

Draft Comprehensive Conservation Plan

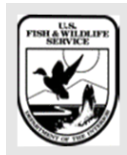
Charles M. Russell Wetland Management District and Associated National Wildlife Refuges, Montana

January 2025



Grass Lake NWR, Hailstone NWR, War Horse NWR, War Horse WPA, Clark's Fork WPA, Lake Mason NWR. Cover photos by USFWS.

The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect, and enhance fish, wildlife, plants, and their habitats for the continuing benefit of the American people.



The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

DRAFT

Comprehensive Conservation Plan

**Charles M. Russell Wetland Management District
and Associated National Wildlife Refuges
Montana**

January 2025



U.S. Department of the Interior
Fish and Wildlife Service
Region 6 Mountain-Prairie Region
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Introduction

The National Wildlife Refuge System Improvement Act of 1997 (Improvement Act, 16 U.S.C. 668dd-ee *et seq.*) requires every national wildlife refuge (NWR) to develop a comprehensive conservation plan (CCP) and revise it every 15 years, as needed. CCPs ensure that each unit of the National Wildlife Refuge System (NWRS) is managed to fulfill the purpose(s) for which it was established.

This CCP is for the Charles M. Russell Wetland Management District and associated NWRs (the District). It describes the District's role in supporting the mission of the NWRS, as well as conservation efforts in the larger landscape around the District. The CCP:

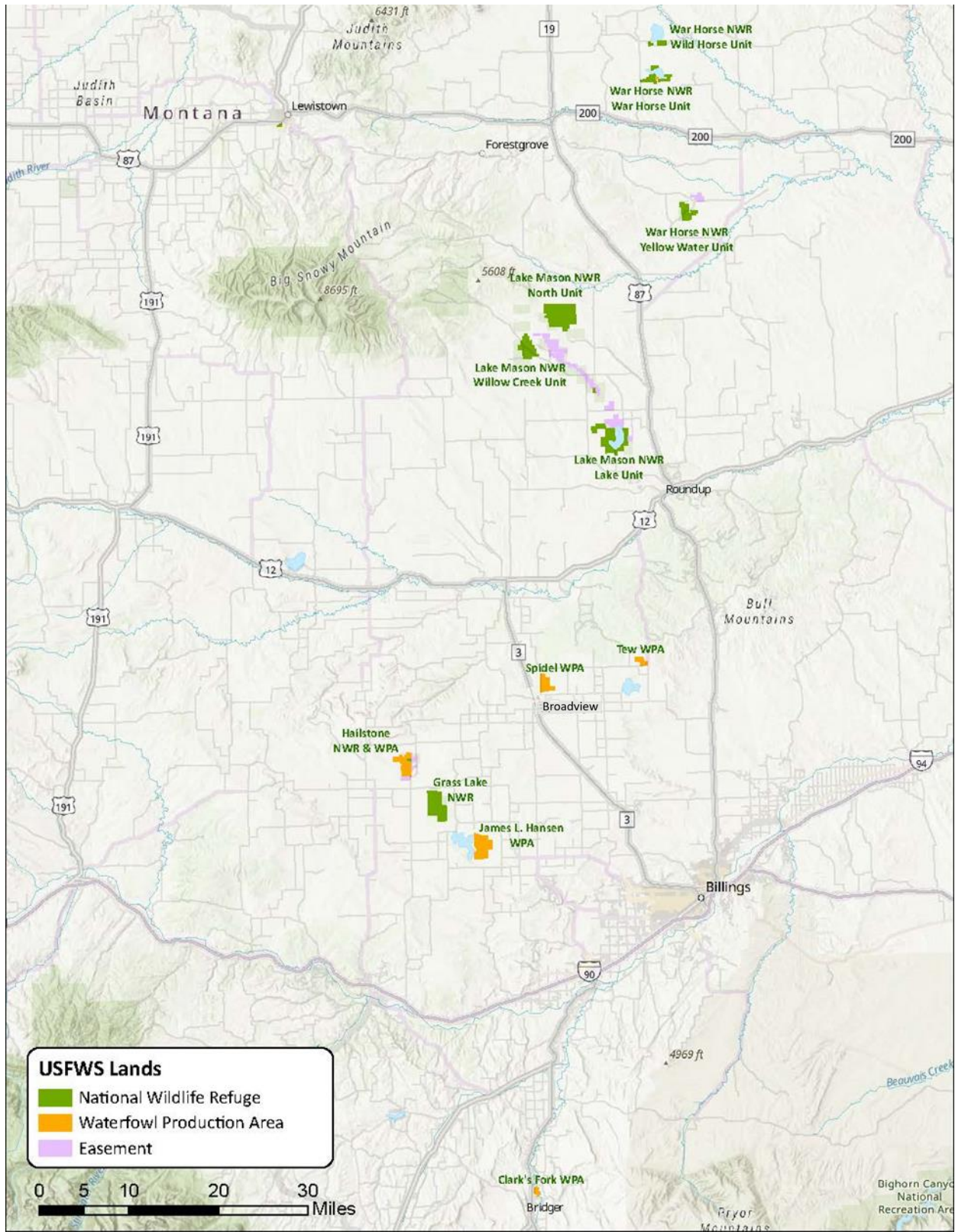
- Provides the District with a long-term management plan for the conservation of fish, wildlife and plant resources and their related habitats
- Sets a long-term [vision](#) for the District, as well as management [goals](#), [objectives](#) and strategies
- Identifies opportunities for compatible public uses
- Achieves the District's purposes, fulfills the mission of the system and maintains and, where appropriate, restores biological diversity, integrity and environmental health
- Communicates the U.S. Fish and Wildlife Service's (USFWS's, [Service's](#)) management priorities for the District

Scope

The District is located in the Northern Great Plains (NGP) of central and south-central Montana (Figure 1) and bounded on the north by the Missouri River Breaks and on the south by the Greater Yellowstone Ecosystem. It encompasses four NWRs and is composed of six waterfowl production areas (WPAs) in five Montana counties: Petroleum, Musselshell, Golden Valley, Yellowstone and Stillwater. Clark's Fork WPA (Carbon County) is managed by the District but is not inside the District boundary. There are also five [conservation easements](#) in the District. These are the District's units and easements:

- War Horse WPA and War Horse NWR and its three units
- Lake Mason NWR and its three units
- Hailstone WPA and NWR
- Grass Lake NWR
- Spidel WPA
- Tew WPA
- Clark's Fork WPA
- James L. Hansen WPA
- Farmers Home Administration (FmHA) conservation easements: Hardy Tract, Kurz Tract, Overturf Tract, Weyer Tract, Jansen Tract
- Other leases: flowage easements, state grazing leases

Units or conservation easements added to the District in the future will be managed under the direction of this CCP and incorporated into future revisions and amendments.



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Figure 1. Map of Charles M. Russell Wetland Management District

Purpose and Mission of the U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS, Service) is the principal federal agency responsible for fish, wildlife and plant conservation. It was established in the Department of the Interior in 1940 through the consolidation of bureaus then operating in several federal departments. The Service enforces federal wildlife laws, manages migratory bird populations, restores nationally significant fisheries, conserves and restores vital wildlife habitat, protects and recovers endangered species, and helps other governments with conservation efforts.

The Service also partners with others to fund conservation and connect people with nature, including distributing hundreds of millions of dollars to states for fish and wildlife restoration, boating access, hunter education and related programs.

The mission of the U.S. Fish and Wildlife Service, working with others, is to conserve, protect, and enhance fish and wildlife and their habitats for the continuing benefit of the American people.

Purpose and Mission of the National Wildlife Refuge System

The Service manages an unparalleled network of public lands and waters called the NWRS. NWRs are lands that can be designated congressionally, through Executive Orders signed by the President, or administratively. They are managed to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.

Together, individual refuges comprise the NWRS, which is the largest collection of lands in the world specifically managed for wildlife. The system encompasses more than 150 million acres within more than 571 refuges, more than 3,000 WPAs and 38 wetland management districts (WMDs). There is at least one refuge in every state and five U.S. territories.

Refuges are places where people can enjoy wildlife through bird watching, fishing, hunting, photography and other wildlife pursuits. The nation's fish and wildlife heritage contributes to the quality of American lives and is an integral part of the country's greatness. Wildlife and wild places have always given people special opportunities to have fun, relax and appreciate the natural world.

Fish, wildlife, plants and their habitats receive the highest priority in refuge management. Public uses (with a priority on wildlife-dependent recreation) are allowed and encouraged, as long as they are compatible with the purposes of each Service unit and the mandate of the Improvement Act.

The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Wetland Management Districts and Waterfowl Production Areas

A WMD provides oversight over multiple WPAs, which may be scattered across one or more counties. WPAs are small, natural wetlands and grasslands that provide breeding, resting and nesting habitat for waterfowl, shorebirds, grassland birds and other wildlife.

The Service acquires WPAs under the authority of the Migratory Bird Hunting and Conservation Stamp Act, which authorizes funds from the sale of Federal Duck Stamps and import duties to be deposited into the Migratory Bird Conservation Fund (MBCF) to purchase or lease wetlands and wildlife habitat for inclusion in the NWRS. The NWRS has 38 WMDs that are composed of thousands of WPAs; it is responsible for conserving more than three million acres of habitat nationally.

WPAs may be acquired by the Service in fee-title or through a conservation easement. WPAs owned by the Service in fee-title are open to hunting, fishing and other compatible

wildlife-dependent recreation. WPAs where the Service holds a conservation easement allow property owners to continue to live on and work their land while conserving wetlands and grasslands on their property. Public access to WPA conservation easements is controlled by the landowners. All WPAs in the District are owned in fee-title by the Service. For hunting, fishing and other recreational opportunities available on WPAs in the District, see the “Visitor Use and Access” section.

Established Purposes of the District

Every NWR and WMD has a stated purpose. All programs — from biology and visitor use to maintenance and facilities — are built on this foundational purpose. No action by the Service or public may conflict with this purpose. The Charles M. Russell WMD’s vision,



Figure 2. War Horse WPA’s grassland-savanna character features a unique mix of Ponderosa pines, old downed timber, sporadic junipers and rich grasslands that flank a reservoir. Photo by Cortez Rohr/USFWS

goals and strategies, as proposed in this CCP, are intended to support the individual purposes for which District units were established.

War Horse NWR and WPA

War Horse NWR consists of three units: War Horse, Wild Horse and Yellow Water. The 40-acre War Horse WPA connects two parcels of refuge lands on the War Horse Unit. War Horse NWR was not established by a specific Executive Order but through a transfer of

lands by the authority of the Bankhead-Jones Farm Tenant Act in 1959. The act authorized the federal government to acquire damaged lands (lands homesteaded and later abandoned), rehabilitate those lands and use them for various purposes.

Executive Order 10787 (November 6, 1958) and Secretary's Order 2843 (November 17, 1959) transferred jurisdiction over these lands from the Secretary of Agriculture to the Secretary of the Interior and directed that these lands be "for use and administration under applicable laws as refuges for migratory birds and other wildlife." These scattered land parcels of various sizes were grazed or farmed but reverted to government ownership after attempts at homesteading failed during the Great Depression. War Horse NWR was established as a refuge and breeding ground for migratory birds and other wildlife. The Refuge comprises 2,876 acres.

Lake Mason NWR

Lake Mason NWR consists of three units: Lake, Willow Creek and North. The U.S. Department of Agriculture acquired perpetual flowage easements, described further below, in 1937 and 1938 on lands around Lake Mason and along Willow Creek and Jones Creek upstream from Lake Mason. The Service acquired fee-title lands in this Refuge through a transfer authorized by the Bankhead-Jones Farm Tenant Act.

Through an Executive Order 10787 (November 6, 1958) signed by President Dwight D. Eisenhower and Secretary's Order 2843 (November 17, 1959), jurisdiction of these lands transferred from the Secretary of Agriculture to the Secretary of the Interior. Lake Mason NWR was managed as a flowage and refuge easement to allow flooding (natural or human caused) of the lands with the purpose of creating habitat for migratory birds and for other wildlife conservation purposes. The Refuge includes 12,369 acres in fee title, 1,220 lake acres and 5,578 acres in Refuge and flowage easements.

