

# Draft Comprehensive Conservation Plan and Environmental Assessment

*Lee Metcalf National Wildlife Refuge*

**Montana**

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**Prepared by**

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# Summary



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*View of the Lee Metcalf National Wildlife Refuge from the Bitterroot Mountains.*

This is a summary of the draft comprehensive conservation plan and environmental assessment for the U.S. Fish and Wildlife Service's Lee Metcalf National Wildlife Refuge. The National Wildlife Refuge System Improvement Act of 1997 requires the U.S. Fish and Wildlife Service to develop a comprehensive conservation plan by 2012 for each national wildlife refuge. Chapter 5 contains the draft plan for the refuge; the final plan is scheduled for completion in 2012 and would guide the management of the refuge for the next 15 years.

## The Refuge

Lee Metcalf National Wildlife Refuge, established on February 4, 1964, is a 2,800-acre refuge located in the Bitterroot River Valley of southwest Montana (figure 1). The refuge encompasses a portion of the Bitterroot River and is located between the scenic Bitterroot and Sapphire Mountains. The channel of the Bitterroot River has been altered from levees, bank stabilization, and some channelization; nevertheless, this floodplain refuge provides a diverse mosaic of western mountain valley habitats including gallery and riverfront forest, wet meadow, wetlands, and grassland benches.

The refuge provides opportunities for the public to enjoy compatible wildlife-dependent public use activities including hunting, fishing, wildlife observation and photography, environmental education, and

interpretation. The refuge is a very popular community and tourist destination with more than 143,000 visitors annually.

## The Planning Process

The planning process for a comprehensive conservation plan consists of a series of steps including environmental analysis. Public and partner involvement is encouraged and valued throughout the process. The Service's planning team compiled a list of issues to consider and analyzed management alternatives for the comprehensive conservation plan that would not only address these issues but meet the purposes, vision, and goals of the refuge.

After the public reviews and provides comments on the draft plan and environmental assessment, the Regional Director will consider the environmental effects of each alternative including information gathered during public review. The Regional Director will select a preferred alternative. After the planning team prepares the final comprehensive conservation plan for publication, a notice of availability will be published in the Federal Register, and copies of the final document or accompanying summary will be sent to individuals on the mailing list. Subsequently, the Service will implement the comprehensive conservation plan with help from partner agencies, organizations, and the public.

