# Draft Natural Resource Restoration Plan
# &
# Environmental Assessment
# for the
# Ottawa River Assessment Area

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| TRUSTEES: | State of Ohio<br>Ohio Environmental Protection Agency<br>U.S. Department of the Interior<br>U.S. Fish and Wildlife Service |
| LEGAL AUTHORITY: | Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (as amended), 42 U.S.C. § 9601, *et seq*.<br><br>Federal Water Pollution Control Act (Clean Water Act) (as amended), 33 U.S.C. § 1251, *et seq*.<br><br>Natural Resource Damage Assessment, 43 C.F.R. Part 11<br><br>National Environmental Policy Act, 42 U.S.C. §§4321-4347 |
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# TABLE OF CONTENTS

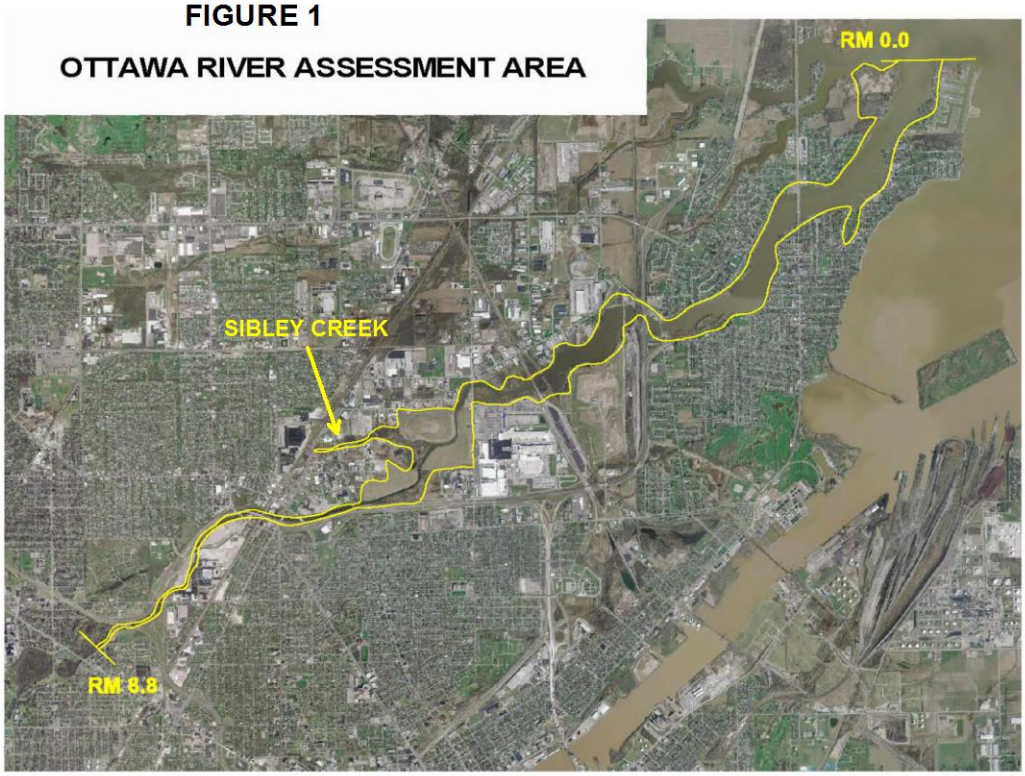
## SECTION 1

## INTRODUCTION AND SUMMARY

This Draft Restoration Plan (RP) and Environmental Assessment (EA) (collectively referred to as the RP/EA) has been prepared by the State and Federal natural resource Trustees to address natural resources injured and ecological services lost due to releases of hazardous substances to the Ottawa River Assessment Area (the Assessment Area). The Assessment Area means all portions of the following waterways, including sediment deposits that contain natural resources: (1) a segment of the Ottawa River, primarily located in Lucas County, Ohio, from River Mile 8.8 to River Mile 0, at the mouth of the Ottawa River, and (2) Sibley Creek. This Assessment Area is depicted on Figure 1.

**FIGURE 1**

**OTTAWA RIVER ASSESSMENT AREA**




The Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. § 9601, *et seq*. (CERCLA, or more commonly known as the federal "Superfund" law) and the Federal Water Pollution Control Act, 33 U.S.C. § 1251, *et seq*. (more commonly known as the Clean Water Act or (CWA)) authorize States, Indian Tribes, and certain Federal agencies that have authority to manage or control natural resources, to act as "Trustees" on behalf of the public, to restore, rehabilitate, replace, and/or acquire natural resources equivalent to those injured by hazardous substance releases. The Department of the Interior's Natural Resource

Damage Assessments (NRDAs) regulations for CERCLA cases are set forth at 43 C.F.R Part 11.

The State of Ohio, represented by the Ohio Environmental Protection Agency (Ohio EPA) and the United States Department of the Interior (DOI), represented by the United States Fish and Wildlife Service (Service) (collectively, referred to as the Trustee Council) have worked together in a cooperative process to determine what is necessary to address natural resource injuries caused by releases of polychlorinated biphenyls (PCBs) and other hazardous substances in the Assessment Area.

The State of Ohio and the United States are in settlement negotiations with Potentially Responsible Parties (PRPs) in which the PRPs would implement various projects to in part, restore, replace, rehabilitate and/or acquire the equivalent of the natural resources injured at the Assessment Area and/or the services those resources provide. In addition to the PRP conducted restoration projects discussed below, the Trustees expect to recover funds to complete additional restoration projects. Future/Trustee implemented restoration projects will be selected consistent with the objectives and conclusions set forth in the final RP/EA. This Draft RP/EA describes the proposed PRP sponsored restoration projects and proposes those objectives and conclusions to guide the Trustees in selecting the future Trustee implemented restoration projects.

In summary, the purpose of this Draft RP/EA is to present the Trustees' Preferred Alternative to accomplish the goal of restoring, rehabilitating, replacing and/or acquiring the equivalent of those natural resources, and the services those resources provide that have been injured in the Assessment Area. Public comments are being sought on this Draft RP/EA and will be considered and incorporated in the Final RP/EA, as appropriate.

## SECTION 2

## PURPOSE AND NEED FOR RESTORATION

### 2.1 The Lower Ottawa River Watershed – History of Release

The Ottawa River begins southeast of Sylvania, Ohio at the junction of Ten Mile Creek and North Ten Mile Creek. From there it flows, generally south east, through the City of Toledo, to Maumee Bay (Lake Erie), entering Maumee Bay - Lake Erie approximately 2.3 miles north of the Maumee River in Monroe County Michigan. The City of Toledo, with a population of more than 250,000 is the only significant urban center in the watershed. Upstream of Toledo, land use is primarily agricultural with some residential development. There is substantial marina development near the confluence of the Ottawa River with Maumee Bay. Northern Maumee Bay is a protected shallow aquatic ecosystem, in the Western Basin of Lake Erie, with several islands and shallows supporting submergent and emergent vegetation. The combination of hydraulically connected wetlands near the Ottawa River, islands, and shallows in Maumee Bay, result in an area of significant natural resource value.

Decades of manufacturing activity and improper waste disposal practices have resulted in the release of hazardous substances to the Ottawa River and its watershed. Hazardous substances have migrated from landfills along the banks of the Ottawa River and from industrial facilities in

the watershed, contaminating sediments, water, fish, and wildlife in the Ottawa River. The landfills and Sibley Creek (previously an un-named tributary), which were sources of hazardous substances to the Ottawa River, have been remediated under CERCLA and other authorities.

The Ottawa River Remedial Action (RA) was conducted through the Great Lakes Legacy Act (GLLA) by the U.S. Environmental Protection Agency's (EPA) Great Lakes National Program Office (GLNPO) and its non-federal partner, the Ottawa River Group (ORG), to remediate contaminated sediments from the Ottawa River and Sibley Creek in Toledo, Ohio. The remediation focused on a stretch of the river that was contaminated due to historical industrial discharges, wastewater and combined sewer overflow (CSO) releases. The ORG split the cost of the sediment cleanup 50-50 with EPA and, at the time, consisted of a local consortium of Allied Waste Industries, Inc., Chrysler LLC, the city of Toledo, E.I. DuPont de Nemours and Company, GenCorp, Inc., Honeywell International, Inc., Illinois Tool Works, Inc., and United Technologies Corporation. The RA included environmental dredging of approximately 250,000 cubic yards (CY) of contaminated sediment from the Ottawa River at 33 separate dredge management units (DMU). Fourteen sub-areas within these DMUs contained about 14,500 CY of sediment with TSCA-level concentrations of PCBs (greater than or equal to 50 ppm or milligrams per kilogram [mg/kg]). In addition, approximately 9,500 cubic yards of sediments were removed from Sibley Creek. Additional information on the GLLA RA can be found here: http://www.epa.gov/glnpo/sediment/legacy/ottawa/index.html

## 2.2 Natural Resource Injuries

Injuries to surface water resources and biological resources have occurred. An estimated 724 acres of the Ottawa River and related riparian habitat have been contaminated by hazardous substances. Primary contaminants of concern in the Ottawa River included PCBs, metals (primarily lead) and polycyclic aromatic hydrocarbons (PAHs). Injured habitats include forested, submergent and emergent wetlands, as well as surface waters and sediments of the Ottawa River.

