



APR 25 2013

To All Interested Government Agencies and Public Groups:

Under the National Environmental Policy Act (NEPA), an environmental review has been performed on the following action.

TITLE: Adoption of U.S. Fish and Wildlife Service's (USFWS) Environmental Assessment on the *Visitor Center for the Detroit River International Wildlife Refuge*

LOCATION: Trenton, MI

SUMMARY: The USFWS prepared an Environmental Assessment (EA) to evaluate three alternatives concerning a future visitor center for the Detroit River International Wildlife Refuge (Refuge). The EA examined the environmental consequences that each management alternative could have on the quality of the physical, biological, and human environment, as required by the NEPA.

The preferred alternative (Alternative 1) proposes construction of a new facility at the Refuge Gateway in Trenton, Michigan, consistent with the Comprehensive Conservation Plan for the Detroit River Refuge that identified the adjacent Refuge Gateway as "the proposed site of a future headquarters and visitor center". The Refuge Gateway, owned by Wayne County, is 44 acres in size and is subject to development restrictions pursuant to a NOAA financial assistance award. U.S. Fish and Wildlife Service investigated options, including a possible land exchange of 4.2 acres at the Refuge Gateway, for construction of a new facility and is working with Wayne County on those details. The Refuge Gateway is a former automotive manufacturing site that has been cleaned up and restored to meet all applicable state and federal standards for human health and wildlife. The proposed location is currently undergoing earthworks to complete wildlife habitat projects onsite. The land exchange would enable the USFWS to construct the Visitor Center on suitable land while protecting (through the NOAA restriction) equivalent acreage of upland habitat within the Humbug Marsh Unit for long-term conservation.

RESPONSIBLE  
OFFICIAL:

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The environmental review process led us to conclude that this action will not have a significant effect on the human environment. Therefore, an environmental impact statement will not be prepared. A copy of the finding of no significant impact (FONSI) including the supporting environmental assessment (EA), prepared by the U.S. Fish and Wildlife Service, is enclosed for your information.

Although NOAA is not soliciting comments on this completed EA/FONSI we will consider any comments submitted that would assist us in preparing future NEPA documents. Please submit any written comments to the responsible official named above.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Patricia A. Montanio', is positioned above the printed name.

Patricia A. Montanio  
NOAA NEPA Coordinator

Enclosure

**U.S. DEPARTMENT OF THE INTERIOR**  
**FISH AND WILDLIFE SERVICE**  
**ENVIRONMENTAL ASSESSMENT**

July 2012

**Visitor Center for the  
Detroit River International Wildlife Refuge**

Regional Director  
U.S. Fish and Wildlife Service  
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Bloomington, MN 55437-1458

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# **Chapter 1: Purpose and Need**

## **1.1 Purpose**

The purpose of this Environmental Assessment (EA) is to consider alternatives for the construction and site location selection of a refuge office and visitor center that would provide facilities to meet the administrative and visitor outreach needs of the U.S. Fish and Wildlife Service (Service) and Detroit River International Wildlife Refuge (IWR).

## **1.2 Need**

Refuge staff is currently co-located in a U.S. Environmental Protection Agency (EPA) facility called Large Lakes Research Station (9311 Groh Road, Grosse Ile, MI 48138). It is a gated, high-security facility located adjacent to the Grosse Ile Municipal Airport. This property was formerly a Naval Air Station dating back to 1926. The actual building was constructed during World War II as part of the Naval Air Station. U.S. EPA has occupied the property since 1970. Due to the nature of some U.S. EPA operations and its proximity to the Grosse Ile Municipal Airport, it is considered a high security facility with very limited public access. It must also be noted that it is located on an island in the lower Detroit River that is not convenient for public access.

Overall, the Large Lakes Research Station building is in need of numerous repairs and upgrades. U.S. Fish and Wildlife Service has limited space within the building and cannot expand staff because of space limitations, has no room to add university students, cannot offer environmental education in the building, and cannot host public events. The building also has limited space for parking of Service vehicles.

## **1.3 Background**

The Detroit River IWR was established by an Act of Congress which became Public law 107-91 on December 21, 2001. Section 4 of the Act states the following purposes for the new IWR:

1. To protect the remaining high-quality fish and wildlife habitats of the Detroit River before they are lost to further development and to restore and enhance degraded wildlife habitats associated with the Detroit River
2. To assist in international efforts to conserve, enhance, and restore the native aquatic and terrestrial community characteristics of the Detroit River (including associated fish, wildlife, and plant species) both in the United States and Canada
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 in Canada, conservation organizations, and other non-Federal entities to promote public awareness of the resources of the Detroit River

Upon establishment in 2001, all lands within the former Wyandotte National Wildlife Refuge were incorporated into Detroit River IWR. The Wyandotte National Wildlife Refuge was established by an Act of Congress known as Public Law 87-119, 75 Stat. 243, 87th Congress, H.R. 1182, dated August 3, 1961: ... “to be maintained as a refuge and breeding place for migratory birds and other wildlife...”. Mud Island was added to Wyandotte NWR in January 2001 using the authority to accept donations of real property contained in the Fish and Wildlife Act of 1956 (16 U.S.C. 742f). The islands and shoals of the former Wyandotte NWR retain their original legislative purposes, as well as gaining new ones from the 2001 legislation.

Detroit River IWR currently owns nearly 2,000 acres divided into 13 separate units in southeast Michigan along the Detroit River and western basin of Lake Erie in Wayne and Monroe counties. Over 3,700 acres of additional land are divided into five units managed under cooperative management agreements between the Refuge and other landowners. The Refuge acquisition boundary stretches along 48 miles of Detroit River and western Lake Erie shoreline, from the Rouge River to the Ohio state line. Detroit River IWR is within a 45-minute drive of nearly seven million people in the Detroit Metropolitan Area, the Windsor/Essex County region of Ontario, and the Toledo (Ohio) Metropolitan Area.

Through the Comprehensive Conservation Plan process completed in 2005, all six priority wildlife dependent recreational uses, including hunting, fishing, wildlife observation and photography, and environmental education and interpretation, were found to be compatible. Current annual Refuge visitation is less than 10,000, but projected to increase to over 100,000 annually. In addition, the Refuge participates in numerous annual offsite events and programs, including:

- Pointe Mouillee Waterfowl Festival (8,000-10,000);
- Hawkfest at Lake Erie Metropark (5,000-7,000);
- Detroit River Days at the Detroit RiverWalk (over 1,000,000); and
- World Wetlands Day at Gibraltar Carlson High School (2,000).

Public facilities, including a visitor center, a bookstore/giftshop, trails, wildlife observation decks, an environmental education shelter, and others, would substantially increase visitation and help achieve the Refuge’s goal of teaching the next generation of conservationists in this nearly seven million person urban area.

#### **1.4 Decision Framework**

The Regional Director for the Midwest Region (Region 3 of the U.S. Fish and Wildlife Service) will select one of the alternatives analyzed in detail and will determine, based on the facts and recommendations contained herein, whether this Environmental Assessment is adequate to support a Finding of No Significant Impact (FONSI) decision, or whether an Environmental Impact Statement (EIS) will need to be prepared.

### **1.5 Authority and Legal Compliance**

The National Wildlife Refuge System includes federal lands managed primarily to provide habitat for a diversity of fish, wildlife, and plant species. National Wildlife Refuges are established under many different authorities and funding sources for a variety of purposes. The purposes for Detroit River IWR were derived from several federal statutes, including the Migratory Bird Conservation Act, Refuge Recreation Act, and Detroit River International Wildlife Refuge Establishment Act.

In 2005 a Comprehensive Conservation Plan for Detroit River IWR, which involved an Environmental Assessment, was approved. This plan addressed the future management of the Refuge with goals, objectives, and strategies in six categories including, visitor services. One of the goals is to provide a wide variety of wildlife-dependent recreational and educational opportunities to allow the public to enjoy the resources of the Refuge and support the National Wildlife Refuge System. Exposing more people to the Service and the National Wildlife Refuge System and providing increased volumes of information through exhibits and interpretive opportunities is a priority for the Refuge.



## **Chapter 2: Description of Alternatives**

### **2.1 Formulation of Alternatives**

Alternatives for construction and site location of the refuge office and visitor center were developed based on internal meetings with engineers, facility managers, and refuge staff. All took into account the deficiencies of the current office space and the need to meet state and federal building codes, specifically related to seismic and ADA regulations.

An alternative of building a visitor center away from the Detroit River was not developed because the consensus among parties during the initial meetings was to take advantage of the interpretive opportunities near the river, which has greater diversity of fish, wildlife, and habitats than uplands away from the river. The placement of the visitor center along the river would galvanize a broad array of organizations whose missions reflect fish or wildlife conservation. Specifically, the lower Detroit River is a critically important area for fisherman, hunters, birders, and other fish and wildlife enthusiasts, which will help serve these groups and broader public's connection to this resource including the river, coastal wetlands, meadows, and uplands.

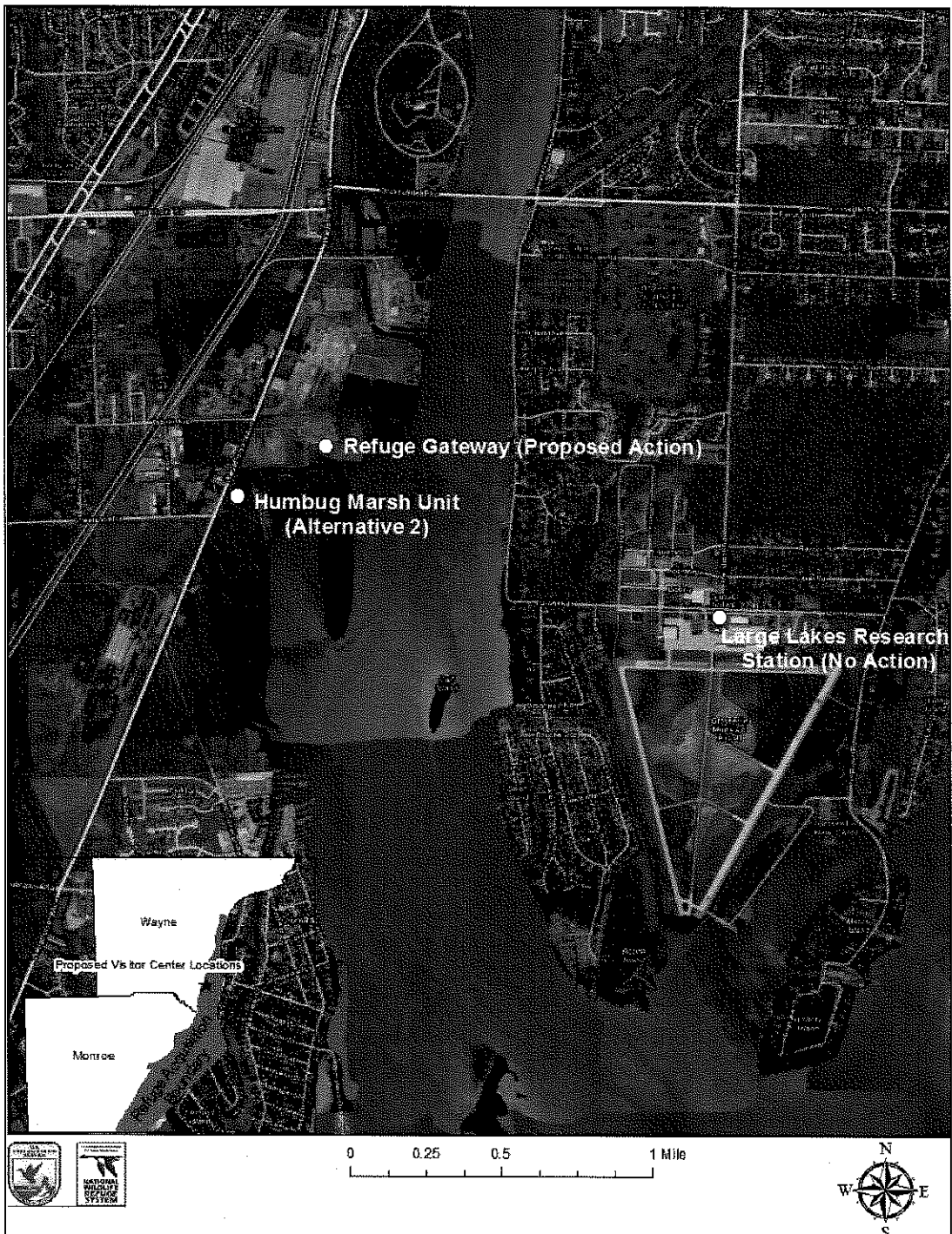
#### **2.1.1. Alternative 1: Construction of a New Facility at the Refuge Gateway (Preferred Alternative)**

Under this alternative, the U.S. Fish and Wildlife Service would construct a new refuge office and visitor center at the Refuge Gateway in Trenton, Michigan, consistent with the Comprehensive Conservation Plan for the Detroit River International Wildlife Refuge that identified the Refuge Gateway as "the proposed site of a future headquarters and visitor center" (Figure 1). The Refuge Gateway is owned by Wayne County and is 44 acres in size. U.S. Fish and Wildlife Service is looking to investigate options, including a possible land exchange of 4.2 acres at the Refuge Gateway, for construction of a new facility and is working with Wayne County on those details. The Refuge Gateway is a former automotive manufacturing site that has been cleaned up and restored to meet all applicable state and federal standards for human health and wildlife.

Since acquisition of the property by Wayne County in 2002, the Service, Wayne County, and other partners have completed all recommended environmental cleanup of the site and restored habitats to expand the ecological buffer of Humbug Marsh, and to serve as the future home of the Refuge's headquarters and visitor center. As of 2012, 16 acres of wetlands have been restored, 25 acres of upland buffer habitat, 2.5 miles of shoreline at the Refuge Gateway and Humbug Marsh have had invasive *Phragmites* control, and 50 acres of upland habitats in Humbug Marsh have been treated for invasive plant species.