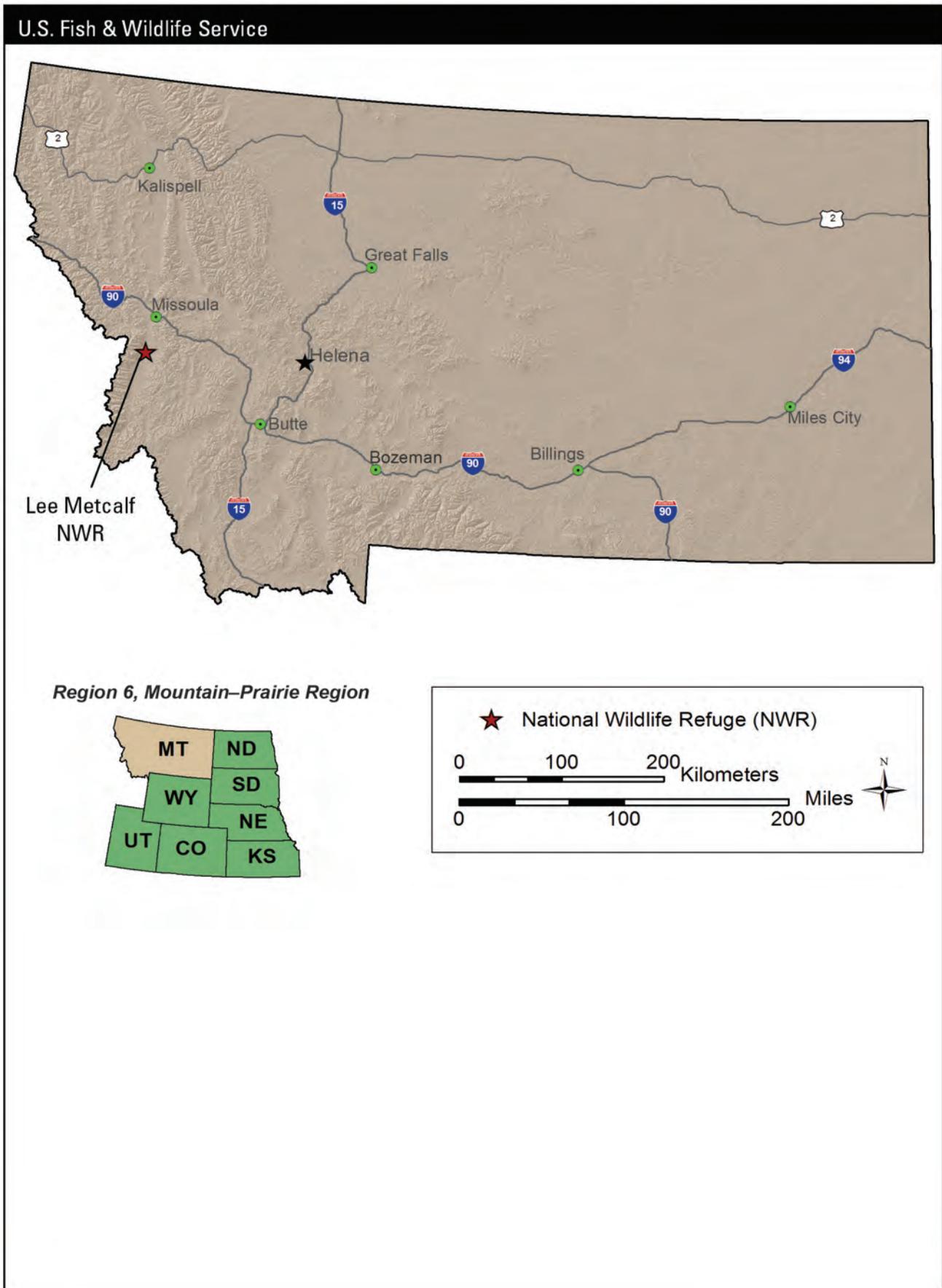


Figure 1. Location map for Lee Metcalf National Wildlife Refuge, Montana.



Steve Hillebrand/USFWS

*The refuge encompasses a portion of the Bitterroot River and is located between the scenic Bitterroot and Sapphire Mountains in the heart of the Bitterroot Valley.*

## Issues

Substantive issues were identified following an internal review of refuge information and through public scoping, which began in 2009. The following issues are detailed in chapter 2:

- riparian habitat loss and fragmentation caused by the migration of the Bitterroot River
- overgrown emergent vegetation and eroded levees and water management structures that have compromised the ability to properly manage wetland impoundments
- reduction in the quality and diversity of upland habitats due to invasive plants and lack of native species
- algal blooms that have diminished clarity and quality of refuge waters
- inefficient water supply due to silted and overgrown supply ditches
- invasive species that have become widespread and difficult to control
- lack of baseline research, inventory, and monitoring data to guide research
- small visitor contact area, outdated displays, and inadequate public access by trails
- inadequate staff to manage and enhance refuge habitats and visitor services

## The Future of the Refuge

The vision for Lee Metcalf National Wildlife Refuge is based on the establishing purposes of the refuge, resource conditions and potential, and the issues identified during the planning process. The goals were developed to meet the vision for the refuge.

### VISION FOR THE REFUGE

*Lee Metcalf National Wildlife Refuge is a representation of the diverse native wildlife habitat once found abundantly between the Bitterroot and Sapphire Mountains and along the ever-changing Bitterroot River. This floodplain refuge, fed by mountain snow, is a diverse mosaic of forest, grassland, and riparian habitat that provides protected lands and waters for migratory and resident wildlife.*

*The refuge, in partnership with its neighbors, friends, and the community, is a conservation leader in the valley, ensuring that the biological integrity of this refuge and other valley habitats remains intact or, where appropriate, is restored.*

*These protected lands and waters are a place of discovery for visitors to experience fish and wildlife firsthand and where children can experience nature with all their senses. Visitors to the refuge can appreciate the beauty of the setting and experience a sense of wonder and pride to be preserving this part of the Bitterroot Valley and the National Wildlife Refuge System.*

### GOAL FOR THE BITTERROOT RIVER FLOODPLAIN AND ASSOCIATED WILDLIFE

Manage and, where appropriate, restore the natural topography, water movements, and physical integrity of surface water flow patterns across the Bitterroot River floodplain to provide healthy riparian habitats for target native species and to educate visitors about the benefits of sustaining a more natural floodplain.

Steve Hillebrand/USFWS



*Consistent with the guiding principals of all units in the Refuge System, wildlife is prioritized first on the refuge.*

### **GOAL FOR WETLAND IMPOUNDMENT HABITAT AND ASSOCIATED WILDLIFE**

Where appropriate, manage wetland impoundments to create a diversity of habitats for target waterfowl, shorebirds, and other associated native wetland-dependent species.

### **GOAL FOR GRASSLAND AND SHRUBLAND HABITAT AND ASSOCIATED WILDLIFE**

Create the conditions that will allow for the restoration, maintenance, and distribution of native grassland and shrubland species (such as rabbitbrush, needle and thread grass, Junegrass, and hairy golden aster) to provide healthy lands for a diverse group of target native resident and migratory wildlife species and to educate visitors about the historical plant and animal diversity of the valley.