Toxic contaminants have wide ranging effects on aquatic and terrestrial life. Acute (short term) effects may include the death or reduced growth of plants, birds, fish and other animals. Chronic (long term) effects on aquatic life may include shortened lifespans, reproductive problems, population structures and changes in appearance or behavior. Many hazardous substances, including PCBs, are categorized as persistent, bio-accumulative, and toxic compounds. They degrade very slowly in the environment, accumulate in living things, and concentrate in tissues as they are transferred up food chains. General information on potential effects of the hazardous substances detected can be found in the Agency for Toxic Substances and Disease Registry (ATSDR) fact sheets (www.atsdr.cdc.gov) and the U.S. EPA ECOTOX database (www.epa.gov/ecotox).

The Ottawa River has been of particular concern for regulatory agencies due to suspected contamination, possible health concerns and natural resource injuries for some time. Reports on specific injuries at the Assessment Area can be found at:
http://www.fws.gov/midwest/es/ec/nrda/Ottawa/index.html

Additionally, several Ohio EPA water quality and related reports can be found at:
http://epa.ohio.gov/portals/35/documents/ottawa91.pdf

http://epa.ohio.gov/portals/35/documents/ottawa96.pdf
http://epa.ohio.gov/portals/35/documents/Ottawa99.pdf
http://epa.ohio.gov/portals/35/documents/Aquablok.pdf
http://epa.ohio.gov/portals/35/documents/AquaBlok2001.pdf
http://epa.ohio.gov/portals/35/documents/OttawaRDura2002.pdf
http://epa.ohio.gov/portals/35/documents/OttawaRiver2007TSD.pdf

Due to past contamination in the Ottawa River, contact and consumption advisories have been in place on parts of the Ottawa River since 1991. Details on the consumption advisories and their relationship to natural resource injuries can be found here:
http://www.fws.gov/midwest/es/ec/nrda/Ottawa/documents/ottawarfishadvrpt8-31-09.pdf

Given the bio-accumulative properties of PCBs and other contamination in the Assessment Area, evaluations of top predators were completed as part of the damage assessment of the Ottawa River. Of particular concern were fish eating birds that may migrate to and from the Ottawa River and use the area for nesting and foraging during large portions of the year.

In summary, injuries occurred to biological resources including their supporting ecosystems, surface water, and lost human use of those injured resources, and likely occurred to fish-eating bids, and migratory birds.

### 2.3 Authority and Legal Requirements

This Draft RP/EA has been prepared jointly by Ohio EPA and the Service. Each of these Agencies is a designated natural resources Trustee under Section 107(f) of CERCLA, 42 U.S.C. § 9607(f), Section 311 of the CWA, 33 U.S.C. § 1321, and other applicable law, including Subpart G of the National Contingency Plan (NCP), 40 C.F.R. §§ 300.600-300.615. As a Trustee, each Agency is authorized to act on behalf of the public to assess natural resource injuries and recover damages for injuries to natural resources and losses of natural resource services attributed to releases of hazardous substances. The Federal Authorized Official (AO) is the DOI official delegated the authority to act on behalf of the Secretary of the Department of the Interior to conduct a natural resource damage assessment and restoration. The AO is the Region 3 Regional Director for the Service, and represents the interests of the Department, including all affected Bureaus**.** In accordance with 42 U.S.C. § 9607(f)(2)(B), the Director of Ohio EPA has been designated the natural resource Trustee of Ohio pursuant to Ohio Governor John Kasich's letter dated June 30, 2011.

The purpose of the RP/EA is to consider alternative actions to restore, rehabilitate, replace, and/or acquire the equivalent of any natural resources injured and natural resource services lost as a result of releases of PCBs and other hazardous substances into the lower 8.8 miles of the Ottawa River, Sibley Creek and adjacent wetlands and related habitats in the Assessment Area, pursuant to applicable State and Federal laws and regulations. This document will also serve as the RP for implementing the selected Alternative as required under the CERCLA NRDA regulations.

The Alternative selected in the RP must be consistent with statutory mandates and regulatory procedures that specify that recovered damages are used to undertake feasible, safe, and cost-

effective projects that address injured natural resources, consider actual and anticipated conditions, have a reasonable likelihood of success, and are consistent with applicable laws and policies.

## 2.4 Overview of NRDA and Restoration Process

DOI has adopted regulations under CERCLA and the CWA establishing procedures for assessing natural resource damages. The CERCLA NRDA regulations are codified at 43 C.F.R. Part 11.

As defined in the NRDA regulations, injury is an adverse biological, chemical, or physical effect on natural resources, such as death, decreased population, or lost services (*e.g.*, fishing or hunting opportunities, ecosystem functions). Damages are the estimated dollar value of the injured resources. The objective of the NRDA process is to compensate the public through environmental restoration for injuries to natural resources that have been caused by releases of hazardous substances into the environment. Under Section 107(f)(1) of CERCLA, damage settlements can only be used to restore, rehabilitate, replace, and/or acquire the equivalent of trust resources injured, destroyed, or lost as a result of the release of hazardous substances. NRDAs can be performed using multiple approaches that quantify the injuries for which damages can be determined for the injuries. An alternate method includes habitat to habitat or resource to resource evaluations. Habitat equivalency analysis (HEA) or resource equivalency analysis (REA) are techniques based on a methodology used to determine compensatory projects for such resource injuries. The principal concept underlying the methods is that the public can be compensated for past losses of habitat resources or services through habitat replacement projects providing additional resources of the same type or quality. HEA was used in estimating the loss of the resources and services in the Assessment Area and to determine the size and scope of restoration projects required to adequately compensate the public.

Accordingly, this Draft RP/EA has been developed to evaluate and, ultimately, select restoration projects designed to compensate the public for injuries that occurred to natural resources in the Assessment Area. The RP/EA is not intended to completely quantify the extent of restoration needed. Implementation of selected restoration projects will occur over a period of time, dependent upon the project type and the ability of the parties to complete the restorations.

The CERCLA NRDA regulations provide that restoration plans should consider ten factors when evaluating and selecting projects to restore or replace injured natural resources. The following factors will be used to select an Alternative and to compare projects within an Alternative. (See 43 C.F.R. § 11.82)

1. Technical feasibility
2. The relationship of the expected costs of the Alternative to the expected benefits
3. Cost-effectiveness
4. The results of actual or planned response actions
5. The potential for additional injury resulting from the proposed actions
6. The natural recovery period
7. Ability of the resources to recover with or without alternative actions
8. Potential effects of the action on human health and safety
9. Consistency with relevant Federal, State, and Tribal policies

10. Compliance with applicable Federal, State, and Tribal laws

As discussed, the selected Alternative must restore, rehabilitate, replace and/or acquire the equivalent of those natural resources injured by the discharge or release of PCBs and other hazardous substances into the Assessment Area.

Based on the recommendations of the Trustee Council and input from the public, the AO and Ohio Trustee will select one of the Alternatives. The AO will determine, based on the facts and recommendations contained herein, and public comment, whether this EA is adequate to support a Finding of No Significant Impact (FONSI), or whether an Environmental Impact Statement (EIS) is required.

## SECTION 3

## RESTORATION ALTERNATIVES

### 3.1 Alternative A: No Action

The No Action Alternative, required by the National Environmental Policy Act (NEPA) consists of expected conditions under current programs pursued outside the NRDA process. It is the baseline against which other actions can be compared. If this Alternative were implemented, the Trustee Council would not initiate specific actions to restore injured natural resources or compensate the public for ongoing natural resource injuries caused by releases of hazardous substances into the environment. Existing environmental degradation not directly related to hazardous substance releases would continue to occur (land development, shoreline hardening, etc.), and perhaps worsen under Alternative A. The State and Federal agencies would continue to manage, conserve and protect the Ottawa River as outlined in current programs and regulations and within current budget constraints. The public would not be compensated for injuries to natural resources.

### 3.2 Alternative B: Natural Resource Based Restoration Inside the Western Lake Erie Basin and/or the Ottawa River (Preferred Alternative)

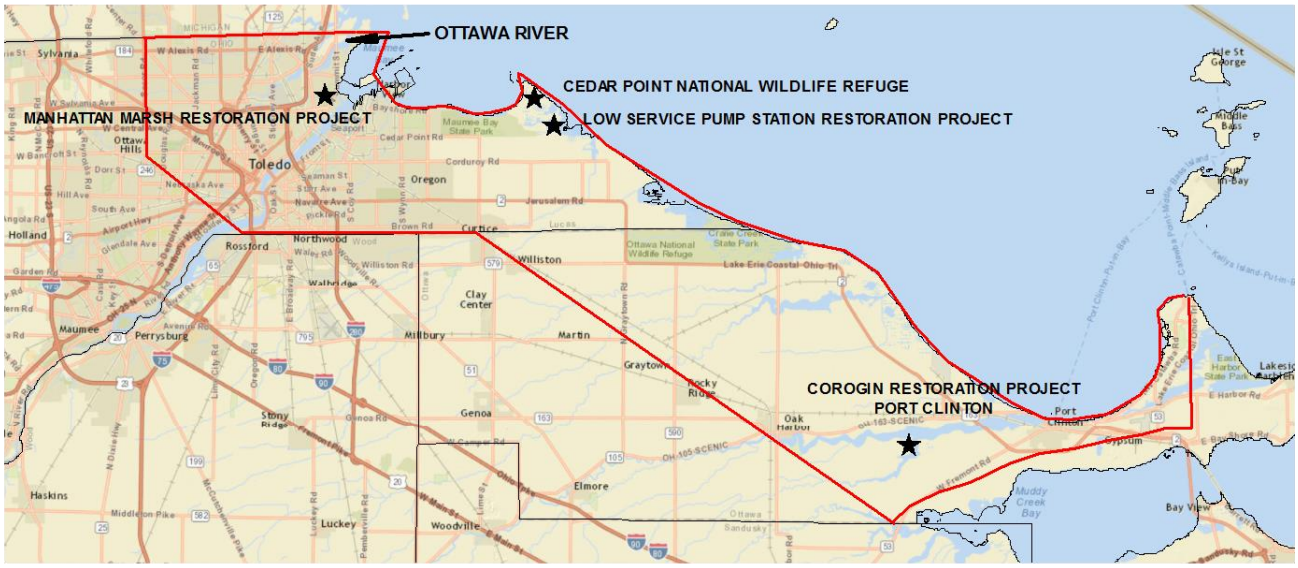
CERCLA authorizes Trustees to replace and/or acquire natural resources equivalent to those injured by hazardous substance releases, in lieu of or in addition to, restoring or rehabilitating the injured natural resource.

