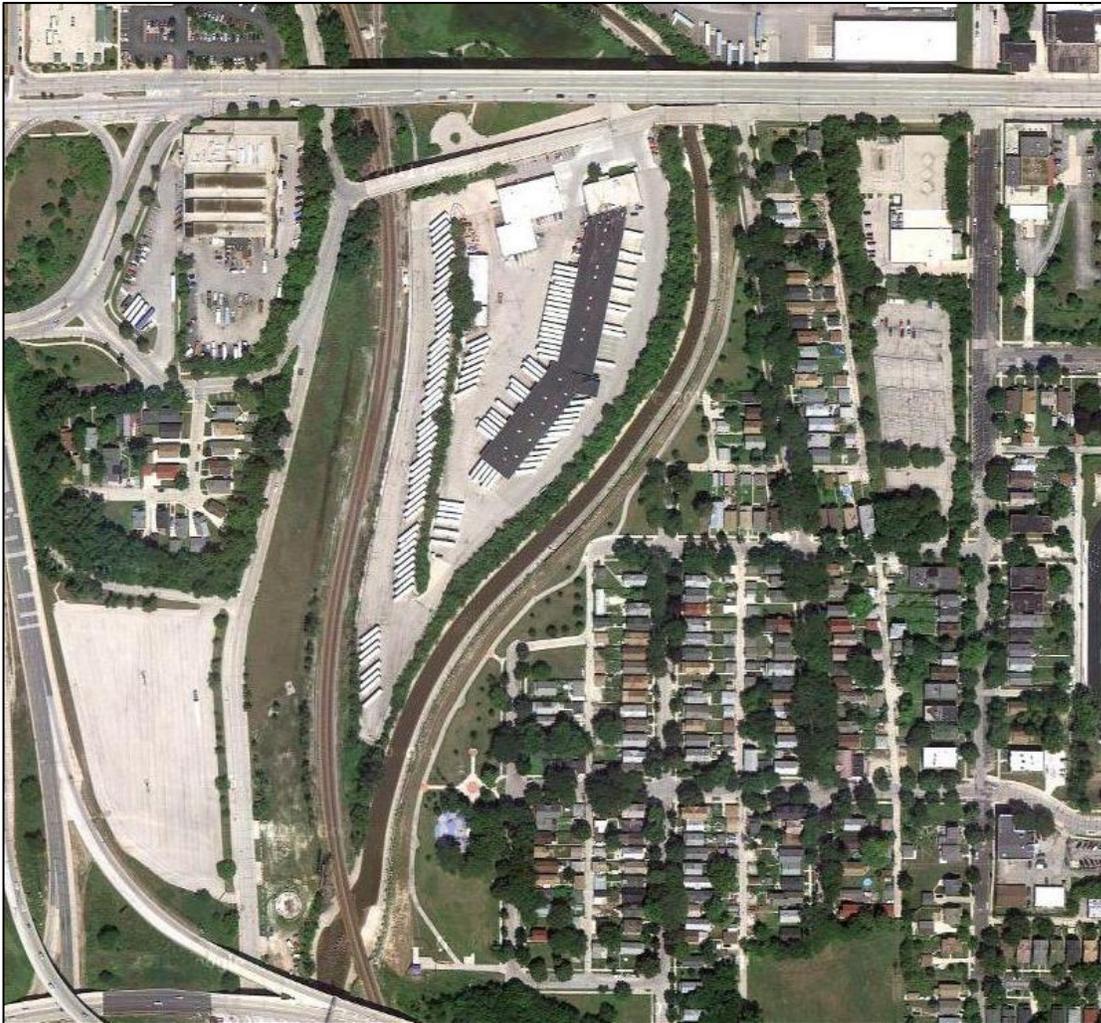


ENVIRONMENTAL ASSESSMENT
MENOMONEE RIVER ENVIRONMENTAL RESTORATION
CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN
SECTION 206 OF THE WATER RESOURCES DEVELOPMENT ACT