This site is located adjacent to the Refuge's Humbug Marsh Unit that is Michigan's only "Wetland of International Importance" designated under the Ramsar Convention. Humbug Marsh is considered an internationally important wetland because of its ecological importance in the Detroit River corridor and the Great Lakes Basin Ecosystem. It represents the last mile of undeveloped shoreline on the U.S. mainland of

Figure 1. Alternative locations for a Refuge Office and Visitor Center for the Detroit River International Wildlife Refuge.



the Detroit River and serves as vital habitat for 51 species of fish, over 100 plant species, 154 species of birds, seven species of reptiles and amphibians, and 46 species of dragonflies and damselflies.

The Refuge Gateway location has a compelling view of the “Conservation Crescent” (i.e., a series of islands and marshes spanning the lower river), 2.5 miles of hiking trails, two wildlife observation decks, a wetland boardwalk, interpretive signage in Humbug Marsh, and a kayak landing. It is also currently connected with 50 miles of continuous greenways through Downriver communities and has an existing kayak landing that is part of Detroit Heritage River Water Trail. Gravel access roads have already been constructed, as well as a temporary parking lot. Permanent parking areas for visitors and staff have been identified in the Master Plan to minimize loss of wildlife habitat.

This site is also one of 27 birding sites in the Windsor-Detroit metropolitan area that are featured in the “Byways to Flyways” bird driving tour map produced by the Refuge. It has also been identified as an Important Bird Area (IBA) by National Audubon Society and hosts a Christmas Bird Count. The waters adjacent to the Refuge Gateway and Humbug Marsh are part of the “walleye capital of the world” and boast the national record for the largest walleye ever caught in a Professional Walleye Trail tournament. A fishing pier has been designed to provide shore fishing in these waters. A boat dock for the Great Lakes school ship for environmental education will be constructed as part of the fishing pier where children from southeast Michigan can come and participate in vessel-based education in the Detroit River and western Lake Erie. These world-class public use opportunities are available within a 45-minute drive of nearly seven million people. The visitor center would be a LEED-certified facility, including geothermal heating/cooling, solar power, and energy efficient lighting, windows, and doors. The building would be universally accessible. The exhibits would showcase the unique features of the region’s fish, wildlife, and ecological assets including globally significant fish and wildlife migrations, imperiled Great Lakes forest communities, and well-preserved species and genetic resources only found at the adjacent Humbug Marsh and lower Detroit River Islands.

This project would also allow for a large increase in the number of educational and interpretive visits. The new facility would include a large open room that would primarily be used for educational activities. Currently, refuge staff does not have an area to give interpretive programs or other educational programs.

No changes in refuge regulations would be associated with this project. Some trails and activities might be closed during the construction process, but would be reopened after construction. Temporary parking would be provided during construction to access Humbug Marsh. Habitat impacts from parking will be very limited because of the site’s industrial history and the fact that parking has been planned through the Master Plan.

### **2.1.2. Alternative 2: Construction of a New Facility in Uplands of Humbug Marsh**

Under this alternative, the Service would construct a new office for refuge operations and a visitor center in Humbug Marsh in an area outside the Michigan Department of

Environmental Quality conservation easement currently in place to protect wetlands on site (Figure 1). This alternative would not have as compelling a view of the “Conservation Crescent” in the lower Detroit River and would cause the loss of approximately 6 acres of habitat in Ramsar “Wetland of International Importance.” It would not be in close proximity to the school ship dock, fishing pier, and kayak landing.

As in Alternative 1, the building would be LEED-certified and include geothermal heating/cooling, solar power, and energy efficient lighting, windows, and doors. The building would be universally accessible.

This project would not allow for as great an increase in the number of educational and interpretation visits as Alternative 1. Refuge staff would not have as desirable an area to give interpretive programs or other education programs because the river, school ship dock, fishing pier, and kayak landing would be a further distance away.

No changes in refuge regulations would be associated with this project. Habitat impacts of the building footprint and parking areas would be greater than Alternative 1 because all other refuge lands are currently managed for wildlife habitat. Again, approximately 6 acres of Humbug Marsh would be directly impacted. Currently, the uplands of Humbug Marsh are in a high quality state, with restoration work underway to improve ecological health.

### **2.1.3. Alternative 3: No Action**

Under this alternative, no construction of a new refuge office and visitor center would occur (Figure 1). Refuge staff would continue to be co-located with U.S. EPA at its Large Lakes Research Station that is a high security facility adjacent to the Grosse Ile Municipal Airport. This office is located on the island of Grosse Ile and not easily accessible to most southeast Michigan residents. No public use or educational activities can occur in this office because of the nature of some U.S. EPA operations by Criminal Investigations Division and Superfund, and its proximity to Grosse Ile Municipal Airport. The building was constructed during World War. U.S. EPA has occupied the property since 1970.

Overall, the Large Lakes Research Station building is in need of numerous repairs and upgrades. U.S. Fish and Wildlife Service has limited space within the building and cannot expand staff because of space limitations, has no room to add university students, cannot offer environmental education in the building, and cannot host public events. The building also has limited space for parking of Service vehicles.

Because of the age of the U.S. EPA building and the downsizing of U.S. EPA operations over the years, the Service is vulnerable if this facility closed.

## 2.2 Summary of Alternate Actions Table

<b>Actions</b>	<b>Alternative 1 (Preferred)</b>	<b>Alternative 2 (Rehabilitation)</b>	<b>Alternative 3 (No Action)</b>
Construct New Facility	Yes	Yes	No
Repair of Current Deficiencies	No	No	No
# Acres developed for building	Maximum of 4	Maximum of 4	0
# Acres developed for parking areas/trails	0 (parking already designated in Master Plan on former industrial land)	Maximum of 2	0
Access to established roads/parking areas	Yes	Yes	Yes
Utilities Present	Yes	No	Yes
Meet ADA Codes	Yes	Yes	Yes
Meet Seismic Codes	Yes	Yes	No
Increased Visitation	Yes (substantially)	Yes (but not as great as Alternative 1)	No
Increased Environmental Opportunities	Yes (substantially)	Yes (but not as great as Alternative 1)	No
Energy Efficient Design – LEED Certified	Yes	Yes	No

## **Chapter 3: Affected Environment**

### **3.1 Geographic Setting**

Detroit River IWR lands are located in Wayne and Monroe Counties in southeast Michigan. Prior to rapid anthropogenic alteration of the Detroit River and Lake Erie shorelines starting during European settlement (17<sup>th</sup> and 18<sup>th</sup> Centuries), the western Lake Erie shoreline consisted of open water shallow zones, followed by emergent wetlands of bulrushes and cattails with dynamic water levels, and transitioning to grassy zones dominated by bluejoint grass and sedges with forested wetlands. The Refuge contains lands that are part of freshwater deltas, drowned river mouths, and channelside wetlands. In the past, interior hardwood swamps were mosaicked further interior with prairies underlain by sand over clay where hydrology was continually re-engineered by beavers and shrubs inhibited by wildfire and Native American induced fire. Remnant patches of these former ecological features exist today in an altered, but very functional form that is critical to preservation of species in the region. Today, most of the shoreline is hardened with rock and concrete with the vast majority of wetlands drained for row crops. There are numerous communities including Trenton, Gibraltar, Rockwood, Estral Beach, Frenchtown, Monroe, and Erie. The remaining areas of unhardened shoreline containing plant and animal species adapted to the current western Lake Erie environment are held in State or Federal ownership as conservation land. Humbug Marsh is rare in that it has never been fully developed and exhibits a large amount of these ecological features in one location.

### **3.2 Socioeconomic Setting**

The regional population is nearly 7 million, so the economic landscape is complex and varies geographically. The site is located in Trenton, Michigan, but the City of Gibraltar and Grosse Ile Township are immediately adjacent. The 5-year estimates from 2006-2010 of median household income are as follows: Trenton (54,841); City of Gibraltar (60,250); Grosse Ile Township (81,118); Wyandotte (50,065); City of Monroe (42,673); Frenchtown Township (52,111); and Monroe Township (46,718). (U.S. Census Bureau 2012). The City of Detroit is 25 miles from the site with an estimated 5-year median income of 28,357. The immediate residents in the City of Trenton are 93.1% non-hispanic white, 1.3% African American, 0.5% Native American, 0.7% Asian, and 3.2% Hispanic or Latino. Michigan's median income is 48,432. The State contains 76.6 non-hispanic white, 14% African American, 0.6% Native American, and 2.4% Asian and 4.4% Hispanic or Latino. Based on these most recent census data, there are no disproportionate minority or low income populations in the immediate project vicinity.

There is a high demand for access to Refuge land for compatible recreational uses. FLW Outdoors, one of the largest tournament fishing organizations in the world, has traditionally scheduled major bass and walleye tournaments offering up to \$1.5 million in prize money. In addition, the Professional Walleye Trail has offered Walleye Tour events on the Detroit River. All of these tournaments are economically important to local businesses. The Downriver Walleye Federation annually hosts numerous tournaments in the Detroit River and Lake Erie. Many local businesses specialize in bait, tackle, and boat

merchandise and charter fishing and hunting companies are available throughout the year. Waterfowl hunting is heavy on nearby state land and at the mouth of the Detroit River and Lake Erie.

Wildlife viewing, especially birdwatching, has become increasingly important in drawing visitors to the area's public lands. The Refuge is recognized as one of the best sites in North America to watch raptor migration. Passerine and waterbird migration is heavy during spring and fall, drawing birders into the region to see migration fallouts, hawk kettles, and specific species such as Swainson's hawk and golden eagle.

### **3.3 Ecological Communities on the Refuge Gateway and Humbug Marsh**

Humbug Marsh, of which approximately 185 acres is shallow shoals or Great Lakes coastal marsh, is important spawning habitat for many fish species found in the Detroit River and western Lake Erie. Complex and diverse plant and animal communities are associated with this shallow shoal area dominated by wild celery (*Vallisneria* sp.), pondweeds (*Potamogeton* sp.), muskgrass (*Chara* sp.), and other aquatic plants. The food web in these areas includes important commercial and sport fish, whose fry are dependent upon the organisms associated with periphyton. These areas are especially critical to bowfin (*Amia calva*), pumpkinseed (*Lepomis gibbosus*), bluegill (*Lepomis macrochirus*), largemouth bass (*Micropterus salmoides*), northern pike (*Esox lucius*), longnose gar (*Lepisosteus osseus*), and golden shiner (*Notemigonus crysoleucas*). Especially abundant in the spring is walleye (*Sander vitreus*) that migrate north up the Trenton Channel and white bass (*Morone chrysops*). Insect hatches, especially mayflies (Ephemeroptera) are important in these areas and are a critical part of the food web. Furthermore, the productive shoal habitats like Humbug Marsh are important stopover habitat for migratory birds, including a high proportion of the continental population of canvasback (*Aythya valisineria*), redhead (*Aythya americana*), American black duck (*Anas rubripes*), and lesser (*Aythya affinis*) and greater scaup (*Aythya marila*) in the offshore areas and northern pintail, bufflehead, mallards, teal, geese and others in the aquatic beds closer to shore.

In the emergent marshes, communities of plants and animals are highly influenced by Great Lakes abiotic processes of frequent water level fluctuation, sediment and seed transport, and chemical cycling. Most emergent wetlands of the Refuge lay on top of shallow clay soil, creating very anoxic conditions near the surface further influencing ecological succession. In general, emergent wetland zones of Humbug Marsh are dominated by cattail (*Typha* sp.), reed (*Phragmites australis*), and river bulrush (*Bolboschoenus fluviatilis*) with associates being arrowhead (*Sagittaria* sp.), bur-reed (*Sparganium* sp.), bulrush (*Scirpus* sp.), and rushes (*Juncus* sp.). Muskrats (*Ondatra zibethicus*) are an important natural disturbance in these emergent wetlands by feeding on vegetation. Other important animals include many amphibians and reptiles, including northern leopard frog (*Rana pipiens*), northern water snake (*Nerodia sipedon*), garter snakes (*Thamnophis*), and turtles.

Wet meadow zones are the most species rich areas on Refuge land. These areas are dominated by warm and cool season grasses, including bluejoint grass (*Calamagrostis canadensis*) and reed canary grass (*Phalaris arundinacea*). Plant associates in these areas include Ohio spiderwort (*Tradescantia ohiensis*), marsh fern (*Thelypteris palustris*), sensitive fern, (*Onoclea sensibilis*) marsh rose mallow (*Hibiscus palustris*), water hemlock (*Cicuta maculata*), blue vervain (*Verbena hastata*), ironweed (*Vernonia*), goldenrods (*Solidago*), and numerous species of sedges (*Carex*) and bulrushes (*Juncus*). Two known wet meadow areas exist at Humbug Marsh at the southwest area of Humbug Island and adjacent to the Monguagon delta. The composition of these areas are dependent upon the amount and duration of perched water on top of the glacial lakeplain soils during the spring and summer growing season. These wet meadows have complex food webs with important plant-animal interactions that promote a high level of use by larger wildlife, especially reptiles, migratory birds, mink (*Neovison vison*), fox (*Urocyon cinereoargenteus*, *Vulpes vulpes*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), and white-tailed deer (*Odocoileus virginianus*). These zones are important for eastern fox snakes (*Elaphe gloydi*), which are endemic to western Lake Erie. In appropriate soil and moisture conditions, forested wetlands have developed on much of Humbug Marsh and are dominated by silver maples (*Acer saccharinum*), ashes (*Fraxinus*), elms (*Ulmus*), and swamp white oak (*Quercus bicolor*). These forested wetlands are heavily used by rusty blackbirds (*Euphagus carolinus*), which migrate through the Refuge in an extremely constricted corridor of the Detroit River and western Lake Erie.

Upland areas are croplands in different stages of forest succession which are dominated by smooth (*Cornus amomum*) and rough-leaved dogwood (*Cornus drummondii*), hawthorns (*Crataegus*), ashes, and elms. During the 20<sup>th</sup> century, most of Humbug Marsh was pasture and a storage area for military fleets during World War II. In these areas, forest communities developed after military operations and grazing ceased in the 1940s and 1970s, respectively. The majority was brush-hogged in preparation for development in December of 1998 with approximately 40 acres left undisturbed on the mainland. The uncut areas contain oaks dating to the 18<sup>th</sup> century. The forest type is a "flatwoods", which occur in low-relief poorly drained mineral soils on glacial lake plain creating vegetative mosaics from the differing degrees of standing water in concert with light availability, so that oak and hickory (*Carya*) dominates drier areas, while ash, elm, and red oak (*Quercus rubra*) and swamp white oak comprise the areas where water is perched longer in the spring. A diverse spring flora occurs in these areas and sustains highly structured food webs in these forest communities.

