

# 1 Introduction



*Dahl Lake, in the midst of the refuge, is nestled in the Pleasant Valley.*

This comprehensive conservation plan (CCP) is the result of an environmental assessment (EA) that evaluated alternatives for the management of the Lost Trail National Wildlife Refuge in northwestern Montana (figure 1).

The Lost Trail National Wildlife Refuge lies in the west-central portion of Flathead County, Montana, approximately 25 air miles west of Kalispell (figure 1). To get to the refuge, visitors travel 20 miles on Highway 2, west to Marion, and northwest 20 miles through Haskell Pass.

The congressionally designated refuge boundary encompasses approximately 9,225 acres. Within the designated boundary, the Service manages approximately 7,885 acres (figure 2). A mosaic of valley meadows and wetlands, and sloping uplands dominated by forest, comprise the refuge. Located in an Intermountain drainage known locally as Pleasant Valley, the refuge has elevations ranging from 3,488 to 4,600 feet.

## AREA DESCRIPTION

Lost Trail National Wildlife Refuge is nestled in the Pleasant Valley, which was formed during the last glacial period in North America. Pleasant Valley sits atop a vast, relatively uniform expanse of the Belt Rock formation called the Purcell Alticline.

Pleasant Valley is located in the Salish Mountains among medium-elevation mountains such as Ashley Mountain (6,300 feet) to the north and Murr Peak (6,763 feet) to the south, near the confluence of the boundaries of the Flathead, Kootenai, and Lolo national forests (figure 3).

The Whitefish Mountains lie northeast of the refuge, beyond which Glacier National Park and the Continental Divide are found. The Purcell

Mountains are directly west, and Little Bitterroot and Flathead lakes lie southeast of the refuge. Further east are the breathtaking Mission and Swan mountain ranges. The Cabinet and Bitterroot mountains are west of the refuge.

The refuge administers McGregor Meadows, Batavia, Blasdel, Smith Lake, and Flathead waterfowl production areas (WPAs), which comprise the northern half of the Northwest Montana Wetland Management District (WMD). The refuge also administers the Swan River National Wildlife Refuge. This CCP does not address administration of these units. These WPAs and the Swan River National Wildlife Refuge will be addressed in separate CCPs.

## U.S. FISH AND WILDLIFE SERVICE AND THE REFUGE SYSTEM

The U.S. Fish and Wildlife Service (Service, USFWS) is the principal agency responsible for conservation of our Nation's fish, wildlife, and plant resources. This responsibility is shared with other federal agencies and state and tribal governments.

*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 Service manages a diverse network of more than 540 national wildlife refuges within the National Wildlife Refuge System, which encompasses 95 million acres of lands and waters. Lost Trail is 1 of 22 national wildlife refuges in Montana.

