

Environmental Assessment New Equipment Shed Middle Mississippi River National Wildlife Refuge

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Abstract:

On May 31, 2000 Middle Mississippi River National Wildlife Refuge was established as an individual Refuge and in general, its purposes are (1) "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds"; (2) "...for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon..."; (3) "...for incidental fish and wildlife-oriented recreational development, the protection of natural resources, the conservation of endangered species or threatened species..."; (4) "...the conservation of the wetlands of the Nation in order to maintain the public benefits they provide and to help fulfill international obligations contained in various migratory bird treaties and conventions...". The Refuge lies in the portion of the Mississippi River south of the lock and dam system in the uninhibited portion of the River. The Refuge acquisition boundary encompasses 13,632 acres spanning from St. Louis, MO to Cairo, IL. Within this boundary the Refuge currently owns 8,074 acres of fee title land. Presently the Refuge headquarters and equipment shed is located in Randolph County Illinois just west of the town of Rockwood. It was purchased on January 6, 2006 as part of the Rockwood Island acquisition. This 10 acre tract of ground is the only portion of the Refuge that lies on the inside, or protected side, of the Mississippi River levee.

The existing equipment shed was built by the original property owner before Service acquisition. It was not built to Service specifications and shows signs of deterioration from the elements. It also lacks a concrete floor, has poor security, is accessible to rodents and insects, and is not ADA

compliant. Recent assessments have deemed the current shed as insufficient for repair and plans are to demolish it upon completion of the new equipment shed.

This Environmental Assessment (EA) has been prepared to analyze the alternatives available for the replacement of the new equipment shed at Middle Mississippi River NWR.

Section I: PURPOSE AND NEED FOR ACTION

Purpose for Taking Action:

The purpose of this EA is to evaluate alternatives for constructing a new equipment shed at the current Refuge headquarters and shed location. This EA will consider three possible alternatives including a no action alternative.

Need for Taking Action:

The current equipment shed was acquired during acquisition of the Refuge headquarters location in 2006 and was not built to Fish and Wildlife standards and specifications. The integrity of the existing equipment shed has become a concern due to poor construction and exposure to the elements over the years. The structural integrity of the building has been compromised by leaks in the roof, which has caused rot and mold to build up on the interior wood structure. Poor construction has left gaps in the structure that are accessible by insects and rodents. The proposed project will benefit Refuge staff and more importantly equipment by providing a safe and secure storage facility for two tractors, a mower, a UTV, two boats, three vehicles, and other equipment and supplies.

Decision to be Made:

The Regional Director, U.S. Fish and Wildlife Service, Bloomington, Minnesota, needs to make two decisions. (1) Decide which alternative will benefit the Refuge long-term; and (2) determine if the project is a major Federal action having a significant effect on the environment thus requiring preparation of an Environmental Impact Statement.

Issues Raised During Project Planning:

Wildlife Disturbance and Habitat Damage – Construction of any kind will cause disturbance to wildlife in and around the work site. The construction of a new equipment shed will initially add to the footprint on the landscape. These impacts will only be temporary allowing for continued storage and protection of refuge equipment and supplies following construction. Upon completion of the new equipment shed, the aged structure will be removed and surrounding area may be graveled for future equipment placement.

Cultural Resources – In 2009 Dr. Fred Finney conducted a Phase 1 archaeological investigation at the Refuge headquarters and equipment shed location. Three sites were documented, two

historic and one prehistoric, at the time of this investigation. None of these sites will be disturbed during the construction of the new equipment shed. However, one of these sites (identified in Dr. Finney's report as site 11R890) may be affected by the eventual connection to the septic system and possible demolition of the current equipment shed. This project as discussed with Dr. Finney prior to the proposed construction/demolition may require a Phase 2 site evaluation unless construction can be conducted to avoid documented sites. At this time only the construction of the new equipment shed is being proposed and demolition of the old shed and completion of the plumbing system will continue after the Phase 2 investigation or with Dr. Finney's expert consultation on how to avoid sites.

Effect on Local Economy - Utilization of local contractors and hired labor during construction of the new equipment shed and demolition of the old equipment shed should have a positive impact on the local economy. Local vendors have been approved in SAM.GOV and will be utilized if at all possible during construction.

