

PREFACE

Madison County Officials Weed Board, and Staff Directory

Madison County Board of Commissioners:

*Dan Allhands Chairman
Ron Nye
John Heckler*

*P.O. Box 278
Virginia City, MT. 59755
(406)843-4277*

Madison County Weed District Board:

*John Armstrong, Chair
Todd Durham
Rick Sandru, Vice Chair
Mark Boyd
Kent Tilstra*

*Cardwell/Harrison
Madison Valley
Silver Star/Twin Bridges
Sheridan/Alder
Member at Large*

Madison County Weed Coordinator:

Dale Grose

*P.O. Box 278
Virginia City, MT
(406)842-5595*

Madison County Weed Board Staff:

*Janie Alt, Office Assistant
Bruce Koblisch, Compliance Tech*

*P.O. Box 278
Virginia City, MT. 5975
(406)842-5595*

Note: Approximately 6 to 7 additional staff is needed for seasonal/temporary positions to aid in management of noxious weeds on County right-of-ways, and the BLM weed program. The MDOT right-of-ways in Madison County will be contracted out to commercial applicators with the exception of problem areas.

Madison County Weed District operates under the guidelines set within the Montana/County Weed Control Act & Administrative Rules, and Madison County policy.

The Madison County Weed Board office is located at 2296 MT. highway 287, Alder, Montana.

INTRODUCTION:

Madison County Weed District Organization:

The Madison County Weed District was organized under specification of the Montana Codes Annotated, Section 7-22-2120. Madison County has a five (5) member Weed Board that was created under MCA 7-22-2103. The Madison County Board of Commissioners appoints the Weed Board members and the length of their terms. The Weed Board is responsible for the planning, implementing, and administration of the County Weed Management Plan. This is done through a Weed Coordinator that is hired by the Board of County Commissioners to organize, direct and supervise the activities needed to carry out the County's weed management program as designated by Montana. In 2010, the Weed Board was reorganized and bylaws were adopted by resolution.

Madison County Weed Management Plan Purpose:

The purpose of the Madison County Weed Management Plan, in conjunction with the Montana State Weed Management Plan, is to strengthen, support and coordinate private, county, state, and federal weed management efforts in Madison County and Montana, to promote implementation of ecologically based integrated weed management programs within Madison County.

Noxious weeds are established and spreading in Montana and in Madison County. The Madison County Weed Board has created this plan for the purpose of managing noxious weeds in Madison County, with emphasis on specific weed management areas that include North/South Meadow Creek and Upper Ruby Cooperative. Noxious weeds render land unfit for agricultural production, recreation, wildlife habitat; increase erosion, sedimentation of streams and alter the bio-diversity of the ecological systems. These invasive plants are designated noxious by rule of the Montana Department of Agriculture and local county Weed Boards based on their detrimental impact to the environment and economy of Montana.

*The Madison County Weed Management Plan will outline objectives that are reasonable for effective and efficient invasive noxious weed management for all landowning entities in Madison County. These objectives will provide guidelines for private, county, state, and federal land managers to develop plans and goals consistent with state and national strategies; provide a method of prioritizing management strategies, and allocating the limited resources based upon these priorities; and prioritize **Noxious Weed Trust Fund Grants** based on compatibility and compliance with the Montana State Weed Management Plan. This plan is dynamic and will be revisited every two years as ruled by the Montana Department of Agriculture for qualification of potential funding through the Noxious Weed Trust Fund.*

Overview of Madison County:

Madison County is located in the Southwestern corner of Montana. The County encompasses 3,602.8 square miles or 2,303,500 acres and is bordered by Beaverhead, Silver Bow, Jefferson, and Gallatin Counties. Madison County borders Fremont County, Idaho, at the Southeastern tip of the County.

