

Appendix K: Response to Comments Received on the Draft Comprehensive Conservation Plan and Environmental Assessment

Mingo NWR	161
Wildlife Dependent Recreation	161
Other Recreation	166
Habitat Management	167
Wildlife and Fish	171
Trapping and Animal Control	171
Air Quality and Contaminants	173
Facilities and Infrastructure	173
Staffing and Funding	175
Other Comments Regarding Mingo NWR	176
Pilot Knob NWR	179
Ozark Cavefish NWR	181

Appendix K: Response to Comments Received on the Draft CCP and EA / Mingo NWR

Wildlife Dependent Recreation

Comments 1-3

Ensure adequate fish passage between Monopoly Marsh and the ditch system during draw-downs.

Monopoly Lake should always contain a large pool of water to prevent fish die off.

Hold water longer in Monopoly Marsh and Rockhouse Marsh to allow more fishing opportunities.

Response

Monopoly Marsh and Rockhouse Marsh contain fish and provide fishing opportunities, but are managed primarily to provide habitat for migrating waterfowl. As part of that management the marshes are periodically drawn down to maintain the appropriate mix of vegetation and open water. We agree that maintaining fish passage during draw downs is important and have modified strategy 3 under *Objective 1.3 Open Marsh* of the selected management alternative (Alternative 4).

Comment 4

Allow overnight trotline fishing on Refuge waters.

Response

The Refuge is open to the public daily from one hour before sunrise to one hour after sunset. It is closed to the public at night, the time when most trotlines are run. There is no proposal to open the Refuge during night time hours for this use.

Comments 5-6

Reintroduce alligator gar if it will improve the system.

Reintroducing alligator gar will adversely affect game fish numbers, and decrease the quality of fishing.

Response

The reintroduction of alligator gar is not expected to adversely affect game fish numbers or decrease the quality of fishing, and it may have a beneficial effect. Alligator gar are native to the Mingo basin and were found within Refuge waterways until at least the late 1960s. They are opportunistic feeders with a diet that includes game fish as well as shad, carp, buffalo and any other easily captured prey. Prey available in greatest abundance is likely to make up the bulk of the alligator gar's diet. Recent fisheries surveys of Refuge waters show rough fish and other non-game fishes to comprise approximately 80 percent of total fish numbers on the Refuge. The high occurrence of these species is one factor limiting higher populations of other game fish. Alligator gar may help reduce numbers of these fish.

Game fish are adapted to coexist with gar. Gar live and feed in open water, while bass, crappie, bluegill, and catfish live around submerged structures. Alligator should reduce the numbers of non-game fish within the Refuge such as larger shad, carp, and buffalo. This will result in more small and medium-sized shad, carp, and buffalo, which are perfect prey fish for game fish. Both the USFWS and the Missouri Department of Conservation believe that the reintroduction of Alligator gar will help re-balance the fish ecology at the Refuge.

Comment 7

Reintroducing alligator gar will increase wanton waste.

Response

Discarding wildlife or fish unused, often referred to as wanton waste, is a violation of the Wildlife Code of Missouri. Gar species are common wanton waste victims probably because they are easy targets, are widely considered undesirable for food, and are seen as competitors or predators of more popular game fish.

There is no direct link between reintroducing alligator gar and an increase in wanton waste. Low proposed stocking rates make it unlikely alligator gar will come in contact with people for years. Although

there are those that would wantonly waste resources it is not a reason to avoid reintroducing a native species. The selected management alternative (Alternative 4) does prohibit bowfishing on the Refuge in part to reduce the occurrence of wanton waste.

Comment 8

Do not eliminate bowfishing, but do consider imposing an arrow restriction.

Response

The selected management alternative (Alternative 4) prohibits bowfishing on the Refuge. We chose to eliminate bowfishing for two reasons: 1) popular bowfishing sites on the Refuge such as the Spillway are in an area where possession and use of weaponry is prohibited, and 2) the sight and smell of discarded fish carcasses is chronically associated with these sites. Beyond wanton waste of fish, this creates an unpleasant environment that decreases the quality of other wildlife dependent recreation opportunities. Imposing an arrow restriction would not resolve these problems.

Comment 9

Creating more open water to provide additional fishing opportunities is a good idea, but the amount of open water created within the Binford Unit should be no less than 40 acres.

Response

The details of this project are being considered in a separate environmental assessment. In summary, the Binford Unit, a failed moist soil management area, is bounded by a low levee that encloses approximately 40 acres. The proposal is to excavate within the Binford Unit to increase the depth and to obtain fill to modify the existing levees. Although the entire 40-acre area enclosed by the levee would be flooded it would range in depth from 0-12 feet and may not all be considered open water.

Comment 10

Improve bass fishing on the Refuge, especially in Monopoly Lake. Monopoly Lake provides a quiet fishing opportunity away from outboard motors, but bass are scarce.

Response

The selected management alternative (Alternative 4) contains a number of objectives and strategies directed at maintaining or restoring diverse fisheries within Refuge waters including bass. Monopoly

Marsh is considered an open marsh, not a lake. It does contain fish and provides fishing opportunities, but it is managed primarily to provide habitat for migrating waterfowl.

Comment 11

Include rotating the archery hunt into the Wilderness Area as part of the Preferred Alternative (Alternative 4).

Response

Rotating the archery hunt was considered within Alternative 2, but was not included as part of the selected management alternative (Alternative 4) because it would create additional administrative and management burdens that include: conflicts with other user groups, confusion among some hunters, increased road maintenance, and additional costs.

Comments 12-13

Do not require tree stands to be removed at the end of each day. This limits opportunities for the elderly or those with disabilities.

Oppose having to remove tree stands daily.

Response

We eliminated the strategy under *Objective 3.1 Hunting* that called for removing tree stands daily. The Refuge regulation regarding tree stands is summarized below.

Portable trees stands (as defined in the Wildlife Code of Missouri) for archery deer hunting may be placed on the first day of season and must be removed on the last day of the season. Stands are limited to one per hunter and must be plainly labeled on a durable material with the full name and address of the owner. Use of nails, screw-in steps, and any material or method that would damage the tree is prohibited.

We believe portable stands, designed to be easily transported and positioned, do not limit opportunities. Additionally, the Refuge offers five universally accessible hunting blinds.

Comment 14

Do not host the MDC Spring Turkey Women's Outdoor Skills Event within the Wilderness Area.

Response

None of the alternatives contain a proposal to host the MDC Spring Turkey Women's Outdoor Skills Event within the Wilderness Area.

Comment 15

Why is lengthening the squirrel season not included in the Preferred Alternative (Alternative 4)?

Response

Lengthening the squirrel season was proposed under Alternative 2, but was not included in the selected management alternative (Alternative 4) because it would likely decrease the quality of experience for squirrel hunters and archery hunters. Separating uses by season and location is a long-standing practice at Mingo NWR to promote safety and maintain minimal conflicts between user groups, two elements the Service recognizes as important to quality hunting experiences.