Hailstone WPA and NWR

President Franklin D. Roosevelt signed Executive Order 9292 on December 31, 1942, to establish Hailstone WPA and NWR as an easement refuge of 2,748 acres. Hailstone WPA



Figure 3. Wetlands at Hailstone NWR and WPA are surrounded with sedges, rushes and grasses that provide critical concealment and nesting habitat for waterfowl, shorebirds and wading birds. Photo by Cortez Rohr/USFWS

and NWR are part of the Lake Basin area (a closed basin) and were established as breeding grounds for waterfowl and other wildlife. They were originally managed as a flowage and refuge easement. The initial benefit of the easement was that it allowed the Works Progress Administration to enhance wetland basins. The Refuge and WPA includes 1,988 acres in fee title and 760 acres in flowage easement.

Grass Lake NWR

Grass Lake NWR is also part of the Lake Basin area. President Franklin D. Roosevelt signed Executive Order 9167 on May 19, 1942, establishing Grass Lake NWR. The order created it “as a refuge and breeding ground for migratory birds and other wildlife,” although it did not transfer any lands. It was initially managed as a flowage and refuge easement. The Service purchased 3,279 acres in fee title in 1987, which included most of the original easement lands. The flowage easement at Grass Lake NWR is 399 acres.

Spidel WPA

The lands for Spidel WPA were acquired in 1980 using the MBCF. The Service manages its 1,246 acres for waterfowl production under the WPA program. Nearly 700 acres of this WPA is wetland drained by previous owners for crop production that still holds great value for waterfowl and shorebirds. The former wetland area has potential for restoration, which increases its importance for migratory birds.

Tew WPA

The 532-acre Tew WPA was established in 1980 using the MBCF; it is one of a few areas in central Montana with natural temporary and seasonal wetland basins. It contains six wetland basins: three temporary (semipermanent) and three seasonal. The basins are in small watersheds, and above-average precipitation and surface runoff are required to fill them. When wet, the area provides excellent nesting and brood-rearing habitat for waterfowl and other wildlife species.

Clark's Fork WPA

The 271-acre Clark's Fork WPA is an FmHA conservation easement the Service acquired as fee-title in 1991. It has one and a half miles of river frontage along the Clark's Fork of



Figure 4. The full banks of the Clark's Fork of the Yellowstone River flow beside the wetlands and grasslands of Clark's Fork WPA. This area is noted for its high waterfowl capacity and the many neotropical migrant songbirds that call it home in spring and summer. Photo by Cortez Rohr/USFWS

Yellowstone River. After acquisition, the Service coordinated a 66-acre wetland creation project, working with Ducks Unlimited and Montana Fish, Wildlife and Parks (MFWP). The WPA provides habitat for a great variety of waterfowl, shorebirds, grassland birds, plants, insects and wildlife.

James L. Hansen WPA

The James L. Hansen WPA was acquired in January 2023 using the MBCF. The unit is 2,683 acres, with about 450 acres comprising deepwater habitat, 1,403 acres [emergent](#) wetland habitat and the remaining 830 acres upland habitat. The WPA is adjacent to the Big Lake Wildlife Management Area administered by MFWP. The WPA provides abundant habitat for nesting waterfowl, grassland birds, shorebirds, plants, insects and other wildlife.

Farmers Home Administration Conservation Easements

FmHA conservation easements are authorized for conservation, recreation and wildlife purposes on properties foreclosed by the federal government (Consolidated Farm and Rural Development Act, as amended, 7 U.S.C. 1985(g)). The purposes of these perpetual easements are to preserve and maintain wetland and floodplain areas, as well as protect plant and animal habitats and populations.

Easement covenants include rules against building any structures or altering any vegetation or hydrology and require landowners to control all noxious plants in compliance with the law. The United States retains rights to inspect properties for compliance and to establish, reestablish, or enhance wetland functional values and vegetation.

FmHA easements do not provide for public access, although the landowner may permit entry for recreational purposes. The Service manages conservation easements included in the NWRS according to the limited rights acquired by the Service in the easement document (7 U.S.C. 2002).

The Service manages five FmHA conservation easements in the District:

- The 120-acre Hardy Tract, obtained in 1989, is in Custer County. A 43-acre semipermanent wetland was created in 1990 in cooperation with Ducks Unlimited and MFWP. Water for this project was purchased from the Tongue and Yellowstone Irrigation Company and obtained via a diversion in a nearby ditch.
- The 100-acre Kurz Tract, obtained in 1998, is in Bighorn County. It is adjacent to the Bighorn River.
- The 25-acre Overturf Tract, obtained in 1988, is in Bighorn County. It is adjacent to the Little Bighorn River.
- The 960-acre Weyer Tract, obtained in 1997, is in Wibaux County.
- The 280-acre Jansen Tract, obtained in 2000, is in McCone County. A management plan jointly developed and agreed to by the Service and Natural Resources Conservation Service (NRCS) allows hay cutting and grazing.

Other Easements

Flowage Easements. The Service administers other types of easements that are part of the District's NWRs and WPAs. Flowage easements were purchased in the late 1930s. These are the covenants included with flowage easements:

The exclusive and perpetual right and easement to flood with water, and maintain and operate an artificial lake, and/or to raise the water level of a natural lake or stream, upon the lands ... by means of dams, dikes, fills, ditches, spillways, and other structures, for water conservation, drought relief, and for migratory bird and wildlife conservation purposes, and ... to operate and maintain a wildlife conservation demonstration unit and a closed refuge and reservation for migratory birds and other wildlife.

The initial objective of flowage easements was to allow the Works Progress Administration to enhance wetland basins. Later, in the 1980s, most of the lands encumbered by easement were purchased in fee-title at Hailstone and Grass Lake NWRs. The easements at Lake Mason NWR and along Willow Creek were never fully developed. Only the Miller Lake project (Lake Mason NWR) was attempted, but it is currently nonfunctional.

The current acreage of flowage easements: Hailstone NWR (760 acres), Grass Lake NWR (399 acres) and Lake Mason NWR (5,502 acres). An easement for wildlife habitat protection was retained on 560 acres of land that was divested during the 2004 land exchange at the Yellow Water Unit (War Horse NWR). Permanent vegetative cover must be preserved on these lands and cannot be altered without the Service's permission.

State Grazing Leases. The Service purchased three grazing leases from Montana's Department of Natural Resources and Conservation. These are 10-year renewable leases for grazing privileges on State lands within an NWR or WPA that require an annual payment based on the available [animal unit months](#) (AUMs).

The Service does not regularly use these leases for livestock grazing; they are predominantly kept in non-use to provide residual cover for nesting migratory birds and other wildlife. The three leases are located adjacent to Grass Lake NWR (the lease is 640 acres), Spidel WPA (160 acres) and the Lake Unit (160 acres) of Lake Mason NWR.

Vision and Goals

Vision

The District's **vision** is a future-oriented statement designed to be achieved through management of the District throughout the life of the CCP and beyond:

The Charles M. Russell Wetland Management District, located in the heart of the Northern Great Plains, consists of national wildlife refuges, waterfowl production areas, and conservation easements. These mixed grassland, sagebrush, and vital wetland habitats support abundant wildlife populations. In collaboration with partners, these habitats are managed to support the biological diversity and integrity of the District and its surrounding landscapes and provide a variety of recreational opportunities. Visitors enjoy a sense of serenity and wonder through the presence of diverse habitats and wildlife, connecting them with nature.

Goals for the Wetland Management District

The Service developed seven **goals** for the District based on the Improvement Act, the various established purposes of the NWRs, WPAs and conservation easements within the District, and information developed during the planning process. These goals will direct management actions toward achieving the District's vision and purposes for each unit and outline approaches for managing District resources.

Natural Resources

1. **Upland Habitat and Associated Wildlife:** Protect, enhance and manage upland habitat for breeding and migratory birds and other wildlife while maintaining the biological diversity and integrity of native grasslands and sage-steppe prairie.
2. **Wetland Habitat and Associated Wildlife:** Protect, enhance and manage wetland habitat for breeding and migratory birds and other wildlife to maintain the biological diversity and integrity of the District's wetlands.
3. **Research and Inventory:** Improve scientific knowledge of natural resources and ecological processes to inform management within the District through monitoring and applied research.

Visitor Use and Access

4. **Visitor Use:** Provide visitors with wildlife-dependent recreational and educational opportunities that foster an appreciation of the District's wildlife and plant communities.

5. **Partnerships:** Collaborate with partners to protect, enhance and manage for healthy, productive and diverse habitats and wildlife populations on District and surrounding lands.

Operations

6. **Operations:** Emphasize the protection of District resources using staff, partnerships and volunteer programs.

Cultural Resources

7. **Cultural Resources:** Identify and protect cultural resources to preserve the District's [precontact](#) and historic past.

Associated Objectives and Strategies

The Service has developed several **objectives** and **strategies** to achieve the District's vision and goals. This CCP presents proposed and alternative objectives and strategies in its sections on natural resources, visitor use, partnerships, operations and cultural resources. These will be updated as necessary through the NWRS's step-down planning process (602 FW 4).

Natural Resources

The Landscape

The District is in central and south-central Montana. It is bounded on the north by the Missouri River Breaks and on the south by the Greater Yellowstone Ecosystem. The District includes wetlands with a mix of grasses, rushes and occasional greasewood; areas of Ponderosa pine woodlands; creek bottoms filled with cottonwoods; coulees having a mix of juniper, sagebrush and deciduous shrubs with grass components; and vast, open, flat and rolling grassland hills mixed with sagebrush in some areas.



Figure 5. The North Unit of Lake Mason NWR features rolling grasslands and coulees composed of mixed-grass prairie interspersed with sagebrush. This Refuge is important for many grassland nesting birds, pronghorn mule deer and elk (seen in this photo). Forested mountains are nearby. Photo by Cortez Rohr/USFWS

Seasonal and temporary wetland basins provide critical waterfowl and grassland bird habitat for feeding and nesting. The District also lies on the western edge of the Central Flyway and near the eastern edge of the Pacific Flyway. The core of the District's work is managing wetland habitat to benefit waterfowl, wading birds and shorebirds.

