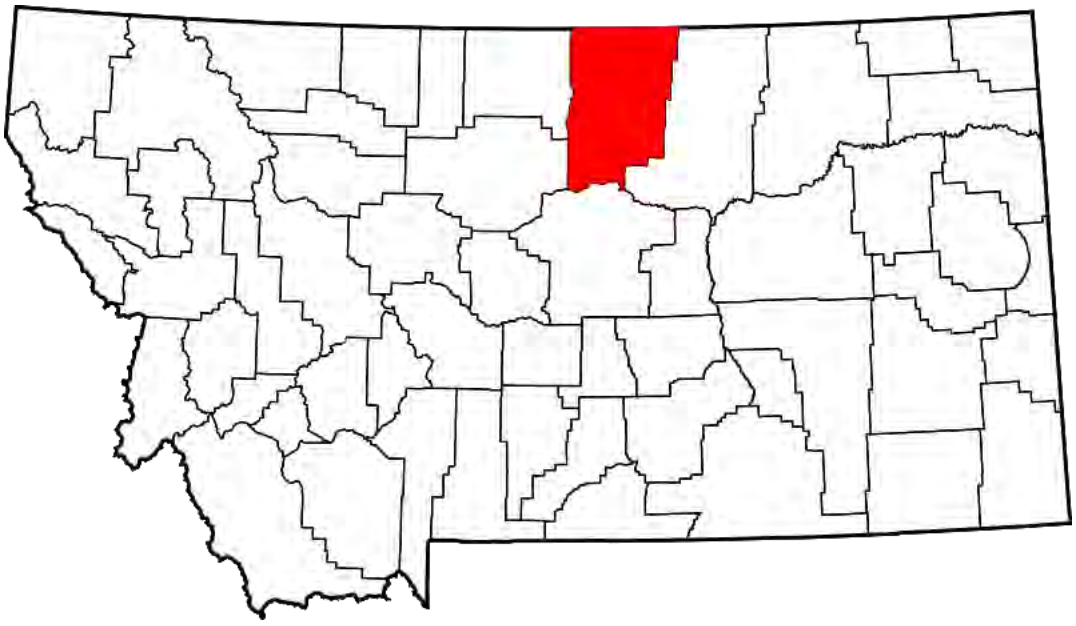
Long Range Conservation Plan

For

Blaine County Montana

April 2020



Contents

Section 1 Introduction:

This Long Range Plan outlines current resource conditions in Blaine County, identifies top concerns that need to be addressed, and provides a vision of work for the next five years. Blaine County is located in north central Montana in an area known as the "hi-line." It borders Saskatchewan, Canada to the North.

Mission

To Help People Help the Land (in Blaine County)

Vision

Cooperatively work toward bettering the natural resources of Blaine County and helping agricultural producers remain viable as they implement increasing standards of land stewardship

Purpose

This document is developed to help guide future conservation efforts. The goal is to increase impacts through focusing NRCS conservation practices on the greatest needs in the county. With help from the local work group and other partners, the priority resource concerns in the county have been identified. NRCS will develop Targeted Implementation Plans (TIP) to address the priority resource concerns. TIPs will be based on ready/willing/able producers, the completion of adequate inventory, and opportunities to leverage partner support. TIPs need to be tightly focused to address identified concerns in a way that creates the most positive impact to that resource concern. TIPs will be completed as funding is available. Once a TIP has been completed, focus will shift to the next resource concern.

Time frame

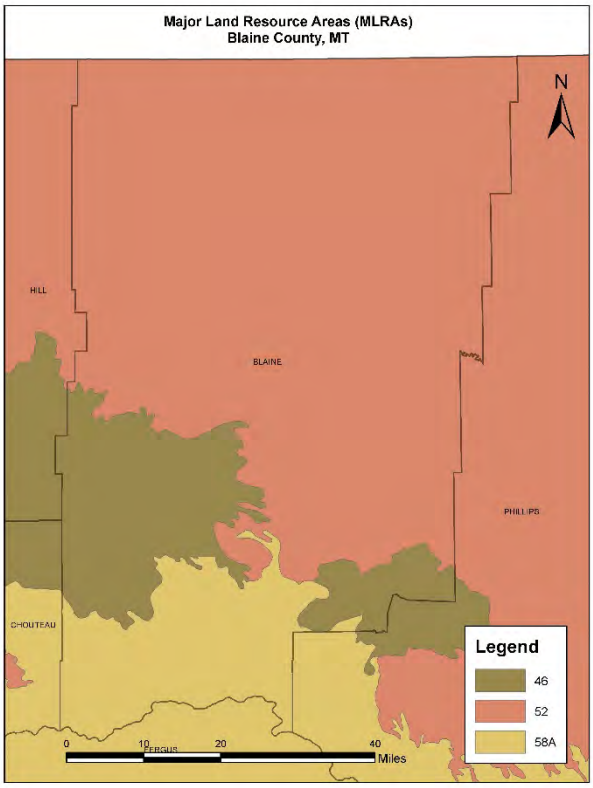
This Long Range Plan identifies resource concerns that are imminent and considers activities to address them over the course of 5 years (2020 to 2024). This plan is meant to be dynamic and responsive to changes in agriculture and environments. The plan will be reviewed annually and updated as necessary to reflect changes in resource concerns and priorities. Concerns that become imminent may be added to this plan to continue to meet the needs of the county.

Section 2. Natural Resources Inventory and Resource Concerns

2.1 Geology and Climate

Blaine County is part of the major land resource area (MLRA) 52 called the Brown Glaciated Plains. This region represents the southwestern limit of the Laurentide Ice Sheet and is considered to be the driest and westernmost area within the vast network of glacially-derived prairie pothole landforms of the northern Great Plains. The entire landscape displays evidence of glacially driven processes that sculpted the area between 20,000 and 150,000 years ago. Glacial activities carved the land into flat prairies of till, pot hole wetlands, and deposits of alluvium associated with erosion of those features.

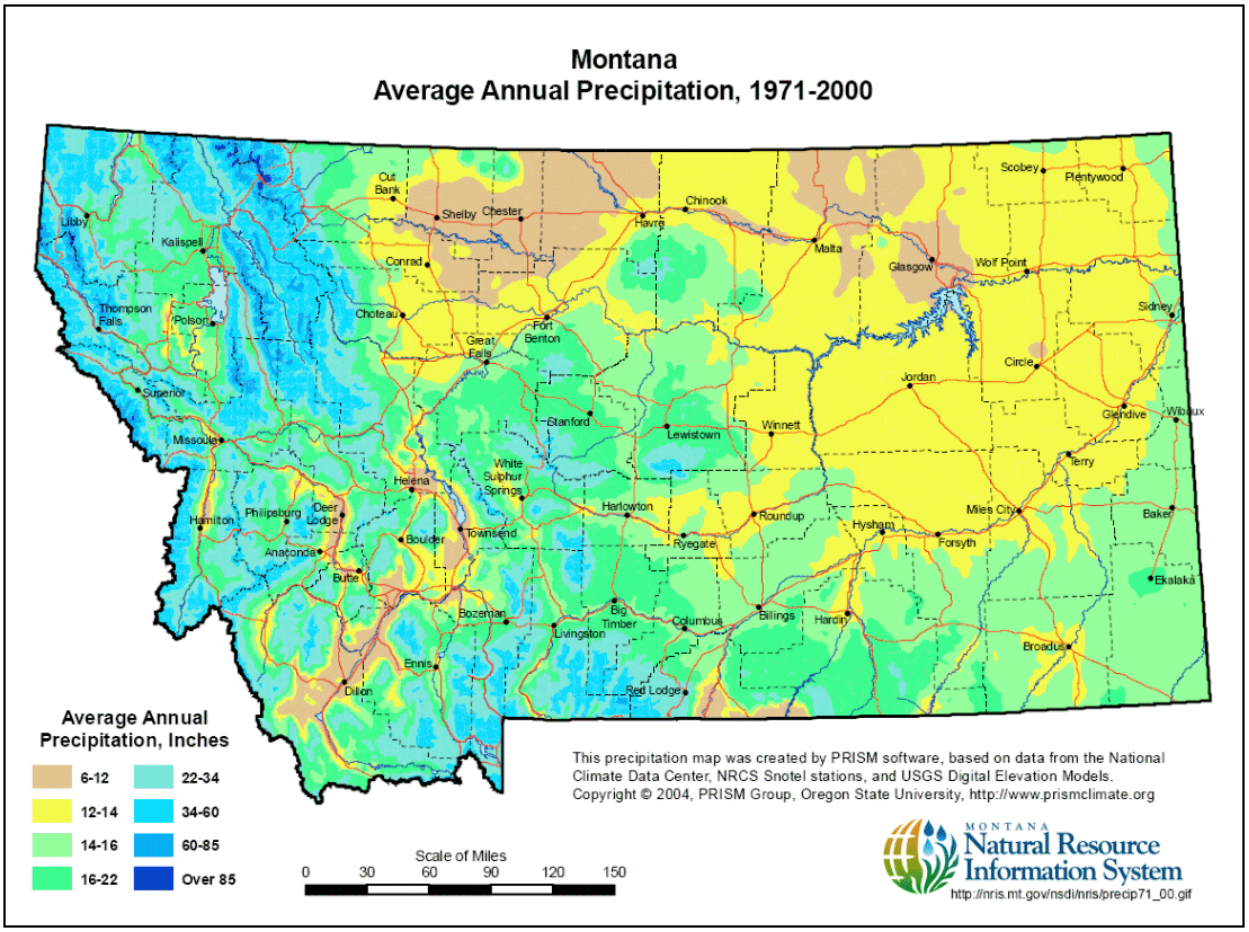
Two small distinct mountain ranges are found in Blaine County; MLRA 46 (Rocky Mountain Foothills). The Little Rockies are located just south of the Fort Belknap Agency and run east into Phillips County. The Bear Paw Mountains are located along the southern extent of the county north of the Missouri River Breaks. Prehistoric volcanic upheaval created these isolated mountain islands. Most of the county's forestry land use is found in association with these mountains or along narrow riparian corridors. These mountain ranges support grass vegetation in the valleys and foothills and forest vegetation at the higher elevations.