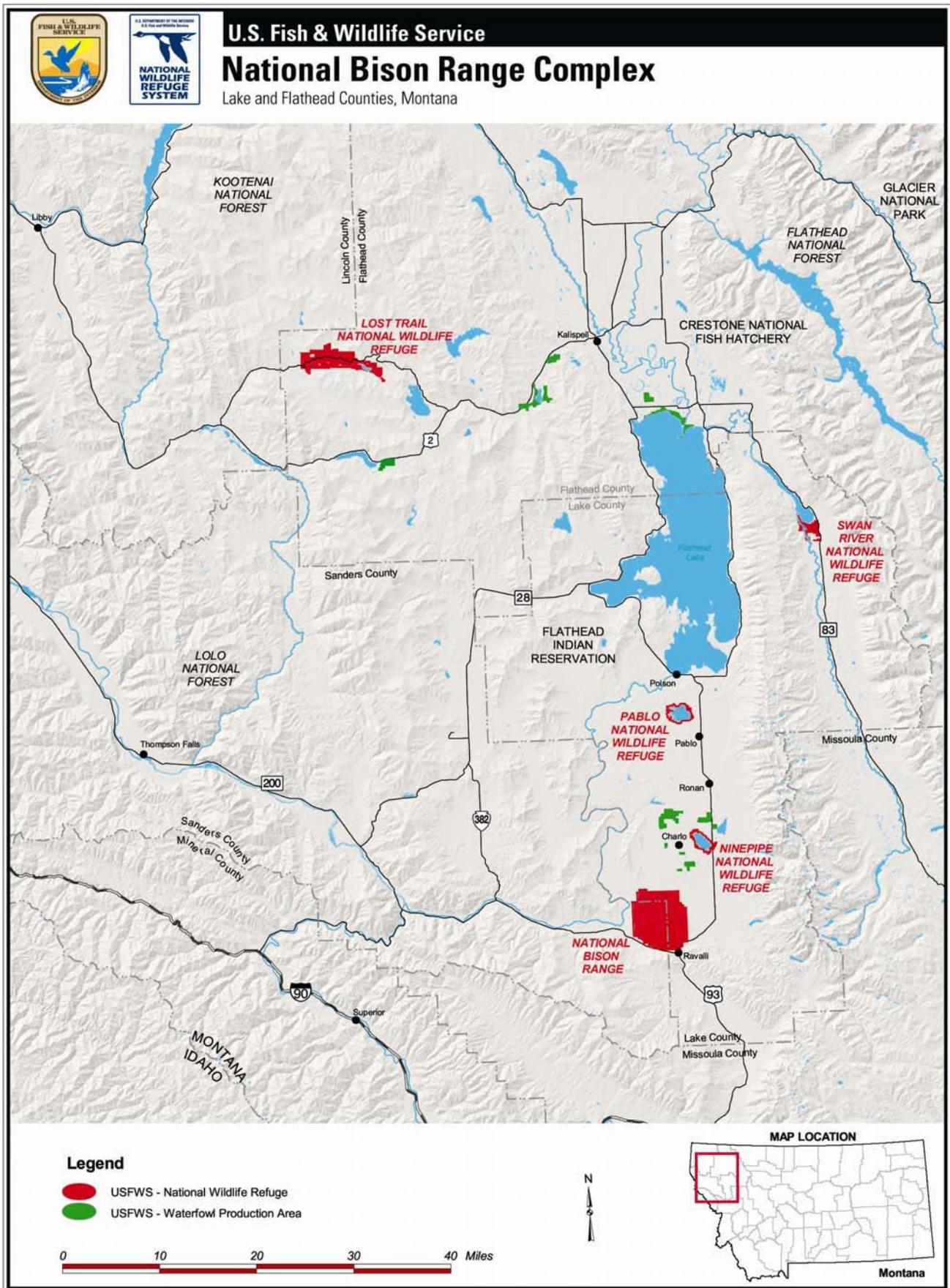


Figure 1. Vicinity map for Lost Trail National Wildlife Refuge, Montana

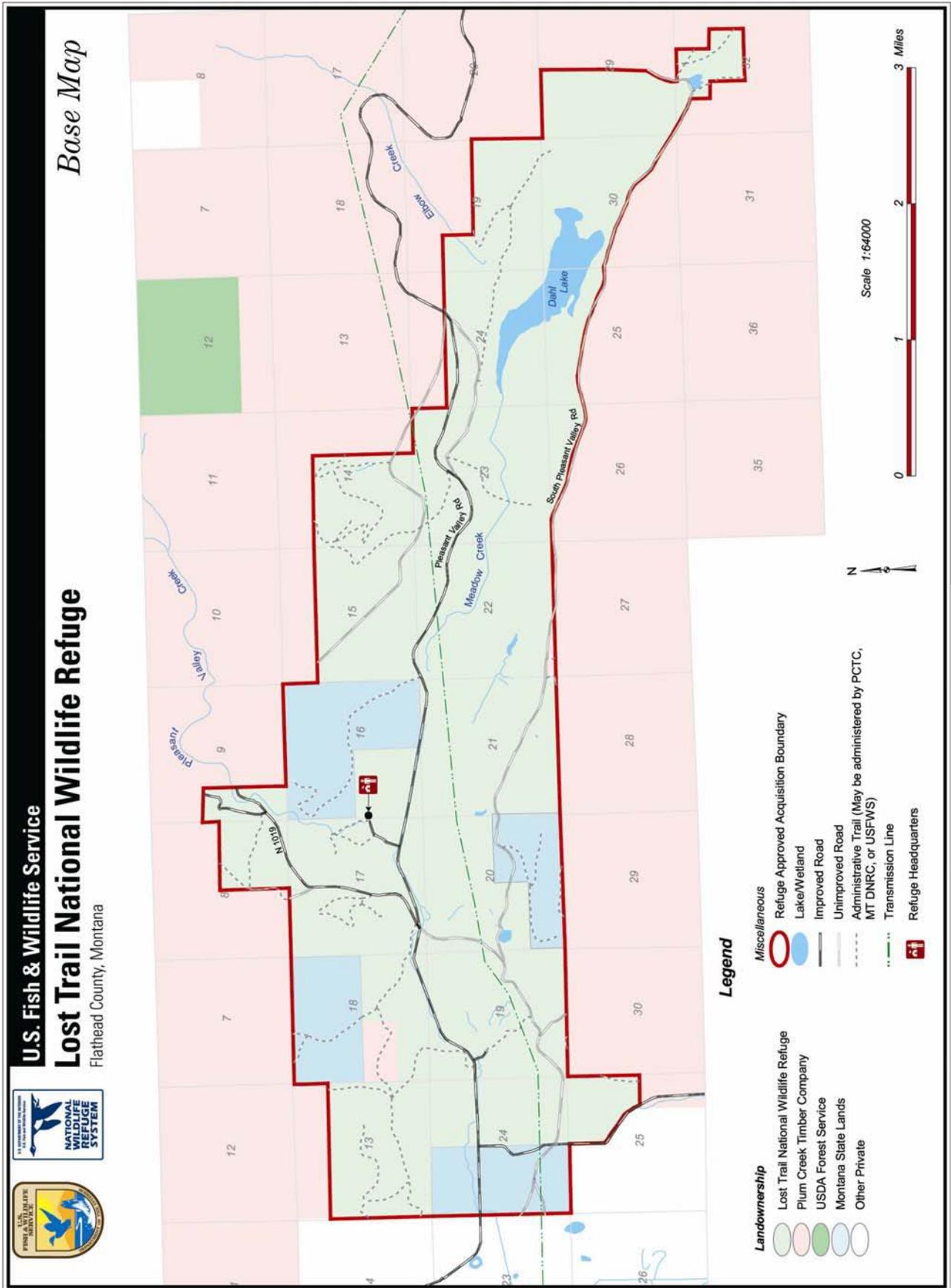


Figure 2. Base map for Lost Trail National Wildlife Refuge, Montana

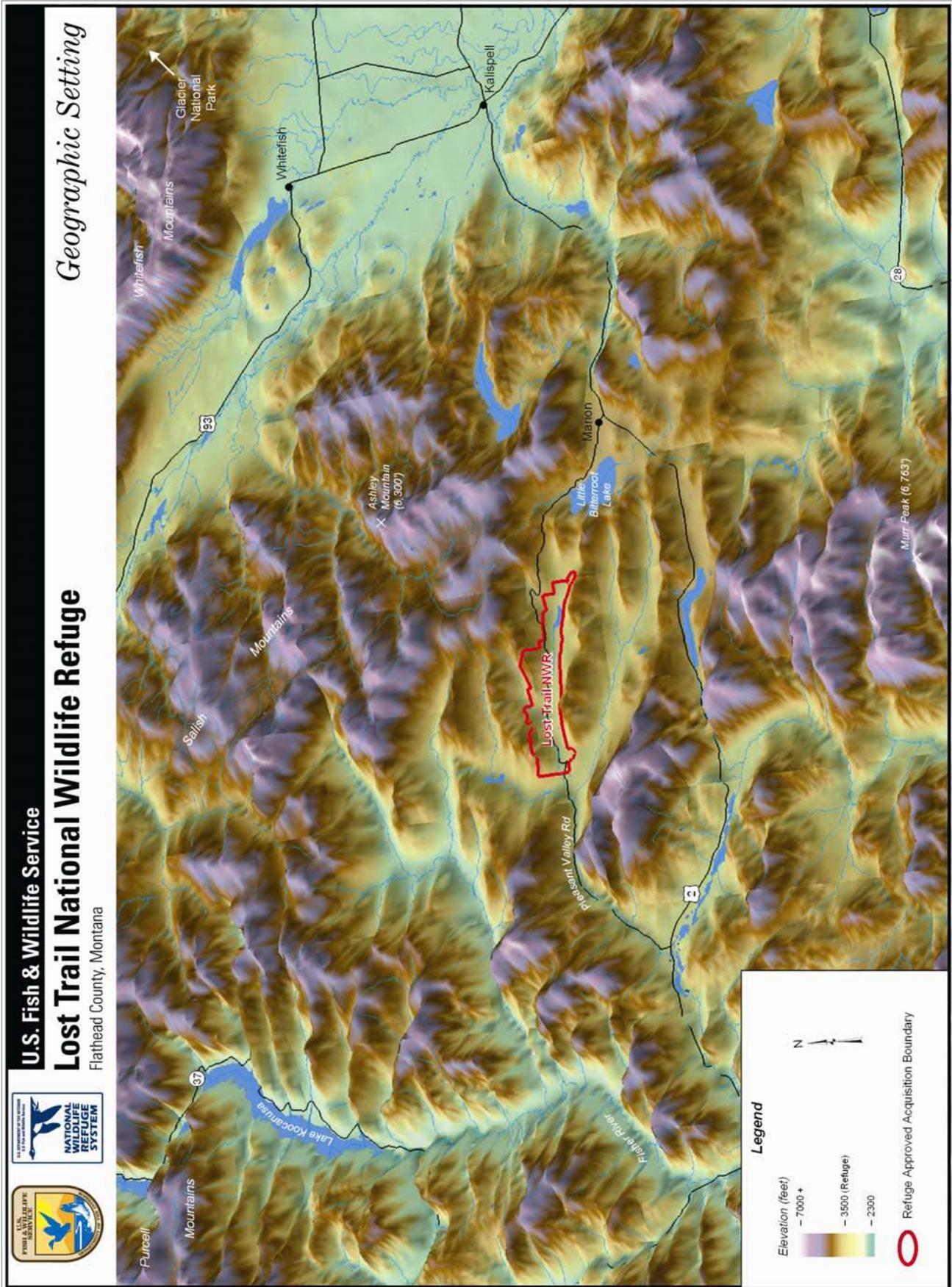


Figure 3. Geographic setting of Lost Trail National Wildlife Refuge, Montana

*The mission of the National Wildlife Refuge System is to administer a 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.*

Operation and management of national wildlife refuges are influenced by a wide array of laws, treaties, and executive orders (see appendix A). The primary guidance comes from these laws:

- National Wildlife Refuge System Administration Act of 1966, as amended
- National Wildlife Refuge System Improvement Act of 1997 (Improvement Act)

All national wildlife refuges are established with the following goals (Service Director's Order No. 132):

- Fulfill our statutory duty to achieve refuge purpose(s) and further the Refuge System mission.
- Conserve, restore where appropriate, and enhance all species of fish, wildlife, and plants that are endangered or threatened with becoming endangered.
- Perpetuate migratory bird, interjurisdictional fish, and marine mammal populations.
- Conserve a diversity of fish, wildlife, and plants.
- Conserve and restore, where appropriate, representative ecosystems of the United States, including the ecological processes characteristic of those ecosystems.
- Foster understanding and instill appreciation of fish, wildlife, and plants, and their conservation, by providing the public with safe, quality, and compatible wildlife-dependent public use. Such use includes hunting, fishing, wildlife observation and photography, environmental education, and interpretation.

These goals help step-down the Refuge System mission and principles of the 1997 amendments to the National Wildlife Refuge System Administration Act. These goals articulate the foundation for stewardship of the Refuge System and define the unique niche it occupies among various federal land systems.

The Improvement Act calls for making opportunities for wildlife-dependent recreation, as long as they are compatibly managed with other purposes and do not conflict with other use. Service policy allows use if it is appropriate (appendix A).

An appropriate use:

contributes to the Refuge System mission, the refuge's major purposes, or refuge goals or objectives;

is a priority wildlife-dependent public use (fishing, hunting, wildlife observation and photography, environmental education, and interpretation); *or*

supports the safe and effective conduct of a priority public use.

