

The north end of the Big Horn Mountain Range occupies the south central portion of the county. This area, bordered by Big Horn Canyon on the west, is closed to non-tribal members and offers high quality habitat for a number of wildlife species. The Canyon area of the River and adjacent uplands provide habitat for bear, elk, mule deer and mountain lion.

The north end of the Pryor Mountains extends into the western edge of Big Horn County, and are also limited to Crow Tribal members within the reservation boundary. The Pryors are home to black bears, antelope, pheasant, golden eagles, small numbers of elk and mule deer, and a wild horse herd. The Wolf and Little Wolf Mountains occupy much of the eastern portions of the county and drain into Rosebud Creek and the Tongue River. The west side of the Wolf Mountains contains some elk habitat, black bears in ample numbers, upland game birds and turkeys. Rosebud Creek flows north and east in the valley to the east of the Wolf Mountains. The east side of the range consists of steep brushy draws which are good habitat for upland birds. Portions of the creek bottom are in alfalfa, and the bottomlands provide good riparian and white-tailed deer habitat.

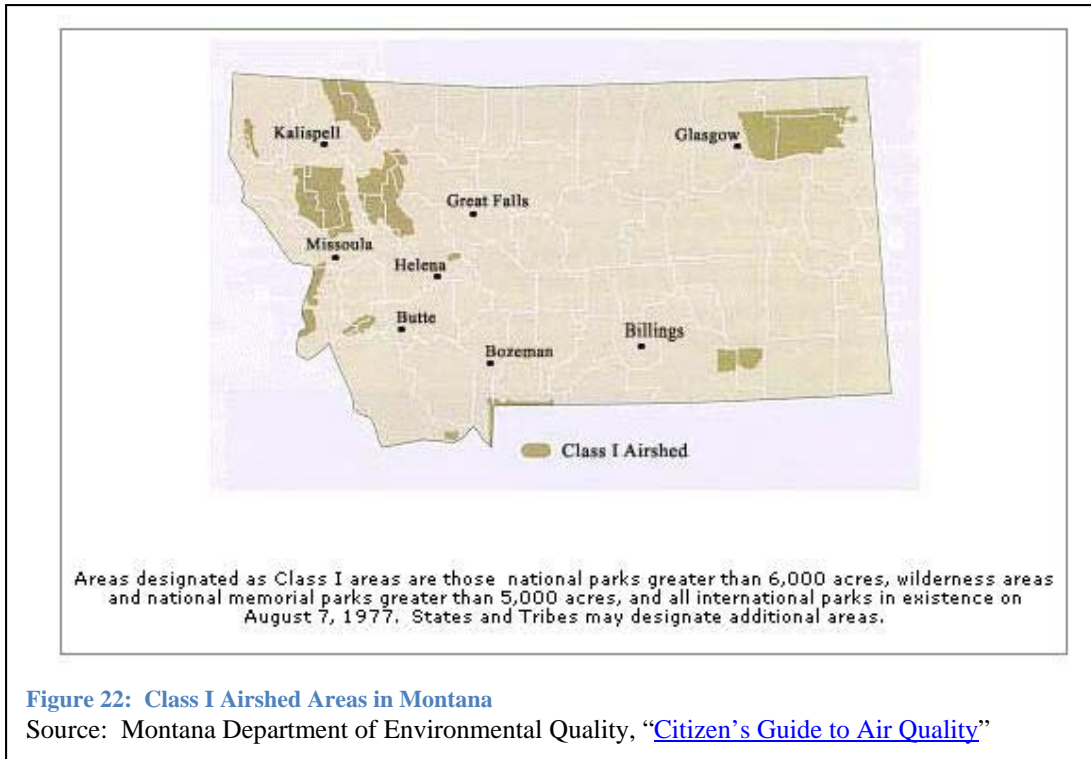
The Little Bighorn River flows north from its Wyoming headwaters through the wide valley that forms the center of the county receiving the waters of Lodge Grass Creek at the Town of Lodge Grass. Both the upper Little Bighorn and upper Lodge Grass Creek offer good trout fishing, white-tailed deer and pheasant habitat. Moose are found occasionally along Lodge Grass Creek. Lodge Grass Storage Reservoir contains stocked populations of brown and rainbow trout. Although the reservoir has no angler facilities, it offers good fishing. The reservoir attracts migrating geese as well

Unlike the rest of the surface waters in the county, the Tongue River Reservoir contains a warm water fishery. Species present include walleye, crappie, bass, and Northern Pike. There is also a small coldwater trout fishery in the tailwater of the dam. The public has access to the reservoir at the Tongue River Reservoir State Park.

In 2013, Big Horn County has one special status specie, 35 species of concern, and 29 potential species of concern as identified by the Montana Natural Heritage Program (MTNHP). MTNHP serves as the state's information source for animals, plants, and plant communities with a focus on species and communities that are rare, threatened, and/or have declining trends and as a result are at risk or potentially at risk of **extirpation** in Montana. The Bald Eagle is the special status specie as it is protected by a 1940 Act of Congress. Of the 35 species of concern, none are listed by the US Fish and Wildlife Service as threatened or endangered under the Endangered Species Act. The sage grouse and artic grayling are listed as candidate species.