Alternative B involves projects that would restore and replace injured and lost natural resources, while concurrently providing enhanced ecosystem and public use services to compensate for injuries caused by releases of hazardous substances. Because the ability to restore or preserve large and potentially healthy and diverse wetlands within the urban environment of the lower Ottawa River Watershed is extremely limited, Alternative B projects could be implemented within the Western Lake Erie Basin and/or the Ottawa River. See figure 2 for the Alternative B project area. Alternative B projects are focused on maintaining the important linkages between the physical, chemical and biological properties of the overall ecosystem and the services it provides. Specifically, the lower Ottawa River prior to development consisted of large coastal marshes that were hydraulically connected to Lake Erie. Many of the landfills responsible for

contributing to the contamination within the lower Ottawa River were located in these large and sensitive wetlands. Alternative B projects include the following:

1. Restoration, reestablishment, and preservation of coastal marshes and wetlands in Western Lake Erie Basin and/or the Ottawa River.
2. Enhancement and preservation of riparian, wetland and upland habitat providing benefits to avian and fisheries resources in the Western Lake Erie Basin and/or the Ottawa River.
3. General improvement of aquatic habitat.

Figure 2: Alternative B: Natural Resource Based Restoration Inside the Western Lake Erie Basin and/or the Ottawa River




Each of these categories of projects is expected to improve and enhance the ecosystem to benefit injured natural resources. Concomitantly, these projects would benefit the public by enhancing active and passive outdoor recreational opportunities. These goals would be accomplished through the acquisition, restoration, and preservation of new and/or contiguous tracts of coastal marshes, and other valuable habitat, where feasible, which would be made available to the public for active and/or passive recreational use. This approach supports the goal of restoring, replacing, and rehabilitating injured resources and enhancing outdoor recreational activities.

The Trustee Council anticipates that ecological priorities for all restoration project categories under Alternative B will be influenced primarily by the following key factors:

1. Relationship to injuries (restoration opportunities that address the habitat types, services, and values similar to those lost due to the release of hazardous substances are preferred).
2. Quality and size of restoration opportunities (projects with substantial ecological

opportunities are preferred).
3. Ecological function/hydraulic connectivity (areas in the Western Lake Erie Basin and/or the Ottawa River are preferred).
4. Cost and cost-effectiveness (projects with lower cost per restored or replaced services or values are preferred).

Prior to the selection and implementation of any Site specific actions, the Trustees will review the specific projects to determine if any further work is required to comply with all applicable requirements (*e.g*., NEPA, Historic Preservation Act, Endangered Species Act, Americans with Disabilities Act).

### 3.2.1 *Wetland, Flood Plain, Riparian and Associated Upland Habitat Preservation, Reestablishment or Enhancement Projects*

Restoration projects under this Alternative would concentrate on the need to preserve and enhance certain properties in the Western Lake Erie Basin and/or the Ottawa River which provide ecological services similar to those lost in the Assessment Area. Protection and restoration of Lake Erie coastal wetlands and associated riparian habitat and ecologically associated uplands would foster and promote increased spawning and nursery habitats, and nesting and foraging opportunities for a wide variety of fish, birds and other wildlife. Such projects will also reduce erosion and resultant sediment, pesticide, and nutrient loading to Lake Erie. Restoration projects described in Alternative B would provide ecological functions similar to, but not necessarily the same as, those injured by hazardous substances.

Wetland, flood plain, riparian, and ecologically associated upland protection and enhancement would help replace habitats that have been impaired or destroyed in the Assessment Area. The Trustee Council's wetland, flood plain, riparian, and upland habitat reestablishment and enhancement strategy would include active restoration projects such as improving existing flood plain(s), establishing and/or preserving coastal and other wetlands, establishing interconnections between surface water and wetlands, and removing invasive plant species. Low impact techniques such as closing off drainage ditches, disrupting (or not repairing) drain tile systems, and reestablishing wetland and flood plain plants and other native vegetation in order to reestablish natural characteristics that have been eliminated would also be utilized, as appropriate. The Trustee Council intends to target restoration of wetland, riparian, and upland habitats located in coastal areas, within flood plains and adjacent to existing valuable natural areas. Wetland, flood plain, riparian, and ecologically associated upland reestablishment and enhancement projects that will improve water quality in Lake Erie (including reducing loadings of suspended sediments, nutrients, and pesticides) and provide habitat for biological resources are preferred.

#### 3.2.1.1 ***Acquisition of Natural Areas***

Alternative B recognizes the significance of preserving the riparian, coastal and other wetlands, flood plain, and upland habitat of the Western Lake Erie Basin/Ottawa River watershed. To achieve this goal, the Trustee Council will focus its efforts on identifying, acquiring, and preserving parcels of land with the following attributes:

1. Coastal areas.

2. Areas with agricultural, commercial and/or residential development pressure.
3. Contiguous parcels.
4. Areas of high natural quality.

Areas with high natural quality or "natural areas" are those parcels of land that significantly contribute to the ecological qualities of the Western Lake Erie Basin and/or Ottawa River watershed. Public passive and active recreational activities improve with preserved and protected natural areas and through restoration of lost or injured resources.

The Trustee Council will select specific areas for preservation based upon the following criteria:

1. The ecological value of the habitat.
2. The ability to improve the habitat.
3. The ability to preserve the habitat.
4. The geographical and ecological diversity of the parcel(s).
5. The local and regional development plans.
6. The ability to find willing landowners and/or sellers.
7. The concerns and comments of the public.

Preservation of properties would be achieved through fee title purchase from willing land owners and/or through the purchase of conservation easements or the establishment of environmental covenants. Those properties that could be preserved in perpetuity will be considered a higher priority than those with fixed durations. Land acquired will be conveyed to individual State, Federal, or local governmental agencies, land trusts, or non-governmental conservation organizations following specific procedures and standards for each entity.

While the primary purpose of the preservation of land is to protect and preserve fish and wildlife habitats, portions of the acquired properties will likely be available to the public for passive and/or active recreational opportunities. The parcels may be available to serve as fishing spots, or for other activities such as wildlife viewing, hiking, or hunting.

#### 3.2.1.2 ***Invasive Species Removal and Planting of Native Species***

Restoration projects under Alternative B may include the replanting and reestablishment of native species on preserved or protected properties. Reestablishment efforts will focus on restoring natural areas that are in a somewhat degraded natural condition. Native species will be reestablished once non-native species have been removed and/or controlled. The removal of non-native species and planting of native species will enhance ecosystem function and, as a result, enhance the ecosystem functions provided to the natural resources and the public.

#### 3.2.1.3 ***Avian Resource Enhancement Projects***

The assessment process showed substantial injury to fish that are a food source for fish eating birds, and because of this, injury to fish eating birds has likely occurred in the Assessment Area. In light of this, the Trustees propose projects designed to increase habitat for a wide range of avian species including water fowl and other migratory birds. Projects in Alternative B will, therefore, focus on the following: (1) acquisition and improvement of tracts of land within Atlantic and Mississippi flyways with emphasis on the Western Lake Erie Basin, which will provide forging,

nesting, and loafing habitat for a wide range of avian species, and (2) restoration of certain existing wetlands along the Ottawa River and Western Lake Erie, which will provide improved foraging, nesting, and loafing areas for a wide range of avian species.

### 3.2.2 *Fishery Resource Enhancement Projects*

The abundance and diversity of fish species that once inhabited the Ottawa River is very different from the fishery currently observed due to anthropogenic effects, including effects of pollutants. The Trustees have, therefore, proposed projects designed to increase spawning and nursery habitat for a wide range of fish species. Projects in Alternative B will, therefore, focus on the following: (1) acquisition of tracts of land, including current and historical wetlands, within the Western Lake Erie Basin and/or the Ottawa River watershed, (2) establishment of hydrological connections between the wetlands and Lake Erie tributaries, which will provide significant spawning and nursery areas for fish.