**US Army Corps
of Engineers®**
Detroit District

1.0 Introduction

U.S. Army Corps of Engineers, Detroit District proposes aquatic ecosystem restoration of approximately 2,400 lineal feet (LF) of the Menomonee River in the City of Milwaukee, Milwaukee County, Wisconsin (**Figure 1**). The existing concrete channel in this reach provides extremely limited habitat value and is a blockage to upstream migration of fishes because of discharge velocity, particularly during spring runoff. Removal of the concrete lined channel and replacement with riffles and pools will result in reduced flow velocity during the spring fish spawning periods for upstream fish passage to suitable spawning and rearing habitat. The riffles and pools in the created channel will provide summer habitat for fish and invertebrates.

The City of Milwaukee is located on the western shore of Lake Michigan about 100 miles north of Chicago, Illinois. The Menomonee River is a tributary of the Milwaukee River within the city limits of Milwaukee. The Menomonee River watershed drains approximately 135 square miles and flows approximately 28 miles from its headwaters in Germantown and Mequon to the Milwaukee River and on to Lake Michigan. In 1965 the bottom of the Menomonee River channel in the lower reaches of the river was deepened and lined with concrete to improve flood carrying capacity. The proposed aquatic ecosystem restoration project would remove the concrete lining to restore natural riffle and pool characteristics to the river.

This project and the upstream 1,300 lineal feet of concrete removal project undertaken by the Milwaukee Metropolitan Sewerage District (MMSD) will result in opening the river for upstream fish passage to the next blockage, Lepper Dam, located upstream approximately 18 river miles.

1.1 Study Authority

The proposed project is authorized by Section 206 of the Water Resources Development Act (WRDA) of 1996 (PL104-303), Aquatic Ecosystem Restoration. This act authorizes the Federal government to initiate investigations and studies leading to the implementation of projects for ecosystem restoration and protection.

1.2 Purpose and Need

The primary objective and purpose of the proposed action is to provide river connectivity and fish access to acres of upstream habitat in the Menomonee River that has been blocked by the concrete lined channel, and to restore aquatic habitat in this river reach. Industrialization led to channelizing and lining this section of the river with concrete in the 1960's leading to the loss of important habitat and species that once thrived in the Milwaukee estuary. The project is needed to restore riverine habitat and access to historically significant and valuable upstream spawning and nursery area, thus providing suitable habitat for many species that were once prevalent but now are locally scarce. Restoration of the local fish community within the metropolitan area is the highly desired outcome to re-establishing the urban fishery. Under the US-Canada Great Lakes Water Quality Agreement, the Milwaukee River (and several other harbors/waterfronts) is a listed Area of Concern (AoC). Simply put, an AoC is a location that has experienced environmental degradation. This project assists in the removal of the following Milwaukee River AoC identified Beneficial Use Impairments (BUI): 1) Degradation of fish and wildlife populations, 2) Degradation of benthos, and 3) Loss of fish and wildlife habitat.

Since 1999, MMSD has removed drop structures, a low head dam, and concrete paved segments that restricted upstream fish passage. Immediately upstream of the proposed Menomonee CAP Section 206 project is a concrete segment containing a drop structure. MMSD has scheduled the removal of this concrete segment and drop structure in 2014. The Menomonee CAP Section 206 project (Figure 1) is 2,400 LF and would remove the last obstacle to upstream fish passage. Implementing the project would provide access to extensive fish spawning and rearing habitat which is estimated at more than 30 acres of gravel on the main stem for lithophilic (gravel) spawners and over 125 acres of emergent riparian wetland. Much of the emergent wetland would be suitable for phytophilic (plant) spawning fish such as northern pike. The 100 acres of riverine habitat would also serve as rearing habitat for juvenile fishes. This project is deemed critical by the Wisconsin Department of Natural Resources in restoring the fishery in the Milwaukee estuary and nearshore waters of Lake Michigan. Restoration of the fishery would serve an urban population.