### **GOAL FOR INVASIVE AND NONNATIVE SPECIES**

Prevent, reduce, and contain the invasion and spread of noxious, invasive, and harmful nonnative species within the refuge while working with partners to address off-refuge infestations within the surrounding landscape.

### **GOAL FOR RESEARCH**

Pursue and maintain compatible research projects that would provide information on refuge resources and address refuge issues to assist management in making decisions based on the best available information and science.

### **GOAL FOR CULTURAL RESOURCES**

Provide opportunities for visitors to learn about the unique glacial, Native American, and Euro-American history of the Bitterroot Valley while maintaining and protecting the integrity of the refuge’s cultural and historical resources.

### **GOAL FOR VISITOR SERVICES**

Provide visitors of all abilities with opportunities to participate in and enjoy quality, compatible wildlife-dependent recreation, environmental education, and interpretation programs that foster an awareness and appreciation of the importance of protecting the natural and cultural resources of the refuge, the Bitterroot Valley, and the National Wildlife Refuge System.

### **GOAL FOR PARTNERSHIPS**

Maintain and cultivate partnerships that help achieve the vision and supporting goals and objectives of the Lee Metcalf National Wildlife Refuge Comprehensive Conservation Plan and support other initiatives designed to protect and restore habitats for Federal trust species within the Bitterroot River Valley.

### **GOAL FOR OPERATIONS AND FACILITIES**

Prioritize wildlife first and emphasize the protection of trust resources in the utilization of staff, volunteers, funding, and facilities.

### **TARGET SPECIES SELECTION PROCESS**

Early in the planning process, the Service selected three groups of target species that will be supported by the objectives and strategies described under the habitat goals for the Bitterroot River floodplain, wetland impoundment habitat, and grassland and shrubland habitat. The initial suite of birds, amphibians, or mammals was selected after Service staff reviewed three documents focused on sustaining or recovering species in Montana:

- “Montana Intermountain West Joint Venture Plan”
- “Montana State Conservation Plan”
- “Bitterroot River Subbasin Plan”

The criteria for this species list were based on whether a species either occurred on Lee Metcalf Refuge or could occur on the refuge if its preferred habitat was expanded or restored, as indicated under each goal. The life history needs of over 100 species were examined for similarities and relevance to the proposed goals. Ultimately, 16 species (tables 9, 10, and 11 in chapter 5) were selected based on their ability to represent guilds or because they were good indicators of the quality of a specific habitat type. The habitats that support the migration, foraging, nesting, and migration needs of these selected species should benefit a much broader group of secondary bird species as well as a variety of other wildlife, both migratory and resident.

These target species would be monitored for trends in abundance and distribution to evaluate the effectiveness of proposed actions. The actions described in these the alternatives, below, were evaluated based on their abilities to support these target species.

## Alternatives

The Service developed and analyzed three alternatives for managing habitats and public use at Lee Metcalf National Wildlife Refuge. These alternatives and the consequences of implementing them are further described in chapter 3.

### ALTERNATIVE A—CURRENT MANAGEMENT (NO ACTION)

Alternative A is the no-action alternative, which represents the current management of the refuge. This alternative provides the baseline against which to compare the other alternatives. It also fulfills the requirement in the National Environmental Policy Act that a no-action alternative be addressed in the analysis process.

Under alternative A, management activity currently conducted by the Service would remain the same. The Service would continue to manage and monitor refuge habitats at current levels. The Bitterroot River would continue to migrate through the refuge, eroding some levees and trails. Invasive species would be treated primarily with mechanical and chemical methods as resources become available. Water supply and management structures would be inadequate to properly manage many of the wetland impoundments. Cattail monocultures would be treated.

The current staff of five would perform issue-driven research and monitor only long-term wildlife and vegetation changes. Visitor services programs and facilities would be maintained or expanded as resources become available. Funding and staff levels would follow annual budget allocations provided for refuge operations on Service lands.

### ALTERNATIVE B (PROPOSED ACTION)

This alternative focuses on the expansion and restoration of native plant communities on the refuge including grasslands, shrublands, and gallery and riverfront forests. Some areas that are currently part of wetland impoundments would be restored to native communities including forest and shrubland. A significant focus of restoration proposals would be controlling invasive species and preventing further spread. Grasses and shrubs native to the uplands, including the alluvial fans (that is,



