Chapter 2: The Planning Process

Preparation of the CCP

The comprehensive conservation plan (CCP) and environmental assessment (EA) for Mingo, Pilot Knob and Ozark Cavefish national wildlife refuges will guide management decisions on wildlife, habitat and visitor services management for the next 15 years. This document is intended to give everyone interested in the refuges' future an opportunity to both to see how the Service plans to manage the refuges and to offer comments on the proposed management direction.

Work on the Draft CCP for the three refuges began in September 2003 with a kickoff meeting for planners, biologists and Refuge staff who toured Mingo NWR. The group reviewed its purpose, history, ecology and management, and discussed the issues and challenges the Refuge faces and how we might solve them.

An internal scoping meeting was conducted at Region 3 headquarters in Minnesota in April 2004 to learn what issues and opportunities Service leaders perceived at the three refuges. Representatives of various programs within the U.S. Fish & Wildlife Service met to discuss what they thought should be addressed in the planning process.

Public Involvement

Public involvement is the cornerstone of comprehensive conservation planning. The planning process begins with asking neighbors, state and federal agencies, and non government organizations to identify management issues and opportunities that should be addressed in planning. These comments are addressed in the CCP, and stakeholders are invited to review the plan and offer comments that are then addressed in the final plan.

Wood Duck Brood on Mingo NWR. USFWS

Planning for Mingo, Pilot Knob and Ozark Cavefish national wildlife refuges began with a series of public open houses in the areas surrounding the refuges. Citizens, non-governmental conservation organizations (NGOs), and employees of tribal, state, and local agencies have all contributed time and expertise in addressing a variety of issues. This participation is vital and the ideas offered have been valuable in determining the future direction of the three refuges. Refuge and regional staff – indeed, the entire U.S. Fish and Wildlife Service – are grateful to all of those who have contributed time, expertise and ideas throughout the comprehensive conservation planning process. We appreciated the enthusiasm and commitment expressed by many for the lands and living resources administered by Mingo NWR.

Mingo National Wildlife Refuge

Two public scoping meetings were held to provide an opportunity for neighbors, local communities, and representatives of state and federal agencies to discuss issues and opportunities with Refuge and planning staff. The first open house was conducted on January 8, 2004, from 4 p.m. to 8 p.m. at the Puxico High School gymnasium. Refuge staff made a

presentation on the planning process and NEPA at 7 p.m. More than 50 people attended the meeting.

A second open house was held on January 9, 2004, at the Three Rivers Community College in Poplar Bluff from 4 p.m. to 8 p.m. No one attended.

The Refuge hosted a meeting of surrounding State and Federal organizations on January 9, 2004. Representatives from USDA Rural Development, Missouri Department of Conservation, the U.S. Army Corps of Engineers, Mingo Job Corps, and the University Forest attended. Participants provided an overview of opportunities available on the various ownerships and discussed opportunities for cooperation.

In addition, a 1-day focus group meeting was held at the Refuge Visitor Center on January 10, 2004. Refuge staff invited representatives of state agencies, conservation groups as well as individuals interested in the future of Mingo NWR. A morning session focused on public use issues, and the afternoon session on habitat management issues. Approximately 25-30 people in total attended with some overlap between the two sessions.

We heard a variety of issues. Some people urged the Refuge to improve habitat for waterfowl and swamp rabbit by reducing forest cover. Some people urged the Refuge to concentrate on controlling deer numbers. Many views were expressed on hunting-related issues. Some people said that opportunities for bow hunting should be expanded, and others said that bow hunting should be rotated from the east side of the Refuge to the west side. Some people said that modern firearms should not be permitted on the Refuge, and others said that more open areas should be provided for bow hunting. Some people said that hunting opportunities should be provided for non-traditional user groups, such as women and disabled people. Related to this issue, some people said that the Refuge should plant more crops and open up more farming on the Refuge. In discussing this comment with people, we heard that interest in farming generally relates to interest in improving hunting opportunities.

Bottomland hardwood forest on Pool 5 at Mingo NWR, USFWS

Some people asked that the Refuge consider creating multi-use trails that would accommodate horse-back riding, and other people said that horseback riders would be willing to help with developing and maintaining multi-use trails.

