

Draft Compatibility Determination

Use: Commercial Fishing

Refuge Name: Port Louisa National Wildlife Refuge

Establishing and Acquisition Authority(ies):

The Mark Twain National Wildlife Refuge (NWR), including the land area now managed as Port Louisa NWR, was established under the provisions of a Secretarial Order signed on August 1, 1958. Individual districts of the Mark Twain NWR were designated as separate National Wildlife Refuges in a reorganization change as part of the Comprehensive Conservation Plan (CCP) in 2004 when Port Louisa NWR was named. Much of the refuge consists of lands acquired in fee title by the U.S. Army Corps of Engineers that are managed as part of the refuge under a Cooperative Agreement between the Department of the Army and the Department of the Interior.

Establishing Authorities:

Refuge Recreation Act (16 U.S.C. 460k-1)

Migratory Bird Conservation Act (16 U.S.C. 715d)

Fish and Wildlife Coordination Act (16 U.S.C. -664)

Emergency Wetland Resources Act of 1986 (16 U.S.C. -3901(b) 100 Stat. 3583)

1985 Food Security Act

Refuge Purpose(s):

- "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. -715d (Migratory Bird Conservation Act)
- "...shall be administered by (Secretary of the Interior) directly or in accordance with cooperative agreements...and in accordance with such rules and regulations for the conservation, maintenance, and management of wildlife, resources thereof, and its habitat thereon,..." 16 U.S.C. -664 (Fish and Wildlife Coordination Act)
- "...suitable for - (1) incidental fish and wildlife-oriented recreational development, (2) the protection of natural resources, (3) the conservation of endangered species or threatened species..." 16 U.S.C. 460k-1 (Refuge Recreation Act)
- "... 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 ..." 16 U.S.C. -3901(b), 100 Stat. 3583 (Emergency Wetlands Resources Act of 1986)
- "... for conservation purposes", (1985 Food Security Act in conjunction with the transfer of Farm Service Agency, formerly Farmers Home Administration, property)

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.

Description of Use:

To permit the commercial harvest of fish for all species listed on state (Illinois or Iowa) game and fish code as being legal for commercial take in accordance with state regulations and any applicable refuge regulations. Some species, such as paddlefish, may not be taken or possessed on refuge units. Commercial fishing is used for refuge management purposes to limit the impact of invasive or undesirable fish species on refuge wildlife and their habitats. Invasive fish such as Asian carp compete with native and desirable fish species and cause negative impacts to wetland habitats on the refuge by increasing turbidity and decreasing aquatic vegetation. Some of these species are referred to as 'rough' fish such as common carp and freshwater drum. Fish have access to all areas of the refuge during seasonal floods and therefore annually repopulate areas where they may have been previously reduced or removed. Periodic seasonal removal can benefit wetlands and fish communities by reducing the biomass of these abundant species. Removal of fish may also be done before the drawdown and removal of water from wetland basins. Commercial fishing has been used as a management tool on the refuge under a previous compatibility determination and by issuance of Special Use Permits.

Commercial fish harvest could occur on any refuge division, but historically has been used in the Big Timber and Keithsburg Divisions which are more accessible by boat and conducive to the type of net sets used by commercial fishermen. These divisions also have the most need for removal of rough fish. The Big Timber Division is a Mississippi River backwater area open to the river. Keithsburg Division is behind a Mississippi River levee but connected to the river through water control structures and spillways. Water bodies on the Horseshoe Bend Division are only accessible by boat when the area is flooded from the Iowa River and does not generally have reliable water depths for boat access. Other refuge areas where commercial fishing may take place are managed wetlands with water control structures. However, most of these are not conducive to motorboat use and commercial fishing would be limited to special management needs. Water can be removed from many of these wetland units by gravity flow thereby removing the fish with other methods.

Means of fish harvest include hoop nets, gill nets, trammel nets, and baskets. Commercial fishing may be conducted year round, but primarily from spring to fall. The large majority of the catch in previous years was common carp and buffalo with some freshwater drum and catfish harvested. From 2007 to 2014 the average catch per year was 19,732 pounds at the Keithsburg Division. The average catch at the Big Timber Division was 15,200 pounds since catch reports started in 2012.