### **3.4 Plant Communities of the Refuge Gateway and Humbug Marsh**

The Refuge contains 1-6 foot deep open water environments of Detroit River and western Lake Erie with communities composed of *Potamogeton*, *Vallisneria*, *Chara*, *Heteranthera*, *Ceratophyllum*, *Najas*, *Elodea*, and others. Local processes determine species composition such as current speed, substrate, light availability, turbidity, temperature, pollutants and other plant associates.

Refuge emergent wetland communities are diverse depending on hydrological processes, soil, ice scour, and the ability of invasive species to colonize. The Monguagon delta of



Humbug Marsh exhibits low flow-through, but relatively high water level fluctuation seeming to promote river bulrush (*Bolboschoenus fluviatilis*), *Schoenoplectus tabernaemontani*, and *Juncus effusus* with heavy colonization by *Typha Xglauca* and *Phragmites* until control efforts have reduced coverage of these species in the last few years.

The wet meadow zones at Humbug Marsh are dominated by blue-joint grass, reed canary grass, *Carex* (*C. lacustris*, *C. vulpinodea*, etc.) and are generally void of many trees because of the extreme hydrologic range from wet spring conditions to summer drought. Rough-leaved dogwoods do establish in some areas. Invasive European black alder (*Alnus glutinosa*) is common and being controlled by Refuge staff within the wet meadow zones.

Forest communities range widely in disturbance history and in invasive species establishment. Some communities on more drained sites are dominated by oak and hickory with associates of basswood, cherry, and walnut. The understory of Humbug Marsh is dominated by a mix of woodland grasses (e.g., *Leersia oryzoides*, *Glyceria striata*) and *Carex* (*C. blanda*, *C. cephalophora*, *C. molesta*, *C. pennsylvanica*, etc.) with *Polygonum*, *Ranunculus*, *Impatiens*, etc. Humbug Marsh contains numerous canopy black walnuts that inhibit woody plant growth underneath them with the understory dominated by cool season grasses (e.g., orchard grass and panic grass) with associates of blue-eyed grass, ironweed, goldenrods, roses, raspberries, and wild bergamot.

### **3.5 Animal Communities of the Refuge Gateway and Humbug Marsh**

#### **3.5.1 Fish**

Fish in the shallow waters of Humbug Marsh are diverse, including largemouth, small mouth, and white bass, bowfin, bullhead, gar, pike, rock bass, blue gill, pumpkinseed, emerald shiner, and yellow perch. The Refuge underwater habitats contain slow flowing wild celery beds, and faster currents around cobble, rip-rap, and boulders. The diversity of habitats makes many shallow water zones critical for spawning and nursery for many species.

#### **3.5.2 Mammals**

No mammal surveys have been conducted at Humbug Marsh.

#### **3.5.3 Birds**

The aquatic plant beds of Humbug Marsh are critical stopover habitat for spring and fall migrating canvasback, redhead, scaup, and tundra swans. The fall migration of migratory birds, and especially raptors, has been well known for decades. Each year, approximately 150,000 or more raptors are counted from the Detroit River Hawk Watch, a joint project between the Refuge and its Friends' Group, the International Wildlife Refuge Alliance. Humbug Marsh in particular provides unusually high quality bird-watching in spring and fall. Spring migration has large species diversity from regularly passing common loons and large flocks of northbound Bonaparte's gulls in March and April to dozens of species of neotropical migrants fueling on emerging foliage of oaks, hickories, elms, and ashes in

May. Fall migration is characterized by days of high volume passages of waterbirds, raptors, and songbirds all influenced by the geography of the lower Detroit River, being seen at Humbug Marsh Unit as they pass south or southwest. Rusty blackbirds are abundant during migration at Humbug Marsh and can be seen in the thousands during peak migration in March and again in October through November.

#### **3.5.4 Reptiles and Amphibians**

Humbug Marsh contains American toads, northern leopard frogs and western chorus frogs. Turtles likely include midland painted turtle, common snapping turtle, common map turtle, eastern spiny softshell, and Blanding's turtle. Snakes include eastern fox snake, northern water snake, eastern garter snake, Butler's garter snake

#### **3.5.5 Insects**

The Rouge River Bird Observatory has surveyed the dragonflies, damselflies, and butterflies at Humbug Marsh and the Refuge Gateway. Forty-six species of Odonata were recorded in 2007 and 2008: fifteen species of damselflies and 31 species of dragonflies. There have been 38 species of adult butterflies and skippers identified at Humbug Marsh.

### **3.6 Federally Threatened and Endangered Species**

The Indiana bat (*Miotis sodalis*), northern riffleshell (*Epioblasma torulosa rangiana*), and rayed bean (*Villosa fabalis*) are Federally endangered species that have the potential to be on the Refuge in the future, but are not currently known to be present. The eastern prairie fringed-orchid (*Platanthera leucophaea*) is Federally threatened and is known to occur only at Pointe Mouillee State Game Area and Cedar Point and Ottawa National Wildlife Refuges at this time. The eastern massasauga (*Sistrurus catenatus*) is a candidate for listing under the Endangered Species Act and has the potential to be on the Refuge, but is not currently known to be present.

#### **Indiana Bat (Endangered)**

The range-wide population of the Indiana bat has declined by nearly 60% since it was listed as endangered in 1967. Several factors have contributed to its decline, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, forest fragmentation, and particularly, loss of forest stands with large, mature trees.

Indiana bats may summer in a wide range of habitats, from agricultural landscapes to intact forests. Female Indiana bats exhibit strong site fidelity to summer roosting and foraging areas, tending to return to the same summer range annually to bear their young. These traditional summer sites are essential to the reproductive success and persistence of local populations.

Indiana bats are known to use a wide variety of tree species for roosting, but structure (i.e., crevices or exfoliating bark) is probably most important in determining if a tree is a suitable roost site. Roost trees are generally dead, dying or live trees (e.g., shagbark hickory [*Carya ovata*] and oaks [*Quercus*]) with peeling or exfoliating bark which allows

the bat to roost between the bark and bole of the tree. Indiana bats will also use narrow cracks, split tree trunks and/or branches as roosting sites. Southern Michigan maternity roost trees are typically in open areas exposed to solar radiation. Roost trees vary considerably in size, but those used by Indiana bat maternity colonies usually are large relative to other trees nearby and typically greater than 9 inches in diameter. Male Indiana bats have been observed roosting in trees as small as 3 inches in diameter.

#### **Northern Riffleshell (Endangered)**

The northern riffleshell is a mussel occupying suitable habitat in less than 5% of its former range. Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Reservoirs act as barriers that isolate upstream populations from those downstream. Erosion caused by farming has added silt to many rivers, which can clog the mussel's feeding siphons. Other threats include pollution from agricultural and industrial runoff. Toxic organochlorine compounds have become concentrated in the body tissues of filter-feeding mussels. Zebra and quagga mussels (*Dreissena polymorpha* and *D. rostriformis*), non-native species that have established themselves throughout the Great Lakes and the eastern U.S., also pose a threat. They attach in great numbers to native mussels. This mussel is found in a wide variety of streams. It buries itself in bottoms of firmly packed sand or gravel with its feeding siphons exposed. Reproduction requires a stable, undisturbed habitat and a sufficient population of host fish to complete the mussel's larval development.

The northern riffleshell historically occurs in three streams within the Refuge acquisition boundary:

- Detroit River in Wayne County;
- Huron River in Wayne and Monroe County; and
- River Raisin in Monroe County

#### **Rayed Bean (Endangered)**

Extant populations of the rayed bean are known from 22 streams and a lake in five states, including Michigan and Ohio. The rayed bean appears to be declining range-wide and has been eliminated from 78% of the total number of streams and other water bodies from which it was historically known.

The rayed bean is considered to be very uncommon and of sporadic occurrence and has only been known to occur within the Refuge acquisition boundary in the lower Huron River.

This mussel is generally known from smaller, headwater creeks. They are usually found in or near shoal or riffle areas, and in the shallow, wave-washed areas of glacial lakes including Lake Erie. Substrates typically include sand and gravel. Threats to the rayed bean can include agricultural runoff and sedimentation.

### **Eastern Prairie Fringed-Orchid (Threatened)**

The eastern prairie fringed-orchid occurs in remnant patches of lakeplain prairie where trees and shrubs are prohibited from establishing. The Refuge currently exhibits some small areas of potentially suitable habitat for eastern prairie fringed-orchid, but it is not currently known to be present. Current water levels would make discovery more likely in specific locations within the Humbug Marsh Unit (Island only), Strong Unit, Fix Unit, Brancheau Unit, and Gibraltar Wetlands Unit. These units have some areas that combine lacustrine soil with high seasonal fluctuation of water levels and suitable plant communities dominated by bluejoint grass (*Calamagrostis canadensis*), *Scirpus*, *Typha*, and *Juncus*. Some of these areas are currently dominated by a non-native haplotype of reed (*Phragmites australis*) and more habitat may be possible after ecological restoration is conducted.

The most recognized threat to eastern prairie fringed-orchid is competitive encroachment of shrubs and trees in open, wet prairie habitat. Similarly important to its survival is maintenance of suitable hydrological conditions; perched water in spring discourages competing species and maintains a moist mineral surface from which the plant will germinate (Penskar and Higman 2000). When water levels rise along Lake Erie and the Detroit River, landward refugia are needed so that the species is able to seed and germinate inland until water levels recede and plants can reestablish shoreward.

### **Eastern Massasauga (Candidate)**

The current range of the eastern massasauga covers portions of ten states including much of the lower peninsula of Michigan. Throughout its range, this snake has declined primarily due to habitat loss and persecution.

Although there are no reports of massasauga sightings in the Refuge, they have been reported to exist in a number of habitat types found near the Refuge; namely, wet prairie, meadows, and old fields. Preferred habitats tend to have a generally open vegetative structure of grasses or sedges relative to surrounding areas. Sphagnum is often an important component of the substrate. Sites include thinly distributed trees and shrubs and are typically associated with shallow wetland systems. Massasaugas may show seasonal shifts in habitat use, moving to drier sites in the summer. This species is associated with saturated soils and crayfish burrows during hibernation.

## **3.7 Cultural Resources**

The Michigan Office of the State Archaeologist (MOSA) Inventory Files for the Refuge Gateway site indicates there are no recorded archaeological sites. The Refuge Gateway site was graded and filled in the 1930s and early 1940s. The eastern two-thirds of the site is comprised of introduced fill into wetlands adjacent to the Detroit River. Because the site is mainly fill, was an automotive plant and cleaned up and capped to meet human health and safety standards, there is likely to be no archaeological or cultural resources. Eleven sites south of the Refuge Gateway, including Humbug Marsh, required Phase 2 archaeological investigations out of 17 prehistoric and three historic sites after an initial Phase 1 investigation in 1999. None of the eleven sites qualified for listing in the National Register of Historic Places.

Cultural resources are important parts of the Nation's heritage. The Service is committed to protecting valuable records of human interactions with each other and the landscape. Protection is accomplished in conjunction with the Service's mandate to protect fish, wildlife, and plant resources.

### **3.8 Recreational Opportunities**

A complete review of future public uses will be addressed in the Visitor Services Plan. Currently, Humbug Marsh is open to the public during scheduled events and programs when Refuge staff is available. No hunting is currently allowed on the Refuge, but will be allowed on the island after completion of the Hunting Chapter of the Visitor Services Plan. In general, as described in the Comprehensive Conservation Plan, public uses at the Humbug Marsh mainland to be considered include: a combination of hiking interpretative trails, wildlife viewing and photography areas, environmental education stations, visitor center with exhibits, and special seasonal wildlife programs. Some proposed areas for hunting may not be available for other public uses.

Hunting opportunities proposed on the Detroit River IWR already exist on state lands in Monroe County. Currently, Monroe County has nearly 9,265 acres of State land open for hunting of big game, small game and migratory birds. These lands offer a wide range of outdoor recreational opportunities in the form of state parks, game areas, and state recreation areas. The Huron-Clinton Metropolitan Authority manages the Metroparks which comprise thirteen individual parks and 24,000 acres of public land. These lands offer the most widely available outdoor recreation with bike paths, fishing opportunities, and boating. Other publicly accessible land is available through universities, non-profit organizations, and local governments, although limited in hunting and fishing opportunities.

## **Chapter 4: Environmental Consequences**

### **4.1 Alternative 1: Construction of a New Facility (Preferred Alternative)**

#### **4.1.1 Habitat Impacts**

The new facility would be constructed at the Refuge Gateway – a former brownfield with fish and wildlife habitat constructed and restored on the surrounding landscape through hydrological restoration (daylighting of the Monguagon drain with retention basin and emergent wetland), construction of a wetland shelf on the historically human-filled shoreline, and upland forest and prairie restoration.

The area around the immediate vicinity of the new facility will be used for educational programs and will incorporate natural habitat and sound stewardship.

#### **4.1.2 Biological Impacts**

Biological impacts will be minimal since the primary footprint of the building will be on former industrial property that is being cleaned up and restored as an ecological buffer for Humbug Marsh and for public use. All habitat of the adjacent Humbug Marsh Unit will remain undisturbed and has been restored through invasive species control and careful stewardship with prescribed fire and other correctly executed beneficial disturbances.

#### **4.1.3 Listed, Proposed, and Candidate Species**

An Intra-Service Section 7 Biological Evaluation Form was completed in consultation with the East Lansing Field Office and concluded a “no effects” determination for five species. This Section 7 evaluation is available as a component of the EA.

#### **4.1.4 Public Use**

There are currently no exhibits or displays that expose the public to the Refuge in any way. The new visitor center would include an exhibit area, a book store, theater room, large multi-purpose classroom and meeting room, and office space. These improvements will greatly enhance wildlife viewing and education opportunities. Public use is expected to increase substantially over the current level of visitors (less than 10,000 annually).