Squirrel season closes on September 30 within the Refuge but continues until February 15 across much of Missouri. The shorter Refuge squirrel season originated to avoid an overlap with archery season and any conflicts between squirrel hunters and bow hunters. We feel this arrangement provides each group quality hunting opportunities as well as roughly equal seasons. In recent years, the Missouri Department of Conservation altered the opening date of archery deer season from October 1 to September 15, creating an overlap with Refuge squirrel season. Since this regulation change, we have chosen to allow the two activities to overlap from September 15 to September 30 to avoid shortening either season. During this time we require all hunters to wear orange clothing that complies with the Wildlife Code of Missouri. We feel this measure, reasonable for a short duration, would adversely impact the quality of bow hunting if imposed over a longer duration. If squirrel season were extended this would be the case. Finally, squirrel season does not resume after the close of archery season to avoid disturbance to waterfowl using the bottomland forest for pair bond formation. Ultimately, we feel the present arrangement is fair to both groups of hunters and best meets Refuge and Service objectives.

Comment 16

The Service should play a greater role in the management of waterfowl hunting at Pool 8.

Response

Mingo NWR's Pool 8 adjoins MDC's Duck Creek Conservation Area. Both sites offer waterfowl hunting and for many years the daily drawing used to select hunters for the limited number of spots has included both areas. This is done to maximize hunting opportunities and for the convenience of hunters. In recent years, Refuge staff has helped administer the drawing, monitor use, and answer questions. Under the selected management alternative, this will continue. There will also be increased efforts to communicate management objectives and their effect on hunting opportunities.

Comment 17

Hunting should be prohibited at Mingo National Wildlife Refuge because it kills, harms, and disturbs wildlife; it is expensive to implement; and hunters comprise a small segment of the population. Also, allowing hunting is not consistent with the terms "Wildlife First" and "Refuge".

Response

We understand some citizens' concern with hunting on national wildlife refuges. Mingo NWR, as well as the entire National Wildlife Refuge System, is guided by laws enacted by Congress and the President as well as policy derived from those laws. The 1997 National Wildlife Refuge System Improvement Act identifies hunting as one of six priority public uses to be facilitated when compatible with the purposes of a refuge and the mission of the Refuge System.

Hunting is consistent with the purposes of the Refuge. Those purposes derive from the Migratory Bird Conservation Act and the Wilderness Act, neither of which precludes hunting. In 1949 Congress amended the Migratory Bird Conservation Act to allow waterfowl hunting on 25% of areas acquired under its authority. Congress increased the figure to the present level of 40% in 1958. In 1978 Congress added a provision granting the Secretary of Interior discretion to exceed the 40% standard by an unlimited extent when it is beneficial to the species.

While National Wildlife Refuges are managed first and foremost for wildlife the focus is on perpetuating populations not individuals. Hunting does adversely affect individual animals, but is allowed

when it will not threaten the perpetuation of the population being hunted.

Comment 18

It is unsafe to allow hunting at the same time other uses occur on the Refuge.

Response

The safety of visitors and staff is top priority at Mingo NWR and is considered whenever an existing use is changed or expanded. Except for the three day muzzleloader hunt within the Mingo Wilderness Area, all hunting occurs within the General Hunt Area. Other public uses are permitted in the General Hunt Area during hunting seasons, but most are confined to roadways. Separating uses by season and location is a longstanding practice at Mingo NWR to promote safety and maintain minimal conflicts between user groups, two elements the Service recognizes as important to quality wildlife dependent recreation experiences. We believe these measures provide safe opportunities for Refuge visitors. It is common for hunting and other recreational activities to occur at the same time on State (Conservation Areas) and other Federal (National Forests and Corps of Engineers) lands.

Comment 19

Do not allow center fire rifle hunting on the Refuge.

Response

This comment is most likely directed at the weaponry permitted during the muzzleloader hunt within the Mingo Wilderness Area and/or the addition of a youth deer firearms hunt. Hunters are permitted to use any muzzleloading firearm that conforms to the Wildlife Code of Missouri. The 2006 version of the code defines a muzzleloading firearm as any firearm capable of being loaded only from the muzzle. This definition places no restrictions on firing mechanisms and there are no plans to do so during the Refuge muzzleloader hunt.

The selected management alternative (Alternative 4) also adds a youth firearms deer hunt that would include the use of center fire rifles. This hunt will be conducted in cooperation with MDC as part of their efforts to prepare the next generation of hunters. The hunt will occur within a designated portion of the General Hunt Area to avoid conflicts with other user groups. Young hunters, each accompanied by a mentor, will learn safe and ethical hunting practices.

Comment 20

Increasing the number of waterfowl hunters on Pool 8 above present levels, a likely outcome of initiating self-regulated hunting as proposed under Alternative 2, would increase the number of hunters and consequently decrease hunting quality, success, and safety as well as increase the amount and duration of disturbance to waterfowl.

Response

Self-regulated waterfowl hunting on Pool 8 was considered as part of Alternative 2, but is not included in the selected management alternative (Alternative 4).

Comment 21

Present waterfowl hunting policy for Pool 8 that includes a daily drawing for up to 40 hunters and prohibits hunting after 1:00 PM promotes safe, high quality hunting experiences.

Response

Comment noted. This is the waterfowl hunting policy included in the selected management alternative (Alternative 4).

Comment 22

Do not eliminate the muzzleloader hunt as proposed under Alternative 3.

Response

The muzzleloader hunt is included in the selected management alternative (Alternative 4).

Comment 23

Hunting opportunities should remain at present levels. There is no basis for increasing the amount of hunting opportunities on the Refuge. Past hunts, intended for women and youth and similar to those included under the Preferred Alternative, generated little interest relative to the resources required to initiate and maintain them. Present hunting opportunities are sufficient and do not adversely affect wildlife populations.

Response

The selected management alternative (Alternative 4) does include two additional hunting opportunities. The youth firearms deer hunt and the women's outdoor skills spring turkey hunt were added to support Missouri Department of Conservation programs intended to promote interest in hunting.

The Refuge and MDC will work together to ensure adequate resources for administering the hunts. Participation rates will guide future planning and implementation of these hunts. Finally, the two new hunts will occur within the General Hunt Area and are not expected to adversely affect wildlife populations.

Comment 24

Waterfowl hunting on Pool 8 should be operated as described under Alternative 1 to help relieve political pressure and improve public relations.

Response

Under the selected management alternative (Alternative 4), waterfowl hunting on Pool 8 would be limited to 40 individuals when water levels reach a suitable elevation. This is identical to the current condition described for Alternative 1.

Comment 25

Recreational activities, especially hunting, are acceptable only to the extent they do not interfere with resource protection, restoration of bird habitats, and wildlife viewing.

Response

The 1997 National Wildlife Refuge System Improvement Act and Service policy recognize six priority public uses: hunting, fishing, wildlife observation, photography, environmental education, and interpretation. We are directed to facilitate these uses when compatible with the purposes of a refuge and the mission of the Refuge System. We believe the selected management alternative (Alternative 4) balances opportunities for each of the priority public uses. Compatibility Determinations addressing each use were included as Appendix D of the draft CCP/EA.

Comment 26

Extend the seasonal duration of the Auto Tour Route.

Response

The selected management alternative (Alternative 4) does extend the seasonal duration of the Auto Tour Route by 5 months.

Comment 27

Extending the seasonal duration of the Auto Tour Route will increase traffic and road

maintenance which will adversely affect wildlife, especially reptiles and amphibians.

