

**ENVIRONMENTAL ASSESSMENT (EA)**  
FINAL

FOR THE:  
**GLASS CITY MUNICIPAL MARINA AND  
MARINE PASSENGER TERMINAL  
TOLEDO, OHIO 43602**

SUBMITTED BY:  
**THE CITY OF TOLEDO  
DIVISION OF**

**ENVIRONMENTAL SERVICES  
348 SOUTH ERIE STREET  
TOLEDO, OHIO 43602-1633**

SUBMITTED TO:  
**FEDERAL HIGHWAYS ADMINISTRATION  
c/o OHIO DEPARTMENT OF TRANSPORTATION  
DISTRICT 2  
317 EAST POE ROAD  
BOWLING GREEN, OHIO**

**JULY 2006**

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SUBMITTED TO:  
**REGION 3  
DIVISION OF FEDERAL AID  
UNITED STATES FISH AND WILDLIFE SERVICE  
BOATING INFRASTRUCTURE GRANT PROGRAM  
CLEAN VESSEL ACT GRANT PROGRAM**

**JULY 2006**

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## 1.0 PURPOSE AND NEED

### **1.1 Purpose**

The City of Toledo, Lucas County, Ohio has several miles of waterfront along the lower extent of the Maumee River, which provides direct access to Lake Erie. The proposed project area is located within the Marina District brownfield redevelopment project area along Front Street in Toledo, Ohio (Figure 1). The purpose of this project is to promote and enhance the environmental and recreational benefits of the City of Toledo's waterfront by constructing a full service marina that will provide docking for both seasonal and transient boaters. The key component in supporting the additionally planned commercial development of the 125-acre downtown riverfront property is construction of the marina. Additionally, the construction of the marina will help improve the environmental quality of the area by promoting awareness for the environmental wellbeing of the area.

The purpose of this Environmental Assessment (EA) is to assess and address environmental parameters in the lower Maumee River and surrounding environs to prepare for the construction of *Glass City Municipal Marina* and Marine Passenger Terminal, which will include transient dockage and a fully developed marina facility. Additionally, the EA will compare the impacts of alternative marina designs and a no action alternative. The potential environmental effects are addressed for these alternatives in order to determine whether or not there are any impacts that will affect the natural and human environments. This document facilitates compliance with the National Environmental Policy Act (NEPA) requirements of the Boating Infrastructure Grant (BIG) Program funding administered by the U.S. Fish and Wildlife Service (USFWS) and the NEPA requirements of the Federal Highways Administration Grant for the marine passenger terminal administered by the Ohio Department of Transportation.

### **1.2 Need for Action**

The City of Toledo and Toledo-Lucas County Port Authority have recognized the need to cultivate the recreational, commercial, and tourist markets that are offered by the Marina District. Considered a major Great Lake port for commercial freighters for many years, an opportunity for development of a full modern marina with transient dock space could be an economic driver for City. Available protected dock space along this stretch of the Maumee River is limited and transient docks are primarily restricted to temporary spaces in relatively unprotected areas of the river.

The transient boater currently expects inadequate or lacking facilities in downtown Toledo. This deficiency results in a reluctance by boaters to access the various opportunities in the Toledo area via boat. The City and Port Authority have recognized the need to provide boaters with modern amenities, such as:

- 1) adequate capacity for transient docking;
- 2) dock availability in harbor area to protect boats from river traffic and debris;
- 3) a harbor designed to protect moored boats;
- 4) adequate gas dock facility;
- 5) modern shower/bathhouse facility;
- 6) safe, high-quality, lighted marina with electrical and water hook-ups;
- 7) an area for boaters to legally dispose of refuse and empty holding tanks;
- 8) recreational opportunities within walking distance of docks; and
- 9) a publicly accessible mass transit providing access to and from other Lake Erie destinations

### **1.3 EA Decision Strategy**

The Regional Director of the U.S Fish & Wildlife Service (U.S. FWS) Region 3 must select one of the alternatives presented herein. The Regional Director will need to determine if the selected alternative will result in an impact upon the human and natural environment, thereby prompting completion of an Environmental Impact Statement. If the selected alternative results in no impact to the human or natural environment, then U.S. FWS will issue a Finding of No Significant Impact (FONSI) for the project.

### **1.4 Background**

The City of Toledo (City) has a population of 308,000 based on 2000 Census data. A historical decline in manufacturing has shifted many jobs out of the City, resulting in many industrial brownfield properties. The City and the Toledo-Lucas County Port Authority (Port Authority) have incorporated brownfield redevelopment into many of their largest economic development initiatives over the past 10 years. Local governments and the private sector have invested more than \$2.0 billion over this period for brownfield redevelopment to improve the quality of life for all

citizens. Some of these initiatives have included a state-of-the-art minor league baseball stadium, commercial development and residential housing in the downtown warehouse district, up-scale riverfront restaurants at International Park, and two large expansion initiatives for a new Jeep plant. In addition, a modern signature cable-stayed bridge project over the Maumee River serves as a unique gateway into the Toledo port.

The property where the proposed *Glass City Municipal Marina* and Marine Passenger Terminal will be constructed has been used for industrial purposes since 1888. Originally, the property was used for steel milling operations from 1888 to 1905. Buildings associated with steel milling operations were demolished in 1917 when Toledo Edison Company purchased the property. The Toledo Edison Company's Acme Power Plant operated as a fossil fuel electric generation power plant from 1918-1994. Environmental clean-up and redevelopment of this brownfield property is a major component to the City and Port Authority's plan to spark economic development in the downtown area and foster new residential communities near downtown.

With much of Toledo's waterfront historically occupied by large and sometimes abandoned industrial parcels and urban landscape of the downtown area, recreational and economical benefits of a quality waterfront have not been developed in a manner that encourages an increase in quality of life for those in the greater metropolitan area. The development of a marina and marine passenger terminal featuring protected transient and non-transient docking and a port-of-call for commercial cruise vessels is a key component to the much larger project to plan and develop a 125-acre tract of a downtown riverfront brownfield property (See Figure 2) into publicly accessible land that supports a mixture of recreation, residential, and commercial uses.

Modern marina facilities and the passenger terminal will attract and accommodate transient and seasonal boaters on the western end of Lake Erie. In addition, it will promote tourism for the proposed commercial development of the Marina District, International Park, and Toledo downtown commercial and retail areas, as well as historical and cultural attractions of the Toledo area.

The City's plan to enlarge the planned marina to include transient boat docks is crucial to support the business that will be within walking distance of the marina. Transient docks will be in great demand, as the Marina District will be a point of destination for Great Lakes boaters

seeking entertainment, restaurants, shopping, and passive recreational experiences. The Marine Passenger Terminal is expected to bring hundreds of people to the Marina District on a regular basis. There are approximately 32,000 registered boats in the local demand area of this project (Hushak, 2002) and there are approximately 3.5 million Ohioans who participate in boating each year (Twinline, 2001). An increase in transient dock space is needed due to the large volume of boaters within a day's boat trip to Toledo and the popular draws of this waterfront development project. There is only one public transient dock station on the Maumee River, and only electric utilities are available. Several private marinas exist on the river, but transient dock space is only available if they are not leased for the season (See Table 1).