#### **4.1.5 Refuge Operations**

Current office space is limited. This project would include office space for the staff creating a more effective work environment. Storage space would also be increased with the new facility to more effectively store program and management materials and files. Refuge staff is currently co-located in a U.S. EPA facility called Large Lakes Research Station. It is a gated, high-security facility located adjacent to Grosse Ile Municipal Airport. This property was formerly a Naval Air Station dating back to 1926. Overall, the Large Lakes Research Station building is in need of numerous repairs and upgrades. U.S. Fish and Wildlife Service has limited space within the building and cannot expand staff because of space limitations, has no room to add university students, cannot offer environmental education in the building, and cannot host public events. The building also has limited space for parking of Service vehicles.

#### **4.1.6 Environmental Justice**

None of the alternatives described in this Environmental Assessment will disproportionately place any adverse environmental, economic, social, or health impacts on minority or low-income populations.

This alternative would have positive impacts on low-income or minority populations. The new visitor center will provide additional free outdoor wildlife viewing opportunities and improved environmental education facilities. These resources are within short driving distance of low-income and minority populations in the region.

#### **4.1.7 Cultural Resources**

The facility would be located on a former brownfield that has been highly manipulated over time with fill introduced prior to Chrysler’s occupancy and further fill to cap the site for clean-up. Since becoming the Refuge Gateway, it has been cleaned up to meet human

health and wildlife standards and habitats restored to serve as an ecological buffer for a Humbug Marsh.

#### **4.1.8 Cumulative Impacts**

No long term cumulative impacts would occur to cultural resources or to any wildlife species due to activities associated with this alternative or similar action by the Service or other agencies.

Overall, construction under this alternative would not result in any loss of existing habitat restoration. Indeed, the site cleanup and restoration is resulting in a net gain of 16 acres of wetlands and 25 acres of riparian buffer habitat. The master plan was developed with the specific intent of restoring habitats to protect Humbug Marsh and house the visitor center at the Refuge Gateway. In addition to no loss of habitat, the facility will ensure long-term investment by the public to learn and steward the surrounding habitats.

Public use, the amount of public use facilities, and educational resources and opportunities would all increase substantially under this alternative. Other related environmental facilities locally include the Environmental Interpretive Center at the University of Michigan-Dearborn and Lake Erie Metropark Marshlands Museum, and Ojibway Nature Centre. While these facilities offer public interpretation displays, none are alone sufficient to serve nearly seven million people. Future visitor or educational facilities by other agencies would have cumulative positive effects on the local area, for public education, recreation, and wildlife observation, as well as the local economy by increasing regional visitation.

### **4.2 Alternative 2: Construct a New Facility in an Alternative Location on Refuge Property**

#### **4.2.1 Habitat Impacts**

All alternative Refuge lands serve as wildlife habitat. Therefore, construction of a new facility on an alternative location at Humbug Marsh would undoubtedly impact existing habitat.

The area around the immediate vicinity of the new facility will be used for educational programs and will incorporate demonstration plots of a variety of native plants and shrubs. Any disturbance of existing habitats through hydrological alteration, exposure of bare soil, and introduction of fill promotes the establishment of noxious invasive weeds that would jeopardize the ecosystem health of the surrounding Refuge land.

Approximately 6 acres of Humbug Marsh would be directly impacted. Currently, the uplands of Humbug Marsh are in a high quality state or are restorable to good ecological health in the near future.

#### **4.2.2 Biological Impacts**

Fish and wildlife may be impacted with this alternative because all alternative Refuge land is considered functional habitat.

#### **4.2.3 Listed, Proposed, and Candidate Species**

An Intra-Service Section 7 Biological Evaluation Form was completed in consultation with the East Lansing Field Office and concluded a “no effects” determination for five species. This Section 7 evaluation is available as a component of the EA.

#### **4.2.4 Public Use**

There are currently no exhibits and displays available to expose the public to the Refuge in any meaningful way. The new visitor center would include an exhibit area, a book store, theater room, large multi-purpose classroom and meeting room, and office space. These improvements will greatly enhance wildlife viewing and education opportunities. Public use is expected to increase substantially over the current level of visitors (less than 10,000 annually).

#### **4.2.5 Refuge Operations**

This alternative would include office space for the staff, creating a more effective work environment. Storage space would also be increased with the new facility to more effectively store program and management materials and files.

Refuge staff is currently co-located in a U.S. Environmental Protection Agency (EPA) facility called Large Lakes Research Station (9311 Groh Road, Grosse Ile, MI 48138). It is a gated, high-security facility located adjacent to Grosse Ile Municipal Airport. This property was formerly a Naval Air Station dating back to 1926. Overall, the Large Lakes Research Station building is in need of numerous repairs and upgrades. U.S. Fish and Wildlife Service has limited space within the building and cannot expand staff because of space limitations, has no room to add university students, cannot offer environmental education in the building, and cannot host public events. The building also has limited space for parking of Service vehicles.

#### **4.2.6 Environmental Justice**

None of the alternatives described in this Environmental Assessment will disproportionately place any adverse environmental, economic, social, or health impacts on minority or low-income populations.

This alternative would have positive impacts on low-income or minority populations. The rehabilitation will provide additional free outdoor wildlife viewing opportunities and improved environmental education facilities. These resources are within short driving distance of low-income and minority in the region.

#### **4.2.7 Cultural Resources**

The Service may have to conduct an evaluation if the facility is constructed on an Alternative site. The region has abundant cultural resources dating back well before



European settlement and a thorough investigation would be need to take place on any alternative site.

#### **4.2.8 Cumulative Impacts**

No long term cumulative impacts would occur to cultural resources or to any wildlife species due to activities associated with this alternative or similar action by the Service or other agencies.

Overall, construction under this alternative would negatively impact existing habitat. This loss of habitat could be offset by a future restoration project in similar habitat, but is more risky than restoring or maintaining existing quality habitats with well established ecological communities. However, if the Service or other agencies completed other projects that continued to incrementally reduce the overall amount of upland habitats, the cumulative impacts would be a minor loss of existing upland habitat on a larger landscape scale, but would have negative impacts to local flora and fauna. The local loss of flora and fauna may erode genetic diversity of species which is acknowledged to potentially have a negative impact in the region because it may decrease their resiliency to future stresses (invasive species, pollution, climate change) and jeopardize populations on the landscape scale.

Public use, the amount of public use facilities, and educational resources and opportunities would all increase under this alternative.

### **4.3 Alternative 3: No Action**

#### **4.3.1 Habitat Impacts**

No new development would occur. There would be no impacts to existing habitats from construction activities.

#### **4.3.2 Biological Impacts**

No impact to wildlife would occur due to construction activities.

#### **4.3.3 Listed, Proposed, and Candidate Species**

No impact to wildlife would occur due to construction activities. An Intra-Service Section 7 Biological Evaluation Form was completed in consultation with the East Lansing Field Office and concluded a "no effects" determination for five species. This Section 7 evaluation is available as a component of the EA.

#### **4.3.4 Public Use**

Refuge staff is currently co-located in a U.S. EPA facility called Large Lakes Research Station (9311 Groh Road, Grosse Ile, MI 48138). It is a gated, high-security facility located adjacent to Grosse Ile Municipal Airport. This property was formerly a Naval Air Station dating back to 1926. The actual building was constructed during World War II as part of the Naval Air Station. U.S. EPA has occupied the property since 1970. Due to the nature of some U.S. EPA operations and its proximity to the Grosse Ile Municipal

Airport, it is considered a high security facility with very limited public access. It must also be noted that it is located on an island in the lower Detroit River that is not considered convenient for public access and not conducive to supporting environmental education and interpretation activities.

#### **4.3.5 Refuge Operations**

Inefficient office space would continue to be utilized. Refuge staff and storage space limitations in the existing office are currently a concern, and the problem of limited facilities would continue to increase as the Refuge expands in size.

#### **4.3.6 Environmental Justice**

None of the alternatives described in this Environmental Assessment will disproportionately place any adverse environmental, economic, social, or health impacts on minority or low-income populations.

This alternative would have no impacts on low-income or minority populations.

#### **4.3.7 Cultural Resources**

No construction is planned for this alternative, therefore, no historic properties nor other cultural resources would be impacted.

#### **4.3.8 Cumulative Impacts**

No long term cumulative impacts would occur to cultural resources or to any wildlife species due to activities associated with this alternative or similar action by the Service or other agencies.

No loss of habitat would be lost under this alternative.

There would be long term negative cumulative impacts to public use, the amount of public use facilities, and educational resources and opportunities due to activities associated with this alternative or similar action by the Service or other agencies.

#### 4.4 Summary of Environmental Consequences by Alternative

<b>Actions</b>	<b>Alternative 1 (Preferred)</b>	<b>Alternative 2 (Alternative Site)</b>	<b>Alternative 3 (No Action)</b>
Habitat lost to construction	No	Approx. 6 acres of negative impacts	None
Impact on Wildlife	None	Approx. 6 acres of negative impacts	None
Increase public use facilities and interpretation	Yes	Yes	None
ADA Compliance	Improved; Satisfies codes	Improved; Satisfies codes	No change
Seismic Compliance	Satisfies codes	Satisfies codes	No change
Enhanced office work environment	Yes	Yes	None
Positive effect on minority populations	Yes	Yes	None
Economic Impacts	Positive	Positive	No change
Impact on cultural resources	None	Further investigation required	None
Energy Efficient – LEED Certified	Yes	Yes	No
Cumulative Impacts	Positive	Positive	Negative

## Chapter 5: References

Craves, J. A. 2008. Insect Inventory at the Detroit River International Wildlife Refuge, Humbug Marsh Unit, 2008. Report to U.S. Fish and Wildlife Service, Detroit River International Wildlife Refuge and the International Wildlife Refuge Alliance, Grosse Ile, MI. 14 pp.

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Fischer, R., Martin, C. 1999. Technical support for evaluation of buffer strips on the Made in Detroit development project, U.S. Army Engineer District, Detroit. Report prepared for the U.S. Army Engineer District, Detroit. U.S. Army Engineer Research and Development Center, Waterways Experiment Station, Natural Resources Division.

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Mifsud, D. 2006. Detroit River International Wildlife Refuge Herpetological Survey Report 2006. Report to U.S. Fish and Wildlife Service, Detroit River International Wildlife Refuge, Grosse Ile, Michigan 48138.

Panko, D., and G. Battaly. 2010. Detroit River International Wildlife Refuge–Raptor Monitoring: Compilation and Analysis of Hawk Watch Data at Lake Erie Metropark and Pointe Mouillee State Game Area. Report to Detroit River International Wildlife Refuge, Grosse Ile, MI.

U.S. Census Bureau. 2012. Census 2010 Summary Files. [www.factfinder.census.gov](http://www.factfinder.census.gov)

U.S. Fish and Wildlife Service. 2005. Detroit River International Wildlife Refuge Comprehensive Conservation Plan and Environmental Assessment. U.S. Fish and Wildlife Service. Fort Snelling, MN.

## **Chapter 6: List of Preparers**

### **6.1 List of Preparers**

John Hartig, Refuge Manager, Detroit River International Wildlife Refuge, Grosse Ile, MI

Greg Norwood, Wildlife Biologist, Detroit River International Wildlife Refuge, Grosse Ile, MI

## **Chapter 7: Public Comment and Response**

### **7.1 Public Comment and Response**

This Environmental Assessment was made publically available from August 1, 2012 through September 7, 2012. No comments were received.

UNITED STATES FISH & WILDLIFE SERVICE

ENVIRONMENTAL ACTION STATEMENT

Within the spirit and intent of the Council of Environmental Quality's regulations for implementing the National Environmental Policy Act (NEPA) and other statutes, orders, and policies that protect fish and wildlife resources, I have established the following administrative record and have determined that the action of selecting Alternative 1: Construction of a New Facility at the Refuge Gateway:

\_\_\_\_\_ is a categorical exclusion as provided by 516 DM 6, Appendix 1 and 516 DM 2, Appendix 1. No further documentation will therefore be made.

X\_\_\_\_\_ is found not to have significant environmental effects as determined by the attached Environmental Assessment and Finding of No Significant Impact.

\_\_\_\_\_ is found to have significant effects, and therefore further consideration of this action will require a notice of intent to be published in the Federal Register announcing the decision to prepare an EIS.

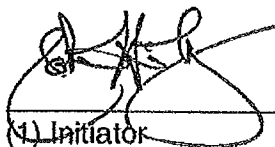
\_\_\_\_\_ is not approved because of unacceptable environmental damage, or violation of Fish and Wildlife Service mandates, policy, regulations, or procedures.

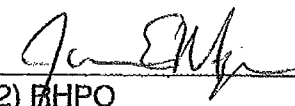
\_\_\_\_\_ is an emergency action within the context of 40 CFR 1506.11. Only those actions necessary to control the immediate impacts of the emergency will be taken. Other related actions remain subject to NEPA review.

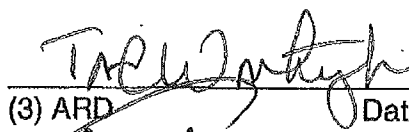
Other supporting documents (list):

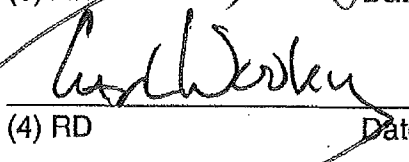
X\_\_\_\_\_ Environmental Assessment and FONSI

X\_\_\_\_\_ Intra-Service Section 7 Biological Evaluation

 23 Oct. 2012  
(1) Initiator \_\_\_\_\_ Date

 10/25/12  
(2) RHPO \_\_\_\_\_ Date

 OCT 31 2012  
Acting (3) ARD \_\_\_\_\_ Date

 11/1/12  
ACTING (4) RD \_\_\_\_\_ Date

\* Alternative 1 + 3 have no potential.  
selection of Alternative 2 may  
require archeological survey before  
Section 106 process can be concluded.

## FINDING OF NO SIGNIFICANT IMPACT

### ENVIRONMENTAL ASSESSMENT: Visitor Center for the Detroit River International Wildlife Refuge

An Environmental Assessment (EA) has been prepared to evaluate three alternatives concerning a future visitor center for the Detroit River International Wildlife Refuge. The EA examined the environmental consequences that each management alternative could have on the quality of the physical, biological, and human environment, as required by the National Environmental Policy Act of 1969 (NEPA).