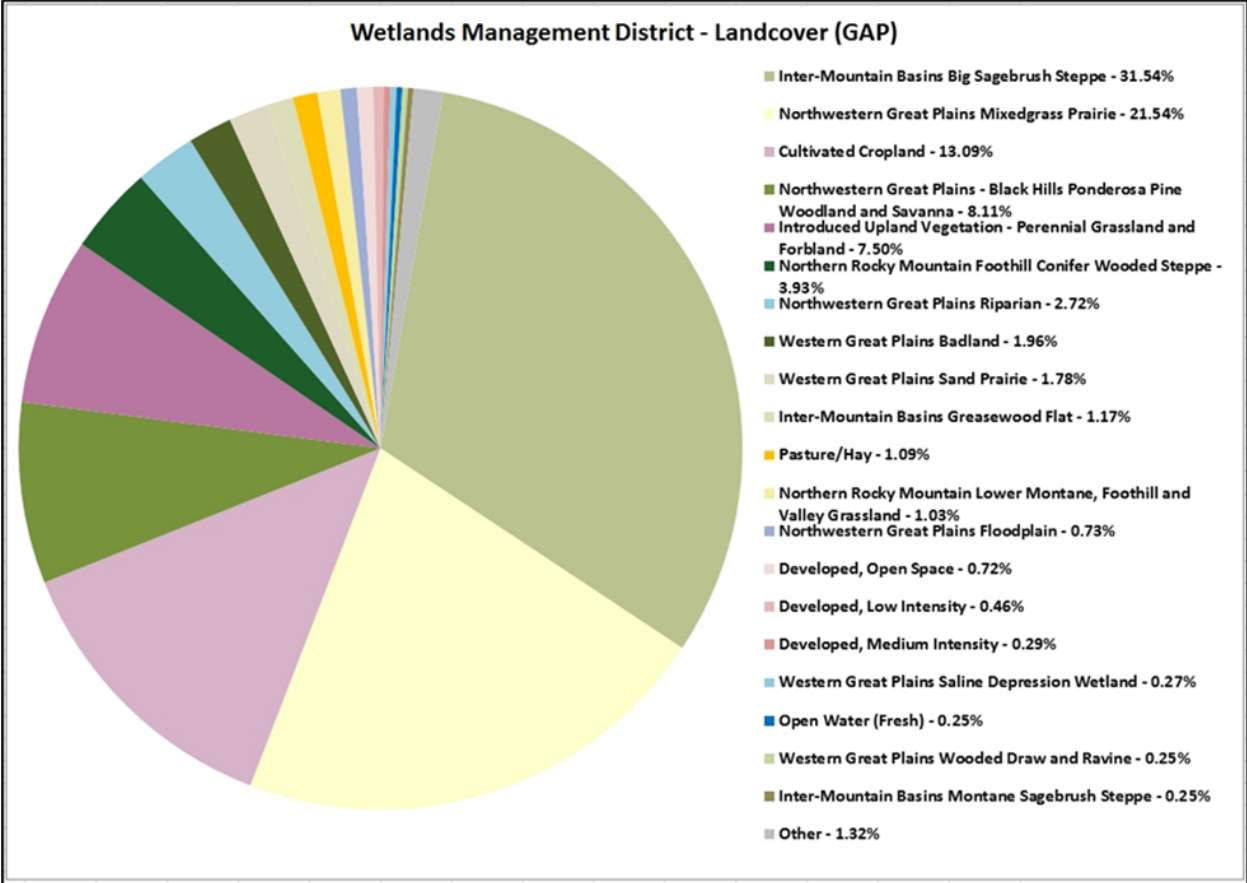


Figure 6. Percentage of landcover types in Charles M. Russell WMD

Upland Habitat

The District’s upland areas comprise vast expanses of mixed-grass prairie, sagebrush mixed-grass prairie, greasewood mixed-grass prairie, three fields of disturbed grasslands replanted to dense nesting cover and 225 acres of unique ponderosa pine woodland savanna. Large, intact native plant communities are still found throughout the District and central Montana, making this area important for native wildlife. A native plant community is an area of previously unbroken, unfarmed sod where the natural soil composition remains intact.

The plant species present are similar, whether grass, sagebrush or greasewood dominates a site. Common grasses and grass-like species include western wheatgrass, bluebunch wheatgrass, green needlegrass, needle and thread, prairie Junegrass, blue grama and threadleaf sedge. Common native [forbs](#) are phlox, salsify, fringed sagewort, western yarrow and American vetch. Shrubs are big sagebrush, greasewood, saltbush and rubber rabbitbrush. Other vegetation includes prickly pear cactus and dense clubmoss. Figure 6 shows the percentage of landcover types in the District, and Figure 7 shows the distribution of landcover across the District.

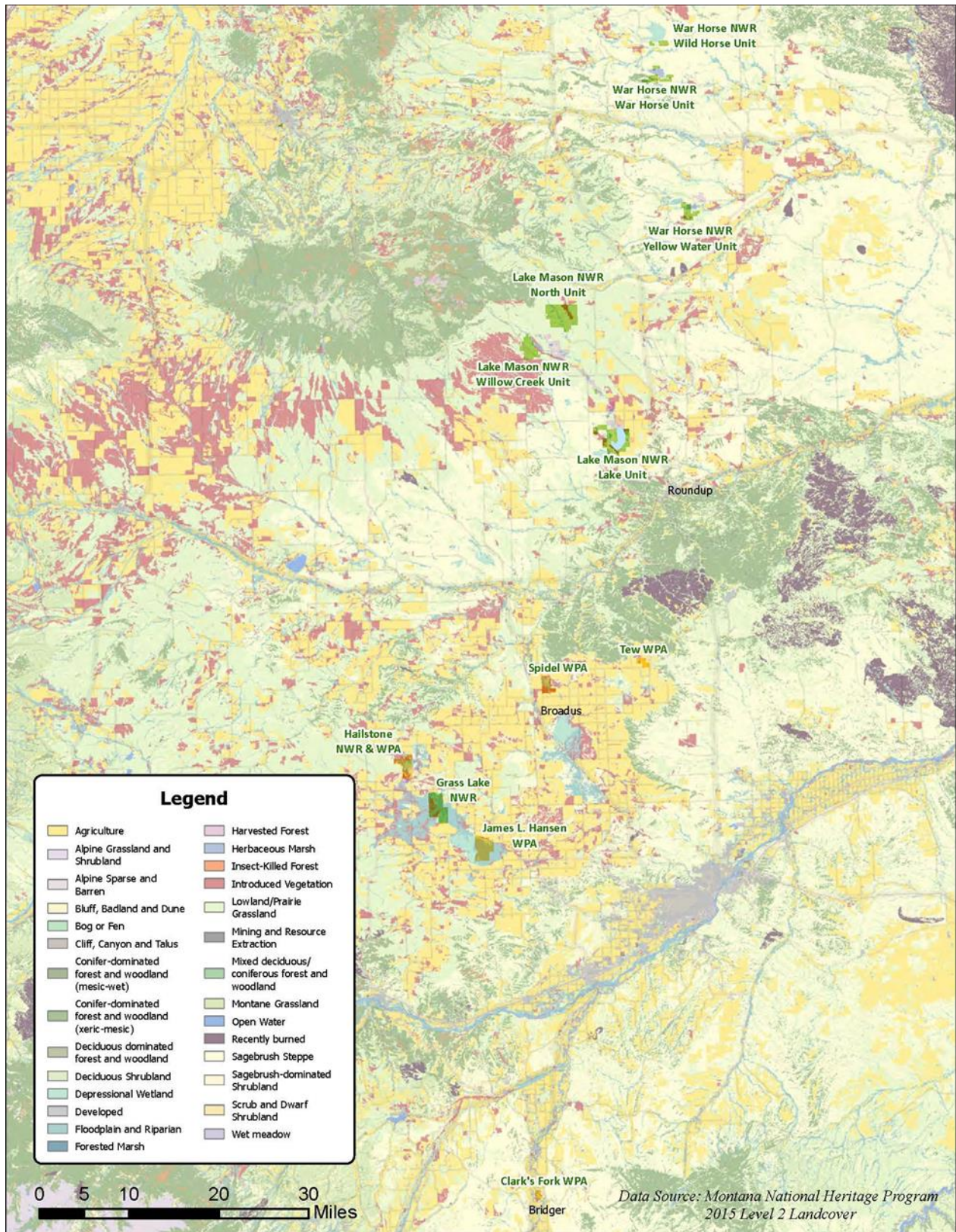


Figure 7. Distribution of landcover types in Charles M. Russell WMD

Some NWR and WPA properties in the District contained croplands when they were purchased; these areas are referred to as disturbed grasslands. These fields were converted to dense nesting cover with a seed mixture of cool-season wheatgrasses and legumes. The predominant wheatgrass species were intermediate, tall, pubescent and western. The legumes were alfalfa and yellow sweet clover.

These species were chosen based on research that showed they are highly attractive and beneficial to nesting waterfowl (Duebbert 1969). Research conducted in the late 1960s and 1970s indicated ducks had higher nesting success in dense nesting cover than in surrounding upland habitats (Duebbert 1969; Duebbert and Lokemoen 1976; Kaiser et al. 1979).

Lands adjacent to NWR and WPA properties (that were converted from native prairie) are generally flatter areas with deeper, more productive soil types and are now used for grain production. Croplands are adjacent to or in the vicinity of Lake Mason (Lake Unit), Hailstone WPA and NWR, Grass Lake NWR and all WPAs.

Ponderosa Pine Habitat

There are 225 acres of native Great Plains Ponderosa pine woodland and savanna in the War Horse Unit (of War Horse NWR). The native Ponderosa pine woodland and savanna is a unique plant community composed of plants common to the area.

Birds and small mammals consume the seeds of ponderosa pine, and mice, porcupines and other rodents use the bark for nesting material. The trees are important to various bird species for cover, roosting and nesting sites (NRCS 2004).



Figure 8. The interior of the War Horse Unit. Stands of mature Ponderosa pines and open grassy meadows provide habitat for mule deer, elk and scores of songbirds. Gnow marks on the cambium layer of the pines are evidence of porcupines. Photo by Cortez Rohr/USFWS

Wetland and Riparian Habitat

The District acquired properties with natural wetlands to provide habitat for wetland-dependent wildlife species. Four of the larger, natural, semipermanent wetlands (Lake Mason, Hailstone Basin, Halfbreed Lake and War Horse) were modified with the addition of dikes and emergency spillways to increase depth and storage capacity. The Service holds water rights in several NWRs and WPAs but does not exercise all those rights. The Service has lacked the staff and resources to maintain the water control structures,



Figure 9. Wading birds and shorebirds such as the white-faced ibis, long-billed curlews and willets (shown here) are regular visitors at Lake Mason NWR. Fluctuating water levels provide the periodic shallow water and open mudflat habitat niche these and similar birds need to thrive. Photo by Cortez Rohr/USFWS

ditches, dikes and other infrastructure needed to maximize our full water right potential, which would allow us to further restore and/or replicate the natural hydrologic function of these units.

The District's natural and managed wetlands vary from freshwater to moderately saline. Water for District wetlands originates from annual precipitation and surface runoff. The amount of water available to a wetland also depends on the size of its watershed. Significant runoff can occur when precipitation falls on frozen or saturated soils during an

extremely heavy rainstorm. These major runoff events are the most important water sources for District wetlands. Water levels fluctuate throughout the year based on summer precipitation patterns and evaporation. Levels tend to be highest in the spring and decline through the summer, occasionally leaving the basin dry.

During consecutive good water years, wetlands may be full year-round, as was the case from 2011 to 2012. The opposite may occur during consecutive poor water years when the basins lack water the entire year. These cycles are typical for seasonal wetlands and are necessary to maintain their health and productivity. Water fluctuations on Lake Mason NWR were monitored from 1983 to 1997 (see Table 2) – the fluctuations that occurred during those 14 years could apply to other semipermanent District wetlands.

Table 2. Water Levels on Lake Mason NWR From 1983 to 1997

Water Fluctuations in Wetlands	Frequency of Occurrence (%)	Number of Times Occurred
Water present during spring, lake dry by mid-summer	40	6
Water present entire year	34	5
Water present during fall only	13	2
Lake dry entire year	13	2

Wetland habitats contain emergent and [submergent plants](#). **Emergent plants** are those rooted in the substrate, having foliage that grows partially or entirely above the water surface. Emergent plants found in the District include hardstem bulrush, alkali bulrush and common cattail.

Submergent plants are those that have roots in the substrate but do not emerge above the surface of the water (except some that have floating leaves). Common submergent plants include northern watermilfoil, widgeongrass and sago pondweed.

Many wetland plants have broad salt tolerances and can be found in freshwater and saline wetlands; however, species richness for emergent and submergent vegetation decreases as salinity increases (Johnson 1990). Other notable species that occur along the shores of lakes and marshes include foxtail barley, goosefoot and saltgrass.

A [riparian area](#) is the interface between land and a river or stream. Riparian areas provide important nesting and breeding habitat for migratory songbirds and foraging and brood-rearing habitat for greater sage-grouse. According to Montana’s Comprehensive Fish and Wildlife Conservation Strategy (MFWP 2005), riparian areas support the greatest concentration of plants and animals yet constitute only four percent of Montana’s land cover.

Clark's Fork WPA is the only unit in the District that contains broadleaf riparian habitat. That riparian area is located where one and a half miles of the Clark's Fork of the Yellowstone River forms its east boundary. Riparian habitat consisting of grasses and sedges is also present along Cedar Creek on Grass Lake NWR and Jones Creek on the North Unit of Lake Mason NWR.

Upland Birds

Some common nongame birds in upland areas are horned lark, vesper sparrow, Brewer's sparrow, Savannah sparrow, grasshopper sparrow, lark bunting and western meadowlark. Game bird species such as sharp-tailed grouse, pheasants, gray partridge and greater sage-grouse occur on most District properties.



Figure 10. A western meadowlark takes flight at Spidel WPA, where grassland songbirds are abundant. Photo by Cortez Rohr/USFWS

In February 2010, the Service determined the greater sage-grouse was "warranted but precluded" for listing under the Endangered Species Act (ESA). This means the listing was warranted but other species have a higher priority; therefore, the greater sage-grouse is listed as a federal candidate species.