There are two (2) Federal Highways in Madison County including; US 287 and Interstate 15. The State Highways in Madison County include: MT 84, MT 287, MT 41, MT 55, MT 91, MT 64 and MT 87. There are three (3) secondary State Highways in Madison County including: S283, S359, and S357. There are an estimated 2,839 acres or 379 line miles that comprise Montana Department of Transportation Right-of-Way. There are approximately 2,400 lane miles of designated county roads or approximately 4,364 acres in Madison County.

The main line of Montana Rail link railroad borders the county on the north, with two spur lines extending from Whitehall to Twin Bridges, and in the Northeastern portion of the county from Sappington Junction to Harrison. Approximately seven (7) miles of the Union Pacific is located in the Northwestern portion of the county.

There are four incorporated towns in Madison County, including: Twin Bridges, Sheridan, Virginia City, and Ennis. There are also several smaller towns including: Silver Star, Waterloo, Cardwell, Laurin, Alder, Nevada City, Cameron, McAllister, Norris, Harrison, Mammoth and Pony. The County seat is Virginia City. Madison County's population is estimated at 9,000.

There are six (6) river systems located in Madison County. The South Boulder, Madison, Ruby, Beaverhead, Big Hole, and Jefferson. Principal mountain ranges located in Madison County consist of the Madison Range, Gravelly Range, Tobacco Root Range, Greenhorn Range, Ruby Range and the Snowcrest, Highlands and McCartney Range.

Approximately 89% of the total acres in Madison County is dedicated to agriculture. 85% of this is used for livestock grazing. Madison County's primary resource and economic base is livestock production. Other resources that contribute to Madison County's economic base include mining for precious metals, and timber harvest. Tourism and recreation continue to be a growing economic base for Madison County.

Federal lands in Madison County comprise 46% of the total acreage; 35%, approximately 806,225 acres, is under the management of the USDA Forest Service. 11%, or 253,385 acres, is managed by the USDI Bureau of Land Management.

State lands comprise 6% of the total lands or approximately 138,210 acres. Currently there are three (3) wildlife management areas in Madison County; these include Wall Creek, Bear Creek, and Robb/Ledford. There are also 20 designated Fishing Access Sites that are managed by Fish, Wildlife & Parks.

The remaining 1,105,680 acres are privately owned. This comprises the remaining 48% of total acres in Madison County.

MADISON COUNTY INTEGRATED NOXIOUS WEED MANAGEMENT PLAN

Madison County Noxious Weeds

Madison County's Noxious Weed list is comprised of species on the statewide list and two additional species listed specifically by the Madison County Weed Board. Noxious weeds are estimated to infest 10 to 12 percent of the total acreage in Madison County.

Priority 2B: *These weeds comprise 10% or 203,000 approximate acres within the County. These noxious weeds make up 90% of the infested acreage. The largest infestations include 80,000 acres of Spotted Knapweed, 45,000 acres of Leafy Spurge, 35,000 acres of Houndstongue, 20,000 acres of Canada Thistle, 4,500 acres of Common Tansy, 2,000 acres of Oxeye Daisy, 1,000 acres of Sulfer Cinquefoil, 3,000 acres Whitetop, 300 acres of Dalmation Toadflax, 500 plus acres of Yellow Toadflax, mostly found on federal lands, 150 acres of Russian knapweed and 800 acres of Diffuse Knapweed which are primarily in the Madison River Watershed. Management strategies for these noxious weeds include containment and integrated treatment of infestations. This may include herbicide application, Bio-control agents, grazing, and mowing. Hoary Alyssum which was changed from a Priority 2A to a Priority 2B is widespread throughout Madison County occurring mainly along right of ways. Three (3) Salt-cedar plants were found in ornamental settings and 1 along the bank of the Big Hole River. Currently, all Salt-cedar plants have been treated and no new plants have been detected in the County. Strategies in the management of Priority 2B weeds will be herbicide treatment where appropriate. Work with the Madison County Bio Program in sensitive areas where use of herbicide is not conducive to the site. Larger infestations of Priority 2B weeds will initiate a mix of management that may include biological, cultural, and herbicide. Priority should be placed on containment first.*