Alternative 1 was identified as the preferred alternative. This alternative proposes construction of a new facility at the Refuge Gateway in Trenton, Michigan, consistent with the Comprehensive Conservation Plan for the Detroit River International Wildlife Refuge that identified the Refuge Gateway as "the proposed site of a future headquarters and visitor center". The Refuge Gateway is owned by Wayne County and is 44 acres in size. U.S. Fish and Wildlife Service is looking to investigate options, including a possible land exchange of 4.2 acres at the Refuge Gateway, for construction of a new facility and is working with Wayne County on those details. The Refuge Gateway is a former automotive manufacturing site that has been cleaned up and restored to meet all applicable state and federal standards for human health and wildlife. The proposed location is currently undergoing earthworks to complete wildlife habitat projects onsite.

An Intra-Service Section 7 Biological Evaluation was completed with the finding of a "No Effect" determination of threatened and endangered species in Region 3.

For these reasons presented above, and based on an evaluation of the information contained in the Environmental Assessment, we have determined that the action of adopting Alternative 1 as the management action for Region 3 of the U.S. Fish and Wildlife Service is not a major Federal action which would significantly affect the quality of the human environment, within meaning of Section 102 (2)(C) of the National Environmental Policy Act of 1969.

#### Supporting references:

Environmental Assessment  
Intra-Service Section 7 Biological Evaluation

ACTING Regional Director

Date

11/1/12

**Intra-Service Section 7 Biological Evaluation Form**  
**Region 3**

Originating Person: Greg Norwood, Wildlife Biologist Date Submitted: 15 October 2012

Telephone Number: (734) 692-7611

**I. Service Program and Geographic Area or Station Name:**

Refuges and Wildlife, Detroit River International Wildlife Refuge

**II. Flexible Funding Program (e.g. Joint Venture, etc) if applicable:**

**III. Species/Critical Habitat:** List federally-listed, proposed, and candidate species or designated or proposed critical habitat that occur or may occur within the action area:

Indiana bat (*Miotis sodalis*)  
Northern riffleshell (*Epioblasma torulosa rangiana*)  
Eastern massasauga (*Sistrurus catenatus*)  
Rayed bean (*Villosa fabalis*)  
Eastern prairie fringed orchid (*Platanthera leucophaea*)

**IV. Location:** Location of the project including County, State and TSR (township, section & range):

Wayne County, Michigan: Humbug Marsh Unit T4S. R11E. Section 30

**I. Project Description:** Describe proposed project or action or, if referencing other documents (e.g. the Grant Proposal), prepare an executive summary (attach additional pages as needed):

The Refuge has prepared an Environmental Assessment to fulfill its obligation under the National Environmental Protection Act (NEPA) to consider alternatives for the site location selection of a refuge office and visitor center that would provide facilities to meet the administrative and visitor outreach needs of the U.S. Fish and Wildlife Service (Service) and Detroit River International Wildlife Refuge (IWR). The proposed project (Preferred Alternative) would establish a Refuge Visitor Center adjacent to the Humbug Marsh Unit at the Refuge Gateway of the Detroit River International Wildlife Refuge.

**VI. Determination of Effects:**

**(A) Description of Effects:** Describe the effects of the action(s) on the species and critical habitats listed in item III. For each section 7 determination made below, attach an explanation of such determination for all applicable species or critical habitat. Documentation should include a brief discussion of each of the following: 1) species status - population trends, distribution in action area, 2) habitat status - critical or noncritical; species use such as breeding, feeding in action area, and 3) impacts of the action - how the proposed action will affect species/critical habitat (consider direct, indirect, and cumulative effects). Beneficial and adverse effects, as well as actions to avoid or minimize adverse effects, should be identified (attach additional pages as needed).VI.

## **Indiana bat (*Miotis sodalis*)**

**Species status:** Endangered

**Determination:** *No effect*

Since listing as endangered in 1967, the range-wide Indiana bat population has declined by nearly 60%. Several factors have contributed to its decline, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, fragmentation of forest habitat, and loss and degradation of forested habitat, particularly stands of large, mature trees.

In the action area, summering Indiana bats could possibly roost in trees in riparian, bottomland, and upland forests from approximately April 15 to September 15. Although summer habitat requirements for the species are not well defined, the following features are considered important:

- Dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, cavities, which may be used as maternity roost areas.
- Live trees (such as shagbark hickory and oaks) which have exfoliating bark.
- Stream corridors, riparian areas, and upland woodlots which provide forage sites.

Indiana bats may summer in a wide range of habitats, from highly managed landscapes to unmanaged forests. Roost trees are typically found in patches of forests of varying size and shape, but have also been found in pastures, hog lots, fence rows, and residential yards.

Male Indiana bats are dispersed throughout the range in the summer, roosting individually or in small groups, but may favor areas near the hibernaculum. In contrast, reproductive females form larger groups, referred to as maternity colonies. Female Indiana bats exhibit strong site fidelity to summer roosting and foraging areas, tending to return to the same summer range annually to bear their young. These traditional summer sites are essential to the reproductive success and persistence of local populations.

Indiana bats are known to use a wide variety of tree species for roosting, but structure (i.e., crevices or exfoliating bark) is probably most important in determining if a tree is a suitable roost site. Roost trees generally are dead, dying or live trees (e.g., shagbark hickory and oaks) with peeling or exfoliating bark which allows the bat to roost between the bark and bole of the tree, but Indiana bats will also use narrow cracks, split tree trunks and/or branches as roosting sites. Southern Michigan maternity roost trees are typically in open areas exposed to solar radiation. Roost trees vary considerably in size, but those used by Indiana bat maternity colonies usually are large relative to other trees nearby, typically greater than 9 inches diameter and breast height (dbh). Male Indiana bats have been observed roosting in trees as small as 3 inches dbh.

There is no designated critical habitat in the project area. The proposed site does not



currently contain any natural habitat and is undergoing earth-moving and capping to prepare the Refuge Gateway for habitat creation.

**Northern riffleshell (*Epioblasma torulosa rangiana*)**

**Species Status:** Endangered

**Determination:** *No Effect*

This mussel survives in less than 5% of its former range. Dams and reservoirs have flooded most of this mussel's habitat, reducing its gravel and sand habitat and probably affecting the distribution of its fish hosts. Reservoirs act as barriers that isolate upstream populations from downstream ones. Erosion caused by strip mining, logging and farming adds silt to many rivers, which can clog the mussel's feeding siphons and smother it. Other threats include pollution from agricultural and industrial runoff. These chemicals and toxic metals become concentrated in the body tissues of such filter-feeding mussels as the northern riffleshell, eventually poisoning it to death. Zebra mussels, an exotic (non-native) species that is spreading rapidly throughout the Great Lakes and eastern U.S., also pose a threat. By attaching in great numbers to native mussels such as the northern riffleshell, zebra mussels suffocate and kill the native species.

The northern riffleshell historically occurs in three water bodies within the proposed action area:

- Detroit River in Wayne County
- Huron River in Wayne and Monroe County
- River Raisin in Monroe County

This mussel is found in a wide variety of streams from large to small. It buries itself in bottoms of firmly packed sand or gravel with its feeding siphons exposed. Reproduction requires a stable, undisturbed habitat and a sufficient population of host fish to complete the mussel's larval development.

The construction of the Visitor Center at the proposed location will have no effect on the northern riffleshell. The proposed actions will not occur in a waterbody at or near any occupied sites. Proposed actions are not expected to contribute any sedimentation to the Detroit River or any stream leading to it.

**Rayed bean (*Villosa fabalis*)**

**Species Status:** Endangered

**Determination:** *No effect*

Extant populations of the rayed bean are known from 22 streams and a lake in five states, including Michigan and Ohio. The rayed bean appears to be declining range-wide and has been eliminated from 78% of the total number of streams and other water bodies from which it was historically known.

The rayed bean is considered to be very uncommon and of sporadic occurrence and has only been known to occur in one stream, the lower Huron River, in the proposed action area. This mussel is generally known from smaller, headwater creeks. They are usually found in or near shoal or riffle areas, and in the shallow, wave-washed areas of glacial lakes including Lake Erie. Substrates typically include sand and gravel. Threats to the rayed bean can include agricultural runoff and sedimentation.

The construction of the Visitor Center at the proposed location will have no effect on the rayed bean. The proposed actions will not occur in a waterbody at or near any occupied sites. Proposed actions are not expected to contribute any sedimentation to the Detroit River or any stream leading to it.

**Eastern massasauga (*Sistrurus catenatus*)**

**Species Status:** Candidate

**Determination:** *No effect*

The current range of the eastern massasauga covers portions of ten states including much of the lower peninsula of Michigan. Throughout its range, the massasauga has declined, primarily due to habitat loss and persecution. Records of massasauga exist in all counties surrounding the action area except Monroe. The species is present at the Ojibway Prairie Complex in Windsor, Ontario within lakeplain prairie and oak opening habitats.

Although there are no reports of massasauga sightings adjacent to the proposed site at Humbug Marsh Unit, they have been reported from a number of habitats types found in the project area: wet prairie, fens, sedge meadows, peatlands, meadows and old fields. Preferred habitats tend to have a generally open vegetative structure of grasses or sedges relative to surrounding areas. Sphagnum is often a significant component of the substrate. Sites include thinly distributed trees and shrubs, and are typically associated with shallow wetland systems. Massasauga may show seasonal shifts in habitat use, moving to drier sites in the summer. Snakes are associated with saturated soils and crayfish burrows during hibernation. Extensive herpetological surveys have been conducted at the Humbug Marsh Unit by

Herpetological Resources Inc. and to date no sightings or evidence of massasaugas have been documented.

There is no designated critical habitat in the project area. The proposed site does not currently contain any natural habitat and is undergoing earth-moving and capping to prepare the Refuge Gateway for habitat creation.

**Eastern prairie fringed-orchid (*Platanthera leucophaea*)**

**Species Status:** Threatened

**Determination:** *No Effect*

The eastern prairie fringed orchid occurs in remnant patches of lakeplain prairie and wet meadows where trees and shrubs are prohibited from establishing. Potential sites within the general action area combine lacustrine soil with high seasonal fluctuation of water levels and suitable plant communities dominated by bluejoint grass (*Calamagrostis canadensis*), *Scirpus*, *Typha*, and *Juncus*. The most recognized threat to eastern prairie fringed-orchid is competitive encroachment of shrubs and trees in open, wet prairie habitat. Similarly important to its survival is maintenance of suitable hydrological conditions; perched water in spring discourages competing species and maintains a moist mineral surface from which the plant will germinate (Penskar and Higman 2000). When water levels rise along Lake Erie and the Detroit River, landward refugia are needed so that the species is able to seed and germinate inland until water levels recede and plants can reestablish shoreward.

The proposed site does not contain suitable habitat for this orchid because earth-moving and capping are occurring in preparation for habitat creation at the Refuge Gateway and does not contain a remnant seed bank nor native or appropriate soil and hydrology. There is no connectivity between the proposed site and Great Lakes water levels. There is no existing plant community because there is ongoing earth-moving and capping operations.

**(B) Determination:** Determine the anticipated effects of the proposed project on species and critical habitats listed in item III. Check all applicable boxes and list the species associated with each determination.

	Response requested
<input checked="" type="checkbox"/> <b>"No Effect"</b> This determination is appropriate when the proposed project will not directly or indirectly affect (neither negatively nor beneficially) individuals of listed/proposed/candidate species or designated/proposed critical habitat of such species. List species applicable to this determination (or attach a list): <p><b>Northern riffleshell (<i>Epioblasma torulosa rangiana</i>)</b>  <b>Rayed bean (<i>Villosa fabalis</i>)</b>  <b>Indiana Bat (<i>Miotis sodalis</i>)</b>  <b>Eastern prairie fringed-orchid (<i>Platanthera leucophaea</i>)</b>  <b>Eastern massasuaga (<i>Sistrurus catenatus</i>)</b></p>	<p>____ Concurrence (optional)</p>
<p><b>"May Affect but Not Likely to Adversely Affect species/critical habitat"</b> This determination is appropriate when the proposed project is not likely to adversely impact individuals of listed species or designated critical habitat of such species. List species applicable to this determination (or attach a list):</p>	<p>____ Concurrence</p>
<p><b>"May Affect and Likely to Adversely Affect species/critical habitat"</b> This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species or designated critical habitat of such species. List species applicable to this determination (or attach a list):</p>	<p>____ Formal Consultation</p>
<p><b>"Not Likely to Jeopardize candidate or proposed species/critical habitat"</b> This determination is appropriate when the proposed project is not expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. List species applicable to this determination (or attach a list):</p>	<p>____ Concurrence  Informal Conference optional</p>
<p><b>"Likely to Jeopardize candidate or proposed species/critical habitat"</b> This determination is appropriate when the proposed project is reasonably expected to jeopardize the continued existence of a species proposed for listing or a candidate species, or adversely modify an area proposed for designation as critical habitat. List species applicable to this determination (or attach a list):</p>	<p>____ Formal Conference</p>

Signature  
[Supervisor at originating station]

23 Oct. 2012

Date

**Reviewing Ecological Services Office Evaluation (check all that apply):**

A. Concurrence X

Nonconcurrence \_\_\_\_\_

Explanation for nonconcurrence:

B. Formal consultation required \_\_\_\_\_

List species or critical habitat unit

C. Conference required \_\_\_\_\_

List species or critical habitat unit

D. Informal conference required \_\_\_\_\_

List species or critical habitat unit

Lynn M. Lewis for Scott Hicks 10/25/12  
Signature [Reviewing ES Office Supervisor] Date

Name of Reviewing ES Office

East Lansing Field Office



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Silver Spring, Maryland 20910

**Findings of No Significant Impact (FONSI) for the Approval of Exchanging 4.34 acres of CELCP Property for Equivalent Acreage Within the Humbug Marsh Unit of Detroit River International Wildlife Refuge**

The land exchange will not result in any negative changes to the human environment. The evaluation for the two components of the land exchange resulted in the following conclusions:

**Release of CELCP deed restriction from 4.34 acres of the Refuge Gateway site:**

In its Environmental Action Statement, the FWS concluded that "the action of selecting Alternative 1: Construction of a new facility at the Refuge Gateway is found not to have significant environmental effects as determined by the attached Environmental Assessment and Finding of No Significant Impact".