## 2.0 ALTERNATIVES, INCLUDING THE PROPOSED PROJECT

### **2.1 Alternatives Not Considered for Detailed Analysis**

Due to the urban and industrial nature of water front areas throughout the City of Toledo, the amount of acreage available for the development of a marina is severely limited. Additionally the City and Port Authority's plan recommends the marina be shielded from the strong river current. Therefore, due to economical considerations and natural protection of the proposed area, no other locations were considered.

### **2.2 Alternatives Carried Forward for Detailed Analysis**

#### **2.2.1 Alternative A (Proposed)**

Construction of the *Glass City Municipal Marina* is the first development planned for the Marina District. Construction of the Marine Passenger Terminal would begin soon thereafter. Phase I of the planned *Glass City Municipal Marina* will have 76 docks, 20 of which will be specifically dedicated for transient boats 26-feet and longer. Based on the current plan (Figure 3 and Figure 4) a Phase II, to be implemented in the future, will involve the construction of 74 additional docks, for a total of 150 docks. The marina will have electric hookups, a fueling station, and a publicly available pumpout facility. The Marine Passenger Terminal will be adjacent to the proposed marina and will also house a boat club, public restrooms and shower facilities for boaters, provide a port-of-call facility for commercial cruise ships, as well as providing publicly accessible transport to and from additional Lake Erie destinations. (Table 2). In addition, boaters and the general public will have, a 200 plus car parking lot, a dedicated drop-off/loading area, public fishing areas, restaurants, a specialty store supporting lake-related activities, and other commercial shops. The City of Toledo will contract with a private company to operate the marina. Toledo will strictly monitor and enforce its marina operator contract, ensuring top-notch services provided by the dock master and high quality marina operations and maintenance.

This proposed marina construction will be a 150-dock protective harbor that is an expansion of the former freighter docking inlet. It will require the removal of approximately 100,000 cubic yards of soils and sediment. An approximate 1,000-foot retaining wall is necessary to accommodate grade changes on the property. In order for the proposed marina excavation to occur, three actions need to be accomplished – Coal Pile removal, Basin excavation, and Dredging of the existing inlet.

### Coal Pile Removal

About three acres of the former Coal Pile Storage Area of the Edison Acme site (coal storage area) has been remediated and redeveloped as part of the larger Marina District Project (Figure 2). Some 8,000 cubic yards of residual coal was removed in 2005 from the coal storage area. The residual coal was processed, recycled, and removed by Environmental Management Services. Additionally, over 36,000 CY of soil directly beneath the residual coal exceeding site cleanup standards were removed from the coal pile storage area. This soil was removed as part of a voluntary action implemented by the owner pursuant to submittal of a No Further Action Letter to the Ohio EPA. The removed soil was placed in loose lifts at an off-site confined disposal facility (Penn 8) owned by the Toledo-Lucas County Port Authority (Figure 7). Penn 8 was formerly used to store River dredging. A minimum of 2 ft of clay was placed over the coal, cinder, slag material at Penn 8. Removal and placement of the soil was completed as part of a Revised Remedial Action Plan submitted to the Ohio EPA. Remediation of the coal storage area facilitates the removal of remaining material was necessary for the construction of the proposed marina.

### Basin Excavation

It is estimated that an additional 50,000 cubic yards of silt and sand will need to be removed from the coal pile storage area as part of marina construction. Sheet piling has been installed as part of the remedial action for the coal pile area and also facilitates marina construction. The soils excavated from the coal pile storage area are designed to be placed as fill for construction of the Marine Passenger Terminal or will remain on-site in the area known as the switchyard. The soil were tested during numerous assessment Phases of the Property and were determined as part of a Property-Specific Risk Assessment to meet the applicable standard for non-residential use.

### Dredging of the Existing Inlet

The Port Authority has an existing permit allowing for dredging of the inlet area (Appendix F). Preliminary estimates show approximately 50,000 cubic yards of sediment will need to be dredged from the inlet to support marina construction. The sediments will be disposed of in an ACOE approved facility commonly referred to as Facility #3 (Figure 8). With funding assistance, this work is expected to start in 2006.

An adjacent Marine Passenger Terminal will house ADA-compliant public restrooms and shower facilities for boaters. Construction of the restrooms and shower facilities is expected to begin with construction of the passenger terminal/boat club in 2006. Excavation of the coal pile area is designed to be part of the same contract as construction of the retaining walls. Dredging of the inlet is expected to be an extension of the dredge maintenance contract that will be let by the Port Authority and the Army Corp of Engineers. Final design of the docks and utilities is expected to be completed in 2006. Installation of the docks will be dependent upon the schedule of the excavation work. It may be that docks cannot be installed until the 2007 boating season. It is expected the new docks will be floating, allowing them to maintain a consistent freeboard level above the water. Anchor piles will serve to maintain horizontal position and allow docks to move vertically due to frequent fluctuations observed in lower Maumee River. In addition, there will be designated ADA-accessible docks in the plan.

A contractor will install an Edson peristaltic pumpout station with satellite hydrant and attendant shed. All plumbing connections will be made with galvanized two-inch piping, which will be inserted into a trench to connect to the proposed sewer line. The proposed sewer line will service the proposed passenger ferry terminal and riverfront development. The sewer line will connect to the existing sewer line that runs parallel to the proposed Marina Drive, which will service the marina and terminal from Front Street and will discharge into the City of Toledo Sanitary Sewer. The contractor will have qualified representatives on-site at all times during construction of the pump-out facility. The proposed system will meet applicable local, state, and federal requirements for facilities installed near public waterways and venues. The fuel dock will also be located near the pump-out facility. Appropriate emergency response equipment will be located at the fuel/pump-out dock. The fueling system will consist of 4 Above Ground Storage Tanks that will be located within 200 feet of the marina and will be readily accessible for refilling purposes. A secondary containment system will be implemented to minimize the potential for spills, and the refueling system will be designed to meet all applicable local, state, and federal regulations for such facilities.

When construction of the marina is finished, the City will contract with a private company to operate the marina. The City will strictly monitor and enforce its marina operator contract, ensuring top-notch services provided by the dock master and high quality marina operations and maintenance. Personnel will be trained to operate pumpouts and fueling facilities. A spill

contingency plan will be prepared and implemented in the event of a spill at the pumpout or gas dock facility. A summary of this alternative is shown on Table 2.

The following tasks/facilities represent the proposed marina development project:

- 1) engineering plan development;
- 2) removal of 50,000 yards of soils from coal storage area and placement of revetment;
- 3) engineering plan development for promenade;
- 4) construction of promenade;
- 5) engineering plan development and approval for removal of sediment in old shipping slip;
- 6) removal of 50,000 yards of sediment in old shipping slip; and
- 7) installation of Phase I boat docks and utilities.

### **2.2.2 Alternative B**

If construction of *Glass City Municipal Marina* is not completed as proposed in Alternative A, demand for public docks in this area will still exist. This alternative would consist of the planned construction of the marine passenger terminal and approximately 20 floating transient docks located in front of the marine passenger boarding area and along a narrow peninsula of land adjacent to the old discharge channel in the Maumee River (Figure 5). The docks will have electric hookups, a fueling station, and a publicly available pumpout facility. Boaters and the general public will have a nearby port-of-call facility, public fishing areas, a 300 plus car parking lot, a dedicated drop off/loading area, restaurants, a specialty store supporting lake-related activities, and other commercial shops.