Response

The Environmental Assessment addressed the effects of each alternative on vehicle-caused mortality of reptiles and amphibians. In summary, much of the vehicle-caused mortality occurs when reptiles and amphibians are migrating between the bluffs where they spend the winter and the bottomland forest where they spend the remainder of the year breeding and feeding. Extending the season of the Auto Tour Route will mean more traffic over a longer period of time which is likely to increase vehicle-caused mortality of reptiles and amphibians. The selected management alternative includes the following measures to minimize mortality: 1) closing the Auto Tour Route during reptile and amphibian migrations, 2) emphasizing reptile and amphibian conservation in environmental education and interpretive programming, 3) increasing law enforcement efforts, and 4) increasing monitoring to guide Refuge policy and management regarding reptiles and amphibians.

Comment 28

Do not close the Auto Tour Route during reptile and amphibian migrations.

Response

Closing the Auto Tour Route during migrations of reptile and amphibians is intended to reduce vehicle-caused mortality of these species. Aside from these closures, the open season of the Auto Tour Route is extended by five months under the selected management alternative (Alternative 4). See also the response to comment 27.

Comment 29

Do not implement Alternative 3 because it will have an adverse effect on wildlife observation and photography.

Response

The selected management alternative is Alternative 4.

Comment 30

I support having the Visitor Center open on weekends.

Comment noted. The selected management alternative (Alternative 4) includes a strategy under *Objective 3.5 Interpretation* to expand Visitor Center hours to include weekends from March 1 through

November 30. It is important to note that this proposal, as well as all others in the plan, is contingent on adequate staffing and funding.

Comment 31

Support environmental education efforts.

Response

Comment noted.

Comment 32

The Mingo Swamp Friends should initiate an educational program that has students harvest corn grown on the Refuge to be distributed for wildlife and sold at the Visitor Center.

Response

The Mingo Swamp Friends is a non-profit group formed to support the Refuge. It is an independent organization and the CCP does not directly guide the actions or proposals of Mingo Swamp Friends.

Comment 33

Do not close Monopoly because of nesting eagles.

Response

One of the goals of the National Wildlife Refuge System includes conserving endangered or threatened species. Since 1967 the Bald Eagle has been listed as a threatened species, and in compliance with the mission and goals of the Refuge System Mingo NWR implements management guidelines contained in the Northern States Bald Eagle Recovery Plan. These include limiting human disturbance of nesting eagles. At times this has included closing Monopoly Marsh to the public. Presently, the Service is in the process of delisting the Bald Eagle, and it is uncertain how this will affect restrictions regarding nesting eagles.

Other Recreation

Comment 34

Do not eliminate wild edibles gathering.

Response

The selected management alternative (Alternative 4) does not eliminate wild edibles gathering.

Comments 35-36

Increase the daily limit for mushroom gathering to 5 gallons.

The proposed area for mushroom gathering is too limiting. Allow mushroom gathering wherever they occur.

Response

Restrictions on location and amount of wild edibles gathering are necessary to ensure compatibility of this activity. This is documented in a compatibility determination that was included in Appendix D of the draft Comprehensive Conservation Plan and Environmental Assessment. We did increase the daily limit for mushroom gathering to one gallon, as reflected in strategy 12 under *Objective 3.6 Other Compatible Recreational and Consumptive Uses*. We believe the size and resources of the designated area provide reasonable and compatible opportunities for wild edibles gathering.

Comment 37

Do not phase out picnic tables and grills.

Response

The selected management alternative (Alternative 4) does phase out grills, but retains picnic tables, concentrating them near areas of high public use. Grills were eliminated because grilling is not wildlife dependent recreation, does not directly support wildlife dependent recreation, and could potentially cause wildfires.

Comment 38

Why does the Preferred Alternative increase the amount of roads open to horseback riders?

Response

Wildlife observation is the most popular use of Mingo NWR. Horseback riding facilitates this wildlife dependent recreation activity. We increased the amount of roads open to horseback riding along with recreational biking, hiking, and jogging to provide additional non-motorized wildlife observation opportunities. A compatibility determination included in Appendix D of the draft CCP/EA contains a complete analysis of this activity and the stipulations necessary to assure it is compatible with the purposes of the Refuge and the Refuge System mission.

Comment 39

The plan should ban horseback riding, jogging, hiking, and recreational biking on Mingo NWR. These are traditional uses, not necessary to participate in wildlife dependent recreation, and are offered at other nearby areas. If allowed they should be tightly regulated with fees and permits, and offered in a much smaller portion of the Refuge than is proposed. These activities detract from the quality of experience for other visitors.

Response

As documented in the compatibility determinations included as Appendix D of the draft CCP/EA, we believe horseback riding, jogging, hiking, and recreational biking are compatible uses of Mingo NWR. The most popular activity at Mingo NWR is wildlife observation and these activities, although not necessary to observe wildlife, do facilitate it. These activities are confined to existing road corridors and have occurred together with wildlife dependent recreation for years with few conflicts.

Comment 40

The plan should ban the use of motors on Refuge waters except to provide universal access to persons with special needs.

Response

Electric trolling motors are allowed on Refuge waters outside of the Mingo Wilderness Area. The compatibility of this activity with the purposes of the Refuge and the Refuge System mission is documented in a compatibility determination that was included in Appendix D of the draft CCP/EA. The use of motors on Refuge waters is restricted by season and location and is not expected to adversely affect wildlife populations.

Comment 41

Hayrides should not be permitted on the Refuge.

Response

Hayrides are authorized by the Refuge Manager on a case by case basis when they facilitate wildlife dependent recreation.

Comment 42

Horse traffic can damage unpaved roads especially during wet conditions.

Response

Horses have routinely traveled graveled Refuge roads for years with no evidence of road damage. We will continue to monitor this activity and adjust management as necessary if road damage occurs.

Habitat Management

Comments 43-47

The Refuge has 15,000 acres of forest and few openings. Do not convert openings to forest.

Do not convert grassy openings, cropland, and food plots to bottomland forest or cane.

Maintain existing food plots and consider additional food plots because they are important to wildlife and provide visitors wildlife viewing opportunities.

Reestablish openings that are converting to forest.

Creating edge habitat would benefit wildlife.

Response

We agree that grassy openings, cropland, and food plots attract wildlife, providing visitors with wildlife viewing opportunities. The alternatives included a range of options for these sites, and the selected management alternative (Alternative 4) converts some and retains others, in most cases those closely associated with wildlife viewing. Present Service policy favors restoring native habitat. In some locations grassy openings are native habitat and are beneficial to wildlife as well as those interested in viewing wildlife. Cropland and food plots are not native habitat, and although they attract wildlife, are not as diverse as native habitat. Despite this some cropland and food plots are included in the selected management alternative, primarily to provide wildlife viewing opportunities.

We also agree that grassy openings, cropland, and food plots are early successional habitats and create edge where they border other habitats. Although the amount of grassy openings, cropland, and food plots will decrease, the overall amount of early successional habitat and edge will increase. Forest, marsh, and moist soil management practices included in the selected management alternative all

promote the creation or maintenance of early successional habitat important to some types of wildlife.

Grassy openings, cropland, and food plots do create habitat diversity at the local level, but these habitats are not rare within the broader landscape while bottomland forest is. Mingo NWR is part of a larger conservation network, the National Wildlife Refuge System, and is not solely dedicated to maximizing diversity at the local level. The primary purpose of the Refuge is to provide habitat for migratory birds. In addition to waterfowl, this includes many other water birds and migrant landbirds closely associated with bottomland forest. We believe the selected management alternative provides a balance of grassy openings, cropland, food plots, early successional habitat, and bottomland forest that provides migratory bird habitat and wildlife dependent recreation opportunities in a manner consistent with Service land management policy.