## 3.3 Current Projects Supported by the Trustees

Three (3) projects have been proposed by settling parties and are supported by the Trustees. Sections 3.2.4 through 3.2.6 describe the restorations that will in-part, compensate the public for injuries incurred in the Assessment Area. These three projects include all of the preferred alternative characteristics listed in section 3.2.1 above and score favorably using the selection criteria presented below (section 3.4). Additional projects will be selected using the criteria discussed in this RP/EA.

### 3.3.1 *ORG Restoration Project*

The ORG has purchased approximately 175 acres in Ottawa County, with the plan of restoring the property to include in part, coastal, connected emergent wetlands similar to those injured on the Ottawa River and to transfer the property to the United States with management by the Ottawa National Wildlife Refuge for long-term protection, maintenance, and enjoyment by the public. Similar to the habitats in and adjacent to the Ottawa River, the restoration project is located on the banks of the Portage and Little Portage Rivers. This area is included in the Western Lake Erie basin. The project would include reconnecting the majority of the agricultural fields to the Portage River, drain tile removal, installation of water control structures, and planting with native wetland species. The Trustees support this project as being direct replacement and acquisition of natural resources equivalent to those injured in the Assessment Area. In addition, acquiring property of such size and quality in the Ottawa River is highly unlikely given the development and urban nature of the lower Ottawa River.

### 3.3.2 *The City of Toledo Low Service Pump Station Restoration Project*

The first of two (2) restoration projects to be completed by the City of Toledo includes the restoration of "Toledo Low Service Pump Station." This property comprises approximately 58 acres located in Lucas County at 1002 North Yondota Road, Curtice, Ohio, with latitude and longitude coordinates of latitude 41.674197 and longitude -83.309728. This property shares a border with the Cedar Point National Wildlife Refuge.

The City would enter into a long term access agreement with the U.S. Department of the Interior for at least 50 years and for up to 58 acres of the Property. The restoration would include:

1. Maintaining the acreage as wetland, forested wetland habitats, or other habitats as determined by the Refuge.
2. Transferring approximately 1 acre of the property to the United States with management by the Refuge for maintaining, repairing, or constructing new water control structures (*e.g.*, dikes, levees) that have failed.
3. Maintaining native wetland plants through an invasive plant species control program.
4. Increasing wet meadow and wetland habitat through selected tree removal, producing open areas suitable for colonization by a federally threatened native plant species, the eastern prairie fringed orchid and state species of concern, the Kirtland's snake and the Blanding's turtle. All of these special interest species have been determined to use or have used the property in recent past. By improving the property, it is anticipated to better support these protected species.

### 3.3.3 *The City of Toledo Manhattan Marsh Restoration Project*

The second project to be completed by the City of Toledo is called the Manhattan Marsh. Several properties would be consolidated into a total of approximately 70 acres located in North Toledo within the vicinity of and bounded in part by Bassett Street, Manhattan Boulevard and Suder Avenue. The restoration would consist of acquiring and maintaining the property as wetland and related habitat through removal of debris, refuse, and installation of water control structures to support wetland habitats. Native plants would be maintained through an invasive plant species control program. The property would be transferred to Toledo Metro Parks for long term control and stewardship. Public use of the wetland and related habitats would be increased via developed trails/walkways in sections the restored marsh and opening up viewing of the marsh by removing invasive species along the edges. Increased awareness of wetland habitat is likely due to the location of the wetland within the community, being adjacent to a senior living center on one side and Chase elementary school on another. It is likely students will experience the restored habitat first-hand as part of classes at the elementary school. The Trustees and City of Toledo recognize that the availability of such a large and potentially healthy and diverse wetland within the City of Toledo, or any large metropolitan area, is a rare and fortunate opportunity. The increased use of the restored marsh would offset, in part, lost recreational uses that have incurred along the Ottawa River.

## 3.4 Alternative C: Natural Resource Based Restoration Outside the Western Lake Erie Basin and Ottawa River Watershed

Alternative C involves projects of the type described in Alternative B, above. However, those projects would be implemented outside the Western Lake Erie Basin. Projects outside of the Western Lake Erie Basin would provide services similar to those in Alternative B, but may not benefit directly those species and populations injured by hazardous substance releases in the Ottawa River.

## 3.5 Alternatives B and C: Criteria and Priorities for Restoration Project Categories

Alternatives A, B and C were evaluated using the following seven (7) (section 3.5.1 through 3.5.7) criteria. In addition, the three projects described above and future restoration projects will be similarly evaluated to ensure the appropriateness of the restoration.

### 3.5.1 *Technical Feasibility*

Projects that use reliable, proven methods are preferred to those that rely on experimental or untested methods. Other factors that can affect project success, such as validity of assumptions inherent to the project approach, will also be considered by the Trustee Council.

### 3.5.2 *Benefit Scope*

Restoration projects that provide a broad scope of measurable ecological benefits to large geographic areas and numerous fish or wildlife populations are favored over those that are focused on a limited set of benefits to a limited area or population. Restoration projects benefiting fish, wildlife species, and populations of the type known or believed to have been injured in the Assessment Area will be favored over those benefitting other species or populations. Restoration projects with a high ratio of expected ecological benefits to expected cost are preferred. Projects that provide natural resource services through protection and/or enhancement of the natural resources providing those services are preferred over projects designed solely to provide services. Projects that benefit more than one injured natural resource are expected to be given priority. Wherever possible, natural habitat functions that are self-sustaining and essential to maintain the habitat will be restored, enhanced and/or protected. If projects provide equal benefits, at equal costs, those closest with minimal operation and maintenance activities will be preferred.

### 3.5.3 *Quantifiable Benefits*

Projects expected to provide quantifiable benefits and likely to achieve success will have a higher priority than projects that do not. Restoration projects should include an evaluation of success and a monitoring component to determine the effectiveness of restoration actions in providing the public with similar services and values to those lost because of releases of hazardous substances into the environment. A timeline outlining the implementation and progression of the restoration project will be used by the Trustee Council to determine completion and success of the project. Overall success of the RP will depend upon success of each restoration project.

### 3.5.4 *Potential Adverse Effects to Natural Resources*

Preference will be given to projects that avoid or minimize additional natural resource injury or environmental degradation. The Trustee Council will require that requisite permits are obtained and comply with applicable regulations. All projects selected for implementation will be expected to comply with applicable and relevant laws, policies and regulations.

### 3.5.5 *Other Project Support*

Preference is expected to be given to projects or aspects of Trustee Council projects that are not already being implemented or have insufficient funding under other programs. Although the Trustee Council may use restoration planning efforts completed by other programs, preference is given to projects that would not otherwise be implemented without NRD restoration funds.

### 3.5.6 *Voluntary Land Acquisition/Easements*

Preservation of habitats through acquisition of land, Environmental Covenants, or Conservation Easements will only be from willing sellers or participants. Landowners are, and will be, under no obligation to sell land to the government agencies or other organizations associated with the Trustee Council. Neighbors adjacent to land purchased for preservation under this RP will retain all of their current rights to their land. Land acquisitions may be conducted by government agencies using settlement moneys, or directly by settling PRPs. The government agencies are required to pay fair market value for land purchased. Fair market value would be determined through established appraisal procedures.

### 3.5.7 *Tribal Cultural Resources*

The preservation or restorations of specific areas or resources that have appreciable cultural value to Indian tribes are important to the Trustee Council. A search of the Native American Consultant Database maintained by the National Park Service identified no Indian tribes with relevant interest in the ORG or City of Toledo restoration project areas.

## 3.6 Preferred Alternative

The Trustee Council has recommended Alternative B as the Preferred Alternative that includes the ORG and City of Toledo restoration projects. Natural resource based restoration outside the Western Lake Erie Basin (Alternative C) may provide services similar to those within the Western Lake Erie Basin. However, because of the distinct nature of Western Lake Erie and its tributaries (shallow, highly productive, warm water habitat), such projects would not benefit the same species assemblages that were injured in the Assessment Area. In addition, federal wildlife refuges, state wildlife areas in the Western Lake Erie Basin, as well as the City of Toledo's location on the Ottawa River provide existing entities and infrastructure for highly cost effective long term operation of projects. The final decision on the selected Alternative will be made by the State of Ohio Trustee and the Federal Authorized Official (AO) based on recommendations from the Trustee Council staff and input from the public.

## 3.7 Summary of Alternative Actions

**Table 1: Comparison of Alternatives A, B & C**

| Actions | Alternative A<br><br>No Action | Alternative B<br><br>Natural Resource Based Restoration In the Western Lake Erie Basin and/or the Ottawa River (Preferred Action) | Alternative C<br><br>Natural Resource Based Restoration Outside the Western Lake Erie Basin and/or Ottawa River Watershed |
|---|---|---|---|
| Restore, rehabilitate, replace and/or acquire the equivalent of natural resources injured from the release of hazardous substances into the environment and services those resources provide | No | Yes | Partial. Species assemblages would not be the same as those injured |
| Rehabilitate wetlands, flood plains, riparian and associated upland habitat | No | Yes | Yes |
| Improve aquatic habitat and near-shore habitat | No | Yes | Possibly |
| Provide for enhancement of abundance and diversity of self-sustaining fish populations | No | Yes | Partial. Species assemblages would be different from those injured |
| Preservation of wetlands, flood plain, riparian and associated upland habitat | No | Yes | Yes |
| Improve outdoor recreational opportunities/enhance public awareness | No | Yes | Yes |

# SECTION 4

# AFFECTED ENVIRONMENTS

The terrestrial, wetland, and aquatic habitats of the Assessment Area support a wide diversity of birds, fish, and mammals, including many rare, threatened, and endangered species. The health of the ecosystem and the quality of its habitats are vital to the invertebrates, plants, fish, and wildlife of the area. Public uses and enjoyment of these resources also depend on the health and quality of these areas.