The south end of the county also contains part of the Missouri River Breaks which is MLRA 58A (Sedimentary Plains). This area is in the Missouri Plateau, Unglaciated, Section of the Great Plains Province of the Interior Plains. It is an area of old plateaus and terraces that have been eroded. Slopes generally are gently rolling to steep, and wide belts of steeply sloping badlands border a few of the larger river valleys. These areas support grassland vegetation. (1)

The area receives an average of 11 to 13 inches of precipitation annually (depending on location could be as low as 6" or as high as 22") and is prone to extreme temperatures ranging from -40^0 F to 100^0 F. This climate drives the mineral cycles, flora, and fauna that are indigenous to the area. Ecological processes are dictated by the temperature and precipitation.

The climate is highly variable making agriculture in the county highly susceptible to weather extremes. Extreme climatic variability results in frequent droughts, which have the greatest influence on the relative contribution of species cover and production.



(2)

2.2 Soils

MLRA 52 soils are primarily Mollisols but Entisols, Inceptisols, Alfisols and Vertisols are also common. Till from continental glaciation is the predominant parent material, but alluvium and bedrock are also common. Till deposits are typically less than 50 feet thick, and in some areas glacially deformed bedrock occurs at or near the soil surface. Underlying the till is sedimentary bedrock largely consisting of Cretaceous shale, sandstone and mudstone. It is commonly exposed on hillslopes, particularly along drainageways.

These soils are usually well suited to dry land farming. With the use of irrigation many of these soils can be quite productive. However, due to their largely sedimentary nature they remain subject to erosion. Best management of these soils should involve limited tillage and increased seasonal cover.

MLRA 46 soils are dominated by Mollisols and Entisols and are generally shallow to very deep, well drained, and loamy or clayey. They formed in residuum or colluvium on uplands or in alluvium and colluvium on alluvial fans and terraces.

Soils in MLRA 58A are typically Entisols and Inceptisols which are generally shallow to very deep, well drained, and clayey or loamy. They formed in alluvium, eolian deposits, and residuum on terraces, fans, hills and floodplains.

The vast majority of MLRA 46 and 58A soils are maintained in some form of permanent grass (native range or perennial hay). These areas are generally more suited for grazing purposes than cropland. [1]

Erosion and soil health are generally the main resource concerns pertaining to soils in Blaine county on both crop land and grazing land.

Soils here are susceptible to erosion mainly from wind but also from water, and the majority of the soils in the county are classified as highly erodible. Due to this, minimizing soil disturbance and keeping soils covered are extremely important. Typical cropping systems in the county have low diversity and high disturbance. A wheat and fallow rotation is very common. Historically the fallow year involved mechanical tillage, however chemical fallow is more common today. Lack of residue and lots of disturbance in a normal operation make erosion and soil quality common concerns. Due to fallow years, low residue crops, and reoccurring drought conditions, low residue cover is often a problem. Organic farming has increased in Blaine county in recent years and comes with an increased risk of erosion concerns due to amount of mechanical tillage. Tillage is the primary tool organic farmers have to control weeds and this leads to reduced residue cover.

FSA's Conservation Reserve Program (CRP) historically has enrolled a significant number of acres along the highline, with long term contracts maintaining perennial cover. However, in recent years many of these acres have been converted back to crop land as contracts expire. CRP tracts are usually very marginal farm ground with Highly Erodible Land (HEL) soils, and it is in the best interest of the producer, the public and general environmental health that it stays in perennial grasses or perennial forage. This reduction in CRP acres is likely also contributing to an increase in erosion in the county.

The soils in the great plains have evolved with permanent cover of diverse perennial grass and forbs. These soils typically have high organic matter content, highly aggregated structure, and good water infiltration capacity. Management activities that mimic historic plant communities keep soils as close to these conditions as possible. Current management often is not conducive to optimal soil health. The main principles of soil health are: minimize disturbance, maintain a living root as long as possible, keep soil covered, and increase plant diversity. Livestock can also

be an important piece of the soil health puzzle. As a soil's health improves, the structure of the soil will become more aggregated creating more pore spaces. This will lead to improved water infiltration and water holding capacity which will in turn reduce potential for water runoff and erosion. Improved soil health also creates a better habitat for soil microorganisms which in turn has positive impacts.

Soil health and erosion are equally important on grazing land. Proper grazing utilization has major impacts on maintaining soil quality.

2.3 Water

This region of Montana, as stated before, receives a low amount of precipitation throughout the year. Therefore, water is an extremely important component of all aspects of agriculture in Blaine county. Resource concerns related to water include: irrigation efficiency and water quantity, inadequate quantity and quality of livestock water, and water quality concerns within streams and wetlands. See appendix A for a map of Blaine County watersheds.

The county has two main rivers. See appendix B and C for maps. A section of the Missouri River forms the southern border of the county. Much of the river is bordered by Bureau of Land Management (BLM) rangelands. This area is part of the Missouri River Breaks National Monument and is a section of Wild and Scenic River. This section is upstream of the Fort Peck Dam and is one of the more unaltered sections of the Missouri River. According to the 2015 State Wildlife Action Plan, this section is an aquatic focal area and has high quality wildlife habitat with a near natural hydrograph, sediment, and temperature regime.

The Milk River runs from northwest to southeast and is the only one of its kind to start in the U.S. (Montana), flow into Canada, and then cross back into the U.S. (Montana). The Milk River watershed spans about 23,800 square miles, however due to the semiarid climate of the region, the watershed doesn't generate much water. The Milk River receives most of its water from the St. Mary River diversion. The diversion system in Babb can supply up to 90% of the Milk River flow during irrigation season. The St. Mary diversion was completed in 1917. The infrastructure is aging and there is becoming an increasing need for rehabilitation to ensure there is not a failure of the system. The Milk River provides irrigation water for a large portion of the irrigated acres in Blaine County. Chinook and Harlem, as well as other communities outside Blaine county, use the Milk River for their municipal water supply. Current estimates say it may take $200 million to complete renovations of the whole diversion system. [(3)]

The 2015 Montana State Wildlife Action Plan identifies the Milk River as one of the top priority focal areas in the state. The middle portion of the Milk River makes its way through Blaine

county. This section is impacted by irrigation withdrawals, fish barriers impacting fish migration, and development along the riparian corridor.

Irrigation efficiency was identified as a major resource concern within Blaine County. This is a multi-faceted issue with many problems and challenges. Six irrigation districts are identified within the county. Many of the irrigation districts within the county are in disrepair. Irrigation ditches and canals have reached the end of their projected life spans filling with sediment and are being inundated with weeds and brush. Many of the problems are due to the difficulty in obtaining adequate funding for maintenance and repair. Irrigation canals and ditches need to be rebuilt as well as their flood control structures. Controlling water delivery onto and off of individual fields is an important step to address potential issues such as salinity, efficiency, crop water needs, and leaching.

Education concerning water use efficiency, updated equipment and designs, and energy audits have shown promise in addressing the proper use of existing water. Irrigation water management provides a producer with information needed to determine proper amount and timing of irrigation events. Proper design and application of engineered practices can ensure that the irrigation infrastructure is maintenance friendly and performs adequately. Water control is one aspect of the necessary management needed on irrigated crop land, but it is important to consider crop management and vegetative practices on irrigated ground as well.

Water is a limited resource concern across Blaine county, especially for livestock drinking water. Due to the semi-arid nature of this region, natural water bodies are scarce and often are not sufficient for demand. Quality of water may not be adequate as well. Pits, reservoirs, and streams run dry in late summer and during periods of drought. Often current water sources restrict management options available to livestock producers. Typically, without good water sources, producers can not properly manage grasslands, or integrate livestock into cropping systems. Spring developments and/or wells with pipeline and tanks are common ways to provide reliable water. However, developing this infrastructure is extremely costly.

There are multiple ways that surface water quality can be impacted in Blaine county. Livestock over-use of natural water bodies and streams can create a water quality issue, as well as a wildlife habitat issue. Concentrated feeding operations located on streams is a common concern in Blaine county. These can contribute significantly to water quality impairments. On crop land, the over application of crop nutrients and pesticides can lead to impairments in surface and ground waters. Blaine county's high wetland density makes this a notable concern. Streams listed on the 303D list for water quality impairments include: Milk River, Lodge creek, Battle creek, People's creek, and Cow creek. Potential ways to address water quality concerns may include filter strips, buffer strips, perennial plantings, crop rotations, education on pest and nutrient management, and proper grazing management.

Saline seeps are a common occurrence in this part of the state. The most basic saline seep occurs in the northern glaciated plains of Montana where both the soil profile and the underlying bedrock have an elevated and highly soluble salt content. In the recharge area of the saline seep, salts leach into the ground water and where the ground water eventually comes to the surface is considered the discharge area. The discharge area is where the salt issue becomes apparent. Salts accumulate on the surface and inhibit vegetative growth. Due to the nature of the glaciated plains, some seeps are natural. However, crop fallow systems greatly contribute to the issue often creating seeps that would naturally not exist.

2.4 Plants

Rangelands represent the largest land use in Blaine County. Vast tracts of intact native grassland exist throughout the county. These native mixed grass prairies are classified into three climatic zones; dry and moist grasslands, and dry shrublands. The dry grasslands are defined by the typical arid climate and highly variable precipitation. The resulting production is susceptible to seasonal drought. The moist grasslands are found in association with the island mountain ranges. These moist grasslands receive more annual precipitation (14 to 22 inch) resulting in higher annual production not as subject to seasonal drought. The dry shrubland zone receives similar precipitation to the dry grassland zone but subtle differences make the habitat suitable to big sagebrush. Big sagebrush is not found on the dry grassland, most likely due to cooler temperatures, but fire return intervals may also vary. [(1)]

Grazing land in Blaine County is composed of both native rangeland and introduced pastures. Proper grazing management ensures proper plant health and production as well as structure and composition. Healthy rangelands in the county typically consist of cool season grasses with deep rooted bunchgrasses making up the primary plant type followed by cool season rhizomatous grasses. As rangeland is degraded, un-desirable grasses and forbs increase on the landscape impacting production, wildlife habitat, forage value, and soil health. Fire exclusion, over grazing, season long grazing, and not changing seasons of grazing use can shift plant communities to undesirable conditions.