Some people said that fishing should be restored on the Refuge, and others specified that Red Mill Pond should be enhanced/restored for fishing purposes.

Other participants suggested that the Refuge repair and update signs and fences and clean out ditches. Some said that grass should be managed so it does not interfere with wildlife viewing.

Some people said that Rockhouse Marsh should be cleaned and rehabilitated.

Pilot Knob National Wildlife Refuge

An open house for Pilot Knob NWR was conducted on January 13, 2004, from 1 p.m. to 4 p.m. at the Fort Davidson Café in Pilot Knob, Missouri, and was attended by 17 people. A suggestion for additional public involvement opportunities made at this first event prompted a second open house held on February 26, 2004, at the Fort Davidson Historic Site Visitor Center from 6 p.m. to 8 p.m. It was attended by 10 people.

Opening the Refuge was the theme of several comments. Some encouraged the Service to make the Refuge more accessible with roads and trails, and possibly enter into an agreement with other agencies. Others said that the Refuge should be opened to hunting and other public uses. Others said that the Refuge should balance protection of the

federally-listed endangered Indiana bat and allow for some level of accessibility for the public.

Some people suggested specific approaches to public use. One idea voiced in the meeting was to place an observation platform to take advantage of a 360-degree vista that is unique in the area. The Refuge was encouraged to explore alternative fencing techniques for keeping people away from the mine entrance to protect the bats and for public safety, but that still allows access to the rest of the Refuge. Others said that the Refuge presents an opportunity to educate people about the area's geology. Some people said that the Refuge should consider seasonal closure of the Refuge to accommodate public use of the sites while others said that any public use plan would have to consider the bats and public safety.

The Service was encouraged to consider a cooperative agreement with the Missouri Department of Conservation to better police the Refuge and reduce illegal use. Others suggested that the Service consider an interagency agreement with the Department for management of Pilot Knob NWR. Another suggestion offered was for the Service to develop a local body to assist in the management of the Refuge. Others said that the Refuge should be added to the State's natural area system.

Ozark Cavefish National Wildlife Refuge

An open house meeting for Ozark Cavefish NWR was held on January 12, 2004, from 1 p.m to 4 p.m. at the Southwest Center of the University of Missouri Agricultural Experiment Station near Mount Vernon, Missouri. The meeting was attended by 15 people, most representing state or federal agencies.

We heard many comments urging the Service to work more closely with the Missouri Department of Conservation on Ozark cavefish conservation, specifically to consider leasing property to the Missouri DOC through a Memorandum of Agreement, explore cooperative management options with the Department, work with the Department's private lands program, and review the DOC's Ozark cavefish action plan. Some people said that state-listed crayfish and amphipod may also occur on the Refuge.

Some people said that the Refuge should consider adding Sercoxie Cave as part of the Refuge. The Refuge was encouraged to conserve recharge areas as part of the effort to protect the Ozark cavefish. Others suggested that the Service expand the Refuge to include other Ozark cavefish sits and to provide protection of the adjoining watersheds. Some people also encouraged the Service to add staff who would be available to focus on Ozark Cavefish NWR and the surrounding area and others said the Service should consider establishing a field station in the area.

Some participants said that hazardous material spills along Highway 44 are a threat to the Refuge and the Refuge should look for ways to mitigate spills along highways within recharge areas

Some people said that the Refuge should be open to public use while others said that it should remain closed. Some people said that vehicular and foot traffic should be kept away from the spring and its spring branch. A lack of law enforcement presence makes it challenging to enforce Refuge closure, others said. Some people said that the Refuge should use environmental education to improve public awareness of the hazards to Ozark cavefish. The Refuge was encouraged to consider placing interpretive signing regarding the Refuge.

Summary of Issues, Concerns and Opportunities

Based on what we heard from the public as well as from representatives of various Service programs, we have developed a list of issues for each of the three refuges. The management alternatives explored in the draft EA addressed these issues.

Mingo National Wildlife Refuge

Issue Statement: Waterfowl, deer, and turkey are not visibly concentrated on the Refuge.