This proposed dock construction would be linear slips in the main channel area of the river and in moderately protected area, resulting from the development of the entrance to a former freighter docking inlet. The new dock construction and marine passenger terminal will require the removal of approximately 20,000 cubic yards of sediment to be dredged from the inlet entrance and discharge channel to support the marine passenger and new dock construction. The Port Authority has an existing permit allowing for dredging of the inlet area (Appendix F).

The sediments will be disposed of in an ACOE approved facility commonly referred to as Facility #3. With funding assistance, this work is expected to start in 2006.

An adjacent Marine Passenger Terminal will house public restrooms and shower facilities for boaters. Construction of the restrooms and shower facilities is expected to begin with construction of the passenger terminal/boat club in 2006. Following the dredging of sediment from the inlet, docks can be constructed and dock utilities can be installed. It is expected the new docks will be floating, allowing them to maintain a consistent freeboard level above the water. Anchor piles will serve to maintain horizontal position and allow docks to move vertically due to frequent fluctuations observed in lower Maumee River. In addition, there will be designated ADA-accessible docks in the plan.

Construction of the Marine Passenger Terminal, linear docks, and pumpout facility can begin as early as 2006. A contractor will install an Edson peristaltic pumpout station with satellite hydrant and attendant shed. All plumbing connections will be made with galvanized two-inch piping, which will be inserted into a trench to connect to the proposed sewer line. The proposed sewer line will service the proposed passenger ferry terminal and riverfront development. The sewer line will connect to the existing sewer line that runs parallel to the proposed Marina Drive. The contractor will have qualified representatives on site at all times during construction of the pumpout facility. The proposed system will meet applicable local, state, and federal requirements for facilities installed near public waterways and venues. The fuel dock will also be located near the pump-out facility. Appropriate emergency response equipment will be located at the fuel/pump-out dock. The fueling system will also be designed to meet all applicable local, state, and federal regulations for such facilities.

The City of Toledo will contract with a private company to operate the linear docks. The City will strictly monitor and enforce its operator contract, ensuring top-notch services provided by the dock master and high quality operations and maintenance. Personnel that have been trained to operate pump-outs and gas docks will operate the proposed facilities. A spill contingency plan will be prepared and implemented in the event of a spill at the pump-out or gas dock facility. A summary of this alternative is shown on Table 2.

The following tasks/facilities represent the proposed marine passenger terminal and linear transient dockage project:

- 1) engineering plan development;
- 2) removal of sediment in old shipping slip entrance; and
- 3) installation of boat docks and utilities.

### **2.2.3 Alternative C (No Action)**

The No Action alternative is to not construct a marina or transient boat dockage as part of the Marina District redevelopment. Commercial and residential development of the brownfield site would continue, including construction of the Marine Passenger Terminal; however, boating access to the proposed commercial development would be severely limited by the absence of available transient docking. Additionally, a refueling area, public showers, and public restrooms would not be made available to boaters.

### **2.2.4 Alternatives Considered but not Fully Analyzed**

The City and Port Authority plan to develop a 125-acre tract of downtown riverfront brownfield property into publicly accessible land that supports a mixture of recreation, residential, and commercial uses, which could be utilized to a great extent by boaters. Due to the proximity of this planned development to rare public access along the Maumee River within the City, no other locations were proposed for construction of the *Glass City Municipal Marina* and the marine passenger terminal.

## 3.0 ENVIRONMENTAL CONDITIONS

### **3.1 Physical Characteristics**

#### **3.1.1 Alternative A (Proposed)**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

##### **3.1.1.1 Floodplains**

The proposed project area is located in the 100-year floodplain in an area of filled lowlands historically used for industrial purposes. Over the course of several years, low areas along the edge of the Maumee River have been filled with dredge material and cinder fill as a means of building up the area between Front Street and the river for the purpose of commercial and industrial development and raising the elevation above normal flood stage levels. The filled low areas from the Martin Luther King Bridge at the south end to the I-280 Craig Bridge at the north ends supported the Toledo Sports Arena, Brenner Marine, Gradel Construction Company, and the operations of the former Toledo Acme Edison Power Plant. Very little vegetative cover is present across the project area. Based on available Flood Insurance Rate Maps (FIRM), the project area appears to be located in an Area AE, where base flood elevations have been determined (Figure 6).

Current topography at the project area is level with Front Street to the south, and then drops approximately 10 to 15 feet from the former shoreline to the filled lowland area. The lowland area then slopes toward the river. Within the project area, a shipping inlet was dredged and maintained as a docking facility for freighters that delivered coal to the former First Energy/Toledo Edison Acme Power Plant. Presently, the inlet has not been dredged for several years and has accumulated enough sediment to prohibit its use as functional docking area.

Construction of the marina as outlined in Alternative A allows a net gain in acreage below the floodplain elevations.

### **3.1.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The physical characteristics of the project area, including the floodplain descriptions are adequately discussed in section 3.1.1.

Construction of the marina as outlined in Alternative B results in a net loss of acreage below the floodplain elevations.

## **3.2 Biological/Ecological Environment**

### **3.2.1 Alternative A (Proposed)**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and marina passenger terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

#### **3.2.1.1 Streams/Waterways/Surface Waters**

The proposed project area is located along the Maumee River. The Maumee River is not considered a national scenic waterway or a state wild, scenic, or recreational river. According to the Ohio EPA, the aquatic life use designation for this portion of the Maumee River is warm-water habitat (WWH).

Based on field review and USGS mapping, the Maumee River was the only surface water body noted in the project area. No other surface waters were noted within the project limits. Therefore, no other surface waters will be impacted by the proposed construction.

#### **3.2.1.2 Wetlands**

A wetlands determination was performed on the project area in February 2003 as part of assessment work completed at the Marina District brownfield redevelopment project. No wetlands were noted as a result of the study (Appendix A). As a result, an isolated waters determination through the ACOE was not required.

### 3.2.1.3 Habitat/Vegetation

Terrestrial habitat/vegetation in the area of the proposed *Glass City Municipal Marina* and Marine Passenger Terminal has been impacted during site development preparation activities. However, prior to initiation of these activities, Hull personnel visited the area and determined that the terrestrial habitat/vegetation was sparse and of low quality (scrub grass, cottonwood, etc.). Further description of vegetation is provided in Appendix A. Lands immediately adjacent to this area had very little vegetative habitat present as well.

In conjunction with the fish community assessment completed in September 2004, Hull also scored aquatic and riparian habitat using the Qualitative Habitat Evaluation Index (QHEI). The QHEI was developed by Rankin (1989) to score both in-stream and riparian zone habitat for a particular reach of a stream or river. The QHEI is a physical habitat index that takes into consideration substrate quality, in-stream cover, channel quality, riparian quality/bank erosion, pool/riffle quality and local stream gradient. Each of these six metrics is assigned a score, and the sum of these scores rates the habitat of a particular reach of a stream. The maximum score of 100 represents high quality, undisturbed habitat. A stream with a QHEI score of at least 60 is expected to be capable of sustaining fish and macroinvertebrate populations that attain the Warmwater Habitat (WWH) aquatic life use designation (Ohio EPA 1987, 2001). Note that the QHEI is not calibrated for lacustrine areas and is meant to be used only in free flowing sections of a river.