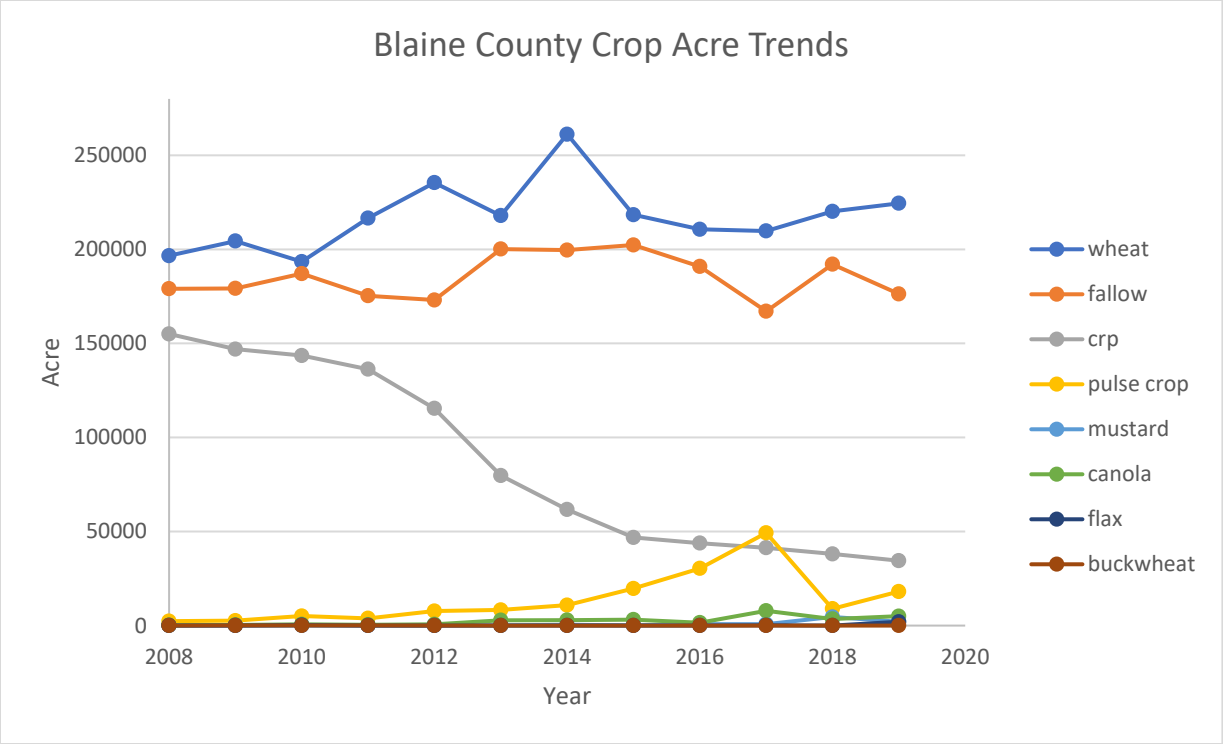
Grazing management is often less than ideal on grazing land in the county. Season long grazing, overstocking, poor grazing distribution, and not changing season of grazing use are common occurrences. Often, these poor management practices are due to lack of proper grazing knowledge, lack of watering sources, and lack of fence infrastructure. Implementing grazing education through workshops, rangeland monitoring, one-on-one technical advice can provide managers the knowledge to improve grazing practices. In addition, cost-share to provide proper

infrastructure to improve grazing distribution, drought resiliency, forage availability, and ease of management can greatly improve grazing land health and function.

Livestock operations within Blaine County must deal with unpredictable climate as a major limiting factor to production. The variables that can be controlled and managed for are what, when, where, and how their grasslands are grazed. Several practices have and will continue to assist Blaine County cattlemen with their resource concerns. A prescribed grazing plan, feed forage balance, fencing, and additional livestock water can assist the producer in what, where, when, and how they utilize the forage they produce. Cover crops and aftermath can also provide alternative forage on an annual or intermittent basis.

On cropland in Blaine County, typical rotations are not very diverse. Under the soil health principles, there are four main crop types: cool season grasses, warm season grasses, cool season broadleaves, and warm season broadleaves. Cool season grasses, primarily wheat, are the predominant crops. There has been some increase in diversity in recent years to include more pulse crops and oilseeds. However, warm season crops are uncommon. Cash crop diversification is somewhat limited due to a short growing season and low precipitation. The cover crop practice is a way to include more diversity in a rotation as well as reduce fallow. Cover crops have been slowly increasing in popularity in the county.

Diverse rotations on an operation can mean more resiliency to drought and markets. Diversity of crops helps promote better habitat for the soil microorganisms, which impacts soil quality and therefore plant productivity. Another benefit to diverse rotations is breaking pest cycles, which can lead to improvements of crop productivity and quality. Crop trends are outlined in the graph below. The most notable change is the decline in CRP acres in the last 10 years.



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Noxious and invasive plant species are an issue throughout Blaine County. Undesirable species can invade a grassland and reduce overall production. Wildlife species can also be affected by invasive plants. Those populations with highly specific habitat criteria will decline as invaders increase. Weed management and proper weed control is an important issue throughout Montana. Common weeds in the county include: Canada thistle, cheatgrass, and houndstongue. The commonly used control method is chemical spraying, however for some weeds there are biological and cultural control options as well. Weed eradication is usually not feasible or achievable. In these cases, control and tolerance levels need to be adopted to establish a maintenance type management system.

A growing concern in the region is the emergence of herbicide resistant weeds on crop land. Kochia and Russian thistle are the main concerns. Ineffective chemical control has resulted in renewed interest and use of tillage operations for weed control. To reduce the potential for weeds to become herbicide resistant, it is important to use appropriate rates and timing of herbicide application. An important consideration is rotating chemicals used that have different modes of action. Other options include crop rotations and cover crops to help break pest cycles and to create competition with weeds. Adoption of Integrated Pest Management principles can help to control weeds while also reducing the negative impacts control measures may have on the environment.

The Montana Natural Heritage Program (MTNHP) Plant Species of Concern Report last updated

on October 31, 2019 lists two plant species of concern for Blaine County: desert groundsel and long-sheath waterweed. These plants are both associated with wetland/riparian habitat. The MTNHP Field Guide describes Species of Concern as native taxa that are at-risk due to declining population trends, threats to their habitats, restricted distribution, and/or other factors.

2.5 Animals

Blaine County is home to 47 Montana species of concern and many of these species are associated with grassland habitat types (see appendix E). Blaine County has some of the most intact grasslands and shrublands in the state with over two thirds of the county consisting of mixed grass prairie, sagebrush steppe, or other intact communities. Large intact tracts of grasslands and shrublands provide ecologically significant habitat for the 47 species of concern as well as other priority species. Greater sage-grouse, Sprague's pipit, McCown's longspur, Baird's sparrow, chestnut-collared longspur, swift fox, pronghorn, mule deer, elk, upland game birds, and waterfowl populations all rely on intact grassland communities and are important species to Blaine County for many reasons, including economic, aesthetic, cultural and other values. Pollinator populations and northern pearl dace populations are additional wildlife species that are of county importance. Conservation of these species is important to the county. [5]

As of December 12, 2019, the U.S. Fish and Wildlife Service (USFWS) lists the following three threatened or endangered species for Blaine County: pallid sturgeon (*Scaphirhynchus albus*)–Endangered, black-footed ferret (*Mustela nigripes*)–Endangered, and piping plover (*Charadrius melodus*)–Threatened. Further information on each of these species can be found on the Montana Field Guide website.

Big game migration corridors and winter range have received national attention with the U.S. Secretary of the Interior's Secretarial Order 3362. This order directs bureaus within the Department of the Interior to conserve big game migration corridors and winter range for mule deer, pronghorn, and elk. Montana Fish, Wildlife & Parks has identified the Canadian Border to Musselshell Plains as a Priority Area and this area includes Blaine County (see appendix D). Blaine County has mapped winter ranges for all three of these big game species[6], as well as some of the most important connectivity corridors and migration corridors for pronghorn[7]. Big game species are vitally important to Blaine County for several reasons including economic, aesthetic, and cultural importance. Big game species need intact and healthy grasslands for winter range and migration corridors. Increases in fragmentation, loss of perennial grassland cover, increase in fences, and degradation of rangeland can be primary drivers impacting winter range and migration[6].

North Blaine County has some of the highest waterfowl pair densities in the state. Due to high wetland density and intact grassland, this region is vitally important to northern pintails, northern shovelers, blue-winged teals, gadwals, mallards, and American wigeons.

Fragmentation of intact rangeland and degradation of western rangeland are primary drivers of population declines and habitat loss in grassland birds[8], sage-grouse, pronghorn[9] and other grassland obligate species. Keeping grasslands intact, grassland restoration, and improving grazing management are necessary to ensure priority wildlife species maintain healthy populations over the long term. During Blaine County's Local Working Group Meeting, wildlife habitat degradation was listed as a priority concern. Producers, government agencies, NGO's, and other partners are invested in keeping these wildlife species on the landscape and future work in the area should reflect that interest.

Upland game birds, including sharp-tailed grouse, Hungarian partridge, and ring-necked pheasant, are common across the county. Areas with brushy draws, dense nesting cover, thick winter cover, CRP acres, and food sources are vital to the success of these species. Large losses of CRP acres across the county have impacted habitat for upland game birds and waterfowl. Upland game birds are valuable to the county for several reasons including, economic, aesthetic and cultural factors.