The Final Management Plan and Conservation Strategies for Sage-Grouse in Montana (Montana Sage-Grouse Working Group 2005) contains a map showing the distribution of

greater sage-grouse and sagebrush ecotypes throughout Montana and a table with population distribution and trend data. All District properties are in greater sage-grouse habitat range.

A status review conducted by the Service in 2015 found that the greater sage-grouse was abundant and well-distributed across its 173-million-acre range and did not face extinction. The Service determined that protection under the ESA was no longer warranted and withdrew the species from the candidate species list.

All units of War Horse NWR and the west side of the Lake Unit (Lake Mason NWR) are in high-priority habitat for greater sage-grouse. Sage-grouse are year-round residents of these properties, which they use for nesting, brood rearing and wintering. Known [lek](#) sites are on the North Unit (Lake Mason NWR) and Yellow Water Unit (War Horse NWR). There are also known lek sites within a four-mile radius of the Wild Horse Unit (11 lek

sites), War Horse Unit (10), Yellow Water Unit (14), North Unit (one) and Lake Unit (three), indicating the importance of these properties for sage-grouse.

Wet areas along intermittent streams, seepage sites below artificial reservoirs and around wetlands provide the insects and forbs hens and chicks feed on during the summer. Upland bird species that are neotropical migrant species and greater-sage grouse are priority species for the District.

You can find the entire species list for the District on it's [website](#). Information in this species list came from a combined Service database and Environmental Summary Report for the entire District from the Montana Natural Heritage Program (MTNHP). MTNHP's purpose is to provide information on species and biological communities to inform all stakeholders in environmental review, permitting and planning processes.

Waterbirds

Waterfowl. Waterfowl migration begins shortly after ice-out in the spring and usually runs from mid-March through April and again from mid-September through October or until freeze-up occurs. The number of birds using District wetlands is directly related to the quantity of water present.



Figure 11. Waterfowl, shorebirds, wading birds and water-obligate bird species at Grass Lake NWR. Photo by Cortez Rohr/USFWS

Estimates from bird observations over a 20-year period show that when semipermanent wetlands are in good condition (at least 50% of the basin is wet), up to 25,000 ducks, 1,000 Canada geese, 50 snow geese, 200 tundra swans and 15,000 American coots use

them during spring and fall migrations. You can find the entire list of waterfowl and other birds with potential or observed presence in the District on its [website](#).

Marsh and Wading Birds. Marsh and waterbird spring migration usually begins a few weeks after waterfowl migration. Most species continue north to their nesting areas, although several species remain to nest in the District, including black-necked stilt, American avocet, ring-billed and California gulls, marbled godwit and Wilson's phalarope.

The number and diversity of birds using the District is greatest during spring and fall migration. Peak migration use of each of the larger wetlands by marsh and waterbirds has also been documented for eared grebes (5,000), Wilson's phalarope (5,000), Franklin's gull (3,000) and California gull (750).

Shorebirds. More shorebirds use the District during the fall migration than in spring. Nesting shorebirds include marbled godwit, willet, upland sandpiper, long-billed curlew and common snipe. Peak migration use was documented for shorebird species including long-billed dowitcher (1,000), short-billed dowitcher (250), American avocet (100), semipalmated sandpiper (165), least sandpiper (400), western sandpiper (400) and Baird's sandpiper (200).

These numbers (and those for marsh and waterbirds) are based on nearly 20 years of bird observation data collected from the mid-1980s through 2004 by a refuge volunteer from the Yellowstone Chapter of the Audubon Society, along with field notes by District staff.

Mammals

Incidental observations have confirmed the species present in the District include Richardson ground squirrel, thirteen-lined ground squirrel, northern pocket gopher, deer mouse, beaver, muskrat, white-tailed jackrabbit, cottontail rabbit, raccoon, long-tailed weasel, mink, badger, striped skunk, coyote and red fox (see the entire species list [here](#)).



Figure 12. Pronghorn flourish in Tew WPA's lush grasslands. Photo by Cortez Rohr/USFWS

Muskrat, mink, raccoon and beaver are the most common mammals using wetland

habitats, and white-tailed deer, beaver, raccoon, porcupine, mink and red fox can be observed in riparian areas.

Pronghorn antelope and mule deer are the most common big-game species on all units except Clark's Fork WPA. White-tailed deer are common on Clark's Fork WPA and have been sighted on Lake Mason NWR's North Unit. About 700 head of elk wintered in the North Unit during winter 2010-2011 when deep snows forced them from the traditional winter range in the Little Snowy Mountains, which are about 10 miles west of the North Unit.

Colonies of black-tailed prairie dog (a Montana species of concern) are found on flat, open grasslands that contain a shrub component and low, relatively sparse vegetation. The most frequently occupied habitat in Montana is dominated by western wheatgrass, blue grama and big sagebrush (MTNHP 2024). The black-tailed prairie dog is found on the Yellow Water Unit (War Horse NWR), North Unit and Lake Unit (Lake Mason NWR), Hailstone NWR, Grass Lake NWR and James L. Hansen WPA. Each colony is small in acreage and distant from other colonies.

The colonies also provide habitat for other wildlife species such as mountain plovers and burrowing owls. The black-footed ferret has not been documented in any of these colonies.

Reptiles and Amphibians

Incidental observations and systematic surveys conducted in 1998 and 1999 (Hendricks 1999) have documented eastern racer, western rattlesnake, gopher snake, plains garter snake and greater short-horned lizard. The greater short-horned lizard has been found at Hailstone WPA and studied by the biology department at Montana State University-Billings. Milk snake, western hognose snake, greater short-horned lizard and common sagebrush lizard are on Montana's list of reptile species of concern.

Nineteen amphibian species have been observed or are expected to occur in wetland habitats based on data from the MTNHP (see the entire list [here](#)). The surveys conducted in 1989 and 1998 (Hendricks 1999) also documented tiger salamander, western chorus frog, northern leopard frog, plains spadefoot toad, Woodhouse's toad and painted turtle.

Invertebrates

Upland invertebrates (insects) diversity has not been inventoried or quantified, but prairie and tame grasslands produce many grasshoppers, leafhoppers, butterflies, beetles, spiders and ants. Wetlands normally have high invertebrate populations, and nesting waterfowl, waterfowl



Figure 13. Melissa blue butterfly (*Plebejus melissa*) pollinates Drummond's milkvetch (*Astragalus drummondii*) in Tew WPA's grasslands. Photo by Cortez Rohr/USFWS

broods, marsh birds, waterbirds and shorebirds are highly dependent on them as protein food sources for healthy, vigorous growth.

Common aquatic macroinvertebrates documented in the District include midges, backswimmers, water boatman, snails, damselflies, dragon flies and scuds. The same species are found in fresh and saline wetlands, but diversity decreases with increased salinity (Johnson 1990).

Fish

District wetlands are within closed basins, are too intermittent in nature, or are too far away from perennial lakes, rivers or streams to support fisheries. The exceptions are Yellow Water and War Horse reservoirs, where the MFWP stocks fingerling rainbow trout and large-mouth bass when water depths are adequate. The reservoirs occasionally experience winter kills due to inadequate winter water levels; when this occurs, rainbows are stocked when adequate water levels return.

Clark's Fork WPA is in the transition zone between cold and warm water fisheries — species of both fisheries are present in low numbers and include rainbow and brown trout, burbot, channel catfish, common carp, several species of sucker and a variety of minnows (MFWP 2016).

Priority Habitats and Species

The District has outlined the habitats and species deemed long-term priorities for management based on the District's various established purposes and its role in the landscape. The District provides critical migratory bird habitat due to its location in the western Central Flyway and proximity to the eastern portion of the Pacific Flyway. Consequently, migratory birds and their [guilds](#) guide many of the selected priority

habitats in the District, specifically wetlands and grasslands adjacent to or near wetlands providing waterfowl nesting habitat.

Sage-grouse and the sage-steppe/grasslands they inhabit provide the District's remaining priority habitat. Protecting these wetland, grassland and sage-steppe/grassland ecosystems and habitats is crucial to maintaining ecosystem resilience in the face of climate change and human encroachment.

The District's priority species are migratory and year-round resident birds and mammals that rely on its habitats to rest, forage, nest, stage, shelter, birth and breed. District lands encompass a mosaic of various habitats. An Inventory and Monitoring plan developed in June 2022 identifies and prioritizes management for guilds and species. The habitat types corresponding to prioritized guilds and species for the District are described below.

Wetlands: Wetlands and grasslands within the District's wetland basins provide a critical network of habitat linkages within migration corridors for various species of migratory and year-round resident wildlife. The District contains both permanent and semipermanent wetlands. Wetland habitats contain emergent and submergent plants.

Wetland Species: waterfowl, waterbirds, shorebirds, wading birds



Figure 14. Spidel WPA's seasonal wetlands are critical feeding areas for shorebirds like these Wilson's phalaropes. The grasslands, sedges and cattails surrounding this wetland also provide cover and nesting habitat. Photo by Cortez Rohr/USFWS

Sage-Steppe: Wildlife migrants and year-round residents of the District can also be found in sage-steppe. This semi-arid environment features abundant sagebrush — typically basin big sagebrush, Wyoming big sagebrush and silver sagebrush with other native shrubs, grasses and flowering plants mixed in. These include rabbitbrush, greasewood, phlox, yarrow, mixed bunchgrass species and occasionally prickly-pear cactus.



Figure 15. Sagebrush and bunchgrass meet at the Wild Horse Reservoir at War Horse NWR. Sage-grouse and other species find cover and food here. Photo by Cortez Rohr/USFWS

Sage-Steppe Species: greater sage-grouse, pronghorn, black-tailed prairie dog, neotropical migratory birds

Grasslands: Semi-arid grasslands are also used by wildlife migrants and year-round residents. The District has grasslands composed of mixed-grass prairie, sagebrush-mixed-grass prairie and greasewood-mixed-grass prairie. Common grasses and grass-like species include western wheatgrass, bluebunch wheatgrass, green needlegrass, needle and thread, prairie Junegrass, blue grama and threadleaf sedge. Forbs may include phlox, salsify, western yarrow and American vetch.



Figure 16. The black-tailed prairie dog community at Grass Lake NWR with the Absaroka Mountains in the background. Prairie dogs create microhabitats that benefit other species such as the burrowing owl and mountain plover (a Montana species of concern). Photo by Cortez Rohr/USFWS

Grasslands Species: waterfowl, greater sage-grouse, black-tailed prairie dog, pronghorn, neotropical migratory birds

Threats to Natural Resources

Habitat Quality and Health

District planning focuses on how best to restore, protect and improve grasslands, shrublands, ponderosa pine savannas and woodlands, and wetlands, which are important habitats for the species that nest, breed and forage on District lands. Environmental changes such as increased temperatures, exacerbated drought conditions, changes in water type and availability (snow vs. rain), vegetation [phenology](#) and animal movement may change animal behaviors.

These weather and climatic changes may threaten wildlife and wildlife habitat in the future, so protecting District lands is critical. Staff will continuously monitor wildlife presence, plant communities and water conditions to assess any ecological transformations that may be related to changes in climate.

Invasive Plants

Appendix B discusses problems caused by invasive nonnative (exotic) and native plants found throughout the District. The primary invasive species in upland habitats are cheatgrass, Japanese brome, crested wheatgrass, leafy spurge, black henbane, Russian olive and whitetop. Wetland and riparian areas are affected by invasive (native and nonnative) plants such as cattail, Russian olive and willow.

Invasive plants can (1) reduce biodiversity by displacing plants from plant communities and eventually the animals that depend on those plants for food and habitat; (2) reduce forage quality and quantity and crop, pasture and rangeland productivity; (3) reduce soil moisture and nutrients early in the season; and (4) increase the operating costs for public and private lands. The increased density of some flammable invasive woody plants and associated litter increases fire frequency and intensity (Zedler and Kercher 2004).

Invasive wetland plants also affect wetland and riparian areas by outcompeting native plants, displacing native animals (USFWS 2007) and greatly altering the physical structure of a wetland. This creates a potential for shifting hydrological conditions and animal use (USFWS 2007), which negatively impacts native plants and animals in wetlands, riparian zones and marshes. When invasive plants become dense, they can lower water tables to the disadvantage of native species and dewater wetlands (Zedler and Kercher 2004).