It is the policy of the federal government—in cooperation with other nations and in partnership with states, local governments, Indian tribes, and private organizations and individuals—to administer federally owned, administered, or controlled prehistoric and historic resources in a spirit of stewardship for the benefit of present and future generations.

To maintain the health of individual national wildlife refuges, and the Refuge System as a whole, managers must anticipate future conditions—to avoid adverse effects and take positive actions to conserve and protect refuge resources. Effective management also depends on knowledge of larger systems and resource relationships.

## PURPOSE AND NEED FOR A CCP

The National Wildlife Refuge System Administration Act, as amended by the Improvement Act, requires that CCPs be in place for all national wildlife refuges within 15 years of enactment (2012).

A CCP is needed to guide the conservation and use of resources on the newly established (1999) Lost Trail National Wildlife Refuge for the next 10–15 years.

In general, a CCP serves to do the following:

- Ensure that the purpose of the refuge and mission of the National Wildlife Refuge System are being fulfilled.
- Ensure that national policy direction is incorporated into refuge management.
- Ensure that opportunities are available for interested parties to participate in the development of management direction.
- Provide a systematic process for making and documenting refuge decisions.
- Establish broad strategies for refuge programs and activities.
- Provide a basis for evaluating accomplishments.

## REFUGE OVERVIEW

Lost Trail National Wildlife Refuge was established on August 24, 1999, and became the 519th refuge in the National Wildlife Refuge System.

Appendix A provides further information about the establishment history of the refuge.



Eugene Hester/USFWS

Canvasback Duck

### PURPOSES

The purposes for the refuge are set out in the authorities for acquisition (below), and are summarized here.

*Lost Trail National Wildlife Refuge was established for...*

- use by migratory birds, with emphasis on waterfowl and other waterbirds*
- the conservation of fish and wildlife resources*
- fish- and wildlife-oriented recreation*
- the conservation of endangered or threatened species*

Management is dictated, in large part, by legislation that created the refuge and defines the purposes for which the refuge was established. Five authorities exist for the acquisition and establishment of the refuge:

- Migratory Bird Conservation Act, “...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds.”

Habitat management needs to maintain a mosaic of plant communities for a diversity of foraging and nesting migratory birds. Plant communities need to be managed for a variety of cover conditions and water levels, with areas of disturbance minimized.

- Endangered Species Act of 1973 (ESA)
- Fish and Wildlife Act, “...for the development, advancement, management, conservation, and protection of fish and wildlife resources.”
- Refuge Recreation Act, “...for (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species.”
- Fish and Wildlife Coordination Act, “...for the conservation and enhancement of fish and wildlife.”

Parts of the refuge are mitigative properties (obtained from the Montana Power Company [MPC] in lieu of losses to Flathead WPA attributed to past and future operations of Kerr Dam). The purpose is to protect and maintain wetland habitat for migratory birds, other animals, and plants; to restore floodplain acreage to its historic role; and to enhance the survival prospects of endangered and threatened species.

### ECOSYSTEM SETTING

The refuge is part of the ecosystem designated by the Service as the Missouri, Yellowstone, Columbia River (MOYOCO) ecosystem (figure 4). The Columbia River watershed primarily falls into the Service’s Region 1, a different administrative area. The Improvement Act and planning policy requires CCPs to show how refuge management contributes to the Service’s ecosystem goals.

The mission for the MOYOCO ecosystem is to maintain, restore, and enhance riparian and watershed functions for the benefit of trust resources, Service properties, and the American public. This includes preservation and restoration of grasslands, riparian areas, and wetland habitats and conservation of endangered, threatened, and other species of special concern. The habitat and wildlife goals and objectives for the refuge contribute to the MOYOCO ecosystem mission.

### MANAGEMENT CONSIDERATIONS

This section describes other management considerations for habitats, wildlife, and administration of the refuge.

#### Habitats

The wetland reserve program (WRP) project has the following goals that relate to Pleasant Valley Creek:

- Address habitat needs for a diversity of fish and wildlife with a priority for species most impacted by degraded condition; beaver; moose; and species of concern such as bull, westslope cutthroat, and redband trout.

