately if they are large enough to warrant special treatment. The field area represented by a single composite sample should be no more than 40 irrigated acres or 100 dryland acres. Fewer acres are better.

2. **Sampling Procedure:** Use a systematic sampling scheme. Grid the area in your mind's eye and sample once within each grid. Also consider obtaining copies or aerial photography of the area to be sampled from the NRCS. Obtain an accurate nutrient evaluation of a field site with a minimum of 15 to 20 sub-samples from each sampled depth. Mix these sub-samples thoroughly and collect 1-quart for analysis. This quart mixture is the composite soil sample.

3. **Sampling Depth:** Where soil physical properties allow, take sub-samples from the 0-12 inch depth and from the 13-36 inch depth. Where shallow soils preclude sampling to 36 inches, take samples from the deepest allowable depth and note the depth from which the sample came.

4. **When to Sample:** Sample fields before each cropping season and/or before the anticipated application of manure. Allow enough time between sampling and manure application for sample analysis and interpretation.

5. **Tools:** A stainless steel soil-sampling probe (moisture probe) is recommended for obtaining a soil sample. A shovel is satisfactory for sampling, though it will take more time. If accessible, a soil probe truck will increase the ease of sample collection. Tools must be clean and free of rust.

6. **Handling:** Remove any organic or vegetative matter from the soil surface prior to collection and from the soil sample prior to bagging. After each sub-sample is taken, clean any remaining soil and organic or vegetative matter from the probe with a screw driver, knife, or other implement.

The type and amount of irrigation required on your land is dependent on many factors, including soil type, acreage, and land use. Some crops have higher water requirements than others or need more water at different times of the growing season. The Natural Resources Conservation Service can help determine the type, fertility, and water-holding capacity of your soils, and recommend the most efficient irrigation system for your land. ♦

Visit the Natural Resource Conservation Service (NRCS) Web Soil Survey!
http://websoilsurvey.nrcs.usda.gov

Contributing Authors & Sources:
Natural Resources Conservation Service, Jackson Field Office

Raising Livestock and Grazing Management

The Jackson area has mostly horse operations with some beef cattle, llamas, and goats. This is due partly to the short growing season and harsh winters making it less economically viable to raise livestock in the valley. It may also be due to the economic incentive to sell agricultural land for commercial or residential use. The Alta area on the west side of the Teton Mountains is still primarily traditional agriculture with sheep, dairy, and beef operations.

With the division of large tracts of land into smaller acreages comes the difficulty of maintaining sustainable pasture. The nutritional requirements of the animals and the carrying capacity of the soil need to balance. This can be accomplished by developing a grazing management plan. To develop a grazing management plan, you need to know how many animals, know how long they will graze, know the pasture's production level, and select the grass or legume species to manage for.

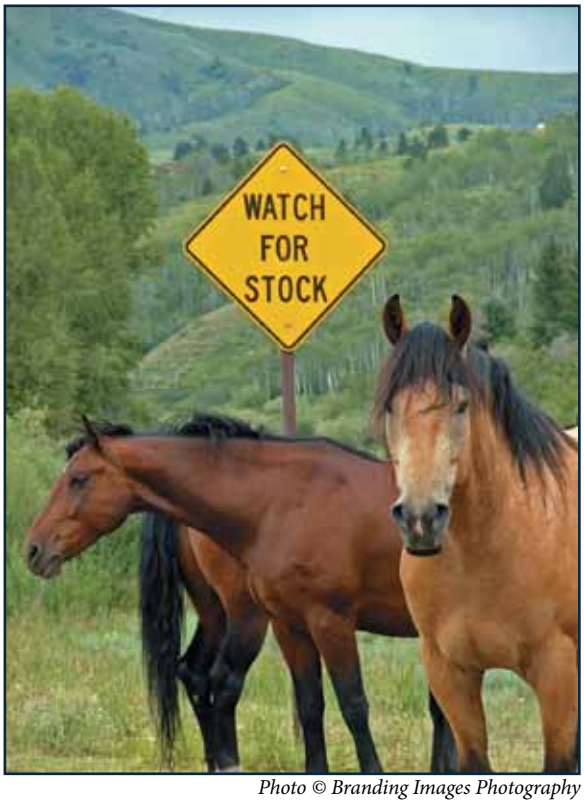


Photo © Branding Images Photography

On average, the nutritional requirements of an animal are 2-3% of their body weight in dry forage each day. The soil type and the condition of the pasture will determine the production potential or carrying capacity. Soil types vary greatly in short distances, but for purposes of this discussion typically produce 0.5 ton/acre or 1000 pounds/acre without irrigation and 2 ton/acre or 4000 pounds/acre with irrigation.

The grass or legume to manage for is usually the one that is most desirable to the animals. If it remains healthy and sustainable, then the rest of the species should also be in good condition. Overgrazing plants can decrease their health. When plants begin growing in the spring, they rely on the carbohydrate storage in their root system. Once they have reached a certain height, which varies from plant to plant, they can begin to photosynthesize enough energy to both continue growing and replace the used root reserves. If they are frequently overgrazed below that critical plant height, they will continue to pull from their reserves without being able to replace it. This will decrease the root mass and plant health, resulting in a decreased stand and weed invasion.

Cross-fencing to create several smaller pastures for a rotational system can improve grazing management. Animals will usually graze the most palatable grasses first, leaving the less palatable to become too mature and rank. If they are limited to a smaller area, they will graze most of the grasses more evenly. Cross-fence with electric fence on a trial basis until you can determine the proper layout and size for your needs. When using a rotational grazing system with several pastures, it is beneficial to begin grazing in a different pasture each spring. For example, if you have four pastures, you could graze in the order of 1, 2, 3, 4 the first year, then 2, 3, 4, 1 the second year, then 3, 4, 1, 2 the third year, etc. This will allow early or cool season grasses to rest and prevent them from becoming stressed. Keeping the animals in a holding or corral area and limiting their grazing to 68 hours/day can potentially double the carrying capacity of the pasture. This is more so with horses than cattle.

Water sources in each pasture are essential to maintaining healthy animals. Animals often water together and can push each other around, especially in confined areas. Keep it in mind when building fence or choosing watering locations. If you have salt licks for the animals, they can be placed in areas that are typically under-used to encourage grazing. Further from watering locations will have the best results.

Fertilizers have a positive affect on grass production. On average, grass requires 45# nitrogen to produce 1 ton/acre. The soil will most likely have some nitrogen in it. A soil test could easily answer this question. Unless the soil receives at least 12 inches of moisture during the growing season then water becomes the limiting factor, not nutrient deficiencies. All animals have nitrogen in their manure, which will breakdown over time and become available for plant uptake. A nutrient management plan is an important part of the grazing management plan, but has too many variables to discuss in this document. Visit with the Natural Resources Conservation Service or Teton Conservation District for assistance in developing a grazing management plan. See the grazing table on next page. ♦

Grazing Table

Approximate minimum lengths, in inches, for pasture management, animal health, and animal productivity.

	Begin Grazing	*Grazed Stubble Height*	*Regrowth before Killing Frost**
GRASSES			
bluegrass, big	6	4	8
bluegrass, Kentucky	4	3	3
bromegrass, smooth	6	4	4
bromegrass, meadow	6	4	4
canarygrass, reed	8	7	8
fescue, tall	6	4	5
foxtail, creeping	5	4	5
foxtail, meadow	5	4	5
needlegrass, green	6	4	5
orchardgrass	6	4	6
timothy	6	4	6
wheatgrass, beardless	7	5	7
wheatgrass, bluebunch	7	5	7
wheatgrass, crested (standard)	4	3	3
wheatgrass, Fairway	4	2	2
wheatgrass, Fairstand	4	3	3
wheatgrass, intermediate	8	4	7
wheatgrass, pubescent	8	4	7
wheatgrass, Siberian	3	2	3
wheatgrass, slender	6	4	6
wheatgrass, streambank	4	3	3
wheatgrass, tall	8	7	8
wheatgrass, thickspike	4	4	4
wheatgrass, western	5	4	4
wildrye, Altai	6	5	
wildrye, beardless	5	4	
wildrye, Russian	6	3	4
LEGUMES			
alfalfa	6	6	7
clover, alsike	4	3	6
clover, ladino	3	3	6
clover, red	6	5	6
clover, white	3	3	3
milkvetch, cicer	4	3	5
sainfoin	8	4	6
sweetclover, white	8	3	4
sweetclover, yellow	8	3	4
trefoil, birdsfoot	8	3	5
vetch, hairy	8	4	4

Grass-Legume (base on legume). *Minimum stubble height for grazing after killing frost is 3 inches. Remove animals prior to spring green-up.

How Grass Grows

All plants have an area of issue called the "growing point." That's where new cells are formed which cause the plant to grow.

Grass differs from most other plants in the location of this growing point. Trees, shrubs and forbs grow from the outer tips of their branches. But the growing point of a grass plant is located in the stem at the base of the plant. New leaves grow from this point. Because of this, grass can withstand grazing by animals.

Once the grass plant begins to send up a seed stalk, the growing point moves up with the growth of the stalk.

When this happens, or if the plants are grazed too close to the ground, the growing point comes within reach of a grazing animal and may be lost. The plant then has to develop a new growing point at its base before growth can continue.

Contributing Authors & Sources:
Natural Resources Conservation Service, Jackson Field Office

Managing Animal Waste

Considering that a horse only needs to graze a few hours each day and that part of the year your livestock will be confined to a corral area, you'll need to decide what to do about the manure that accumulates and how to prevent runoff from contaminating water. Runoff can carry manure, soil, chemicals and other pollutants that may contaminate surface or ground water. Feeding sites can also be a potential source of nitrate contamination in water wells. Animal lots, no matter their size or how many animals are housed there, are areas where animal wastes concentrate. The potential for surface water contamination is especially critical when there is no system in place to divert clean water (spring or stream) from the animal lot or to collect contaminated runoff for diversion to an area where its effect on surface or groundwater will be minimal.

The potential for animal lots to affect groundwater is greatest if:

- The lot is not surfaced and located over coarse-textured, permeable soils
- The water table is at or near the surface
- Contaminated runoff is discharged to permeable soils

Maintaining Corrals

One way to prevent pollution is to clean corral areas regularly. Do not clean earthen lots to bare dirt. Leave a thin layer (1 to 2 inches) of manure pack to seal the surface. Water will move very slowly through this compacted layer, minimizing the potential for leaching nitrates and bacteria through the soil to groundwater. The manure that you remove can be stored and then later applied to your ground, hauled off your property or used in compost.

The best time to apply manure as a source of nutrients is just before planting in the spring or in the fall before snow and frozen soil conditions occur so it can be tilled into the soil to avoid contaminated surface water runoff. The application of animal manure to pastures, lawns or garden area at low application rates poses little danger to surface or groundwater due to filtering of contaminants by the soil or plant uptake of nutrients.

Be sure your corrals and/or manure storage areas are not vulnerable to runoff, especially directly into a surface water body or domestic well. Establishing and maintaining shrubs and grasses around your corrals will help trap and absorb pollution-laden runoff before it reaches streams or groundwater. It will also add aesthetic appeal to your property.

More Benefits

In addition to decreasing the chance of contaminating surface or groundwater, a well-drained and dry lot will improve the comfort and health of your animals, as well as use of feed. You will reduce the need for expensive commercial fertilizers by spreading manure, feed and bedding wastes on your land. Reducing these waste levels will also decrease flies and parasites, their associated health risks and odor problems. The value and visual appeal of your property will increase with the improved health of your livestock and vegetation. ♦

Contributing Authors & Sources:
"Living on a Few Acres," Idaho Natural Resources Conservation Service

Property Owners & Noxious Weeds

Weeds

Noxious weeds on private property are a growing concern for Teton County Weed & Pest and the Jackson Hole Weed Management Association. Often times, landowners do not even realize that these invaders are slowly choking out their native plant community. Noxious weeds are not only reducing the resale value of land all over the West, they can be expensive to control if not caught early. As people become more and more aware of noxious weeds and their costs, individuals trying to sell infested property will find it more difficult to sell their property at a price that does not reflect the future cost of weed control.

Noxious weeds also increase soil erosion and the impacts of flooding. By pushing out native species, noxious weeds reduce the land's ability to absorb the impacts of floods and hold the soil in place. Erosion is always a concern for property owners along the Snake River, allowing noxious weeds to prosper on your property will only increase the likelihood of flood damage.

Clockwise, from top left: Leafy Spurge, Saltcedar/Tamarisk, Spotted Knapweed. Dyer's Woad, Oxeye Daisy, Perennial Pepperweed, Field Scabious, Common St. Johnswort, Russian Knapweed, Whitetop/Hoary Cress, Dalmation & Yellow Toadflax, Purple Loosestrife. Please see the Jackson Hole Weed Management Association brochure for more noxious weed information. Photos © Amy Jerup, Teton County Weed and Pest

Teton Conservation District Private Landowner Noxious Weed Cost-share Program

So what can you do if you are a landowner? Early detection and eradication of small infestations provide the most cost effective ways to manage weeds. You can help your neighbors by taking on the responsibility of weed control on your property and educating them about its impacts. For no charge, Teton County Weed & Pest will come look at your property with you and consult you on what the best methods of weed control might be for your property. They also provide herbicides at a reduced cost, and loan out spray equipment to make the job easier for you. If you wish, they can also supply a list of weed control businesses in the area. For more information please check out the following websites: www.tcweed.org and www.jhwma.org.

The Teton Conservation District (TCD) also recognizes the importance of addressing noxious weeds in order to preserve land, agricultural, and recreational values. The district has developed a program to provide technical and financial assistance for treatment of noxious weeds on private lands in Teton County, WY. To date, over 450 landowners have participated in this program. TCD, in cooperation with Teton County Weed & Pest District, offers a number of services at no cost, in addition to cost-sharing for labor and herbicide. These services include a personal consultation, production of a paper map for you to utilize, a comprehensive Weed Management Plan, and a follow-up inspection at no cost to you! We welcome landowners of any size to join our program. If you would like more information about this program please contact TCD at the phone number 733-2110 or visit our website www.tetonconservation.org.

Life in the West is different from urban areas, please learn to tolerate and live in harmony with our native species.

Pests

What is a pest? Many Teton County residents consider any living creature that might be a nuisance, a pest. This often includes a wide variety of wildlife as well as birds and insects. However, residents must remember that the Jackson Hole area is a rural community. Various species such as raccoons, skunks, squirrels, moles/voles, grasshoppers, bats, and so on also call this area home and are a natural part of the flora and fauna. Life in the West is different from urban areas, please learn to tolerate and live in harmony with our native species.

Teton County Weed & Pest needs everyone in Teton County to do their part to stop the spread of noxious weeds. Please visit our website for pictures of all of the noxious weeds from the list above or for more information on control options call 733-8419 or visit our website at www.tcweed.org. ♦

Contributing Authors & Sources:
Erika Edmiston, Teton County Weed & Pest;
Ronda Cauffman, Teton Conservation District

websites with more information on noxious weeds

Jackson Hole Weed Management Association: www.jhwma.org
Teton Conservation District: www.tetonconservation.org
Teton County Weed & Pest: www.tcweed.org

Photo © Branding Images Photography

Landscaping with Wildflowers and Other Native Plants

An astounding array of color heralds the arrival of spring and summer in Jackson Hole. Lavender lupine, bright yellow balsamroot, scarlet paintbrush, and snowy white serviceberry — wildflowers and flowering shrubs with blossoms of every imaginable hue adorn the valley floor and move up the hillsides as the season progresses, even hugging the summit rocks on the highest peaks. You can bring the beauty of wildflowers and other native plants to your property, for what grows wild is well adapted to your yard.

Photo © Branding Images Photography

Why Native Plants?

Certain trees, shrubs and wildflowers have adapted to local growing conditions over the past several thousand years. Natural selection has resulted in plants suited to soil type, aspect and amount of moisture. Plants that grow here have adapted to a burst of moisture from melting snow then increasing dryness over the summer. Unlike most popular garden plants, native plants do not require extensive watering once established. Native plants provide a practical solution to landscaping that is harmonious with the surrounding wild land.

Plants And Wildlife

The wildlife for which Jackson Hole is world-renowned depends on native plants for food and shelter. Ground squirrels and chipmunks eat wildflowers and grass; porcupines eat a variety of woody and herbaceous plants. Deer and moose browse shrubs, pruning but not harming them. Browsing actually triggers growth in plants such as willows, revealing a long association between native browsers and native plants.

Migratory birds seek the safety of dense shrubs and conifers. Aspens attract a variety of songbirds — warblers and kinglets in particular glean aphids from the leaves. Berries of hawthorn, chokecherry and serviceberry provide nutritious foods for birds in migration. Flowers offer food in the form of nectar to hummingbirds, wild bees, and butterflies. Note that it is not recommended to install plantings palatable to big game and bears near residences. See the Native Plant List starting on page 29 for more information.

Exotic Plants

Undesirable nonnative plants are spreading around Wyoming. Many are aggressive and can quickly take over disturbed areas, choking out native plants and reducing the diversity of species we enjoy. For information and identification guides to exotic weeds contact the Bridger-Teton National Forest or the Teton County Weed and Pest District.

Some Tips for Plant Selection

Look at what is growing in the immediate area for clues as to soil type, microclimate, and plant adaptability. If your site is open sagebrush it makes little sense to plant cottonwoods unless you can provide them an unlimited supply of water. For a natural appearing foundation, select only a few species and plant several of each kind. For example, a mass of aspens or spruce looks more natural than single specimens of several kinds of trees, especially on a small lot.

