COMPATIBILITY DETERMINATION

Use: Trapping of Furbearers

Refuge Name: Upper Mississippi River National Wildlife and Fish Refuge (Refuge).

Establishing and Acquisition Authorities: The Upper Mississippi River National Wildlife and Fish Refuge was established by Public Law No. 268, 68th Congress on June 7, 1924. This act authorized acquisition of lands for Refuge purposes. Additional lands acquired in fee title by the U.S. Army Corps of Engineers are managed as part of the Refuge under a 1963 Cooperative Agreement between the Department of the Army and the Department of the Interior.

Refuge Purpose(s): The Refuge shall be established and maintained (a) as a refuge and breeding place for migratory birds included in the terms of the convention between the United States and Great Britain for the protection of migratory birds, concluded August 16, 1916, and (b) to such extent as the Secretary of the Interior by regulations, prescribe, as a refuge and breeding place for other wild birds, game animals, fur-bearing animals, and for the conservation of wild flowers and aquatic plants, and (c) to such extent as the Secretary of the Interior may, by regulations, prescribe a refuge and breeding place for fish and other aquatic animal life.

National Wildlife Refuge System Mission: The mission of the National Wildlife Refuge System is to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

Goals of the National Wildlife Refuge System:

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

Description of Use:

What is the use? This use is the trapping of resident furbearer animals (muskrat, beaver, raccoon, etc.) on the Refuge in accordance with state and Refuge regulations. Trappers may use foothold traps and body-gripping ("conibear" type) traps for the purpose of trapping furbearers.

The size and types of trap allowable for use on the Refuge is determined by State regulations in order to protect non-target species, and to reduce conflict with other Refuge users. The use of exposed flesh or carcass baits, including fish, is prohibited on the Refuge. The Refuge's Furbearer Management Plan was completed in 2007 and provides policy, strategies, and regulations on furbearer trapping.

Where is the use conducted? Furbearer trapping is allowed throughout the Refuge, however, all areas of the Refuge which are closed to hunting of migratory birds are closed to trapping during the duck hunting season for that State. Trapping in areas posted "Area Closed", "No Hunting Zone" and "No Entry/Sanctuary" is allowed beginning at 9:00 a.m. on the day following the close of the State duck hunting season, except as otherwise specified or prescribed by the Refuge Manager. The closed area restriction reduces the extent of disturbance to waterfowl by human activities during the hunting season, thus enhancing the ability of the Refuge to provide secure resting and feeding areas for migrating waterfowl. An additional area (Crooked Slough Backwater in Pool 13) is closed to all trapping and other forms of entry year round. This area is part of the former Savanna Army Depot and is closed due to contaminants and unexploded ordinance. Other areas where trapping is prohibited include Brice Prairie (Pool 7 near La Crosse District's visitor center), Sturgeon Slough (Pool 10) and Goetz Island (Pool 11). These areas are adjacent to district office/maintenance facilities and/or hiking and biking trails with high levels of public use.

On a Refuge District basis, most trappers and most furbearer harvest occurs in the McGregor District (Pools 9-11), followed by La Crosse (Pools 7 and 8), Winona (Pools 4-6) and Savanna (Pools 12-14).

When is the use conducted? The opening of trapping seasons, trapping methods, and other regulations on the Refuge generally follow those established by each of the four States in which the Refuge occurs: Iowa, Illinois, Minnesota and Wisconsin. The final day of trapping on the Refuge is no later than March 15. Trapping seasons generally run from late October or early November through late winter or even spring of the following year. There is variability among states in regards to season length (trapping for some species are continuously open, others have established dates), trapping zones, and species open to trapping.

How is the use conducted? The Refuge's Furbearer Management Plan was completed in 2007 and provides policy, strategies, and regulations on furbearer trapping.

The Refuge has regulated trapping within its boundaries since 1929 and administers trapping by issuing Special Use Permits to state-licensed individuals who may use a maximum of 40 traps (all marked with Refuge tags) per day. Refuge trap tags are not species specific, and can be used on any legal trap to target any authorized furbearing animal. The use of snares (or cable-restraints) and multiple-catch traps ("colony" type traps), allowed in some states, are prohibited on the Refuge.

All trappers must submit a Fur Catch Report following the season or not be eligible for a permit to trap on the Refuge the subsequent season. These reports provide data on the number and distribution of animals harvested, distribution of trappers, and trapping effort on the Refuge.