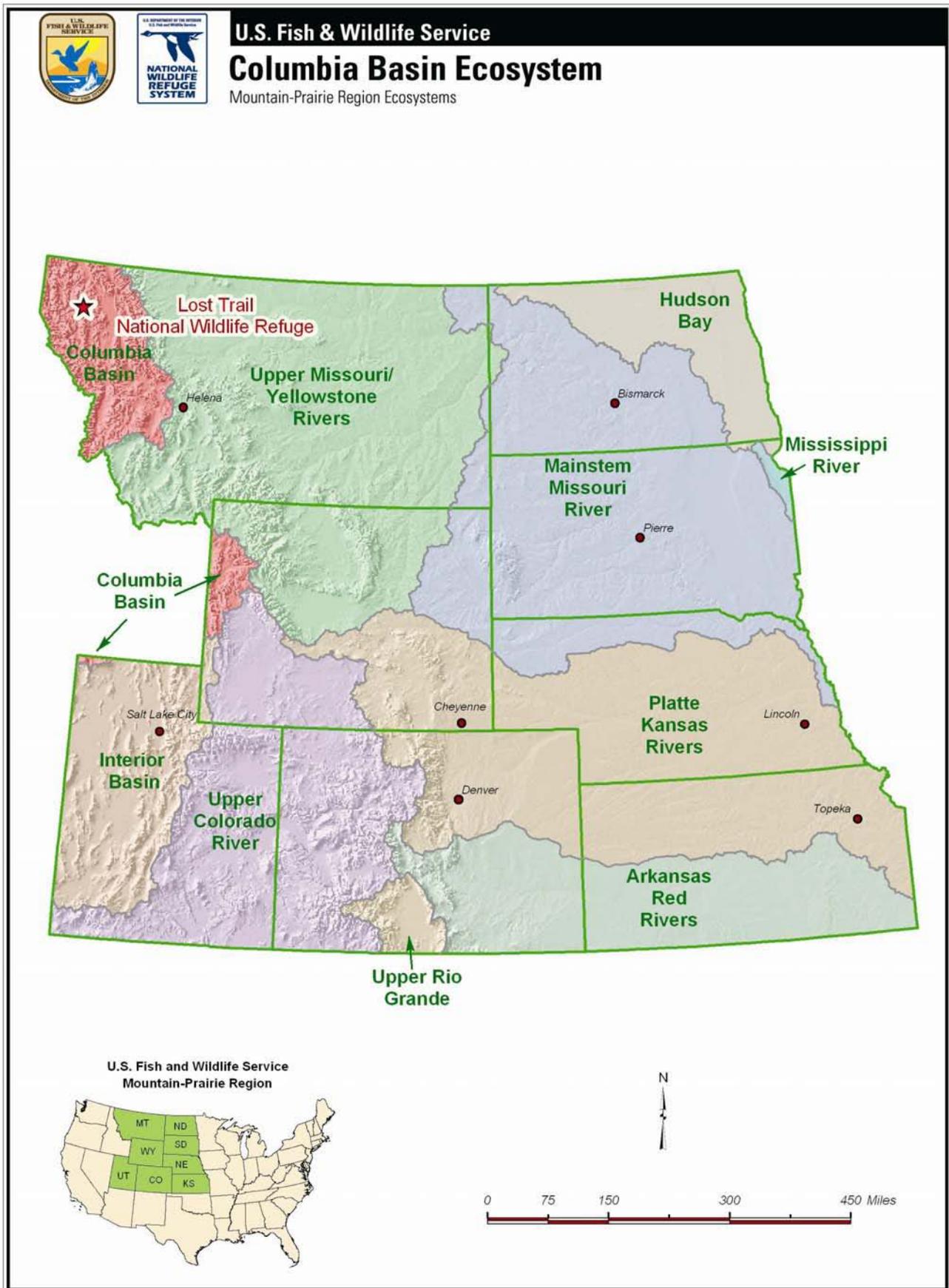


Figure 4. Columbia Basin ecosystem

- Restore wetland hydrology and vegetation to historic conditions.
- Restore streams to historical channels and/or function, where feasible.
- Restore fisheries habitat and aid fish passage to tributary channels, where feasible.

(The glossary entry for “wetland reserve program” provides further information.)

Although management of forest habitat is not a priority for the refuge, as a wildlife steward, the Service needs to determine what is within refuge boundaries and not impact species of concern and their biological potential.

## Wildlife

Since Lost Trail National Wildlife Refuge was purchased as mitigation for habitat losses associated with Flathead WPA, management emphasis is placed on improving wetland-dependant species diversity and maintaining healthy self-sustaining populations of these species. Refuge managers primarily use habitat management to improve species diversity and to sustain or improve wildlife populations. Thus, wildlife management objectives are directly linked to habitat objectives.

Lost Trail is a new refuge that, until recently, had only one full-time employee. It is essential to gather baseline data on habitat and wildlife use of the refuge to evaluate the refuge’s potential to contribute to the conservation, enhancement, and enjoyment of the wildlife of the Rocky Mountain West. Emphasis for wildlife during the term of this plan will be on monitoring and evaluating species richness and populations, developing management plans, and using the principles of adaptive resource management to enhance wildlife populations.

Enabling legislation for the refuge also emphasized the conservation of fish and wildlife resources, and the conservation of endangered or threatened species. Big game species that occur on the refuge include elk, white-tailed deer, mule deer, moose, black bear, and mountain lion.

The refuge is important winter habitat for a herd of more than 300 elk. Winter is a critical time for ungulate survival. Animals that may have occupied thousands of acres of summer and fall range can be seasonally confined to relatively restrictive area. These wintering areas have limited forage and extreme environmental conditions, which can cause physiological stress. Almost 40 percent more food is required in winter to generate energy for daily metabolic and activity requirements. Mackie et al. (1998) observed that “deer survive primarily by supplementing energy resources accumulated prior to winter with energy intake from sub-maintenance winter diets.” This requires behavior that emphasized energy conservation. Inactivity provides an energetic

advantage for animals exposed to cold; forced activity caused by human disturbance exacts an energetic disadvantage. Management for elk will concentrate on providing healthy native winter habitat with limited disturbance.

The refuge is challenged to manage for predator species diversity and health along with other native species. Although predators are of secondary importance after native birds for management to meet refuge purposes, they are critical to maintaining ecosystem health and are popular with refuge visitors.

The ESA requires federal agencies to carry out conservation (recovery) programs for listed species, and to ensure that agency actions are not likely to jeopardize the continued existence of listed species or adversely modify or destroy their critical habitat.