## 4.1 Physical Characteristics

The Assessment Area is located in northwestern Ohio in Lucas and Ottawa Counties. It includes the lower 8.8 miles of the Ottawa River. Figure 1, identifies the Assessment Area.

## 4.2 Affected Environments and Species

### 4.2.1 *Habitat/Vegetation*

The City of Toledo, with a population of more than 250,000 is the only significant urban center in the Assessment Area. There is extensive urban development along the Ottawa River in the City of Toledo, with substantial marina development near the confluence of the Ottawa River with Maumee Bay. However, there is still some undeveloped land in the lower reaches of the Ottawa River, including hydraulically connected wetland complexes within the City of Toledo. Habitat along the Lake Erie shoreline from Toledo to Port Clinton, Ohio is primarily agricultural, with some residential development.

There are several State Wildlife Areas and National Wildlife Refuges along the southern shoreline or a few miles inland of Lake Erie. These include Cedar Point National Wildlife Refuge, Ottawa National Wildlife Refuge, Magee Marsh State Wildlife area, Toussaint State Wildlife Area, Mallard Club State Wildlife Area, and the Metzger Marsh State Wildlife Area. These areas are managed primarily for waterfowl habitat and most include coastal wetlands hydraulically connected to Western Lake Erie, which provide spawning and nursery habitat for Western Lake Erie and tributary fish species.

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

The Assessment Area and proposed restoration project locations fall within range of the Indiana bat, piping plover, and clubshell mussel, which are Federally-listed endangered species. In addition the federally listed threatened native plant species, the eastern prairie fringed orchid and State species of concern, the Kirtland snake and the Blanding's turtle have been identified in the restoration boundaries. An endangered species is any species that is in danger of extinction throughout all or a significant portion of its range. A threatened species is likely to become endangered in the foreseeable future. A candidate species is a species for which the Service has sufficient information on their biological status and threats to propose listing them as endangered or threatened under the Endangered Species Act, but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

The Federally-listed species discussed above are potentially present in the restoration area boundaries for both Alternative B and C. The following sections provide additional information on Federally-listed species.

#### 4.2.2.1 ***Birds***

Piping plover *(Charadrius melodus)* habitat includes sand or pebble beaches with sparse vegetation along the shore of Lake Erie. The piping plover was designated as endangered in the Great Lakes watershed in December 1985. The decline in piping plover populations has been

linked to natural and human caused factors such as high water levels, eroding beaches, and commercial and residential beach front. Critical habitat for the piping plover was designated in 2001 at Headlands Dune in neighboring Lake County and Sheldon Marsh in north central Ohio's Erie County. Critical habitat is an area that is essential for the conservation of a threatened or endangered species that may require special management and protection.

The bald eagle *(Haliaeetus leucocephalus)* has been documented in Lucas and Ottawa counties. Bald eagles build large stick nests lined with soft materials such as grass, leaves, and Spanish moss. Nests are used for several years by the same pair of eagles, with the birds adding materials each year. The bald eagle was designated as endangered in the lower 48 states in March of 1967 due to declining populations resulting from chemical usage, shooting and persecution of individual birds, and the loss of nesting habitat due to development along the coast and near inland rivers and waterways. After years of protection, decrease in chemical usage in the United States, and education against shooting eagles, there has been an increase in eagle populations. The bald eagle was reclassified as threatened in 1995. In 2007, the bald eagle was de-listed, but is still protected under various Federal statutes.

#### 4.2.2.2 ***Mammals***

The Indiana bat *(Myotis sodalis)* was designated as endangered throughout its range in March of 1967. Limestone caves are used for winter hibernation. The decline of this species has been attributed mainly to human disruption and commercialization of roosting caves. During the summer months, the bats roost in trees which have exfoliating bark, and dead or live trees with split tree trunks and/or branches, and cavities (that may be used as maternity or male roost areas). Stream corridors, riparian areas, and upland woodlots provide forage sites.

The northern long-eared bat (*Myotis septentrionalis*) (NLEB) was listed as threatened on May 4, 2015, under the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*). See, 80 Fed. Reg. 2371 (January 16, 2015). At this time, no critical habitat has been proposed for the NLEB. The entire state of Ohio is within the known range of the NLEB. During the summer, NLEBs typically roost singly or in colonies in cavities, underneath bark, crevices, or hollows of both live and dead trees and/or snags (typically ≥3 inches dbh). Males and non-reproductive females may also roost in cooler places, like caves and mines. This bat seems opportunistic in selecting roosts, using tree species based on presence of cavities or crevices or presence of peeling bark. It has also been occasionally found roosting in structures like barns and sheds (particularly when suitable tree roosts are unavailable). They forage for insects in upland and lowland woodlots and tree lined corridors. During the winter, NLEBs predominately hibernate in caves and abandoned mine portals. Additional habitat types may be identified as new information is obtained. Therefore, if suitable NLEB habitat is present within the proposed project area, further coordination with the Service should occur to avoid potential project delays.

#### 4.2.2.3 ***Aquatic Organisms***

The clubshell mussel (*Pleurobema clava*) is a federally endangered species that was once found from Michigan to Alabama, and from Illinois to West Virginia. Extirpated from Alabama, Illinois and Tennessee, it occurs today in portions of only 12 streams. Reasons for its decline in

the upper Ohio and Wabasha watersheds have been principally due to pollution from agricultural run-off and industrial wastes, and extensive impoundments for navigation. These are thought to be also responsible for its decline elsewhere as well.

#### 4.2.2.4 ***Reptiles***

The eastern massasauga rattlesnake *(Sistrurus catenatus)* has now been proposed to Federal Candidate status in 1999. Destruction and modification of habitat is the main threat to this species. The massasauga is a small to medium-sized snake that inhabits various wetland types as well as dry, well-drained sandy uplands.

#### 4.2.2.5 ***Plants***

The eastern prairie fringed orchid (*Platanthera leucophaea*) is a federally threatened species that occurs in a wide variety of habitats, from mesic prairie to wetlands such as sedge meadows, marsh edges, even bogs. It requires full sun for optimum growth and flowering and a grassy habitat with little or no woody encroachment. A symbiotic relationship between the seed and soil fungi, called mycorrhizae, is necessary for seedlings to become established. These fungi help the seeds assimilate nutrients in the soil. Decline of this species is mainly due to the loss of habitat from the drainage and development of wetlands. Other reasons for the current decline include succession to woody vegetation, competition from non-native species and over-collection.

#### 4.2.2.6 ***State-Listed Species***

In addition to Federally-listed endangered and threatened species, the state of Ohio Department of Natural Resources Division of Natural Areas and Preserves maintains a database of rare plants and animals. The following general listing categories are used: (1) *endangered* - a native species or subspecies threatened with extirpation from the State: this danger may result from one or more causes, such as habitat loss, pollution, predation, interspecific competition or disease; (2) *threatened* - a species or subspecies whose survival in Ohio is not in immediate jeopardy, but to which a threat exists: continued or increased stress will result in its becoming endangered; and, (3) *species of concern* - a species or subspecies which might become threatened in Ohio under continued or increased stress, or a species or subspecies for which there is some concern but for which information is insufficient to permit an adequate status evaluation. In Lucas and Wood Counties, there are 80 endangered, 66 threatened, and 14 species of special concern. Section 4.2.3 discusses some of these and other Ohio species. A complete list of listed species in Lucas and Wood counties can be found here:
http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/species%20and%20habitats/state-listed%20species/lucas.pdf
http://wildlife.ohiodnr.gov/portals/wildlife/pdfs/species%20and%20habitats/state-listed%20species/wood.pdf

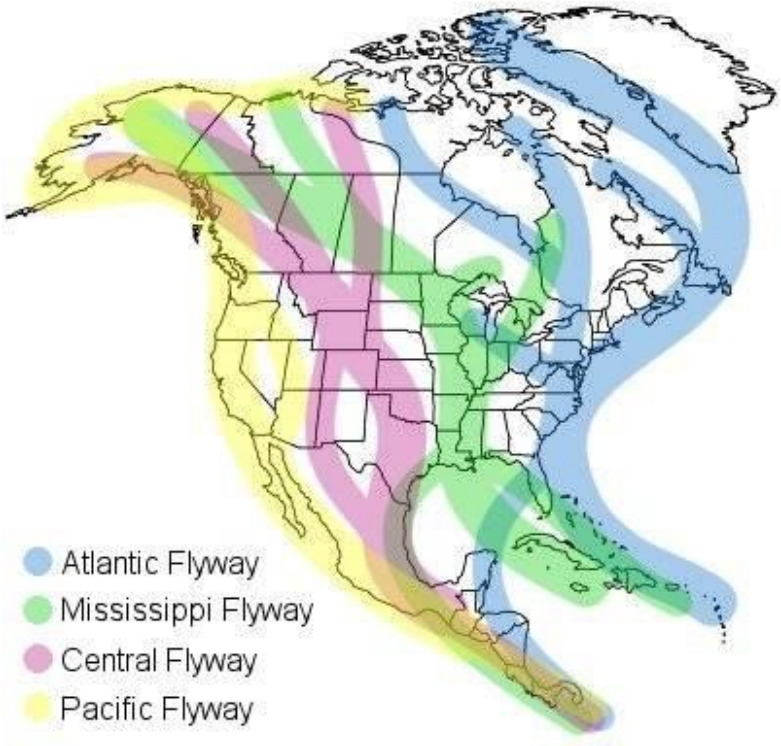
### 4.2.3 *Other Fish and Wildlife Species*