Priority 2A: *This group consists of nine (9) invasive weeds, of which only two (2) are known to infest acreage in Madison County. Approximately 30 acres of Orange Hawkweed is known to infest an area in the Big Sky, Hells Canyon and Mammoth area. There is also 700 + acres of Tall Buttercup infesting lands in the Western part of Madison County. Other Priority 2A plants that have been identified in Madison County include: Perennial Pepperweed plants found along Duncan District Rd approximately 1.7 miles SW of Sheridan on Duncan District Rd on the NW side of the road and 2 mile SW of Sheridan on Duncan District Rd. on the SE side of the road. These plants were treated in 2021 and will continued to be monitored. One (1) Blueweed was found and treated in 2005 on a hillside south of the Three Dollar Bridge in the Upper Madison. This plant was treated and there has not been any new plants detected since 2006. These plants have been documented and treated, and monitoring for these plants will continue. In 2003 a contractor on the Big Hole River found approximately four (4) Purple Loosestrife plants. This plant was not sent in for verification by the MSU Herbarium and since that time other plants identified as Purple Loosestrife have been verified as being a native plant, Rocky Mountain Sage. Management strategies for the Priority 2A weeds will continue to be education to landowners and encourage a more aggressive approach to the management. Herbicide treatment of Orange Hawkweed and Tall Buttercup should be scheduled for early summer with a follow-up and treatment if needed made late summer as well. Continued monitoring for new invaders should always be a high priority.*

Priority 1B: In 2005 personnel from Fish Wildlife and Parks identified Curlyleaf Pondweed in the Madison River north of the Red Canyon Camp Ground. In 2010 Curly Leaf Pondweed had also been identified in Ennis Lake. Priority designation changed Curly Leaf Pond weed from a Priority 1B to a Priority 2B in 2015. With the continued surveying for aquatic invasives, this plant has been found in many water bodies throughout Montana, warranting the change in priorities. Eurasian Watermilfoil was identified infesting waters in the Jefferson River. The source of this infestation is found in the Jefferson Slough (Jefferson County). Because of the infestation of these aquatic weeds, an area task force has been formed to set priorities for these sites as well as pool educational resources for the benefit of landowners and recreationists. The newly created Missouri Headwaters EWM Task Force plan at this time is to monitor these sites and develop a management strategy for the future.

Priority 1A: This category is limited to Yellow Starthistle, and to date there have been no sighting of this plant, but it has been detected in surrounding counties. Phragmites is a newly listed Priority 1A plant. There is also a native variety of this plant with the native species being found at various locations along the Beaverhead River and the Madison River. The species found along the Beaverhead has been checked and is of the native variety. Future checks of the plant along the Madison will be done as well. Dyers Woad is another Priority 1A plant that is being treated in a neighboring county and remains a high priority for Madison County. Monitoring for these plants as well as Rush Skeleton Weed is ongoing. Rush Skeleton Weed was changed to a Priority 1B plant in 2011. Medusahead was also added to this list in 2017 and to date has not been detected in the County or neighboring counties. Ventenata was recently added to the list of Priority 1A, it has been identified in the Beartrap on the East side of the Madison River. The BLM has a test plot they are treating with Rejuvra. Madison County Management strategies for these plants, is to continue to survey and, to eradicate if possible. Maps for these plants will be submitted to the Department of Agriculture.

Priority 3: Priority 3 weed are NOT noxious weeds, but are a regulated plant that has the potential for significant economic and ecological impacts to Montana. It is now unlawful to purchase or transport these plants. They include Cheatgrass, Russian Olive, Parrotfeather Milfoil, Hydrilla Brazilian Waterweed and Common Buckthorn

Madison County Declared Noxious Weeds: At this time there are two (2) county declared noxious weeds specified in Madison County. These noxious weeds are Field Scabious and Musk Thistle. Currently these noxious weeds infest approximately 17,000 acres. Management of these weeds is the same as Priority 2B Noxious Weeds.