## Air Resource

Air quality in Big Horn County is generally good. According to the Montana Department of Environmental Quality, there are no non-attainment areas, or areas that violate federal air quality



standards, in Big Horn County. The Northern Cheyenne Reservation has been designated a Class I airshed, the highest level of air quality. Class I areas accommodate the smallest degree of air quality deterioration of all three airshed classifications. In Montana, the Class I airsheds consist of Glacier and Yellowstone National Parks, national wilderness areas, and the Northern Cheyenne, Flathead, and Fort Peck Indian Reservations.

### Vegetation Resource

The vegetation resource in Big Horn County is comprised of a variety of grasses, forbs, trees, and noxious weeds. This vegetation is important as ground cover, range for domestic and wildlife species, fuel wood, post and poles, and small scale commercial timber production.

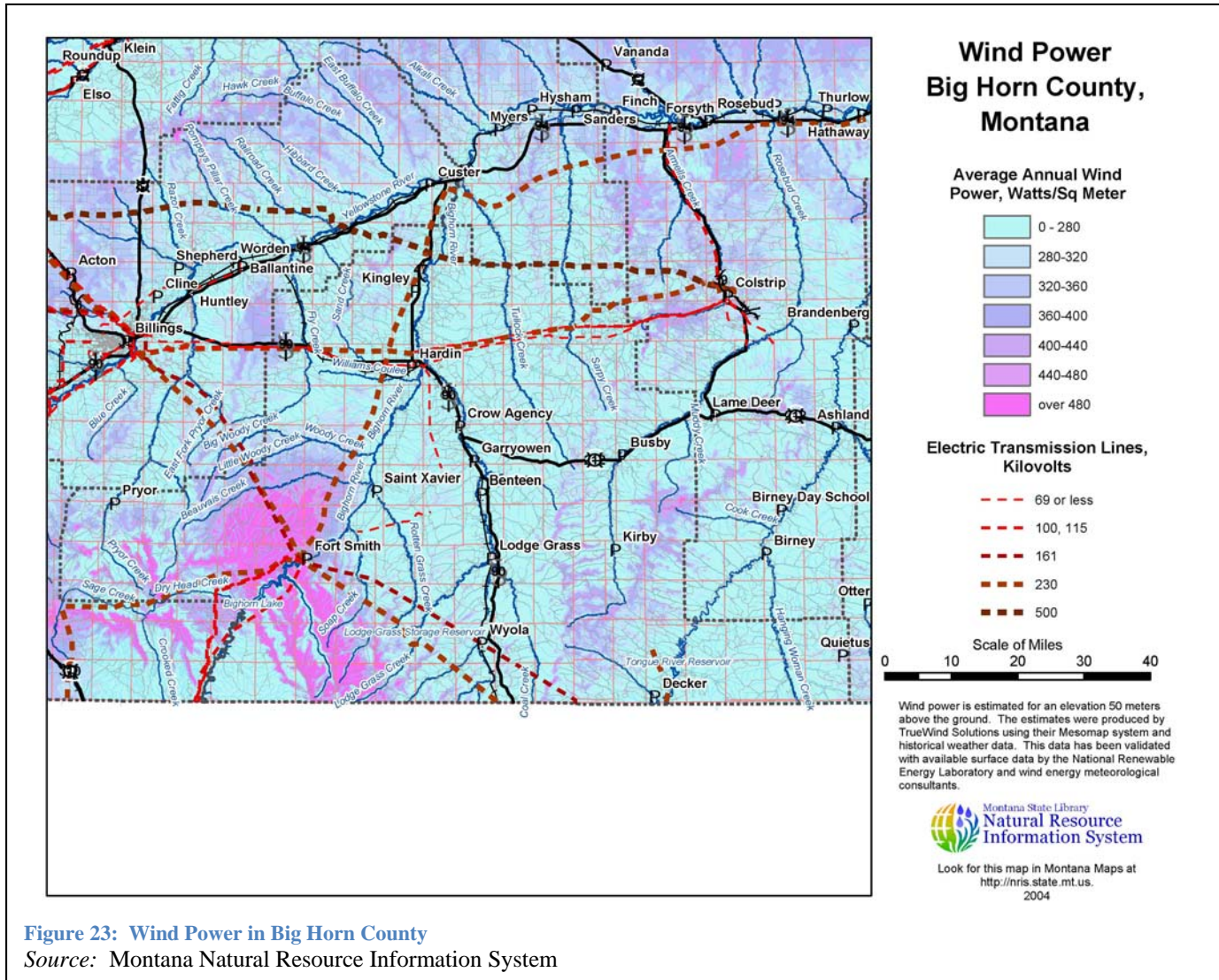
Natural vegetation varies by soil type and average annual precipitation. Natural historic vegetation found in the dryer 5 to 9 inch precipitation zone includes: bluebunch wheatgrass, needle and thread, western wheatgrass, blue grama, big sagebrush, rabbitbrush, winterfat, and various forbs. The majority of the county lies within the 10-14 inch zone. Natural plant communities are dominated by western and thickspike wheatgrass, bluebunch wheatgrass, green needlegrass, little bluestem, big sagebrush, winterfat, nuttall saltbush, and forbs. In addition to the grasses, sedge, willow, rose, chokecherry and buffaloberry are found along the bottomlands of the valleys. Snowberry, rose, brome and fescue grow in the higher elevations and precipitation zones.