Tips for Healthy Trees

When planting trees, select species adapted to your soil, climate and particular site. Reduce losses to problem insects and diseases by removing infected trees and slash as soon as possible. When controlling weeds with chemicals, take special precautions not to kill trees or contaminate water sources. Care for new trees by watering regularly and removing competing vegetation in a 2 to 5 food diameter around the trunk.

Contributing Authors & Sources:
Susan Marsh, Bridger Teton National Forest;
Teton Chapter of the Wyoming Native Plant Society

Native Plant Species List

On the following pages is the Teton County (TC), Wyoming County Commissioner Approved (July 2008) Native Plant Species List. This list is currently listed in the TC Land Development Regulations (LDRs). Work began on updating this list in the spring of 2007. Over 15 different versions were considered before the final list was approved. The county LDRs currently require the use of native plants for reclamation purposes (see Division 49100, Grading and Erosion Control Standards). The LDRs also require that all landscape areas beyond 200 feet of the building area utilize native plants (Division 4100, Landscaping Standards). The Teton County Native Plant Species List aims to help provide greater consistency and clarity with reviews of projects that must meet these standards.

All of the species on this list are native to the U.S. (based off of the Natural Resources Conservation Service (NRCS) Plants Database) which can be found at http://plants.usda.gov. There are all found in Teton County, WY, commercially available (as of May 2011, see www.nativeseednetwork.com), and are listed alphabetically by their most common name for easiest reference.

There are 13 characteristics associated with each species; duration, life form, growth form, growth rate, fire resistance, fire tolerance, toxicity, drought tolerance, commercial availability, palatable to browse (wildlife) animals, palatable to graze (stock) animals, moisture use, and soils. There are 69 Graminoids (grasses and grass like), 132 Forbs (wildflowers), 76 Trees & Shrubs, and 277 species total. A bear icon has been developed to point out which species attract bear. We did not include non-native/non-aggressive species because we wanted to keep the list simple and encourage as well as educate the importance of planting native species in our area. ♦

A special thank you goes to Karen Clause, NRCS Rangeland Specialist, and Rachel Daluge, Teton Conservation District, for helping to develop this list.

Other organizations that reviewed this list include: *Aberdeen Plant Materials Center, Bureau of Land Management, Bridger Plant Materials Center, Center for Plant Conservation, Cody Conservation District, Dubois Crowheart Conservation District, Wyoming Extension Weed Specialist, Idaho Native Plant Society, Jackson Hole Conservation Alliance, Jackson Hole Land Trust, Montana State Seed Lab, Native Plant Locator, Native Seed Network, National Elk Refugee, Natural Resource Conservation Service, National Parks Service, Resource Conservation and Development, Rocky Mountain Herbarium, Star Valley Conservation District, Sublette County Conservation District, Teton Chapter of the Wyoming Native Plant Society, Teton Conservation District, Teton County Weed and Pest District, Teton County Wyoming, Town of Jackson, Teton Science Schools Conservation Research Center, Upper Colorado Environmental Plant Center, US Fish and Wildlife Service, US Forest Service, US Geological Survey, Wyoming Department of Environmental Quality, Wyoming Nature Conservancy, Wyoming Natural Diversity Database, and Wyoming Game and Fish Department.*

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Visit the Natural Resource Conservation Service (NRCS) Plants Database at http://plants.usda.gov.

Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
GRAMINOIDS (GRASSES AND GRASS LIKE)														
Alkaligrass, Nuttall's	*Puccinellia nuttalliana*	SP	Grass	Rhizomatous	Slow	No	High	None	Low	RA	Low	Low	Med	V, wet, saline
American sloughgrass	*Beckmannia syzigachne*	A/SP	Grass	Bunchgrass	Mod	No	High	None	None	RA	Med	Med	High	C, L, wet
Bentgrass, Spike	*Agrostis exarata*	P	Grass	Rhizomatous	Mod	No	Med	None	Low	CO	Med	High	Med	V
Bluegrass, Alpine	*Poa alpina*	P	Grass	Bunchgrass	Mod	Yes	High	None	Med	RA	Med	Med	Low	S, L, moist, WD
Bluegrass, Fowl	*Poa palustris*	P	Grass	Bunchgrass	Mod	No	High	None	Low	RA	Low	Low	Med	C, L, moist, WD
Bluegrass, mutton	*Poa fendleriana*	P	Grass	Bunchgrass	Mod	No	Low	None	High	CO	Med	High	Low	V, WD
Bluegrass, Sandberg	*Poa secunda*	P	Grass	Bunchgrass	Mod	No	Med	None	High	RA	Med	Med	Low	S, L
Barley, Meadow	*Hordeum brachyantherum*	P	Grass	Bunchgrass	Mod	No	High	None	Med	RA	Low	Low	Med	V, moist
Brome, Columbia	*Bromus vulgaris*	P	Grass	Bunchgrass	Mod	No	Med	None	High	CO	Med	High	Low	S, L, dry
Brome, Mountain	*Bromus marginatus*	SP	Grass	Bunchgrass	Rapid	No	Low	None	Mod	RA	Med	High	High	S, L
Bulrush, American	*Schoenoplectus americanus*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	Med	None	None	RA	Low	Low	High	wet
Bulrush, Common	*Schoenoplectus pungens*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	Med	None	None	RA	Low	Low	High	wet, saline
Bulrush, Hardstem	*Schoenoplectus acutus*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	Med	None	None	RA	Low	Low	High	wet
Bulrush, Panicled	*Scirpus microcarpus*	P	Grass-like	Grass-like, Rhizomatous	Rapid	No	High	None	None	RA	Low	Low	Med	wet
Fescue, Idaho	*Festuca idahoensis*	P	Grass	Bunchgrass	Mod	No	Mod	None	Low	RA	High	High	Med	V
Fescue, Rocky Mountain	*Festuca saximontana*	P	Grass	Bunchgrass	Mod	No	Mod	None	Low	RA	Med	Med	Med	S, L
Fescue, Spike	*Leucopoa kingii*	P	Grass	Bunchgrass	Mod	No	Mod	None	Low	RA	Med	Med	Med	V
Hairgrass, Slender	*Deschampsia elongata*	SP	Grass	Bunchgrass	Mod	No	High	None	Med	RA	Low	Low	Low	V, dry
Hairgrass, Tufted	*Deschampsia caespitosa*	P	Grass	Bunchgrass	Mod	No	High	None	Low	RA	Med	High	Low	moist to wet
Junegrass, Prairie	*Koeleria macrantha*	SP	Grass	Bunchgrass	Rapid	No	High	None	High	RA	Med	High	High	S, L
Mannagrass, American	*Glyceria grandis*	SP	Grass	Rhizomatous	Mod	No	Low	None	Low	RA	Med	Low	High	S, L, wet
Mannagrass, Fowl	*Glyceria striata*	SP	Grass	Rhizomatous	Mod	No	Low	None	Low	RA	Med	Low	High	S, L, wet
Muhly, Marsh	*Muhlenbergia racemosa*	SP	Grass	Rhizomatous	Mod	No	High	None	Low	CO	Low	Low	Med	V
Needle and thread	*Hesperostipa comata*	P	Grass	Bunchgrass	Mod	No	High	None	High	RA	Med	High	Low	S, L, dry
Needlegrass, Columbia	*Achnatherum nelsonii*	SP	Grass	Bunchgrass	Mod	No	High	None	High	CO	High	High	Med	L, WD
Needlegrass, Letterman's	*Achnatherum lettermanii*	P	Grass	Bunchgrass	Slow	No	High	None	High	CO	Med	Med	Low	S, L, WD
Oatgrass, Timber	*Danthonia intermedia*	SP	Grass	Bunchgrass	Mod	No	High	None	Med	RA	Low	Med	Low	S, dry
Pinegrass	*Calamagrostis rubescens*	P	Grass	Rhizomatous	Slow	No	Med	None	Med	RA	Low	Low	Med	C, L, shade
Reedgrass, Bluejoint	*Calamagrostis canadensis*	P	Grass	Rhizomatous	Mod	No	Low	None	Low	RA	Med	High	Med	C, L, moist
Reedgrass, Northern	*Calamagrostis stricta*	P	Grass	Rhizomatous	Mod	No	Mod	None	Low	CO	Med	Med	High	C, L, moist, saline
Ricegrass, Indian	*Achnatherum hymenoides*	P	Grass	Bunchgrass	Mod	No	High	None	High	RA	High	High	Low	V, dry

Key to abbreviations: A- Annual, B - Biannual, C- Clayey, CA- Commercial availability, CO- Contract only, DT- Drought tolerance, D- Duration, FR- Fire resistance, FT- Fire tolerance, GF- Growth form, GR- Growth Rate, LDR - Land Development Regulations, L- Loamy, MU- Moisture Use, PBA- Palatable to Browse Animals, PGA- Palatable to Graze Animals, P- Perennial, RA- Routinely Available, S- sandy, SP- Short Perennial, T- Toxicity, V- all types, WD- well drained

*Species contains toxic properties.

Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
Rush, Baltic	*Juncus balticus*	P	Grass-like	Grass-like, Rhizomatous	Rapid	No	High	None	Low	RA	Low	Low	High	C, L, wet
Rush, Knotted	*Juncus nodosus*	P	Grass-like	Grass-like, Single stem	Mod	Yes	Med	None	Med	RA	n/a	Low	Med	V, wet
Rush, Longstyle	*Juncus longistylis*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	Low	RA	Low	Med	High	V, wet
Rush, Merten's	*Juncus mertensianus*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	Low	RA	Med	Med	High	S, L, wet
Rush, Swordleaf	*Juncus ensifolius*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	Low	RA	Low	Med	High	V, wet
Rush, Toad	*Juncus bufonius*	P	Grass-like	Grass-like, Bunch	Rapid	No	None	None	Low	RA	Low	Low	Med	V, moist
Rush, Torrey's	*Juncus torreyi*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	Med	None	Low	RA	Low	Low	Med	S, L, wet
Saltgrass, Inland	*Distichlis spicata*	P	Grass	Rhizomatous	Slow	No	High	None	Med	RA	Low	Low	Med	C, L, saline
Sedge, Analouge	*Carex simulata*	P	Grass-like	Grass-like, Rhizomatous	Slow	No	High	None	Low	RA	Low	Med	High	S, L, wet
Sedge, Beaked	*Carex rostrata*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	Low	CO	Low	Med	High	C, L, wet
Sedge, Bebb's	*Carex bebbii*	P	Grass-like	Grass-like, Bunch	Mod	No	High	None	None	RA	Low	Low	High	C, L, wet
Sedge, Blackcreeper	*Carex praegracilis*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	Low	RA	Low	Low	Med	V, wet
Sedge, Blister	*Carex vesicaria*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	Low	RA	Low	Med	High	V, wet
Sedge, Chamisso	*Carex pachystachya*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	High	RA	Low	Med	Med	C, L
Sedge, Cusick	*Carex cusickii*	P	Grass-like	Grass-like, Bunch	Mod	No	High	None	Low	CO	Low	Med	High	wet
Sedge, Elk	*Carex geyeri*	P	Grass-like	Grass-like, Bunch	Slow	No	High	None	High	CO	Low	Med	Low	S, L
Sedge, Hood	*Carex hoodii*	P	Grass-like	Grass-like Bunch	Mod	No	High	None	Med	CO	Low	Low	Low	moist
Sedge, Lesser-panicled	*Carex diandra*	P	Grass-like	Grass-like, Bunch	Slow	No	High	None	None	CO	Low	Low	High	V, wet
Sedge, Nebraska	*Carex nebrascensis*	P	Grass-like	Grass-like, Rhizomatous	Mod	No	High	None	None	RA	Med	High	High	V, moist
Sedge, Smallwing	*Carex microptera*	P	Grass-like	Grass-like, Bunch	Slow	No	High	None	None	RA	Low	Low	High	S, L, wet
Sedge, Threadleaf	*Carex filifolia*	P	Grass-like	Grass-like, Bunch	Slow	No	High	None	High	CO	Low	Low	Low	S, L, dry
Sedge, Water	*Carex aquatilis*	P	Grass-like	Grass-like, Bunch	Mod	Yes	Low	None	Low	RA	n/a	Med	High	S, L, wet
Sedge, Woolly	*Carex pellita*	P	Grass-like	Grass-like, Rhizomatous	Mod	Yes	Low	None	Low	RA	n/a	Med	High	C, L, wet
Spikerush, Common	*Eleocharis palustris*	P	Grass-like	Grass-like, Rhizomatous	Mod	Yes	Med	None	Low	RA	n/a	Low	High	C, S, wet
Squirreltail	*Elymus elymoides*	P	Grass	Bunchgrass	Mod	No	Mod	None	High	RA	Med	Med	Low	V
Timothy, Alpine	*Phleum alpinum*	P	Grass	Bunchgrass	Slow	No	High	None	Low	RA	High	High	Med	moist, WD, deep
Trisetum, Spike	*Trisetum spicatum*	SP	Grass	Bunchgrass	Mod	No	High	None	Med	RA	High	High	Med	C
Wildrye, Basin	*Leymus cinereus*	P	Grass	Bunchgrass	Mod	No	High	None	High	RA	Low	High	High	V, saline, dry
Wildrye, Blue	*Elymus glaucus*	p	Grass	Bunchgrass	Rapid	No	High	None	Med	RA	Low	Med	Low	V, shade
Wildrye, Canada	*Elymus canadensis*	SP	Grass	Bunchgrass	Rapid	No	Low	None	Med	RA	Med	Med	Med	V, moist
Wheatgrass, Bluebunch	*Pseudoroegneria spicata*	P	Grass	Bunchgrass	Rapid	No	Low	None	High	RA	Med	High	Low	V, WD
Wheatgrass, Montana	*Elymus albicans*	P	Grass	Rhizomatous	Rapid	No	High	None	High	RA	Med	Med	Med	V, WD

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Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
Wheatgrass, Slender	*Elymus trachycaulus*	SP	Grass	Bunchgrass	Rapid	No	High	None	High	RA	High	High	Low	C, L
Wheatgrass, Streambank/Thickspike	*Elymus lanceolatus ssp. lanceolatus*	P	Grass	Rhizomatous	Mod	No	High	None	High	RA	Med	High	Low	V, dry
Wheatgrass, Western	*Pascopyrum smithii*	P	Grass	Rhizomatous	Rapid	No	High	None	High	RA	Med	Med	Med	C, L
Woodrush, Smallflowered	*Luzula parviflora*	P	Grass-like	Grass-like, Stolon	Mod	No	High	None	Low	CO	n/a	n/a	High	L, moist
FORBS/WILDFLOWERS														
Anemone, Cutleaf (pasqueflower)*	*Pulsatilla patens*	P	Forb	Multiple stem	Slow	No	Med	Slight	Low	CO	Low	Low	Low	moist
Arnica, Broadleaf	*Arnica latifolia*	P	Forb	Rhizomatous	Mod	No	Low	None	None	RA	Low	Low	High	S, L
Arnica, Heartleaf	*Arnica cordifolia*	SP	Forb	Rhizomatous	Rapid	No	High	None	Low	RA	Low	Low	High	V
Arrowgrass*	*Triglochin maritima*	P	Forb	Single stem	Slow	No	Low	Mod	None	CO	Low	Low	High	V, wet
Aster, Eatons	*Symphyotrichum eatonii (syn. Aster bracteolatus)*	P	Forb	Rhizomatous	Slow	No	Med	None	Med	RA	Low	Low	Med	S, L, WD
Aster, Engelmann's	*Eucephalus engelmannii*	P	Forb	Multiple stem	Mod	No	High	None	Low	CO	Low	n/a	Med	S, L
Aster, Gray	*Eurybia glauca*	SP	Forb	Multiple stem	Mod	No	High	None	Med	RA	Low	Low	Med	S,L
Aster, Western	*Symphyotrichum ascendens (syn. Aster chilensis)*	P	Forb	Rhizomatous	Slow	No	High	None	Med	RA	Low	Low	Med	S, L
Avens, Largeleaf	*Geum macrophyllum*	P	Forb	Rhizomatous	Mod	No	Med	None	Low	RA	Low	Med	Low	V
Balsamroot, Arrowleaf	*Balsamorhiza sagittata*	P	Forb	Multiple stem	Mod	No	High	None	High	RA	High	Med	Med	V
Balsamroot, Cutleaf	*Balsamorhiza macrophylla*	P	Forb	Single crown	Mod	No	Med	None	Low	CO	n/a	Med	High	V, moist
Beggartick, Nodding	*Bidens cernua*	A	Forb	Single crown	Rapid	No	Low	None	Low	RA	Low	Low	High	V, moist - wet
Baneberry, Red*	*Actaea rubra*	P	Forb	Multiple stem	Mod	No	Low	Mod	Low	RA	Low	Low	High	V, moist
Biscuitroot, Fernleaf	*Lomatium dissectum*	SP	Forb	Single stem	Rapid	Yes	High	None	Med	CO	High	High	Low	V, dry or moist
Biscuitroot, Nineleaf	*Lomatium triternatum*	P	Forb	Single crown	Mod	No	Med	None	High	RA	Low	Med	Med	V
Blanketflower*	*Gaillardia aristata*	P	Forb	Bunch	Mod	No	Low	Slight	Med	RA	Low	Low	Med	S, L
Blazingstar, Smoothstem	*Mentzelia laevicaulis*	P	Forb	Single crown	Slow	No	Med	None	High	RA	Low	Low	Med	dry
Bluebell, Bellflower	*Campanula rotundifolia*	P	Forb	Multiple stem	Mod	No	Med	None	Med	RA	Low	Low	Low	moist to dry
Bluebells, Tall	*Mertensia ciliata*	P	Forb	Rhizomatous	Mod	No	Med	None	Low	CO	Low	Low	High	V, moist
Blue-eyed grass, Idaho*	*Sisyrinchium idahoense*	P	Forb	Single crown	Mod	No	Med	Slight	Low	RA	n/a	n/a	High	V
Blue eyed Mary, Maiden	*Collinsia parviflora*	SP	Forb	Single crown	Rapid	No	Low	None	Low	CO	n/a	n/a	Med	C, L
Buckwheat, Parsnipflower	*Eriogonum heracleoides*	P	Forb	Multiple stem	Slow	No	Low	None	High	CO	Low	Low	Low	S, L, dry
Buckwheat, Sulphur-flower	*Eriogonum umbellatum*	P	Forb	Multiple stem	Slow	No	Low	None	High	RA	Low	Low	Low	S, L , dry
Bur-reed, Narrowleaf	*Sparganium angustifolium*	P	Forb	Rhizomatous	Mod	No	None	None	None	RA	Low	Low	High	C, L, wet - shallow water