The following section provides a general list of fish and wildlife found in the Ottawa River as well as other tributaries to Western Lake Erie. The Ottawa River and Lake Erie shoreline between Toledo and Port Clinton, Ohio are located on both the Atlantic and the Mississippi

flyways, with over three million ducks and geese using this corridor (see Figure 4). Many migratory bird species nest on the outer breakwalls and wetlands near the river and Lake Erie. These include, but are not limited to, the osprey *(Pandion haliaetus)*, wood duck *(Aix sponsa)*, Canada goose *(Branta canadensis)*, common merganser *(Mergus merganser)*, great blue heron *(Ardea herodias)*, cliff swallow *(Hirundo pyrrhonta)*, tree swallow *(Tachycineta bicolor)*, Caspian tern *(Sterna caspia)*, Forster's tern *(Sterna forsteri)*, common tern *(Sterna hirundo)*, mallard *(Anas platyrhynchus)*, black duck *(Anas rubripes)*, lesser scaup *(Aythya affinis)* and kingfisher *(Ceryle alcyon)*. Numerous additional species of migratory neotropical songbirds inhabit the area seasonally. Smaller mammals likely to use the Ottawa River area include opossum *(Didelphis virginiana)*, eastern cottontail rabbit *(Sylvilvagus floridanus)*, eastern chipmunk *(Tamias striatus)*, woodchuck *(Marmota monax)*, eastern gray squirrel *(Sciurus gireus)*, red fox *(Vulpes fulva)*, striped skunk *(Mephitis mephitis)*, and raccoon *(Procyon lotor)*.

Fish species in, or seasonally using the Ottawa River and other Western Lake Erie tributaries include, but are not limited to, least brook lamprey (*Lampetra aepyptera*), northern bigeye chub (*Notropis amblops*), rosyface shiner (*Notropis rubellus*), mimic shiner (*Notropis volucellus*), spottail shiner (*Notropis hudsonius*), emerald shiner (*Notropis atherinoides*), black redhorse (*Moxostoma duquesnei*), silver redhorse (*Moxostoma anisurum*), white sucker (*Catostomus commersoni*), rainbow darter (*Etheostoma caeruleum*), Johnny darter (*Etheostoma nigrum*), log perch (*Percina caprodes*), walleye (*Stizostedion vitreum*), yellow perch (*Perca flavescens*), white bass (*Morone chrysops*), smallmouth bass (*Micropterus dolomieui*), pumpkinseed (*Lepomis gibbosus*), white crappie (*Pomoxis annularis*), common carp (*Cyprinus carpio*), brown bullhead (*Ictalurus nebulosus*), alewife (*Alosa pseudoharangus*), rainbow smelt (*Osmerus mordax*), freshwater drum (*Aplodinotus grunniens*), lake sturgeon (*Acipenser fulvescens*), coho salmon *(Oncorhynchus kisutch)* and Chinook salmon *(Oncorhynchus tschawytscha)*. Rainbow smelt *(Osmerus mordax)*, rainbow trout *(Oncorhynchus mykiss)*, coho salmon *(Oncorhynchus kisutch)* and Chinook salmon *(Oncorhynchus tschawytscha)* are anadromous fish species. Great Lakes populations of lake trout *(Salvelinus namaycush)*, yellow perch *(Perca flavescens)*, lake sturgeon *(Acipenser fulvescens)*, walleye *(Stizostedion vitreum)* and forage fish are nationally significant fish stocks pursuant to the Great Lakes Fish and Wildlife Restoration Act. A variety of reptile and amphibian species are potentially present in the area, including snapping turtle *(Chelydra serpentine)*, green frog *(Rana clamitans)*, and eastern milk snake *(Lampropeltis triangulum)* (U.S. FWS 2001).

**Figure 3**: North American Migration Flyways – Atlantic flyway through Wood, Lucas and Ottawa Counties, Ohio.




## 4.3 Land Use

Land use in the Western Lake Erie Basin/Ottawa River watershed is comprised of urban development along the shores of the Ottawa and Maumee Rivers and is primarily agricultural along the Lake Erie shoreline from Toledo to Port Clinton, Ohio. The City of Toledo, with a population of more than 250,000 is largest Ohio urban center in the Western Lake Erie Basin/Ottawa River watershed. There is extensive urban development along the Ottawa River in the City of Toledo, with substantial marina development near the confluence of the Ottawa River with Maumee Bay. However, there is still significantly undeveloped land in the lower reaches of the Ottawa River, including hydraulically connected wetland complexes within the City of Toledo. Habitat along the Lake Erie shoreline from Toledo to Port Clinton, Ohio is primarily agricultural, with some residential development.

## 4.4 Cultural Resources

At least one historic archaeological site is located near the proposed ORG restoration project. The Two Rivers site, located at the confluence of the Portage and Little Portage Rivers, is designated as 33-ot-17 on the Ohio Archaeological Inventory. The site appears to be a significant representation of post 1400 A. D. habitation by Upper Mississippian peoples. There are likely additional sites within the area south of the Lake Erie shoreline. Archaeological sites and other cultural resources will be identified prior to restoration and applicable State and federal rules and regulations will be followed.

## SECTION 5

## ENVIRONMENTAL CONSEQUENCES

### 5.1 Alternative A: No Action

#### 5.1.1 *Habitat Benefits*

Under Alternative A, no habitat would be restored, enhanced, or preserved beyond what the Trustees are currently doing within mandates, policies and restricted budgets. Loss of habitat due to development and other sources of environmental degradation not related to hazardous substance releases is expected to continue to occur. The public would not be compensated for injuries to natural resources from the releases of hazardous substances into the environment.

#### 5.1.2 *Biological Benefits*

Fish and wildlife harmed by releases of hazardous substances into the environment would not be restored, rehabilitated, replaced and/or the equivalent acquired. Populations of fish and wildlife species that rely on wetlands for spawning and nurseries would not increase sufficiently to compensate for past losses.

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

Negative effects to listed species would not be reduced under this Alternative.

#### 5.1.4 *Cultural Resources*

Cultural resources would not be impaired.

#### 5.1.5 *Environmental Justice*

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (59 Fed. Reg. 7629 (1994)), directs Federal agencies to incorporate environmental justice in their decision making process. Federal agencies are directed to identify and address as appropriate, any disproportionately high and adverse environmental effects of their programs, policies and activities on minority or low-income populations.

Under the No Action Alternative, wildlife viewing and environmental education opportunities would not improve through enhancement projects. While affluent individuals can afford to travel and pay for alternatives in other locations, low-income individuals are less capable of doing so.

#### 5.1.6 *Socioeconomic Effects*

This Alternative would not result in any positive indirect improvement on the local economy. This Alternative would not result in additional lands that could provide increased recreational

opportunities and related economic development in the area.

### 5.1.7 *Cumulative Effects*

If this Alternative was implemented, the public would not be compensated for injuries to natural resources. The exclusive reliance on regulations and policies do not necessarily provide for long term preservation of valuable wetland and upland habitats. The watershed of the Ottawa River includes many different habitats, such as flood plain forests, dry upland forests, emergent, submergent and forested wetlands. Open water fisheries exist in the Western Lake Erie basin. Birds use the shoreline along the Ottawa River and Western Lake Erie as migration corridor habitat. Injuries to these and other resources would continue due to historical and on-going development. No fishery resource enhancement projects would be implemented under the No Action Alternative, thus further impacting the fishery. The loss and degradation of coastal and riparian wetlands would contribute to the continued instability of the fish community in the Ottawa River and Western Lake Erie. The continued loss of habitat could also adversely affect migratory birds that use the area for resting grounds, and nesting area for those species that remain for the nesting season.

## 5.2 Alternative B: Natural Resource Based Restoration Inside the Western Lake Erie Basin and/or the Ottawa River (Preferred Alternative)

### 5.2.1 *Habitat Benefits*

Preserving, restoring or enhancing riparian, wetland, flood plain and upland habitats along the southern shoreline of the Western Lake Erie Basin and the Ottawa River improves ecological functions that are essential for many fish and wildlife species. In addition, habitat restoration and preservation also improve public use and enjoyment of these resources. Benefits of aquatic and near-shore habitat improvements or enhancement would include improved water quality, reduced nutrient, sediment, and pesticide loadings, restored habitat for fish and wildlife species, and increased ecological productivity. Improving the quality of vegetation and habitat for fish and birds would provide similar, though not the same ecological functions, as those injured by hazardous substances. These and other long-term benefits outweigh any adverse effects associated with specific habitat restoration or enhancement methods.