**Acceptance of 4.34 acres of the Humbug Marsh Unit into CELCP:**

NOAA reviewed the draft CELCP Application/NEPA Checklist for the 4.34-acre Humbug Marsh parcel and the parcel is consistent with the purposes of CELCP, proposed uses are consistent with the CELCP guidelines, and it complies with applicable Federal authorities. Therefore, the Programmatic EA for the CELCP has adequately analyzed the potential impacts for the acceptance of Humbug Marsh as a CELCP property. The application of a FONSI is appropriate and no further EPA documentation is necessary.

**Determination:**

Based on the information presented in this document and the analysis contained in the *U.S. Fish and Wildlife Environmental Assessment for the Visitor Center for the Detroit River International Wildlife Refuge*, it is hereby determined that NOAA's approval of the exchange will not significantly impact the quality of the human environment. All beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an environmental impact statement for this action is not necessary.

Holly A. Bamford, Ph.D.

4/18/13

Date








UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
Silver Spring, Maryland 20910

APR 19 2013

MEMORANDUM FOR THE RECORD

FROM: Holly A. Bamford, Ph.D.   
Assistant Administrator

SUBJECT: Environmental Assessment/FONSI for Approving Exchange of 4.34 acres of CELCP property for equivalent acreage within the Humbug Marsh Unit of Detroit Refuge

The NAO 216-6, Environmental Review Procedures, requires all proposed projects to be reviewed with respect to environmental consequences on the human environment. This Environmental Assessment addresses a proposal to exchange 4.34 acres of CELCP-acquired land currently owned by Wayne County, MI, with equivalent acreage of land within the Humbug Marsh currently owned and managed by the US Fish and Wildlife Service (USFWS) as part of the Detroit River International Wildlife Refuge to enable construction of a visitor center for the Refuge.

**Description -- Land Exchange and Humbug Marsh Parcel proposed as CELCP Property:**

- Wayne County, Michigan requested permission to transfer 4.34 acres of land from the County to the USFWS. The land was purchased and protected by the County with funding from NOAA's Coastal and Estuarine Land Conservation Program (CELCP).
- FWS wants to build a visitor's center, including office space, for the adjacent Detroit River International Wildlife Refuge on a portion of the CELCP property.
- NOAA and USFWS agreed that a land exchange would be the most viable solution to enable the USFWS to move forward with construction of the proposed visitor center, while keeping CELCP whole in terms of the acreage protected with CELCP funding. This disposition option is allowed under OMB Circular A-102, codified at 15 CFR24.31(c)(1).
- The USFWS has prepared an Agreement for the Exchange of Lands (attachment 2) describing the terms of the exchange, to which NOAA is listed as a party for approval and consent.

**Alternatives and Description of the Affected Environment**

- USFWS identified four parcels within the adjacent USFWS-owned Humbug Marsh unit of the Detroit River International Wildlife Refuge. Of the four, CELCP staff recommended the area that is most comparable in terms of upland acreage for the proposed exchange. See attachment 1 - "Map of Exchange Proposal".



The 4.34 acres requested for transfer to the USFWS (see “proposed acquisition” on attachment 1) is part of a larger parcel acquired by Wayne County in 2002 with CELCP funds, of which 44 acres is upland and 16 acres submerged land. The parcel consists of former industrial land (brownfield) that has been undergoing remediation and restoration, including capping contaminated areas that are subject to permanent restrictive covenants pursuant to a consent decree, construction and restoration of fish and wildlife habitat through hydrological restoration (daylighting of the Monguagon drain with retention basin and emergent wetland), construction of a wetland shelf on the historically human-filled shoreline, and upland forest and prairie restoration. As former industrial land, this property does not currently contain significant intrinsic ecological value. Rather, it has potential to increase its ecological, conservation and recreational values through restoration. In addition, this property buffers the adjacent Humbug Marsh unit of the Detroit River International Wildlife Refuge, which has been designated as a “Wetland of International Significance” under the 1971 Ramsar Convention, from adjacent industrial uses.

The property to be exchanged, via transfer to Wayne County, is 4.34 acres of property owned by the USFWS within the Humbug Marsh unit of the Detroit River International Wildlife Refuge (see “proposed divestiture” on attachment 2). The Detroit River International Wildlife Refuge was established in 2001 as a result of binational efforts from politicians, conservation leaders, and local communities to build a sustainable future for the Detroit River and western Lake Erie ecosystems. In 2004, the Detroit River Refuge acquired Humbug Marsh, a 410-acre unit situated in Trenton and Gibraltar, Michigan. The parcel represents the last mile of undeveloped shoreline along the U.S. mainland of the Detroit River and contains critical habitat for many rare fish and wildlife species. The site has also been designated as Michigan’s only “Wetland of International Importance” by the 1971 Ramsar Convention.

A detailed description of the Humbug Marsh unit is provided in the 2005 Comprehensive Conservation Plan (CCP) for the Refuge, with its accompanying environmental assessment. These documents can be found at: <http://www.fws.gov/midwest/planning/detroitriver/>. The proposed location of a visitor center at adjacent Wayne County-owned property is discussed on page 51 of the CCP.

#### **Effects of the Project (Land Exchange and acceptance of Humbug Marsh parcel as a CELCP Property):**

The proposed land exchange benefits both agencies. From NOAA’s perspective, the CELCP deed restriction will be transferred to a parcel that is more representative of the types of lands/habitat typically protected through the CELCP.

Wayne County, with input from the USFWS, completed a CELCP Application/NEPA Checklist for the Humbug Marsh exchange parcel (attachment 3). The property falls within the CELCP area designated in Michigan’s draft CELCP plan, and includes habitat types listed as a priority within that plan ([http://www.michigan.gov/documents/deq/deq-ess-clm-DraftCELCP-May07\\_211204\\_7.pdf](http://www.michigan.gov/documents/deq/deq-ess-clm-DraftCELCP-May07_211204_7.pdf)). Areas with high ecological value, typified by the presence of high



quality native communities and natural habitats, include lake plain prairie and Great Lakes marsh. Areas considered to have high conservation value include: “buffer lands around already protected areas, state-designated ecological areas, or wetlands identified by the national or state wetland inventories. Former Great Lakes coastal wetlands or lake plain prairies that are now agricultural lands with potential of restoration also exhibit this value.” This property falls within areas identified in Michigan’s draft CELCP plan, notably: Coastal Wetlands of Lake Erie and Lake St. Clair (Figure 10) and Lake Clair/Detroit River Biodiversity Investment Area (Figure 16). As such, this parcel contains the types of ecological and conservation values for which CELCP was established to protect.

Based on review of the CELCP checklist, the project will not have a negative impact on cultural or historic resources, threatened or endangered species, or FEMA-designated floodplain, and does not include a CoBRA-designated barrier island or Essential Fish Habitat designated under the Magnuson-Stevens Act. Therefore, the property is eligible to be enrolled into CELCP.

From USFWS’ perspective, the land exchange enables the FWS to construct a visitor center on land that is being restored from previous industrial use and does not currently contain ecologically-significant habitats, rather than converting sensitive lands within the Humbug Marsh in order to build the facility. A *U.S. Fish and Wildlife Environmental Assessment for the Visitor Center for the Detroit River International Wildlife Refuge* (attachment 4) dated July 2012, approved on November 1, 2012, was conducted to analyze the effects of siting the facility at the Refuge Gateway (CELCP site, Alternative 1) as the preferred alternative, versus construction of a new facility in uplands within the Humbug Marsh Unit of the Refuge (Alternative 2).

#### **“2.1.1. Alternative 1: Construction of a New Facility at the Refuge Gateway (Preferred Alternative)**

Under this alternative, the USFWS would construct a new refuge office and visitor center at the Refuge Gateway in Trenton, Michigan, consistent with the comprehensive Conservation Plan for the Detroit River International Wildlife Refuge that identified the Refuge Gateway as ‘the proposed site of a future headquarters and visitor center’ (Figure 1). The Refuge Gateway is owned by Wayne County and is 44 acres in size. The USFWS is looking to lease 4.2 acres at the Refuge Gateway and is working with Wayne County on those details. The Refuge Gateway is a former automotive manufacturing site that has been cleaned up and restored to meet all applicable state and federal standards for human health and wildlife.” (pg. 7 of the EA)

#### **“2.1.2. Alternative 2: Construction of a New Facility in Uplands of Humbug Marsh**

Under this alternative, the USFWS would construct a new office for refuge operations and a visitor center in Humbug Marsh in an area outside the Michigan Department of Environmental Quality conservation easement currently in place to protect wetlands on site (Figure 1). ... Habitat impacts of the building footprint and parking areas would be greater than Alternative 1 because all other refuge lands are currently managed for wildlife habitat. Again, approximately 6 acres of Humbug Marsh would be directly impacted. Currently, the uplands of Humbug Marsh are in a high quality state, with restoration work underway to improve ecological health.” (pg. 10 of the EA)

NOAA has adopted the *U.S. Fish and Wildlife Environmental Assessment for the Visitor Center for the Detroit River International Wildlife Refuge* as part of our analysis of the land exchange, for the purpose of evaluating potential impacts of releasing the CELCP deed restriction from 4.34 acres of the Refuge Gateway site.

In addition, the USFWS has provided a copy of the building plan for the Necedah NWR, which will be replicated at the Detroit River site. Attached is a copy of the plan, as well as a photograph, of the facility.

### **Conclusion: Finding of No Significant Impact**

NOAA Administrative Order (NAO) 216-6 (revised May 20, 1999) provides eleven criteria for determining the significance of the impacts of a proposed action. These criteria are discussed below with respect to the proposed action (Alternative 1).

1. Impacts may be both beneficial and adverse—a significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.

The land exchange and subsequent construction of a Visitor Center will provide increased access to the public for recreational and educational benefits at the Refuge. Construction of the visitor center will not adversely impact significant ecological values on the CELCP site – it was a degraded, former industrial site in need of restoration. Construction of the visitor center at the Refuge Gateway site would avoid impacts to uplands within the Humbug Marsh unit that would have resulted from selection of Alternative 2 for the location of the visitor center. In exchange, the CELCP will receive equivalent acreage of upland habitats that represent priorities identified in the state's CELCP plan.

2. What is the proposed degree to which public health or safety is affected by the proposed action?

The CELCP site was previously contaminated and has been undergoing environmental remediation to ensure that it is safe for public use. The parcel on which the Visitor Center would be built has been cleaned up to meet human health and wildlife standards (Sec. 4.1.7 of the EA). None of the alternatives would disproportionately place any adverse environmental, economic, social or health impacts on minority or low-impact populations (Sec. 4.1.6). The site selected by the USFWS as the preferred alternative was selected based on its suitability for the Visitor Center.

3. Are there unique characteristics of the geographic area in which the proposed action is to take place?

The 4.34 acres requested for transfer to the USFWS (see “proposed acquisition” on attachment 1) is part of a larger parcel acquired by Wayne County in 2002 with CELCP funds, of which 44 acres is upland and 16 acres submerged land. The parcel consists of former industrial land

(brownfield) that has been undergoing remediation and restoration. As such, the site does not have significant ecological values that will be impacted by construction of a visitor center.

The site is subject to restrictive covenants that affect uses of the site to ensure that they do not interfere with further remediation, maintenance or monitoring. Additional use restrictions apply to specific portions of the property site, but they do not apply to the 4.34 acres proposed for transfer to the USFWS.

Adjacent to the County-owned CELCP property is the Humbug Marsh unit of the Detroit River International Wildlife Refuge, which has been designated as a Wetland of International Significance under the United Nations Ramsar Convention.

4. What is the degree to which effects on the human environment are likely to be highly controversial?

It is not anticipated that the land exchange and construction of the visitor center will be highly controversial. There is no substantial debate over the proposed action's size, nature, or effect. The USFWS included this proposal in the 2005 Comprehensive Conservation Plan for the Refuge, with its accompanying environmental assessment. In 2012, the USFWS prepared an Environmental Assessment of the proposed visitor center, which was made available on the Refuge website for public comment. No comments were received. Also, on December 20, 2012 the Wayne County Commission approved a resolution to allow the land exchange to move forward.

5. What is the degree to which effects are highly uncertain or involve unique or unknown risks?

The effects of the proposed action have been well documented by the USFWS. There are no uncertain, unique, or unknown risks associated with the implementation of the land exchange.

6. What is the degree to which the action establishes a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Individual actions implemented through CELCP may result in additional actions taken in the future. Such precedents, however, would not be considered as major or significant. Land exchange as a disposition option is allowed under OMB Circular A-102, codified at 15 CFR 24.31(c)(1) – Grants and Cooperative Agreements with State and Local Governments. NOAA does not anticipate that this action will result in additional requests from other past recipients seeking to exchange lands.

7. Does the proposed action have individually insignificant but cumulatively significant impacts?

No. Implementation of the land exchange is designed to minimize adverse environmental impacts related to the construction of the visitor center for the Detroit River International Wildlife Refuge. It will locate the building on former industrial property that is being cleaned up and restored as an ecological buffer for Humbug Marsh and for public use, while keeping the equivalent acreage of upland habitats within the adjacent Humbug Marsh Unit undisturbed.

8. What is the degree to which the action adversely affects entities listed in or eligible for listing in the National Register of Historic Places, or may cause loss or destruction of significant scientific, cultural, or historic resources?

The proposed action will not adversely affect any entity listed in or eligible for listing in the National Register of Historic Places. The USFWS conducted SHPO review as part of their acquisition of the Humbug Marsh property in 2004 and their 2012 USFWS EA for the Visitor Center. As noted on page 18 of the EA for the Visitor Center: "The Michigan Office of the State Archaeologist (MOSA) Inventory Files for the Refuge Gateway site indicates there are no recorded archaeological sites."... "Eleven sites south of the Refuge Gateway, including Humbug Marsh, required Phase 2 archaeological investigations out of 17 prehistoric and three historic sites after an initial Phase 1 investigation in 1999. None of the eleven sites qualified for listing in the National Register of Historic Places."

9. What is the degree to which endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973, are adversely affected?

No adverse actions are anticipated. Based on review of the CELCP checklist, there are two known listed threatened or endangered plant or animal species or their critical habitat (as defined by the Endangered Species Act) that are under the jurisdiction of NOAA's National Marine Fisheries Service (NMFS) or the USFWS on the proposed property – Indiana Bat (*Miotis sodalis*) and Eastern Massasauga (*Sistrurus catenatus*).