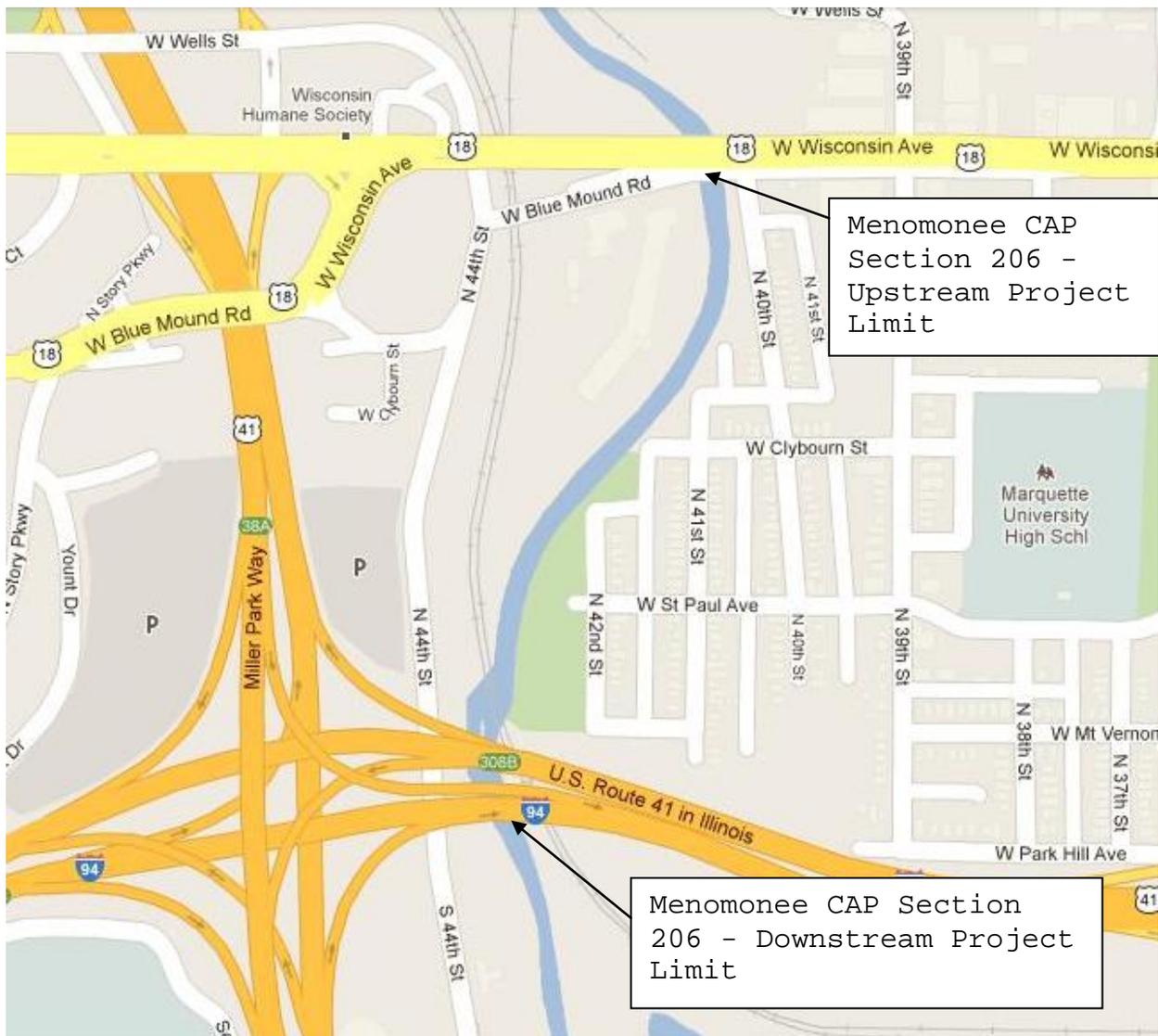


Figure 1. Menomonee CAP Section 206 - Project Work Area 2,400 Lineal Feet (LF)