Background

A number of people commented that they do not see as much wildlife, especially waterfowl, deer, and turkey, as in past years. They attribute the decline to a lack of cropland, and support planting more crops to attract and feed wildlife. Wildlife viewing and hunting are popular activities at Mingo NWR, and wildlife drawn into the open by crops is more visible than wildlife within the surrounding forest. But cropland is not native habitat, it requires intensive management, and it provides little value to wildlife for much of the year. Presently, there are 411 acres of cropland maintained through cooperative agreements with local farmers, and an additional 95 acres of food plots maintained by Refuge

staff and volunteers. Service policy supports converting cropland to native habitats that are more valuable to wildlife.

> Issue Statement: Vegetation changes in former grazing and haying areas and Rockhouse Marsh are reducing viewing opportunities and food availability for wildlife.

Background

Open habitats such as fields and marshes provide unobstructed opportunities for wildlife viewing. Many of the 474 acres of open fields popular with wildlife watchers are former grazing and haying areas. Grazing was phased out on the Refuge beginning in 2000 and eliminated entirely in 2002. Most haying was eliminated by 2004. Fescue planted in these areas as forage for livestock is now overtaking many of these sites, reaching heights of 2 to 5 feet, reducing their value to wildlife and obscuring visitors' views. Similarly, visitors are accustomed to Rockhouse Marsh being an open area where wildlife is easily seen. Since 2000, maintenance efforts have focused largely on removing sediment from the drainage ditches, meaning much less time spent mowing or removing brush within the marsh. Woody vegetation, especially willow, is now more abundant, reducing visibility for wildlife viewing. Also, some believe that the disappearance of these open areas, and the easily seen wildlife along with it, means there is insufficient food and less wildlife. A number of people supported eliminating the fescue and woody vegetation to keep the fields and marsh open. Service policy supports restoring these areas to native habitat, which in most cases would be bottomland forest, canebrakes, or grassy openings like those seen along Crowley's Ridge.

> Issue Statement: Otter and beaver numbers and distribution affect management activities and wildlife-dependent public uses.

Background

Although a small number of river otters survived in the southeastern portion of the state, including within the Refuge, habitat degradation and unregulated harvest eliminated them from much of Missouri by the 1930s. In the 1980s, the Missouri Department of Conservation began reintroducing otters into streams where they had been absent for more than 40 years. Fish numbers declined on the Refuge at about the same time, and although otters were present long before the decline, some believe they contributed to the decrease. Across Missouri otter numbers climbed and in some places reached nuisance levels, especially for those raising fish. By 1996, the population was sufficient to support a trapping season. Fish numbers and angling success are improving on the Refuge, probably because of ditch cleaning, but some support otter trapping as an additional means of increasing fish numbers. Presently otter trapping is not allowed on the Refuge.

Beaver are common across the Refuge and a number of comments supported trapping to reduce their numbers. Beaver routinely burrow dens, weakening areas along the roads and levees that cut across the Refuge. Beaver dams cause flooding that sometimes hampers access and kills bottomland hardwoods. Presently, beaver trapping is not allowed on the Refuge. If necessary, nuisance animals and dams are removed by Refuge staff.

> Issue Statement: There is demand for expansion of existing public uses on the Refuge. Some of the uses are not wildlife-dependent.

Background

Service policy encourages national wildlife refuges to provide opportunities for six wildlife dependent public uses: hunting, fishing, wildlife observation, wildlife photography, environmental education, and interpretation. Additionally, Mingo NWR provides opportunities for canoeing, kayaking, horseback riding, biking, hiking, jogging, berry and mushroom gathering, and picnicking. Careful zoning of these uses in both duration and extent helps avoid conflicts between user groups. At present, nearly all of the Refuge is open to some type of use throughout the year. A number of comments supported increasing the duration, available area, or number of facilities for one or more of the existing uses. These uses and any others must not interfere with fulfilling the Refuge purposes or the goals of the Refuge system.

> Issue Statement: The amount of early successional habitat is decreasing, making the Refuge less favorable to wildlife and wildlife-dependent uses associated with these habitats.

