A weed can be defined as any plant that interferes with management objectives for a given area of land (or body of water) at a given point in time. Another common definition is any plant growing where it is not wanted. A plant attains a "noxious" status by law as described in the Montana County Weed Control Act. The Montana County Noxious Weed Control Law (MCA 7-2101 through 2153) was established in 1948 to protect Montana from destructive noxious weeds. This act, amended in 1991, has established a set of criteria for the control and management of noxious weeds in Montana. Noxious weeds are defined by this act as being any exotic plant species which may render land unfit for agriculture, forestry, livestock, wildlife or other beneficial uses or that may harm native plant communities. Plants can be designated statewide noxious weeds by rule of the Department of Agriculture or county-wide noxious weeds by district weed boards following public notice of intent and a public hearing. Presently there are 32 weeds on the state of Montana noxious weed list, and these weeds occur across approximately 7.6 million acres. Although there are native and intentionally introduced non-native plants that have invasive characteristics, the Montana State Weed Management Plan focuses on controlling state-listed noxious weeds. Powell County currently has two county listed noxious weeds, Black Henbane and Wild Caraway.

Noxious weeds are reducing economic productivity and ecological integrity of Montana's lands and waters. The rate of introduction and spread of noxious weeds has increased dramatically over the past 150 years with increases in human activities, trade, and commerce. For example, spotted knapweed was first recorded in the state in the early 1920's. Since that time, it has spread to about 3.8 million acres. The ecological and economic impacts caused by noxious weeds in Montana are numerous. For example, water quality and long-term production potential of land can be reduced when species such as spotted knapweed invade grasslands. According to one study conducted in western Montana, surface runoff was 56% higher and sediment yield was 192% higher on spotted knapweed infested sites compared to those dominated by native bunchgrass. Exotic species infestations can increase erosion, reduce rangeland productivity, and alter other ecosystem processes causing serious ecological damage and economic loss. The cost of leafy spurge encroachment into grazing lands and wild lands in the upper Great Plains including the states of Montana, North and South Dakota, and Wyoming, for example, has been estimated to be approximately \$129.5 million annually. Losses to the livestock industry alone due to Knapweed species invasions in Montana are an estimated \$42 million annually.

An integrated and coordinated approach to weed management is generally recommended for long-term success and sustainability. Integrated Weed Management (IWM) is the combination of multiple management tools to reduce a pest population to an acceptable level while preserving the quality of existing habitat, water, and other natural resources. Combinations of biological, mechanical, and chemical management practices are utilized in IWM programs to efficiently suppress a weed population at the most effective point during the plant's lifecycle or growing season.

The noxious weed control law establishes weed management districts throughout the state. These management districts are commonly called county weed districts and are defined by the boundaries of the county. The County Noxious Weed Control Law commissions the county weed boards with three main responsibilities. These responsibilities are (1) to develop and administer the district's noxious weed program, (2) to establish management criteria for noxious weeds on all lands within the district, and (3) to make all efforts to develop and implement a noxious weed program covering all land within the district owned or administered by a federal agency. Along with these responsibilities, the Montana County Noxious Weed Control Law empowers county weed boards to employ a coordinator and other employees as necessary and provide for their compensation, pay operational costs as necessary to implement an effective weed management program, determine which chemicals, materials, or equipment are recommended to landowners and land managers

controlling weeds on lands within the county, enter into agreements with city, county, state, and federal entities for the control and/or eradication of noxious weeds, and perform other activities relating to weed management, such as mapping and educational programs. To develop and administer the responsibilities and guidelines established by the noxious weed control law, the county commissioners of each county are mandated to create a noxious weed management fund kept separate and distinct by the county treasurer.

The Powell County Weed Board and the County Commissioners work together to develop and fund district-and watershed-wide noxious weed management programs. More Information about the Powell County Weed Board and noxious weed management efforts within the county can be obtained from the Powell County website (<u>http://www.powellcountymt.gov</u>) or by calling 846-3348.