Madison County Watch List: There are also three (3) additional weeds of concern within Madison County that are managed if resources permit. Weeds of concern include Common Mullein, Black Henbane, and Common Teasel.

Madison County Weed Program Goals & Priorities

As stated earlier, the Madison County Weed Board operates under the guidance of the Montana County Weed Control Act, dated October 2003, Title 7, Chapter 22, Part 21, Sections 2101-2153. The Madison County Weed Board is charged with enforcement of the County Weed Control Act and bases the County Weed Program on the requirements of the Noxious Weed Control Act as well as the Montana State Noxious Weed Management Plan. The Weed Board is directed to provide information and guidance and to perform weed management activities within the county. The Madison County Weed Board provides assistance to private landowners in forming management plans for their land to effectively and efficiently manage invasive noxious weeds. The Weed Board also provides assistance and develops cooperative agreements with State and Federal agencies to manage noxious weeds on their lands within Madison County. Among these cooperative agreements is an agreement to manage noxious weeds on Montana Department of Transportation right-of-ways. There is an estimated 778 miles or 2,839 acres that are managed each year on these right-of-ways. The average yearly funding for these acres is approximately \$41,000.00 for an average price of \$14.44 per managed acre. Fish, Wildlife & Parks contracts with Madison County to manage 20 fishing sites. The project funding for these sites is approximately \$5,000.00 per fiscal year for the next two (2) years. A cooperative agreement to manage noxious weeds is also in place with USDI Bureau of Land Management. Madison County manages in excess of 1,600 acres per season. Management on these acres concentrates on traveled right-of-ways and rangeland. Preliminary numbers at this time are approximately \$25,000.00 to \$45,000.00 per fiscal year.

Weed Management Areas

The Weed Board provides assistance to private landowners with formation of noxious weed management plans on their own lands and formation of cooperative weed management areas to address specific, localized noxious weed problems within a group of landowners in a specific area of concern. There are five such identified Weed Management Areas in Madison County, which is based on the six major watersheds located in the County.

Within these large areas, there are a couple smaller project areas that have been identified by small, localized groups of landowners as grant project areas, such as the Upper Ruby Cooperative, and North/South Meadow Cr Project. The Weed Board provides assistance to these groups via cooperative grants obtained through the Montana Noxious Weed Trust Fund. Madison County actively seeks funding to assist these smaller groups with cost-share for herbicide and/or commercial herbicide application cost-share through the Noxious Weed Trust Fund.

In addition to seeking grant funding for cost-share, the Weed Board offers a countywide cost-share program to all landowners within Madison County. This is a 50% herbicide cost-share up to a maximum of \$1,250.00 per landowner. This cost-share assists landowners that are not currently involved in a cooperative management grant project.

Noxious Weed Compliance Program

MCA 7-22-2116 Part 1 states: It is unlawful for any person to permit any noxious weed to propagate or go to seed on the person's land. Landowners are considered to be in compliance if they file a Weed Management Plan and the plan is approved by the Madison County Weed Board. In the case of a landowner who is not considered to be in compliance the Weed Board has adopted the following procedures:

When an infestation of noxious weeds has been identified or reported, the Weed Board will attempt to notify the landowner/manager of the problem with a letter outlining the following information:

- ***Legal description where infestation occurs.***
- ***A common location associated with the site.***
- ***Noxious weeds known to be present.***

The landowner/manager will be asked to notify the Weed Board within ten (10) days of their intentions in addressing the noxious weeds. If the landowner/manager does not respond within the ten (10) days, a certified letter will be sent requesting voluntary compliance in the form of a noxious weed management plan. This plan will help to guide the landowner/manager in developing a comprehensive weed management program and help meet requirements set in 7-22-2123 (3) MCA, placing the landowner/manager in compliance. If the landowner/manager does not respond within the ten (10) days, the Weed Board or Weed Board Agent will seek a court order to enter and inspect the land to determine if noxious weeds are present on the property. Under MCA 7-22-2124 the Board may seek a court order to enter the property and institute appropriate noxious weed control measures. If weed control measures are facilitated by the Weed Board, the cost of control costs and up to 25% & will be charged to the landowner. If this amount is not paid within thirty (30) days, the Weed Board will levy this amount to the property taxes as a special tax.