Trespass Livestock

Trespass livestock create problems on Service lands not intended for grazing. This can occur where older fencing is in poor condition or there is not enough fencing to prohibit cattle from entering NWRs and WPAs. Grazing can defoliate vegetation in areas where

upland habitat loss affects wildlife that depend on abundant quality grasslands. Livestock grazing in wetland and riparian areas can destroy riparian vegetation, compact soils, change stream channel morphology, enhance erosion and impair water quality (Belskey et al. 1999). Trespass livestock are limited but cause some problems in the District.

Wildfire Response and Fire Return Interval

Wildfires in the District have been minimal; records show only four fires in the last 20 years. Full [suppression](#) of wildfires is the only option; the proximity of private property and the presence of fire-sensitive sagebrush habitat limit managing wildfires for resource management objectives as described in the Guidance for Implementation of Federal



Wildland Fire Management Policy ([USDA/USDI 2009](#)).

Fuel loading in forested areas ranges from moderate to high and includes dry grasses ([ground fuels](#)), shrubs, seedlings, saplings and low branches that serve as [ladder fuels](#).

Figure 17. A wildland firefighter uses a torch to selectively apply prescribed fire to remove junipers. This practice rejuvenates grasslands and restores normal fire intervals. Photo by Cortez Rohr/USFWS

[Fire return interval \(or fire interval\)](#) is the period (number of years) between naturally occurring wildfires. Fire intervals vary by vegetation type and location. Fire, as much as other environmental factors, has helped shape grasslands and associated woody vegetation. In pre-settlement times, wildfire frequency was variable, occurring every five to 10 years (Frost 1998, Wright and Bailey 1980).

Based on vegetation recovery intervals and bird-nesting studies, Naugle and Bakker (2000) recommends three- to 10-year fire intervals in the wetter regions of the NGP and 10-year or greater intervals in the drier mixed-grass and short-grass zones. The fire return interval in the District's ponderosa pine areas is exceeding 80 years; the ideal fire return interval in those forested areas is 10 to 30 years.

Water Quality

Water quality issues stem from elevated salinity and selenium levels and other contaminants (such as pesticides) in some District wetlands. Contaminated waters can indirectly affect wildlife by degrading wetland habitat through reduced vegetation growth (Rouse 2012), which limits the availability of drinkable water and reduces the abundance of prey (Nelson and Reiten 2007). Direct effects on wildlife after exposure to a contaminant (such as salinity, selenium, or pesticide) can include reduced growth, impaired reproduction and death.

A study conducted by Nelson and Reiten (2007) evaluated the background hydrogeologic conditions, selenium source and geochemistry, as well as the distribution of selenium and other constituents of concern. The Service has documented the impacts of these seeps on waterfowl and shorebirds (USFWS 1991). Water sources for livestock are unusable in many areas; in some places, ranchers have ceased livestock operations (Holzer et al. 1995).

Climate Conditions

Central and eastern Montana's climate is mainly semi-arid continental, characterized by warm summers and moderately cold winters. In summer, average daytime high temperatures are 80°F with infrequent hot periods exceeding 100°F. The average winter low temperature is near 0°F with occasional colder periods that fall below -20°F for short periods. Average annual precipitation varies from 12 to 14 inches, mostly falling as rain from April to June. From July to September, intense thunderstorms can drop more than an inch of rain or hail in a short period. More than 12 inches of winter snow is uncommon, but harsh winters with deep snow do occur and can devastate wildlife.

Observations since the middle of the past century confirm that Montana's climate has consistently changed over time. Average temperatures in winter and spring have risen by almost 3.14°F between 1950 and 2020 (Brust 2022; Whitlock et al. 2017). Increased temperatures have been associated with decreased mountain glacier and snow cover, earlier spring melt, higher runoff, and warmer lakes and rivers. Precipitation changes have varied across the state. In the Northern Rockies, average winter snowfall decreased by 0.69 inches from 1950 to 2015, while spring precipitation in the southeastern plains increased by 1.86 inches in the same period (Brust 2022; Whitlock et al. 2017).

Many trends observed from Montana's historical record are projected to continue or accelerate by mid-century. Temperature projections show a general trend upward, with average annual temperature increases of 2.93°F to 4.82°F expected by mid-century. Over the same time frame, the number of freeze-free days will increase by 17.59 to 27.56 days, and the number of days exceeding 90°F will increase by 9.93 to 23.32 per year (Brust

2022; Whitlock et al. 2017). This will lead to growing seasons that begin earlier and last longer.

Although precipitation is expected to increase slightly in winter, spring and fall by mid-century, summer precipitation is expected to decrease slightly (Brust 2022; Whitlock et al. 2017). The combination of warmer temperatures intensifying drought conditions, reduced snowfall and increased rainfall is changing the availability of water and residency time (MioE 2017; Frankson et al. 2022). We continue to monitor the District's fish, wildlife, plants, lands and waters to detect early signals of ecological transformation from these changing conditions.

Collaborative Conservation in the Landscape

The District plays an important role in national and regional collaborative conservation efforts. Its location in the Pacific and Central Flyways makes it instrumental to national conservation efforts protecting migratory birds, such as the North American Waterbird Conservation Plan (NAWCP) and the North American Waterfowl Management Plan (NAWMP).

The District protects areas that are known to be critical for waterfowl and other waterbirds and provides migratory waterfowl with areas to stage, rest and feed during spring and autumn migration events. It also provides nesting cover for species when spring migration ends.

The District's conservation efforts also support many of Montana's priority conservation efforts. The District is in the Lower Musselshell area, a focal area identified in the 2015 Montana State Wildlife Action Plan (SWAP) outlining state conservation efforts for non-game species with critical needs. The District's priority habitats (wetlands, sage-steppe and grasslands) are among those the SWAP has identified as important to conservation.

The District's priority species align with many in the SWAP: greater sage-grouse, black-tailed prairie dog, pronghorn, waterfowl, shorebirds, wading birds, wetland-dependent species and neotropical migrant birds. As District lands provide critical habitat protection and sanctuary for various breeding, nesting and migrating species, we directly support SWAP's conservation efforts for imperiled species and their habitat requirements.

The Montana Action Plan (MAP) for the conservation of big-game habitat and migratory corridors outlines large swaths of grasslands and sage-steppe areas as priorities for big-game conservation (also identified as District priority habitats for management). The MAP also identifies pronghorn (a District priority species) as a priority big-game species.

The Northern Great Plains Joint Venture (NGPJV) provides landscape planning and design to guide conservation efforts. It provides a comprehensive design for broad conservation of grasslands in the NGP, where the District resides. The NGPJV's mission is

“to retain, enhance, restore, and protect grassland, sagebrush-steppe, wetland, and riparian ecosystems, with an emphasis on sustaining and increasing populations of migratory and resident birds while supporting working lands and communities that sustain these habitats.” The District’s conservation work, including its priorities, vision and goals, fully align with those of the NGPJV.

For more information on landscape initiatives and partnerships, see Appendix C, Landscape Plans and Designs.

Natural Resource Goals, Objectives and Strategies

Based on the District’s priorities and identified threats to fish, wildlife and habitats, the Service has developed the following goals, objectives and strategies for managing the fish, wildlife and habitats of the District, ensuring the District’s continued role in larger landscape conservation efforts:

Goal 1 – Upland Habitat and Associated Wildlife: Protect, enhance and manage upland habitat for breeding and migratory birds and other wildlife while maintaining the biological diversity and integrity of native grasslands and sage-steppe prairie.

Rationale: The District’s upland habitats comprise landscape components crucial to the behavioral, migratory, seasonal, reproductive and habitat shelter needs of its priority species and other migratory bird and wildlife species. This goal ensures we meet the District’s established purposes and one of our foundational mandates “to ensure biological integrity, diversity and environmental health of the System are maintained for the benefit of present and future generations of Americans.” (Improvement Act, 16 U.S.C.668dd(4)(a)(3)(B)).

As the world’s population continues its upward trajectory, it consumes more natural resources and encroaches into wild areas. Continued weather and climate extremes make protecting these areas of paramount importance. However, merely protecting habitat is not enough when invasive species colonize and displace native species and the absence of natural phenomena (fire and the presence of large ungulates, which acted as grazers and landscape disturbers) are no longer present. These challenges require habitat management to restore, maintain and enhance the biological integrity of upland habitats such as grasslands and sagebrush-steppe.

Managing toward this goal also ensures we are contributing to the conservation efforts of our partners, all of which seek further wildlife conservation in the landscape and emphasize conserving native grasslands and sagebrush-steppe prairie to do so.

Associated Objectives, Strategies and Step-Down Plan

The Service is considering the following objectives, strategies and step-down plan to reach this goal. We are also considering other management alternatives. Additional information about these alternatives, the anticipated impacts of these proposed actions and the other alternatives are in the associated environmental assessment (EA) for this CCP (Appendix A).

Objective 1 – Grassland Management: Provide nesting, foraging, protective cover and brood-rearing habitat for waterfowl, grassland nesting birds and other avian species that use upland habitat by ensuring upland habitat is contiguous and has a greater than 70% native vegetation component and moderate to high litter cover throughout the life of the CCP.

Strategies:

- Continue to suppress all wildfires to avoid significantly altering important structural biomass at critical times for wildlife and to prevent spreading onto off-District lands and causing potential infrastructure damage to adjacent lands.
- Identify core areas of native component grasslands within five years of CCP approval; focus preservation and invasive species eradication in core areas using mechanized, chemical and/or [prescribed fire](#) treatments where applicable and feasible.
- Conduct a vegetation and/or species occupancy monitoring program to assess if waterfowl and grassland bird species' habitat requirements are being met within seven to 10 years of CCP approval.
- Identify waterfowl and grassland nesting bird species and determine occupancy in select areas of mixed and short grass prairie grassland habitats on select refuges and WPAs within 10 years of CCP approval.
- Where applicable, use mechanized, chemical, prescribed cattle grazing and/or prescribed fire through adaptive management to maintain and improve vegetation characteristics, particularly in areas invaded by Japanese brome, crested wheatgrass and leafy spurge.
- Work with partners and neighboring landowners to mitigate cattle trespass.
- Remove old, nonfunctional and discarded human-made objects from grasslands to improve aesthetics and return to a more natural state.

Step-Down Plan: Develop a [fire management plan](#) within five years of approval of the CCP to further plan and implement the fire management strategies discussed in this CCP.

Objective 2 – Grasslands and Dense Nesting Cover Restoration: Restore 50 acres of grasslands that are severely compromised by invasive grasses and forbs with native grass species to provide nesting and foraging habitat for migratory birds within 10 years of the CCP approval.

Strategies:

- Establish focus areas for restoration efforts where probability of success is both high and feasible within five years of CCP approval.
- Examine revegetation options for grasslands and dense nesting cover fields based on the surrounding native plant communities and initiate reseeding efforts using native species within six to nine years of CCP approval.
- Where applicable and practical, use [prescribed burns](#), prescriptive cattle grazing, mechanical and chemical treatments, biological control methods or any combination of these to eliminate invasive vegetation in preparation for restoring native grasslands or dense nesting cover fields.

Step-Down Plan: Ensure the [fire management plan](#) includes implementation of the fire management strategies discussed above.

Objective 3 – Sagebrush and Sagebrush-Mixed-Grass Prairie: Maintain the sagebrush and sagebrush-mixed-grass prairie habitat with a greater than 70% native vegetation component for sagebrush-dependent species including sage thrasher, Brewer’s sparrow and greater sage-grouse.

Strategies:

- Continue to suppress all wildfires to avoid significantly altering the slow-growing sagebrush communities that wildlife depend on and to prevent fire from spreading onto off-District lands and causing potential infrastructure damage to adjacent lands and irreparable harm to adjacent fragile sagebrush ecosystems.
- Identify and monitor existing core sagebrush and sagebrush-mixed-grasslands habitat and growth opportunity areas of sagebrush and sagebrush-mixed-grasslands for invasive species and conifer encroachment.
- Reduce sage mortality using prescribed fire and/or mechanized treatments to remove encroaching conifers and reduce hazardous fuels, and minimize the threat of catastrophic fires
- Focus preservation and invasive vegetation species eradication in core and growth areas using mechanized and chemical treatments where applicable and feasible.
- Continue to monitor greater sage-grouse leks and share data with the MFWP.