Hull obtained a score of 37 for the zone, which is relatively close to historical scores for the lacustrine reach of the Maumee River. Hull believes the relatively low score can be attributed to historical dredging of this area, which has removed riffle/run/pool complexes. The zone also has limited riparian zone and in-stream habitat. QHEI field data form can be found in the report contained in Appendix B.

Riprap will be constructed at the toe of the sheet piling, which create aquatic habitat that is not otherwise found in the area of the river for fish communities.

### 3.2.1.4 Threatened and Endangered Species

Hull requested a search of existing Ohio Department of Natural Resources (ODNR) records regarding the project area. ODNR maintains records on location and status of natural features such as State-listed threatened and endangered species, natural areas, parks, and scenic rivers. The results of the ODNR search appear in Appendix C.

The ODNR reported they have no records of rare or endangered species within the Site. Nor do they have any records of unique ecological sites, geologic features, breeding or non-breeding animal concentrations, champion trees, state parks or forests, or wildlife areas for the Site. ODNR stresses the lack of specific records for the Site does not preclude the possibility of important natural features occurring there.

Hull requested a search of existing USFWS records regarding the project area. The USFWS maintains records on location and status of federally listed threatened and endangered species. The results of this search appear in Appendix D.

The USFWS notes the project is within the range of the Indiana bat (*Myotis sodalis*), and provides a description of this species' preferred habitat. The USFWS also notes the project is within the range of the bald eagle (*Haliaeetus leucocephalus*), a Federally-listed threatened species and State of Ohio endangered species. USFWS recommends if any nests are located within ½ mile of the Site, further coordination with the agency is necessary prior to project construction. USFWS notes the project is within the range piping plover (*Charadrius melodus*) and Karner blue butterfly (*Lycaeides melissa melissa*), which are both Federally-listed endangered species. USFWS notes the project is also within the range of the eastern prairie fringed orchid (*Plantanthera leucophaea*) a Federally-listed threatened species. Finally, USFWS states the Site is within the range of the eastern Massasauga rattlesnake (*Sistrurus catenatus catenatus*). This rattlesnake is declining throughout its national ranges and is currently a Federal Candidate species and listed as endangered by the State of Ohio. A detailed description of the Massasauga's habitat preferences are provided, which includes wetlands, wet prairie, or nearby woodland or shrub edge habitat.

Hull is aware of one bald eagle nest near the mouth located approximately three miles from the Site. Due to the distance from the Site Hull does not anticipate an impact to the

bald eagle; however, this is ultimately a decision for the USFWS. Additionally the Site was visually examined for the presence of State or federally-listed threatened or endangered species, and habitats that could potentially support these species. Habitat for the piping plover is not present along the shoreline on the Site and it is unlikely that this bird species would utilize habitat on the Site. Hull did not identify habitat preferred by the Karner blue butterfly, such as stands of wild lupine (*Lupinus perennis*) a plant species that the Karner blue butterfly utilizes during its life cycle, therefore Hull determined it is unlikely the butterfly is present on the Site; however this determination is ultimately up to the USFWS. Wetlands or wet prairies with adjacent scrub upland areas are ideal habitat for the eastern Massasauga. Since no wetlands are located on the Site and a majority of the Site consists of abandoned industrial land with regular human activity, Hull has determined it is highly unlikely the docile, shy eastern Massasauga is located on the Site; however this determination is ultimately up to the USFWS. In addition, large live trees with exfoliating bark, especially shagbark hickory (*Carya ovata*) and snags can serve as summer habitat for the Indiana bat. Hull did not locate any trees with these characteristics on Site.

### **3.2.1.5 Other Wildlife Species**

While there is limited terrestrial habitat and wildlife on the Site, the nearby Maumee River yields a variety of fish including walleye (*Stizostedion v. vitreum*), yellow perch (*Perca flavescens*), white bass (*Morone chrysops*), channel catfish (*Ictalurus punctatus*), shortnose gar (*Lepisosteus platostomus*), and freshwater drum (*Aplodinotus grunniens*) to name a few. The composition and abundance of fish communities present is dependent on many factors, including: habitat and food-source availability (including substrate type); water quality (including turbidity and temperature); physical conditions (e.g. wave action), and species competition and predation (e.g. Jude and Pappas, 1992). Free-flowing areas of the Maumee River upstream of the Site receive large spawning runs of walleye and white bass in the spring of each year.

As with historical shifts in benthic communities, fish species and populations have also changed over time due to industrial contamination, eutrophication due to nutrient loading, and the introduction of new fish species into Lake Erie (U.S. ACOE, 1974). In particular, walleye populations in Lake Erie as a whole had declined substantially by the 1960s as a result of overall habitat degradation. Species decline was also, in part, a

result of changes to the benthic community (Ohio EPA, 1990) in that several benthic species that are primary food sources for walleye were reduced in number, or eliminated, due to pollution (U.S. ACOE, 1974). Lake Erie has continued to struggle with the far-reaching impact of pollution on its fish community. A public health advisory, issued in 1987, warned against the consumption of carp and channel catfish from Lake Erie (Ohio EPA, 1990), as a result of sediment contamination by PCBs and other contaminants. An advisory on consumption of all fish species from the Maumee River was issued by the Ohio Department of Health in 1990 for the same reasons and is still in effect today.

Many species inhabit limnetic and littoral waters of the Maumee Bay/North Maumee Bay and downstream areas of the Maumee River for at least some portion of their life cycle to spawn and/or rear their young (Goodyear et. al., 1982). Maumee Bay and River appear to be a major spawning and/or nursery area for gizzard shad (*Dorosoma cepedianum*), a forage species considered to be the most important food source for walleye in the Western Basin (ACOE, 1993). A report by ACOE (1993) lists 62 species of fish that have been known to occur in nearshore and offshore areas of the Maumee Bay and downstream areas of Maumee River. Of the 62 species listed, many are "seasonal visitors" usually in the spring or fall during spawning season.

This area of the river adjacent to the Site is considered to be "lacustrary," meaning that free-flowing conditions are not present and water levels are controlled by Lake Erie. Hull sampled fish communities in the river adjacent to the property in September 2004. Results of this study are included in Appendix B. Fish species identified in this study were typical for lacustrary reaches of the Maumee River. Note that no rare or unique species were encountered.

#### **3.2.1.6 Drinking Water Resources**

Based on ODNR well records and available drinking water resources literature, no residential potable wells were listed in the vicinity of the project area. Also, no Community/Non-Community water wells are located within the project area. As part of the work associated with the Marina District redevelopment, the project area is included in an Urban Setting Designation area as codified under the Ohio Voluntary Action Program, which restricts the use of potable water wells and water supplies beyond

municipally-supplied sources. The City of Toledo water supply is Lake Erie with the water intake located approximately 9 miles east-northeast of the Maumee River mouth. Based on the nature of the construction project, there should be no impacts to drinking water resources.