2.0 Alternatives and the Proposed Action

Alternatives considered under this study include: 1) removal of the concrete channel lining and placing stone designed to create riffle and pool complexes, 2) removal of the concrete channel lining and replacing the lining with stone, without the creation of any riffle or pool complexes, and 3) No Action. The action alternatives (Alternatives 1 and 2) would provide varying levels of restored aquatic habitat in this river reach and upstream fishery access to acres of suitable spawning habitat presently blocked by the concrete lined channel. Alternative 1 would provide the most local habitat improvement and best upstream access for fish.

2.1 Alternative 1: Replacement of 2,400 feet of Concrete with Stone Riffles and Pools

Alternative 1 involves the removal of the concrete lined channel that prevents upstream movement of warm water fish during spring runoff because of flow velocity that is too high for fish passage. MMSD has removed the upstream and downstream drop structures and downstream low head dam that previously prevented upstream fish migration. Removal of this concrete lined segment and replacement with stone to restore riffle and pool habitat along approximately 2,400 LF of the Menomonee River within the City of Milwaukee, Milwaukee County, Wisconsin will restore connectivity to 18 river miles in the main stem upstream that provides excellent gravel spawning and juvenile rearing habitat for the targeted fish species. The northern pike spawning wetlands are primarily on the tributaries, particularly the Little Menomonee River. Construction in the riffle and pool configuration will reduce flow velocity sufficiently and provide resting pools to provide access to upstream spawning and nursery habitat for fish that live in the Milwaukee estuary and nearshore waters of Lake Michigan, particularly smallmouth bass, walleye, northern pike and many other forage species of the sucker and minnow families (**Figures 2a, 2b**). The rock armor stone has been sized for the design flood event, the 1% storm. The armored river channel required to pass the flows within the confines of the historic walls prevented the use of aquatic vegetation and a wider, vegetated floodplain. The armor stone will be set on gravel or crushed concrete bed and filter fabric unless concrete bedding is required at a specific location based on final design plans and specifications.