Background

A number of comments supported increasing the amount of younger forest within the Refuge. Young forest gets its start when older forest is disrupted either naturally or through active management such as timber harvesting. Many wildlife species, especially those popular with wildlife watchers and hunters, favor younger forest. At 80 to 100 years old, the forests that cover much of the Refuge are middle-

aged or beyond. This older forest favors wildlife different than that prized by many hunters and wildlife watchers. Forest aging is normal, so is forest renewal. Tree falls caused by flooding or wind usually create openings that allow more sunlight to reach the forest floor. This encourages seed germination as well as growth of tree seedlings and other plants wildlife feed on. Prolonged flooding within Refuge bottomlands drowns the young forest that normally grows in such openings.

Some people supported increasing other types of early successional habitat. Early successional habitat occurs where plants colonize treeless areas such as abandoned farm fields, beaver meadows, or bare soil created by river action. Soon vines, shrubs, and trees begin growing, creating a thicket of low growing habitat favored by wildlife like quail and swamp rabbits. In some places these thickets remain for years, but without natural disturbance or management action such as mowing, burning, or brushing many eventually revert to forest. The amount of this habitat is decreasing within the Refuge.

> Issue Statement: Prolonged annual flooding is killing mature trees, preventing regeneration of young trees, and threatening the long-term existence of the bottomland hardwood forest.

Background

Bottomland forests are well suited to floods that recede within weeks. Floods lasting longer kill mature trees and seedlings, threatening the future of the forest and its wildlife. Floodwaters once flowed across the entire basin, wending their way over and around the shallow ridges that interrupt the otherwise flat bottomland. More than a century of alterations including roads, dikes, and levees narrowed or blocked drainage pathways, slowing water movement. Ditches totaling more than 50 miles, most dug in the 1920s, adequately channeled floodwaters for years, but did not play the same role as sprawling flow across the basin. Eventually, drainage grew sluggish as the ditches filled with sediment, causing longer floods. Ditch dredging, underway since 1997, clears sediment and improves channel flow, but is time consuming, expensive, and does not restore widespread flow across the basin. Recent changes to several dikes along the ditch system slowed sediment build up, but more than 30 miles of ditches are still clogged.

Mingo National Wildlife Refuge

> Issue Statement: There are threats to the ecological integrity of Refuge ecosystems as well as restoration opportunities.

Background

Service policy supports maintaining and restoring where appropriate, biological integrity, diversity, and environmental health. There are a number of threats to these elements including the introduction and spread of invasive plant and animal species, mercury deposition and accumulation, and rising amounts of atmospheric pollutants. There are also opportunities to restore drainage pathways and reintroduce species that formerly existed within the Refuge.

> Issue Statement: Mingo NWR's designated Wilderness Area requires special management to maintain its integrity.

Background

Congress designated the western portion of the Refuge as the Mingo Wilderness Area in 1976. Wilderness policy allows hiking, backpacking, fishing, wildlife observation, and environmental education and interpretation. It generally prohibits motorized activities. Ditches and levees, specifically excluded from the Wilderness designation, help approximate water level fluctuations that once happened naturally. All Wilderness Areas established before 1977 and greater than 5,000 acres are Class I air quality areas, which implies a legal obligation to preserve or restore their outstanding air quality, including visibility. Diminishing air quality is a growing concern within the Mingo Wilderness Area in part because of proposed coal-burning power plants in the region that could further aggravate problems with haze and deposition of contaminants like mercury, nitrates, and sulfates emitted from their smokestacks.

Issue Statement: The amount of maintenance needs exceeds existing maintenance capacity.

Background

The Refuge maintenance staff is responsible for maintaining more than 60 miles of roads and levees, 52 miles of ditches, 57 water control mechanisms, and various other facilities. Additionally, they regularly assist with habitat management activities such as mowing and brushing. In recent years, with increased emphasis on removing ditch sediment, less time is available to complete other maintenance tasks. This is compounded by the loss of two full-time and two part-time maintenance positions through the years as well as aging infrastructure that requires more frequent attention. A number of people commented that more maintenance workers are needed.

Issue Statement: Automobiles on Bluff Road cause high seasonal reptile and amphibian mortality when snakes, toads, and frogs are migrating.

Background

The Refuge is endowed with an abundance of reptiles and amphibians. At certain times of the year, large numbers of reptiles or amphibians migrate across Refuge roads from bottomlands to peripheral bluffs and back again. At these times, they are particularly vulnerable to being run over and killed by motorists on certain Refuge roads.