### **3.2.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The biological/ecological characteristics of the project area, with the exceptions of the section provided below are adequately discussed in section 3.2.1.

#### **3.2.2.1 Habitat/Vegetation**

Terrestrial habitat/vegetation in the area of this proposed alternative, specifically near the discharge channel has not been impacted during site development preparation activities. Hull personnel visited the area and determined very little habitat/vegetation is present in the area of the proposed linear docks. Currently the area contains overhanging deciduous vegetation and scrub/shrub species that provide limited habitat and resting areas for water birds. It is unknown at this time if the vegetation in this area will be cleared to facilitate construction of the linear docks.

### **3.3 Land Use/Farmland Protection**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

#### **3.3.1 Alternative A (Proposed)**

Current land use in the area of the proposed *Glass City Municipal Marina* and Marine Passenger Terminal is listed as industrial and is a brownfield redevelopment property, which is being cleaned and prepared for re-development to commercial and residential land use.

No active agricultural land is associated with the project area and the project area is not listed as an agricultural district, as it is within the city limits and predominantly urban. The surrounding area is considered developed with a density of at least 30 structures per 40 acres. Therefore, agricultural land will not be impacted as a result of the proposed project.

### **3.3.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The land use/farmland characteristics of the project area are adequately discussed in section 3.3.1.

## **3.4 Cultural/Archaeological Resources**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

### **3.4.1 Alternative A (Proposed)**

Adjacent to the project area is the main building of the Acme Plant. Although, there are no buildings located on the *Glass City Municipal Marina* and marine passenger terminal project area, the adjacent Acme building is subject of historic architectural significance. Based on correspondence between the City of Toledo and the Ohio Historic Preservation Office, portions of the building structure have been preliminarily determined by the State Historical Preservation Office (SHPO) to be individually eligible for the National Register of Historic Places. The subject building is a vacant electrical power plant that was built in 1917 with several expansions over the course of operation. The building has been vacant since 1994. This documentation is provided in Appendix E.

In a letter dated September 29, 2003, the City of Toledo requested Ohio Historic Preservation Office (OHPO) review to include no anticipatory Section 110k-type adverse effect to the development of the property. The City also indicated they believed the proposed redevelopment work will constitute a determination of No Historic Properties Adversely Affected and will, in fact, return the site closer to its original appearance.

In a letter dated November 3, 2003, the OHPO indicated buildings demolished prior to the field review were not critical to the eligibility of the Acme plant. It was also recommended the City refine the analysis to include a more comprehensive evaluation of the plant's architectural-defining features and to clarify the property's period of significance.

Based on the correspondence, there does not appear to be cultural resource significance to the *Glass City Municipal Marina* and Marine Passenger Terminal project area.

### **3.4.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The cultural resource characteristics of the project area are adequately discussed in section 3.4.1.

## **3.5 Section 4(f) Considerations**

### **3.5.1 Alternative A (Proposed)**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

Although the project area is owned by the City of Toledo, it is not considered a public property that is currently managed for multiple uses, and does not function as, or is designed for use as a park, recreation, or wildlife and waterfowl purpose.

### **3.5.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The Section 4(f) characteristics of the project area are adequately discussed in section 3.5.1.

## **3.6 Air and Noise Quality**

### **3.6.1 Alternative A (Proposed)**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

### **3.6.1.1 Air Quality**

As of 2004, Lucas County was in non-attainment with the Ohio EPA and the U.S. EPA for air quality standards. Non-attainment areas are subject to a measure known as "transportation conformity," which requires local transportation and air quality officials to coordinate planning to ensure transportation projects, such as road construction, do not affect an area's ability to reach its clean air goals. Transportation conformity requirements become effective one year after an area is designated as non-attainment.

Once designated, non-attainment areas also are subject to New Source Review requirements. New Source Review is a permitting program for industrial facilities to ensure that new and modified sources of pollution do not impede progress toward cleaner air. This project does not involve a significant increase to the contributing factors of air quality in the area and therefore is not considered a significant impact.

### **3.6.1.2 Noise Quality**

The proposed *Glass City Municipal Marina* and Marine Passenger Terminal project will not result in significant increased noise levels due to increased motorized vehicular traffic. Traffic speeds are anticipated to be equivalent to that of residential areas in the City and boat traffic will be in "no wake" zones in the vicinity of the proposed marina. Therefore, a noise evaluation is not necessary.

### **3.6.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The air and noise quality characteristics of the project area are adequately discussed in section 3.6.1.1 and 3.6.1.2.

### **3.7 Hazardous Materials and Regulated Substances**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

### 3.7.1 Alternative A (Proposed)

The project area is a brownfield development property that the City of Toledo has entered into an agreement with the Ohio Environmental Protection Agency to assess and remediate the Site in accordance with Ohio's Voluntary Action Program (VAP) as codified in OAC-3745-300. As part of the assessment, a Phase I Property Assessment, a comprehensive Phase II Property Assessment, a preliminary risk assessment, and remedial action plan have been developed for the Site. Presently, the Site has undergone active remediation primarily involving soil excavation. All assessment work and remediation oversight has been provided by Hull & Associates, Inc.

A Phase I ESA document in accordance with Ohio VAP was prepared by Hull & Associates, Inc. for the former Acme plant and submitted in April 1999 noting 45 identified areas on the property recommended for further action (Hull document #FEC001.600.0007). Based on the findings, potential releases were noted primarily from historical operations of the Acme plant facility and additional sampling was recommended at the identified areas. This coverage of this assessment includes the *Glass City Municipal Marina* and Marine Passenger Terminal project area.

Seventy soil borings and four exploratory borings were completed and sampled, six sediment samples were collected, and 12 monitoring wells were installed on the former Acme plant property as part of the initial Phase II assessment in accordance with the Ohio VAP. The borings and monitoring wells associated with the project area are shown on Figure 2. Soil samples from each boring were submitted to the laboratory for analysis of volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAH), metals, and/or PCBs. Several soil samples exhibited concentrations that were below the applicable action levels for primarily arsenic, benzo(a) pyrene, and total petroleum hydrocarbons. Limited soil samples collected from areas around the transformers in the power plant courtyard exceeded the applicable standard for PCBs. Groundwater samples were analyzed for VOCs, SVOCs, and metals. Results indicated exceedances of arsenic and benzo(a)pyrene in groundwater. No exceedances of VOCs in soils or groundwater were noted during the Phase II investigation. Areas of impact were delineated based on a cumulative risk evaluation of the analytes. The Phase II ESA is referenced as Hull document #FEC002.600.0005.

Beginning in 2002, additional soil sampling and installation of additional nested groundwater monitoring wells were completed as part of delineation of the soil contaminant exceedances and for evaluation of the groundwater to surface water exposure pathway. The final results of the sampling are presently being documented in the Final Phase II being prepared for the VAP No Further Action Request and in the Groundwater to Surface Water Exposure Assessment (Hull document #MDP001.100.0009). Based on the results of the additional sampling, areas of impacted soil that exceeded a cumulative risk-based standard were identified and a remedial action plan was prepared to outline the proposed remediation of 10 areas of soil contamination and remediation has been completed. Although groundwater beneath the property exceeded the generic potable use standard under the Ohio VAP, active remediation was not warranted based on approved Urban Setting Designation for the project area, which prohibits the use of groundwater for potable use, thereby eliminating the exposure pathway. In addition, the Groundwater to Surface Water Exposure Assessment concluded concentrations of contaminants in ground water were not migrating to the surface water at concentrations that exceed applicable site-specific modeling standards.