Feral pigs are a concern on the horizon. Just north of Blaine County in Canada a growing population is on the verge of making it into the United States. Current distribution in Saskatchewan just north of Blaine County and known rapid reproduction of feral hogs warrants awareness and action[10]. Feral pigs can transmit diseases and parasites to livestock, people, pets, and wildlife, cause damage to crops, compete with wildlife for habitat and resources, and prey on ground nesting birds such as pheasants and ducks. Action may need to be taken to prevent the spread of this destructive invasive species in the future.

2.6 Human

Blaine County, Montana encompasses 2.73 million acres (4,267 mi^2) of which 2.204 million is in farms. That is an area larger than Rhode Island and Delaware combined. According to the Montana Natural Heritage Program 24% of the county is public land, 57% is privately owned, and 19% is tribal owned. Of the public land the 24% is split between Bureau of Land Management (17%) and Montana state lands (7%). Rangeland makes up approximately 68% of the county, 23% is cultivated crops, 4% is introduced annual vegetation, 4% other and 1% is hay.[5] The 2010 Census lists the county population as 6,491 people. The 2018 population was estimated at 6,807 which is a 4.9% increase. Approximately 26% of Blaine County residents are

living below the poverty line.

Population density is approximately 1.5 people per square mile. The 2017 Ag Census has the number of farms in the county at 491 with an average farm size of over 4,000 acres. The county in 2017 received $10.4 million in farm payments averaging just over $33,000 per farm in government payments through various USDA programs.

In the south eastern portion of the county lies the Ft. Belknap Indian Reservation. The reservation is composed of nearly 500,000 acres across 45.8 square miles. The reservation is home to around 1,300 indigenous Native Americans. The reservation represents the A'aninin (Gros Ventre) and the Nakoda (Assinboine) tribes.

Organic farming has been increasing in Blaine County. The 2012 agricultural census showed 14 farms with certified organic acres, where the 2017 agricultural census shows 28 farms with organic acres. In 2017, there were seven farms with acres transitioning into USDA National Organic program. This comes to approximately 15% of the certified organic farms in Montana.

2.7 Air and Energy

In terms of air quality, there are no designated areas listed as impaired in the county. There are several confined animal facilities in the county. These infrequently have odor complaints from neighbors. Energy efficiency improvements is always a consideration when planning conservation practices and improvements.

Section 3 – Past Conservation Efforts

3.1 NRCS

Since 1996 there have been 251 completed Farm Bill Program contracts in Blaine county (including tribal contracts). These contracts obligated around $12.96 million dollars of which $10.91 million was actually paid out in completed practices or enhancements.

The Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA) have multiple financial assistance programs to incentivize implementation of conservation. NRCS programs include Environmental Quality Incentive Program (EQIP) and Conservation Stewardship Program (CSP) as the common programs, as well as easements and providing technical assistance not associated with a contract. FSA's largest conservation program is Conservation Reserve Program (CRP).

These contracts have addressed a variety of resource concerns. Projects that were addressing

water use efficiency on irrigated cropland include land leveling, conversion of ditches to pipeline, and conversion from flood to pivot. Soil quality and erosion related contracts included no-till conversion, cover crops, salinity control, and windbreaks. Contracts to improve grazing land health included installing stockwater systems, fencing, and improving and/or relocating animal feeding operations/concentrated animal feeding operations to improve riparian zones. There have also been sporadic efforts to use chemical and biological controls for noxious weeds. Other contracts have addressed wildlife habitat issues.

3.2 Conservation District and Other Partners

The local Conservation District has focused a lot of effort on outreach over the years. They have organized and/or sponsored various workshops such as cover crop workshops, youth education days, and are always supportive of NRCS outreach efforts. The district typically has a booth at the county fair and the Montana Seed Show.

Pheasants Forever helped build capacity for conservation work by holding a Partner Biologist position in the Blaine County office since 2016. CRP, pollinators, precision farming, increasing perennial cover for wildlife, and improving wildlife connectivity are primary conservation objectives for Pheasants Forever. Local chapters have designated funds on a case by case basis to put habitat on the ground in the area.

Ducks Unlimited has been an active partner on the Hi-line and in Blaine County for several years. Most recently, they acquired a RCPP funded through the farm bill and brought $300,000 of targeted EQIP dollars to the area focusing on improving habitat for waterfowl. They have worked with USFWS to focus NAWCA funding into the area. They have also performed past work creating reservoirs and artificial wetlands to improve waterfowl habitat. Incentivizing cover crops for grazing use to rest important nesting areas has also been priority work for this organization.

Ranching, Conservation, and Communities are the three pillars guiding Ranchers Stewardship Alliance. Over the last decade they have been a conservation partner working with a multitude of NGO's and government agencies to acquire and direct funding for conservation benefit. Utilizing NFWF grants they have brought in over $1,000,000 to provide grazing infrastructure on CRP, improve management on tame grasses, seed cropland to perennial cover, and improve big game migration corridors and winter range.

US Fish and Wildlife Service's primary focus is on restoring and enhancing native prairie habitat and wetlands. Focal species include declining grassland birds, sage-grouse, northern pintail,

northern shoveler, and mallard. USFWS funds easements, grazing infrastructure, grassland restoration and other works to achieve their goals in the area.

Montana Fish Wildlife & Parks holds a large easement in the county that has a rest-rotation grazing system and hunting access. They have helped fund food plots, rest-rotation grazing systems, shelterbelts, grass plantings, and other wildlife focused projects.

The Missouri River Conservation Districts Council formed in 2000 to coordinate conservation efforts along the Missouri River. Through the council, Conservation Districts are given a unified front and collective voice when addressing issues, opportunities, and challenges associated with the Missouri River.

The Milk River Watershed Alliance is another organization of conservation districts working together to preserve, protect, and enhance the natural resources within the Milk River Watershed. They have created an educational video about the watershed and the importance of maintaining the St. Mary diversion infrastructure.

Montana Salinity Control Association over the years has worked individually with farmers and ranchers to address salinity issues all across the state. They recently have been awarded an Regional Conservation Partnership Program (RCPP) to direct EQIP funds addressing salinity control.

Section 4 – Conservation Goals

4.1 Local Work Group Priorities

A Local Work Group meeting was held in Blaine County May 22, 2019. The group discussed the resource concerns that are issues within the county. The following resource concerns were identified and prioritized as follows:

1. Irrigation Ditch Repair—Maintenance
2. Inadequate Livestock Water Quantity, Quality and Distribution
3. Noxious, Invasive, Herbicide Resistant Weeds
4. Inadequate Terrestrial Habitat for Wildlife and Invertebrates
5. Soil Health

4.2 Next Steps

Taking the information summarized in this document and considering the priority resource concerns identified, NRCS will develop Targeted Implementation Plans (TIP). TIPs will be based on ready/willing/able producers, the completion of adequate inventory, and opportunities to leverage partner support. It is possible that the first TIPs may not necessarily address the number one priority due to those factors. To move forward, education and outreach will be a constant goal in order to make it feasible to implement more conservation.