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Buttercup, Straightbeak*	*Ranunculus orthorhynchus*	P	Forb	Single crown	Mod	No	None	Slight	Low	RA	Low	Low	Med	S, L
Camas, Small	*Camassia quamash*	P	Forb	Single crown	Mod	No	Med	None	None	RA	n/a	n/a	High	V, moist
Cattail, Broadleaf	*Typha latifolia*	P	Forb	Rhizomatous	Rapid	No	High	None	None	RA	Low	Low	High	V, wet
Checkermallow, Oregon	*Sidalcea oregana*	P	Forb	Single crown	Mod	No	Med	None	None	RA	n/a	n/a	High	S, L, moist
Cinquefoil, Slender	*Potentilla gracilis*	P	Forb	Multiple stem	Mod	No	None	None	Med	RA	Med	Med	Low	S, L
Cinquefoil, Sticky	*Potentilla glandulosa*	P	Forb	Rhizomatous	Mod	No	Low	None	High	RA	Low	Low	Low	L, dry
Cinquefoil, Tall	*Potentilla arguta*	SP	Forb	Single crown	Mod	No	Low	None	Low	CO	Low	Low	Med	L
Columbine, Blue	*Aquilegia caerulea*	SP	Forb	Single crown	Mod	No	Low	None	Low	RA	Low	Low	Med	S, L
Coneflower, Western	*Rudbeckia occidentalis*	P	Forb	Single crown	Mod	No	Low	None	Med	RA	Med	Med	Med	V, dry
Columbine, Yellow	*Aquilegia flavescens*	SP	Forb	Single crown	Mod	No	Low	None	Low	RA	Low	Low	Med	S, L
Cowparsnip*	*Heracleum maximum*	SP	Forb	Multiple stem	Mod	No	High	Slight	Low	RA	Med	Med	High	V
Daisy, Graylocks four-nerve	*Tetraneuris grandiflora*	P	Forb	Single crown	Mod	No	Med	None	High	CO	Med	Med	Low	open, rocky, dry
Deathcamas, Foothill*	*Zigadenus paniculatus*	P	Forb	Single crown	Mod	No	High	Severe	Med	CO	n/a	n/a	Med	V
Deathcamas, Meadow*	*Zigadenus venenosus*	P	Forb	Single crown	Mod	No	High	Severe	Med	RA	n/a	n/a	Med	V
Dock, Willow*	*Rumex salicifolius*	P	Forb	Single crown	Mod	No	Med	Slight	Med	CO	Low	Low	High	V, moist
Feathery false lily of the valley	*Maianthemum racemosum*	P	Forb	Rhizomatous	Mod	No	Low	None	Low	RA	Med	Med	Med	V
Figwort, Lanceleaf	*Scrophularia lanceolata*	P	Forb	Single crown	Mod	No	Med	None	Med	RA	Med	Med	Med	V
Firechalice	*Epilobium canum*	P	Forb	Rhizomatous	Mod	No	Low	None	Med	CO	Low	Low	Low	V, dry
Fireweed	*Chamerion angustifolium*	P	Forb	Rhizomatous	Mod	No	High	None	Med	CO	Med	Low	High	V, dry and moist
Flax, Prairie*	*Linum lewisii var. lewisii*	P	Forb	Bunch	Mod	No	Low	Slight	Med	RA	Low	High	Med	S, L
Fleabane, Aspen	*Erigeron speciosus*	P	Forb	Multiple stem	Mod	No	Low	None	Med	RA	Low	Low	High	moist , open
Forget-me-not	*Myosotis asiatica*	P	Forb	Single stem	Mod	No	Low	None	Low	RA	n/a	n/a	Med	V, WD
Fringed willoherb	*Epilobium ciliatum*	P	Forb	Rhizomatous	Mod	No	Med	None	Low	RA	n/a	n/a	Med	V, wet
Fritillary, Spotted	*Fritillaria atropurpurea*	SP	Forb	Colonizing	Rapid	No	High	None	Med	CO	n/a	n/a	Med	V, dry or moist
Fritillary, Yellow	*Fritillaria pudica*	SP	Forb	Colonizing	Rapid	No	High	None	Med	CO	n/a	n/a	Med	V, dry or moist
Geranium, Richardson's	*Geranium richardsonii*	SP	Forb	Rhizomatous	Mod	No	Med	None	Low	CO	Med	Med	High	C, L
Geranium, Sticky	*Geranium viscosissimum*	SP	Forb	Single stem	Rapid	No	Med	None	Med	RA	Med	n/a	Low	L
Gilia, Scarlet	*Ipomopsis aggregata*	B/P	Forb	Single stem	Rapid	No	None	None	High	RA	Low	Low	Low	V, dry
Globemallo, Scarlet	*Sphaeralcea coccinea*	B/P	Forb	Multiple stem	Rapid	No	High	None	High	CO	Med	Med	Low	S, L, dry
Goldenaster, Hairy false	*Heterotheca villosa*	SP	Forb	Multiple stem	Mod	No	High	None	Med	CO	Low	Low	Low	S, L, dry
Goldeneye, Showy	*Heliomeris multiflora*	P	Forb	Multiple stem	Rapid	No	Med	None	Med	RA	Med	Med	Low	dry, open
Goldenrod, Canada*	*Solidago canadensis*	P	Forb	Rhizomatous	Rapid	No	High	Slight	Med	RA	Low	Low	Med	V, moist

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Goldenrod, Threenerve	*Solidago velutina*	P	Forb	Rhizomatous	Rapid	No	High	Slight	Med	RA	Low	Low	Med	V, moist
Hellebore, False*	*Veratrum californicum*	P	Forb	Rhizomatous	Rapid	No	Med	Severe	Low	RA	Low	Low	High	C, L, moist
Hollyhock, Streambank	*Iliamna rivularis*	P	Forb	Multiple stem	Mod	No	Low	None	Low	CO	n/a	n/a	Med	L
Horsemint	*Agastache urticifolia*	P	Forb	Rhizomatous	Rapid	No	High	None	Low	CO	Low	High	Med	V
Indian paintbrush, Giant red	*Castilleja miniata*	P	Forb	Single crown	Mod	No	None	None	High	CO	n/a	n/a	Med	L
Indian paintbrush, Northwestern	*Castilleja angustifolia*	P	Forb	Single crown	Mod	No	None	None	Med	CO	n/a	n/a	Med	L
Indian paintbrush, Splitleaf	*Castilleja rhexiifolia*	P	Forb	Single crown	Slow	No	Med	None	Med	CO	n/a	n/a	Low	S, L, dry
Indian paintbrush, Sulphur	*Castilleja sulfurea*	P	Forb	Single crown	Slow	No	Med	None	High	RA	n/a	n/a	Low	S, L, dry
Indian paintbrush, Wyoming	*Castilleja linariifolia*	P	Forb	Single crown	Mod	No	None	None	Med	RA	n/a	n/a	Med	L, dry
Iris, Rocky Mt.	*Iris missouriensis*	P	Forb	Colonizing	Rapid	No	High	None	Low	RA	Low	Low	High	V, moist
Jacob's-ladder	*Polemonium pulcherrimum*	P	Forb	Multiple stem	Rapid	No	Med	None	Low	RA	Low	Low	Med	moist to dry
Larkspur, Duncecap*	*Delphinium occidentale*	P	Forb	Single crown	Mod	No	Low	Severe	High	RA	Low	Low	Low	C, dry
Larkspur, Sierra	*Delphinium glaucum*	P	Forb	Multiple stem	Rapid	No	None	Severe	None	RA	High	High	High	V, wet
Larkspur, Twolobe*	*Delphinium nuttallianum*	P	Forb	Single stem	Mod	No	Low	Severe	High	RA	Low	Low	High	C, dry
Lily, Glacier	*Erythronium grandiflorum*	P	Forb	Bulb	Mod	No	Med	None	Low	RA	Med	Med	Med	V, moist
Lily, Sego	*Calochortus nuttallii*	P	Forb	Bulb	Mod	No	Med	None	Med	CO	Med	Med	Low	dry
Lily, White mariposa	*Calochortus eurycarpus*	P	Forb	Bulb	Mod	No	Low	None	Med	CO	Med	Med	Low	dry
Lousewort, Elephanthead	*Pedicularis groenlandica*	SP	Forb	Single crown	Mod	No	High	None	Low	RA	Low	Low	High	L, moist-wet
Lupine, Bigleaf*	*Lupinus polyphyllus*	P	Forb	Single crown	Rapid	No	Med	Severe	High	RA	Med	Med	Low	S, L, dry
Lupine, Great Basin*	*Lupinus x alpestris(argenteus x caudatus)*	P	Forb	Single crown	Slow	No	High	Mod	High	CO	Med	Med	Low	S, L
Lupine, Silky*	*Lupinus sericeus*	SP	Forb	Multiple stem	Rapid	No	Med	Severe	High	RA	Med	Med	Low	S, L, dry
Lupine, Silvery*	*Lupinus argenteus*	SP	Forb	Multiple stem	Rapid	No	Low	Severe	Med	CO	Med	Med	Low	V
Marigold, White marsh*	*Caltha leptosepala*	P	Forb	Single crown	Mod	No	Med	Slight	None	RA	Med	n/a	High	C, L, wet
Meadow-rue	*Thalictrum fendleri*	P	Forb	Rhizomatous	Mod	No	Low	None	Low	RA	n/a	n/a	Med	moist
Milkvetch, Alpine*	*Astragalus alpinus*	P	Forb	Stolon	Mod	No	High	Slight	Med	RA	Low	Low	Med	L, moist
Milkvetch, Canadian*	*Astragalus canadensis*	SP	Forb	Stolon	Mod	No	High	Slight	Med	RA	Low	Low	Med	L, moist
Mint, Wild	*Mentha arvensis*	SP	Forb	Single stem	Mod	No	None	None	Low	RA	Low	Low	Med	L, C, wet
Monkeyflower, Manyflowered	*Mimulus floribundus*	A	Forb	Rhizomatous	Mod	No	Med	None	Low	RA	Low	Low	Med	L, moist
Monkeyflower, Purple	*Mimulus lewisii*	P	Forb	Rhizomatous	Mod	No	Med	None	Low	RA	Low	Low	Med	S, L, moist
Monkeyflower, Seep	*Mimulus guttatus*	A/P	Forb	Rhizomatous	Rapid	No	Med	None	None	RA	Low	Low	High	V, wet
Monkshood, Columbian	*Aconitum columbianum*	P	Forb	Single crown	Mod	No	Med	Mod	Low	RA	Low	Low	High	V

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Mule-ears	*Wyethia amplexicaulis*	P	Forb	Single crown	Mod	No	High	None	Med	CO	High	High	Med	C, L
Old man's whiskers	*Geum triflorum*	SP	Forb	Rhizomatous	Mod	No	Med	None	High	CO	Low	Low	Med	L
Onion, Nodding*	*Allium cernuum*	P	Forb	Single stem	Mod	No	High	Slight	Med	CO	High	High	Med	V
Onion, Tapertip*	*Allium acuminatum*	SP	Forb	Multiple stem	Rapid	Yes	High	Slight	Med	RA	High	High	Low	S, L, dry
Oregon grape	*Mahonia repens*	P	Forb	Rhizomatous	Slow	No	High	None	High	RA	Med	Low	Med	V
Pearly everlasting, Western	*Anaphalis margaritacea*	P	Forb	Rhizomatous	Rapid	No	Med	None	Med	CO	Low	Low	Med	L
Penstemon, Blue	*Penstemon cyaneus*	P	Forb	Single stem	Mod	No	Med	None	Med - High	RA	Low	Low	Med	V, dry
Penstemon, Firecracker	*Penstemon eatonii*	P	Forb	Single stem	Rapid	No	Med	None	Med - High	CO	High	High	Low	V, dry
Penstemon, Littleflower	*Penstemon procerus*	P	Forb	Bunch	Rapid	No	Med	None	Med - High	RA	Med	Med	Med	V, WD
Penstemon, Rydberg*	*Penstemon rydbergii*	P	Forb	Bunch	Mod	No	Med	Slight	Med	RA	Med	Low	Low	C, L, dry
Penstemon, Scabland	*Penstemon deustus*	P	Forb	Multiple stem	Mod	No	Med	None	Med - High	CO	n/a	n/a	Low	C, L, dry
Penstemon, Smooth	*Penstemon subglabra*	P	Forb	Single stem	Mod	No	Med	None	Med - High	CO	n/a	n/a	Low	C, L, dry
Penstemon, Wasatch	*Penstemon cyananthus*	P	Forb	Multiple stem	Slow	No	Med	None	Med - High	RA	Low	Low	Med	V
Penstemon, Whipple's	*Penstemon whippleanus*	SP	Forb	Multiple stem	Rapid	No	High	None	Med - High	CO	High	High	Med	C, L
Peony, Brown's	*Paeonia brownii*	P	Forb	Single crown	Mod	No	Med	None	Med	RA	n/a	n/a	Med	L
Phacelia, Silky	*Phacelia sericea*	P	Forb	Single stem	Mod	No	Med	None	Med	CO	Low	Low	Med	S, L
Phacelia, Silverleaf	*Phacelia hastata*	P	Forb	Bunch	Mod	No	Med	None	High	CO	Med	Low	Med	S, L, dry
Pinkfairies	*Clarkia pulchella*	A	Forb	Single crown	Rapid	No	None	None	Med	RA	n/a	n/a	Med	S
Pond-lily, Rocky Mt.	*Nuphar polysepalum*	P	Forb	Rhizomatous	Rapid	No	Low	None	Low	RA	Med	Med	High	V, wet
Primrose, Parry's	*Primula parryi*	P	Forb	Multiple stem	Mod	No	Low	None	High	RA	Low	Low	Low	L, wet
Pussy Paws	*Cistanthe umbellata*	A/P	Forb	Rhizomatous	Slow	No	Low	None	High	CO	Med	Med	Low	rocky, dry
Pussytoes, Littleleaf	*Antennaria microphylla*	SP	Forb	Multiple stem	Slow	No	High	None	High	CO	Low	Low	Low	C, L, dry
Pussytoes, Small-leaf	*Antennaria parvifolia*	P	Forb	Multiple stem	Slow	No	High	None	High	CO	Low	Low	Low	C, L, dry
Ragwort, Arrowleaf	*Senecio triangularis*	P	Forb	Rhizomatous	Mod	No	Med	None	Low	RA	High	Med	High	C, L, moist
Sagewort, Cudweed or Louisiana	*Artemisia ludoviciana*	P	Forb	Rhizomatous	Mod	No	Med	None	High	RA	Med	Med	Low	S, L, WD, dry-moist
Saxifrage, Yellowdot	*Saxifraga bronchialis*	P	Forb	Single stem	Mod	No	Med	None	High	CO	Low	Low	Low	dry, open
Selfheal, Common	*Prunella vulgaris*	P	Forb	Stolon	Rapid	No	Med	None	Med	RA	n/a	n/a	Med	V

