

COMPATIBILITY DETERMINATION

Use: Furbearer Management

Refuge Name: Ottawa National Wildlife Refuge Complex (Ottawa NWRC)

Establishing and Acquisition Authority(ies): Ottawa and Cedar Point NWR's were established under the authority of the Migratory Bird Conservation Act (16 U.S.C. 715d). West Sister Island National Wildlife Refuge was established by Executive Order 7937.

Refuge Purpose(s): Units of the Ottawa National Wildlife Refuge Complex were established under the authority listed above for the following purpose:

Ottawa National Wildlife Refuge was established in 1961 under the authority of the Migratory Bird Conservation Act "...for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d.

Cedar Point National Wildlife Refuge was established in 1964 under the authority of the Migratory Bird Conservation Act "....for use as an inviolate sanctuary, or for any other management purpose, for migratory birds." 16 U.S.C. 715d.

West Sister Island National Wildlife Refuge was established by Executive Order 7937 on August 2, 1937 "... as a refuge and breeding ground for migratory birds and other wildlife:.." and specifically to protect the largest wading bird nesting colony on the U.S. Great Lakes.

Public Law 108-23, dated May 19, 2003, "Ottawa National Wildlife Refuge Complex Expansion and Detroit River International Wildlife Refuge Expansion Act", established additional purposes for the Complex as follows:

...the Refuge Complex shall be managed--

- (1) to strengthen and complement existing resource management, conservation, and education programs and activities at the Refuge Complex in a manner consistent with the primary purposes of the Refuge Complex--
 - (A) to provide major resting, feeding, and wintering habitats for migratory birds and other wildlife; and
 - (B) to enhance national resource conservation and management in the western basin;
- (2) in partnership with nongovernmental and private organizations and private individuals dedicated to habitat enhancement, to conserve, enhance, and restore the native aquatic and terrestrial community characteristics of the western basin (including associated fish, wildlife, and plant species);
- (3) to facilitate partnerships among the United States Fish and Wildlife Service, Canadian national and provincial authorities, State and local governments, local communities in the United States and Canada, conservation organizations, and other non-Federal entities to promote public awareness of the resources of the western basin; and
- (4) to advance the collective goals and priorities that--
 - (A) were established in the report entitled "Great Lakes Strategy 2002--A Plan for

the New Millennium", developed by the United States Policy Committee, comprised of Federal agencies (including the United States Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the United States Geological Survey, the Forest Service, and the Great Lakes Fishery Commission) and State governments and tribal governments in the Great Lakes basin; and
(B) include the goals of cooperating to protect and restore the chemical, physical, and biological integrity of the Great Lakes basin ecosystem.

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:

Furbearer management on the Ottawa NWR Complex is conducted through the operation of a controlled trapping program in accordance with State regulations. The exception is Metzger Marsh which is governed under a memorandum of agreement between the Service and Ohio Division of Wildlife (DOW). Trapping will be open to the public in accordance with State regulations and administered by the DOW.

Trapping will continue the current furbearer management program on the Ottawa NWR Complex to meet habitat and wildlife objectives as outlined in the Comprehensive Conservation Plan (CCP). Furbearer management on the Complex has been historically conducted through a controlled trapping program. The controlled trapping program was initiated in 1967, shortly after the establishment of the Refuge Complex. General procedures and purposes outlined within this compatibility determination remain largely unchanged from the 1999 Furbearer Management Plan. The 1999 Furbearer Management plan is being updated with up to date information on trapping history, population surveys, literature review, and program administrative procedures.

Furbearer management on Ottawa NWRC is focused primarily on muskrats. The muskrat population on the Complex plays an important role in the management of marshes to provide nesting, resting and feeding areas for migrating waterfowl, shorebirds, wading birds and other wetland dependent species. Management of these marshes requires a variety of water levels ranging from four to 36 inches in depth with ratios of emergent vegetation-to-open water ranging from 40 to 60%. Muskrats primarily feed on cattail, bulrush and other emergent vegetation, and their presence in marshes can create a dynamic habitat mosaic, benefiting many wetland species. When marsh vegetation is too dense for optimal use by wetland dependent species, muskrats are allowed to increase in numbers to improve habitat conditions. Conversely, when muskrat numbers become too high, the loss of emergent vegetation, food and protective cover, can be severe and rapid, reducing the habitat quality of the wetland unit to wildlife. High muskrat populations also result in extensive damage to dikes and water control structures due to tunneling and burrowing activities.