Under Alternative B, there would be minimal short-term degradation of habitat due to the manipulation of soil required to complete wetland and aquatic habitat restoration and enhancement projects. Some injuries could occur if habitat is destroyed to construct trails, boat ramps, or other public use facilities. However, these same projects would also be directed to control and monitor human pressure on those resources.

### 5.2.2 *Biological Benefits*

The restoration alternatives would benefit many different species of fish and wildlife found in the area. Preservation, reestablishment and enhancement of wetland, flood plain, riparian, associated upland, and aquatic habitats would benefit such species as waterfowl, rails, terns, songbirds, osprey, mink, and beaver. Fishery resource enhancement projects would benefit species such as the northern pike, black redhorse, rock bass, and smallmouth bass leading to the development of

a balanced, healthy fish community. Through the habitat quality improvement projects there would be an increase in shallow waters and beds of submergent and emergent vegetation providing habitat for migrating waterfowl, feeding areas for shorebirds, waterbirds, and many species of fish found in the area. There would be minimal negative effects to biological resources from human disturbance in relation to use of preserved areas and natural resource based public use projects. The public use projects would also protect and potentially minimize human disturbance to fish and wildlife by controlling human pressure on those resources.

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

Federal and State-listed or endangered species would receive further protection and aid in the recovery of the species if this Alternative was implemented. Wetland, flood plain, riparian, associated upland and aquatic habitat preservation would most likely benefit bald eagles, eastern massasauga rattlesnake, eastern fringed orchid, Kirtland's snake, and Blanding's turtle. Although a no effect determination was made in regard to the Indiana bat and the northern long-eared bat, there is a potential for a positive effect once the restoration is complete. Protective measures (Appendix A) would be taken during implementation of any projects. Adherence to the restrictions should provide for no adverse effects on the listed species.

#### 5.2.3.1 ***Birds***

Bald eagle nesting and species that are prey to bald eagles could be directly or indirectly reestablished, enhanced, or preserved through the restoration alternatives. Alternative B could include protection or acquisition of habitat needed by the piping plover for nesting.

#### 5.2.3.2 ***Mammals***

The Indiana bat may use stream corridors or uplands restored or acquired under Alternative B. State-listed endangered species such as the black bear or the bobcat may use lands restored or acquired under Alternative B.

#### 5.2.3.3 ***Reptiles***

Populations of the federal candidate species eastern massasauga rattlesnake, and the State-listed (threatened) spotted turtle *(Chlemmys guttata)*, have been affected by habitat fragmentation and encroachment throughout their range. These species may benefit from projects involving restoration of habitats such as wetlands and associated uplands.

#### 5.2.3.4 ***Aquatic Organisms***

The least brook lamprey, rosyface shiner, big eye chub, mimic shiner, and black redhorse are pollution sensitive State-listed declining species, which may return to the Ottawa River. Protection of riparian forests and aquatic resources will help maintain the presence of these species. The clubshell mussel and other mussel species (*e.g.*, State-threatened black sandshell *(Ligumia recta)*) require clean waterways. Mussel populations may return to surrounding waterways once aquatic and near-shore habitat restoration projects improve overall water quality in the area.

#### 5.2.3.5 ***Plants***

The eastern prairie fringe orchid and other plants would benefit from habitat protection and improvement by implementing this alternative. The City of Toledo Low Service Pump Station project specifically targets habitat improvement and restoration for this species.

### 5.2.4 *Cultural Resources*

Projects covered under this document such as plugging drainage ditches, breaking drainage tile systems, stabilizing stream banks, acquiring wetlands, and development for public uses have the potential to affect properties meeting the criteria for the Natural Register of Historic Places and other cultural resources. The Trustees are in the process of determining specific areas for wetland restorations, stream bank stabilization and land acquisition. When these project areas have been determined, and prior to making final decisions about these projects, the Field Supervisor, Columbus Ecological Field Office of the Service, will initiate consultation with the Ohio State Historic Preservation Officer and, with the assistance of the Service Regional Historic Preservation Officer, will complete the Section 106 (54 U.S.C. §306108) process as described in 36 Code of Federal Regulations Part 800.

### 5.2.5 *Environmental Justice*

Wetland, flood plain, riparian and upland preservation would involve transactions with willing landowners. No minority or low-income populations would be displaced or negatively affected in any way. While the primary purpose of the restoration of this land is for fish and wildlife, portions of the acquired properties may be used by the public for active and passive natural resource based recreational and educational activities, such as fishing and/or wildlife viewing. Aquatic habitat improvement would also enhance recreational opportunities in and around the Ottawa River. The Manhattan Marsh Project is a good example of these increased opportunities with its location near to lower income households and minority populations within the City of Toledo.

### 5.2.6 *Socioeconomic Benefits*

The overall quality of life for the surrounding communities would improve with the restoration of the area. Protection of wetlands, riparian, flood plains, and uplands would provide wildlife viewing, fishing and hunting, and help create positive economic growth on the local economy through the increase of travel and recreational opportunities. Aquatic habitat improvements or enhancements would provide more options for public enjoyment of natural resources.

Land acquisition procedures would involve transactions with willing sellers/land owners who would be paid fair market value. There would be little or no change on the market price or on landowners in the area who choose not to sell. There would be minimum effects on the local economy and tax base because the areas identified for preservation are currently undeveloped.

### 5.2.7 *Elements Common to All Benefits*

Other impairments to the ecosystem such as pollution associated with development would

continue to affect the area where restoration projects would be implemented. These additional sources of habitat degradation may also inhibit the ability of the natural resources to fully recover or may act negatively on other restoration projects undertaken by the Trustee Council.

### 5.2.8 *Cumulative Effects*

Cumulative effects from habitat restoration or enhancement implemented under Alternative B including the Trustee supported projects would be a net positive influence on the region as a whole. Despite the existence of laws and regulations designed to minimize wetland and aquatic habitat losses, threats to wetlands and aquatic habitat from indirect sources, cumulative small scale injuries, or surrounding land use changes still exist. Partnering with various State and Federal programs (*e.g*., EPA's Section 319 Clean Water Act State Grants, National Coastal Wetlands Conservation Grants) that already contribute to improving the health of the ecosystems and watersheds will aid in restoring more habitats and increasing fish and wildlife populations.

Migratory birds would benefit from this Alternative because there would be more undisturbed areas for spring and fall migration resting and feeding stopovers, as well as nesting habitat for other bird species. This Alternative would contribute to the stabilization of fish communities by implementing appropriate fishery resource projects such as restoring fish spawning and nursery habitats.

## 5.3 Alternative C: Natural Resource Based Restoration Outside the Western Lake Erie Basin and/or Ottawa River

### 5.3.1 *Habitat Benefits*

Under this Alternative there would be improvement of habitats for fish and wildlife. However, those improvements would accrue to species and populations different from those injured at the Assessment Area. Habitat losses along the shoreline of the Western Basin of Lake Erie and the Ottawa River would likely continue.

### 5.3.2 *Biological Benefits*

Under this Alternative biological productivity would potentially be increased. However, the increases would involve species and populations different from those injured.

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

Since specific projects outside the Western Lake Erie basin have not been identified, it is unknown if listed, proposed, or candidate species within the Assessment Area or Western Basin of Lake Erie would benefit from projects outside of those areas.

### 5.3.4 *Cultural Resources*

Projects covered under this document have the potential to affect properties meeting the criteria for the Natural Register of Historic Places and other cultural resources. With the exception of the CDM Property, specific project sites have not been determined. When these project areas

have been determined, and prior to making final decisions about these projects, the Field Supervisor, Columbus Ecological Field Office of the Service, will initiate consultation with the Ohio State Historic Preservation Officer and, with the assistance of the Service's Regional Historic Preservation Officer, will complete the Section 106 (54 U.S.C. §306108) process as described in 36 CFR Part 800.

### 5.3.5 *Environmental Justice*

Land acquisitions and other activities would involve transactions with willing landowners. No minority or low-income populations would be displaced or negatively affected in any way. Provision of fishing piers and other structures could improve access for lower income individuals.

### 5.3.6 *Socioeconomic Effects*

The overall quality of life for the surrounding communities would improve with the restoration of the area. Augmentation of human use related services would help create positive economic impacts on the local economy.