The USFWS, through the Detroit River International Wildlife Refuge, has prepared an Environmental Assessment to fulfill its obligation under NEPA. Reports have been approved and include a Section 7 Biological Evaluation of Humbug Marsh. No species impacts were documented.

10. Is a violation of Federal, state, or local law for environmental protection threatened?

No. The USFWS and NOAA have both reviewed this action for compliance with Federal environmental laws and regulations. In addition, the Michigan Department of Environmental Quality has been very involved in the project and has been notified of the proposed action. As noted earlier, Wayne County, which currently owns the property, and is a party to this land exchange, has passed a county resolution allowing this action to move forward.

11. Will the proposed action result in the introduction or spread of a non-indigenous species?

No. The 4.34 acre portion of the Humbug Marsh property being enrolled in CELCP will be included in all maintenance strategies developed and implemented by the USFWS for the Humbug Marsh Unit. Included in these strategies is a plan for a prescribed burn of the property in order to minimize invasive plant cover and maintain high quality forested wetland habitat. The management strategy for the Humbug Marsh unit, including this 4.34 property, is described in the 2005 Comprehensive Conservation Plan for the Detroit River International Wildlife Refuge, which includes an Environmental Assessment of the management alternatives considered. The CCP, with Appendix A - Environmental Assessment, can be found at: [http://www.fws.gov/midwest/planning/detroitriver/finalCCP/DetroitRiver\\_finalCCP.pdf](http://www.fws.gov/midwest/planning/detroitriver/finalCCP/DetroitRiver_finalCCP.pdf)

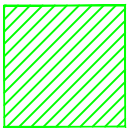
Per USFWS' Environmental Assessment of the proposed visitor center, biological impacts related to the construction of the Visitor Center "will be minimal since the primary footprint of the building will be on former industrial property that is being cleaned up and restored as an ecological buffer for Humbug Marsh and for public use. All habitat of the adjacent Humbug Marsh Unit will remain undisturbed and has been restored through invasive species control and careful stewardship with prescribed fire and other correctly executed beneficial disturbances."

**Attachments:**

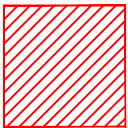
- 1) Map of Exchange Proposal
- 2) Exchange Agreement
- 3) CELCP Project Application and NEPA Checklist for Humbug Marsh exchange parcel
- 4) USFWS Environmental Assessment: Visitor Center for the Detroit River International Wildlife Refuge
- 5) Copy of building plan (and photograph) of the Necedah NWR visitor center, which will be used for the Detroit River visitor center design.



EXCHANGE PROPOSAL  
U.S. FISH AND WILDLIFE SERVICE  
WAYNE COUNTY, MICHIGAN



EXCHANGE PROPOSAL  
4.34 ACRES



ACQUISITION PROPOSAL  
4.34 ACRES



UNITED STATES DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
DETROIT RIVER INTERNATIONAL WILDLIFE REFUGE  
HUMBUG MARSH TRACT  
(15) PROPOSED EXCHANGE  
4.34 ACRES  
WAYNE COUNTY, MICHIGAN  
T. 4 S., R. 10 & 11 E., MICHIGAN MERIDIAN



N 1/4 COR.  
SEC. 36

South line of Section 25

N.88°28'26"E. 838.05

S.23°09'26"W. 27.59

PROPOSED BOUNDARY

COR.	BEARING	FEET
1	S.66°49'10"E.	175.00
2	S.23°10'50"W.	200.00
3	N.66°49'10"W.	175.00
4	S.23°10'50"W.	204.20
5	S.66°49'10"E.	499.62
6	N.05°47'49"W.	949.49
7	N.66°49'10"W.	39.63
8	S.23°10'50"W.	426.42
1		

15  
U.S.A.

LEGEND

- Iron Monument (Found)
- ⊙ U.S. Fish & Wildlife Service Monument (Set)
- ×× Fence Line

This plat was compiled from official plats of the Bureau of Land Management, a survey conducted by the U.S. Fish and Wildlife Service, performed September 11, 2012 by Kory Thurnau, and from official records in the files thereof.

Dated: Oct. XX, 2012 Gary L. Kratz, Regional Land Surveyor



**UNITED STATES DEPARTMENT OF THE INTERIOR**  
**U.S. Fish and Wildlife Service**

**AGREEMENT FOR THE EXCHANGE OF LANDS**

WHEREAS, the Secretary of the Interior, in the administration of the National Wildlife Refuge System, is authorized, under the terms of Section 4(b)(3) of Public Law 89-669 (80 Stat. 926; 16 U.S.C. 668dd) to acquire lands or interests therein by exchange for acquired lands or public lands under his jurisdiction which he finds suitable for disposition; and,

WHEREAS, the values of the properties so exchanged either shall be approximately equal or, if they are not approximately equal, the values shall be equalized by the payment of cash to the grantor or to the Secretary, as the circumstances require,

NOW, THEREFORE, in order to effectuate such an exchange, this agreement made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the **County of Wayne, State of Michigan**, a home rule charter county, of 500 Griswold, Detroit, in the State of Michigan, hereinafter styled the vendor, for itself, its successors, and assigns, and the UNITED STATES OF AMERICA, acting by and through the Secretary of the Interior or his authorized representative,

WITNESSETH:

1. In consideration of the conveyance by the United States of the lands described in paragraph 6 hereof and the equalization payment by the United States of **\$0.00**, the vendor agrees to convey to the United States the lands, tenements and hereditaments, together with all the accretion and reliction lands, water rights, and other rights, easements, and appurtenances thereunto belonging, owned by it, and situated in the County of **Wayne**, State of **Michigan**, containing **4.34** acres, more or less, and particularly described as follows:

See attached Exhibit "A" (legal description).

2. The vendor agrees that it has full right, power, and authority to convey, and that it will convey to the United States the fee simple title thereto clear, free and unencumbered, except subject to the following easements or reservations: To existing road, railroad, and utility easements, if any; all rights of the United States and third parties as cited in the patent.

3. It is mutually agreed that, during the life of this agreement, neither party will do or suffer any act whereby the title of the lands it agrees to convey is impaired or encumbered; and further, that all proper precautions will be taken to protect the property it is to convey from damage by fire, trespass, or other causes. Risk of loss or damage to improvements on the



property of either party occurring without the fault of either party prior to the exchange of deeds is assumed by the party obligated to convey the property damaged.

4. The vendor will execute and deliver upon demand of the proper officials and agents of the United States and without payment or the tender of the deed to Government lands, a good and sufficient deed of warranty conveying to the United States a safe title to the said lands, of such a character as to be satisfactory to the Attorney General of the United States, and said deed shall provide that the use, occupation, and operation of any rights-of-way, easements, and reservations retained therein by the vendor shall be subordinate to and subject to such rules and regulations as may be prescribed by the Secretary of the Interior governing the use, occupation, protection, and administration of the National Wildlife Refuge System. The expenses of the vendor for recording fees, revenue stamps, transfer taxes, and similar expenses incidental to the conveyance of his property; and any amount paid as a penalty cost for prepayment of any pre-existing recorded mortgage entered into in good faith, encumbering such real property; as well as the pro rata share of prepaid real property taxes allocable to the period subsequent to the vesting of title in the United States, or the effective date of possession of such real property by the same, whichever is earlier; shall be subject to reimbursement as provided in Section 303 of the Act of January 2, 1971, 84 Stat. 1899.

5. The vendor further agrees that, during the period covered by this instrument, officers and accredited agents of the United States shall have, at all reasonable times, the unrestricted right and privilege to enter upon said lands for all proper and lawful purposes, including examination of said lands and the resources upon them.

6. In consideration of the conveyance by the vendor of the lands described in paragraph 1 hereof and the payment by the vendors of **\$0.00**, the United States of America, by and through the Secretary of the Interior or his authorized representative, agrees to convey to the said vendor the following described lands situate in the County of **Wayne**, State of **Michigan**, containing **4.34** acres, more or less, and particularly described as follows:

See attached Exhibit "B" (legal description).

Subject, however, to existing public roads, railroad and public utility easements, if any, and to the following easements, reservation, and exceptions: the grantee, on behalf of itself, its successors and assigns, shall not drain or alter any wetland areas located within the above-described lands and shall protect the integrity of said wetlands pursuant to Federal Executive Order 11990, Protection of Wetlands, dated May 2, 1977, and pursuant to Federal Executive Order 11988, Floodplain Management, dated May 24, 1977; all existing rights of the United States and third parties as cited in the patent of record.

6a. The property being conveyed to the United States (Exhibit "A") was acquired by the County of Wayne in accordance with the terms of a Federal financial assistance award (Award Number: NA03NOS4190053) issued to the County of Wayne by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), under the authority of

the Coastal and Estuarine Land Conservation Program, 16 U.S.C. §§ 1456d and 1456-1. The property being conveyed from the United States (Exhibit "B") shall vest upon acquisition in the County of Wayne, subject to the requirement that the property be managed in perpetuity for conservation purposes consistent with 16 U.S.C. §§ 1456d and 1456-1 (or in a successor statute), and the terms of the Federal financial assistance award issued by NOAA to the County of Wayne. The County of Wayne shall not sell, transfer, convey, assign, encumber or otherwise convey any interest in or to the property conveyed by the Deed, nor shall the County of Wayne use the property conveyed by this Deed for purposes other than those authorized under 16 U.S.C. §§ 1456d and 1456-1, and the terms of the Federal financial assistance award issued by NOAA to the County of Wayne, without NOAA's (or its successor agency's) prior written approval. Such approval may be withheld until such time as the County of Wayne first pays to NOAA the Federal Interest in the property conveyed by this deed as provided in 15 C.F.R. part 24 (or in a successor regulation)

6b. Upon acquisition, the property being conveyed to the United States (Exhibit "A") will be released from the terms and requirements of the Federal financial assistance award (Award Number: NA03NOS4190053) issued to the County of Wayne by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), under the authority of the Coastal and Estuarine Land Conservation Program, 16 U.S.C. §§ 1456d and 1456-1.

7. It is further mutually agreed that no Member of or Delegate to Congress, or Resident Commissioner, shall be admitted to any share or part of this contract or agreement, or to any benefit to arise thereupon. Nothing, however, herein contained shall be construed to extend to any incorporated company, where such contract or agreement is made for the general benefit of such incorporation or company.

8. It shall be the obligation of the vendor to pay all taxes and assessments outstanding as liens against the lands described in paragraph 1 hereof at the date title vests of record in the United States, whether or not such taxes and assessments are then due and payable.

9. It is mutually agreed that an abstract, certificate of title, or other evidence of title to the property described in paragraph 1 hereof, satisfactory to the Attorney General, will be obtained by the United States at its expense.

10. It is mutually understood and agreed that this contract shall not be assigned in whole or in part without the consent in writing of the United States.

11. It is understood and agreed that if the Attorney General determines that the title to said lands described in paragraph 1 hereof, or any part thereof, should be acquired by the United States by judicial proceedings, either to procure a safe title or to obtain title more quickly, or for any other reason, then it is agreed by the vendor that the just compensation to be claimed by the vendor as the full value of the land to be so acquired shall be in accordance with the considerations stated in paragraphs 1 and 6 hereof, which shall be made to the persons determined in such proceedings to be entitled thereto and as their respective interests appear.




12. It is mutually understood and agreed that notice of acceptance of this agreement shall be given to the vendor by certified mail addressed to:

**Robert A. Ficano**  
**Chief Executive Officer**  
**Charter County of Wayne, Michigan**  
**500 Griswold**  
**Detroit, MI 48226**

with a copy of the notice of acceptance to the Director of Parks, Wayne County Department of Public Services, 33175 Ann Arbor Trail, Westland, MI 48485, and such notice shall be binding upon all of the vendors without sending a separate notice to each, except as such obligation may be affected by the provisions of paragraph 4 hereof.

IN WITNESS WHEREOF, the vendor has hereunto signed its name and affixed its respective seal on the day first above written, with the understanding that this agreement for exchange cannot be executed by the Secretary of the Interior or his authorized representative until after it is reported to him for his consideration, and therefore the vendor has and does hereby grant unto the United States of America, by and through the Secretary of the Interior or any other officer or agency of the United States authorized to purchase or acquire said lands, the option and right to enter into this Agreement for Exchange within **6 months** from the execution thereof by the vendor, and to acquire said lands as herein provided.

  
\_\_\_\_\_  
f. Robert A. Ficano  
Chief Executive Officer  
Charter County of Wayne, Michigan

The Secretary of the Interior, acting by and through his authorized representative, has executed this agreement on behalf of the United States of America on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

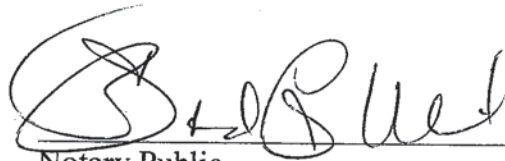
THE UNITED STATES OF AMERICA

By: \_\_\_\_\_  
Senior Realty Officer, Division of Realty

ACKNOWLEDGMENT

STATE OF \_\_\_\_\_ )  
 ) SS  
COUNTY OF \_\_\_\_\_ )

On this 3<sup>rd</sup> day of January, in the year 20 13, before me personally appeared Robert A. Ficano, Chief Executive Officer, Charter County of Wayne, Michigan, known to me to be the person who is described in and who executed the within instrument, and acknowledged to me that she executed the same.

  
\_\_\_\_\_  
Notary Public

(SEAL)

My commission expires: 4-10-15

SANDRA P. WILSON  
NOTARY PUBLIC, STATE OF MI  
COUNTY OF WAYNE  
MY COMMISSION EXPIRES Apr. 10, 2015  
ACTING IN COUNTY OF \_\_\_\_\_

**CONSENT:**

**NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,  
U.S. DEPARTMENT OF COMMERCE**

The NOAA Grants Management Division hereby consents to this Agreement for the Exchange of Lands and is executing this Agreement pursuant to the authority vested in NOAA under the Coastal and Estuarine Land Conservation Program, 16 U.S.C. §§ 1456d and 1456-1, on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By: \_\_\_\_\_  
Nakita Chambers,  
Branch Chief, Grants Management Division

ACKNOWLEDGMENT

STATE OF MARYLAND,

COUNTY OF MONTGOMERY, to-wit:

The foregoing instrument was acknowledged before me this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by Nakita Chambers, Branch Chief, National Oceanic Atmospheric Administration, Grants Management Division, United States Department of Commerce, on behalf of the said Federal Government Agency.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

[NOTARY SEAL REQUIRED]

This instrument was drafted by Claudia Wondra, U.S. Fish and Wildlife Service, 5600 American Blvd. West, Suite 990, Bloomington, MN 55437-1458.