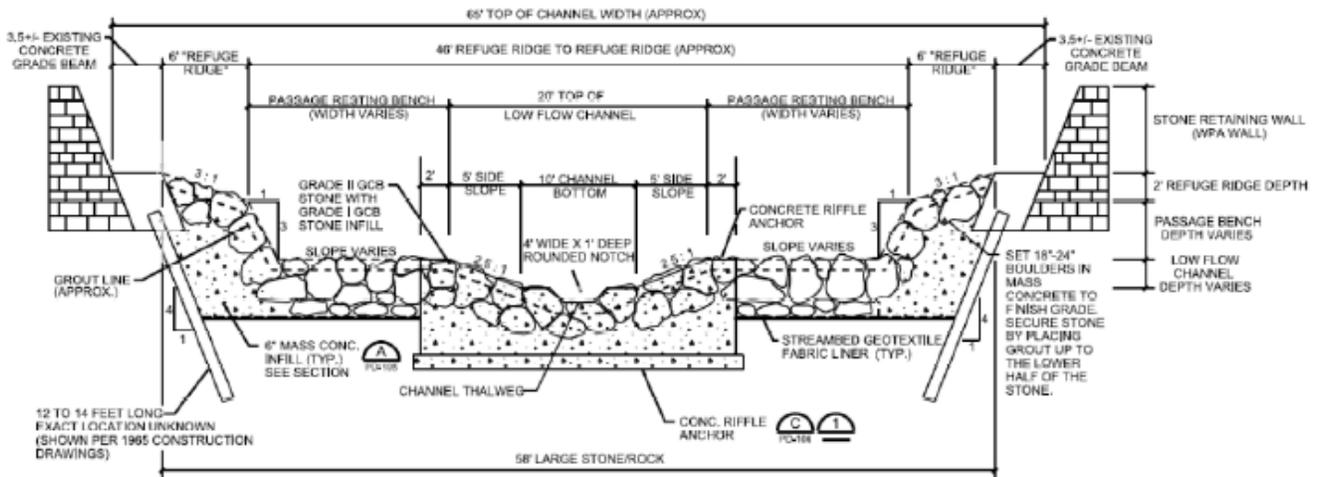


Figure 2a. Typical Riffle Cross Section

The riffle and pool sequence has been designed to reduce flow velocity during the spring run off events when the targeted fish are moving upstream to spawn. The velocity over the riffles is low enough to pass the targeted fish species, particularly northern pike (based on the Upper Mississippi River (UMR) certified model as further discussed in the Monitoring Plan attachment). The pools provide the necessary resting spots for the fish between riffle crossings. The Habitats Units analysis has additional details on design velocity necessary for fish passage.

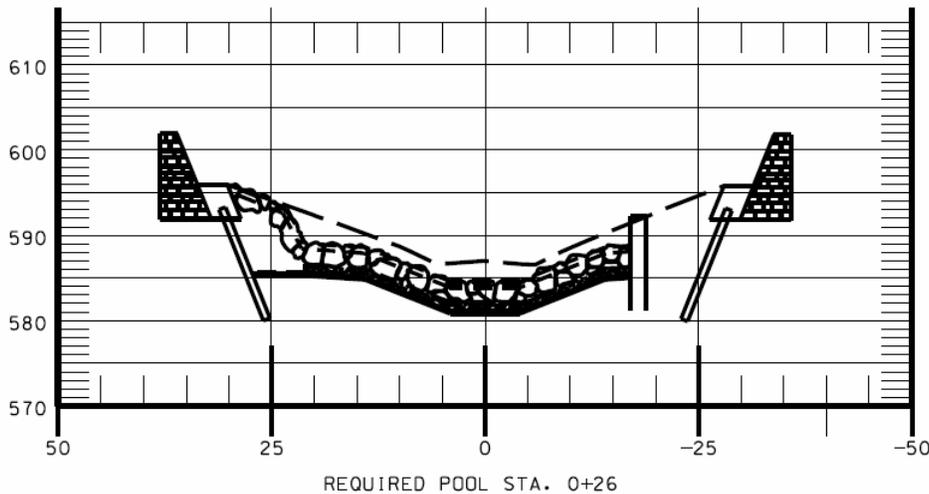


Figure 2b. Typical Pool Cross Section

2.3 Alternative 2: Replacement of 2,400 feet of Concrete with Stone Channel

Alternative 2 involves the removal of the concrete channel lining, excavation of excess sediment and replacing the concrete lining with a rock lined channel with the boulders set on a gravel or crushed concrete bed on fabric without riffles and pools (**Figure 3**). If required in specific segments with grade change, the boulders could be set in concrete. Due to the heavy urbanization and the multiple bridge crossings along the length of the Menomonee River, and the potential flood impacts, the rock must remain in place to prevent unintended impacts to structures and flood discharge. The upstream and downstream drop structures and downstream low head dam have been removed. However, flow velocity through the channel is higher than with Alternative 1 and exceeds the velocity that the targeted fish can pass during spring runoff as depicted in the Upper Mississippi certified model used for fish passage design criteria. This alternative provides less overall habitat units (HU) as fewer fish pass upstream to spawn and the value of the created rock lined channel is less, particularly in the summer months with the lower water depths. Northern pike, one of the targeted fish species cannot pass upstream through the rock lined channel and the value of the habitat is limited in the summer because of depth. A further discussion is found in the Detailed Project Report (DPR), Appendix F - Monitoring Plan and Habitats Units Analysis. The rock armor stone for the channel has been sized for the design flood event, the 1% storm.