John and Karen Hollingsworth/USFWS

*The gray wolf is a federally threatened species.*

- The refuge currently supports one active bald eagle nest.
- Gray wolves denned within 0.25 mile of the refuge in the 1990s. Although wolves are not breeding in Pleasant Valley at this time, neighboring packs and dispersers occasionally frequent the refuge.
- The refuge lies in an area designated as management situation II under the interagency Grizzly Bear Guidelines (USDA Forest Service 1986). Grizzly bears occasionally inhabit the area, but lack of highly suitable habitat and security precludes extensive use. The grizzly bear is important, but not the primary use of the area and the refuge will not be managed exclusively for the grizzly bear at the expense of other priority species.
- The refuge contains only marginal habitat for Canada lynx; even intensive management for lynx habitat may not result in lynx using the refuge. If conflicts arise, the needs of the lynx may not be the primary consideration in habitat management.

- Bull trout, a federally listed species, exists in the Fisher River watershed downstream from the refuge. It is unknown if this species ever existed on the habitats which today comprise the Lost Trail National Wildlife Refuge.

## Public Use

Hunting, fishing, wildlife observation and photography, environmental education, and interpretation are priority public uses of the Refuge System, when compatible with the main mission of wildlife conservation (Improvement Act).

The Service's stewardship responsibilities will ensure that priority uses, when found compatible, will receive enhanced and highest consideration in refuge planning and management over other general public uses.

## Administration

House Report 105–106 (accompanying the House of Representatives version of the Improvement Act) encourages refuge managers to take reasonable steps to obtain outside assistance if adequate finances are not available to manage a priority use in a compatible manner.

Refuge staff needs to work closely with state, community, and conservation partners to help obtain resources to manage priority uses.

## BACKGROUND

In 1985, the Service evaluated ecosystem and Refuge System needs in Flathead and Lake counties, Montana, and prepared a land acquisition and development plan. The plan identified more than 11,000 acres of wetlands and uplands in Flathead Valley that are suitable for wetland-dependent wildlife production and management. Dahl Lake and surrounding wetland habitats were identified.

The establishment of much of the refuge was the result of a mitigative settlement between the MPC, the Confederated Salish and Kootenai Tribes (CSKT), and the Service. A summary follows, with details found in appendix A.

The MPC operated Kerr Dam, a hydro-generating facility located on the Flathead River. In 1985, the Federal Energy Regulatory Commission (FERC) identified hydro-project impacts to aquatic and wildlife resources on the Service-administered Flathead WPA at the north end of Flathead Lake.

In 1998, FERC issued a settlement order that required the MPC to acquire 3,911 acres of suitable replacement habitat as mitigation for wildlife losses and impacts on the WPA. The MPC purchased the Lost Trail Ranch with the intent of conveying 3,112 acres to the Service. Two parcels of the ranch were identified as mitigative replacement habitat (figure 5):

- Dahl Lake (approximately 160 acres) with 2,452 acres of surrounding habitat
- Restorable wetlands (500 acres) on the west end of the ranch

There is a draft habitat development plan for the refuge as part of this FERC-approved settlement. The plan addresses habitat enhancements on the refuge for mitigation of habitat and wildlife losses.

After review of the proposed parcels, and in consideration of other wildlife needs, the Service proposed acquisition of the remaining ranch tracts for establishment of a national wildlife refuge. In 1998, a preliminary project proposal, conceptual management plan, and environmental assessment for acquisition were prepared.

The name of the refuge was selected very early during the acquisition phase. "Lost Trail National Wildlife Refuge" was chosen because the former private lands that now comprise the refuge were known locally as the Lost Trail Ranch. The Service wanted to aid in the public's identification of the refuge.

The conceptual management plan provided a general description of the operations and management for the newly established refuge, as outlined in the preferred alternative of the environmental assessment for the creation of the refuge.

During the interim acquisition period (1998–1999), the Natural Resources Conservation Service (NRCS), in conjunction with the MPC, acquired a WRP easement on 1,770 acres of the ranch (figure 6). This easement allows for the restoration of the hydrology of the area.

The refuge acquisition was completed on August 24, 1999, by the realty division at the Service's Region 6 headquarters (Lakewood, Colorado). Approximately 3,112 acres were conveyed to the Service through the mitigation. The remainder of the property was proposed to be acquired through the Migratory Bird Conservation Fund, subsequently establishing the 7,885-acre Lost Trail National Wildlife Refuge.

The refuge encompasses 7,885 acres of its designated 9,300-acre legislative boundary. There are 1,440 acres of state land leases within the legislative boundary that are not owned by the Service.

The 2001 decision to allow hunting at the refuge followed the completion of an environmental assessment for hunting options, strategies, and effects (details are in appendix A).

When considering other uses, the refuge manager will prepare a compatibility determination when necessary. Appendix B displays the compatibility determination for the refuge.