Access for trapping on the Refuge is by foot, boats, and vehicle. Use of vehicles on, over, or across Refuge land at any time is prohibited, including while trapping. Off-road vehicles are allowed only on the ice over navigable waters, accessed from boat landings. The Refuge has other restrictions regarding tending traps, set types, use of vegetation, disturbance, etc.

Why is the use being proposed? Furbearer trapping on the Refuge is a long-standing tradition with high cultural value and has been a useful tool in maintaining balance between furbearers and habitat, and safeguarding Refuge infrastructure.

Most furbearer trapping targets the following species: muskrat, mink, beaver, raccoon, and red fox. Other species taken include river otter, coyote, skunk, and opossum. The vast majority of trapping occurs within wetland habitats.

A summary of the Refuge's furbearer harvest and related statistics for the years 1996 through 2016 was completed in 2016 (Stemper 2016). Between the 1996-97 and 2015-16 trapping seasons, the average annual number of permitted trappers on the Refuge was 335, ranging from a low of 202 in 2015 to a high 518 in 1997. The average number of permitted trappers per State, 1996-97 to 2015-16 was: Iowa = 76; Illinois = 35; Minnesota = 58; and Wisconsin = 166. Some trappers who obtain permits do not actively trap during the trapping season for various reasons. Refuge harvest numbers are based upon active trapper's fur catch reports (self-reported). Active trappers are defined as those who trap at least one day per season.

Active Refuge trappers reported an average annual muskrat harvest of 39,349, ranging from 17,910 in 2014-15 to 104,179 muskrats in 2006-07. The average Refuge beaver harvest was 1,806, ranging from 808 in 2010-11 to 3,577 in 1997-98. The average Refuge raccoon harvest was 1,372, ranging from 402 in 2015-16 to 2,243 in 2006-07. The average Refuge mink harvest was 341, ranging from 138 in 2014-15 to 773 in 2006-07.

The trapping efficiency (catch per unit effort) for muskrats, estimated as the average number of muskrats caught per trap deployed each night by trappers who targeted muskrats, was derived from fur catch reports for the years 1998-99 to 2015-16. The average number of muskrats caught on the Refuge per trap night was 0.25.

Factors affecting furbearer harvest on the Refuge include length of the trapping season, fur prices, weather conditions, habitat changes, extent of aquatic vegetation coverage, and trapping effort.

Availability of Resources: There are costs to administering the trapping program on the Refuge. Each Refuge District issues permits to trappers who intend to trap in their respective States and pools. Trappers must apply in person at the respective District Office. Trappers pay a fee that recovers the government's cost of administering the trapping program. Permits were first issued for a fee of 10 cents per tag, with a 50 tag limit in 1941 and continued as such through 1978. In 1979, a standard 40 tags was issued for a fee of $5.00 per permit. This reduction in the number of trap tags was designed to decrease intense competition among trappers when muskrat pelts were selling at high prices ($4-6.00). The fee was increased to $10.00 in 1990, $15.00 in 1991, and $20.00 in 2000 for all trappers. Following the implementation on the Refuge's Furbearer Management Plan in 2008, the fee was increased to

$30.00 for adults and decreased to $5.00 for youth under the age of 18. The standard of 40 tags per permit has remained the same throughout the period. Trapping permits were replaced by a Refuge Special Use Permit in 2000.

Access trails, parking lots, boat landings, signs, and other facilities as well as staff to enforce regulations and maintain these facilities have been provided by the Refuge. These facilities have been maintained for many years primarily to meet needs of the public engaged in fishing, hunting, trapping and boating-related activities.

Anticipated Impacts of the Use: Impacts of public trapping on the purposes of the Refuge and mission of the refuge system can be either direct or indirect and may have negative, neutral, or positive impacts on Refuge resources.

Direct impacts may include displacing migratory birds during the pair bonding and pre-nesting season. Indirect impacts may include catch of target and non-target species that are predators on migratory birds and/or nests, or removal of species that induce habitat change (i.e. beaver).

Because of the temporal separation of trapping activities and breeding wildlife using the Refuge, direct impacts to these resources by trappers is negligible. Trappers using the Refuge in early March, may disturb individual early nesting waterfowl on occasion, and cause temporary displacement from specific and limited areas. These impacts are occasional, temporary, and isolated to small geographic areas. Bald eagles initiate nesting activates on the Refuge in February, but there is no evidence that trapping has impacted bald eagle nest success. Between 1986 and 2013, the number of active bald eagle nests increased from 9 to 311 active nests on the Refuge.