Comment 48

Continue efforts to maintain openings with native grasses that are beneficial to grassland birds such as Henslow's Sparrow.

Response

Efforts to convert fescue to warm season grasses at sites where Henslow's Sparrows have been documented will continue under the selected management alternative (Alternative 4).

Comment 49-50

Eliminate fescue at Flat Banks.

Eliminate autumn olive and Sericea lespedeza.

Response

Objective 1.7 of the CCP addresses invasive, exotic, and nuisance plant species such as fescue, autumn olive and *Sericea lespedeza*. These species as well as others are well established in many places on the Refuge. Also, seeds of these plants are likely transported into the Refuge from a variety of sources including annual floodwaters. Eliminating these species from the Refuge is probably not possible, but we will try to slow the spread through a variety of means.

Comment 51

Quail would disappear from the Refuge if all openings were eliminated as indicated under alternative 3.

Response

The selected management alternative (Alternative 4) will maintain 205 acres of grassy openings, 253 acres of cropland, and 73 acres food plots. Quail are expected to continue using habitats on and adjacent to the Refuge.

Comment 52

Maintain Sandblow as an opening alternating one half in cropland and one half fallow each year and keep Company Farms in an open condition.

Response

Present Service policy favors restoring native habitat. In some locations grassy openings are native habitat and are beneficial to wildlife as well as those interested in viewing wildlife. We are reevaluating the historic habitat types of Sassafras and Sandblow ridges which include the following openings: Sandblow, Sassafras West, Sassafras East, and Company Farm. These areas may have been historic sand ridges that included natural openings dominated by grasses or other early successional vegetation. In any case, these areas will have a transitional zone between the surrounding bottomland hardwood forest and the opening. The CCP includes a provision to complete a Habitat Management Plan to address specific habitat management practices. Methods for maintaining the openings referenced above will be addressed in the Habitat Management Plan.

Comment 53-54

Consider broadcasting milo within openings.

Manage openings on a three year rotation that has one third in crops in any given year.

Response

The two practices mentioned have been used successfully on the Refuge. The CCP includes a provision to complete a Habitat Management Plan to address specific habitat management practices. Methods for maintaining the openings will be addressed in the Habitat Management Plan.

Comment 55

Allowing openings and marshes to close in is not taking care of the property.

Response

The selected management alternative (Alternative 4) maintains open marsh habitat as well as other types of openings. All of the alternatives analyzed in the environmental assessment, were developed to fulfill the purposes of the Refuge and the Refuge System mission and to be consistent with present Service land management policy, and Refuge goals. This includes restoring some open habitats to bottomland forest or other early successional habitat.

Comments 56-57

Through forest management increase the amount of early successional habitat favored by quail, turkey, doves, and swamp rabbits.

Thinning in some areas would benefit wildlife including swamp rabbits.

Response

The selected alternative (Alternative 4) includes forest management activities that will increase the amount of early successional forested habitat (young forest) favored swamp rabbits, turkey, quail and others.

Comment 58

Reduce the amount of willow within Rockhouse Marsh and maintain it as an open marsh to allow wildlife viewing.

Response

We agree as reflected in the selected management alternative (Alternative 4).

Comment 59

Use openings to grow crops to attract deer away from private property.

Response

Some cropland and food plots are included in the selected management alternative, primarily to provide wildlife viewing opportunities. The Refuge does not plant crops as a means of attracting deer away from private property. White-tailed deer are highly mobile, range over wide areas, and are abundant in southeast Missouri. Although deer do feed within the Refuge, food plots and cropland do little to attract deer away from surrounding property and increase local deer populations.

Comment 60

It is a waste of taxpayer dollars to create and maintain open areas that attract wildlife where it can be killed by hunters.

Response

A number of openings will be maintained under the selected management alternative (Alternative 4). These openings will be maintained to provide habitats consistent with historic conditions or to provide enhanced wildlife observation opportunities. Maintaining these open habitats, work often accomplished by volunteers, is consistent with current Service policy derived from the 1997 National Wildlife Refuge System Improvement Act. Congress passed the legislation, the President signed it into law, and the Fish and Wildlife Service is obligated to implement it. See also the response to comment 17 regarding hunting on National Wildlife Refuges.

Comment 61

Manage the moist soil units in the southeast corner of the Refuge to accommodate migrant shorebirds.

Response

The selected management alternative (Alternative 4) includes two strategies under *Objective 1.5 Moist Soil Units* that specify measures to accommodate migrant shorebirds.

Comment 62

Do not manage any moist soil units for rails as proposed under the Preferred Alternative (Alternative 4).

Response

The primary purpose of the Refuge is to provide habitat for migratory birds. King Rails and Black Rails are migratory birds that are rare and declining in number. Mingo NWR is within the breeding range of these species and is capable of providing breeding habitat. The management of 80-100 acres of moist soil for rails included in the selected alternative (Alternative 4) is consistent with Refuge purposes and Service policy.

Comment 63

I concur with the concern expressed in the CCP that some emphasis be given to creation or restoration of rail habitat on the refuge.

Response

Comment noted. The selected management alternative (Alternative 4) includes strategies to provide habitat for rails under *Objective 1.5 Moist Soil Units*.

Comment 64

Carefully monitor Monopoly Marsh and alter management actions if they are not meeting objectives.

Response

We agree. Monitoring of Monopoly Marsh is included under *Objective 1.3* of the selected management alternative.

Comment 65

Lowering the level of Monopoly Marsh is a good idea as long it does not affect fish spawning.

Response

We do not expect fish spawning to be adversely affected by lowering the level of Monopoly Marsh.

Comment 66

Do not reduce the amount of open water within Monopoly Marsh.

Response

The decrease of Monopoly Marsh included in the selected management alternative would convert open marsh habitat along the perimeter to bottomland forest, most likely bald cypress and tupelo. The amount of open water within Monopoly Marsh would not change.

Comment 67

Maintain the rate of flow within the ditch system at no greater than 2005 levels.

Response

The selected management alternative (Alternative 4) calls for additional sediment removal from Refuges ditches. This is likely to increase the rate of flow within the ditch system beyond 2005 levels. Improved water transport is expected to reduce flood duration, improve bottomland forest dynamics, and provide additional deep water habitat for

aquatic species. It also helps meet the Refuge purposes of providing habitat for migratory birds.

Comment 68

Manually altering water levels is not consistent with restoring natural conditions.

Response

The ditch network and the water level management it allows, although not part of the historic habitat conditions of the Refuge, do help approximate drainage and flooding patterns similar to those that occurred prior to changes on the Refuge and within the surrounding landscape.

Comment 69

The marshes are converting to scrub-shrub habitat and are less attractive as habitat for migrating Trumpeter Swans.

Response

Objective 1.3 Open Marsh and the associated strategies that are part of the selected management alternative (Alternative 4) prescribe a number of measures to maintain open marsh habitat on the Refuge.

Comments 70-71

I support the forest management direction contained in alternative 2.

Implement the forest management objective and strategies described for alternative 1 or 2.

Response

We considered a range of forest management options as reflected in the alternatives, and believe the objectives and strategies included in the selected management alternative (Alternative 4) best fulfill the purposes of the Refuge and the Refuge System mission. Specifically, the selected management alternative restores bottomland forest to 547 acres and promotes active forest management to achieve a diversity of species and age classes, something absent from alternatives 1 and 2. Considering the age of the bottomland forest and the lack of regeneration we believe active management is best.