Special Use Permits will continue to be issued. Number of permittees allowed to fish would be based on the habitat management need. In years of high rough fish numbers, or if new invasive species such as silver carp become more of a management problem, then more permits may be allowed. Historically there have been 1 to 3 permits each for Big Timber and Keithsburg Divisions in one season. Periodic fish sampling is done by state agencies, but further sampling may be needed to determine the population levels of invasive or rough fish in specific refuge divisions.

Availability of Resources:

Funds have been available to maintain the existing program level, which has been periodic and low impact on staff or station fiscal resources. It is not anticipated that funds would be inadequate to manage this use in the future. More detailed fish sampling may be needed to answer specific population or habitat questions and may require more funds to complete.

Anticipated Impacts of the Use:

No negative environmental impacts are expected to occur with current and projected use levels. The permitted activities covered by this determination and managed through Special Use Permits are supportive of CCP Goals for habitat management and water quality.

Commercial harvest levels for fish 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, are used to monitor fish populations and harvest. Thus, commercial fishing 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. Harvest of non-native 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 may cause temporary disturbance to bald eagles, water birds, waterfowl, and other wildlife. To minimize disturbance some areas are closed to fishing during the fall closed period on the refuge as well as during the peak spring migration in March. In order to avoid conflicts between commercial fishing and recreational fishing, some backwater areas may be restricted to week days during summer months. In order to avoid the harvest of waterfowl, such as ducks being caught in nets, specific backwater areas require that commercial fishing gear must be regularly tended to and cannot be dead set. Commercial fishermen are not allowed to take turtles on the refuge. 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 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:

Commercial fishing for refuge management was previously determined compatible in 2004 and is now being revised under the mandatory re-evaluation time period.

A draft of this Compatibility Determination will be available for public review and comment for 14 days at the Refuge Office in April 2016. The document will also be available for public review on the Refuge's webpage, through local media outlets, and notices posted at libraries.

Determination:

Use is Not Compatible

Use is Compatible with the Following Stipulations

Stipulations Necessary to Ensure Compatibility:

The following stipulations are required to ensure compatibility:

1. All applicable state and federal regulations apply. Regulations and monitoring help ensure that harvest levels from commercial fishing do not have harmful long-term impact on fish populations.
2. Specific dates of use will be included in the SUP to ensure compatibility with migratory bird use periods.
3. Specific equipment permitted to be listed on the SUP if different than State regulation.
4. Commercial fishing operations will be conducted during daylight hours only.
5. Nets may not be set in such a manner as to obstruct recreational fishing boat access.
6. Restrictions may apply to some species which are considered commercial by State regulations, such as paddlefish. The presence of any species of concern may also require that nets are attended to at all times while on the refuge (immediate presence while nets are set).
7. All permittees will be required to report total harvest immediately after the permit period.

Justification:

Commercial fishing is permitted within refuge divisions, by issuance of Special Use Permits, to help control carp and other rough fish that compete with native fish for habitat. In addition, these fish stir up bottom sediments, increase turbidity, and forage in beds of submersed plants. Re-establishment and growth of submersed aquatic vegetation may be inhibited by grazing fish such as carp. Populations of rough fish are reduced within refuge waters to improve water quality for growth of aquatic vegetation and to enhance habitat for native fish, waterfowl, and other wetland dependent wildlife. Harvest of these species reduces renewable resource waste when conducted before a water level drawdown for habitat management purposes. These activities are seasonally regulated to prevent disturbance to wildlife populations and support the refuge purpose and the mission of the National Wildlife Refuge System.

Commercial fishing is primarily limited to the harvest of what are generally considered rough fish, most of which are not native. The removal of rough fish improves habitat for many other species of native fish, including sport fish important to recreational fishing. 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 primary method of control for invasive and exotic common carp and Asian carp species, and as such, directly contributes to the purposes of the refuge for the conservation of fish, wildlife, and plants. Commercial fishing and its impacts on fishery resources are continually monitored by the states involved. Together with refuge-specific regulations and stipulations, this oversight ensures that commercial fishing is biologically sound and has limited adverse impacts on refuge fish, wildlife, and habitat.

Refuge Manager:

Catherine J. Nigg

Date

Concurrence:

Sabrina Chandler, Refuge Supervisor

Date

Regional Chief:

Charles Blair, Refuge Chief

Date

Mandatory 10 or 15 year Re-evaluation Date: 2026