

COMPATIBILITY DETERMINATION

Use: Commercial Fishing (including mussel and turtle harvest)

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(s) 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 the 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? Commercial fishing is conducted in accordance with State seasons and regulations and any applicable Refuge regulations.

Where is the use conducted? Commercial fishing can occur in any of the aquatic habitats on the Refuge, but tends to be most productive in the main channel border or secondary/side channels. The distribution of target species varies throughout the year.

About 17 species of fish plus turtles are caught commercially within the Refuge boundary, Pools 4 through 14.

When is the use conducted? Commercial fishing is conducted year round, but primarily from March to October.

How is the use conducted? Means of harvest include hoop nets (bait nets, buffalo nets and frame nets), gill nets, seine nets, trammel nets, trot lines and basket traps (slat traps). The gear allowed differs between the States. Primary fish harvested are common carp, buffalo, freshwater drum, and catfish. In recent years, Asian carp species such as silver carp have comprised a larger part of the harvest in the lower end of the Refuge. The main turtle harvested is the softshell turtle. However, the commercial harvest of turtles is not reported in Illinois and the Wisconsin harvest of turtles is considered incidental.

Why is the use being proposed? Commercial fishing is a traditional economic use of the Refuge. For Pools 4-14 from 2002 to 2012, annual commercial catch averaged 4.1 million pounds with a gross average value based on ex vessel price (the price paid to the commercial fisher dockside; i.e., before any processing or distribution) of \$868,000 per year.

Annual Commercial Fishing Harvest – 2002 to 2012 (source: M. Marron, WIDNR)

Year	Weight Harvested (lbs)	Value (\$)*
2002	4,461,058	\$787,248
2003	4,561,872	\$807,314
2004	4,005,117	\$782,396
2005	3,794,226	\$742,718
2006	4,107,821	\$1,024,588
2007	4,234,341	\$869,506
2008	5,087,427	\$1,058,894
2009	4,106,232	\$918,920
2010	3,912,072	\$822,745
2011	3,648,504	\$900,893
2012	3,117,274	\$835,789
Total	45,035,943	\$9,551,011

** Value is based on average price paid to fisherman for dead fish at dock side. Value increases for live fish sold at dock side.*

The annual number of commercial fishing licenses averaged 520 for a gross revenue per license of \$1,670.

Regulation setting, issuing licenses, and maintaining harvest reports are done by the States, with the exception of Spring Lake in Pool 13, Savanna District. For Spring Lake, the Refuge issues a special use permit for commercial fishing. From 2005 through 2011, commercial harvest in Spring Lake averaged 39,891 pounds per year. Average pounds harvested per year dropped to 4,996 from 2012 to 2015, with no harvest of fish reported in 2015. The primary species of fish harvested from Spring Lake were carp, followed by buffalo and freshwater drum.

Data on mussel harvest is not available. Once lucrative, mussel harvest in the last decade or so has become sporadic and minimal. Mussel harvest is illegal in Minnesota and Wisconsin

Availability of Resources: Commercial anglers use the existing network of roads to access the Mississippi River and its tributaries. The Refuge provides numerous parking lots, boat ramps, platforms, signs and other facilities for use by commercial anglers. The Refuge provides staff to maintain these facilities, disseminate information, and enforce regulations. Fisheries management is conducted in cooperation with the four states' Departments of Natural Resources (Illinois, Iowa, Wisconsin, and Minnesota), La Crosse Fisheries Office, and the Corps of Engineers. Funding for this activity comes from annual operations and maintenance funding for the Refuge and is deemed adequate given the current Refuge involvement.

Anticipated Impacts of the Use: Commercial harvest levels for fish, mussels, and turtles are currently set by the states which cooperate through the auspices of the Upper Mississippi River Conservation Committee. Regular fishing surveys by the states, and reporting requirements, monitor fishery populations and harvest. Thus, commercial fishing and turtle harvest results in removal and use of a certain percentage of the population each year, but harvest is deemed sustainable and does not represent a threat to overall populations of any species. As noted earlier, mussel harvest is inconsequential, and the states monitor populations and enact restrictions or season closures as necessary. Commercial clamming is illegal in Minnesota and Wisconsin. Mussel harvest in Illinois is restricted. Harvest of Asian carp species is becoming more prevalent, and may be an effective way to reduce or check populations of these injurious species.

Commercial fishing activities cause temporary disturbance to bald eagles, water birds, waterfowl (Kenow 2011 and 2012), and other wildlife. To minimize disturbance some areas are closed to fishing during fall and winter when waterfowl and eagles concentrate. In order to avoid the harvest of waterfowl, such as diving ducks being caught in nets, specific backwater areas require that commercial fishing gear must be regularly tended to and cannot be dead set. Undoubtedly some shoreline erosion is caused by wakes from commercial fishing boats, but is minor compared to that caused by barges, annual high water events, floods, recreational boating, and wind-driven wave action. With reasonable use restrictions in effect, commercial harvest of fish, turtles, and mussels should not result in short- or long-term impacts that adversely affect the purposes of the Refuge or the mission of the National Wildlife Refuge System.

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 commercial harvest of fish, mussels, and turtles 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. No public comments specific to the draft re-evaluation were received, however, agency comments which provided updates, corrections and/or clarifications to various sections of the draft re-evaluation were received and have been incorporated into this final determination.

Determination:

Use is Not Compatible

Use is Compatible with Following Stipulations

Stipulations Necessary to Ensure Compatibility:

1. All applicable state and federal regulations apply. Regulations and monitoring help ensure that harvest levels of commercial fishing do not have harmful long-term impact on fish populations.
2. A permit from the respective state is issued to all commercial anglers and obviates the need for a separate Refuge Special Use Permit. Annual harvest summary reports will be provided by the states to the Refuge identifying the total number of pounds of fish caught by species and by navigation pool.
3. Commercial fishing activity has been identified as a source of waterfowl disturbance in voluntary avoidance and waterfowl hunting closed areas on Lake Onalaska (Kenow 2011 and 2012). The states and Refuge will work to educate commercial anglers about techniques and timing of net tending in Waterfowl Hunting Closed Areas during the respective state waterfowl hunting season to minimize disturbance to resting and feeding waterfowl.

Justification: Commercial fishing is primarily limited to the harvest of native commercial species (i.e. bigmouth buffalo, smallmouth buffalo, freshwater drum, etc.) or non-native species (common carp, invasive carp). Sustainable harvest of native commercial species is a long-standing use of the Refuge, and continued management of this activity is necessary to ensure viable populations into the future. The recent spread of non-native Asian carp such as silver and bighead carp into the Upper Mississippi River has brought many concerns about impacts to the habitat and forage base, and direct impacts to certain species (e.g. black carp feed on mussels). Commercial fishing is a method of control for invasive and exotic common carp and Asian carp species, and as such, contributes to the purposes of the Refuge for the conservation of fish,