Comment 72

The bottomland forest needs to be managed.

Response

We agree as reflected in the selected management alternative (Alternative 4).

Comments 73-74

Any trees felled or killed as part of a management action should be removed and sold, including those within the Wilderness Area.

Any trees harvested as part of a management action should be left on the forest floor.

Response

The CCP includes a provision to complete a Habitat Management Plan and a Wilderness Management Plan to address specific management practices. Specific methods to be used in forest management will be addressed in these plans.

Comment 75

Promote oak regeneration and eliminate maple through proper selective cutting.

Response

We agree as reflected in the selected management alternative (Alternative 4).

Wildlife and Fish

Comment 76

I support the strategy to work with MDC to stock catfish and other native game fish included in the Preferred Alternative (alternative 4).

Response

Comment noted. This is included in the selected management alternative (Alternative 4) as a strategy under *Objective 2.2 Fish/Aquatic Species*.

Comment 77

I support the strategy to work with the Corps of Engineers to modify water discharge rates at Lake Wappapello to improve fish passage on the Refuge.

Response

Comment noted. This is included in the selected management alternative (Alternative 4) as a strategy under *Objective 2.2 Fish/Aquatic Species*.

Comment 78

The Refuge can sustain a far greater deer density than 35 per square mile.

Response

The deer density goal of 24-35 deer per square mile is consistent with known carrying capacity of Ref-

uge habitats and MDC deer management goals for southeast Missouri.

Comment 79

Alligator gar are fish of large rivers, Mingo NWR is not a good site for reintroduction.

Response

Alligator gar were present throughout the Mississippi River and its tributaries, including the Mingo Basin and St. Francis River, in Southeast Missouri until the 1950s and early 1970s. They declined throughout the State due to the loss of spawning habitat and over-fishing. The reintroduction of alligator gar will be returning the species to its former range, which includes open water habitat and suitable spawning habitat.

Comment 80

Maintain a diverse fishery of native species with abundant game fish including spotted brown willow catfish (channel catfish) and bowfin.

Response

The selected management alternative (Alternative 4) contains a number of objectives and strategies directed at maintaining or restoring diverse fisheries within Refuge waters. This includes catfish and bowfin as well as other game fish.

Trapping and Animal Control

Comment 81

Control the number of river otter as a means of increasing fish populations.

Response

The selected management alternative (Alternative 4) includes a number of proposals directed at increasing fish populations and fishing opportunities. Predator control (including river otter) is not among them. This is because it is unlikely otter dramatically affect fish populations, furthermore, otters are popular with wildlife observers, the largest user group of the Refuge. Although otters do eat fish and may decrease fish numbers in stocked ponds and commercial operations it is unlikely they adversely affect fish populations within the Refuge. Otters, like most predators, focus on prey that is most abundant and easiest to catch. Recent fisheries surveys of Refuge waters show game fish to comprise at most 20 percent of total fish numbers. This means approximately 80 percent are rough fish and

other non-game species. Otter are most likely to feed on these more abundant slower swimming fishes. Low game fish numbers are more likely related to the quality of aquatic habitat than to the presence of river otters. Improving the quality of aquatic habitats is one focus of the selected management alternative.

Comment 82

Include a thorough analysis of the effects of current methods of beaver control and an evaluation of non-lethal options of beaver control within the final Comprehensive Conservation Plan and Environmental Assessment.

Response

We do not believe the suggested analysis is necessary. While National Wildlife Refuges are managed first and foremost for wildlife the focus is on perpetuating populations not individuals. Beaver control does adversely affect individual animals, but it does not threaten the perpetuation of the beaver population on the Refuge.

Comments 83-84

If traps are used they should be padded traps equipped with pan tension devices.

The Environmental Assessment does not address the incidental take of threatened and endangered species by traps.

Response

Trapping does not occur at Mingo, Pilot Knob, or Ozark Cavefish NWRs.

Comment 85

The Service should consider non-lethal methods of beaver control such as water level control devices that have been successful in other locations.

Response

We have tried a number of water level control devices including the Beaver Baffler, dam modifications, and strategic draw downs. These methods were largely unsuccessful or required excessive maintenance.

Comment 86

Killing wildlife to resolve human/wildlife conflicts is ineffective in the long run because new individuals soon recolonize the site.

Response

The selected management alternative (Alternative 4) contains objectives and strategies to help fulfill the purposes of the Refuge and the Refuge System mission. In some circumstances the actions of wildlife such as beaver or nutria threaten or prevent the implementation of Refuge management activities necessary to meet these ends. Where this occurs animals are eliminated. Improved drainage across the Refuge is expected to alter habitat conditions over the long term and shift most beaver activity to locations where they will not be in conflict with Refuge management activities.

Comment 87-90

Allow trapping on at least a limited basis at Mingo NWR because it is a traditional practice, is compatible with other uses, helps maintain healthy furbearer populations, protects infrastructure, decreases refuge expenses, and is allowed on other national wildlife refuges.

Allow trapping at Mingo, Pilot Knob, and Ozark Cavefish NWRs.

We support prohibiting recreational trapping of beaver.

Any beaver or nutria control that does not make use of the pelts is wasting a resource. The Service should strive to utilize this resource and not wantonly destroy or waste it.

Response

Trapping is viewed by the Service as a legitimate recreational and economic activity when there are harvestable surpluses of furbearing mammals. It is used on some refuges to control predators and manage populations that impact refuge habitats and infrastructure. Trapping is not allowed at Mingo, Pilot Knob, or Ozark Cavefish NWRs because there are few problems with furbearer populations. At Mingo NWR beaver control is necessary, but it is most often required for a short duration in specific locations during seasons when pelts are not in prime condition. Other furbearers, notably otter, are popular with wildlife observers, the largest user group of Mingo NWR. See also the response to comment 86.

Comment 91

Trapping should be added to the list of wildlife dependent recreation activities noted in the “Purpose of and Need for Plan” section.

Response

While trapping is wildlife dependent recreation, it is not one of the six priority public uses identified in the 1997 National Wildlife Refuge System Improvement Act. This is why it is not included as such in the *Purpose of and Need for Plan* section of the CCP.

Comment 92

The term “control nutria” is misleading because it does not convey the idea that the animals will be killed.

Response

Control of nutria does include killing individual animals, but may also include other non-lethal means of limiting their numbers.

Air Quality and Contaminants

Comment 93

Expand contaminants monitoring beyond that proposed in the plan. The Refuges are all located near areas that have past mining activity and may contain a variety of soil, sediment, or water contaminants. If contaminants are discovered assess their extent and source.

Response

We will continue to work with the Service’s Division of Environmental Quality as well as the Missouri Department of Natural Resources in developing contaminants monitoring that assists in achieving the plan objective of maintaining environmental quality.

Comment 94

The Missouri Department of Natural Resources concurs with the emphasis on air quality within the Mingo Wilderness.

Response

Comment noted.

Comment 95

Extending the seasonal duration of the Auto Tour Route would increase automobile emissions within the Wilderness Area and decrease air quality.

Response

Air quality within the Class I Air Quality Area associated with the Mingo Wilderness Area is a regional issue. Tailpipe emissions do affect air quality and increasing the open season of the Auto Tour Route would mean more cars and more emissions. But tailpipe emissions play a minor role in regard to air quality at Mingo NWR.