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Shootingstar, Darkthroat	*Dodecatheon pulchellum*	P	Forb	Single crown	Mod	No	Med	None	Low	RA	Low	Low	Med	C, L, moist
Shootingstar, Mountain	*Dodecatheon jeffreyi*	P	Forb	Single crown	Mod	No	Med	None	Low	RA	Low	Low	Med	C, L, moist
Sneezeweed, Orange*	*Hymenoxys hoopesii*	P	Forb	Multiple stem	Mod	No	Med	Mod	Low	RA	Med	Med	Med	V
Strawberry, Woodland	*Fragaria vesca*	P	Forb	Stolon	Mod	No	Low	None	Low	RA	High	High	Med	moist
Stoneseed, Western	*Lithospermum ruderale*	P	Forb	Multiple stem	Mod	No	Low	None	High	CO	Med	Med	Low	L, dry
Sunflower, Common*	*Helianthus annuus*	A	Forb	Single crown	Rapid	No	None	Slight	Med	RA	Med	Med	Med	V, moist or dry
Sunflower, Common woolly	*Eriophyllum lanatum*	P	Forb	Bunch	Rapid	No	None	None	High	RA	Med	Med	Med	V, moist or dry
Sunflower, One-flowered little	*Helianthella uniflora*	P	Forb	Multiple stem	Rapid	Yes	High	None	High	CO	Low	Low	Low	S, dry
Sweetcicely	*Osmorhiza berteroi*	P	Forb	Multiple stem	Slow	No	Med	None	Low	CO	Med	Med	Med	moist
Sweetroot*	*Osmorhiza occidentalis*	P	Forb	Single crown	Slow	No	High	Mod	Med	CO	High	High	Med	V, moist
Sweetvetch, Northern	*Hedysarum boreale*	P	Forb	Single crown	Mod	No	High	None	Med	RA	High	High	Med	V
Vetch, American	*Vicia americana*	P	Forb	Rhizomatous	Mod	No	Med	None	High	CO	High	High	Low	S, L
Violet, Nuttall	*Viola nuttallii*	P	Forb	Rhizomatous	Mod	No	Med	None	Med	RA	Med	Med	Low	V
Violet, Goosefoot	*Viola purpurea*	P	Forb	Single stem	Mod	No	Low	None	Low	RA	n/a	n/a	Med	S, L, WD
Wallflower, Sanddune	*Erysimum capitatum*	B/P	Forb	Single crown	Mod	No	Med	None	High	RA	n/a	n/a	Low	V, dry
Yampah, Garner's	*Perideridia gairdneri*	P	Forb	Single crown	Mod	No	Med	None	Low	RA	n/a	n/a	High	C, L, moist
Zizia	*Zizia aptera*	P	Forb	Single crown	Mod	No	Low	None	Low	RA	n/a	n/a	High	V, moist
TREES/SHRUBS														
Alder, Thinleaf	*Alnus incana ssp. tenuifolia*	P	Deciduous shrub	Thicket	Rapid	No	Med	None	None	RA	High	Low	High	L, S, wet
Ash, Green	*Fraxinus pennsylvanica*	P	Deciduous shrub	Single crown	Rapid	No	Med	None	Med	RA	Med	Low	Med	V
Ash, Mountain	*Sorbus scopulina*	P	Deciduous tree	Multiple stem	Mod	No	None	None	None	CO	Med	Low	Med	L, S, moist
Birch, Dwarf	*Betula nana*	P	Deciduous shrub	Multiple stem	Mod	No	Med	None	Low	CO	Low	n/a	Low	V
Birch, Water	*Betula occidentalis*	P	Deciduous tree	Single stem	Rapid	No	High	None	Low	RA	Med	N/A	High	S, L
Aspen, Quaking	*Populus tremuloides*	P	Deciduous tree	Single stem	Rapid	No	High	None	Low	RA	High	Med	High	V, moist
Bitterbrush, Antelope	*Purshia tridentata*	P	Deciduous shrub	Multiple stem	Mod	No	Med	None	High	RA	High	Med	Low	S, L

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Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
Buffaloberry, Russet	*Shepherdia canadensis*	P	Deciduous shrub	Multiple stem	Rapid	No	Med	None	Med	RA	Med	Low	Med	S, L, dry or moist
Buffaloberry, Silver	*Shepherdia argentea*	P	Deciduous shrub	Multiple stem	Rapid	No	Med	None	Med	RA	Med	Low	Med	S, L, dry or moist
Ceanothus, Snowbrush	*Ceanothus velutinus var. velutinus*	P	Evergreen shrub	Thicket	Mod	No	High	None	Med	CO	Low	Low	Med	C, L
Chokecherry*	*Prunus virginiana*	P	Deciduous tree	Multiple stem	Rapid	No	High	Severe	Med	RA	High	Low	Med	V, moist
Cinquefoil, Shrubby	*Dasiphora fruticosa ssp. floribunda*	P	Deciduous shrub	Multiple stem	Slow	No	Med	None	Low	RA	Low	Low	Low	V
Cottonwood, Black	*Populus balsamifera trichocarpa*	P	Deciduous tree	Single stem	Rapid	No	High	None	Low	RA	Med	Low	High	V, WD, moist
Cottonwood, Narrowleaf	*Populus angustifolia*	P	Deciduous tree	Single stem	Rapid	No	Med	None	Low	RA	Med	High	High	S, L, moist
Currant, Golden	*Ribes aureum*	P	Deciduous shrub	Rhizomatous	Mod	No	Med	None	Med	RA	Med	Low	Low	L
Currant, Gooseberry	*Ribes montigenum*	P	Deciduous shrub	Multiple stem	Rapid	No	Med	None	High	RA	Med	Med	Med	S, L
Currant, Wax	*Ribes cereum*	P	Deciduous shrub	Multiple stem	Rapid	Yes	High	None	High	RA	High	High	Low	S, L
Currant, Whitestem	*Ribes inerme*	P	Deciduous shrub	Multiple stem	Mod	No	Med	None	Low	RA	Med	Low	Med	V, wet
Dogwood, Red-osier	*Cornus sericea ssp. sericea*	P	Deciduous shrub	Multiple stem	Mod	No	Low	None	Low	RA	High	Med	High	V, wet
Douglas-fir	*Pseudotsuga menziesii*	P	Evergreen tree	Single stem	Mod	Yes	Low	None	Med	RA	Low	Low	Med	S, L, WD, moist
Elderberry, Red	*Sambucus racemosa var. racemosa*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	Low	CO	Med	Low	High	C, L, moist
Hawthorn, Black	*Crataegus douglasii*	P	Deciduous tree	Thicket	Mod	No	High	None	Low	RA	High	High	High	V
Honeysuckle, Twinberry	*Lonicera involucrata*	P	Deciduous shrub	Single stem	Mod	No	Med	None	Low	RA	High	High	High	C, L
Huckleberry, Thinleaf	*Vaccinium membranaceum*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	High	CO	Med	Low	Low	S, L, dry

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Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
Juniper, Common	*Juniperus communis*	P	Evergreen shrub	Single stem	Slow	No	Low	None	High	RA	Low	Low	Low	V
Juniper, Rocky Mountain	*Juniperus scopulorum*	P	Evergreen shrub	Single stem	Slow	No	Low	None	High	RA	Low	Low	Low	S, L
Kinnikinnick	*Arctostaphylos uva-ursi*	P	Evergreen shrub	Multiple stem	Mod	No	Low	None	High	RA	Low	Low	Low	S, L
Mahogany, Curl-leaf mountain*	*Cercocarpus ledifolius*	P	Deciduous tree	Multiple stem	Slow	No	High	Slight	High	RA	High	Low	Low	V
Mahogany, True mountain*	*Cercocarpus montanus var. montanus*	P	Deciduous shrub	Multiple stem	Slow	No	High	Slight	High	RA	High	Low	Low	S, L
Maple, Rocky Mountain	*Acer glabrum*	P	Deciduous tree	Multiple stem	Rapid	No	High	None	Med	RA	High	Low	Low	S, L
Meadowsweet, rose	*Spiraea splendens*	P	Subshrub	Multiple stem	Mod	No	Low	None	Low	RA	n/a	n/a	High	V, moist
Ninebark, Mallow	*Physocarpus malvaceus*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	High	CO	Med	Low	Low	V
Ninebark, Mountain	*Physocarpus monogynus*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	High	CO	Med	Low	Low	V
Oak, Bur	*Quercus macrocarpa*	P	Deciduous tree	Single stem	Slow	Yes	High	None	High	RA	Med	n/a	Med	V
Oregon boxleaf	*Paxistima myrsinites*	P	Evergreen shrub	Multiple stem	Mod	No	High	None	Med	RA	Med	Low	Med	moist
Pine, Limber	*Pinus flexilis*	P	Evergreen shrub	Single stem	Slow	No	Low	None	High	CO	Low	n/a	Low	L
Pine, Lodgepole	*Pinus contorta*	P	Evergreen shrub	Single stem	Rapid	No	Low	None	Med	RA	Low	Low	Med	V
Pine, Whitebark	*Pinus albicaulis*	P	Evergreen shrub	Single stem	Slow	No	None	None	High	CO	Low	n/a	Med	S, L
Pipsissewa	*Chimaphila umbellata*	P	Subshrub	Rhizomatous	Slow	Yes	High	None	Med	CO	n/a	n/a	Low	S, L
Rabbitbrush, Green	*Chrysothamnus viscidiflorus*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	High	RA	Low	Low	Low	V, dry
Rabbitbrush, Rubber	*Ericameria nauseosa*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	High	RA	Low	Low	Med	S, L
Raspberry, American red	*Rubus idaeus*	P	Deciduous shrub	Rhizomatous	Slow	No	Low	None	Med	RA	Low	Low	Med	V, dry or moist

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Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
Raspberry, Thimbleberry	*Lonicera involucrata*	P	Deciduous shrub	Rhizomatous	Rapid	No	High	None	Med	CO	High	Low	High	C, L, moist
Rose, Nootka	*Rosa nutkana var. hispida*	P	Deciduous shrub	Thicket	Rapid	Yes	High	None	Low	CO	Low	Low	High	S, L, moist
Rose, Woods'	*Rosa woodsii var. woodsii*	P	Deciduous shrub	Rhizomatous	Rapid	No	High	None	Med	RA	Med	Med	Med	C, L, wet
Sagebrush, Basin big	*Artemisia tridentata ssp. tridentata*	P	Evergreen shrub	Multiple stem	Slow	No	Low	None	High	RA	Low	Low	Low	V, WD
Sagebrush, Black	*Artemisia nova*	P	Subshrub	Multiple stem	Mod	No	Low	None	High	RA	Med	Low	Low	V
Sagebrush, Low	*Artemisia arbuscula ssp. arbuscula*	P	Evergreen shrub	Multiple stem	Slow	No	Low	None	Med	RA	Low	Low	Low	C, L, dry/moist
Sagebrush, Mountain big	*Artemisia tridentata ssp. vaseyana*	P	Evergreen shrub	Multiple stem	Slow	No	None	None	High	RA	Low	Low	Low	V, dry
Sagebrush, Silver	*Artemisia cana ssp. viscidula*	P	Evergreen shrub	Rhizomatous	Mod	No	High	None	Low	RA	Med	Low	Low	V, WD, moist
Sandcherry, Western	*Prunus pumila*	P	Subshrub	Multiple stem	Mod	No	Med	None	Low	RA	Med	Low	Med	C, L,
Sagewort, Fringed	*Artemisia frigida*	P	Subshrub	Rhizomatous	Rapid	No	Med	None	High	RA	High	High	Low	V
Serviceberry*	*Amelanchier alnifolia*	P	Deciduous shrub	Multiple stem	Mod	No	High	Slight	Med	RA	High	Low	Med	V, alkaline, moist
Silverberry	*Elaeagnus commutata*	P	Deciduous shrub	Rhizomatous	Rapid	No	Med	None	Med	CO	High	Low	Low	S, L, moist
Snowberry, Common*	*Symphoricarpos albus*	P	Deciduous shrub	Rhizomatous	Mod	No	High	Slight	High	RA	High	Low	Med	V
Snowberry, Mountain*	*Symphoricarpos oreophilus*	P	Deciduous shrub	Rhizomatous	Mod	No	High	Slight	High	RA	Low	Med	Low	C, L, dry
Snowberry, Western*	*Symphoricarpos occidentalis*	P	Deciduous shrub	Thicket	Mod	No	High	Slight	Med	RA	High	Low	Low	V, WD, dry or moist
Spruce, Blue	*Picea pungens*	P	Evergreen shrub	Single stem	Slow	No	Low	None	Med	RA	Low	Low	Med	S, L, moist
Spruce, Engelmann	*Picea engelmannii*	P	Evergreen shrub	Single stem	Slow	No	Low	None	Low	RA	Med	Low	Med	C, L, moist
Sumac, Skunkush	*Rhus trilobata*	P	Subshrub	Rhizomatous	Slow	No	Med	Slight	Med	RA	Med	Low	Low	S, L, moist
Thimbleberry	*Rubus parviflorus*	P	Subshrub	Rhizomatous	Mod	Yes	High	None	Med	RA	n/a	n/a	Med	V, dry to moist

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Common Name	*Scientific Name*	D	Life Form	Growth Form	GR	FR	FT	Toxicity	DT	CA	PBA	PGU	MU	Soils
Willow, Bebb	*Salix bebbiana*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	None	RA	High	High	High	V, wet
Willow, Booth's	*Salix boothii*	P	Deciduous shrub	Multiple stem	Rapid	No	Med	None	Low	RA	High	High	High	V, moist -wet
Willow, Coyote or Sandbar	*Salix exigua*	P	Deciduous shrub	Rhizomatous	Rapid	No	High	None	Low	RA	Low	Low	High	V, moist-wet
Willow, Drummond's	*Salix drummondiana*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	Low	RA	Med	Low	High	V, mosit -wet
Willow, Geyer's	*Salix geyeriana*	P	Deciduous shrub	Thicket	Rapid	Yes	High	None	None	RA	High	High	High	V, wet
Willow, Grayleaf	*Salix glauca*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	Low	RA	High	High	High	V, moist-wet
Willow, MacKenzie's	*Salix prolixa*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	Low	RA	Med	Low	Low	S, L, moist -wet
Willow, Peachleaf	*Salix amygdaloides*	P	Deciduous tree	Multiple stem	Rapid	No	High	None	Low	RA	Med	Med	High	S, L
Willow, Planeleaf	*Salix planifolia*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	Low	RA	Med	Low	Med	S, L, moist-wet
Willow, Scouler's	*Salix scouleriana*	P	Deciduous tree	Multiple stem	Rapid	No	High	None	Med	CO	High	High	High	V, wet-moist to dry
Willow, Shortfruit	*Salix brachycarpa*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	Low	RA	High	High	High	V, mosit -wet carbonates
Willow, Whiplash	*Salix lucida ssp. caudata*	P	Deciduous shrub	Multiple stem	Rapid	No	High	None	Low	RA	Med	Low	High	S, L, moist - wet
Willow, Wolf's	*Salix wolfii*	P	Deciduous shrub	Multiple stem	Mod	No	High	None	Low	RA	Low	Low	Med	V, moist -wet
Winterfat	*Krascheninnikovia lanata*	SP	Evergreen shrub	Multiple stem	Rapid	No	None	None	High	RA	High	High	Low	V, dry

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All species on this list have been found commercially available as of July 2008.
For more information about availability check your local plant nurseries or go to the Native Seed Network: www.nativeseednetwork.com

Last Updated May 2011

Backyard Wildlife

Teton County is well known for it's broad diversity of wildlife, birds, and vegetation along with the beautiful mountain peaks of the Tetons. We are very fortunate to live in such a pristine environment, however we cannot forget our responsibility to give animals their space. When the snow begins to fall in late September and October, many animals head to their winter ranges which may include our backyards. There are also places where big game migration routes get pinched by geography, vegetation, or development which are called bottlenecks. Thousands of big game animals travel through these areas to get to their winter ranges and unnatural disturbances can have catastrophic affects. This section will describe many ways how you can help instead of hurt these amazing creatures.

Photo © Branding Images Photography

Wildlife Feeding Ban

Beginning July 1, 2003 Teton County passed a new regulation banning private landowners from feeding wildlife on their private property. The regulation states that: "No private citizen in Teton County or the Town of Jackson shall feed the following animals: deer, elk, moose, black bears, grizzly bears, raccoons, antelope, wolves, coyotes, foxes, bighorn sheep, mountain goats, bobcats, mountain lions, lynx, or bison." The fine is up to $750 per day.

A regulation like this is necessary because feeding habituates wildlife to human activity and in turn causes them to lose their fear of humans. This can result in dangerous aggressive actions on innocent people and pets. Feeding also unnaturally concentrates animals in areas where there is not enough food and allows for the potential spread of wildlife diseases. Another problem that often occurs when wildlife are fed is that predators such as bears and mountain lions are also attracted. Wyoming Game and Fish Department euthanized 30 black bears in 2001 after they became habituated to artificial foods.

What You Can Do To Help:

- Store food or garbage inside or in a bear proof container.
- Wait to put out garbage cans until trash pickup time.
- Hang bird feeders out of reach of bears.
- Keep pet foods in locked containers.
- Put away barbecue grills when they are not in use.
- Feed pets indoors or bring excess pet food in after feeding.
- Do not feed wildlife on your property since that same food attracts bears.
- Hunters should put away carcasses so the meat does not attract a bear.

Bear Safety in Your Backyard

In order to keep bears out of your backyard, any type of attractant must be stored inside a closed shed, garage, or in a bear proof container. An attractant is anything that gives off odors of food and garbage. Attractants include pet food, livestock feed, hummingbird food, game carcasses, barbecue grills, and even birdfeeders. Once a bear finds a source of food they will often return in search of more. A bear that becomes habituated to artificial food sources becomes a danger to humans and to itself.

Although bird feeders are considered an attractant, The Feeding Ban does allow their use with some restrictions. It is recommended to use a height of ten feet from the ground or porch and four feet out from anything a bear can stand on to get your feeder. Don't ever forget: A Fed Bear is a Dead Bear!

How to Benefit Wildlife in Your Backyard

1. Educate Yourself. Learn the facts on the different big game that you may encounter in your backyard. Their habitat, food, and behavior are all important aspects to understand before trying to provide a natural habitat critical to wintering animals.

2. Plants that provide good nutrition to wintering wildlife are: Aspen, Serviceberry, Mountain Mahogany, Bitterbrush, Willow, Chokecherry, Golden Current, Honeysuckle, Mountain Ash, and Snowberry. Keep in mind that these shrubs may be heavily browsed on. See chart below for wildlife preferences.

3. If you are interested in deterring wildlife from your yard then you may want to plant: Birch, hawthorn, Englemann Spruce, Blue Spruce, Narrowleaf Cottonwood, Douglas Fir, Boxelder Maple, Red-osier Dogwood, Singleleaf Ash, Shrubby Cinquefoil, or Raspberry. Any bush or shrub that produces berries can attract Bears to your yard.