Issue Statement: Current management activities do not emphasize habitat for King Rail and Black Rail, two migratory bird species that are rare or decreasing in number.

Background

Providing habitat for migratory birds is the primary purpose of the Refuge. King Rail and Black Rail are migratory birds that are rare or decreasing in number that would benefit from alternative management strategies within Refuge moist soil units. These species are known to migrate through the area and may be able to nest on the Refuge under different habitat conditions.

Issue Statement: Some visitor services programs and facilities do not meet U.S. Fish and Wildlife Service standards or Refuge System goals.

Background

With few improvements since the 1980s, visitor services infrastructure and programming including information kiosks, entrance, directional, and boundary signing, and trails, boardwalks, and observation sites are outdated or in poor condition. A number of sites are potentially hazardous or do not meet federal accessibility standards, notably a portion of the popular Boardwalk Nature Trail. The Visitor Center, built in 1975, requires renovation and repairs throughout the building. Many exhibits are faulty, outdated, or do not effectively communicate the Refuge System mission. Present environmental education and interpretive programming as well as outreach activities do not contain information on the unique resources found on the Refuge.

Issue Statement: Many of the cultural resource sites on the Refuge are not adequately identified or protected.

Background

There are more than 140 known cultural resource sites within the Refuge, but specific locations are lacking for many sites and it is likely there are undiscovered sites. The National Historic Preservation Act as well as other laws and regulations require the Service to avoid disturbing cultural resource sites and to work in coordination with the State Historic Preservation Officer. Specifically, a number of people commented that Sweet's Cabin, a Depression era homestead, should be restored and made more accessible to visitors.

Issue Statement: The Refuge faces funding and staffing challenges to meet existing and predicted future demands.

Background

The number of Full Time Equivalents (FTEs), a measure indicating the amount of available workforce, averaged 10.1/year throughout the 1990s, but dropped to an average of 8.7/year since 2000. Infrastructure and facilities as well as habitat management and visitor services programs, built with a comparatively larger workforce, today challenge a Refuge staff with fewer FTEs. Creative partnerships and volunteer assistance, although helpful, are not a complete or always reliable solution. Consequently, less gets done with a corresponding decline in Refuge programs, infrastructure, and facilities. Visitor numbers and associated demands are expected to increase in coming years.

Issue Statement: The effects of some management activities as well as public use are not well understood.

Background

Sustaining wildlife populations is central to the mission of the National Wildlife Refuge System, but in many cases information is lacking regarding the success of management activities or the effect of public uses on Refuge wildlife. This hampers the ability of managers to adapt habitat management practices or modify public uses in ways that best sustain wildlife numbers.

Pilot Knob National Wildlife Refuge

Public Use

Issue Statement: There is demand for public use of the Refuge. Public use may harm the Indiana bat and expose visitors to hazards.

Background

There is support in the local communities for allowing public use of the Refuge. The summit of Pilot Knob, where the Refuge is located, has a number of unique geological features and provides a 360-degree vista of the surrounding area including a view of a Civil War battlefield. Supporters feel it is possible to allow access in a way that protects the bats and maintains public safety. Fencing of hazardous sites and those important to the Indiana bat, seasonal closure of the Refuge, road and trail access, geological interpretation, and an observation platform near the summit of Pilot Knob are among the considerations for public use of the site. Local elected officials and citizens are willing to work with the Service to develop a mutually agreeable public use plan. Information on hazards and sites important to the bats is lacking. Funding for information gathering, analysis, planning, and construction associated with any facilities or infrastructure must also be addressed.

Issue Statement: Refuge administrators are not visible in the local community. Low visibility contributes to lack of community support and coordination on local issues.

Background

A number of local citizens, including several elected officials, want greater input into the administration and management of the Refuge. It has been administered by the staff at Mingo NWR, 90 miles away, from the time it was established in 1987.

Refuge employee Jack Richmond inspects a water control structure on Mingo NWR. USFWS

A number of comments indicated that the Refuge lacks public visibility or support largely because it is not administered locally. Local people want a local contact or individual they can work with regarding issues associated with the Refuge. Some people suggested that the Service enter into a cooperative agreement with the Missouri Department of Conservation or some other local agency to assist with management and law enforcement of the Refuge. Others suggested developing a local body of citizens to provide input into the management and administration of the Refuge.