Citations

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3. https://milkriverwatershedalliance.com/
4. Table derived from Crop Certification Records provided by Blaine County Farm Service Agency
5. Montana Natural Heritage Program
6. Montana Fish Wildlife and Parks. Montana State Action Plan, DOI Secretarial Order 3362
7. Jakes, A. (2015) Factors Influencing Seasonal Migrations of Pronghorn Across the Northern Sagebrush Steppe. University of Calgary, Calgary, Alberta.
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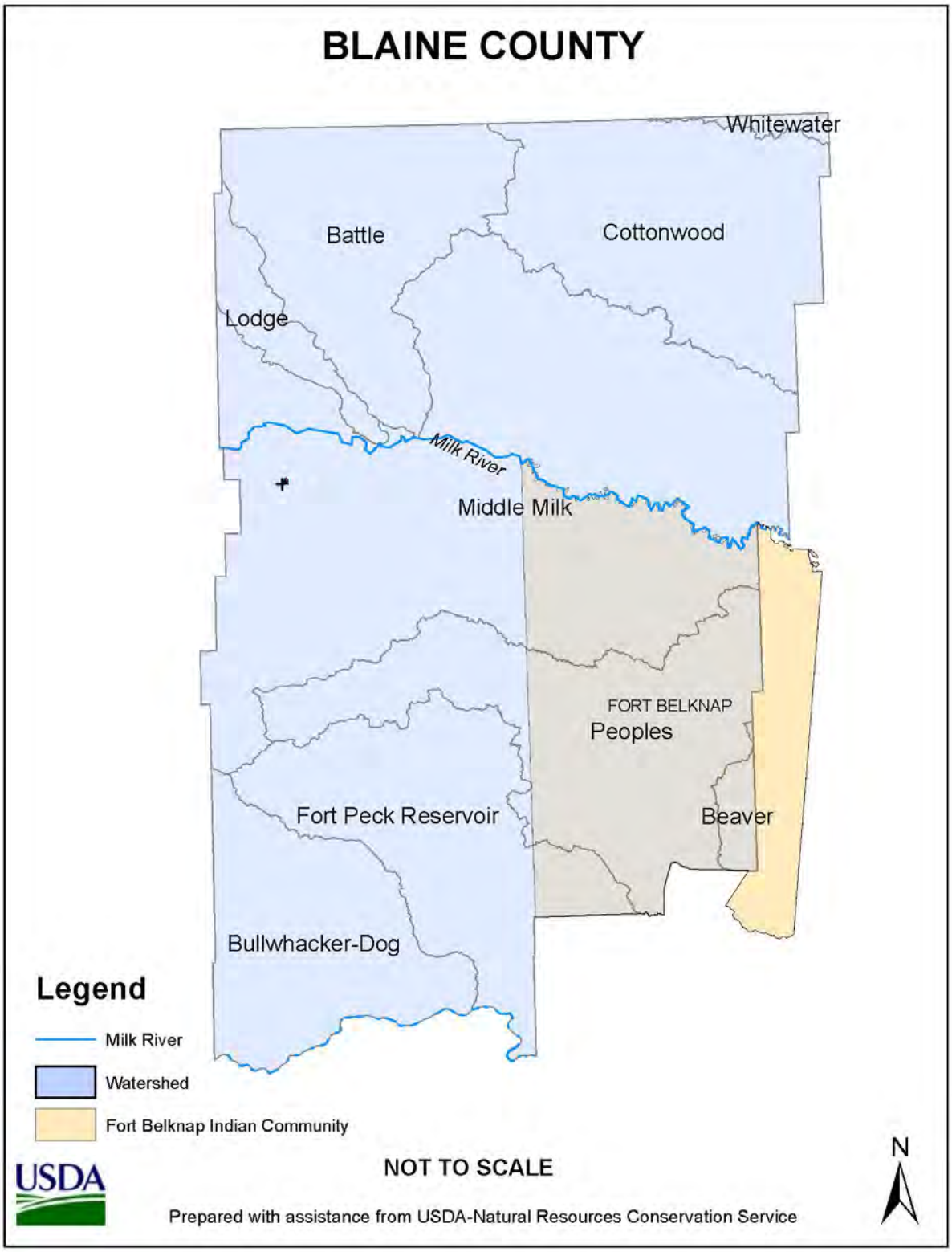
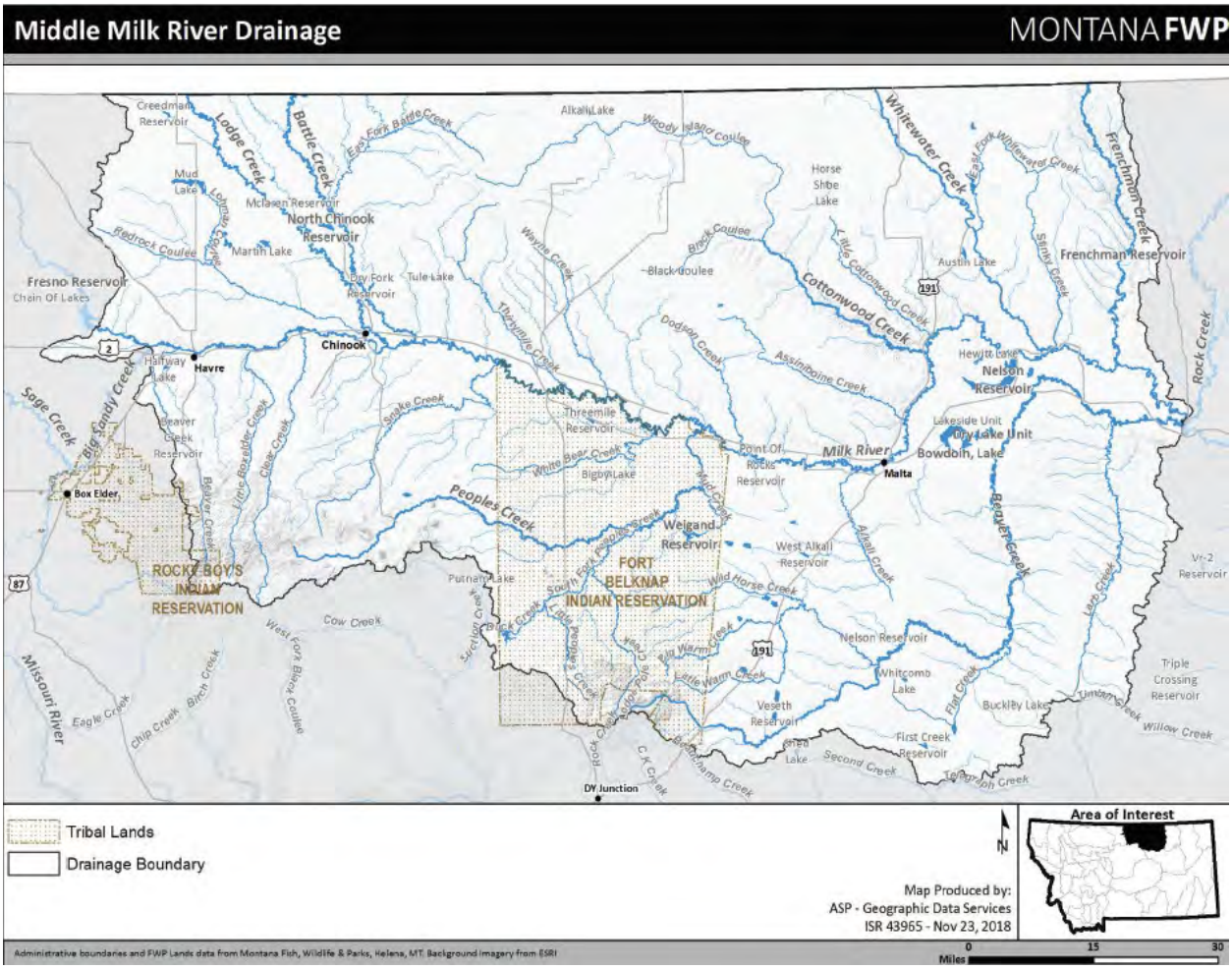
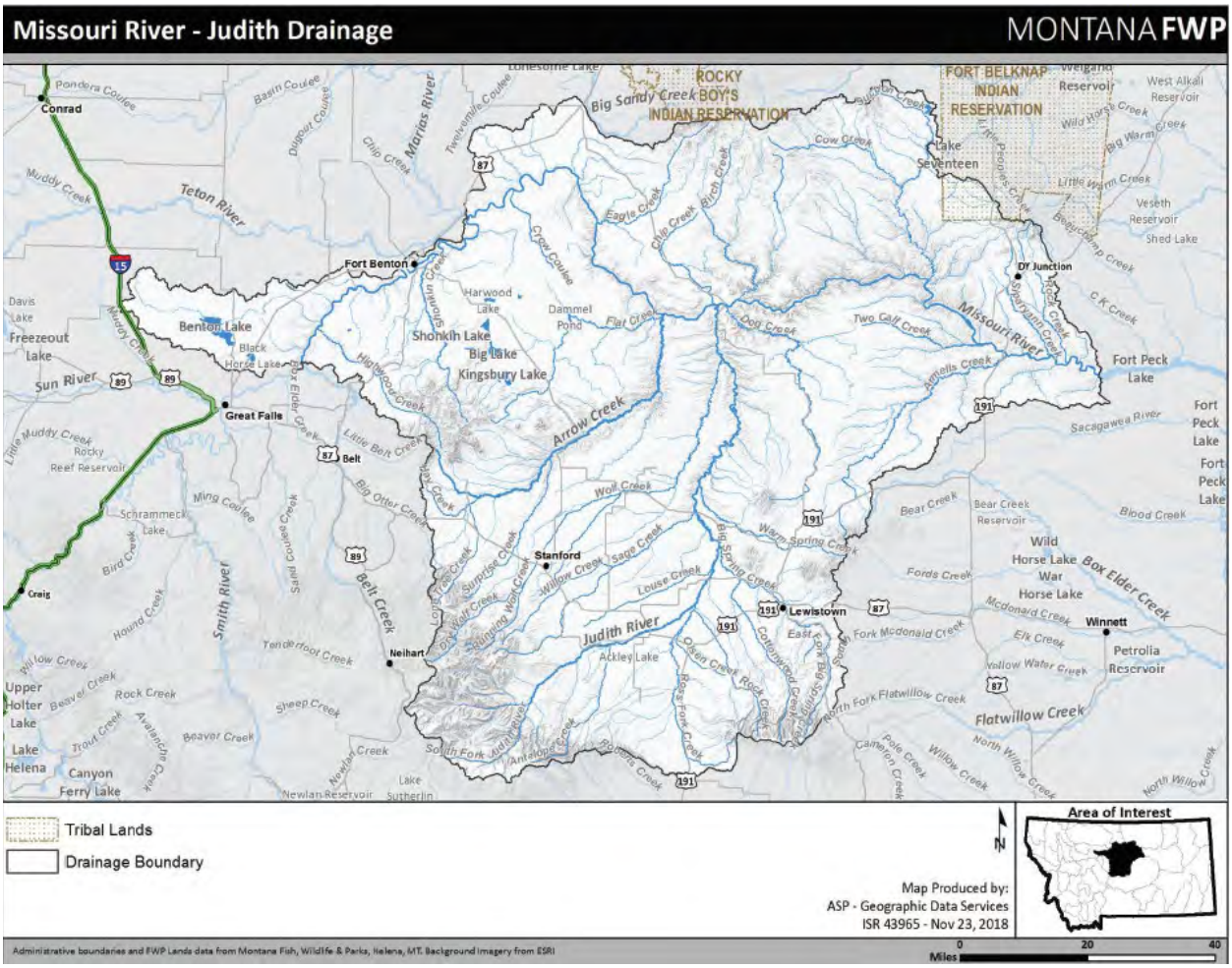
Appendix A – Blaine County Watersheds Map