Subdivision Weed Management Plans

*As stated in Part VI. of the "General Provisions and Improvement Standards within the Madison County Subdivision Regulations:" **A Weed Control Agreement must be approved by the Madison County Weed Board and will be signed by the Subdivider.** Madison County charges the subdividers for time spent on the review, inspections and approval process. A \$150.00 fee will be charged for minor subdivisions (5 lots or less), and a \$150.00 fee for the first five lots of a major subdivision with an additional \$20.00 per lot over five.*

Gravel Pit/Opencut Weed Management Plans

The Department of Environmental Quality requires all new gravel pits to submit a noxious weed management plan before approval. The Madison County Weed Board is charged with the review, inspection, and approval process. A \$150.00 fee was initiated in 2022 to cover costs being incurred for this process.

Right of Way Waivers

When a landowner objects to weed control measures along a state or county highway or road that borders or bisects their property they will be asked to complete and submit a weed management plan per 7-22-2153MCA. This plan must be approved by the Weed Board. If control measures are not carried out as per plan, the Weed Board will send a letter requesting alternative measures to be carried out within thirty (30) days or the agreement will be revoked and control measures will be undertaken by the Weed Board.

Education

Madison County Weed Board will continue to develop and participate in numerous educational programs County wide. The Weed Coordinator the Madison/Jefferson Extension Service will offer up Pesticide Applicator Training (PAT) courses throughout the year. In addition to trainings the County will continue to work with many of the Watershed groups within the County as well as other organizations like the MVRG Weed Committee to inform landowners and recreationist to the impacts of invasive noxious weeds. Madison County will continue to work with the Beaverhead County Weed District in development and distribution of the Southwestern Noxious Weed inserts and submit additional articles to the area newspapers when time allows. Madison County also encourages participation in trainings offered by surrounding counties and throughout the state with the Montana Weed Control Association (MWCA).

Biological Program

Madison County has supported the Madison County Bio Program for approximately 12 years. The County also facilitates Bureau of Land Management funds for this program as well. Contributions are approximately \$2,500.00 yearly contribution by the County and \$2,500.00 by the BLM as budget allows. The Bio Program makes various releases for Leafy Spurge, the Toadflaxes and Spotted Knapweed throughout Madison County. The MVRG helped facilitate one of the first inoculations of Puccinia punctiformis (Canada thistle rust). The program continues to monitor past release sites for future collection or augment sites where applicable. Students that work for the program through the Ennis School also spend time educating private landowners about noxious weeds and their impacts to the County landscape.

Madison County Weed Board Program Mission

The Mission of the Madison County Weed District is to educate landowners/managers as well as agencies within Madison County on the importance of implementing an integrated weed management program and to protect and improve the integrity of the natural resources for future use and enjoyment.

Revised by: _____ Date _____
Dale Grose, Weed Coordinator

Reviewed by: _____ Date _____
Todd Durham, Weed Board Member

Reviewed by: _____ Date _____
Rick Sandru Vice Chair, Weed Board Member

Reviewed by: _____ Date _____
Mark Boyd,, Weed Board Member

Reviewed by: _____ Date _____
Kent Tilstra, Weed Board Member

Reviewed by: _____ Date _____
Ron Nye, Madison County Commissioner

Reviewed by: _____ Date _____
John Heckler, Madison County Commissioner

Recommended by: _____ Date _____
John Armstrong, Chair, Weed Board Member

Approved by: _____ Date _____
Dan Allhands, Chair, Madison County Commissioner

*Madison County Weed Board
Madison County
Integrated Weed Management Plan*

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