## 5.4 Summary of Environmental Consequences for Each Alternative

**Table 2: Comparison of Alternative A, B & C Environmental Consequences**

| **Attributes** | **Alternative A**<br>**No Action** | **Alternative B**<br>Natural Resource Based Restoration Inside the Western Lake Erie and/or Ottawa River (Preferred Alternative) | **Alternative C**<br>Natural Resource Based Restoration Outside the Western Lake Erie Basin and/or Ottawa River |
|---|---|---|---|
| Wetlands | Expected continued net loss of habitat | Increase of wetland habitat | Increase of wetland habitat outside the targeted area |
| Uplands associated with wetlands | Expected continued net loss of habitat | Increase of upland habitat associated with wetlands | Increase of upland habitat associated with wetlands outside the targeted area |
| Aquatic and near-shore habitat | Expected continued degradation and loss of habitat | Increase of aquatic habitat | Increase of aquatic habitat outside the targeted area |
| Fish resources | Expected populations would remain unbalanced for a greater length of time | Expected general increase diversity of fish community and populations | Expected general increase diversity of fish community and populations. Communities and population would be different from those injured |
| Wildlife resources | Expected continued harm and decrease of numbers | Expected general increase in populations | Expected general increase in populations. Populations would differ from those injured. |
| Listed threatened or endangered species | Expected negative impacts would continue | Expected to provide further recovery of species in the area | May, or may not assist recovery of species in the area of the Site |
| Cultural resources | N/A | Cultural resources protected | Cultural resources protected |
| Surface water | Expected to remain degraded due to sediment and nutrient loading and historic pollution in sediment | Expected general increase in surface water quality | Expected general increase in surface water quality |

| | | | |
|---|---|---|---|
| Environmental justice issues | No opportunities for increased quality of life | Expected increased quality of life in Ottawa and Lucas counties | Expected increased quality of life in Ottawa and Lucas counties |
| Socioeconomic issues | Expected local economy would remain the same or decrease due to continued injury without restoration | Local economy could potentially increase due to restoration | Expected local economy would remain the same or decrease due to continued injury without restoration |
| Recreational use Environmental education and resource enjoyment | No enhancement or increase of low impact recreational opportunities or environmental education | Increase opportunities for wildlife/bird viewing, fishing as well as enhancement of understanding of the ecosystem | Increase opportunities for wildlife/bird viewing, fishing as well as enhancement of understanding of the ecosystem, but outside of the injured area |
| Cumulative effects | Potential decrease in populations of migratory birds, continued degraded fishery and continued loss of wetland and associated upland habitat in the EA area | Expected increase populations of migratory birds and greater diversity in the fish community; some ecosystem functions are to be restored or compensated | Expected increase populations of migratory birds and greater diversity in the fish community; ecosystem functions in the area of injury would not be addressed |

# SECTION 6

# CONSULTATION AND COORDINATION WITH THE PUBLIC AND OTHERS

## 6.1 National Historic Preservation Act Compliance

The Service's Project Leader for Columbus Ecological Services will provide the State Historic Preservation Officers with this Final RP/EA as part of the public review and comment process.

## 6.2 Endangered Species Act Compliance

This Final RP/EA complies with Section 7 of the ESA of 1973 as amended, 16 U.S.C. § 1531, *et seq.*, and its implementing regulation (50 C.F.R. 402) (Appendix A).

## 6.3 Public Participation

Public review of the Final RP/EA is an integral component of the assessment and restoration planning process. Through the public review process, the Trustees will seek public comment on the actions proposed to restore injured natural resources or replace lost resource services.

Appendix A: Service Intra-Service Section 7 Biological Evaluation Form

Appendix B: Public Comments on Draft RP/EA (to be added after the public comment period)

Appendix C: Transcript of day/Month/year Public Meeting on Draft RP/EA (to be added after the public meeting)

## Appendix A: Service Intra-Service Section 7 Biological Evaluation Form

# Intra-Service Section 7 Biological Evaluation Form

## Region 3

Originating Person: Deborah Millsap Date Submitted: 2/20/2014

Telephone Number: 614-416-8993 ex 14

For assistance with section 7 reviews, go to Region 3's Section 7 Technical Assistance website: http://www.fws.gov/midwest/endangered/sectiort7/s7process/

I. Service Program and Geographic Area or Station Name:
U.S. Fish and Wildlife Service, Ohio Ecological Services Field Office, Columbus, OH

II. Location: Location of the project including County, State and TSR (township, section & range): Ottawa River NRDA site, Lucas and Ottawa Counties, Lake Erie Watershed, Ohio

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

- Indiana bat (*Myotis sodalis*) Endangered
- Northern long-eared bat (*Myotis septentrionalis*) Proposed Endangered
- Karner blue butterfly (*Lycaeides melissa samuelis*) Endangered
- Kirtland's warbler (*Setophaga kirtlandii*) Endangered
- Piping plover (*Charadrius melodus*) Endangered
- Rayed bean (*Villosa fabalis*) Endangered
- Red knot (*Calidris canutus rufa*) Proposed Threatened
- Eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) Candidate
- Bald eagle (*Haliaeetus leucocephalus*) Species of Concern
- Eastern fringed orchid (*Platanthera leucophaea*) Threatened
- Lakeside daisy (*Hymenoxys herbacea*) Threatened
- Lake Erie watersnake (*Nerodia sipedon insularum*) Species of Concern

These species occur within Lucas and Ottawa Counties, though most occur outside of the project area. Only the bald eagle is known to occur within the project area. Due to the location, type of project proposed, and that the habitat impacted is extensively agricultural this project will have no effect on the Indiana bat, northern long-eared bat, Karner blue butterfly, Kirtland's warbler, piping plover, rayed bean, red knot, lakeside daisy, or Lake Erie watersnake. While it is unclear whether these species occur on-site, the eastern massasauga rattlesnake and eastern prairie fringed orchid are known to occur either within Bay Township or adjacent townships. The Ohio ESFO will be consulted to develop a restoration work plan that will avoid any negative impacts to these species (e.g., specifically the timing of restoration measures can be used to avoid impacts to eastern massasauga rattlesnake and bald eagles) should they occur onsite.

IV. Project Description: Describe the proposed project or action, including all conservation elements. If referencing other documents, prepare an executive summary. Include map and photos of site, if possible. (Attach additional pages as needed):

This a settlement of claims brought by U.S. FWS and Ohio EPA for injuries to natural resources in and around the Ottawa River resulting from unpermitted releases of hazardous substances. The project will consist of acquisition, restoration, and protection of riparian and wetland habitat in the Lake Erie watershed, Properties have been and will be acquired from willing sellers and transferred to local public entities. Restoration will include controlling exotic species, planting native species, and restoring hydraulic connections of historically connected streams and wetlands with the Ottawa River and Maumee Bay/Lake Erie. All acquired properties will be protected by Environmental Covenants. Specific project plans are not available at this time.

**V. Determination of Effects:**

**A. Description of Effects:** Describe how the action(s) will affect the species and critical habitats listed in item III, including how Part IV conservation elements benefit or avoid adverse effects. Your rationale for the Section 7 determinations made below (VB.) should be fully described here.

The Restoration Plan involves converting an existing agricultural area into a wetland. This combined with the riparian, and aquatic habitat preservation would most likely benefit the species listed below which are found within the Ottawa River/Lake Erie watershed:

- Eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) Candidate
- Bald eagle (*Haliaeetus leucocephalus*) Species of Concern
- Eastern fringed orchid (*Platanthera leucophaea*) Threatened

Projects implemented through the Restoration Plan and Environmental Assessment are not likely to adversely affect federally listed species and critical habitat and are not likely to jeopardize candidate species because:

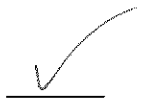
1. current habitat is almost extensively agricultural, thus is not suitable for listed species.
2. the Service will develop a restoration plan. If the restoration plan is changed or avoidance measures cannot be adhered to for a particular project, the U.S. Fish and Wildlife Service will be coordinated with prior to conducting further work.

**B. Determination:** Determine the anticipated effects of the proposed project(s) on species and critical habitats listed in item III. Check all applicable boxes and list the species (or attach a list) associated with each determination. **For assistance with making appropriate Section 7 determinations, go to Region 3's Section 7 Technical Assistance website:**

**http://www.fws.gov/midwest/endangered/section7/s7process/**

**Determination**

*No Effect:* 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. No concurrence from ESFO required.



- Indiana bat (*Myotis sodalis*) Endangered
- Northern long-eared bat (*Myotis septentrionalis*) Proposed Endangered
- Karner blue butterfly (*Lycaeides melissa samuelis*) Endangered
- Kirtland's warbler (*Setophaga kirtlandii*) Endangered
- Piping plover (*Charadrius melodus*) Endangered
- Rayed bean (*Villosa fabalis*) Endangered
- Red knot (*Calidris canutus rufa*) Proposed Threatened
- Lakeside daisy (*Hymenoxys herbacea*) Threatened
- Lake Erie watersnake (*Nerodia sipedon insularum*) Species of Concern

*May Affect but Not Likely to Adversely Affect:* This determination is appropriate when the proposed project is likely to cause insignificant, discountable, or wholly beneficial effects to individuals and designated critical habitat. Concurrence from ESFO required. ✓

- **Eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) Candidate**
- Eastern fringed orchid (*Platanthera leucophaea*) Threatened
- **Bald eagle (*Haliaeetus leucocephalus*) Species of Concern**

*May Affect and Likely to Adversely Affect:* This determination is appropriate when the proposed project is likely to adversely impact individuals of listed species or designated critical habitat of such species. Concurrence from ESFO required. _____

*Not Likely to Jeopardize candidate or proposed species/critical habitat:* 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. Concurrence from ESFO required. _____

*Likely to Jeopardize candidate or proposed species/critical habitat:* 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. Concurrence from ESFO required. _____

Signature Mary Knapp Date 2-21-2014

[Supervisor at originating office]

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

A. **Concurrence** **Nonconcurrence**
Explanation for nonconcurrence:

B. Formal consultation required _____
List species or critical habitat unit

C. Conference required _____
List species or critical habitat unit

Name of Reviewing ES Office Columbus Ecological Services Field Office

Signature  Date 2/20/2014

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