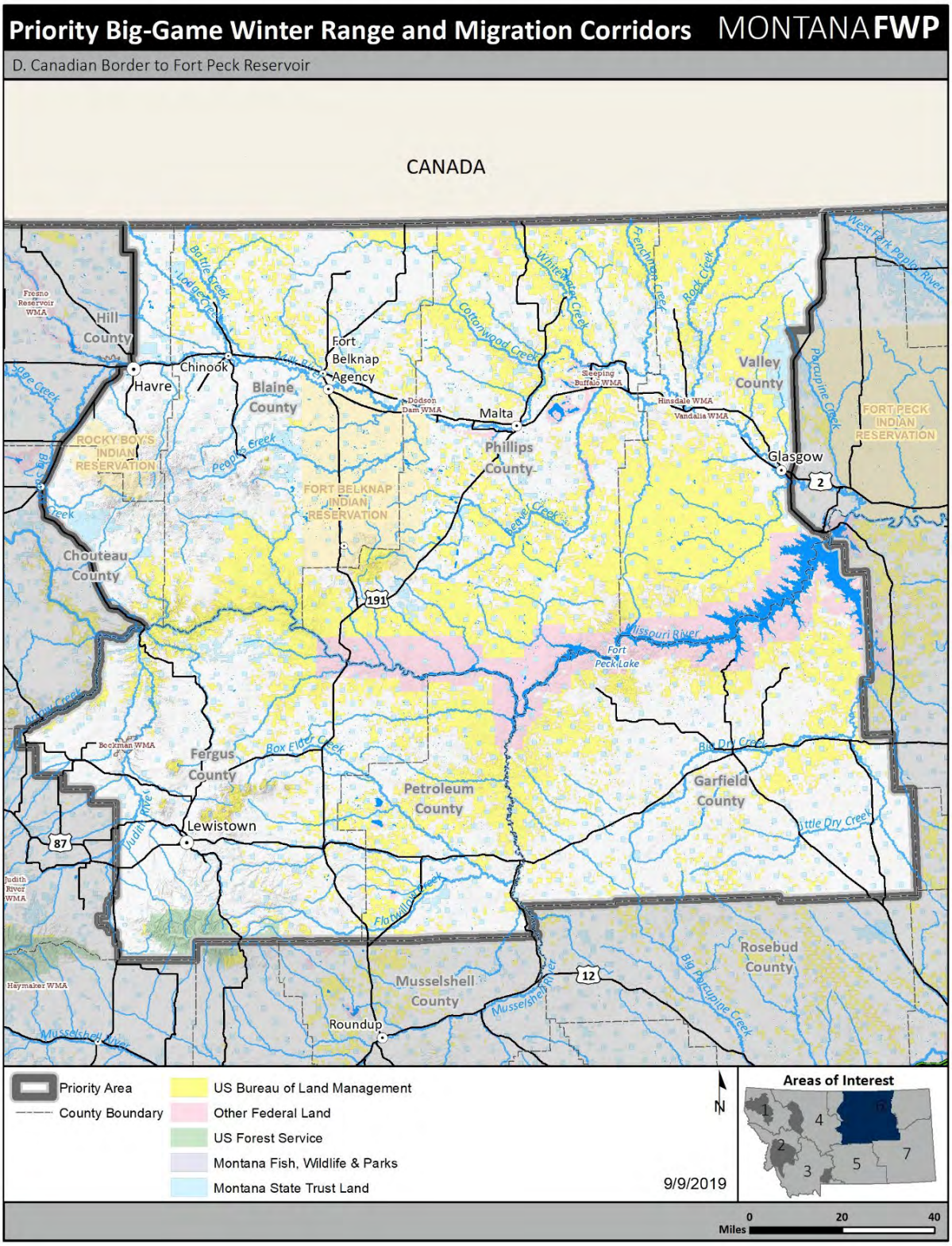
Appendix B – Middle Milk River Drainage Map



Appendix C – Missouri River - Judith Drainage Map



Appendix D – Priority Big-Game Winter Range and Migration Corridors Map



Appendix E – Blaine County Species of Concern List

Montana Natural Heritage - SOC Report Species List Last Updated **04/16/2020**

Animal Species of Concern

47 Species of Concern
Filtered by the following criteria:
MT Status = Species of Concern
County = Blaine (based on mapped Species Occurrences)

MONTANA Natural Heritage Program
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Introduction

Species of Concern

Species of Concern
47 Species
Filtered by the following criteria:
MT Status = Species of Concern
County = Blaine (based on mapped **Species Occurrences**)

MAMMALS (MAMMALIA)

MT STATUS = SPECIES OF CONCERN
COUNTY = BLAINE (based on map

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE
Corynorhinus townsendii Townsend's Big-eared Bat	Vespertilionidae Bats	G4	S3		Sensitive – Known on Forests (BD, BRT, CG, HLC, KOOT, LOLO)	SENSITIVE	SGCN3	5%	87%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau, Custer, Fergus, Flathead, Gallatin, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, McCone, Meagher, Mineral, Missoula, Musselshell, Park, Phillips, Powder River, Powell, Prairie, Roosevelt, Rosebud, Sanders, Silver Bow, Stillwater, Treasure, Valley, Yellowstone **State Rank Reason:** Species is widespread, but uncommon and appears to occur at lower densities. Disturbance of cave and mine roosts and the hard closure of occ term persistence							
Cynomys ludovicianus Black-tailed Prairie Dog	Sciuridae Squirrels	G4	S3		Sensitive – Known on Forests (CG)	SENSITIVE	SGCN3	15%	71%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Carter, Cascade, Choteau, Custer, Fallon, Fergus, Garfield, Golden Valley, Hill, Jefferson, Lewis and Clark, Liberty, McCone, Musselshell, Petroleum, Phillips, Powder River, Richland, Rosebud, Stillwater, Sweet Grass, Toole, Treasure, Valley, Wheatland, Y **State Rank Reason:** Across much of eastern Montana this species occurs in areas with suitable soil and topography. However sylvatic plague has caused the species colony size and dynamic. Ongoing threats from disease and persecution due to perceived competition with grazing make long-term status of this species uncertain.							
Euderma maculatum Spotted Bat	Vespertilionidae Bats	G4	S3		Sensitive – Known on Forests ((BD, CG)	SENSITIVE	SGCN3, SGIN	5%	27%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Cascade, Choteau, Dawson, Fergus, Gallatin, Jefferson, Judith Basin, Madison, Musselshell, Phillips, Powder River, Richland, Rosebud, Silver Bow, Stillwater, Treasure, Yellowstone **State Rank Reason:** Little is known about this species in Montana. Although widely distributed, the species is quite rare in almost all of its range. Little is known about abundance or occupancy, or life history.							
Lasiurus borealis Eastern Red Bat	Vespertilionidae Bats	G3G4	S3			SENSITIVE		0%	46%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Carter, Cascade, Choteau, Custer, Daniels, Fergus, Flathead, Garfield, Glacier, Hill, Judith Basin, Musselshell, Park, Petroleum, Phillips, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sweet Grass, Toole, Valley, Wheatland, Yellowstone **State Rank Reason:** Recent surveys using acoustic detectors have shown this species to be present across much of central and eastern Montana during the summer species, including the Eastern Red Bat, are commonly killed at wind farms, which presents a substantial threat to the long-term viability of the population within the							
Lasiurus cinereus Hoary Bat	Vespertilionidae Bats	G3G4	S3			SENSITIVE	SGCN3	2%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau, Custer, Daniels, Dawson, Deer Lodge, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Mineral, Park, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Treasure, Valley, Wheatland, Wibaux, Yellowstone							
Mustela nigripes Black-footed Ferret	Mustelidae Weasels	G1	S1	LE; XN	Endangered, Experimental Nonessential on Forests (CG)	ENDANGERED	SGCN1	12%	1%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Fergus, Garfield, Petroleum, Phillips, Valley							
Myotis lucifugus Little Brown Myotis	Vespertilionidae Bats	G3	S3				SGCN3	3%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau, Custer, Daniels, Dawson, Deer Lodge, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, McCone, Meagher, Mineral, Missoula, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Valley, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Species is common and widespread, but under significant threat of catastrophic declines due to White-Nose Syndrome, a fungal disease respo populations of this species in the eastern US.							
Myotis thysanodes Fringed Myotis	Vespertilionidae Bats	G4	S3			SENSITIVE	SGCN3	0%	64%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Custer, Deer Lodge, Fergus, Flathead, Gallatin, Judith Basin, Lake, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Powder River, Powell, Prairie, Ravalli, Rosebud, Sanders, Silver Bow, Teton, Tr **State Rank Reason:** Although this species is distributed across much of Montana, recent surveys have found it to be uncommon within range. Species occasionally threats to persistence from White-Nose Syndrome are a concern, but due to its western distribution the extent of impacts are as yet unknown.							
Vulpes velox Swift Fox	Canidae Wolves/Coyotes/Foxes	G3	S3			SENSITIVE	SGCN3	1%	69%
		Species Occurrences verified in these Counties: Blaine, Carter, Custer, Fallon, Garfield, Glacier, Hill, Phillips, Pondera, Powder River, Prairie, Valley							

BIRDS (AVES)