Bob Danley/USFWS

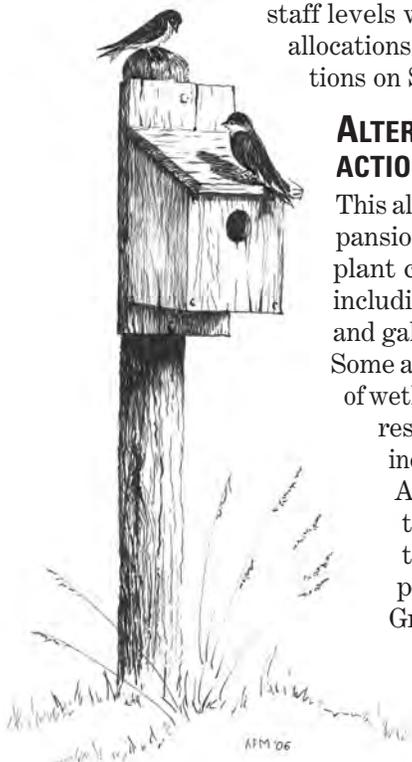
*Environmental education is one of several visitor services offered at the refuge.*

areas of sedimentary deposits where fast-flowing streams have flown into flatter plains), would begin to be restored to provide habitat for native wildlife including grassland-dependent migratory birds. Some wetland impoundments and Service (nonpublic) roads would be removed or reduced in size to allow for river migration and to restore native gallery and riverfront forest for riparian-dependent wildlife. The remaining impoundments would be managed to mimic natural conditions for wetland-dependent migratory birds.

The Service would expand and improve the refuge's compatible wildlife-dependent public use programs, in particular the wildlife observation, environmental education, and interpretation programs. The visitor contact area would be expanded into a visitor center with new displays and a combination conference room and environmental education classroom. New displays would be professionally planned and produced. The refuge would work with Ravalli County staff to designate the county road in the refuge as an auto tour route, which would include pulloffs and some form of interpretation. A seasonal hiking trail would be added, and current trails would be improved for wildlife observation and photography. Interpretation and environmental education programs would be expanded using added staff and volunteers. All public use programs would provide visitors a consistent message about the purposes and values of the refuge and the mission of the Refuge System.

The refuge staff would be expanded by 3.5 individuals to include an assistant refuge manager (one full-time equivalent), a full-time and a career-seasonal biological science technician (1.5 full-time equivalents), and a visitor services specialist (one full-time equivalent) who would serve as a visitor center manager and volunteer coordinator.

Increased research and monitoring, staff, funding, infrastructure, and partnerships would be required to accomplish the goals, objectives, and strategies associated with this alternative. Additional staff and funding



Bob Danley/USFWS



*A fish trap is used to capture and identify fish species on the refuge.*

would be added depending on the regional priorities for those funds allocated to the Service for management of lands and waters within the Refuge System.

### **ALTERNATIVE C**

Alternative C contains many of the elements found in alternative B related to expanding visitor service programs and facilities. However, habitat management would be focused on maintaining the wetland impoundments and attempting to restrict the movements of the Bitterroot River throughout the refuge. Habitat efforts would be primarily focused on providing waterfowl and other waterbird habitat.

# Abbreviations

<b>A.D.</b>	Anno Domini or “year of our Lord”
<b>Administration Act</b>	National Wildlife Refuge System Administration Act of 1966
<b>amsl</b>	Above mean sea level
<b>B.C.</b>	before Christ
<b>B.P.</b>	before present
<b>CCP</b>	comprehensive conservation plan
<b>CFR</b>	Code of Federal Regulations
<b>cfs</b>	cubic feet per second
<b>CO<sub>2</sub></b>	carbon dioxide
<b>CWD</b>	chronic wasting disease
<b>EA</b>	environmental assessment
<b>FMP</b>	fire management plan
<b>FONSI</b>	Finding of No Significant Impact
<b>GIS</b>	geographic information system
<b>GS</b>	General Schedule
<b>HGM</b>	hydrogeomorphic
<b>Improvement Act</b>	National Wildlife Refuge System Improvement Act of 1997
<b>IPM</b>	integrated pest management
<b>IWJV</b>	Intermountain West Joint Venture
<b>MFWP</b>	Montana Fish, Wildlife & Parks
<b>mg/L</b>	milligrams per liter
<b>n/a</b>	not applicable
<b>NEPA</b>	National Environmental Policy Act of 1969
<b>PM<sub>2.5</sub></b>	particulate matter less than 2.5 microns in size
<b>POD</b>	points of diversion
<b>refuge</b>	Lee Metcalf National Wildlife Refuge
<b>Refuge System</b>	National Wildlife Refuge System
<b>RLGIS</b>	Refuge Lands Geographic Information Systems database
<b>Service</b>	U.S. Fish and Wildlife Service
<b>SHPO</b>	State Historic Preservation Office
<b>U.S.C.</b>	United States Code
<b>U.S.</b>	United States
<b>USDA</b>	U.S. Department of Agriculture
<b>USFWS</b>	U.S. Fish and Wildlife Service
<b>WG</b>	Wage Grade Schedule
<b>WVA</b>	wildlife viewing area

*Definitions of these and other terms are in the glossary, located after chapter 5.*