Specific to the project area, a large area of soil exceeding the appropriate regulatory standard was defined in the immediate area of the proposed harbor marina. As part of the marina remedial plan, remediation was completed via excavation and removal of these soils. Additionally, the completed remediation facilitates the completion of Alternative A by removing soils that would be necessary for the completion of the project.

### **3.7.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The hazardous materials and regulated substance characteristics of the project area are adequately discussed in section 3.7.1 with one exception. This alternative involves minimal excavation of the contaminated soil and use of clean cover soils to provide the required exposure barrier. Nevertheless, modification notes to the construction plans will still be necessary to address the potential exposure concerns to the construction worker associated with the excavation of footers for the Marine Passenger Terminal.

### **3.8 Community Significance**

#### **3.8.1 Alternative A (Proposed)**

The proposed project area is located on the east bank of the Maumee River in a protected harbor that will be surrounded by facilities and services attractive to boaters. The site for the *Glass City Municipal Marina* and Marine Passenger Terminal is a brownfield redevelopment property for the City of Toledo and the Toledo-Lucas County Port Authority.

##### **3.8.1.1 Regional, Community, and Neighborhood Factors**

The proposed project is an improvement to an abandoned industrial property with the intent of providing viable commercial, residential, and recreational opportunities to the City of Toledo. Existing commercial development within the City of Toledo and transient boaters in western Lake Erie and the Maumee River will also benefit from the proposed project. The proposed project will have no impact to community cohesion.

##### **3.8.1.2 Public Facilities and Services**

All traffic will be maintained in each direction along Front Street and Main Street and ingress or egress to the Marina District project area and the *Glass City Municipal Marina* and Marine Passenger Terminal project area will not be compromised during construction. The resulting project will provide a new public facility.

Most public utilities are located in the project area including the City of Toledo sewer and water systems. A plan note is recommended, which will make the contractor responsible for contacting all utilities regarding any adjustments, reconstructions, removals, and/or relocations of existing facilities. The contractor shall also be responsible for coordination and all construction activities with the utilities.

##### **3.8.1.3 Environmental Justice**

Based on meetings with the City of Toledo, there have been no reports of written or verbal comments concerning disproportionately high or adverse effects of project to minority or low-income populations. According to the 2000 Census (Appendix F) zip code 43605 has a population of 32,068, of which 81.4% of the people are white and, 22.0% of the families are below the poverty level. Within the project area, 76.9 - 83.2 % of the people are white and 21.4 - 28.2 % of the below the poverty level. The project

area occupies vacant ground; therefore, there are no environmental justice concerns associated with this project.

There will be no displacement of people or businesses associated with the *Glass City Municipal Marina* and Marine Passenger Terminal project. The re-development of an abandoned brownfield property along the Maumee River into a viable development, including a state-of-the-art marina and marine passenger terminal, will be an asset to the City of Toledo. Providing residents and visitors with access to a public waterway will encourage additional investment and economic activity in this area.

### **3.8.2 Alternative B**

The proposed project that comprises Alternative B is located at the same location as Alternative A. The Section environmental justice characteristics of the project area are adequately discussed in section 3.8.1.

## **4.0 ENVIRONMENTAL CONSEQUENCES**

### **4.1 Environmental Elements Common to All Alternatives**

Based on the review of the potential environmental conflicts, most of the environmental elements were common to the alternatives, since the location of all three alternatives is within the same area of the project area. Each environmental element will be summarized below.

#### **4.1.1 Floodplain Impact**

The proposed development is within the 100-year floodplain (Figure 5) and development of the property will not have an adverse impact on flooding. This stretch of the Maumee River is very wide and deep, therefore little fluctuations in water levels are observed during flood events. The proposed development is designed to withstand a flood event with minimal impacts. The docks and piers are designed to allow vertical movement to compensate for changes in water elevation, while the fuel and pump-out facilities will be properly ballasted. The Marine Passenger Terminal will be constructed at an elevation that is several feet above the high water elevation for the river, thereby minimizing potential flood damage.

#### **4.1.2 Streams/Waterways/Surface Waters**

Based on field review and USGS mapping, the Maumee River was the only surface water body noted in the project area. The river is not listed as a scenic waterway or state recreation or protected waterway. Impacts to the Maumee River will be limited to an increase in fuel discharge, commonly associated with spills or leakage from the increased boating traffic, to the river. No other surface waters were noted within the project limits. Therefore, no other surface waters will be impacted by the proposed construction.

#### **4.1.3 Wetlands**

The project site is part of the larger Marina District redevelopment area. As part of the required assessments for redevelopment, a detailed wetland determination was completed in 2003. Results of the study indicated there were no wetlands within the project area or within the larger redevelopment area.

#### **4.1.4 Agency Coordination**

Agency coordination is expected to be limited to coordination of environmental compliance under the Ohio VAP and coordination with the ACOE when the upland earthen plug is removed

for the final phase of the marina. No permits are anticipated to be required in association with the construction of the marina and Marine Passenger Terminal. Any required dredging of the inlet channel will be covered under an existing 404 permit with the ACOE for the federal navigation channel, which includes maintenance dredging for facilities adjacent to the channel.

#### **4.1.5 Boater Safety**

An increase in these types of facilities will provide a safe harbor and enable transient boaters to legally dispose of refuse and empty holding tanks. Presently, only one transient facility exists on the Maumee River. Additionally, construction of Transient facilities, will increase safety to the boater by offering harbors of refuge during a storm event, accident, or breakdown. However, the proposed linear dockage in proposed Alternative B would be subject to river fluctuations, floating or submerged debris, and the effects of wind. Therefore, the linear docks would not provide the same safe harbor capabilities of Alternative A.

#### **4.1.6 Drinking Water Resources**

As part of the assessment required for the larger Marina redevelopment plan, the project area is included within an Ohio EPA-approved Urban Setting Designation that prevents the use of potable groundwater use. The project area is also not in a sole-source aquifer area as determined by the Ohio EPA. Therefore, sensitive drinking water sources are not impacted by the proposed project.

#### **4.1.7 Land Use/Farmland Protection**

The current land use is listed as industrial and the proposed redevelopment land use is commercial and residential. The proposed project does not adversely impact the intended use of the property. In addition, no agricultural land will be impacted as a result of the proposed project.

#### **4.1.8 Cultural/Archaeological Resources**

There are no structures of cultural or architectural significance on the proposed project Site. The adjacent Acme building has been designated as potentially eligible for having historic architectural significance.

#### **4.1.9 Section 4(f) Considerations**

Based on available information, there are no publicly-accessible parks, recreational areas, or wildlife or waterfowl refuges in the project area or surrounding areas. Therefore, no adverse effect on Section 4(f) considerations is anticipated by carrying out any of the alternatives.

#### **4.1.10 Air Quality**

Although the proposed project is not typically associated with adverse air quality issues, certain plan modifications may need to be made during construction or implementation of the fueling or pump-out facility in order to meet the requirements of work in a non-attainment area. However, the proposed project does not pose a significant threat to overall air quality of the Toledo area.