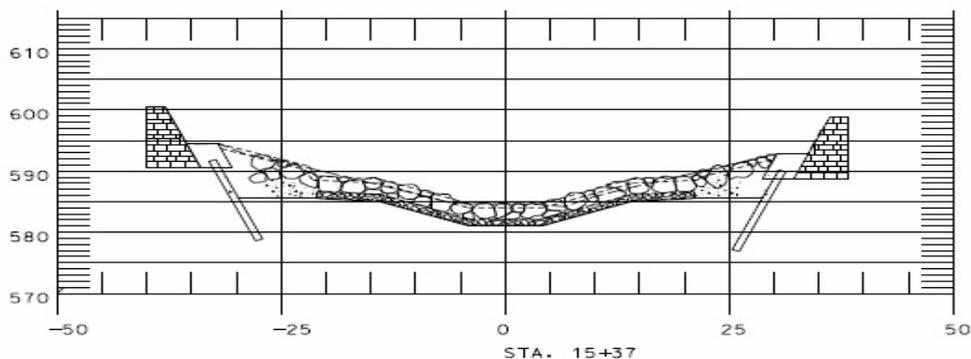


Figure 3. Armored Channel

2.4 Alternative 3: No Action

In the no action alternative, the very low value aquatic habitat ecosystem provided by the concrete channel would remain the same, and the habitat would not be improved and over time, concrete maintenance would be required. The upstream and downstream drop structures and downstream low head dam have been removed. However, flow velocity in the spring through the long, concrete lined channel is higher than the targeted fish species can pass based on the Upper Mississippi River (UMR) certified model. Though flow velocity is reduced during the summer low flow events, the targeted fish species are not moving upstream to spawn during this time period and the shallow, open waters would also minimize any fish passage. The concrete lined channel provides virtually no aquatic habitat. The no action alternative does not meet project objectives of habitat restoration, which includes the primary objective of upstream fish passage to 30 acres of spawning gravel within the upstream 18 main stem river miles (100 surface acres total river area) that will assist in the restoration

of fish populations in the Milwaukee AoC. Connectivity also provides access to 125 acres of emergent wetlands suitable for spawning use by northern pike, a targeted warm water fish species. MMSD is scheduled to complete the removal of the upstream concrete segment in 2014 and this proposed Section 206 project is on MMSD's proposed projects list. However, there are no assurances that this segment would be funded in the future by MMSD alone if the proposed habitat restoration project were not implemented.

2.5 Description of the Proposed Action

The proposed action is Alternative 1, replacement of 2,400 LF of concrete with riffles and pools constructed of rock. To implement the proposed project, approximately 15,000 square yards (SYD) of 8 inch thick concrete channel lining will be broken and removed, approximately 32,000 cubic yards (CYD) of sediments located under the concrete and up to 3 feet below the existing river bottom from beneath the concrete lined channel will be dredged, 2,800 CYD of filter gravel for bedding will be placed and 16,000 CYD of rock/stone will be placed to create a stone lined riffle and pool aquatic habitat. In the upstream 1,300 foot section, the boulders will be set in concrete. The boulders in this section will be in bedding gravel or crushed concrete unless a specific section above the OHWM requires that the boulders be set in a concrete base (such as at an outfall through the WPA wall) as determined during planning, engineering and design (PED).

Disposal of materials and/or debris generated in the course of project construction will take place in accordance with applicable Federal, State of Wisconsin, and local laws and regulations. No sediments identified as hazardous material have been identified to date within the proposed project area. The concrete will be broken and transported to a licensed concrete recycling facility. The sediments that are suitable for upland disposal will either be taken to the MMSD provided disposal site identified as the Road and Construction Materials Facility located approximately 15 miles from the project site at 6401 S. Racine Avenue, New Berlin, Wisconsin. This site is a disposal for fee site and is compliant with all Federal, State and local permit requirements to accept this material. If the construction contractor can find an economically favorable alternative site(s) that is/are suitable for disposal of this material, then the contractor will be required to prove to the government that they have properly obtained all Local, State and Federal permits required for disposal at these alternative sites. Any materials determined to be unsuitable for disposal at the New Berlin site, will be taken to a Type II landfill with all disposal costs attributed to MMSD. Beneficial re-use of materials is encouraged to reduce inputs to landfills. The contractor would obtain any permits required for the re-use or sale of materials. See paragraph 3.1.3 Hazardous Material for additional information.