MT STATUS = SPECIES OF CONCERN
COUNTY = BLAINE (based on map

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE

Anthus spragueii Sprague's Pipit	**Motacillidae** Pipits	G3G4	S3B	MBTA;BCC11 BCC17		SENSITIVE	SGCN3	18%	67%
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Choteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Garfield, Glacier, Golden Valley, Lewis and Clark, Liberty, Madison, McCone, Meagher, Musselshell, Park, Petroleum, Phillips, Pondera, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Valley, Wheatland, Wibaux **State Rank Reason:** Although population trends in Montana appear to be relatively stable in recent years, populations have been in decline over the long run and from cover type conversion, overgrazing, exotic plant invasion, altered fire regimes, and mowing prior to fledging young.						
Aquila chrysaetos Golden Eagle	**Accipitridae** Hawks/Kites/Eagles	G5	S3	BGEPA;MBTA BCC17		SENSITIVE	SGCN3	3%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau, Custer, Dawson, Deer Lodge, Fallon, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Missoula, McCo Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Wibaux, Yellowstone						
Ardea herodius Great Blue Heron	**Ardeidae** Bitterns/Egrets/ Herons/Night-Herons	G4	S3	MBTA			SGCN3	3%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau, Custer, Dawson, Deer Lodge, Fallon, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Mineral, Missoula, Petroleum, Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Wibaux, Yellowstone **State Rank Reason:** Small breeding population size, evidence of recent decline, and declining regeneration of riparian cottonwood forests due to altered hydrology						
Athene cunicularia Burrowing Owl	**Strigidae** Owls	G4	S3B	MBTA;BCC17	Sensitive – Known on Forests (CG) Sensitive – Suspected on Forests (HLC)	SENSITIVE	SGCN3	4%	82%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau, Custer, Dawson, Fallon, Fergus, Golden Valley, Hill, Jefferson, Lewis and Clark, Liberty, Madison, McCone, Musselshell, Petroleum, Phillips, Pondera, Powder River, Prairie, Ravalli, Roosevelt, Rosebud, Teton, Toole, Treasure, Valley, Wheatland, Yellowstone **State Rank Reason:** Species has a negative short-term population trend.						
Botaurus lentiginosus American Bittern	**Ardeidae** Bitterns/Egrets/ Herons/Night-Herons	G5	S3B	MBTA;BCC11 BCC17		SENSITIVE	SGCN3	2%	100%
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Choteau, Fergus, Fallon, Flathead, Glacier, Golden Valley, Lake, Missoula, Phillips, Po Sheridan, Sheridan, Teton, Valley, Yellowstone **State Rank Reason:** The American Bittern is dependent on large wetland complexes, which have declined over the species range. Decline in Montana and the requirements warrant general concern about the persistence of the species.						
Buteo regalis Ferruginous Hawk	**Accipitridae** Hawks/Kites/Eagles	G4	S3B	MBTA;BCC10 BCC17		SENSITIVE	SGCN3	4%	100%
		Species Occurrences verified in these Counties: Beaverhead, Blaine, Broadwater, Carter, Cascade, Choteau, Custer, Daniels, Dawson, Fallon, Fergus, Gallatin, Golden Valley, Hill, Jefferson, Judith Basin, Lewis and Clark, Liberty, Madison, McCone, Meagher, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Prairie, Stillwater, Teton, Toole, Valley, Wheatland, Wibaux, Yellowstone						
Calcarius ornatus Chestnut-collared Longspur	**Calcariidae** Longspurs and Snow Buntings	G3	S2B	MBTA;BCC11 BCC17		SENSITIVE	SGCN2	11%	95%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Carter, Cascade, Choteau, Custer, Daniels, Dawson, Fallon, Fergus, Garfield, Glacier, Judith Basin, Lewis and Clark, Liberty, McCone, Musselshell, Petroleum, Phillips, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Wheatland, Wibaux, Yellowstone **State Rank Reason:** Species has a negative short-term population trend and faces threats from loss of native prairie grassland habitats and altered frequency, int distribution of grazing and fire regimes it depends on.						
Catharus fuscescens Veery	**Turdidae** Thrushes	G5	S3B	MTBA		SENSITIVE	SGCN3	6%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Choteau Custer, Deer Lodge, Fergus, Flathead, Hill, Jefferson, Lake, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Mineral, Missoula, Musselshell, Park, Petroleum, Phillips, Pondera, Powder River, Roosevelt, Rosebud, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Wheatland, Yellowstone						
Centrocercus urophasianus Greater Sage-Grouse	**Phasianidae** Upland Game Birds	G3G4	S2	MBTA;BCC11 BCC17	Sensitive – Known on Forests (BD) Sensitive – Suspected on Forests (CG, HLC)	SENSITIVE	SGCN2	17%	75%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Golden Valley, Hill, Madison, McCone, Meagher, Musselshell, Park, Petroleum, Phillips, Powder River, Prairie, Rosebud, Silver Bow, Stillwater, Sweet Grass, Treasure, Valley, Yellowstone						
Centronyx bairdii Baird's Sparrow	**Passerellidae** New World Sparrows	G4	S3B	MBTA;BCC11 BCC17		SENSITIVE	SGCN3	27%	67%
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Choteau, Custer, Daniels, Dawson, Fallon, Fergus, Glacier, Hill, Judith Basin, Lewis and Clark, Meagher, Musselshell, Petroleum, Phillips, Powder River, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Yellowstone **State Rank Reason:** Montana populations were declining until recently and the species is declining in most of the surrounding states and provinces.						
Charadrius montanus Mountain Plover	**Charadriidae** Plovers	G3	S2B	MBTA;BCC11 BCC17		SENSITIVE	SGCN2	20%	73%
		Species Occurrences verified in these Counties: Blaine, Broadwater, Carbon, Fergus, Garfield, Golden Valley, Jefferson, Madison, Musselshell, Petroleum, Phillips, Treasure, Valley, Wheatland						
Clidonius niger Black Tern	**Laridae** Gulls/Terns	G4G5	S3B	MBTA;BCC11		SENSITIVE	SGCN3	7%	100%
		Species Occurrences verified in these Counties: Blaine, Carter, Cascade, Chouteau, Daniels, Flathead, Glacier, Golden Valley, Lake, Madison, Missoula, Phillips, Sanders, Sheridan, Teton, Yellowstone **State Rank Reason:** Species has a small breeding population size and negative short-term population trends.						
Dolichonyx oryzivorus Bobolink	**Icteridae** Blackbirds	G5	S3B	MBTA			SGCN3	9%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Garfield, Glacier, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, McCone, Meagher, Missoula, Musselshell, Park, Petroleum, Phillips, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Stillwater, Sweet Grass, Teton, Valley, Wibaux, Yellowstone **State Rank Reason:** Species has undergone recent large population declines in Montana and a patchwork of declines and increases have been documented in surrou						
Falco peregrinus Peregrine Falcon	**Falconidae** Falcons	G4	S3	DM; MBTA; BCC10; BCC11 BCC17	Sensitive – Known on Forests (BD, BRT, CG, HLC, KOOT, LOLO)	SENSITIVE	SGCN3	2%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Cascade, Chouteau, Deer Lodge, Flathead, Gallatin, Glacier, Lewis and Clark, Lincoln, Madison, Meagher, Mineral, Missoula, Park, Pondera, Powell, Prairie, Ravalli, Sanders, Silver Bow, Stillwater, Sweet Grass, Teton, Toole						
Gymnorhinus cyanocephalus Pinyon Jay	**Corvidae** Jays/Crows/Magpies	G3	S3	MBTA;BCC17			SGCN3	5%	55%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Fergus, Gallatin, Garfield, Golden Valley, Lewis and Clark, Musselshell, Park, Petroleum, Phillips, Powder River, Rosebud, Stillwater, Sweet Grass, Wheatland, Yellowstone						

Lanius ludovicianus Loggerhead Shrike	**Laniidae** Shrikes	G4	S3B	MBTA;BCC10 BCC17		SENSITIVE	SGCN3	4%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Fallon, Glacier, Golden Valley, Hill, Jefferson, Liberty, Madison, McCone, Meagher, Musselshell, Petroleum, Phillips, Pondera, Powder River, Prairie, Richland, Roosevelt, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Wibaux, Yellowstone							
Numenius americanus Long-billed Curlew	**Scolopacidae** Sandpipers	G5	S3B	MBTA;BCC10 BCC17		SENSITIVE	SGCN3	19%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Flathead, Gallatin, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Judith Basin, Lake, Lewis and Clark, Liberty, Madison, McCone, Meagher, Missoula, Mussel Phillips, Pondera, Powder River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Yellowstone							
Pipilo chlorurus Green-tailed Towhee	**Passerellidae** New World Sparrows	G5	S3	MBTA			SGCN3	3%	60%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Chouteau, Custer, Deer Lodge, Fergus, Gallatin, Garfield, G Basin, Lewis and Clark, Madison, Meagher, Musselshell, Park, Petroleum, Phillips, Powder River, Silver Bow, Stillwater, Sweet Grass, Valley, Wheatland, Yellowstone **State Rank Reason:** Populations in Montana and across the Northern Plains have undergone recent declines.							
Rhynchophanes mcconwnii McCown's Longspur	**Calcariidae** Longspurs and Snow Buntings	G4	S3B	MBTA; BCC10; BCC11; BCC17		SENSITIVE	SGCN3	41%	79%
		Species Occurrences verified in these Counties: Beaverhead, Blaine, Broadwater, Chouteau, Daniels, Fergus, Glacier, Golden Valley, Hill, Judith Basin, Lewis and Clark, McCone, Musselshell, Petroleum, Phillips, Pondera, Roosevelt, Rosebud, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Yellowstone **State Rank Reason:** Species faces threats from cover type conversion and altered grazing and fire regimes, and although populations in the core of their breeding appear to be relatively stable, declines are occurring in much of the species' global breeding range.							
Spizella breweri Brewer's Sparrow	**Passerellidae** New World Sparrows	G5	S3	MBTA; BCC10; BCC17		SENSITIVE	SGCN3	12%	100%
		Species Occurrences verified in these Counties: Beaverhead, Big Horn, Blaine, Broadwater, Carbon, Carter, Chouteau, Custer, Dawson, Deer Lodge, Fallon, Fergus, Garfield, Glacier, Golden Valley, Granite, Hill, Jefferson, Lake, Lewis and Clark, Liberty, Lincoln, Madison, McCone, Meagher, Missoula, Musselshell, Park, Petroleum, River, Powell, Prairie, Ravalli, Richland, Roosevelt, Rosebud, Sanders, Sheridan, Silver Bow, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, **State Rank Reason:** Species faces threats from loss of sagebrush habitats it is dependent on as a result of habitat conversion for agriculture and increased frequency encroachment and drought.							
Sterna forsteri Foster's Tern	**Laridae** Gulls/Terns	G5	S3B	MBTA		SENSITIVE	SGCN3	1%	59%
		Species Occurrences verified in these Counties: Beaverhead, Blaine, Cascade, Chouteau, Hill, Lake, Lewis and Clark, Petroleum, Phillips, Powell, Roosevelt, Sheridan							
Sterna hirundo Common Tern	**Laridae** Gulls/Terns	G5	S3B	MBTA		SENSITIVE	SGCN3	5%	50%
		Species Occurrences verified in these Counties: Blaine, Broadwater, Cascade, Chouteau, Daniels, Flathead, Hill, Lake, McCone, Petroleum, Phillips, Roosevelt							

REPTILES (REPTILIA)