Wildlife observation is consistently the heaviest use at Mingo NWR and the Auto Tour Route is the most popular method for viewing wildlife. Extending the open season of the tour route facilitates wildlife dependent recreation, and helps build support for the Refuge. The expected increase of tailpipe emissions within the Refuge is small relative to other pollution sources within the Class I air shed.

The Refuge will continue to work with the Service’s Air Quality Branch to monitor air quality within the Mingo Wilderness. We will adjust management activities, including the open season of the Auto Tour Route, based on monitoring data and recommendations of the Air Quality Branch.

Facilities and Infrastructure

Comment 96

I support the strategies to provide overlooks and footbridges.

Response

Comment noted. These are included in the selected management alternative (Alternative 4) as strategies under *Objective 3.3 Wildlife Observation and Photography*.

Comment 97

Ensure boat access to Monopoly Marsh at any water level.

Response

We agree this is important and possible except during complete draw downs of Monopoly Marsh. We added a strategy to *Objective 3.2 Fishing* to reflect this.

Comment 98

To avoid seasonal road closure, install a culvert at the low water crossing near Ditch 3 structure.

Response

In recent years, Sandblow Ridge Road was opened to vehicle traffic, first on a seasonal basis and eventually to all times the road is passable. There are no plans to alter the low water crossing to further accommodate vehicles. Improvements necessary to make the road passable during flood season would further hinder water movement across the Refuge basin and detract from ongoing and planned efforts to restore Refuge hydrology.

Comment 99

Install boat ramps at Pierman Lane, and at the Spillway along Ditch 10.

Response

The CCP calls for the preparation of a Visitor Services Plan. We will consider specific proposals for additional facilities when the plan is prepared. We will not improve boat access at Pierman Lane because; constructing a boat ramp that meets accessibility standards would be costly and impede water flow within Ditch 11.

Comment 100

Install a boat access point along Ditch 4 Road that provides access to Gum Stump Pool and Monopoly Marsh.

Response

Ditch 4 Road is not open to vehicle traffic and there is no plan to open it to vehicle traffic. The road and water crossings would have to be upgraded, further impeding flow across the Refuge basin.

Comment 101

Increase the amount of identification and directional signing within ditches, marshes, and the Mingo River.

Response

We agree and have added a strategy to Objective 4.4 to reflect this.

Comment 102

Permanent blinds do not provide the best photo opportunities.

Response

The selected management alternative (Alternative 4) does provide for the construction of one or more blinds for wildlife photography, but wildlife photography is not restricted to these sites.

Comment 103

Increase the standard of Ditch 6 Road to accommodate 2 way traffic and install a parking area.

Response

Ditch 6 road is bordered on both sides by the Congressionally designated Mingo Wilderness Area, which means the area is to be managed in a manner consistent with the Wilderness Act. The single lane Ditch 6 roadway was specifically excluded from the Wilderness Area. Improving the road to accommodate two way traffic and parking would intrude into the Wilderness. The Wilderness Act prohibits such activity.

Comment 104

Make Sweet's Cabin accessible by vehicles.

Response

Sweet's Cabin is representative of Depression era homesteads in the region and may be eligible for listing on the National Register of Historic Places. In addition to historical significance, the National Register nomination process considers seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. Improving the site to allow vehicle access may affect one or more aspects of the property's integrity and harm its eligibility for listing on the National Register. Also, the present level of access provides a measure of protection, improving access to allow vehicle traffic would likely increase vandalism of the site.

Comment 105

Consider adding camper hook-ups and/or a bunkhouse to provide temporary housing for volunteers.

Response

These facilities are available at Mingo NWR.

Comment 106

Improve the float route that includes the Mingo River as a means of attracting visitors and building support for the Refuge.

Response

The canoe route is within the Congressionally designated Mingo Wilderness Area, which means it must be managed in a manner consistent with the Wilderness Act. The present condition of the canoe route is consistent with wilderness management standards and is intended to provide visitors a wilderness experience.

Comment 107

Support installation of electronic surveillance and electric gates.

Response

Comment noted. The selected management alternative (Alternative 4) includes strategies to conduct electronic surveillance in support of law enforcement and to install electric gates.

Staffing and Funding

Comment 108

The Refuge lacks adequate staff and funding to implement the plan. The amount of staff and funding should be increase to allow the plan to be implemented in one to two years.

Response

The CCP is intended to be implemented over a 15 year period. The plan identifies additional staffing required to implement the plan within that time-frame.

Comment 109

The Refuge has more activities, signs, and general upkeep than they can take care of now.

Response

Refuge staff, volunteers, and partners do operate and maintain an array of programs, facilities, and infrastructure. The plan identifies additional funding and staffing required to implement the plan, but it is important to note that the plan is not a commitment for staffing or funding increases.

Comment 110

It will require all staffing and funding resources to meet the habitat management needs for the next 15 years. Staffing and fund-

ing should not be diverted to accommodating additional visitor services. The public will continue to use the Refuge with the present amount of visitor services.

Response

We believe the selected management alternative provides a balance of habitat management and visitor services that best fulfills the purpose of the Refuge and the mission of the Refuge System. The CCP identifies additional funding and staffing required to implement objectives and strategies for visitor services and habitat management included in the plan.

Comment 111

Try to get volunteers or a community organization to help supervise and police Sweet's Cabin.

Response

Maintaining and repairing Sweet's Cabin is a popular volunteer activity that has included Mingo Swamp Friends, Boy Scouts, and Mingo Job Corps. We will continue to promote volunteer assistance at the site, but policing activities will be conducted by authorized law enforcement professionals.

Comment 112

Increase the projected staffing to include two summer time tractor drivers.

Response

We reviewed the scope of work included in the selected management alternative and agree an additional Tractor Operator position is required to complete the work. We modified strategy 9 under *Objective 4.4* to reflect this.

Comment 113

Protection, restoration, and management of wildlife and their habitats are a higher priority for the Refuge than providing recreation opportunities. The Preferred Alternative (Alternative 4) contains too many additional recreation opportunities that will divert staff and funding from habitat management activities and have a detrimental effect on refuge wildlife.

Response

Each of the four alternatives analyzed in the environmental assessment (EA) was developed in response to issues, concerns, and opportunities identified through the CCP scoping process. Also, each alternative was designed to at least minimally achieve Refuge goals, which were derived from the

purposes of the Refuge and the mission of the Refuge System. This includes habitat and wildlife management as well as providing wildlife dependent recreation opportunities. Chapter 4 of the EA considered the effects of each alternative on Refuge wildlife. We believe the selected management alternative (Alternative 4) best fulfills the purposes of the Refuge and Refuge System mission. This includes identifying additional staffing and funding required to implement the alternative.

Comment 114

The Refuge System is not putting wildlife first, as directed by law, when it allows activities such as hunting, fishing, trapping, motor boating, and jet skiing. In many cases these activities are permitted without a thorough analysis of their effects on refuge wildlife.

Response

The 1997 National Wildlife Refuge Improvement Act, the legal basis for putting wildlife first, also directs refuges to facilitate opportunities for six priority public uses: hunting, fishing, wildlife observation, photography, environmental education, and interpretation. Jet skiing and trapping are not allowed on Mingo, Pilot Knob, or Ozark Cavefish NWRs. Hunting and fishing opportunities are included in the selected alternatives for Mingo and Ozark Cavefish NWRs, and boating is included at Mingo NWR because it directly supports the priority public uses of fishing and wildlife observation. Compatibility Determinations analyzing the effects of these activities were included in Appendix D of the draft CCP/EA.