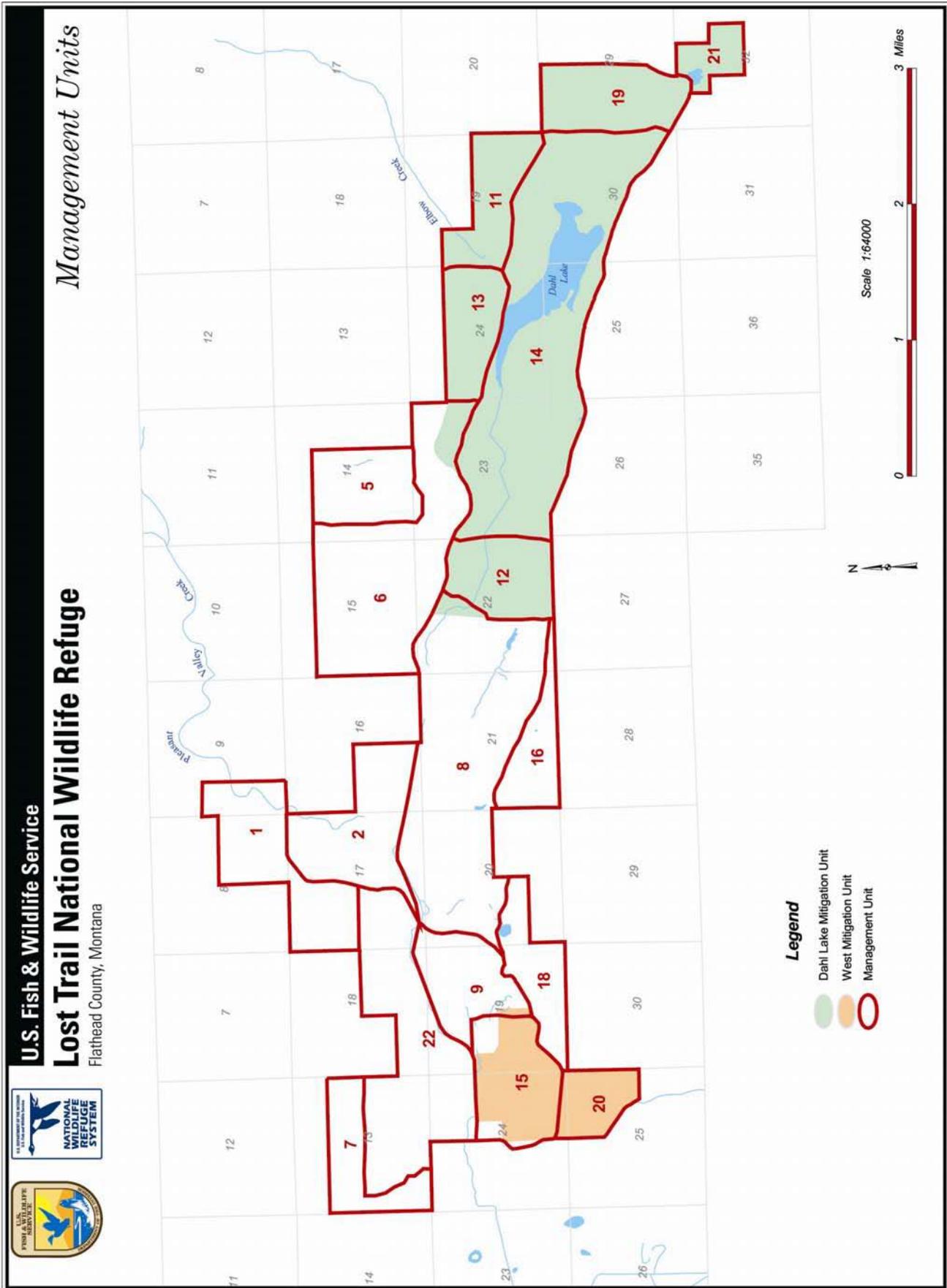


Figure 5. Management units for Lost Trail National Wildlife Refuge, Montana

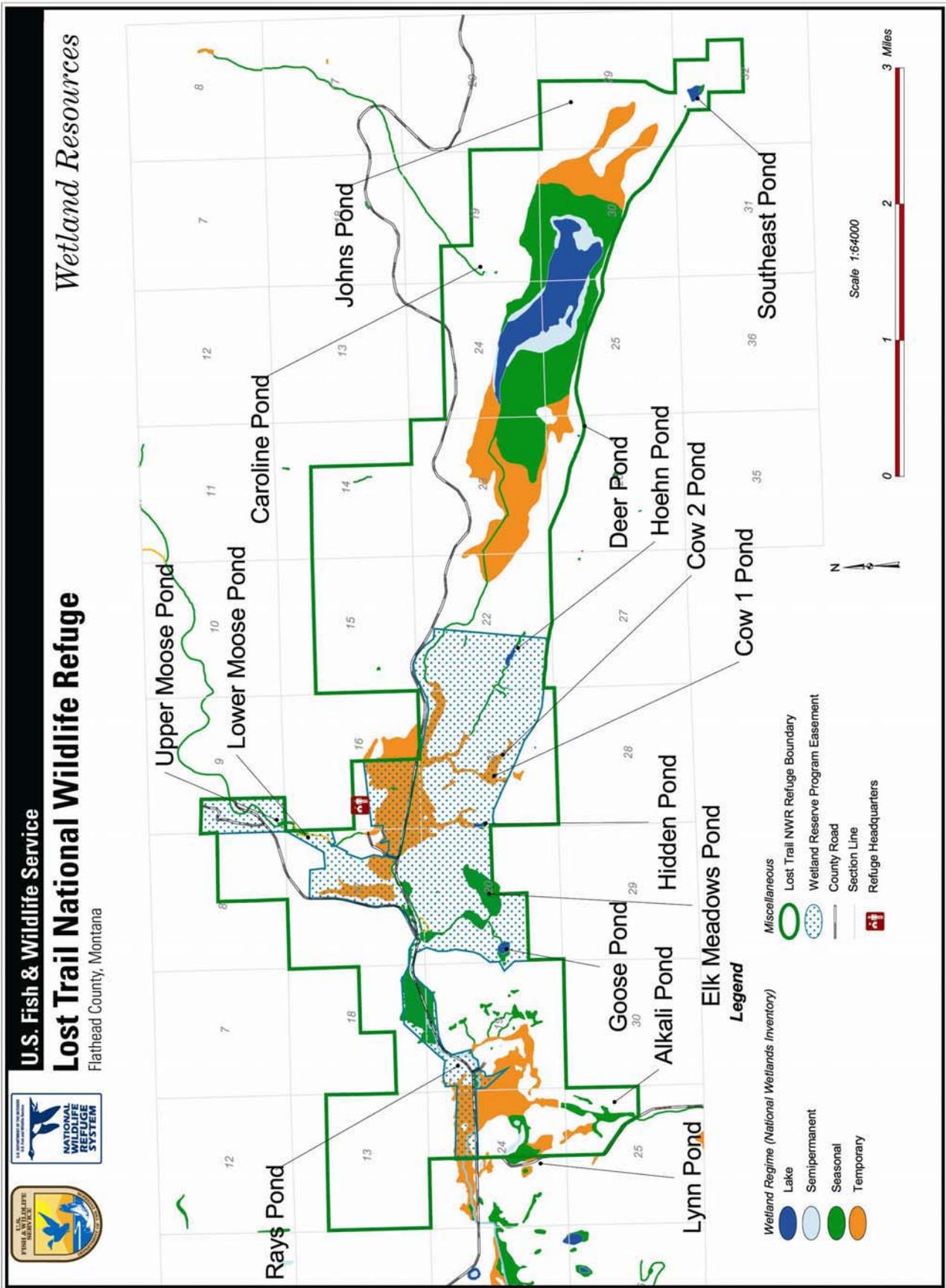


Figure 6. Wetland resources of Lost Trail National Wildlife Refuge, Montana

Wildlife-dependent recreational use programs will be offered only to the extent that staff, funds, and facilities are sufficient to develop and operate programs to safe, quality standards.

## REFUGE VISION STATEMENT AND GOALS

### VISION

*Lost Trail National Wildlife Refuge is an integral part of the Columbia River ecosystem and the Pleasant Valley community.*

*The refuge is a place where wetlands, streams, native grasslands, and forests have been conserved, enhanced, and restored. These habitats support a variety of migratory birds, species of concern, and other associated wildlife and plants.*

*People learn about and appreciate the natural and cultural environment of the refuge and enjoy opportunities for wildlife-dependent recreation.*

*Partnering with others fosters natural and cultural resource conservation for the benefit of present and future generations.*

### GOALS

A goal is a descriptive, broad statement of desired future conditions that conveys a purpose, but does not define measurable units. Goals for the refuge will direct work at carrying out the refuge’s mandates and achieving the purposes.

These goals are derived from the vision statement and the refuge’s purposes to reflect the refuge’s contribution to the Refuge System. The following goals for the refuge reflect the core mission of the



Hooded Merganser with Brood

John and Karen Hollingsworth/USFWS

Service to protect fish, wildlife, and plant resources while providing compatible opportunities for the public to appreciate and enjoy the natural environment of the region.

#### Riparian Habitat Goal

Restore, enhance, and maintain a mixed deciduous and coniferous riparian habitat to support indigenous wildlife species and perpetuate the ecological integrity of the Fisher River watershed.

#### Wetland Habitat Goal

Provide breeding, resting, and feeding habitat for wetland-dependent species of northwestern Montana by restoring, maintaining, and enhancing a mosaic of lake, semipermanent, seasonal, temporary, and saturated wetlands.