MT STATUS = SPECIES OF CONCERN
COUNTY = BLAINE (based on map

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE
Apalone spinifera Spiny Softshell	**Trionychidae** Softshell Turtles	G5	S3			SENSITIVE	SGCN3	2%	26%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Cascade, Chouteau, Custer, Dawson, Fergus, Garfield, Glacier, Golden Valley, Lewis and Clark Petroleum, Phillips, Pondera, Prairie, Richland, Rosebud, Stillwater, Sweet Grass, Teton, Toole, Treasure, Wheatland, Wibaux, Yellowstone							
Heterodon nasicus Plains Hog-nosed Snake	**Colubridae** Colubrid Snakes	G5	S2		Sensitive – Known on Forests (CG)	SENSITIVE	SGCN2, SGIN	8%	63%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carter, Cascade, Chouteau, Custer, Dawson, Fallon, Garfield, Hill, McCone, Musselshell, Petroleum, Prairie, Richland, Roosevelt, Rosebud, Sheridan, Stillwater, Toole, Treasure, Valley, Yellowstone							
Lampropeltis gentilis Western Milksnakes	**Colubridae** Colubrid Snakes	G5	S2		Sensitive – Known on Forests (CG)	SENSITIVE	SGCN2	2%	51%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Custer, Dawson, Fergus, Garfield, Musselshell, Petroleum, Phillips, Powder River, Rosebud							
Phrynosoma hernandesi Greater Short-horned Lizard	**Phrynosomatidae** Sagebrush/Spiny Lizards	G5	S3		Sesnitive – Known on Forests (CG) Sensitive – Suspected on Forests (HLC)	SESNITIVE	SGCN3, SGIN	19%	66%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Broadwater, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Fergus, Gallatin, Garfield, Lewis and Clark, Liberty, McCone, Musselshell, Petroleum, Phillips, Pondera, Powder River, Prairie, Richland, Roosevelt, Rosebud, Silver Bow, Stillwater, Sweet Grass, Valley, Wheatland, Wibaux, Yellowstone							

AMPHIBIANS (AMPHIBIA)

MT STATUS = SPECIES OF CONCERN
COUNTY = BLAINE (based on map

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE
Anaxyrus cognatus Great Plains Toad	**Bufonidae** True Toads	G5	S2		Sensitive – Known on Forests (CG)	SENSITIVE	SGCN2	8%	62%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carter, Cascade, Chouteau, Custer, Garfield, Golden Valley, Hill, Lewis and Clark, Liberty, McCone, Phillips, Powder River, Prairie, Rosebud, Sheridan, Stillwater, Toole, Valley, Yellowstone **State Rank Reason:** Current trend is unknown due to a scarcity of observations, but long-term declines are possible due to decline in ephemeral waterbodies threats from habitat loss including development of native habitat, and reduced availability of burrows due to black-tailed prairie dog declines.							

FISH (ACTINOPTERYGII)

MT STATUS = SPECIES OF CONCERN
COUNTY = BLAINE (based on map

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE
Chrosomus eos Northern Redbelly Dace	**Cyprinidae** Minnows	G5	S3				SGCN3	4%	27%
		Species Occurrences verified in these Counties: Blaine, Cascade, Chouteau, Daniels, Dawson, Fergus, Golden Valley, Hill, Judith Basin, Lewis and Clark, McCone, Petroleum, Phillips, Pondera, Richland, Roosevelt, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Valley, Wheatland, Wibaux **State Rank Reason:** The Northern Redbelly Dace is currently listed as an "S3" species of concern in Montana because they are potentially at risk because of limited range and/or habitat, even though it may be abundant in some areas.							

Chrosomus eos x Chrosomus neogaeus Northern Redbelly X Finescale Dace	**Cyprinidae** Minnows	G5	S3			SENSITIVE	SGCN3	2%	26%
		Species Occurrences verified in these Counties: Blaine, Cascade, Chouteau, Fergus, Golden Valley, Judith Basin, Meagher, Musselshell, Petroleum, Phillips, Pondera, Valley, Wheatland **State Rank Reason:** The Northern Redbelly/Finescale Dace is currently listed as an "S3" species of concern in Montana because they are potentially at risk declining numbers, range and/or habitat, even though it may be abundant in some areas.							
Cycleptus elongatus Blue Sucker	**Catostomidae** Suckers	G3G4	S2S3				SGCN2-3	1%	7%
		Species Occurrences verified in these Counties: Blaine, Cascade, Chouteau, Custer, Dawson, Fergus, Garfield, Garfield, Hill, Liberty, McCone, Petroleum, Phillips, Pow Roosevelt, Rosebud, Treasure, Valley, Wibaux **State Rank Reason:** The Blue Sucker is currently listed as an "S3" species of concern in Montana because they are potentially at risk of extirpation in the state, declining numbers, range and/or habitat, even though it may be abundant in some areas.							
Etheostoma exile Iowa Darter	**Percidae** Perches	G5	S3			SENSITIVE	SGCN3	1%	9%
		Species Occurrences verified in these Counties: Blaine, Carter, Chouteau, Daniels, Dawson, Fallon, Glacier, Hill, Liberty, McCone, Phillips, Powder River, Richland, Toole, Valley, Wibaux **State Rank Reason:** The Iowa Darter is currently listed as an "S3" species of concern in Montana because they are potentially at risk because of limited and/or declining habitat, even though it may be abundant in some areas.							
Macrhybopsis gelida Sturgeon Chub	**Cyprinidae** Minnows	G3	S2S3			SENSITIVE	SGCN2-3	17%	7%
		Species Occurrences verified in these Counties: Blaine, Cascade, Chouteau, Custer, Dawson, Fergus, McCone, Pwtroleum, Phillips, Powder River, Prairie, Richland, Valley, Wibaux **State Rank Reason:** The Sturgeon Chub is currently listed as an "S2S3" species of concern in Montana because they are potentially at of extirpation in the state declining numbers, range and/or habitat, even though it may be abundant in some areas. Population losses from the Fort Peck section of the Missouri River and the permanent, but recent losses from the Powder River basin are being reversed through recolonization (Stagliano 2014).							
Macrhybopsis meeki Sicklefin Chub	**Cyprinidae** Minnows	G3	S1				SGCN1	16%	3%
		Species Occurrences verified in these Counties: Blaine, Custer, Dawson, Fergus, McCone, Petroleum, Phillips, Prairie, Richland, Roosevelt, Valley, Wibaux **State Rank Reason:** The Sicklefin Chub is currently listed as "S1" in MT due to extremely limited and/or rapidly declining population numbers, range and/or habiata to extirpation in the state. It only occupies specific sections of the large mainstem Missouri and Yellowstone Rivers unaffected by reservoirs.							
Margariscus nachtriebi Northern Pearl Dace	**Cyprinidae** Minnows	G5	S2			SENSITIVE	SGCN2	1%	1%
		Species Occurrences verified in these Counties: Blaine, Daniels, Hill, McCone, Phillips, Richland, Roosevelt, Sheridan, Valley **State Rank Reason:** The Pearl Dace is currently listed as an "S2" species of concern in Montana because they are potentially at risk of extirpation in the state because declining numbers, range and/or habitat, even though it may be abundant in some areas. Pearl Dace are not abundant when they are collected at the relatively few streams and ponds they are known to inhabit. This factor, as well as introduced Northern Pike invasions into their small prairie streams, has caused them to be de Species of Special Concern vulnerable to extinction in the state.							
Polyodon spathula Paddlefish	**Polyodontidae** Paddlefishes	G4	S2			SENSITIVE	SGCN2	1%	5%
		Species Occurrences verified in these Counties: Blaine, Chouteau, Custer, Dawson, Fergus, Garfield, Hill, Liberty, McCone, Petroleum, Phillips, Prairie, Richland, Wibaux **State Rank Reason:** The paddlefish is currently ranked "S2" in Montana because it is at risk, because of the very limited and/or potentially declining population numbers making it vulnerable to global extinction or extirpation in the state.							
Sander canadensis Sauger	**Percidae** Perches	G5	S2			SENSITIVE	SGCN2	1%	15%
		Species Occurrences verified in these Counties: Big Horn, Blaine, Carbon, Carter, Cascade, Chouteau, Custer, Dawson, Fallon, Fergus, Garfield, Hill, Liberty, McCone, Petroleum, Phillips, Powder River, Prairie, Richland, Roosevelt, Rosebud, Stillwater, Teton, Treasure, Valley, Wibaux, Yellowstone **State Rank Reason:** The Sauger is currently listed as an "S2" species of concern in Montana because they are at risk of extirpation in the state, because of limited range and/or habitat, even though it may be abundant in some areas. Population losses from the reservoir sections of the Missouri River and the Bighorn River are Competition and hybridization from the introduced walleye is another threat to native sauger populations.							
Scaphirhynchus albus Pallid Sturgeon	**Acipenseridae** Sturgeons	G2	S1	LE		ENDANGERED	SGC1	10%	1%
		Species Occurrences verified in these Counties: Blaine, Cascade, Chouteau, Custer, Dawson, Fergus, Garfield, McCone, Petroleum, Phillips, Powder River, Prairie, Rosebud, Valley, Wibaux **State Rank Reason:** The Pallid Sturgeon is currently listed as "S1" in MT due to extremely limited and/or rapidly declining population numbers, range and/or habitat vulnerable to global extinction or extirpation in the state. The pallid sturgeon is one of the rarest fishes in North America and was federally listed as endangered has been declining during at least the past 50 years with only about 200 adults remaining in the upper Missouri River and limited natural reproducyion.							

INVERTEBRATES - INSECTS

MT STATUS = SPECIES OF CONCERN
COUNTY = BLAINE (based on map

SCIENTIFIC NAME COMMON NAME TAXA SORT	FAMILY (SCIENTIFIC) FAMILY (COMMON)	GLOBAL RANK	STATE RANK	USFWS	USFS	BLM	FWP SWAP	% OF GLOBAL BREEDING RANGE IN MT	% OF MT THAT IS BREEDING RANGE
Erpetogomphus designatus Eastern Ringtail	**Gomphidae** Clubtail Dragonflies	G5	S1					5%	2%
		Species Occurrences verified in these Counties: Blaine, Phillips **State Rank Reason:** The dragonfly is currently listed as an "S!" Species of Concern in MT due to extremely limited and/or rapidly declining population numbers, range it highly vulnerable to extirpation in the state. It has only been reported from a large warm springs pond in eastern Montana.							

Potential Species of Concern

Special Status Species

Additions To Statewide List

Species Removed From Statewide List

Species of Greatest Inventory Need

Citation for data on this website:
Montana Animal Species of Concern Report. Montana Natural Heritage Program and Montana Fish, Wildlife and Parks. Retrieved on 4/27/2020 from http://mthhp.org/SpeciesOfConcern/?AorP=a