Comment 115

Create an alternative that eliminates additional recreation opportunities, but retains habitat management activities.

Response

We considered a range of alternatives including Alternative 3 which placed more emphasis on habitat management and less on visitor services. We believe the selected management alternative (Alternative 4) provides the best balance of public use and habitat management in a manner consistent with Refuge System policy.

Comment 116

Do not reduce the amount of visitor services below present levels.

Response

The selected management alternative (Alternative 4) includes visitor services at or above present levels.

Other Comments Regarding Mingo NWR

Comment 117

Do not implement a year round fee system.

Response

The selected management alternative (Alternative 4) does include a year round fee system. Fees are primarily used at the site they are collected and are an important source of revenue to enhance services for hunters, anglers, and others visiting national wildlife refuges. We understand that some oppose charging fees at Mingo NWR, but Congressional actions in recent years encourage user fees on federal public lands. In 2004 Congress passed the Federal Lands and Recreation Enhancement Act that included the recreation fee program. Authorized through 2014, this program is intended to demonstrate the feasibility of user fees in funding operation and maintenance of recreation areas, visitor services improvements, and habitat enhancement projects on federal lands.

Comment 118

Offer an all season pass for purchase.

Response

The Refuge currently offers an annual pass for purchase.

Comment 119

Preserve and protect Sweet's Cabin.

Response

We agree. Objective 4.1 and associated strategies are directed in part at historic protection.

Comment 120

The term “squirrel season” is misleading and should be replaced with the term “squirrel killing season”.

Response

Each occurrence of the term “squirrel season” is within a portion of the document related to hunting. We believe it is clear that the term “squirrel season” describes a hunting season on squirrels.

Comment 121

There is enough land within the Refuge to provide a little of everything.

Response

Comment noted. We feel the selected management alternative (Alternative 4) provides a mixture of habitat and wildlife management as well as wildlife dependent recreation that best fulfills the purposes of the Refuge and the Refuge System mission.

Comment 122

Support fire break along boundary by Mingo Job Corps.

Response

Comment noted.

Comment 123

Ban new roads, hunting, trapping, prescribed burning, and logging within the Refuge.

Response

There are no new roads proposed in the selected management alternative (Alternative 4). Hunting is identified as a priority public use in the 1997 National Wildlife Refuge System Improvement Act, and national wildlife refuges are directed to facilitate this use when it does not interfere with fulfilling the Refuge purposes or Refuge System mission. Trapping is not allowed on the Refuge nor is it included in the selected management alternative. Prescribed burning and logging are included as part of the selected management alternative because they are necessary to maintain habitats to fulfill the Refuge purposes.

Comment 124

The smoke from prescribed burning travels long distances and is hazardous to human health.

Response

Smoke and its management is a concern associated with prescribed burning. The Mingo NWR Fire Management Plan addresses air quality and smoke management guidelines associated with prescribed fire. Individual prescribed burn plans address smoke management and actions required to ensure public safety and prevent negative impacts from smoke.

Comment 125

In the list of maintenance needs include the age of equipment due for replacement.

Response

Age is not included because vehicles and other equipment are replaced at specified age and mileage standards as indicated by Service policy.

Comment 126

A number of groups that support hunting are listed as partners of the Refuge, but no animal protection groups are listed, why?

Response

The Refuge develops partnerships with organizations to help fulfill Refuge purposes and the Refuge System mission. The Refuge welcomes new partners interested in migratory bird habitat, Wilderness, and wildlife dependent recreation, especially the six priority uses identified in the 1997 National Wildlife Refuge Improvement Act.

Comment 127

The National Wildlife Refuge System Improvement Act requires refuges to conduct rigorous scientific research on the status of refuge wildlife populations and to use this information to guide refuge planning.

Response

Comment noted. The Refuge does participate in scientific wildlife studies and the information gained from such studies does guide Refuge planning. A continued commitment to monitoring and research is reflected in the selected management alternative (Alternative 4). This includes completing an Inventory and Monitoring Step-down Management Plan.

Comment 128

It is our hope that the Mingo NWR management team will help to restore this public land system to its original purpose of providing a “refuge and breeding place” for “migratory birds, other wild birds, game animals, fur-bearing animals, and for the conservation of wild flowers and aquatic plants.” (Per Public Law 268).

Response

The law and purposes cited are specific to the Upper Mississippi River Wildlife and Fish Refuge. Mingo NWR derives its purposes from the Migratory Bird Conservation Act and the Wilderness Act. We believe the selected alternative (Alternative 4) best fulfills the purposes of the Refuge and the Refuge System mission.

Comment 129

As for Mingo NWR, I read all your alternative plans thoroughly and like numbers two and four the most.

Response

Comment noted. The selected management alternative is Alternative 4 of the Environmental Assessment.

Comment 130

Why were no furbearers listed in the summary of the Draft CCP and EA?

Response

Furbearers do occur at Mingo NWR. A summary contains less information than the source document it summarizes. A list of mammals found at Mingo NWR was included as an appendix to the draft CCP/EA.

Comment 131

I applaud your efforts in preserving part of Southeast Missouri as it was two hundred years ago.

Response

Comment noted.

Comment 132

Use best management practices during sediment removal and in the use of herbicides and other hazardous substances.

Response

Service policy requires the use of best management practices in carrying out such activities.

Comments 133-135

Overall I feel that the #4 alternative plan would be the most well rounded solution for the future use of Mingo.

I like Alternative 4 because it better looks to the conservation of a wider selection of plant and animal life.

I like the hunting program included in alternative 4.

Response

Comments noted. Alternative 4 is the selected management alternative.

Comment 136

I support the Preferred Alternative (alternative 4)

Response

Comment noted.

Comment 137

Alternative 2 would make a good plan if the increase in the seasonal duration of the Auto Tour Route was eliminated and replaced with increased habitat management activities.

Response

We considered a range of alternatives and believe the selected management alternative (Alternative 4) balances habitat needs with visitor services in a manner that best fulfills the purposes of the Refuge and the mission of the Refuge System.

Comment 138

I like the idea of a webcam within the Mingo Wilderness Area.

Response

Comment noted. The addition of a webcam within the Mingo Wilderness Area is included as a strategy under *Objective 3.3 Wildlife Observation and Photography*.

Response to Comments Received on the Draft CCP and EA / Pilot Knob NWR

Comment 139

The draft plan does not specify a preferred alternative for Pilot Knob NWR.

Response

This was an error of omission. Alternative 2, Expanded Species Protection and Opportunities for the Public should have been identified as the Preferred Alternative. It is now the selected management alternative.

Comment 140

Why not make the objective to reduce illegal activity to zero instead of 1 incident per 60 hours of law enforcement at Pilot Knob NWR.

Response

The objective has been modified as follows: Throughout the life of the plan, limit the amount of documented incidents of illegal activity to no more than 1 incident per 60 hours of law enforcement.

Comment 141

Establishing legal access to the Refuge must be first priority if other objectives are to be met.

Response

We agree and it is included as a strategy under *Objective 1.1 Law Enforcement*.