4. When landscaping, check wildflower seed mixes for noxious weeds such as Oxeye Daisy and Toadflax. Plant only native plants.

5. Do not allow pets to chase wildlife especially during the winter months. Animals on the run from a pet can cost them stored up fat reserves that they need to survive the winter. Law enforcement officers are authorized to shoot domestic dogs that are observed harassing big game animals.

6. Fencing large areas of land is discouraged because it disrupts migration routes. Fencing a small yard in town has minimal impacts to wildlife. If you have buckrail fences, consider dropping the top rail every 400 yards during the winter for easy access. If you don't have livestock, open gates to allow wildlife through.

Animal	*Habitat*	*Food*	*Behavior*
Moose	forests with lakes, ponds, & marshes	willow buds, twigs, & bark; aquatic vegetation	active at dawn & dusk; relatively accepting of humans but dangerously unpredictable
Deer	forest edges, river bottoms	mountain mahogany, bitterbrush, chokecherry, serviceberry, sagebrush, grasses, & forbs	active at dawn & dusk; gregarious & migratory
Pronghorn	open, rolling sagebrush; grasslands	sagebrush, grasses, & forbs	most active at dawn & dusk; can also be seen during the day; very fast & observant
Elk	forest, grasslands, burns	grasses, sedges, forbs, sagebrush, willow, & serviceberry	active at dawn & dusk; strong herb instincts
Birds	nest everywhere from forest to grasslands	berries & insects	active at dawn & dusk

Contributing Authors & Sources:
Wyoming Game & Fish

Protecting Yourself & Property from Bears

For Homeowners

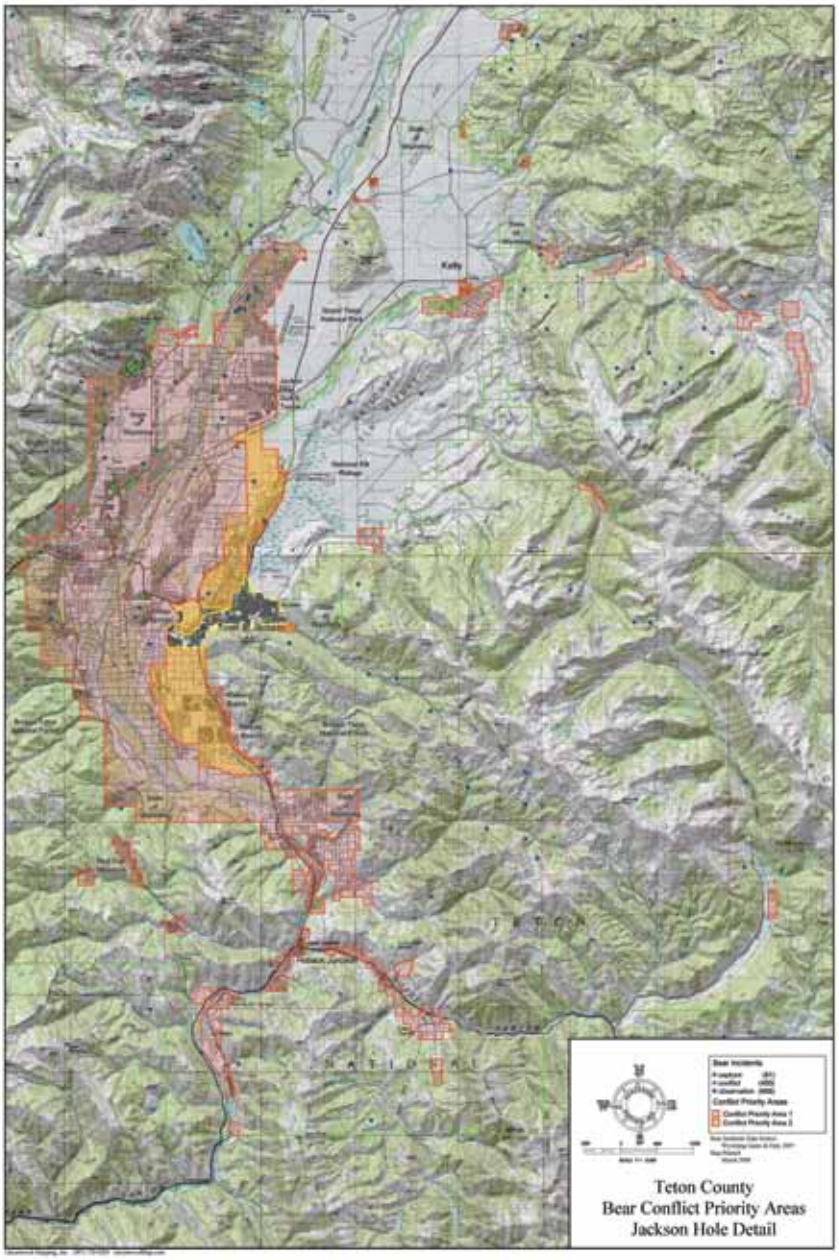
No matter where we live in bear country we're never far from bears, spectacular animals that, unfortunately, can get into trouble with humans. Homeowners, remember that bears have an extremely good sense of smell and will check out anything that smells like food. They also have good memories — once "rewarded" with food, a bear will seek out similar situations and return with regularity to sites where they once got a free meal. The best approach is to "bear-proof" your property by storing food, garbage and other attractants away from bears. Stored garbage often attracts bears. Once a bear uses human garbage as food, it is very difficult to persuade the bear to leave the area. Bears that are drawn to stored garbage but are unable to obtain feed will usually leave and not return.

Some Garbage Care Tips

To decrease odors, store garbage in tightly tied or heavy duty bags. Store garbage in "bear-resistant" dumpsters or garbage cans.

If a bear-proof container is not available, store garbage inside until it can be taken to a refuse site. Take advantage of regular trash pickup services. Don't stockpile your garbage — it will begin to smell and may attract a bear.

Store extra smelly items like fish parts and meat bones in a freezer until they can be taken to a refuse site.



Bear Conflict Priority maps have been approved by the County Commissioners (AMD 07-0007). Buffalo Valley & Alta maps and Bear Conflict FAQ can be found at the county's website: www.tetonwyo.org, under the planning and development page.

If we eat it, bears will eat it too! Don't leave food outside unattended (including unopened items such as canned beverages). Bears have been known to walk up to an unattended grill in broad daylight, and walk off with the steaks that had been cooking.

As soon as you are finished eating, put your food inside your house or in a bear-proof garbage can. Don't throw cooking grease or waste water outside. Dispose of it inside. If it will later be thrown in the garbage, place it in a glass container with a lid or in a tightly sealed plastic bag. Be sure to promptly throw away any paper products that have been used to serve food and drinks. Don't forget to remove silverware and cooking utensils.

Anything that has been used to hold food items or cook food will attract bears. Coolers should not be left outside unattended. Even empty, they retain residual food odors that attract bears. Store your coolers inside. Refrigerators and freezers should not be left unsecured on porches. Be sure they are attached to the porch so they cannot be knocked over, and make sure doors are locked. Better yet, keep all refrigerators and freezers inside. Grills and smokers should be cleaned thoroughly after each use. Burn off any remaining food particles and scrub away the grease. Storing cookers inside is preferable.

Bear Conflict Mitigation & Prevention Land Development Regulations as of July 1, 2009

How did Teton County identify and map bear conflict priority areas?

Bear conflict priority areas were identified as those areas in Teton County that overlap with, lay adjacent to, or are in close proximity to, known bear-occupied habitat and/or regular travel corridors and/or seasonal bear-use areas, as documented by empirical research or wildlife management actions and observations. The County obtained these data from the Wyoming Game and Fish Department. If you have any questions regarding how these data were collected by the Wyoming Game and Fish Department, please contact Bear Management Specialist, Mike Boyce, at 733-2383, ext. 270.

What is a certified bear-resistant container/dumpster?

Certified bear-resistant containers or dumpsters meet the "minimum structural design standards" published by the Interagency Grizzly Bear Committee (IGBC) in 1989 or has successfully passed the testing program and protocols recited in the Bear-Resistant ProductsTesting Program (October, 2005).

How do I obtain a certified bear-resistant container?

Many sanitation companies and property management companies will be replacing your current trash container with a certified bear-resistant container. Please contact your sanitation company or property management company to find out if they intend to replace your trash container. Certified bear-resistant containers can be purchased locally at Ace Hardware.

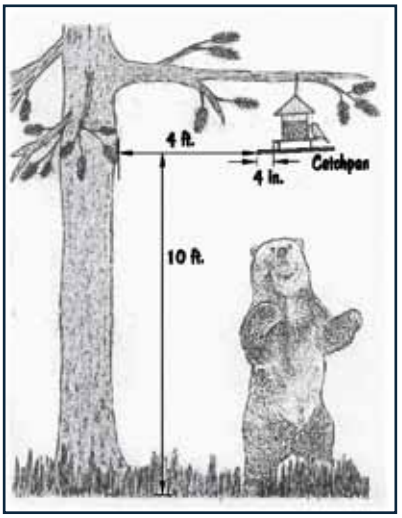
What is a bear-resistant building or enclosure?

The new regulations define a bear-resistant enclosure/building as an enclosure/building that consists of and/or contains the following:

1. a framed building or enclosure with hard sides and a roof constructed of hard wood, non-reflective metal or other like product reasonably designed and manufactured to withstand an intrusion by a bear; or
2. Chain-link fencing no less than six (6) feet in height, at the top of which is barbed-wire fencing angled outwards; or
3. Functional and maintained electrical fencing designed to exclude bears; or
4. A combination of (1), (2), and/or (3) above; and
5. Functional, maintained self-latching doors/gates, or doors and gates with locks.

Examples of bear-resistant enclosures include, but are not limited to, garages, metal sheds, houses, and electrified fencing designed to exclude bears or any other building designed and constructed to prevent access by bears.

Can you provide me with a picture showing the proper way to hang my birdfeeder?



Proper way to hang a birdfeeder.

My property is located in Conflict Priority Area 1, but is located south of Wyoming State Highway 22 and south of Broadway Street in Jackson. Do these regulations apply to me?

All County property owners located in Conflict Priority Area 1 and located south of Wyoming State Highway 22 and south of Broadway Street in Jackson shall comply with the Land Development Regulations above by July 1, 2010.

Where can I view the approved County regulations?

To view the regulations, please visit the following website: http://www.tetonwyo.org/plan/pdplan/nav/201979.asp. Click on Article IV, and go to Division 49700, Bear Conflict Mitigation and Prevention and Division 49230, Refuse and Recycle Facilities. Alternatively, feel free to visit the Teton County Planning Department any time from 8:00 a.m. – 5:00 p.m. (Monday through Friday) to view the regulations within our office. The Teton County Planning and Development Department is located on the second floor of the Teton County Administration Building (200 S. Willow Street).

Who should I contact with any additional questions I might have?

If you have any questions regarding the Land Development Regulations please contact the Teton County Planning and Development Department at (307)733-3959. ♦

Contributing Authors & Sources:
Teton County Planning and Development Department,
www.tetonwyo.org/plan/pdplan/docs/bearfaq.pdf

Reduce! Reuse! Recycle!

Integrated Solid Waste & Recycling is located at 3270 S. Adams Canyon Drive
P.O. Box 9088, Jackson, Wyoming 83001
307-733-SORT(7678)
http://www.tetonwyo.org/recycling/
jcrecycling@tetonwyo.org

The recycling center is open Monday through Friday 9 am - 6 pm with collection bins out 24 hours a day for your convenience. Community Recycling Sites available 24 hours a day at the following locations for residents (no business use please):

- In the Recreation Center parking lot on Gill Street
- Fairgrounds
- Aspens Market at the Aspens
- In the Albertson's parking lot
- Teton Village in maintenance parking lot (next to the public lot)
- Hoback Junction in the Hoback Fire Station parking lot
- Next to Cattleman's Bridge (over the Gros Ventre River) on Spring Gulch Road

All general recycling materials accepted at JCR can be recycled at these seven locations.

Jackson Community Recycling, a program of Teton County Integrated Solid Waste and Recycling, is funded by the sale of recyclables, composters, tote bags and other merchandise, and donations from private individuals and foundations.

Here is what we take:

- Aluminum Foil & Pie Plates
- Aluminum Beverage Cans
- Batteries: rechargeable and alkaline, at recycling center only
- Corrugated Cardboard: boxes (with a wavy inner layer) and brown paper bags. No waxed boxes. No paperboard. No egg cartons.
- Glass Bottles & Jars: food or beverage glass only. Labels are okay. Please rinse and remove caps and metal collars on wine bottles. No windowpane or Pyrex.
- Magazines & Catalogues
- Newspapers & inserts that come with the paper. No phone books mixed with newspaper!
- Phone Books
- Plastic #1 PETE Bottles (code on bottom of bottle) Bottles only. Rinse and remove caps.
- Plastic #2 HDPE Bottles (code on bottom of bottle) Bottles only. Rinse and remove caps.
- Plastic #2 and #4 Bags: No sandwich bags, plastic food wrap, candy wrappers or black bags.
- Propane Canisters: Small camping canisters, at recycling center only
- Steel Food Cans
- Office Paper

More than 4 million tons of junk mail flood American mailboxes each year - roughly EIGHTY MILLION TREES worth of paper. Here are steps that you can take to prevent this waste of resources:

- Know the magic words: "Please do not rent, sell, or trade my name or address." Every time you submit your name and address to anyone be sure to emphasize this statement.
- Stop unwanted junk mail all together! Send copies of your mailing labels to the following address with a note asking that all included variations of your name and address be deleted from their mail lists: Direct Marketing Association, Mail Preference Service, P.O. Box 9008, Farmingdale, NY 11735, or go to www.catalogchoice.org to opt out of receiving junk mail and magazines.

YES! YES! YES!

computer paper * fax paper * copier paper * receipts *envelopes * adding machine tape * pastel colored paper * manila/bleached file folders * carbonless paper * business cards * NCR forms * white bond * index cards * glossy flyers/ brochures * card stock*

staples are okay

NO! NO! NO!

paper clips * fluorescent or deep toned paper * self adhesive labels * sticky notes * construction paper * rubber bands * glue bound publications * Tyvek envelopes * "golden" envelopes * ream wrap * photos * blue prints * plastic * paper cups paper plates * napkins * paper towels * boxes of any kind

Household Hazardous Waste

The Teton County Household Hazardous Waste Collection Facility provides the only legal and responsible disposal option for household chemicals, oil-based paints and stains, poisons, pesticides, herbicides, automotive products, fluorescent bulbs and tubes, etc. The facility is open the first and third Tuesday of the month, April through October, BY APPOINTMENT ONLY. Call Jackson Community Recycling at 733-7678. For more information, download the household hazardous waste brochure at www.tetonwyo.org/recycling.

Electronic Waste

E-waste is accepted at the recycling center Monday – Friday, 9 am – 6 pm, year-round — no appointment needed! E-waste includes televisions, computers and all peripherals, lap tops, printers, fax machines, scanners, copy machines, DVD players, VCR players, cell phones and all accessories, etc. All electronics are banned from the Teton County Trash Transfer Station. The charge to ship and properly dispose of e-waste is 40 cents per pound.

Aluminum Redemption

Bring your aluminum cans to the recycling center for cash! Jackson Community Recycling pays 25 cents a pound for aluminum cans.

Confidential Paper Shredding

Certified document destruction (shredding) is available to both businesses & individuals for 25 cents per pound. Paper must meet office paper recycling standards, or an additional sorting fee will be assessed. JCR's shredder processes 2,000 pounds per hour of sensitive documents which are then recycled. We're happy to accommodate any quantity and paper category. Call 733-7678 for more information.

Cardboard Collection Service for Businesses

Jackson Community Recycling contracts with Westbank Sanitation to provide a cardboard collection service for businesses. Fees start at $70 per month for 2-yard bin, three days a week. Call 733-7678 for more information.

Scrap Metal Recycling

Scrap metal recycling is available for free at the recycling center. This free service is for small quantities of scrap metal only. Large amounts of scrap metal must be brought to the trash transfer station. Refrigerators, freezers, and air conditioners with Freon cost $35 each for disposal and must be brought to the trash transfer station. It is illegal to drain or dump Freon improperly.

Jackson Curbside Recycling

Offers residential and business pick up services throughout Teton County. Rates start at $12/month for residences. The number of pickups can vary from once a month to several times per week. Recycle your event, wedding, or party with Jackson Curbside. Call 733-8559 for more information. Jackson Curbside is a private enterprise that works in cooperation with, but without any affiliation to Teton County Integrated Solid Waste and Recycling.

Backyard Composters

Composting vegetable and yard waste is an easy way to reduce your garbage as well as a wonderful way to create nutrient rich soil. Jackson Community Recycling sells backyard composters at wholesale prices. For more information about composting please call 733-7678. ♦

Diversion at the Teton County Trash Transfer Station

Not all materials taken to the Trash Transfer Station end up in the landfill. Several materials are diverted from the landfill and either reused or recycled. Here is an overview of the materials that are diverted from the landfill.

Organics: Dimensional lumber/wood waste and yard waste represent the largest volume of materials diverted from the landfill. In 2007, Teton County contracted with Terra Firma Organics to manage both wood and yard waste processing. When fully processed, the wood waste is sold to a food processing company to be used as a heat source. The trees, branches, stumps, manure, grass clippings, brush material, sod and leaves are transformed into rich piles of compost that Terra Firma sells to landscaping contractors, local stores and the public.