#### **4.1.11 Noise Quality**

The proposed project does not anticipate to significantly increase noise levels due to increased motorized vehicular traffic. Traffic speeds are anticipated to be equivalent to that of residential areas in the City and boat traffic will be in "no wake" zones in the vicinity of the proposed marina. Therefore, any noise increase is expected to be minimal.

#### **4.1.12 Hazardous Materials and Regulated Substances**

As part of the larger redevelopment plan, extensive environmental assessments have been completed to address the potential contamination to the soil and groundwater from the historic operations of the former Acme plant. Based on assessment results, several areas were identified as exhibiting concentrations of arsenic and benzo-a-pyrene in soil that exceeded the applicable regulatory standard. One impacted soil area was located in part of the proposed marina.

Due to the anticipated increase flow of boating traffic, there is an increased potential for an increased discharge of fuel to the Maumee River associated with spills or leakage from the increased boating traffic. All appropriate measures will be taken around the gas dock area to prevent such a spill or minimize the impacts in the event of a spill. All sewage from the pumpout station will be directed to the City of Toledo Municipal Sewer Treatment Plant. Additionally, appropriate measures will be taken to prevent the discharge of sewage to the Maumee River from the pumpout station.

#### **4.1.13 Regional, Community, and Neighborhood Factors**

Construction of the marina and Marine Passenger Terminal on the Maumee River waterfront will have a positive economic impact on the City from revenues and taxes generated by the businesses and boaters. The City hopes this development will serve as a destination point for tourists and boaters, bringing increased revenues annually to the local economy. This is an improvement of the existing abandoned industrial property intended to provide viable commercial, residential, and recreational opportunities to the City of Toledo. Existing commercial development within the City of Toledo and transient boaters in western Lake Erie and the Maumee River will also benefit from the proposed project. There will be no impact to community cohesion.

The construction of the *Glass City Municipal Marina*, Marine Passenger Terminal and fueling/pump-out facility currently being considered for construction on the Maumee River, will result in a tremendous increase in access and use of the river by residents and tourists. This fits with goals set by the BIG Program, which is to increase transient boating on major waterways.

#### **4.1.14 Public Facilities and Services**

All traffic will be maintained in each direction along Front Street and Main Street and ingress or egress to the Marina District project area and the *Glass City Municipal Marina* and Marine Passenger Terminal project area will not be compromised during construction. Most public utilities are located near the project area including the City of Toledo sewer and water systems. As with the majority of redevelopment projects this project may result in a slight increased contribution to the City Sanitary Sewers; however, due to recent and ongoing improvements to the city sanitary sewer system it is not anticipated to be an impact. A plan note is recommended which makes the contractor responsible for contacting all utilities regarding any adjustments, reconstructions, removals, and/or relocations of existing facilities. The contractor shall also be responsible for coordination and all construction activities with the utilities.

#### **4.1.15 Environmental Justice**

Executive Order 12899, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, 59 *Federal Register* 7629 (1994), directs federal agencies to incorporate environmental justice in their decision making process. Federal

agencies are required to identify and address any adverse environmental effects that their programs, policies, and activities have on minority or low-income populations.

No environmental justice issues were identified for any of the alternatives. The project area is currently an abandoned brownfield redevelopment property and it is not currently being used for any economic activity. According to the 2000 Census (Appendix F) zip code 43605 has a population of 32,068, of which 81.4% of the people are white and, 22.0% of the families are below the poverty level. Within the project area, 76.9 - 83.2 % of the people are white and 21.4 - 28.2 % of the below the poverty level. No minority or low-income populations would be displaced or negatively affected by any of the proposed alternatives.

Proposed alternatives A and B will provide public access to the riverwalk, picnic areas, shore fishing areas, and many other cost free recreational activities that can be enjoyed by all income populations. Additionally, facilities both stemming from and directly related to proposed alternatives A and B will provide job opportunities that will be made available to all income populations

## **4.2 Alternative A (Proposed)**

### **4.2.1 Habitat Impact**

Since marginal habitat is present in the area of the proposed *Glass City Municipal Marina* and Marine Passenger Terminal, construction will have minimal impacts on habitat. Construction of the marina will result in a net increase in Maumee River surface water area. The riprap and the sheet piling will actually create aquatic habitat not otherwise found in the area of the river for fish communities.

### **4.2.2 Biological Impact**

The biological impact from proposed alternative will be minimal. An increase in boating activity on the river has the potential to disrupt foraging habits of various waterfowl that inhabit the area. This should have minimal negative impact however, as prime waterfowl migrations occur prior to and following the prime boating seasons. Additionally, any loss of waterfowl resting or foraging habitat should be minimal since the proposed project area is within an urbanized area. Migratory waterfowl are more attracted to the larger undeveloped natural areas, like Metzgers Marsh located several miles east of the project area.

The proposed dredging of the inlet and proposed harbor, along with construction of the docks, will generate deep water habitat and protective structure for fish, while the rip-rap along the shore and the sheet piling will provide additional protective cover for fish to spawn and forage. An increase in fish habitat results in opportunities for increase in the population of fish in the river system.

Construction of a pump-out facility will benefit water quality in the Maumee River and Lake Erie by providing boaters with an approved facility to empty their sewage tanks.

#### **4.2.3 Threatened and Endangered Species**

Requests were made to ODNR and USFWS regarding endangered, and threatened species. Response letters from Ohio DNR and U.S. FWS are located in Appendix C and D.

#### **4.2.4 Cumulative Impacts**

The proposed *Glass City Municipal Marina* and Marine Passenger Terminal project have the potential to increase recreational use of a unique resource for the City of Toledo. Part of the goal of the Boating Infrastructure Grant is to increase transient boating on major waterways. Although there are approximately 32,000 registered boats in the local demand area and approximately 3.5 million Ohioans who participate in boating each year, the additional transient boating facility has the potential to add substantial revenue to the local economy. At the same time, the opportunity is provided to increase the overall awareness of the Maumee River to Lake Erie access and the many environmental, recreational, cultural, and historical opportunities that the Port of Toledo has to offer.

Facilities, such as the proposed project, offer unique opportunities to address protection of the environment and natural resources along the lower end of the Maumee River. The City of Toledo and the Maumee River served as convenient locations for a wide range of industry in the early parts of the century. Today, many of those industries are gone and the lands are vacant brownfield sites. Projects such as this can provide a land use alternative that can revitalize the waterfront properties, help reduce shore erosion, and address potential environmental impacts to the river, as well.

#### **4.2.5 Facility Efficiency**

The proposed alternative will provide boaters a safe harbor from waves, wind, and floating debris during storm events; increased water velocities during high water events, and waves caused by commercial freighters, private boats, and tug boats.

### **4.3 Alternative B**

#### **4.3.1 Habitat Impact**

Habitat/vegetation in the area of this proposed alternative has not been impacted during site development preparation activities. Hull personnel visited the area and determined very little habitat/vegetation is present in the area of the proposed linear docks. Currently the area contains overhanging deciduous vegetation and scrub/shrub species that provide habitat and resting areas for water birds. It is unknown at this time if the vegetation in this area will be cleared to facilitate construction of the linear docks.