Deciduous and coniferous species grow on higher elevation sites in the county in enough abundance for modest harvesting. Limber pine, Douglas fir and Ponderosa Pine are found in the Pryor Mountains at mid elevation sites from 4,800-6,600 feet. Cold moist sites at 6,500 feet and higher in elevation contain lodgepole pine, Englemann spruce, Douglas fir and subalpine fir. In the Wolf Mountains, the forest is almost exclusively Douglas Fir with some limber pine and juniper in the dry, rocky areas. Aspen, cottonwood, green ash and boxelder stands are confined to the stream bottoms and wet draws. Russian olive trees also thrive in stream bottoms and wet draws and can dominate over other species, and their sharp thorns can be a problem for livestock. The Big Horn Mountains contain Douglas fir, Englemann spruce, subalpine fir, ponderosa pine and lodgepole pine.

Several species of noxious weeds are found in different areas of the county. The county, Crow Tribe, and BIA operate weed control programs which consist primarily of spraying, but also include mowing and some biological control.

The Montana Natural Heritage Program maintains a data base of all plant species of special concern in the state of Montana. The Montana Natural Heritage has 14 species of special concern in the county, all vascular plants. Big Horn County has in the past contained only one location, which is the only known location in the state for three of these 14 species, the Western Centaury, the Nuttall Desert-parsley, and the Woolly Twinpod. Big Horn County is home to the majority of known locations for the Joe-pye Weed, Letterman's Needlegrass, and the Nannyberry. Additional information about the sensitive plants in Big Horn County and their occurrences can be found at the Natural Heritage Program website.

**Wind Resource**



**Figure 23: Wind Power in Big Horn County**  
*Source: Montana Natural Resource Information System*

Big Horn County has considerable wind power, particularly around Fort Smith. As shown on the Montana Natural Resource Information “[Montana Wind Power Map](#),” it is one of a handful of places in Montana with comparable wind power and access to existing power transmission lines, which is important for development of wind-generated electrical power on a commercial scale.

## Scenic Resource

One of the defining characteristics of Big Horn County is its expansive vistas and open spaces. The natural landscape offers sufficient diversity with its open valley bottoms, vegetated riparian zones, grassy uplands, breaks, and mountainous areas to be interesting to the eye. The highest sensitivity for visual quality exists around communities and along major transportation corridors such as Interstate 90, and State Highways 212 and 313. With a few exceptions such as Hardin, the small number of towns, and large scale mining operations, the landscape is rural agricultural in character and has experienced minimal disruption to the natural forms and patterns.

The county contains some exceptional scenic features. These include Big Horn Canyon and Big Horn Lake within the National Recreation Area, Tongue River Reservoir, Little Bighorn Battlefield, Rosebud Battlefield State Park, and the Big Horn, Pryor, and Wolf Mountain Ranges. Although the high visual quality of the county is hard to put a dollar value on, it remains a significant asset for both residents and visitors alike. Future development should recognize potential impacts to this important resource and avoid or mitigate them whenever possible.

## Cultural Resources

Cultural resources include sites of prehistoric, historic, cultural or spiritual importance. Big Horn County has thousands of sites that have been recorded and entered into the data base of the Montana State Historic Preservation Office (SHPO.) Each site is given a unique number as part of the Smithsonian numbering system, starting with the state of Montana number, the two letter county code, and then the individual site number. Sites registered with the National Register of Historic Places in Big Horn County include; churches, residences, residential and commercial districts, battlefields, a hotel, grain elevator, hospital, jail, store, ranch, and medicine wheel.

The county does not currently have specific subdivision regulation standards in place which can be used to protect sensitive cultural sites or areas on deeded ground. When the county receives a subdivision application, it is routed to the Crow Tribe Planning and Zoning Commission for comment. Conflicts between land use development and cultural sites have arisen in the past.

### Sources:

The primary source for the “Natural Resources” section was the 2002 Big Horn County Growth Policy, updated with information as noted below.

Big Horn County, Montana: Energy Conservation Plan 2009

<http://bighorn.mt.gov/Docs/Grants/Big%20Horn%20County%20Energy%20Efficiency%20Plan.pdf>

Montana Bureau of Mines and Geology website: <http://www.mbm.mtech.edu/gmr/gmr-statemap.asp>  
Montana Department of Environmental Quality, “Citizen’s Guide to Air Quality.”

<http://deq.mt.gov/airmonitoring/citguide/understanding.mcp>