Concrete: ISWR contracts with Yellow Iron Excavating to crush and process concrete that is brought to the transfer station. Yellow Iron processes the concrete on site at the transfer station, and hauls it away for use in construction and improvement projects, or sells it for repurposed use.

Scrap Metal: Scrap metal in all shapes and sizes is brought to the transfer station and diverted from the landfill. Scrap metal collected at the transfer station includes household appliances, industrial sheet metal, electrical wiring, fencing, metal doors and window frames, tire rims, and junk vehicles. Teton County contracts with a contractor to process the scrap metal on site and haul it away. When the contractor sells the scrap metal, Teton County receives a percentage of the proceeds.

Tires: Tires brought in to the transfer station are sent to Liberty Tire Recycling in Salt Lake City, a company that hauls and recycles scrap tires into a number of materials. Products manufactured by Liberty Tire from recycled tires include welcome mats, railroad ties, anti-fatigue mats, acoustical underlay, portable speed bumps and rubber mulch.

Composting

The basic ingredients for successful compost are organic material, a holding bin, water, air and a little sweat. The composting process can be broken down into six easy steps. Please note that the private composting of any and all kitchen scraps should be discouraged in Bear Conflict Area 1. (See map on p. 42.)

Step #1: Choose Your Material

There's green and there's brown. Green stuff includes kitchen scraps, fresh grass clippings, young weeds, garden refuse and manures. All of these ingredients are high in nitrogen, the favorite food of compost bugs. Brown stuff includes straw, old hay, autumn leaves and sawdust. These are more woody and break down more slowly. Go ahead and toss in the citrus rinds, coffee grounds and eggshells (although the peach and avocado pits will swim around for a while.) Don't add dog and cat wastes (they contain dangerous pathogens), meat scraps, bones, or fat. Dense tree branches or shrub clippings are better off in a pile of their own, or shredded for mulch. Contrary to popular myth, soil or manure is not necessary to get decomposition going.

Step #2: Contain It and Build It

An unrestrained heap will decompose adequately, but it's more convenient and aesthetic to have some sort of bin. Two bins are even better to assist in turning. Variations run from suburban style models sold in gardening catalogs to four scrap pallets lashed together and braced against the back fence. You can build your own with wood, cinder block or fencing. The ideal dimension for a single bin is at least three feet by three feet. This is the minimum mass needed to heat sufficiently, yet small enough to stay aerated. If you have lots of materials on hand at one time, you can layer the greens and browns. You can also add materials little by little as they find their way to your backyard.

Step #3: Wet It

A moist environment is essential to keeping the good bugs going, but an oversaturated heap will starve the critters of oxygen. Maintain enough moisture to that the pile has the feel of a wrung out sponge. When building a massive pile, sprinkle the layers as you go. Water all bins occasionally as they decompose. Covering the compost with a lid (plastic or fiberglass) will help conserve moisture, heat (which is very helpful in the cooler climates) and prevent leaching of nutrients.

Step #4: Turn It (optional)

Compost doesn't have to be turned, it will rot on its own sooner or later. Turning the pile (or shaking it up a bit) will add oxygen, fueling the microbiotics. Each time the bin is aerated, the decomposition time is cut in half. If you have only one container, you can move things around with a fork or shovel. If you have two bins, you can throw everything into the new bin. More turning = faster composting.

Step#5: Let It Be

At some point you'll have to stop adding new ingredients and give the microorganisms a chance to finish their work. The pile will shrink to about one fourth the volume of the original materials. The result will be dark, crumbly, rich looking compost which is a great fertilizer and superb soil conditioner.

Step#6: Use It

With a favorable nutrient balance, compost will feed the soil, buffer pH and improve texture. Apply an inch or more to garden beds or side dress perennial plants. Turn you trash into treasure! ♦

Contributing Authors & Sources:
Heather Overholser, Jackson Community Recycling

Wildland/Urban Fire Interface Defensible Space

Frequently Asked Questions About Defensible Space

In the 1980s, the term "defensible space" was coined to describe vegetation management practices aimed at reducing the wildfire threat to homes. This article responds to some of the commonly asked questions about defensible space.

What is defensible space?

Defensible space is the area between a house and an oncoming wildfire where vegetation has been modified to reduce the wildfire threat and to provide an opportunity for firefighters to effectively defend the house. Sometimes, a defensible space is simply a homeowners' properly maintained backyard.

What is the Relationship Between Vegetation and Wildfire Threat?

Many people do not view the plants growing on their property as a threat. But in terms of wildfire, the vegetation adjacent to their homes can have considerable influence upon the survivability of their houses. All vegetation, including plants native to the area as well as ornamental plants, is potential wildfire fuel. If vegetation is properly modified and maintained, a wildfire can be slowed, the length of flames shortened, and the amount of heat reduced, all of which assist firefighters to defend the home against an oncoming wildfire.

The Fire Department is supposed to Protect my House, so Why Bother With Defensible Space?

Some individuals incorrectly assume that a fire engine will be parked in their driveway and firefighters will actively be defending their homes if a wildfire approaches. During major wildfire, it is unlikely there will be enough fire-fighting resources available to defend every home. In these instances, firefighters will likely select homes they can most safely and effectively protect. Even with adequate resources, some wildfires may be so intense that there may be little firefighters can do to prevent a house from burning. The key is to reduce wildfire intensity as wildfire nears a house. This can be accomplished by reducing the amount of flammable vegetation surrounding a home. Consequently, the most important person in protecting a house from wildfire is not a firefighter, but the property owner. And it's the action taken by the owner before the wildfire occurs (such as proper landscaping) that is most critical.

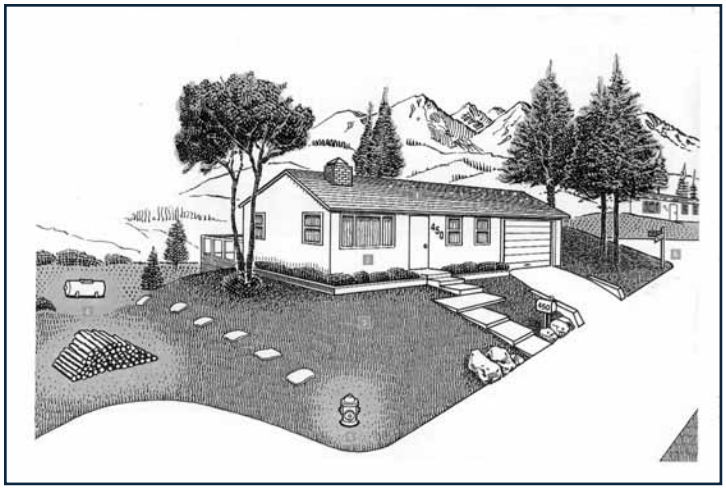
Controlled burn (background) with Miller keeping watch. Photo © Rachel Daluge.

Does Defensible Space Require A Lot Of Bare Ground In My Landscape?

No. Unfortunately, many people have this misconception. While bare ground is certainly effective in reducing wildfire threat, it is unnecessary and unacceptable due to appearance, soil erosion and other reasons. Many homes have attractive, well vegetated landscapes that also serve as effective defensible space.

Does Creating Defensible Space Require Any Special Skills or Equipment?

No. For the most part, creating a defensible space employs routine gardening and landscape maintenance practices such as pruning, mowing, weeding, plant removal, appropriate plant selection, and irrigation. Equipment needed includes common tools like a chainsaw, pruning saw, pruning shears, loppers, weed-eater, shovel, and a rake. A chipper, compost bin, or a large rented trash dumpster may be useful in disposing of unwanted plant material.



How Big Is An Effective Defensible Space?

Defensible space size is not the same for everyone, but varies by slope and type of wildland vegetation growing near the house.

Does Defensible Space Make a Difference?

Yes. Investigations of homes threatened by wildfire indicate that houses with an effective defensible space are much more likely to survive a wildfire. Furthermore, homes with both an effective defensible space and a nonflammable roof (composition shingles, tile, metal, etc.) are many times more likely to survive a wildfire than those without defensible space and flammable roofs (wood shakes or shingles). These conditions give firefighters the opportunity to effectively and safely defend homes.

Does Having A Defensible Space Guarantee My House Will Survive A Wildfire?

No. Under extreme conditions, almost any house can burn. But having defensible space will significantly improve the odds of your home surviving a wildfire. ♦

Tips to Help You Protect Property & Lives from Wildfires

Prune the lower branches of trees to a height of 6 to 10 feet to remove lower fuels that can cause a ground fire to become more destructive. No more than one-third of a tree's foliage should be removed at one time to avoid stress.

Remove dead and diseased branches from trees to reduce the potential for fire spreading into the crowns. Remove or mow dry grasses, weeds and underbrush. Cut back tree limbs that overhang your home.

Place 1/2 inch mesh screens over chimneys and incinerators. Use flame resistant material for roofing and exterior walls. Never pile firewood against your home or outbuildings, under decks or in carports. Keep roofs and gutter clean of pine needles or leaf litter that could provide an ignition source for fire.

Maintain lawn and garden equipment regularly according to the manufacturer's instructions. Without maintenance, an engine can overheat and start a fire. Store oils, gasoline and other flammable in safe containers kept in well-ventilated areas.

Prepare a simple fire escape plan for all members of your family. Include escape from the vicinity of your home and from within the home itself. Decide on a location for the family to gather should you become separated.

Have an approved fire extinguisher available at all times. Make sure every family member knows how to use it safely. Make sure emergency vehicles can get into and out of your location.

Contributing Authors & Sources:
Mary Cernicek, Bridger Teton National Forest;
"Living on a Few Acres," Idaho Natural Resources Conservation Service

Being Neighborly

Getting along with your neighbors can be harder in the country than it is in town. Rules are different as are perceptions, so it's a good idea to understand the neighborhood before you move in and start making changes to the land. Conflicts between new and existing rural landowners have always existed. These conflicts often arise from both real and perceived differences between landowners. A better understanding of the reasons behind these conflicts may help new and existing residents of Teton County become more neighborly.

Many people are unaware of private boundaries when first arriving in the country. Unintended trespass sometimes occurs due to preconceived notions about open ranges and federally and state managed lands. It is always the responsibility of the individual to know whose land they are on regardless of whether or not it is fenced. To alleviate unwanted trespass, obtain a good county map that clearly shows public lands and private roads; then remember to always ask before entering private lands, even when you are doing something as seemingly harmless as walking across a meadow.

Free roaming dogs are a threat to livestock and wildlife. When animals are chased by dogs they are put under undue stress which can and does result in lower weight gain and risks of physical injury. Ranchers have the right to protect their livestock, and in some cases, will destroy animals that threaten their herds. It is also unlawful to allow pets to harass wildlife.

Photo © Branding Images Photography

Other Tips

Know Your Neighbors

Find out who your neighbors are by introducing yourself and putting your best food forward by finding ways to be of assistance to them and by showing respect for their property.

When You Recycle

Please break down your cardboard boxes to make room for the next person's boxes. Put recyclables in the appropriate bins. Do not put trash in recycle bins. Please clean up your messes.

When You Walk Your Dog

Please keep your dog under voice or physical control at all times. Clean up dog waste and pack it out to a trash can. Do not allow your dog to chase wildlife or livestock.

When You Use the Trails and Backcountry

Hikers and bikers yield to horses. Bikers yield to hikers. Pack out what you pack in.

In an effort to welcome newcomers to the valley and to share the wisdom and stories of valley natives, The Murie Center hosts monthly New Neighbor Gatherings at the historic Murie Ranch in Grand Teton National Park. New residents will have the opportunity to learn about the Murie Family, meet other new residents, and participate in a conversation about the joys and concerns of living in a wild place. New Neighbor Gatherings begin at 9:30 am and conclude with a complimentary lunch served at noon. The program is free, but reservations are required. To find out more or to register, call 739-2246 or email info@muriecenter.org. ♦

Contributing Authors & Sources:
Ferry County Rural Living Handbook;
Heather Overholser, Jackson Community Recycling;
The Murie Center

Outdoor Recreation

Teton County is a great place to live, especially if you are an avid outdoor recreation enthusiast. Recreating in the great outdoors provides an excellent opportunity to get in touch with nature and to learn to appreciate and discover all that Teton County's natural resource base has to offer.

Photo © Rachel Daluge

Recreation opportunities abound all year in Teton County in the Bridger Teton National Forest, Grand Teton National Park, and Yellowstone National Park. The longest season is the snow season, which can begin in mid to late October and continues through May. Cross County skiing, snowshoeing, and snowmobiling areas are available and maintained in certain locations. Snowmobile permits are required in the state of Wyoming and can be purchased at the Teton County/ Jackson Recreation Center.

Spring brings rain and mud and summer brings the tourists. During summer and fall trail use is quite heavy by hikers and hunters respectively. The national parks and forests have many trails and roads, which provide access for the outdoor enthusiast. Off Road Vehicle permits are also sold at the recreation center.

The Teton County / Jackson Parks and Recreation Department offers many organized activities in the parks and forests including hikes, cross county skiing and snowshoeing. Activity books are published three times per year on a seasonal basis which include these scheduled activities. For a copy of this activities book contact the recreation department administration office at (307) 733-5056.

It is illegal to hunt or fish in Wyoming without a license. Call the Wyoming Department of Fish and Game for details at (307) 733-2321.

For additional information on camping, campfires, wildlife encounters, specific trails, rules, and regulations, boating, fishing, climbing, and more, contact one of the agencies listed below.

Youth Recreation Programs

Teton County/Jackson Recreation Center Hours

Open seven days a week throughout the year.
Monday-Friday: 6:00 a.m. - 8:00 p.m.
Saturday: 12:00 p.m. - 8:00 p.m.
Sunday 12:00 p.m. - 7:00 p.m.
**Holiday hours can vary.*

The Teton County / Jackson Parks and Recreation Department offers a wide variety of programs for youth from infants to teens. Many programs take place at the recreation center; however, activities can also be off site at various athletic fields and specialized locals such as the rock gym. Youth programs can include sports such as Junior Jazz Basketball, Girls Pony Tail Softball, Teton Youth Soccer, and Cal Ripkin Little League Baseball. Other youth programs include summer day camps, Infant Play Group, Little Rollers Tumbling, swimming lessons, rock climbing, adventure trips, tennis lessons, and Start Smart Golf. Special Events and one-day outings include National Ice Cream Day, Hershey Track and Field Meet, Frisbee competition, Fishing Day and many others.

To find out more about youth programming, the telephone number for Teton County /Jackson Parks and Recreation Department is (307) 733-5056.

The Teton County/Jackson Recreation Center includes a full size gymnasium, a meeting/party/ activity room, and the aquatic center. The hours of the aquatic center change between summer and the school year. The big difference is the time of open swim. During the school year the open swim hours do not begin until after school; at 3:30 p.m. until 8:00 p.m. During the summer, open swim hours are from 1:00 p.m. to 8:00 p.m. The aquatic center features include a 185-foot waterslide, therapy pool, a leisure pool, an eight-lane lap pool, a hot tub, steam room, and sauna. The recreation center can be contacted for specific hours of operation and special activities by calling (307) 739-9025.

Your Local Forest Service and Recreation Opportunities in the Area

The Teton Division consists of the Jackson and Buffalo Ranger Districts. The two Districts, totaling 1.41 million acres, are the two northern most Districts of the Bridger-Teton National Forest. The Teton Division borders Grand Teton and Yellowstone National Parks, and is easily accessed from the town of Jackson, WY. Within the Division, you'll find several impressive mountain ranges, two wilderness areas (Gros Ventre and Teton Wilderness Areas), countless rivers highlighted by the mighty Snake River, and a variety of exceptional, year-round recreational opportunities.

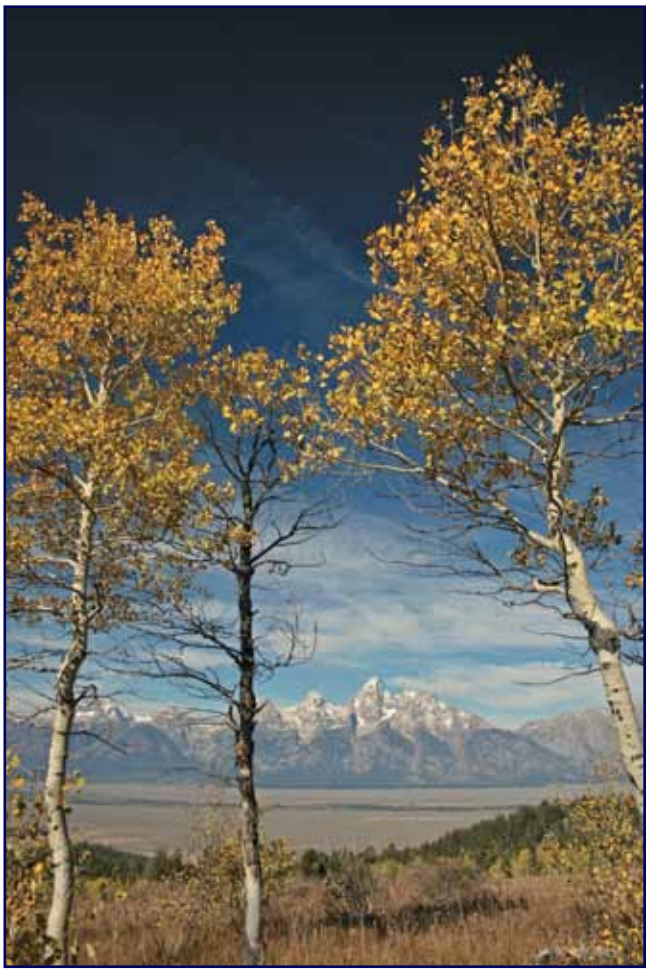


Photo © Branding Images Photography

The Jackson Hole area usually has mild summers with daytime temperatures ranging between the 60s and 80s and lows between the 30s and 40s most nights. Spring and fall generally have temperatures about 20 degrees below summer highs and lows. Winters can be severe with temperatures normally in the 10 to 30 degree range. Over most of the Division, snowfall accounts for two-thirds or more of the annual precipitation with much of the remainder falling as summer afternoon thunder storms.