RE – Detroit River International Wildlife Refuge  
Wayne County, Michigan  
Wayne County (4)

EXHIBIT "A"

The following described tract of land is located in Michigan, Wayne County, in the city of Trenton, being part of land described in a Warranty Deed from DaimlerChrysler Corporation to County of Wayne, dated December 18, 2002 and recorded in Liber 37185, Page 298 on December 23, 2002 as Document Number 202614428 in the records of Wayne County, described according to the public land surveys:

Township Four (4) South, Range Ten (10) and Eleven (11) East, Michigan Meridian: That part of section twenty-five (25), Township Four (4) South, Range Ten (10) East and that part of section thirty (30), Township Four (4) South, Range Eleven (11) East, more particularly described as follows:

**COMMENCING** at an iron rod the intersection of the easterly right-of-way of Jefferson Avenue and the southerly line of the Solutia Inc. (formerly Monsanto Chemical Co.) property; thence N.88°23'50"E., along said southerly line of the Solutia Inc. property, 1319.99 feet to the northeast corner of the Concrete Slab Cover System Area, as shown on a plat signed by Michael R. Dwyer, Professional Surveyor No. 37274, dated August 19, 1997 and designated Job No. 7541.01; thence along the easterly line of said Concrete Slab Cover System Area with the following six (6) courses: S.1°36'10"E., 321.00 feet, N.88°23'50"E., 64.22 feet, S.1°36'10"E., 150.08 feet, S.88°23'50"W., 213.51 feet, S.60°04'58"W., 84.15 feet, S.88°23'50"W., 346.62 feet to a large nail at the southwest corner of said Concrete Slab Cover System Area and the **POINT OF BEGINNING**; thence S.50°02'16"W., 183.70 feet to a steel fence post at the northeast corner of the Former Tank Farm Area as shown on said Dwyer plat; thence S.1°36'10"E., along the easterly line of said Former Tank Farm Area, 250.00 feet to the southeast corner of said Former Tank Farm Area; thence continuing S.1°36'10"E., along a projection of said easterly line, 24.75 feet to a steel fence post on the southerly line of said DaimlerChrysler Corporation property as shown on said Dwyer plat; thence N.88°23'50"E., along said southerly line, 624.25 feet to a steel fence post; thence N.1°36'10"W., 76.23 feet to a steel fence post at the southwesterly corner of the Soil Cover System Area as shown on said Dwyer plat; thence N.44°39'10"W., along the southwesterly line of said Soil Cover System Area, 350.00 feet to the northwesterly corner of said Soil Cover System Area; thence continuing N.44°39'10"W., along a projection of said Soil Cover System Area, 77.69 feet to a steel fence post on the southerly line of said Concrete Slab Cover System Area; thence S.88°23'50"W., along said southerly line, 188.26 feet to the **POINT OF BEGINNING**, containing 4.34 acres.

Together with a 33.00 foot wide roadway easement for ingress and egress and for utilities running on, over, under and through, the centerline of which is described as follows:

Initials \_\_\_\_\_

**COMMENCING** at an iron rod the intersection of the easterly right-of-way of Jefferson Avenue and the southerly line of the Solutia Inc. (formerly Monsanto Chemical Co.) property; thence N.88°23'50"E., along said southerly line of the Solutia Inc. property, 1319.99 feet to the northeast corner of the Concrete Slab Cover System Area, as shown on a plat signed by Michael R. Dwyer, Professional Surveyor No. 37274, dated August 19, 1997 and designated Job No. 7541.01; thence along the easterly line of said Concrete Slab Cover System Area with the following six (6) courses: S.1°36'10"E., 321.00 feet, N.88°23'50"E., 64.22 feet, S.1°36'10"E., 150.08 feet, S.88°23'50"W., 213.51 feet, S.60°04'58"W., 84.15 feet, S.88°23'50"W., 346.62 feet to a large nail at the southwest corner of said Concrete Slab Cover System Area and the **POINT OF BEGINNING**; thence 159.82 feet northwesterly along a curve concave to the southwest having radius of 175.55 feet, a chord bearing of N.70°33'01"W. and a chord distance of 154.36 feet; thence S.83°22'04"W., on a tangential line, 112.28 feet to a tangential curve; thence 237.90 feet northwesterly along said curve concave to the northeast having a radius of 298.91 feet, a chord bearing of N.73°49'56"W. and a chord distance of 231.67 feet; thence N.51°01'57"W., 121.34 feet to a tangential curve; thence 86.10 feet northwesterly along said curve concave to the southwest having a radius of 179.93 feet, a chord bearing of N.64°44'30"W. and a chord distance of 85.28 feet; thence N.78°27'03"W., 98.27 feet; thence; thence N.63°10'54"W., 71.50 feet; thence N.80°08'06"W., 45.22 feet to the easterly right-of-way of Jefferson Avenue; thence S.80°08'06"E., 45.22 feet; thence N.84°07'40"E., 119.35 feet; thence S.80°15'12"E., 125.84 feet to a tangential curve; thence 225.19 feet northeasterly along said curve concave to the northwest having a radius of 364.67 feet, a chord bearing of N.82°03'23"E. and a chord distance of 221.63 feet; thence N.64°21'59"E., 157.32 feet to a tangential curve; thence 132.78 feet northeasterly along said curve concave to the southeast having a radius of 211.28 feet, a chord bearing of N.82°19'31"E. and a chord distance of 130.61 feet; thence S.79°37'30"E., 124.14 feet; thence S.74°37'43"E., 68.21 feet to a tangential curve; thence 67.89 feet southeasterly along said curve concave to the southwest having a radius of 60.60 feet, a chord bearing of S.42°31'57"E. and a chord distance of 64.40 feet; thence S.10°26'11"E., 79.08 feet; thence S.16°56'16"E., 78.94 feet; thence S.24°52'20"E., 123.22 feet to a tangential curve; thence 81.52 feet southeasterly along said curve concave southwesterly having a radius of 121.01 feet, a chord bearing of S.05°34'26"E. and a chord distance of 79.99 feet to the northeast line of the above described tract and there **TERMINATING**.

The above described tract of land is delineated on a plat designated WAYNE COUNTY TRACT (4), bearing the date of October 25, 2012, which was prepared using field and land survey information on file in the Office of the Regional Director, Region 3, U.S. Fish and Wildlife Service, and are incorporated herein by reference.

Initials \_\_\_\_\_



RE – Detroit River International Wildlife Refuge  
Wayne County, Michigan  
U.S.A. (15 Parcel “A”)

EXHIBIT “B”

The following described tract of land is located in Michigan, Wayne County, in the city of Gibraltar, being part of land described in a Warranty Deed from The Trust For Public Land to the United States of America, dated September 15, 2004 and recorded in the records of Wayne County, described as follows:

Township Four (4) South, Range Ten (10) East, Michigan Meridian: That part of Private Land Claim 345 and section thirty-six (36) described as follows: **COMMENCING** at an iron monument at the north  $\frac{1}{4}$  corner of section thirty-six (36); thence N.88°28'26"E., along the north line of section thirty-six (36), 838.05 feet to the easterly right-of-way line of West Jefferson Avenue (120.00 feet wide); thence S.23°09'26"W., along said easterly right-of-way, 27.59 feet; thence S.23°10'50"W., along said easterly right-of-way, 1204.27 feet to the north line of Private Claim 345 and the **POINT OF BEGINNING**; thence S.66°49'10"E., 175.00 feet; thence S.23°10'50"W., 200.00 feet; thence N.66°49'10"W., 175.00 feet to said easterly right-of-way; thence S.23°10'50"W., along said easterly right-of-way, 204.20 feet; thence S.66°49'10"E., 499.62 feet; thence N.05°47'49"W., 949.49 feet; thence N.66°49'10"W., 39.63 feet to said easterly right-of-way; thence S.23°10'50"W., along said easterly right-of-way, 426.42 feet to the **POINT OF BEGINNING**, containing 4.34 acres.

The above described tract of land is delineated on a plat designated U.S.A. (15 Parcel “A”), bearing the date of October 25, 2012, which was prepared using field and land survey information on file in the Office of the Regional Director, Region 3, U.S. Fish and Wildlife Service, and are incorporated herein by reference.

Initials \_\_\_\_\_



## OWNER'S AFFIDAVIT

The undersigned affiant, in consideration of **First American Title Insurance Company National Commercial Services** and its title insurance underwriter insuring an interest in or title to the real estate described herein, and being first duly sworn on oath, depose(s) and state(s) as follows:

1. That the affiant is the owner of the real estate legally described in commitment no. NCS-441780-MPLS and commonly known as: See attached Exhibit "A"
2. That the affiant is of legal age, and has not been divorced since acquiring an interest in said real estate and has never been known by any other name than that used herein, except as follows:  
\_\_\_\_\_

NOTE: This paragraph applies only to individuals.

3. That the affiant has had an ownership interest in the real estate described herein continuously for the last ten years and zero months.
4. That no proceedings in bankruptcy or receivership have been instituted by or against the affiant within the last ten years, and the affiant has never made an assignment for the benefit of creditors, except as follows: \_\_\_\_\_
5. That there is no action pending in any state or federal court in the United States to which the affiant is a party nor, except as will be fully paid off at closing, is there any state or federal court judgment, state or federal lien of any kind against the affiant which would constitute a lien or charge upon the real estate, except as follows:  
\_\_\_\_\_
6. That, except as disclosed on the above commitment, there are no unrecorded easements, party walls, agreements or rights-of way which encumber the real estate, except as follows:  
\_\_\_\_\_
7. That, except as will be fully paid off at closing, there are not any delinquent real estate taxes or unpaid current real estate taxes, nor any pending or levied assessments on the real estate, including but not limited to those for trees, sidewalks, streets, sewers and water lines, except as follows:  
\_\_\_\_\_
8. That the affiant is in sole possession of the real estate, and that no other party has possession, or has right of possession under any tenancy, lease or other agreement, written or oral, except as follows:  
\_\_\_\_\_
9. That no labor, services or materials have been furnished in the erection, alteration, repair or removal of a building or structure upon the real estate during the last 9 months, except as follows:  
\_\_\_\_\_

10. That no improvements, repairs, alterations or charges are to be made in, on, or about the real estate, which will be financed in whole or in part by proceeds of the indebtedness secured by the mortgage to be insured; except as follows:
- 
11. That, except as will be fully paid off at closing, there are not any unpaid bills or claims for labor, services, or materials, nor any improvement or repair contracts, home improvement loans, recorded or unrecorded deeds of trust, mortgages, chattel mortgages, conditional bills of sale, retention of title agreements, security agreements, agreements not to sell or encumber, financing statements, or personal property leases which affect the real estate or which affect any fixture, appliances, or equipment now installed in or on the real estate, except as follows:
- 
12. That any Home Equity Line of Credit will no longer be used and all checks and/or credit cards associated with the amount have or will be destroyed, and that the account has been closed.
13. That the affiant has been in undisturbed possession of the insured premises and is familiar with its physical characteristics and has no knowledge or notice of any claim of ownership or other interest by any other person in all or any part of the property, including but not limited to any boundary line disputes or disagreements which may affect the size or location of improvements on the property or the size or location of improvements (e.g., fences, driveways) on neighboring property, and has no knowledge of any encroachments or improvements which affect the property or improvements thereon, except as follows:
- 
14. That unlimited legal access exists to the property.
15. That there is no evidence apparent from any inspection of the property which indicates the existence of old roads, lanes, or paths crossing the property, and affiant has not observed, and is not aware of, any party who regularly crosses over any part of the property, except as follows:
- 
16. That there are no brooks, streams, rivers, ponds, lakes or other bodies of water located on or bordering the property, except as follows: **Humbug Marsh, part of the Detroit River International Wildlife Refuge owned and under jurisdiction of USFWS; and the Detroit River.**
- 
17. The affiant has examined a certain survey of the premises (if applicable, a copy is attached hereto), surveyed by \_\_\_\_\_ and dated \_\_\_\_\_, and:
- No exterior alterations have been made to the buildings shown on said survey.
  - No additional alterations or additions or improvements have been constructed on the premises.
  - This survey reflects the current status of the premises, including fences and driveways.
18. That all common expense assessments and special assessments currently assessed against the premises have been paid.
19. That there is no "right of first refusal" or other restriction on the sale of the premises which have not been waived.

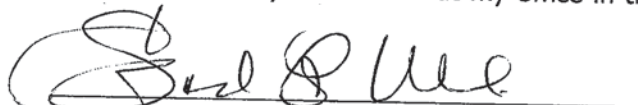
The undersigned makes this affidavit for the purpose of inducing **First American Title Insurance Company National Commercial Services** and its title insurance underwriter under commitment number **NCS-441780-MPLS** to issue a policy of title insurance, knowing that they will rely on the truth of the statements made herein, and expressly agrees to indemnify and hold harmless **First American Title Insurance Company National Commercial Services** and its title insurance underwriter from any and all loss including but not limited to attorney's fees and legal costs, arising from any inaccuracies contained herein.



*for* Robert A. Ficano  
Chief Executive Officer, Wayne County

State of Michigan } ss.  
County of Wayne

On January 3, 2013, before me personally appeared Jane Lee, to me personally known, who, being by me duly sworn, did say that he/she is the ACE of County of Wayne, a home rule charter county, and that the said instrument was signed in behalf of said County of Wayne, by authority and said acknowledged said instrument to be the free act and deed of said County.  
IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at my office in the and State the day and year first above written.

  
Notary Public

My term expires: 4-10-15

SANDRA A. WILSON  
NOTARY PUBLIC, STATE OF MI  
COUNTY OF WAYNE  
MY COMMISSION EXPIRES Apr 10, 2015  
NOTARY PUBLIC OF