Background:

Originally part of the Mark Twain Refuge Complex, the Middle Mississippi River National Wildlife Refuge was established as an individual Wildlife Refuge on May 31, 2000. The Refuge lies in the portion of the Mississippi River south of the lock and dam system in the uninhibited portion of the River. The Refuge headquarters and equipment shed are located in Randolph County Illinois just west of the town of Rockwood on a 10 acre parcel of land not subject to the Mississippi River and its flood regime. It was purchased on January 6, 2006 as part of the Rockwood Island acquisition.

The existing shed was built by the original property owner before Service acquisition. It was not built to Service specifications and shows signs of deterioration from the elements. It also lacks a concrete floor, has poor security, is accessible to rodents and insects, and is not ADA compliant. Recent assessments have deemed the current equipment shed as insufficient for repair and it is scheduled to be demolished upon completion of the new equipment shed.

Section II: ALTERNATIVES INCLUDING THE PROPOSED ACTION

Alternative A: Maintain Existing Conditions (No Action Alternative)

This alternative is the least favorable alternative due to the condition of the existing equipment shed. Lack of attention would result in the eventual failure of the structure and possible damage to the equipment and supplies stored inside of it. At this time there is obvious water damage to the internal wooden structure of the equipment shed. The original structure was built with a dirt floor and limited access making it non ADA compliant. Poor construction has left the building open to the elements and to access by insects and rodents. Currently there is no security system and the building is only being protected by two locking doors and barred windows. Safety will also remain a concern as deterioration continues to jeopardize the integrity of the structure.

Alternative B: Construct New Equipment Shed (Preferred Alternative)

The Service proposes to construct the new equipment shed with a concrete floor, improved access, a security system, and automatic garage doors. The construction of the new equipment shed would ensure continued and improved storage and protection of equipment and supplies at Middle Mississippi River National Wildlife Refuge. This in effect would provide a longer life for the equipment used for managing the Refuge and its habitat. The benefits of the preferred alternative greatly out-weigh any short-term repairs to the existing structure or letting the building continue to exist as described in the other alternatives.

Alternative C: Rehabilitate Current Equipment Shed

Repairing the existing equipment shed will only provide short-term benefits and result in considerable cost due to the multitude of repairs needing to be addressed. Several roof trusses and support posts are rotting and molding from exposure to the elements and would have to be replaced to meet Service standards. A new frame would have to be built and everything removed from the premises to pour a concrete slab to improve access and provide a solid working base. A new floor would help to, but not eliminate, access to rodents and insects coming in from the surrounding area. A security system would have to be designed to accommodate the existing structure instead of having one installed from the onset of construction. Doors would also have to be fitted with deadbolts to improve security and the sliding equipment door would have to be removed and fitted with a new track and opener for proper installation of a new garage door. Safety will continue to remain a concern as deterioration continues to jeopardize the integrity of the existing structure.

Section III: AFFECTED ENVIRONMENT

Middle Mississippi River National Wildlife Refuge headquarters and equipment shed are located in Randolph County, Illinois approximately 1.6 miles west of the town of Rockwood. The proposed equipment shed will be located to the northeast of the current headquarters building and directly east of the current equipment shed. Proper protection and storage of government equipment and supplies while providing a safe working environment are top priorities of the Fish and Wildlife Service.

The Refuge headquarters and equipment shed location, both current and proposed, are located on a 10 acre tract of land just west of the town of Rockwood. This area is the only portion of the Refuge not subject to direct flooding by the Mississippi River. Protection by levees and the high elevation of the site have left the site dry during all the major flood events of the recent past.

Vegetation consists of a variety of native tree species including: cottonwood, elm, maple, ash, persimmon, dogwood, oak, and hickory species. There is also several native and non-native herbaceous species occurring on the site as well. There will be minimal removal of trees for this project, which will be done to accommodate Indiana and Gray bats. To avoid impacting these species, tree clearing activities should not occur during the period of April 1 to September 30. It should be noted that no threatened or endangered species have been known to occur at the Refuge headquarters and equipment shed location.