The trapping program will address furbearer harvest of both target species (e.g., muskrat, mink, raccoon, beaver) and the incidental take of non-target species (e.g., weasel, skunk, opossum, fox, coyote, and river otter). Raccoons are the primary nest predators present on the Complex in abundant numbers, and the most common trapped land mammal (Table 1). Mink are common avian and nest predators present in moderate population numbers, and generally have relatively low harvest numbers (Table 1). Opossum populations and take fluctuate widely, possibly as a result of climatic and weather conditions. Skunks are present in relative low population numbers and are rarely taken incidentally by trappers. There are no species of weasel known to be present on the Complex and none have ever been taken incidentally. Weasel will be administratively closed and will be re-evaluated periodically. Coyote are the top level mammalian predators in the ecosystem, and may provide an important role is suppressing populations of other predators. For this reason, coyote have been administratively closed in recent years on the complex, and will be re-evaluated periodically. Observations and trapping reports suggest fox populations have declined sharply as coyote populations have increased. Therefore, Fox will be evaluated regularly, with administrative closures until populations levels increase to permit a sustainable harvest. Beaver trapping has been administratively closed in recent years, with targeted trapping of animals causing damage to infrastructure; according to refuge records, only four beaver have been trapped. However, as beaver populations increase, there will be a need to open beaver trapping to protect infrastructure (e.g., dikes, roads, water control structures) and habitats. River otter trapping is closed under State regulations. However, river otters are present in low numbers on the Complex and the program requires trappers to use techniques to mitigate incidental take of this species.

Harvest numbers for 2004-2014 are presented in Table 1. Acres trapped and annual harvests are highly variable due to management goals of balancing habitat objectives with furbearer populations. Furbearer species being targeted under the Ottawa NWR management program have population levels sufficient to permit the modest harvest of animals to ensure program compatibility with refuge purposes. Factors affecting furbearer harvest include weather conditions, fur prices, and trapper skill and effort. The State of Ohio does not currently track muskrat population numbers, but surveys are conducted annually by the refuge.

Table 1. Number of acres trapped and annual harvest by species on the Ottawa NWR Complex, 2004-2014.*

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2103	2014	Average
Acres trapped	4340	1245	5176	3639	5893	4675	2055	2309	4437	2295	5488	3777
Muskrat	5959	1952	8326	4142	4628	2435	1573	3347	3404	511	4301	3689
Raccoon	72	32	124	74	88	63	31	81	177	24	66	76
Skunk	1	1	1	7	2	1	1	5	2	0	0	2
Opossum	0	3	54	28	31	12	2	14	67	0	3	19
Mink	21	3	34	25	45	16	13	25	19	4	7	19
Fox	0	0	2	0	1	0	0	0	0	0	0	0

*Beaver, 1 in 2008, 1 in 2012, 2 in 2014.

Is the use a priority public use?

Furbearer management is not a priority public use in the National Wildlife Refuge System.

Where would the use be conducted?

Furbearer management may occur within all units of Ottawa NWR, and at Cedar Point NWR. Due to safety and access issues, furbearer management is administratively closed on West Sister Island NWR. Furbearer Management units can change annually based upon habitat management goals, current habitat conditions, and furbearer population levels.

When would the use be conducted?

The use will occur within the framework of State of Ohio regulations governing trapping. Currently, the trapping season opens on November 10th, and closes on March 15th of the following year for the Lake Erie marsh region (e.g., muskrat, mink, raccoon, opossum, skunk, and weasel). For fox, the trapping season opens on November 10th, and closes on January 31st of the following year. For beaver, the season is December 26th to February 28th. There is no closed season for coyote under state regulations. These dates are in effect for areas open to public trapping: Metzger Marsh.

Season dates for the furbearer management program on Ottawa NWR Complex generally open later than the state wide season. After management units are determined, and trappers are selected, the start season for all areas other than the main Ottawa NWR unit is generally November 20th. For the Ottawa NWR main unit, the season generally opens following the conclusion of the controlled white-tailed deer firearm hunt, usually in early December.

How would the use be conducted?

Management of furbearer populations is achieved by administratively opening and closing of specific areas and species to controlled trapping. Staff conduct surveys of muskrat houses and assess habitat conditions on an annual basis, generally late October-mid November, when effective surveys become possible. Muskrat house surveys, in conjunction with vegetation assessments, are the primary means used to determine wetland units in need of management. Observations of dike and infrastructure damage, predation on nest boxes and turtle nests, and evidence of disease outbreaks are other factors also considered in establishing trapping units. Units where furbearer management is permitted are selected on an annual basis, based upon population levels in relation to habitat management objectives for a given unit. The one exception is Metzger's marsh which is jointly managed by the refuge and the Ohio Division of Wildlife (ODOW) under a memorandum of agreement. Since there is no dike separating the marsh according to property ownership, trapping will be authorized according to state regulations and be administered by the ODOW in accordance with the joint agreement between the state and U.S. Fish and Wildlife Service.