#### Grassland Habitat Goal

Restore, enhance, and maintain Intermountain grasslands, with an emphasis on native bunchgrass prairie to provide habitat for migratory birds, species of concern, and associated wildlife species.

#### Forest Habitat Goal

Enhance and maintain Douglas-fir, ponderosa pine, aspen, and cottonwood forested habitats within the context of the Fisher River watershed for migratory birds, species of concern, and other associated wildlife species.

#### Invasive Plant Goal

Native plant communities, composition, occurrence, and density exist without degradation by invasive plants and support associated wildlife.

#### Migratory Bird Goal

Preserve, restore, and enhance the ecological diversity and abundance of migratory birds of the Intermountain West forest, wetland complexes, riparian habitat, and bunchgrass prairie.

#### Endemic Wildlife Goal

Restore and maintain resident and endemic wildlife populations of northwestern Montana to maintain and enhance species diversity of Lost Trail National Wildlife Refuge and Fisher River watershed.

#### Species of Concern Goal

Contribute to the conservation, enhancement, and recovery of endangered, threatened, and species of concern populations in Lost Trail National Wildlife Refuge and Fisher River watershed.

#### Cultural Resource Goal

Protect, manage, and interpret archaeological, cultural, and historical resources present at Lost Trail National Wildlife Refuge for the benefit of present and future generations.

**Public Use Goal**

Provide quality wildlife-dependent recreational and educational opportunities for persons of all abilities to learn, understand, and enjoy the Intermountain ecosystem of northwestern Montana; the associated fish, wildlife, and plants of Lost Trail National Wildlife Refuge; and the National Wildlife Refuge System in a safe and compatible manner.

**Administration Goal**

Provide staffing, funding, and facilities to maintain the long-term integrity of habitats and wildlife resources of Lost Trail National Wildlife Refuge in supporting the achievement of ecosystem and National Wildlife Refuge System goals.

**Partnership Goal**

Promote and develop partnerships with adjacent landowners, public and private organizations, and other interested individuals to preserve, restore, and enhance a diverse and productive ecosystem of which Lost Trail National Wildlife Refuge is an integral part.