Comment 142

The chain link fence is inadequate to prevent illegal entry and repairing the fence is likely to be a short-term fix. A more successful strategy would be to focus protective efforts on the actual mine entrance using modern angle iron picket style fencing. A picket fence surrounding just the main entrance ravine would be a lot more effective in barring casual entry to the mine than the present arrangement and would also be a lot easier to patrol and monitor.

Response

We agree on focusing protective efforts on the mine entrance. This is reflected in the selected management alternative (Alternative 2) in strategy 1 under *Objective 2.1 Public Access and Visitor Services*.

Chapter 5 of the CCP calls for completion of a Habitat Step-down management plan that will consider specific measures for implementing objectives and strategies contained in the CCP.

Comment 143

If the refuge area excluding the mine were to be opened to the general public additional picket fencing would probably be needed for safety considerations, to prevent people from entering other unstable mine entrances within the refuge.

Response

Objective 2.1 Public Access and Visitor Services does include strategies to evaluate and if possible mitigate safety hazards. Until these strategies are funded and completed we believe the limited amount of guided access described in the selected management alternative (Alternative 2) for Pilot Knob NWR best fulfills the purposes of the Refuge and the Refuge System mission.

Comment 144

We believe that MDC biologists have already developed a bat survey protocol.

Response

The 1999 Agency Draft Indiana Bat (*Myotis sodalis*) Revised Recovery Plan does contain mist netting guidelines. The recovery plan notes that mist netting is intended to determine presence or probable absence of the species, but provides insufficient data to determine population size or structure. The recovery plan also contains direction to monitor the status of populations in hibernacula but the methods described are not applicable to inaccessible hibernacula like the one at Pilot Knob NWR. It is appropriate for the Indiana Bat Recovery Team to address this.

Comment 145

Stabilizing the mine entrance will be critical in the long term, but instability of the whole hibernaculum is also a problem. One major problem is that the location of the actual hibernaculum is not known. It might be worthwhile to take a

further look inside the mine's several entrances to try to locate the hibernation area and assess stabilization needs.

Response

Stabilizing the entrance to the hibernaculum is included in the selected management alternative (Alternative 2) as a strategy under *Objective 1.2 Bat Recovery*. Further attempts to more accurately locate the hibernaculum are not included in the final CCP, but will be considered as part of a Habitat Management Plan that considers management options in greater detail.

Comment 146

The notion of instituting guided tours is OK as far as it goes, but seems labor intensive and only allows very limited access for local citizens. We believe that if our recommended strategy of securely fencing the mine entrance is successful, then excluding the general public from the refuge as a whole will become unnecessary. Allowing unrestricted access would help to engage the local public and would provide additional education opportunities.

Response

We believe the limited, guided access to the Refuge contained in the selected management alternative (Alternative 2) is appropriate considering the uncertain access and potential hazards. If these conditions change we will reevaluate public access options during development of the Visitor Service Step-down Management Plan.

Comment 147

If public access is implemented to Pilot Knob NWR it should be on a walk in basis. Establishing vehicular access to the top of the mountain would invite trash, vandalism and erosion of the steeply graded route.

Response

We agree.

Comment 148

For any proposed projects at Pilot Knob NWR, consider the effects to historic properties.

Response

The final CCP includes provisions to ensure historic properties are identified and protected to the extent possible within the established purposes of the Refuge and the Refuge System mission.

Comment 149

What is being done about studying the summer roosting habits of these bats at Pilot Knob and protecting the land/forest they roost on?

Response

We added a strategy to *Objective 1.2 Bat Recovery* to work with partners to investigate the use of the Refuge as summer roosting habitat by the Indiana bat.

Comment 150

Consider expanding the proposed partnership with Fort Davidson Historic Site to include law enforcement assistance.

Response

We agree and modified the strategy in the selected management alternative to reflect this.

Comment 151

Consider forming a partnership with the Fort Davidson Historic Site Friends group.

Response

We agree and added a strategy to the selected management alternative.

Comment 152

Expand Pilot Knob NWR by another 150 acres.

Response

Presently, there is no proposal to expand the Refuge. Pilot Knob NWR was established to protect the abandoned mine used as a hibernaculum by Indiana bats. At this time there is no evidence to suggest expanding the Refuge would further assist Indiana bat recovery.

Comment 153

As for Pilot Knob and Ozark Cavefish NWR, I applaud your efforts to protect the Indiana Bat and Ozark Cavefish and their environment. More of this needs to be done, with other species. As our world gets more crowded with human population, a lot of wildlife species get pushed to the edge and their environment needs to be protected.

Response

Comment noted.

Response to Comments Received on the Draft CCP and EA / Ozark Cavefish NWR

Comment 154

The draft plan does not specify a preferred alternative for Ozark Cavefish NWR.

Response

This was an error of omission. Alternative 2, Expanded Species Protection and Opportunities for the Public should have been identified as the Preferred Alternative. It is now the selected management alternative.

Comment 155

One of the action alternative goals – to collect data on vegetation and identify opportunities for habitat restoration – is peripheral to the purposes of the refuge. While in general we certainly favor surface habitat restoration, we wonder if this may be diverting scarce resources from water quality issues, especially in view of the small size of the reserve.

Response

The purposes of Ozark Cavefish NWR derived from the Endangered Species Act are to conserve fish, wildlife, or plants which are listed as threatened or endangered. The Refuge is within the range of the federally threatened Missouri bladder pod and may be a potential restoration site. We believe collecting vegetation data and evaluating restoration opportunities is consistent with the Refuge purposes.

Comment 156

*It is a near certainty that the bristly cave crayfish (*Cambarus setosus*) and at least two species of stygobitic amphipod (*Stygobromus onondagaensis* group and *S. alabamensis*) do occur within the refuge since they occur in Turnback Cave – these species, in addition to *Amybylopsis rosae*, should be specifically included in the endangered species management goals.*

Response

The three species mentioned are not listed as federally threatened or endangered species. *Cambarus*

setosus and *Stygobromus onondagaensis* are included on the 2006 Missouri Species and Communities of Concern Checklist, but are not listed as threatened or endangered by MDC. We believe management actions that benefit Ozark Cavefish will also benefit these species should they occur in Turnback Cave.

Comment 157

We strongly support the emphasis on educating private landowners within the Turnback Cave watershed with regard to best management practices and their effect on groundwater quality.

Response

Comment noted.

Comment 158

We question whether sufficient dye-trace data exists to adequately delineate the watershed. If not, research on watershed boundaries should be the first priority.

Response

During the course of the CCP planning effort, the Missouri Department of Conservation contracted Ozark Underground Laboratory to delineate the recharge area of Turnback Creek through the use of dye-trace techniques.

Comment 159

The action alternative does not address the scoping comments that the same effort should be expended on other known Ozark cavefish watersheds.

Response

The Comprehensive Conservation Plan is intended to provide management direction for Ozark Cavefish NWR. Although not addressed in the plan, the Service, MDC, and the Nature Conservancy deliver a number of programs and services directed at protecting subterranean habitats and associated species at other locations. Much of these efforts are

directed at improving water quality by educating land owners within the recharge areas about appropriate management practices to prevent groundwater degradation.

Comment 160

Only allow artificial lures, flies, and baits at Ozark Cavefish NWR.

Response

Sport fishing regulations as defined in the Wildlife Code of Missouri apply at Ozark Cavefish NWR. Use of live bait is permitted within Turnback Creek, but is restricted to those species listed as approved aquatic species in the Wildlife Code to limit introduction of invasive species.