There are potential impacts on habitat by trappers using shallow water propulsion systems since props can tear up rooted plants as boats make their way through aquatic vegetation beds. The magnitude and extent of this impact has not been determined. Where aquatic vegetation cover has decreased in the Refuge due to sedimentation, wind and wave action, herbivores (fish and mammals), and continual inundation, additional vegetative losses due to trapping activities would have a negative impact on Refuge habitat. Any habitat change as a result of trappers walking through vegetation or using willow cuttings to mark their traps is undetectable and insignificant. The creation of openings in heavy stands of aquatic vegetation can enhance habitat use by fish and wildlife.

Indirect impacts to wildlife nesting and breeding success can result from the removal of animals under a trapping program. In many instances, these impacts are positive. Reductions in populations of nest predators such as raccoon, fox, skunk, and mink have a limited positive impact on nesting birds. The degree to which predator management, through a public trapping program, benefits migratory bird production can vary widely depending on the timing of the removal of predators, size of the habitat block, habitat isolation (for example islands) and adjacent land use.

The removal of plant-eating species such as beaver and muskrat can have both positive and negative impacts on Refuge resources. Muskrats will dig bank dens into dikes of water

management facilities causing considerable damage and add costs to operations of the Refuge. Beaver will sometimes plug water control structures causing damage, limiting access and compromising Refuge habitat management capabilities. Managing beaver and muskrat populations at reasonable levels through a public trapping program can reduce costs to the Refuge in wildlife management activities.

Habitat management can be enhanced, however, by these same animals. Muskrats build houses and dens using aquatic vegetation, thus creating openings available for fish, waterfowl, and other migratory birds. Beaver dams create ponded habitat, and their lodges are also associated with openings in aquatic vegetation beds. These benefits minimize the need to commit Refuge resources to achieve these habitat conditions.

When considering impacts to Refuge purposes, impacts of the trapping program include those to the furbearer populations themselves. Individual animals are harvested and removed, yet State Departments of Natural Resources indicate furbearer populations, with exceptions, are stable to increasing (see below). Harvest data derived from trapper Fur Catch Reports indicate that trapper efficiency has remained fairly constant despite fewer total animals trapped. Harvest data reflects the number of trappers, trapping conditions, and fur prices.

Furbearer Status and Harvest: Wisconsin, Illinois, Iowa, and Minnesota generate and distribute various types of wildlife population status reports that include furbearers. Factors affecting furbearer harvest on the Refuge and within these states include length of the trapping season, fur prices, weather conditions, habitat changes, extent of aquatic vegetation coverage, and trapping effort.

The Refuge has hosted four joint State and Federal furbearer/trapping meetings (2009, 2011, 2013, and 2015) to discuss furbearer population and trapping issues on/and near the Mississippi River. Both the State Furbearer Biologists and Refuge staff have provided updates at these biennial meetings.

The Refuge's Furbearer Management Plan (2007) set a conservative harvest limit of one otter per trapper in accordance with State regulations. During the planning process only one State (Wisconsin) had an otter season, but since then all four States now have an otter season (with different State bag limits). The Refuge implemented the conservative harvest limit to have a consistent regulation that will provide simplicity, clarity, and administrative ease. Because Refuge-specific otter population data was limited, it was felt that a conservative limit was reasonable.

Long-term trend data in Iowa has shown increasing populations of raccoon and beaver. However muskrat harvest and populations in Iowa have been exhibiting a downward trend (especially since the mid-late 1990's). Iowa has had an otter trapping season since 2006, with a management goal to maintain statewide distribution and stable population growth.

The distribution and abundance of otter has increased rapidly in Illinois following release of otters in locations across the state from 1994-1997. The otter was removed from the list of

protected species in Illinois in 2004, and populations continued to increase. Since 2012 Illinois has had an otter trapping season.

Wisconsin beaver populations have been stable to decreasing in most of the state, with the exception of the Mississippi River where populations have been stable to increasing. In 2015, Wisconsin DNR finalized a Wisconsin Beaver Management Plan that included multiple agencies including the USFWS (Refuge) in the development.

In Southeast Minnesota beaver populations have been described as robust. Beaver numbers on the Mississippi River near Red Wing (Prairie Island Indian Community) appear to have doubled, following a helicopter survey completed in 2013. Aerial otter surveys in southern Minnesota showed an increase across the period of surveys conducted in 2007, 2011, and 2015. Otter trapping was expanded to include the southern part of the State in 2007.