Ozark Cavefish National Wildlife Refuge

Habitat Management

Issue Statement: Actions beyond the Refuge's established boundaries are necessary to adequately protect Ozark cavefish.

Background

Presently the Refuge includes 40 acres along Turnback Creek in Lawrence County. It has been suggested that the Refuge expand to include other Ozark cavefish sites, such as Sercoxie Cave, and

provide protection for their surrounding watersheds. It also was noted that a 10-acre parcel to the north of the Refuge, which contains the federally listed threatened Missouri bladder pod, may have a willing seller. Other comments noted that protecting and conserving recharge areas for streams known to contain Ozark cavefish would provide the greatest protection for the species. Still others observed that hazardous material spills along Highway 44 within the recharge area for Turnback Creek posed the greatest threat to the Ozark cavefish on the Refuge. A spill could contaminate surface water and have adverse effects on the Ozark cavefish and other subterranean species. Placing highway signs, developing mitigation for potential spills, working with private landowners, and environmental education were suggested as ways to conserve and protect recharge areas, and ultimately Ozark cavefish.

Public Use

Issue Statement: The Refuge suffers from unenforced regulations and possibly unrealized public use potential.

Background

A number of comments from the public suggested the Refuge would benefit if it were locally administered and managed. The Refuge has been administered by the staff at Mingo NWR, 240 miles away, from the time it was established in 1991. Because of the distant location, the Refuge is visited infrequently and little management or law enforcement activities are carried out on the property. Suggested changes included establishing a field station in the local area, adding staff to focus on the Refuge and surrounding area, and exploring cooperative management of the Refuge with the Missouri Department of Conservation.

One comment from the Missouri Department of Conservation suggested opening the Refuge to public use. This would make it consistent with access to the Paris Springs, an adjoining state-owned property that contains the entrance to Turnback Cave. The Refuge contains the resurgence of Turnback Creek, but no access to the cave. With no local personnel, the closure is difficult to enforce. A number of comments noted that the subterranean nature of the Ozark cavefish and lack of access to the cave make it unlikely that public use of the Refuge would cause adverse effects.

Issue Statement: The Refuge contains a number of federal and state listed rare species, and there are currently no provisions for managing and protecting these species.

Background

The Refuge has restoration potential for the federally-listed threatened Missouri bladder pod. Controlling exotic species, placing interpretive signing, working with The Nature Conservancy, restoring the Missouri bladder pod, improving and expanding riparian habitat, and restoration of wet prairie are various management options.

Preparation, Publishing, Finalization and Implementation of the CCP

The Mingo NWR, Pilot Knob NWR and Ozark Cavefish NWR CCP was prepared by a contractor with a great deal of input, review, and support from Refuge staff and the Service's Regional Office. The CCP was published in two phases and in accordance with the National Environmental Policy Act (NEPA). The Draft Environmental Assessment presented a range of alternatives for future management and identified the preferred alternative, which is also the Draft CCP. The alternative that was selected has become the basis of the Final CCP. This document then, becomes the basis for guiding management on the Refuges over the coming 15-year period. It will guide the development of more detailed step-down management plans for specific resource areas and it will underpin the annual budgeting process through Refuge Operating Needs System (RONS) and Maintenance Management System (MMS). Most importantly, it lays out the general approach to managing habitat, wildlife, and people at Mingo, Pilot Knob and Ozark Cavefish national wildlife refuges that will direct day-to-day decision-making and actions.

The Draft CCP/EA was released for public review and comment in June 2006. A Draft CCP/EA or a summary of the document was sent to more than 276 individuals, organizations, and local, state, and federal agencies and elected officials. Three open houses, one for each Refuge, were held in June 2006 following release of the draft document. Eleven people attended the open house for Mingo NWR; two people attended the open house for

Ozark Cavefish NWR; and three people attended the open house for Pilot Knob NWR.

By the conclusion of the comment period we received 37 responses and identified more than 200 individual comments within those responses. We consolidated similar comments, reducing the total to 160 comments.

Appendix K of the CCP summarizes these comments and our responses. Several of the comments resulted in changes in the CCP.