Step-Down Plan: Ensure the [fire management plan](#) includes implementation of the fire management strategies discussed above.

Objective 4 – Great Plains Ponderosa Pine Woodland and Savanna: Maintain a Ponderosa pine stand of various age classes within a Great Plains Ponderosa pine woodland and savanna for cavity-nesting birds and other migratory and resident wildlife within 10 years of the CCP approval.

Strategies:

- Continue to suppress all wildfires to avoid significantly altering the critical woodland and savanna habitat that wildlife depends on and to prevent fire from spreading onto off-District lands and potentially damaging human infrastructures on adjacent lands and destroying entire woodlands.
- Use prescribed fire and mechanical and chemical treatments to thin Ponderosa pine woodland areas and reduce hazardous fuels, minimizing the threat of catastrophic stand replacement fires.
- Monitor Ponderosa pine woodlands and savanna for woody and invasive plant species and use chemical and mechanical treatments where applicable and practical for control and elimination.

Step-Down Plan: Ensure the [fire management plan](#) includes implementation of the fire management strategies discussed above.

Goal 2 – Wetland Habitat and Associated Wildlife: Protect, enhance and manage wetland habitat for breeding and migratory birds and other wildlife to maintain the biological diversity and integrity of the District’s wetlands.

Rationale: The District is in the western portion of the Central Flyway and near the eastern portion of the Pacific Flyway. This goal is critical to migratory and year-round residents that depend on the District for survival and reproduction. Due to the semi-arid climate, the presence of wetlands provides critical habitat resources for waterfowl, shorebirds, wading birds and other wetland-dependent species.

This goal helps achieve the District’s established purposes and one our foundational mandates “to ensure biological integrity, diversity, and environmental health of the System are maintained for the benefit of present and future generations of Americans.” (Improvement Act, 16 U.S.C.668dd(4)(a)(3)(B))

Continued agriculture expanse has led to significant wetland drainage and conversion to agricultural lands in some areas. Weather extremes over longer periods of time are leading to climatic changes such as extended drought and hotter temperatures, increasing the need for wetland protection. However, it is not always enough to simply protect wetlands.

Occasional District management — exercising water rights, replacing water control structures and improving waterways to restore natural wetland hydrology — ensures these habitats reach their full ecosystem potential for the wildlife and plants that inhabit them. This goal contributes to the conservation priorities and efforts of the NGPJV, NAWCP and NAWMP.

Associated Objectives and Strategies

The Service is considering the following objectives and associated strategies to reach this goal. We are also considering other management alternatives. Additional information about these alternatives, the anticipated impacts of these proposed actions and the other alternatives are in the associated EA for this CCP (Appendix A).

Objective 1 – Water Quality: Improve the water quality in wetlands identified as having high selenium and/or salt content within seven years by working with partners to develop a protocol to measure current and future water quality and mechanisms to support its improvement.

Strategies:

- Monitor the water quality of wetlands having high selenium and salt concentrations.
- On alkaline wetlands where applicable, possible and practical, explore water quality improvement mechanisms (e.g., increased phytoremediation, natural snow fences to harness snowmelt) within seven years of the CCP approval.
- Allow wetland units to flood and dry naturally in 10-year cycles to encourage deflation of salts and selenium.

Objective 2 – Wetland Management and Improvement: Provide and improve shoreline, hemi-marsh and open water wetland habitats for nesting, foraging, loafing, staging and brood-rearing waterfowl, wading birds, shorebirds, waterbirds and other avian species that use wetland habitat by ensuring heterogeneous wetland habitat is available within five years of the CCP approval.

Strategies:

- Replace water gauges with more-advanced devices that accurately measure waterflow and depths to ascertain water rights usage and compliance of surrounding users whose water use affects District lands.
- Evaluate existing culverts and water control structures and begin to remove and replace nonfunctioning structures with ones that increase management capabilities and help restore natural hydrology within the first five years of the CCP approval.
- Improve the function of ditches to facilitate waterflow in and out of wetlands.
- Maintain and exercise water rights (e.g., flushing and draining wetlands periodically where appropriate, practical and possible).
- In wetlands with dense cattail and bullrush stands, periodically conduct [prescribed burns](#) and use chemical and mechanical methods to open areas, allowing exposure to wetland surfaces for increased habitat heterogeneity.

- Remove old, nonfunctional and discarded manmade objects from wetlands to improve aesthetics and return to a more natural state.

Step-Down Plan: Ensure the [fire management plan](#) includes implementation of the fire management strategies discussed above.

Goal 3 – Research and Inventory: Improve scientific knowledge of natural resources and ecological processes to inform management within the District through monitoring and applied research.

Rationale: To respond to the evolving and complex changes and threats to our natural resources and ecological processes, we must constantly increase our scientific knowledge of the species and habitats we are entrusted to protect. We must focus our conservation efforts on the highest and best use of our very limited staff and capacity by focusing on the District’s greatest priorities.

This goal ensures we are taking a science-based approach (using various research methodologies and conducting inventories) to fill critical knowledge gaps. This will help focus our management on actions that deliver the greatest conservation benefit for the District’s priority habitats and species.

Associated Objectives, Strategies and Step-Down Plan

The Service is considering the following objectives, strategies and step-down plan to reach this goal. We are also considering other management alternatives. Additional information about these alternatives, the anticipated impacts of these proposed actions and the other alternatives are in the associated EA for this CCP (Appendix A).

Objective – Research and Inventory: Use the best available science to answer and predict natural occurrences and supplement ecological and natural resource decision-making to benefit wildlife and wildlife habitat.

Strategies:

- Use the applied research of regional Service scientific staff, universities and partners to enhance knowledge and inform decisions about managing wildlife and wildlife habitat.
- Apply regional Service scientific staff, universities, non-governmental organizations (NGOs) or citizen scientists’ knowledge to identify and inventory priority and core habitat areas, wildlife species presence, or populations to inform management decisions.

Visitor Use and Access

Compatible Wildlife-Dependent Recreation and Research

The following uses are compatible with the NWRs' mission and the District's established purposes. You can find the associated Compatibility Determinations in Appendix D.

Hunting

Hunting is one of the six priority wildlife-dependent recreational uses identified in the Improvement Act. All recreational activities are secondary to the refuge unit's primary purpose and must be compatible. Hunting provides traditional recreational activities throughout the District and local areas with no definable adverse effects on the biological integrity or habitat sustainability of District resources as defined in the Improvement Act.

NWRs with a migratory bird focus often maintain a portion of the refuge as sanctuary for waterfowl and/or migratory birds that is closed to hunting.

Hunting opportunities are available on specific NWRs and WPAs in the District; however, Grass Lake NWR is closed to all visitor access and use, and the north portion of the Lake Unit (Lake Mason NWR) is closed to visitor access. All other District units are open for hunting big game, upland game birds and migratory game birds, except Hailstone NWR, which has never been opened to big game hunting. Spidel WPA, Tew WPA, James L. Hansen WPA, Hailstone WPA, War Horse WPA and Clark's Fork WPA are open for hunting and trapping according to State regulations.

Hunting, where permitted, is in accordance with State regulations and game classifications and on units in the District where visitor access is allowed. Refer to the District and each NWR's website for unit-specific information and maps.

Shotgun hunters may only possess and use nontoxic shot to hunt upland game birds and migratory game birds on fee-title lands in the District (50 CFR 32.2(k)), and vehicle travel and parking is restricted to roads, pullouts and parking areas. Outfitted or guided hunting is not permitted.

Fishing

NWRs may be opened to sport fishing only after this activity is determined to be compatible with the refuge's established purposes. The sport-fishing program must follow sound fishery management principles and be in the public's interest. The District's only fishing opportunities are in the Clark's Fork WPA river and the reservoirs associated with the War Horse and Yellow Water units (War Horse NWR), although visitors generally do not use Service lands to access the reservoirs. Fishing in Clark's Fork WPA is allowed in the river but not in the wetland.

Wildlife Observation and Photography, Environmental Education and Interpretation

Wildlife observation and photography as well as environmental education and interpretation are popular wildlife-dependent recreational activities throughout the District. Users tend to be bird watchers and nature enthusiasts. The diversity of habitats and wildlife species provides observation, photography, education and interpretation opportunities year-round.

Commercial filmmakers who wish to film on District lands must contact the District manager and follow specific requirements, regulations and conditions to protect wildlife and habitats and avoid disrupting other visitors' enjoyment.

Other Recreational Activities

Hiking is allowed throughout the District on all NWRs and WPAs, except for Grass Lake NWR and the northern portion of Lake Mason NWR, which are designated as refugia for wildlife and are permanently closed to all public access.

Stock use (horses, mules, donkeys) is allowed on Lake Mason NWR – North Unit only. Certified weed-free hay is required when using stock.

Recreational Activities Not Authorized in the District

The following prohibitions apply to all NWRs and WPAs in the District, as outlined in [50 CFR part 27](#) and other applicable Federal regulations:

- Drone use for any purpose is not permitted.
- Searching for, collecting, or removing objects of antiquity, animals, animal nests, rocks, antlers, horns, bones, skulls, flowers, berries, vegetation or mushrooms is not permitted.
- Bicycling is permitted only on and within designated parking areas and designated District roads open to travel. Bicycling is not permitted on any other District lands.
- Offroad vehicle use is not permitted on any District lands. Mechanized vehicles are permitted only in designated parking areas and on designated District roads open to travel. Any all-terrain vehicle/utility task vehicle/off-road utility vehicle/motorcycle must be legally operated and licensed by the State of Montana or its state of origin.
- Snowmobile use is not permitted on any District lands, including parking areas and roads.
- Remote/unattended trail cameras or wildlife cameras are not permitted.
- Field trials and dog training using wild and/or captive-reared game birds is not permitted.
- Geocaching is not permitted.

- Possession or use of fireworks is not permitted.
- Motorized boat use is not permitted. Non-motorized boats are permitted in designated areas.
- Target practice or shooting – archery or firearms – is not permitted. Firearms or archery equipment may ONLY be discharged in connection with a legal hunt for which the hunter is licensed. Persons may only use (discharge) firearms in accordance with the Code of Federal Regulations (50 [CFR](#) 27.42 and specific refuge regulations in 50 CFR part 32).
- Trapping is not permitted on any NWRs lands within the District. Trapping is permitted on WPAs in accordance with State regulations.
- Camping of any kind – vehicle or tent – is not permitted. *Note: We are proposing to close camping in the North Unit of Lake Mason NWR because it is not compatible with the purposes of the Refuge. See the Camping Compatibility Determinations (Appendix D) and EA (Appendix A) for additional information.*

Research

The District has been open to scientific research by non-Service personnel for decades, even on units that do not allow access to the general public. Researchers must acquire a special use permit to conduct research and surveys on Service lands. Permits for research are considered on a case-by-case basis, as staff availability allows. Acceptable research methods include, but are not limited to, bird banding, mist netting, point count surveys, radio-telemetry tracking, cameras, recorders and public surveys.

The results of the research should increase knowledge of our natural resources and improve methods to manage, monitor and protect the District’s biological resources and visitor uses.

Partnerships

The Service partners with MFWP to enforce game laws, conduct wildlife research and manage hunting seasons.

The Audubon Society helps monitor units and remove invasive plants. Members of the Audubon Society have also conducted bird counts. For example, a volunteer from the Yellowstone Chapter of the Audubon Society spent nearly 20 years (mid-1980s through 2004) collecting data from bird observations.

The Service hires local weed Districts (county-level organizations that have expertise in weed control and herbicide use); has cooperative relationships with local, state and federal fire agencies; and issues special use permits to academia and researchers for monitoring and educational work.

Impediments to Visitor Use and Access

Visitor and Employee Safety

Large areas in remote parts of the District lack service for radio and cellphones. Radios and repeaters that do exist do not provide coverage for many locations. Cellphone coverage throughout the District is limited, except near population centers such as Lewistown, Roundup, Billings and Laurel. Limited cell reception could pose a problem for visitors or staff in the event of an emergency (e.g., medical issue, accident). There have been no major incidents due to lack of communication, but someone could be stranded, injured, or in need of aid with no way of calling for help.