Muskrat populations nationwide have shown a decreasing trend and that has also been noticed on the Mississippi River (Refuge). Wisconsin DNR muskrat house counts in the winter have shown a declining trend.

Other public use of the Refuge during the trapping season is predominantly by waterfowl hunters. Conflicts between users vary throughout the Refuge. Encounters between trappers and hunters competing for the best sites most often occur early in the trapping season, prior to extensive ice cover, after which trappers are the predominant user.

There has been a history of hunter/trapper conflict occurring in the Wisconsin portion of the Refuge; it was intense enough that between 1977 and 1998, the State did not open trapping along the Mississippi River until after the close of the state duck hunting season. Change occurred following input from citizens, especially hunters and trappers, when the Refuge and Wisconsin Department of Natural Resources agreed to implement an earlier opening for trapping in the "Mississippi River Zone." Regulations in this area now allow mink and muskrat trapping to begin the day after the duck season closes or the second Monday in November, whichever occurs first, and goes through the last day of February. However, beaver trapping in that zone continues to begin the day after the final closure of the duck season and goes through March 15.

User conflicts can be avoided by trappers setting and checking traps on weekdays and during mid-day, checking with hunters before setting trap lines, and approaching hunters when ducks are not flying. Hunters need to be aware of the presence of trappers.

Public Review and Comment: This compatibility determination is a re-evaluation of an existing determination which was included in the Draft Comprehensive Conservation Plan and Environmental Impact Statement (EIS) released May 1, 2005 for a 120-day comment period. It was also available during a subsequent 90-day review period on a supplement to the EIS released December 3, 2005. Public notification included notices in the Federal Register, media announcements, and 31 public meetings and workshops attended by more than 3,700 persons. Several comments on trapping of furbearers were received and are found in Chapter 7 of the EIS, with a Service response. However, no comments specific to this determination were received.

A draft of this re-evaluation was released on August 18, 2016 for a 45-day comment period. Public notification of the availability of this CD included media announcements and posting on the Refuge's website. While no comments specific to the draft re-evaluation were received, the Refuge did receive an inquiry about the possibility of establishing additional youth trapping areas on the Refuge.

Determination:

_____ Use is Not Compatible

_XX_ Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. Trapping activity must be conducted in compliance with existing State regulations.

2. Trappers must obtain a Special Use Permit to trap on the Refuge and comply with existing Refuge trapping, access, and public use regulations.

3. The Furbearer Management Plan, completed in 2007, provides guidance and direction for the conduct of furbearer management on the Refuge.

Justification: Furbearer trapping on the Refuge is a useful tool in maintaining balance between furbearers and habitat, and safeguarding Refuge infrastructure. High predator (raccoon, skunk, etc.) populations can decrease nest success of ground-nesting migratory birds, thus compromising a purpose of the Refuge. Other furbearers damage Refuge infrastructure, especially muskrats that excavate their dens in earthen dikes, and beaver that plug water control structures. Costs of repair require the Refuge to divert resources away from other management activities that otherwise meet the purposes of the Refuge.

Furbearer populations, with local exceptions, are stable or increasing in the four States in which the Refuge occurs. The Refuge's Furbearer Management Plan (2007) concludes that the trapping program does not have any appreciable negative impacts on furbearer populations. A study of muskrat populations of Pool 9 in the early 1980s, "showed the characteristic resiliency for the species with great reproductive capability and consistent survival." The authors also found that muskrat distribution and harvest was not uniform, a conclusion since matched by mandatory trapper fur catch reports.

In view of the above, trapping of furbearers, with the stipulations previously described, will not materially interfere with or detract from the purposes of the Refuge and the mission of the Refuge System. Overall, managed furbearer trapping contributes to the purposes of the Refuge by maintaining vigor and health of furbearer populations and by safeguarding Refuge infrastructure critical to habitat for scores of fish and wildlife species.

References: Stemper, B. 2016. Upper Mississippi River National Wildlife and Fish Refuge, Furbearer Harvest Summary Report (1996-97 through 2015-16 trapping seasons). Internal report, U.S. Fish and Wildlife Service.

Refuge Manager: _____ 1/3/17
Signature **Date**

Regional Chief Concurrence: _____ 1-26-17
Regional Chief **Date**

Mandatory 10 or 15 year Re-evaluation Date: 2027

Attachments: Upper Mississippi River National Wildlife and Fish Refuge, Furbearer Management Plan (2007).