The Forest provides good habitat for a wide variety of wildlife species including elk, deer, moose, golden eagles, bald eagles, porcupine, mountain goats, big horn sheep, bison, mountain lion, bear, wolves, lynx, and several trout species. The major recreation activities in the spring, summer, and fall are driving for pleasure, camping, picnicking, backpacking, photography, floatboating, kayaking, fishing, mountain biking, horseback riding, rock climbing, viewing wildlife and fall colors, and hunting. River recreation is a very popular use on the Teton Division, particularly in the Snake River Canyon.

Winter recreation opportunities in the Teton Division are also abundant. Activities include skiing at two major ski resorts, cross-country and backcountry skiing, snowmobiling, and heli-skiing. A popular 12-mile snowmobile/ cross-country skiing trail is used to access the Granite Hot Springs Pool. There are also several campgrounds, and their associated facilities. These recreation sites are distributed along major State Highways and Forest roads. The majority of these sites are located within 60 minutes of Jackson, WY in Teton County. Recreation sites vary in elevation from 5,800 feet (riparian/ cottonwood) to over 8,200 feet (in primarily Engelmann Spruce and Subalpine Fir). ♦

Contributing Authors & Sources:
Jill Russell, Teton County/Jackson Parks and Recreation Department;
Mary Cernicek, Bridger-Teton National Forest

Winter Patrol Program

Program Goals

Provide a visible Forest Service presence in the field to:

1. Inform people about the location of wildlife winter range closures and the importance of staying out of these areas. Enforce the closures.
2. Educate visitors about responsibilities associated with bringing dogs on the National Forest poop scoop and dog control (targeting multiple dog issue).
3. Provide for public safety by offering assistance where needed and educating people about the need to "share-the-trail" to avoid conflicts.
4. Install and maintain trailhead and boundary signing. Keep trailhead facilities clean.
5. Engage the media in promoting messages about winter wildlife closures, dog responsibilities, and share-the-trail. Distribute winter travel maps and brochures at key in-town locations.
6. Monitor recreation use, wildlife sightings, avalanche activity, dog poop, violations, and other resource conditions. Document observations and public comments. Take photos of people on patrols, signing and to illustrate various issues. Produce end-of-the-year report summarizing accomplishments and recreation use data.

The Messages

Wildlife winter range closures: "Don't Poach the Powder." Ensure wildlife's survival.

Share the Trail: RESPECT for all! No confrontations. Report incidents to sheriff or Forest Service, don't deal with what you think is inappropriate behavior directly.

Dog poop scoop: Use mutt-mitts every time.

Dog control: We must make a significant improvements in owners taking responsibility for controlling their dog(s) or we will be forced to implement more restrictive actions (e.g. leash law or dog closures near wildlife ranges). Dogs must be within sight and in voice control. Dogs cannot chase/harass big game animals. The Forest Service recommends no more than 2 dogs per group. If you want to bring more dogs, you have some options:

Photo © Branding Images Photography

(1) go to Old Henry's pathway, Ditch Creek/Shadow, Mosquito creek areas not adjacent to wildlife winter ranges,
(2) have your dogs on leash,
(3) bring enough people so ratio is no more than 1 dog per person.

If you have ANY doubt about ability to control your dog near wildlife, horses or other people, go to less congested area away from wildlife winter ranges or use a leash!

Share-the-Trail

All Recreationists

Respect for the Land; Respect for People ("Communicate, Don't Confront")
Don't Poach the Powder (Stay out of closed wildlife winter ranges.)

Photo © Lydia A. Dixon

Dog Owners

- Scoop your dog poop. Use the mutt-mitts every time.
- Keep your dog under voice control. This means; (a) dog is in close proximity, (b) dog comes immediately to your side upon command, (c) you can physically hold dog until wildlife, horses or another group passes by.
- Please, bring no more than 2 dogs per group. If more, bring leashes or enough people so there is 1 person for every dog.
- State law prohibits dogs from pursuing big game animals. If you have ANY doubt about your ability to control your dog around wildlife, bring a leash or visit an area away from wildlife winter range.

Skiers, Snowshoers and Walkers

- Do not walk or snowshoe in the set ski tracks.
- When skiing downhill, go slow and expect to encounter others. Forest trails are not for race training.
- Announce your presence when approaching from behind. Yield right-of-way to horses and less maneuverable skiers.

Snowmobilers

- Keep speed slow and expect to encounter others. You must be able to stop within half the visible distance ahead.
- Do not ride over set ski tracks.
- Do not ride on hillsides that don't have adequate snow cover.
- Yield right-of-way to horses.

Horseriders

- Do not ride over set ski tracks.
- Ride on the side of groomed trails and remove any manure that falls on the groomed surface.
- Expect to encounter others. Announce your presence when approaching from behind.

Remember: Public lands are an incredible treasure and part of our heritage. The privilege of use carries the responsibility to help care for these lands. Your actions leave an impression. Make yours a positive one and prevent the need for more restrictions. ♦

River Access

Snake River Noncommercial Group Permits

In response to rapidly increasing recreational use on the Bridger-Teton National Forest's Jackson Ranger District, management direction has been updated to address concerns about congestion, visitor conflicts, resource impacts, and visitor safety in the Snake River corridor.

Photo © Rachel Daluge

All noncommercial groups of more than 15 people are required to obtain a permit prior to floating the river. Institutional groups, such as: church, scout, and school organizations, are required to obtain a permit prior to floating the river. Groups are assigned launch times based on the timing of their requests, and available resources. Group use will be limited to no more than four rafts per launch. Applications will be considered on a case-by-case basis. The Noncommercial Group Use Permits are required all year long. Permit applications will be accepted at the Jackson Ranger District for consideration from April 1 to September 15 each year.

Group launches have to be assigned in advance. Permits can no longer be issued at the river. Groups showing up at the river without a permit will have to be turned away. To qualify for a noncommercial use permit:

1. the group may not have an entry or participation fee,
2. no money may be charged for goods or services related to the trip,
3. donations and fees may not be accepted that exceed the actual costs of the trip, and
4. guides and leaders are in no way compensated.

River Permits Office
Jackson Ranger District
U.S. Forest Service
P.O. Box 1689
Jackson, WY 83001

Any group that does not meet the above listed criteria is required to obtain a special use permit for outfitting/guiding, or book their river trip through a permitted outfitter. A current list of permitted outfitters is available by calling (307) 739-5444 or visiting the BTNF web page at: http://www.fs.fed.us/btnf/teton/index.htm. A maximum of one permit/day may be issued to institutional outfitters offering programs that are part of an accredited school or specialized services, which require individualized, one-on-one attention for clients. Each institution is limited to three trips/year.

Group campsites within the canyon are available at Little Cottonwood and Station Creek Group Campgrounds. Each group site is limited to 30 people per site. No additional people will be allowed. Single-family units in other campgrounds are limited to eight people/site with two vehicles/site. These limits are based on the design capacity of facilities such as tables, restroom, parking space, and garbage containers. Large groups should expect to camp in the group sites designed for this use rather than occupy numerous "single-family unit" sites in other campgrounds. Campsites at Little Cottonwood Campground, Station Creek Group Campground, Alpine Campground, Big Elk Campground and Calamity Campground can be reserved by calling the National Reservation Number (877) 444-6777 (toll free) Monday-Friday (9 am - 5 pm) or on the web at http://www.reserveusa.com/. These sites can be reserved up to 240 days in advance, making early planning necessary. All other campgrounds are open on a first-come, first-serve basis. We will not be able to accommodate everyone wishing to camp on National Forest lands within the Snake River Canyon due to resource constraints. However, there are many alternative campgrounds on private and public land within a short drive of the river corridor.

Applicants can expect to hear from the Jackson Ranger District within three weeks after receipt of a group use application. The Bridger-Teton National Forest appreciates your cooperation in working with us in advance. In the long run, this will alleviate many conflict situations and ensure the river corridor remains a safe and enjoyable place to recreate far into the future. Any question regarding the group use application can be answered at the Jackson Ranger District at (307) 739-5444.

There are several businesses that are permittees with the Bridger-Teton National Forest, and are allowed to transport paying customers down the river. Please contact them if your group does not meet the definition of a noncommercial group. ♦

Contributing Authors & Sources:
Mary Cernicek, Bridger-Teton National Forest

Camping Safely in Bear Country

Keep a clean camp.

Store all food in vehicles or high in a tree. If in the backcountry store food and odorous items in bear-resistant containers or hang at least 10 feet above ground and 4 feet from top and side supports. Plan your meals so there are no leftovers. Wash your hands thoroughly after cooking, eating, or handling fish or game.

Cook and store food away from the sleeping area.

Deposit garbage in a bear-resistant refuse container or store as you would food. Never bury it.

Photo © Branding Images Photography

While on the trail:

Avoid surprise encounters. Make noise, especially in heavily vegetated areas and along streams.

Travel in a group when possible, and be particularly alert after dark.

Avoid areas of bear activity. Look for fresh tracks or scat. Be cautious around any game carcass you find; it may be claimed by a bear.

If you choose to carry pepper spray, be familiar with how to use it and test the canister before heading out. Carry the spray where it can be retrieved quickly (not in your backpack).

Recognizing bear behavior:

Bears stand on hind feet to better see or smell; this is not aggressive behavior and does not mean the bear is about to charge.

If you encounter a bear, back slowly out of the situation, facing the bear but avoiding eye contact. Speak in a soft monotone.

Bear mothers are fierce protectors of their young. If you see cubs, stay well away from the family group.

Facilities in place to help you:

The Bridger-Teton Forest has supplied facilities such as food boxes and bear-resistant trash containers where needed across the forest to help visitors store potential bear attractants safely. Maps are available for where these are located, and more are being installed.

Food storage boxes and hanging poles have been installed with a focus on high-use camps during the fall hunting season. Boxes can be found in the Teton Wilderness and both developed campgrounds and dispersed sites at the north end of the forest. Hanging poles are in the backcountry as well as at certain popular trailheads. Call the Jackson or Buffalo Ranger District for information about where these are.

Bear-resistant trash containers are installed at most forest trailheads and campgrounds, as well as at on-forest resorts. Please use them! If you find one over-full or not functioning please call the forest and let us know.

The Forest Service will test any portable food storage box that outfitters or the general public has, and if it passes the 'bear-resistant' test it will be approved for use in the backcountry.

Where can I buy some of this stuff?

Food storage boxes, tubes, horse packing panniers, easy pulley systems for hanging food and other items are available on the open market. The Forest has published a brochure with information about what is out there and where it can be purchased.

Bridger-Teton Forest Food Tube and Pannier Rental Program

The Forest Service offices and the Interagency Visitor Center provide a not-for-profit service as rental stations for the public to rent bear panniers and food tubes. This service assists visitors in avoiding habituating bears to food and provide a safer outdoor experience for all. The panniers and food tubes are rented for a fee of $2.00 per day. The money will go towards maintenance and repair of the containers. A deposit of $25.00 per item rented will be secured at the time of rental.

Food Storage and Sanitation Order Shoshone & Bridger-Teton National Forests

Your safety is important.

This food storage order was created to help keep you and other forest visitors safe by avoiding encounters with bears and preventing bears from being attracted to campgrounds, trailheads, picnic sites and other areas frequented by people. All food and other items that might attract bears must be stored where bears can't access them at night and during the daytime when they are unattended. Attended means that a person is physically present within 100 feet and in direct sight of the food or carcass.

These items must be properly stored:

- human food (including canned food, soft drinks and alcoholic beverages)
- harvested game animals and parts
- pet food
- processed livestock feed and grains
- personal hygiene items such as soap, toothpaste and deodorants

**This also includes garbage and empty food and beverage containers.*

Proper storage methods

Proper storage methods include placing food and other items in bear resistant containers or hard-sided vehicles or suspending them at least 10 feet above the ground and 4 feet from any vertical support.

Photo © Branding Images Photography

Bear resistant containers

Bear resistant containers include the heavy metal boxes placed in campgrounds and other approved containers such as bear resistant horse panniers and backpackers' containers that are certified through the Interagency Grizzly Bear Committee Courtesy Inspection Program. *NOTE: Plastic or metal food coolers, backpacks and leather or canvas horse panniers are NOT bear resistant.*

Storing game meat and parts

Harvested big game animals and parts must be at least 100 yards from a sleeping area, recreation site or National Forest System Trail. Small game (birds and mammals) and fish should be stored in a similar manner to other food products. Game meat left unattended on the ground must be at least one-half mile away from any sleeping area or recreation site and at least 200 yards from a National Forest System Trail.

Meat and food poles

Poles have been installed at numerous trailheads and back country sites so that harvested big game and food can be properly hung above ground out of the reach of bears.

Camping

Camping and sleeping areas must be established at least if mile from a known animal carcass on the ground or at least 100 yards from a properly stored big game animal carcass.

Regulations Apply March 1 - December 1
Reservations for the group camp sites at National Forest campgrounds can be made by calling the National Recreation Reservation Service at (877) 444-6777. A list of campgrounds can be found on page 48.

Firewood & Forest Products

The Bridger-Teton National Forest offers firewood, Christmas trees, and many other natural products for harvest off of the forest. Permits from the forest are required for these activities and are easily attainable.

The firewood program requires that firewood be charged for at the rate of $5.00 per cord, with a minimum charge of $20.00 per permit. However, free wood may be available in some areas. Check with the Jackson District Office for a list of these areas.

In order to ensure that there will be enough firewood accessible to people for their personal use in the future, each family is limited to 10 cords per year, per household. Permittees wishing to use tractors, horses, cable systems or other than a pickup truck, winch, chainsaw or ATV while collecting firewood must check with the Jackson District Office and obtain written permission from the District Ranger.

You must have a valid firewood permit in your possession at all times when cutting Christmas Trees on the Bridger-Teton National Forest. Some areas of the Jackson Ranger District are not available for harvesting forest products.

Cutting or removal of forest products is prohibited in campgrounds, summer home sites, administrative sites (guard stations), ski areas, Cache Creek Canyon near Jackson, the Snake River Canyon, designated Wilderness or Wilderness Study Areas, and elk feed grounds. Exceptions to any closed areas must be written on the permit and signed by a Forest Officer. Permits may be obtained in person at the Jackson Ranger District, the Jackson Hole & Greater Yellowstone Visitor Center, or by mail. See page 50 for permit information and fees. ♦

Emergency Preparedness

Teton County is subject to a variety of hazards, both natural and man-made. Wildland fires, flooding, avalanches, landslides, severe weather, and seismic events have all occurred in the region.

Are you prepared for a wildfire in your neighborhood? What should you do if an earthquake strikes? Where is the nearest emergency shelter? Would you know what to do if a winter storm warning were issued?

The Teton County Emergency Management website, http://www.tetonwyo.org/em, will help to answer these questions, as well as provide useful information so that you can be better prepared for a natural disaster, if and when it occurs. Learn what natural hazards, such as floods or wildfires, are associated with where you live, work or play by clicking on the interactive Hazards Map, or learn more about the specific natural hazards from the links. To get an idea of the damage that can be done by a natural catastrophe, examine the photos in the Disaster Gallery.

The next time disaster strikes, you may not have much time to act. Learn how to protect yourself and cope with disaster by planning ahead. Discuss these plans with your family and post the plan where everyone will see it.

Template for Developing an Emergency Plan

Materials Needed:

- Contact List including names and phone numbers
- Map of facility/home/church indicating exit routes
- Map of facility/home/church indicating location of main electric fuse box, water service main and natural gas main
- Map of facility/home/church indicating "safe spots" for each type of disaster event
- Map of nearest emergency shelter
- Emergency supplies list and location of disaster kit(s)
- List of communication capabilities (phone, cell phone, email, radio, etc.)
- Insurance records

Steps to Developing Plan:

- Determine types of disasters most common in Teton County. Log on to www.tetonwyo.org/em to get a complete disaster history and resource list. In this county, earthquake, wildfire, flooding, and severe weather are the main natural disaster issues to contend with.
- Determine the location of the nearest emergency shelter location in your area.
- Determine needs of any elderly or disabled persons that use your facility.
- Determine backup location to maintain copies of insurance papers and other important documents.

Disaster Plan Elements:

- Develop emergency responses or "disaster drills" for each type of disaster and a schedule to practice them.
- Develop two meeting places: Immediately outside facility in case of fire or sudden emergency; outside neighborhood in case you cannot return to the facility.
- Develop an "out of state" contact person.
- Develop evacuation plan.

Other Emergency Resources in Teton County

Teton County Search & Rescue provides search and rescue services, free of charge, to anyone in need in Jackson Hole, Teton County, Wyoming. They can be reached at (307) 733-4052, or online at www.tetoncountysar.org.

Jackson Hole Fire/EMS is dedicated to providing excellence in fire suppression, emergency medical care, hazard abatement, committed training, aggressive code enforcement and effective public education. They can be reached at (307) 733-4732, or online at www.tetonwyo.org/fire.