Management of fur-bearing animals is accomplished through a trapping program using permittee trappers selected through a sealed bid system. Informational letters are sent to trappers that have expressed an interest in the trapping program. The Complex maintains and updates annually a list of interested parties. Advertisement of the availability of the units may also include a variety of other venues, such as press releases, notice on the Complex web page, facebook, or other forms of public notification.

The Complex hosts a preview day for all interested parties to view available management units. Each participant receives a bid package containing the information on the program. Bids are

opened publically and awarded to the highest bidder, after verification of qualifications and final approval by the Refuge Manager or designee. Participants are not allowed to decline or trade units. Payments are due by a set date as identified in the bid package, or prior to starting trapping, whichever occurs first. At time of payment, trappers are issued a Special Use Permit (SUP) for their unit(s). SUP permittees are allowed a partner for each management unit if desired, with Refuge Manger approval of the partner selection.

Methods of take are in accordance with State of Ohio regulations governing trapping. Methods of taking furbearers may be further restricted by general and special conditions of the SUP. Buffer areas (660 feet) around bald eagle nest are closed to access prior to nesting (February 1st). General and unit specific conditions for each SUP govern administrative details such as use of boats and other means of transportation, unit access points, closure areas, reporting requirements and other information essential to ensuring the use is compatible.

The Complex also provides a youth trapping program. This program is designed to provide interested youth trappers with opportunity to trap under direction of an experienced trapper, while helping the Complex achieve habitat and population management objectives. There are no fees associated with the youth trapping program. Every effort is made to provide high quality units appropriate for youth participation. If the number of interested youth trappers exceeds available units, then units are assigned by a lottery draw. On average, there are 4-5 youth units per year. The Youth Trapping Program is administered in accordance with State of Ohio regulations governing youth trapping.

Why is this use being proposed?

A carefully monitored and structured furbearer management program can result in a decrease in other management activities needed to accomplish habitat management goals. Trapping is an efficient, cost effective technique to achieve Refuge Complex and NWRS purposes. Muskrat populations can be managed at appropriate levels to achieve desired vegetation to open water ratios to benefit many other wetland dependent species. Other means to accomplish these objectives, such as mowing, disking, spraying, and water management, while also used, are much more costly, and at times cost prohibitive, to accomplish in terms of both personnel and operating costs.

Availability of Resources:

What resources are needed to properly (considering quality and compatibility) and safely administer use?

The Service will not have to provide special equipment to manage this program. The decision to use trapping as a management tool would occur as part of strategies developed under specific program or unit habitat management planning. Current staffing levels and funding are available to manage this activity as outlined in this compatibility. This use will not require significant increases in staff maintenance or expenditures, and will actually reduce overall Complex management costs. The refuge biologist will oversee the administration of the trapping program and conduct surveys and monitoring to access the effectiveness of the program at accomplishing habitat and furbearer management goals and objectives as outlined in the CCP. The refuge's law enforcement program will enforce state and federal trapping regulations and monitor

compliance with SUP special conditions/stipulations to ensure compatibility.

Anticipated Impacts of the Use:

How does furbearer management affect Refuge purposes and the NWRS mission?

Furbearer management has shown positive environmental benefits at protecting the ecological integrity of Refuge habitats and wildlife. Balancing muskrat populations with habitat objectives has resulted in development of marsh habitat conditions that provide beneficial structural and plant community diversity essential to wetland dependent species, especially migratory birds. Raccoon and other nest predators have been maintained within manageable levels to help reduce the negative impacts on avian nest success. Furbearer population control is a management tool essential to the Complex achieving long-term habitat management objectives as described in the Ottawa NWRC CCP.

CCP Wildlife and Habitat Strategies:

- Raccoons and other mammals may become a nuisance, particularly in regard to artificial nesting structures, and their control will be addressed individually through the Refuge trapping program. No quantifiable reduction level will be pre-determined for these species. (Wildlife Objective 3, Strategy 4, p. 37)
- Muskrat populations will be maintained at a beneficial level through the Refuge trapping program. Muskrats will be trapped from units when they have consumed 30 percent or more of the emergent wetland vegetation or begin to cause damage to the dike system. (Habitat Objective 1, Strategy 2; Habitat Objective 2, Strategy 3; p. 41)
- Actively manage carp and muskrat populations to maintain vegetation/open water balance. (Habitat Objective 1, Strategy 4; Habitat Objective 2, Strategy 3; p. 41)

Relative to furbearer management, Service policy as outlined in 7 RM 15.2.A is:

- “The Service permits the trapping of furbearing animals on national wildlife refuges where it may contribute to, or be compatible with, the management objectives of the refuge.”
- “The Service recognizes trapping as an effective tool of wildlife population management and a legitimate recreational and economic activity.”