Access, Parking and Signage

Access into many NWRs and WPAs is by two-track dirt roads, which become muddy and impassable when wet, limiting visitor use. Most District units have no designated parking areas, so visitors park on grasses; this can be a [fire hazard](#) when vegetation dries during summer and fall. There are some small boundary signs at locations around some units, but detailed signage with information about allowed uses is lacking.

Off-Road Travel

Not all NWRs and WPAs in the District experience a problem with off-road vehicle use. Where it does occur, users who fail to stay on open roads create new trails or ruts. Off-road vehicle use can cause problems such as habitat loss and degradation, soil erosion and compaction, and after precipitation events, create mud holes and gullies that can alter hydrologic patterns and intensify erosion.

Closed Areas

Closed areas are designated to protect habitat and prevent wildlife disturbance caused by human presence and activities. Grass Lake NWR is closed to all visitor access and use, and the north portion of the Lake Unit (Lake Mason NWR) is also closed to visitor access. All other NWRs and WPAs are open to foot access only, except Lake Mason NWR, which permits the use of stock (horses, mules, donkeys) in its North Unit only and non-motorized boats in the open area of its Lake Unit.

Visitor intrusions into closed areas can degrade habitat and disturb wildlife, particularly during breeding, nesting and brood rearing.

Lead Ammunition and Fishing Tackle

The best available science data indicates that lead ammunition and fishing tackle negatively impact the health of wildlife, humans and the environment. The use of lead tackle by anglers and single projectile ammunition from big game hunting are the only additions of lead on the District.

Big game hunters may select hunting methods like archery that introduce no lead into the environment or use lead-free ammunition to reduce lead entering the environment. Upland gamebird and waterfowl hunters using shotguns are already required to use non-toxic shot. Lead from fishing tackle typically enters the environment by accident when anglers snag their lines.

Visitor Use and Access Goals, Objectives and Strategies

Based on the types of visitor use allowed in the District and the identified impediments, the Service has developed the following goals, objectives and strategies for managing visitor use and access:

Goal 4 – Visitor Services: Provide visitors with wildlife-dependent recreational and educational opportunities that foster an appreciation of the District’s wildlife and plant communities.

Rationale: This goal was created based on the requirements of the Improvement Act, which established one of the core mandates of the NWRS: to provide opportunities for wildlife-dependent recreation at refuges when compatible with the purposes of the Refuge and the mission of the NWRS (16 U.S.C. 668dd(4)(a)(3)(i)). Priority wildlife-dependent uses include hunting, fishing, wildlife observation, photography, environmental education and interpretation.

With such a range of wildlife, plant species and landscape features, the District offers visitors many wildlife-dependent recreation opportunities. Signs, brochures and visual media help visitors understand the importance of the natural world and the relationship between the NWRS and those who value the natural resources it protects.

Associated Objectives, Strategies and Step-Down Plans. The Service is considering the following objectives, strategies and step-down plan to reach this goal. We are also considering other management alternatives. Additional information about these alternatives, the anticipated impacts of these proposed actions and the other alternatives are in the associated EA for this CCP (Appendix A).

Objective 1 – Hunting and Fishing: Provide and, where appropriate, expand hunting and fishing opportunities for the public and youth on District lands.

Strategies:

Three distinct alternatives for hunting and fishing being analyzed in the EA are described below:

- Alternative A: The status of hunting and fishing on District lands that are open for hunting and fishing will remain the same and include the lead-free ammunition

requirement for upland game bird and migratory game bird hunting; no other lands eligible for hunting opportunities will be opened to hunting.

- Alternative B: The status of hunting and fishing on District lands that are open for hunting and fishing will remain the same and include the lead-free ammunition requirement for upland game bird and migratory game bird hunting; in addition, the Service proposes to open Hailstone NWR to big game hunting and the north portion (north of the railroad right-of-way) of Grass Lake NWR to big game hunting, upland game bird and migratory game bird hunting and include the lead-free ammunition requirement for upland game bird and migratory game bird hunting.
- Alternative C: This is the same as Alternative B, except that all fishing tackle and all ammunition for big game hunting must be lead-free, in addition to the lead-free ammunition requirement for upland game bird and migratory game bird hunting.

In the meantime, where already open, the Service will continue to provide hunting and fishing opportunities on District lands.

Step-Down Plan: The Service will draft a Hunt and Fish Step-Down Plan within five years of CCP approval to finalize opening additional eligible District lands for big game, migratory game birds and upland game bird hunting as analyzed in the EA (Appendix A). Opening new areas to hunting and requiring lead-free ammunition and fishing tackle would not take effect until the federal rulemaking process is completed as part of the NWRS's Hunt/Fish Rule, which includes the requirement to develop a District-specific Hunt and Fish Step-Down Plan and associated regulatory language. The public will have opportunities to provide additional input during that process.

Objective 2 – Wildlife Photography, Wildlife Observation, Environmental Education and Interpretation: Provide and, where appropriate, expand wildlife photography, wildlife observation, environmental education and interpretation opportunities.

Strategies:

- On eligible District lands that are not currently designated as refugia for wildlife and are permanently closed to all entry, allow entry to visitors for wildlife viewing, photography, environmental education and interpretation within the first five years of CCP approval.
- Continue to provide visitors with opportunities for wildlife viewing, photography, environmental education and interpretation opportunities on District lands that are already open.

Objective 3 – Visitor Access: Improve access to District lands that are open to wildlife-dependent recreation opportunities within 10 years of CCP approval.

Strategies:

- Work with county commissioners, owners of adjoining lands and land managers to improve access roads. Use gravel to create more solid substrates for vehicle travel to prevent damage to natural resources by eliminating muddy conditions, ruts and driving off roadways, which can also cause vehicle damage.
- Create designated gravel parking areas for visitors to reduce mud and ruts, which lead to unwanted expansion of parking areas that damages the natural resource.

Objective 4 – Public Information: Improve information about visitor access to the District within the first five years of the CCP approval.

Strategies:

- Develop informative tear sheets or other publications for James L. Hansen WPA and Grass Lake NWR that are comparable to other District lands’ informative tear sheets within the first year of CCP approval.
- Continuously add and update information about all District lands on the District’s website and each refuge website so visitors can make informed decisions. Post informational tear sheets with the updated information.
- Erect entry signage on 60% of all District lands.
- Document existing signs at strategic access points and in parking areas on all District lands, then design and install improved signs that provide boundary and site-specific information to help visitors make informed decisions while on District lands.

Goal 5 – Partnerships: Collaborate with partners to protect, enhance and manage for healthy, productive and diverse habitats and wildlife populations on District and surrounding lands.

Rationale: This goal was created based on the need for conservation agencies and organizations to collaborate and use resources to benefit our communities and further our collective conservation goals. Partnerships are vital to conducting the District’s work meeting its other goals.

Associated Objectives and Strategies. The Service is considering the following objective and associated strategies to reach this goal. Additional information about these alternatives, the anticipated impacts of these proposed actions and the other alternatives are in the associated EA for this CCP (Appendix A).

Objective – Partnerships: Forge, facilitate and strengthen relationships between the District and its partners to further wildlife and wildlife habitat conservation.

Strategies:

- Work with Tribes, local communities and others to rename Halfbreed Lake, located on Grass Lake NWR, to a culturally aware and geographically appropriate name within two years of the CCP approval.
- Meet with owners of adjacent properties to facilitate relationships and find areas of common interest regarding wildlife and habitat conservation within the first five years of CCP approval.
- Work with stakeholders, conservation NGOs, volunteers, sister federal agencies, Tribes, and State, county and local officials on projects that further the mission of conservation for wildlife and wildlife habitat.
- Meet with community leaders and students in local community schools about the mission of the Service and the District; foster connections and awareness of the value of wildlife and habitat conservation.

Operations

Service operations consist of the staff, facilities, equipment and supplies needed to administer resource management and visitor use programs throughout the District, which crosses a five-county area covering more than 9,175 square miles. The Service is responsible for protecting more than 30,000 acres of District lands and waters.

Staff

The District manager stationed at the Charles M. Russell NWR Complex (NWR Complex) in Lewistown, Montana, is responsible for managing and administering the District. District administration is greatly affected by staff numbers, which are minimal. Staffing levels and other factors involved in District administration dictate the type and amount of work that can be accomplished.

NWR Montana Law Enforcement Patrol Zone staff, which includes several full-time Federal Wildlife Officers, is responsible for law enforcement for the District. Patrols are conducted as needed. The NWR Complex and District staff includes 12 permanent full-time employees for the NWR Complex and one employee for the District.



Figure 18. Cortez Rohr, district manager for the Charles M. Russell Wetland Management District, poses by the sign for the Lake Mason NWR North Unit. Photo by Cortez Rohr/USFWS

Facilities

No District unit has visitor use or administrative facilities (e.g., comfort stations, boardwalks, kiosks). Because one NWR on the District is closed to visitor use and all the units within the District are unstaffed, no areas in the District are suitable for use as visitor services or administrative facilities. All visitor services and administrative facilities for the District are located at the Charles M. Russell NWR Complex in Lewistown, Montana.

Exterior fencing and boundary signage in the District is used to support habitat and wildlife management programs and wildlife-dependent public use activities and helps visitors understand unit boundaries, allowed uses and regulations. In addition to fencing

and signage, the Service maintains water control structures and ditches for water management in District wetlands.

Impediments to Operations

Limited Budgets and Staff

Planning District land administration is difficult because budgets are too limited to hire the additional staff needed to manage and monitor District resources. Another challenge is that the District's units are spread across a large area, much of which is far from NWR Complex facilities. The nearest support staff and facilities are in Lewistown, Montana. Because of this, District staff can only focus on minimal resource protection, monitoring and maintenance. Staff size is inadequate to monitor problems caused by trespass livestock and off-road vehicles.

Operations Goals, Objectives and Strategies

The Service has developed the following goals, objectives and strategies for managing operations in the District:

Goal 6 – Operations: Emphasize the protection of District resources using staff, partnerships and volunteer programs.

Rationale: The District encompasses more than 30,000 acres spread across a five-county area greater than 9,175 square miles. Current staffing levels are insufficient to accommodate the vast and unique needs of each District unit. Given this dilemma, we must enlist the help of volunteers, outside agencies, internal staff members and adjacent willing landowners to carry out some land management activities, including reporting suspicious activities and violations. Effectively reaching this goal is critical to achieving the District's other goals.

Associated Objectives and Strategies. The Service is considering the following objectives and associated strategies to reach this goal. Anticipated impacts of these proposed actions are in the associated EA for this CCP (Appendix A).

Objective – Operations: Take preventative, protective and informative measures to protect District lands and their natural resources within five years of the CCP approval.

Strategies:

- Work with Service federal wildlife officers to identify high visitor use areas and areas prone to violations; increase patrols and presence in those areas.
- Partner with and establish memoranda of understanding with local, State and federal law enforcement agencies to protect District lands and deter violations and impairment of natural resources.

- Encourage neighboring landowners and visitors to report violations of District lands and natural resources.

Cultural Resources

Cultural resources are the non-renewable physical remnants of past human activities that have cultural or historical value and meaning to a group of people or society. Legal authorities use different terminology and definitions when discussing cultural resources. The term “cultural resources” includes:

- Historic properties, as defined by the National Historic Preservation Act of 1966, as amended (NHPA; 54 U.S.C. § 300101 et seq)
- National Historic Landmarks, as defined in 36 CFR Part 65
- Archaeological resources, as defined by the Archaeological Resources Protection Act of 1979 (ARPA; 16 U.S.C. § 470aa-470mm)
- Sacred sites, as defined by Executive Order 13007, which grants access in accordance with the American Indian Religious Freedom Act of 1978 (AIRFA; 42 U.S.C. § 1996)
- Collections, as defined in 36 CFR Part 79
- Cultural items, as defined in the Native American Graves Protection and Repatriation Act of 1990 (NAGPRA; 25 U.S.C. § 3001 et seq.)
- Heritage assets, as defined by the Service in the report required by Section 3 of Executive Order 13287 “Preserve America”

Although not technically a cultural resource, paleontological resources, as defined by the Paleontological Resources Preservation Act of 2009 (PRPA; 16 U.S.C. 470aaa 1-11), fall under the Service’s Cultural Resources Management Program.