Disaster Kit

It is recommended that the following items be placed in a disaster kit with emergency supplies good for 72 hours. Most injuries and fatalities following a disaster event occur within the first 72 hours of the incident. Also, a major disaster will overwhelm the local emergency responders, which may be delayed getting to your location.

Medical Supplies

First Aid Kit Prescriptions and a list of medications/dosages
Insurance cards
Names of doctors and relatives to notify if ill or injured
Sanitary napkins
Sunscreen
Information on medical devices

General Supplies

Battery powered radio and flashlight batteries
Personal hygiene supplies (toothbrush, toothpaste, etc.)
Blanket or sleeping bag
Extra keys for house or car
Cash or credit cards Coins for pay phone
Phone numbers of friends and relatives
Plastic garbage bags
Insurance agents' names and numbers
Water (1 gallon per person per day is typical)
Small bottle of bleach
Pet food (pets may not go to shelters)
Cooking and eating supplies (plastic/paper plates and utensils)
Matches and candles
Can opener
Wrench for gas shutoff
Kerosene lamp
Toilet paper
Safety pins
Aluminum foil
Paper, pens, pencil
Rope
Three Meals of Food for three day (per person)
Clothing including; rain gear, hat and gloves, sunglasses
Change of clothing and shoes
Overshoes/snowboots

Contributing Authors & Sources:
Teton County Emergency Management

Wood Burning

People choose wood burning to provide home heat for reason ranging from genetic memory to their pocketbook. The decision to burn should not be taken lightly. The quality of air and the availability and renewability of our firewood depend on responsible use of both the resource and technology.

Teton County regulates the installation of solid fuel burning devices for new residential and commercial construction. Under the building codes adopted in May 2004, no more than two approved solid fuel burning devices can be installed in any R3 dwelling unit, or a combination of one approved solid fuel burning device and one non-approved solid fuel burning device can be installed in any R3 dwelling unit. Installation of additional solid fuel burning devices is prohibited if the resulting number of solid fuel burning devices exceeds two. A list of approved solid fuel burning devices can be found at www.tetonwyo.org or by calling the Teton County Building Department.

Air quality is an important part of the health, safety and welfare of the community. Citizens are asked to learn to burn correctly. A brochure Wood Heat in the Real World is available at Teton County Environmental Health and Teton Conservation District. ♦

Forest Products – Fees & Regulations

Jackson Ranger District
25 Rosencrans Lane
P.O. Box 1689, Jackson, WY 83001
Phone: (307)739-5400
Fax: (307)739-5450

Product	Dates Permits Issued	Price & Minimum Fee
Firewood - Personal Use	May 15 - December 31	$5.00/cord; $20 minimum
Firewood - Free Use	Check local offices for availability	FREE
Firewood - Special Areas	Check local offices for availability	$5.00/cord $20 minimum
Firewood - With Special Stipulations	Check local offices for availability	$5.00/cord; $20 minimum
Firewood - Personal, Live Aspen	Check local offices for availability	$5.00/cord; $20 minimum
Post/Poles Dead	May 15 - December 31	$0.40 ea/ 0 - 4.9 inches $0.50 ea/ 5 - 6.9 inches $20 minimum
Post/Poles Green	Check local offices for availability	$0.40 ea/ 0 - 4.9 inches $0.50 ea/ 5 - 6.9 inches $20 minimum
Transplants - Personal Use	May 1 - December 31	$5.00 under 6 feet $10.00/ 6 - 10 feet $25.00/10 - 20 feet $20 minimum
Transplants - Commercial Use	May 1 - December 31	$5.00 under 6 feet $10.00/ 6 - 10 feet $25.00/10 - 20 feet $20 minimum
Christmas Trees - Personal Use	October 1 - December 24	$5.00 under 6 feet $15.00/ 12 - 25 feet $25.00/ over 25 feet $5 minimum
Christmas Trees - Commercial Use	October 1 - December 24	$5.00 under 6 feet $15.00/ 12 - 25 feet $25.00/ over 25 feet $5 minimum
Boughs & Miscellaneous - Personal & Commercial	Check local offices for availability	$0.20/pound $20 minimum
Dry Cones, Foliage, Seeds, & Wildflowers (Personal & Commercial)	Check local offices for availability	$2.00/pound $20 minimum
Other Miscellaneous Products (Personal & Commercial)	Check local offices for availability	Prices may not be established $20 minimum

** Always contact your local ranger district for current fees and regulations.*

Contributing Authors & Sources:
Mary Cernicek, Bridger-Teton National Forest

Federal Agencies

Army Corps of Engineers (ACE), Walla Walla District: (509) 527-7151
Through its Floodplain Management Services the Corps of Engineers maintains local flood protection in the form of levees in Teton County, and advises property owners on flood protection measures they can take themselves such as flood proofing. The ACE also has authority over dredging and filling in the waters of the United States, including wetlands that may be on your property.

US Fish and Wildlife Service (USFWS): (800) 344-9453, or National Elk Refuge: (307) 733-9212
The USFWS deals with threatened and endangered species that exist in Teton County and may exist on your property. They can assist in establishing habitat conservation plans that enable landowners to conduct activities on their land that may incidentally harm a species listed as threatened or endangered.

US Department of Agriculture (USDA) Forest Service,
Bridger-Teton National Forest, Jackson District: (307) 733-5500
Purchasing property and building in rural areas often occurs in places that naturally experience periodic wildfires. The US Forest Service provides property owners with information on how to reduce the threat from wildfires in this "wildland/ urban interface."

(USDA) Natural Resource Conservation Service (NRCS), Jackson Office: (307) 733-2110
Through a tightly interwoven federal-state partnership, both the NRCS and TCD provide technical conservation planning assistance and resource information for landowners.

State Agencies

Teton Conservation District (TCD): (307)733-2110
Provides support for the conservation and management of natural resources. Overseen by the Wyoming Department of Agriculture.

Department of Environmental Quality (DEQ), Northwest Dist. - Lander: (307) 332-3144
Subdivisions require DEQ approved septic systems. Individual wells must comply with DEQ design and location standards, and DEQ approves all central water supply systems.

Department of Transportation (WYDOT), Jackson Office: (307) 733-4571
If your property is located on a state or federal highway, your road will be maintained by WYDOT. Obtain permits to access you property off of State Highways from WYDOT.

State Engineer's Office, Groundwater;(307) 777-6163; Surface Water: (307) 777-6474
Obtain permits for wells, surface water rights, and ponds from the State Engineer.

Local Agencies

Teton County Assessor: (307) 733-4960
Locates, identifies, and values all taxable properties in the County. Including records for structures and other improvements.

Teton County Clerk's Office: (307) 733-4430
All real property records must be recorded with the County Clerk, including deeds, mortgage, releases, covenants and easements.

Teton County Emergency Management: (307) 733-9572
Deals with disaster response and hazard mitigation through Project Impact.

Teton County Engineer: (307) 733-3317
Provides septic system specifications and permits, as well as percolation test procedures.

Teton County University of Wyoming Cooperative Extension Service: (307) 733-3087
Helping you put knowledge to work. Provides research based information and non credit educational programs in the area of range resource and monitoring, agricultural production, horticulture, master gardening, foods and nutrition, food safety, community leadership development, rural enterprise, family resource management and 4-H and youth development.

Jackson/Teton County Fire Department: (307) 733-4732
Enforces the Fire Code, provides electrical inspection services for new, altered, and existing structures, maintains fire hydrant records and building inspection records.

Teton County Website and Geographic Information System (GIS): www.tetonwyo.org
Provides access to all Teton County government agencies, including GIS. GIS provides access to: public records, archived information, flood insurance rate maps, digital plat information, and maps of land ownership, zoning, conservation easements, voter precincts, and aerial photography.

Teton County Housing Authority: (307) 732-0867
Provides a "New Homebuyer Education Course" and information on affordable housing.

Teton County Planning and Development: (307) 733-3959
Provides information on all Land Development Regulations and associated fees, plan and permit submittal requirements, and permit reports.

Teton County Public Health: (307) 733-6401
Provides water testing and water sampling instructions for private homeowners.

Jackson Community Recycling: (307) 733-7678
Provides information on what to recycle, household hazardous waste collection, pickup service, and trash collection.

Teton County Road and Levee: (307) 733-7190
Provides information on County road access permits, the levee system, Teton County Roads, and road construction.

Teton County Treasurer: (307) 733-4770
Provides property tax information, vehicle registration, and license plates.

Teton County Weed and Pest: (307) 733-8419
Provides information on noxious weeds, how they impact the environment, weed consultation, hay certification, pest consultation, and herbicide sales.

Town of Jackson Public Works/Sewer: (307) 733-3079
Snow removal, sewer information, and water line problems (including frozen water lines)

Town of Jackson Finance Department: (307) 733-3932
Receives water and sewer bill payments.

Town of Jackson Building and Planning Department: (307) 733-0440
Provides information on planning and zoning, street addresses, and subdivision plats located within the town, as well as processes building permit applications.

Resource Directory

Agency/Organization	Physical Address or Contact	Phone	Fax	Website
Animal Shelter	3150 Adams County Rd. Jackson	733-2139	733-3022	animalshelter@ci.jackson.wy.us
Bridger Plant Materials Center	Route 2, Box 1189 99 S. River Rd. Bridger, MT 59014	406-662-3579	406-662-3428	www.plant-materials.nrcs.usda.gov/mtpmc
Bridger-Teton National Forest	340 N. Cache Dr. Jackson	739-5550	739-5010	www.fs.fed.us/btnf
Jackson Ranger District	25 Rosencrans Jackson	739-5400	N/A	www.fs.fed.us/btnf/offices/jackson.shtml
Ducks Unlimited, Jackson Hole Chapter	Rob Dearing, Chuck Graf	734-0999, 739-2580	N/A	www.wyomingducks.com
Grand Teton National Park	Jackie Skaggs	739-3300	N/A	www.nps.gov/grte
Greater Yellowstone Visitors' Center	532 N. Cache St. Jackson	733-9212, x. 241	N/A	www.nationalelkrefuge.fws.gov/NERVisCtr.html
Jackson Community Recycling	3270 S. Adams Canyon Dr. S. Hwy 89 Jackson	733-7678	733-7616	www.tetonwyo.org/recycling
(Town of) Jackson Building & Development	150 E. Pearl Ave. Jackson	733-0520	734-3563	www.ci.jackosn.wy.us
(Town of) Jackson Engineering	150 E. Pearl Ave. Jackson	739-4547	739-1664	www.ci.jackson.wy.us
(Town of) Jackson Police Department	150 E. Pearl Ave. Jackson	733-2331	739-9326	www.ci.jackson.wy.us
Jackson Hole Historical Society	225 N. Cache Ave. Jackson	733-9605	739-9019	www.jacksonholehistory.org
Jackson Hole Land Trust	555 E. Broadway, Ste. 228, Jackson	733-4707	733-4144	www.jhlandtrust.org
Jackson Hole Wildlife Foundation	PO Box 8042 Jackson	739-0968	739-0968	www.jhwildlife.org
National Elk Refuge	675 E. Broadway Jackson	733-9212	733-9729	www.fws.gov/nationalelkrefuge
National Fish Hatchery	1500 Fish Hatchery Rd. Jackson	733-2510	733-8616	www.jackson.fws.gov
Natural Resources Conservation Service	420 W. Pearl Ave. Jackson	733-2110	733-8179	www.wy.nrcs.usda.gov
Rocky Mountain Elk Foundation	Rod Dykehouse	734-6233	N/A	www.wyormef.org
Rocky Mountain Elk Foundation, Jackson Hole Chapter	Dave Cunningham	733-9305	N/A	N/A
Caribou-Targhee National Forest, Teton Basin Ranger Station	P.O. Box 777 515 S. Main Driggs, ID 83422	208-354-2312	208-354-8505	www.fs.fed.us/r4/caribou-targhee
START Bus	450 W. Snow King Ave. Jackson	733-4521	739-1664	www.startbus.com
Teton County Engineering	320 S. King St. Jackson, WY	733-3317	734-3864	www.tetonwyo.org/engineer

Agency/Organization	Physical Address or Contact	Phone	Fax	Website
Teton County Fair Board	305 W. Snow King Ave. Jackson, WY	733-5289	733-2577	www.tetoncountyfair.com
Teton County Fire Marshall	40 E. Pearl Jackson, WY	733-4732	739-9856	www.tetonwyo.org/fire
Teton County Landfill	5400 S. Hwy 89 Jackson, WY	733-7172	N/A	N/A
Teton County Library	125 Virginian Ln. Jackson, WY	734-7025	733-4568	www.tclib.org
Teton County Parks & Recreation	155 E. Gill Jackson, WY	733-5056	739-9068	www.tetonwyo.org/parks
Teton County Planning & Development	200 S. Willow Jackson, WY	733-3959	733-4451	www.tetonwyo.org/plan
Teton County Road & Levy	3190 S. Adams Canyon Dr. Jackson, WY	733-7190	733-0770	www.tetonwyo.org/road
Teton County Search & Rescue	180 S. King St. Jackson, WY	733-4052	732-7131	www.tetonwyo.org/sar
Teton County Sheriff	180 S. King Jackson, WY Rear entrance in basement	733-4052	733-7131	www.tetonwyo.org/sheriff
Teton County/UW Cooperative Extension Service	225 W. Deloney Jackson	733-3087	N/A	www.uwyo.edu/ces/ceshome.html
Teton County Weed & Pest	3240 Adams Canyon Dr. Jackson, WY	733-8419	733-8179	www.tcweed.org
Teton Conservation District	420 W. Pearl Ave. Jackson	733-2110	733-8179	www.tetonconservation.org
Teton Science Schools	700 Coyote Canyon Rd. Jackson	733-1313	733-7560	www.tetonscience.org
The Murie Center	1 Murie Ranch Rd. Moose, WY	739-2246	739-0208	www.muriecenter.org
Trout Unlimited	P.O. Box 4069 Jackson	733-6991	733-9574	www.tu.org
U.S. Army Corps of Engineers Regulatory Branch, Wyoming Office	2232 Dell Range Blvd., Ste. 210 Cheyenne, WY 82009	307-772-2300	307-772-2920	www.usace.army.mil
U.S. Bureau of Land Management	432 E. Mill St. Pinedale, WY	307-367-5300	307-367-5329	www.wy.blm.gov
U.S. Bureau of Reclamation, Upper Snake Field Office	1359 Hansen Ave. Burley, ID 83318	208-261-5671	208-261-5683	www.usbr.gov/pn
U.S. Environmental Protection Agency, Region VIII - Denver	999 - 18th St., Ste. 300 Denver, CO 80202	800-227-8917	N/A	www.epa.gov/region8
U.S. Fish & Wildlife Service - Wyoming Ecological Services Office	4000 Airport Pkwy Cheyenne, WY 82001	307-772-2374	307-772-2358	www.fws.gov/wyominges
U.S. Geological Survey, Wyoming State Office	2617 E. Lincolnway, Ste. B Cheyenne, WY 82001	307-778-2931	307-778-2674	www.wy.water.usgs.gov
USDA Farm Services Agency, Teton County F.S.A.	275 Old Railway Way Driggs, ID 83422	208-354-2680	208-354-2683	www.fsa.usda.gov

Agency/Organization	Physical Address or Contact	Phone	Fax	Website
Western Wyoming R.C. & D.	1471 Dewar Dr., Ste. 106 Rock Springs, WY 82901	307-382-3982	307-362-3651	www.wy.nrcs.usda.gov/rcd/index.html
High Country R.C. & D.	263 East 4th North Rexburg, ID 83440	208-356-5213	208-356-7240	www.hcountryrcd.org
Wyoming Association of Conservation Districts	2304 E. 13th St. Cheyenne, WY 82001	307-632-5716	307-638-4099	www.conservewy.com
Wyoming Dept. of Agriculture	2219 Carey Ave. Cheyenne, WY 82002	307-777-7321	307-777-6592	www.wyagric.state.wy.us
Wyoming Dept. of Environmental Quality	Herschler Bldg., 122 W. 25th St. Cheyenne, WY 82002	307-777-7938	307-777-5973	www.deq.state.wy.us
Wyoming Dept. of Transportation, Jackson Engineering Office	1040 E. Evans Rd. Jackson	733-3665	733-7105	www.wydotweb.state.wy.us
Wyoming Game & Fish, Jackson Regional Office	360 N. Cache Dr. Jackson	733-2321	733-2275	www.gf.state.wy.us
Wyoming Geological Survey	P.O. Box 3008 Laramie, WY 82071	307-766-2286	307-766-2605	wsgsweb.uwyo.edu
Wyoming State Engineer's Office	Herschler Bldg., 4th E. Cheyenne, WY 82002	307-777-6150	307-777-5451	www.seo.state.wy.us
Wyoming State Forestry	1100 W. 22nd St. Cheyenne, WY 82002	307-777-7568	307-777-5986	www.lands.state.wy.us
Wyoming Stockgrowers' Association	P.O. Box 206 Cheyenne, WY 82003	307-638-3942	307-634-1210	www.wy.sga.org
Wyoming Water Development Commission	Herschler Bldg., 4th Floor West Cheyenne, WY 82002	307-777-7626	307-777-6819	www.wwdc.state.wy.us
Wyoming Native Plant Society, Teton Chapter	Amy Taylor	733-3776	N/A	www.uwyo.edu/wyndd/wnps
Wyoming Woolgrowers' Association	811 N. Gleen Rd., Box 115 Casper, WY 82602	307-265-5250	307-234-9701	www.wyowool.org
Yellowstone National Park	P.O. Box 168 Yellowstone NP, WY 82190	307-344-7381	307-344-2005	www.nps.gov/yell/home

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