Relative to trapping, Service policy for Appropriate Refuge Uses 603 FW 1 (Chapter 1.3, B)

“Uses that have been administratively determined to be appropriate are: “

- “Take of fish and wildlife under State regulations. States have regulations concerning take of wildlife that includes hunting, fishing, and trapping. We consider take of wildlife under such regulations appropriate. However, the refuge manager must determine if the activity is compatible before allowing it on a refuge.”

How does furbearer management affect fish, wildlife, plants, and their habitats; and the biological integrity, diversity, and environmental health of the refuge/NWRS?

Furbearer management will affect the target populations through the take of individual animals. However, survey data indicate that the program, as currently conducted, results in overall stable populations of these species. The primary goal of the program is to maintain sustainable

furbearer populations in balance with their habitats and environmental health, while achieving habitat and wildlife management goals. Uncontrolled populations can have serious consequences for both furbearers and other wildlife species through habitat alteration or destruction, infrastructure damage, or direct take of rare, threatened and endangered wildlife species. In particular muskrat populations, left unchecked, build to high levels where they will eat out all vegetation in a unit, eventually leading to starvation and severe habitat degradation. At high population levels, disease outbreaks are also a concern for furbearers.

Another goal of furbearer management program is to protect refuge infrastructure. In particular, trappers prevent and limit damage to dike, levees, and water control structures from species such as muskrats and beaver. The water management infrastructure is critical to the habitat conservation and management and purposes of the Ottawa NWR Complex. The infrastructure allows the Complex to provide vegetation and water depths that benefit many other wetland dependent species, especially migratory birds.

Furbearer management of species that prey on other wildlife can result in increased productivity of the protected populations. Species such as raccoon are major predators of nesting migratory birds. Nest predation and destruction by raccoons and other furbearing species are frequently observed on the refuge. The depredation of migratory bird nests by mammalian predators is well documented in the scientific literature and can have a population level impact on the productivity of avian nest success.

Furbearer management can cause disturbance and displacement to other wildlife that use the refuge habitats. However, the number of trappers involved is low in number, and spread over a large area. Trappers will displace waterfowl and other species from the localized area where the activity occurs, but they readily relocate to undisturbed areas. In addition, trapping occurs during the winter season, when avian population numbers are low or even absent on the Complex due to frozen conditions, thus resulting in much less disturbance.

Public Review and Comment:

A draft of the Ottawa Refuge Furbearer Management Compatibility Determination (CD) will be available for a period of 14 day public review period starting August 20, 2015. A press release will be issued to the local community paper and a notice will posted at the refuge visitor center. Copies of the draft CD will be available at the visitor center front desk and on the refuge's website.

Additionally, furbearer management was discussed during the process of completing the Ottawa NWR Complex Comprehensive Conservation Plan (CCP). In accordance with the National Environmental Policy Act, public review occurred during this process by public meetings and written comments. The CCP discussed trapping in several locations, and included 3 specific wildlife and habitat strategies with regards to furbearer management.

Determination (check one below):

Use is Not Compatible

_____ Use is Compatible With the Following Stipulations

Stipulations Necessary To Ensure Compatibility:

1. On an annual basis, conduct surveys of muskrat populations, habitat conditions, and infrastructure damage. Assess predation issues at nest boxes and turtle nests. Use best available scientific information on populations in conjunction with habitat management goals to set annual furbearer management units.
2. On an annual basis, assess potential impacts to federally threatened, endangered, and species of concern. Revise and update Section 7 consultation as necessary.
3. Monitor bald eagle nest locations and status. Close sections of furbearer management units with 660' of active eagle nests by February 1st. Where appropriate, close road segments and set barricades within these zones.
4. Furbearer management will be conducted in accordance with State of Ohio regulations governing trapping. Special Use Permits issued to trappers will include additional general and furbearer management unit specific regulations to protect Complex species, habitats, and infrastructure. Refuge Law Enforcement Officers will conduct compliance checks to ensure compatibility.
5. Periodically review new survey and management techniques. When funding and staffing levels permit, incorporate improved techniques into the program.

Justification:

Furbearer management is a compatible use at Ottawa NWR Complex. Management of furbearer populations is a critically important to achieve wildlife and habitat management goals identified in the Ottawa NWR Complex Comprehensive Conservation Plan. A carefully monitored and structured furbearer management program is a cost effective method to protect and provide desired habitat conditions that benefit a wide variety of wetland dependent species.

Signature: Refuge Manager: _____
(signature and date)

Concurrence: Regional Chief: _____
(signature and date)

Mandatory 10- or 15-year Re-evaluation Date: _____