#### **4.3.2 Biological Impact**

The proposed alternative will not impact biological communities on or adjacent to the area where the linear docks would be constructed.

Construction of a pumpout facility will benefit water quality in the Maumee River and Lake Erie by providing boaters with an approved facility to empty their sewage tanks.

Dredging associated with construction of the linear docks, will generate some deep-water habitat and protective structure for fish, while the rip-rap along the shore and the sheet piling will provide additional protective cover for fish to spawn and forage. An increase in fish habitat results in opportunities for increase in the population of fish in the river system.

#### **4.3.3 Threatened and Endangered Species**

Requests were made to ODNR and USFWS regarding endangered and threatened species. Response letters from Ohio DNR and U.S. FWS are located in Appendix C and D.

#### **4.3.4 Cumulative Impacts**

The cumulative impacts of Alternative B are similar in nature to Alternative A. Like the harbor marina, the linear docks would offer modern facilities to attract the transient boater to the area,

while likely improving the overall environmental protection and boater safety along the Maumee River corridor.

While dredging would still be required, the real extent of the dredging would be substantially reduced. This would provide minimal deep water cover for fish.

#### **4.3.5 Facility Efficiency**

While placement of docks in the river will provide public boater access to these facilities and services, potential safety issues arise. Linear docks positioned in the main river are not as protected and boats are increasingly susceptible to:

- 1) wind influences;
- 2) wave action from private boats, commercial freighters, and tugboats;
- 3) floating debris from storm events that could damage boats and docks; and
- 4) increased flow velocities observed during high water putting additional stress on boat lines and docks supports.

### **4.4 Alternative C (No Action)**

#### **4.4.1 Habitat Impact**

Hull personnel visited the area and determined very little habitat/vegetation is present in the area of the proposed linear docks. Habitat/vegetation in the area will not be impacted because there will be no site development or preparation activities.

#### **4.4.2 Biological Impact**

The proposed alternative will not impact biological communities on or adjacent to the area because there will be not development.

Construction of a pumpout facility would benefit water quality in the Maumee River and Lake Erie by providing boaters with an approved facility to empty their sewage tanks. Therefore, by not constructing a pumpout facility this benefit of improved water quality will not be realized.

There will be no dredging under this alternative and no construction of the docks, no deep-water habitat and protective structure for fish, and no additional rip-rap protective cover for fish to spawn and forage.

#### **4.4.3 Threatened and Endangered Species**

There will be no impact to threatened or endangered species because there will be no development.

#### **4.4.4 Cumulative Impacts**

The harbor marina, or linear docks would offer modern facilities to attract the transient boater to the area, while likely improving the overall environmental protection and boater safety along the Maumee River corridor. If no facilities are constructed these benefits will not be realized.

While dredging would still take place in order to satisfy remediation activities, the real extent of the dredging would be substantially reduced. This would provide minimal deep water cover for fish.

#### **4.3.5 Facility Efficiency**

No facility would be constructed.

## **5.0 COST ASSOCIATED WITH THE ALTERNATIVES**

### **5.1 Alternative A (Proposed)**

The estimated cost for Alternative A, including transient and reserved docks, support features and infrastructure is \$3,000,000.

### **5.2 Alternative B**

The estimated cost for Alternative B, including transient and reserved docks, support features and infrastructure is \$500,000

### **5.3 Alternative C (No Action)**

No construction would take place, therefore the cost for Alternative C is \$0

## 6.0 LIST OF PREPARERS

- | J. William Biehl, P.G, Hull & Associates Inc., Toledo, Ohio – Primary Author, Editor
- | William J. Burkett, R.S., Hull & Associates Inc., Toledo, Ohio – Technical Review
- Keith A. Carr, Hull & Associates Inc., Toledo, Ohio – Ecological Contributions

## **7.0 CONSULTATION AND COORDINATION WITH THE PUBLIC AND OTHERS**

A public meeting notice was issued and published in the Toledo Blade on March 17, 2002 and other media prior to commencement of application for funding under the Clean Ohio Revitalization Fund. On May 2, 2002 a public meeting was held at Cousino's Navy Bistro Restaurant. The City of Toledo, Toledo Port Authority, and Hull & Associates Inc. represented the project in an open-house forum. Over 100 people were in attendance. Most attendees were in general support of the brownfield development and wanted to learn how the project would develop. There were no written comments or unfavorable support. Since this meeting, the project status has been available to the public through media reports via newspaper and television, public notice period for access to environmental documents, attendance at city council meeting, and access to a public viewing area specifically developed by the City of Toledo to monitor the progress of the project.

As part of the CORF process, the US Fish & Wildlife grant process, and FHWA grant process, a news release soliciting public comments on the applicable documentation will be prepared and distributed to the public as stated within the grant requirements. In the case of the US Fish & Wildlife and FHWA process, the EA and all appendices will be posted on their respective web sites. The City of Toledo will also prepare a news release soliciting comments on all the applicable documentation. After the required public review period for each, the documentation will then be considered eligible for approval by the appropriate agency.

Agency involvement associated with the Marina District redevelopment project and this project has included the OEPA, ODOD, ODNR, USFWS, the Ohio EPA, OHPO, and ACOE. Agency coordination of mitigation efforts is primarily limited to the remediation of contaminated soil associated with the former Acme power plant facility and coordination during the final phase of the marina construction. Agency coordination is expected to be limited to coordination of environmental compliance under the Ohio VAP and coordination with the ACOE when the upland earthen plug is removed for the final phase of the marina. No permits are anticipated to be required in association with the construction of the marina and Marine Passenger Terminal. Any required dredging of the inlet channel will be covered under an existing 404 permit with the ACOE for the federal navigation channel, which includes maintenance dredging for facilities adjacent to the channel. No mitigation has been associated with ecological or biological aspects of the project.

## **PUBLIC COMMENT PERIOD**

A 30 day Public Comment period was held from June 22 to July 24, 2006. No public comments were received during the public comment period on the Environmental Assessment.

## 8.0 REFERENCES

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- U.S. ACOE, Detroit District, 1974. Confined Disposal Facility at Pointe Mouillee for Detroit and Rouge Rivers. Final Environmental Statement, March 1974.
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**TABLES (refer to draft)**

**FIGURES** (refer to draft)

**APPENDIX A** (refer to draft)

Surface Water/Wetland Determination Documentation

**APPENDIX B (refer to draft)**

Results of Fish Community and Habitat Assessment

**APPENDIX C (refer to draft)**

Results of Records Search for Threatened and  
Endangered Species and Rare Habitats (Ohio DNR)

**APPENDIX D** (refer to draft)

Results of Records Search for Threatened  
and Endangered Species and Rare Habitats (U.S. FWS)

**APPENDIX E (refer to draft)**

Results of Records Search for Cultural and Historical Resources (OSHPO)

**APPENDIX F (refer to draft)**

Port Permit to Dredge

**APPENDIX G (refer to draft)**

Coal Pile Boring Data and OEPA Response

**APPENDIX H (refer to draft)**

Project Photos

**APPENDIX I (refer to draft)**

Phase 1 Section 7 Evaluation Form