This section summarizes the District’s Cultural Resources Report (USFWS 2017a), which is available at the Charles M. Russell NWR Complex office in Lewiston, Montana. This section covers cultural resources that may be or are present on a refuge or WPA.

Known Cultural Resources

Few cultural resources investigations have been conducted, so we know of few sites on District NWRs and WPAs. This does not mean such sites do not exist on District units; rather, it reflects the limited work previously completed. Digital files and records were reviewed to determine the numbers and types of previous cultural resource investigations and previously documented sites within District NWRs and WPAs. These are detailed in the District’s Cultural Resources Report (USFWS 2017a).

Future undertakings on District units would involve minimal ground disturbance. District NWRs and WPAs may include site types and resources such as precontact and protohistoric open camps, stone circles, cairns, lithic scatters, rock shelters, drive lines, kill sites, hunting blinds and rock imagery as well as historic homesteads and ranches,

outbuildings, livestock infrastructure (e.g., corrals, loading facilities, stock dams), ditches, water control structures (e.g., culverts, dams, dikes), trails and roads.

War Horse NWR and WPA. A search of digital files and records revealed that four cultural resource investigations were previously conducted on the refuge; these investigations and the three sites documented on the refuge are detailed in the District's Cultural Resources Report (USFWS 2017a). All three sites are either eligible for listing in the National Register of Historic Places (NRHP) or have not been evaluated and must be treated as eligible.

Lake Mason NWR. Approximately 5,048 acres of the refuge (about 25% of the total acreage) have been surveyed for cultural resources. A search of digital files and records indicates that 12 cultural resource investigations have been conducted on the refuge, and 63 sites have been documented. These are detailed in the District's Cultural Resources Report (USFWS 2017a). Forty-five of the known sites are eligible, unevaluated, or unresolved for eligibility in the NRHP and must be treated as eligible.

Additionally, archeological collections were made in association with Taylor and Bennett 1980/1981 (sites 24ML132-24ML139, two isolates); Greiser et al. 1985 (sites 24ML201-24ML226); and Aaberg 1988/1989 (24ML362-24ML368) investigations. These collections are curated by various organizations and repositories, including Montana State University.

Hailstone WPA and NWR. One cultural resource investigation was conducted in association with a 2008 dam removal project. Two sites were documented on the refuge – the historic Hailstone Dam and Spillway (24ST344) and a precontact lithic scatter (USFWS Field No. HSNWR-001); the sites have not been formally documented.

The Hailstone Dam and Spillway was constructed by the Works Progress Administration in the 1930s and is considered eligible for inclusion in the NRHP under Criteria A and C. Site HSNWR-001 has not been formally documented or evaluated for its significance, so it is considered unevaluated for inclusion in the NRHP but must be treated as eligible.

The results of a search through digital files and records reveals that six cultural resources investigations were previously conducted on District WPAs; these are detailed in the District's Cultural Resources Report (USFWS 2017a). No sites were documented on Hailstone WPA.

A file search of the Montana State Historic Preservation Office (SHPO) cultural resources database was not conducted because of the high cost of conducting a search for the extremely large land expanses that make up Hailstone WPA and NWR. However, any work done at Hailstone WPA and NWR should begin with a project-location-specific file search of the Montana SHPO cultural resources database.

Grass Lake NWR. One cultural resource investigation was conducted on the refuge in association with a 2004 repair/reconstruction project for Halfbreed Dam (24ST345). The historic Halfbreed Dam (24ST345) was previously documented on the refuge. This structure was constructed by the Works Project Administration in the 1930s. It is not considered eligible for inclusion in the NRHP.

A file search of the Montana SHPO cultural resources database was not conducted because of a known lack of previous cultural resource work and previously recorded resources documented at Grass Lake NWR. Any work undertaken at Grass Lake NWR should begin with a project-location-specific file search of the Montana SHPO cultural resources database.

Spidel, Tew, Clark’s Fork and James L. Hansen WPAs. A search of digital files and records indicate that six cultural resource investigations were previously conducted on Spidel, Tew and Clark’s Fork WPAs; these are detailed in the District’s Cultural Resources Report (USFWS 2017a). James L. Hansen WPA was acquired in 2023, and no cultural resources investigations were previously conducted. No sites were documented on any of the WPAs.

A file search of the Montana SHPO cultural resources database was not conducted because of the high cost of conducting a search for the extremely large land expanses that make up Clark’s Fork, Spidel and Tew WPAs. Any work undertaken on these WPAs should begin with a project-location-specific file search of the Montana SHPO cultural resources database.

Impediments to Stewarding Cultural Resources

The Service does not expect any management activities or visitor use to impact cultural resources in the District, especially with its mitigation measures, which are designed to prevent or minimize any impacts (Appendix E). The biggest impediments to stewarding cultural resources in the District are lack of information about the District’s cultural resources, limited staff and limited capacity.

Cultural Resource Goals, Objectives and Strategies

The Service has developed the following goals, objectives and strategies for managing cultural resources in the District:

Goal 7 – Cultural Resources: Identify and protect cultural resources to preserve the District’s precontact and historic past.

Rationale: This goal was created based on the Refuge’s responsibilities under the NHPA and our desire to honor and understand the District’s important cultural history.

Associated Objectives and Strategies. The Service is considering the following objectives and associated strategies to reach this goal. Anticipated impacts of these proposed actions are in the associated EA for this CCP (Appendix A).

Objective 1 – Stewarding Known Cultural Resources on District Lands: Use preventative, protective and informative measures to any cultural resource known to exist on District lands.

Strategies:

- On discovering any cultural resource or site of cultural significance in the District, the Service will work with its archeologist and local Tribes to understand the cultural resource and its history and will endeavor to design and implement appropriate protective and preservation measures.
- The Service will protect cultural resources during District management activities. Appendix E contains a list of mitigation measures designed to protect cultural resources during wildfire suppression and other activities proposed by the Service.

Objective 2 – District Resources Important to Tribes. Respect any natural resources and traditional land uses identified as significant to Tribes.

Strategies:

- Consult with Tribes regarding traditional use of NWRs and WPA lands to identify and ensure access to traditional cultural properties, which include burial locations, plant-gathering areas and ceremonial locations.
- Require a special use permit for Tribal members interested in collecting small quantities of plants or other natural resource materials for ceremonial purposes.
- Continue to provide found eagle feathers and parts to tribal members for ceremonial purposes through the National Eagle Repository in Colorado.

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Glossary and Abbreviations

°F: degrees Fahrenheit

AIRFA: American Indian Religious Freedom Act

animal unit month: A unit used to estimate how much forage is eaten by a specific animal in a month. In range and pasture management related to beef production, an AUM is often defined as the approximate amount of forage that a 1,000-pound cow will eat in a month.

ARPA: Archaeological Resources Protection Act

BLM: Bureau of Land Management

burn plan/prescribed burn plan: A plan required for each fire application ignited by management. Plans are documents that are prepared by qualified personnel and approved by the agency administrator, and they include criteria for the conditions under which the fire will be conducted (a prescription).

CCP: comprehensive conservation plan

CFR: Code of Federal Regulations

conservation easement: A voluntary legal agreement between a landowner and a government agency or qualified conservation organization that restricts the type and amount of development that may take place on a property in the future. Conservation easements aim to protect habitat for birds, fish and other wildlife by limiting residential, industrial or commercial development. Contracts may prohibit alteration of the natural topography, conversion of native grassland to cropland, drainage of wetland and establishment of game farms. Easement land remains in private ownership.

District: Charles M. Russell Wetland Management District

EA: environmental assessment

emergent plants: Plants rooted in the substrate having foliage that grows partially or entirely above the water surface.

fire hazard: A fuel complex, defined by volume, type condition, arrangement and location, that determines the degree of ease of ignition and of resistance to control.

fire management plan: A plan that identifies and integrates all wildland fire management and related activities in the context of approved land/resource management plans. Such a plan defines a program to manage wildland fires (wildfire and prescribed fire). It is supplemented by operational plans, including preparedness plans, preplanned dispatch plans, prescribed fire burn plans and prevention plans. Fire management plans assure that wildland fire management goals and components are coordinated.

fire return interval (or fire interval): The period (number of years) between naturally occurring wildfires.

FmHA: Farmers Home Administration

forbs: Flowering plants (excluding grasses, sedges and rushes) that do not have a woody stem and die back to the ground at the end of the growing season.

fuel: Any combustible material, including wildland fuels.

fuel load/loading: The amount of fuel present in a given area in terms of weight of fuel per unit area. This may be available fuel (consumable fuel) or total fuel and is usually dry weight.

fuel reduction: Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control.

goal: A descriptive, open-ended and often broad statement of desired future conditions that conveys a purpose but does not define measurable units.

ground fuels: All combustible materials below the surface litter, including duff, tree or shrub roots, punky wood, peat and sawdust, that normally support a glowing combustion without flame.

guild: Groups of species in a community that use the same set of resources in a similar manner but are not necessarily closely related.

ladder fuels: Fuels that provide vertical continuity between strata (layers), allowing fire to carry from surface fuels into the crowns of trees or shrubs with relative ease. They help initiate and assure the continuation of crowning.

lek: An area where sage-grouse gather in the spring. The males choose an area where there is less vegetation so females can easily see their courtship displays. These areas may be sparsely vegetated naturally or due to activity by animals or humans.

MAP: Montana Action Plan

MCBF: Migratory Bird Conservation Fund

MFWP: Montana Fish, Wildlife and Parks

MloE: Montana Institute on Ecosystems

MTNHP: Montana Natural Heritage Program

NAGPRA: Native American Graves Protection and Repatriation Act

NAWCP: North American Waterbird Conservation Plan

NAWMP: North American Waterfowl Management Plan

NGO: non-governmental organization

NGP: Northern Great Plains

NGPJV: Northern Great Plains Joint Venture

NHPA: National Historic Preservation Act

NRCS: Natural Resources Conservation Service

NRHP: National Register of Historic Places

NWR: national wildlife refuge

objective: A concise statement of what we want to achieve, how much we want to achieve, and when and where we want to achieve it. Objectives derive from goals and provide the basis for determining strategies, monitoring refuge accomplishments and evaluating the success of strategies. Objectives are specific, measurable, achievable, results-oriented and time-fixed (SMART) descriptions about how we will accomplish conservation.

phenology: The study of the timing of recurring biological events, the causes of their timing with regard to biotic and abiotic forces, and the interrelation among phases of the same or different species.

precontact: Of or relating to the period before contact of an indigenous people with an outside culture. *Note: This term is interchangeable with the term "prehistoric" in North American archaeology.*

prescribed fire: Any fire intentionally ignited by management actions in accordance with applicable laws, policies and regulations to meet specific objectives.

PRPA: Paleontological Resources Preservation Act

NWRS: National Wildlife Refuge System

riparian area/riparian zone: Long strips of vegetation adjacent to streams, rivers, lakes, reservoirs and other inland aquatic systems that affect or are affected by the presence of water. This vegetation contributes to unique ecosystems.

Service: U.S. Fish and Wildlife Service

SHPO: State Historic Preservation Office

SMART: specific, measurable, achievable, results-oriented and time-fixed

strategy: A specific action, tool, technique, (or a combination of these) used to meet objectives.

submergent plants: Plants that have roots in the substrate and do not emerge above the surface of the water (except for some that have floating leaves).

suppression: Management action to extinguish a fire or confine fire spread beginning with its discovery.

SWAP: State Wildlife Action Plan

USDA: U.S. Department of Agriculture

USDI: U.S. Department of the Interior

USFWS: U.S. Fish and Wildlife Service

vision: A concise statement of the planning unit's desired future conditions based primarily on the NWRS's mission, specific refuge purposes, the role of the planning unit in the landscape and other mandates.

wetland: An area inundated or saturated by surface or ground water at a frequency and duration sufficient to support vegetation adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes and bogs.

WMD: wetland management district

WPA: waterfowl production area

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