In 2009 Dr. Fred Finney conducted a Phase 1 archaeological investigation at the Refuge headquarters and equipment shed location. Three sites were documented, two historic and one prehistoric, at the time of this investigation. None of these sites will be disturbed during the construction of the new equipment shed. However, one of these sites will be affected by the eventual connection to the septic system and demolition of the current equipment shed. This project as discussed with Dr. Finney prior to the proposed construction will likely require a Phase 2 site evaluation prior to disturbance. At this time only the construction of the new equipment shed is being proposed and demolition of the old shed and completion of the plumbing system will be postponed until this investigation is completed.

Section IV: ENVIRONMENTAL CONSEQUENCES

Alternative A: Maintain Existing Conditions (No Action)

This Alternative would not result in significant changes to the physical, biological, or cultural resources on the Refuge if the structure was left as is. However, if the existing shed is left as is the structure will eventually fail causing possible damage to equipment and supplies and creating many safety concerns.

Alternative B: Construct New Equipment Shed (Preferred Alternative)

The Environmental Consequences of this Alternative will be temporary. Work to construct the new equipment shed will result in only temporary changes to the physical, biological or cultural resources on the Refuge. Disturbance to the footprint of the equipment shed will be permanent, but will add little change to the affected environment because it is currently a graveled parking area. One maple tree has been identified for removal, which will take place after the September 30 guidelines for Indiana and gray bats.

Temporary Disturbance

Work to construct the new equipment shed will include the use of heavy equipment, resulting in temporary disturbance to soils and vegetation in the work area. These temporary impacts will be mitigated when the disturbed area is replanted with desirable vegetation to help stabilize and restore the site.

There are no Federally threatened or endangered plant or animal species located in the affected areas. Construction activities are tentatively scheduled to commence during the fall of 2014.

Permanent Changes to Wildlife Habitat

Within the footprint of the new equipment shed habitat will be permanently affected. The loss, however, will be offset by the removal of the old structure once work on the new structure is complete. No additional loss or impacts to habitat will result from the project since the new equipment shed's footprint will be located in what is currently a gravel parking lot.

Cultural Resources

No archeological sites have been identified in the proposed construction area of the new equipment shed. No impacts to cultural resources would occur under this alternative.

Aesthetic Concerns

During construction of the new equipment shed the presence of heavy equipment on site would reduce the aesthetic attributes of the natural environment in the project area. Very little, if any, long term impacts on aesthetics would occur.

Reduced Hunting Opportunities

No change in hunting opportunities would occur as a result of the project. The proposed project area is closed to all hunting activities allowed on the Refuge.

Cumulative Impacts

The cumulative impacts of the project would overall be positive. Construction of the new equipment shed will provide better storage and protection for Refuge equipment and supplies. It will also reduce the risk of safety concerns associated with the current equipment shed.

Alternative C: Rehabilitate Current Equipment Shed

Temporary disturbance to the physical, biological and cultural resources on the refuge would be similar to Alternative B.

Section V: LIST OF PREPARERS

This EA was prepared by John Hartleb, Wildlife Refuge Specialist, Middle Mississippi River National Wildlife Refuge, Rockwood, Illinois.

Section VI: COMPLIANCE, CONSULTATION AND COORDINATION WITH OTHERS

Parties Contacted During the Planning Process

- Randolph County Road Commission
- Dr. Fred A. Finney – principal investigator for Phase 1 archaeological survey

Coordination With Others

A public comment period was initiated on August 1, 2014 for a 30 day period by issuing a news release to newspapers in the vicinity of the Refuge. Copies of the EA were e-mailed directly to the U.S. Army Corps of Engineers, Missouri Department of Conservation, and Illinois Department of Natural Resources.

Pertinent Laws, Executive Orders and Regulations

1. National Wildlife Refuge Improvement Act of 1977.
2. Section 106 of the National Historic Preservation Act
3. Endangered Species Act of 1973

Section VII: References

National Wildlife Refuge Improvement Act of 1997 (P.L. 105-57)
Mark Twain Comprehensive Conservation Plan approved in 2004