Removal of the concrete lined channel and placement of stone to create riffles and pools will, using the computed spring flows, decrease flow velocities from existing conditions. The design consists of 6 pools and 6 riffles. The riffles range from 40' to 65'-long with velocities ranging from 1.69 fps to 2.98 fps, while the pools range from 45' to 100'-long with springtime average flow velocities ranging from 1.11 fps to 1.55 fps. These design velocities are suitable for upstream fish passage with the resting pools. This riffle/pool design will also provide fishery habitat in this reach during the summer months with water depths over the riffles at 2-3.5 feet and flows at 0.6 to 1.5 fps and pools with depths of 4-6 feet and flows at 0.2 to 0.4 fps. The flows and distances described meet suitable passage criteria for northern pike, the poorest swimming game fish within the harbor.

The spacing and dimensions of the features in the channel have been designed using criteria for fish

passage and reference reaches for low flow channels in the Menomonee River. The proposed action consists of removing the concrete channel lining and excavating between 0 to 3 feet of river bottom from beneath the channel lining, and placing stone of about 1.6 to 4 feet in diameter (350 to 5500 pounds) designed to remain stationary during 100 year or 1% flood events that result in a stable channel. Riffle and pool systems will be constructed along the river to create vital habitat for fish and other aquatic organisms during low flow periods (generally summer) as well as to provide pools of lower velocity during high flow periods for use by migrating fish for resting during spring migration upstream.

Historic Works Progress Administration (WPA) masonry walls, built circa 1939, run along both sides of the Menomonee River for most of the project (**Figure 4**). The WPA walls would remain in place. The WPA walls consist of masonry at a 1:4 batter, with a concrete toe and 14-foot driving piles. The height of the WPA walls varies along the length of the project, with a maximum height of approximately 12 feet. Construction access to this project site is available without impacting the WPA walls. An existing canoe ramp adjacent the WPA wall does exist 1,200 feet upstream (north) of Wisconsin Avenue bridge along the west bank. A second canoe ramp will be built at the Wisconsin Avenue Bridge along the west bank as part of the MMSD project. MMSD owns the property adjacent I-94 where no WPA wall exists and access could be created here as well, if required. Some of the stormwater outfalls that discharge through the WPA walls are deteriorated. The deteriorated outfalls are expected to be reconstructed in place by MMSD with materials suitable to the State Historic Preservation Office (SHPO) to maintain the historic nature of the WPA walls. Final repair plans for the WPA walls will be provided to the SHPO for approval consistent with their requirements. It is likely that the outfall repairs will occur in conjunction with the stream restoration project since the construction crews are in the area. If the wall slump stability analysis indicates the WPA wall is in jeopardy for failure, steel sheet piling will be driven along the waterward edge of the upper most concrete panels well above the OHWM to secure the toe of the WPA wall to prevent potential WPA wall failure.

Two major bridge crossings, the Canadian Pacific railroad bridge and the WDOT I-94 highway bridge, are located within this project reach of the Menomonee River. The riffle pool complex will be installed under the bridges with special emphasis in the engineering design analysis for scour protection of the bridge piers.

Construction may take place from the shore or from the channel. During construction, it may be necessary to use cutoff walls and piping to divert the water in the channel to construct in the dry. The contractor will be required to take appropriate measures to prevent erosion and sedimentation, excessive dust, and other undesirable effects. The WDNR has indicated a fishery restriction on work in the river channel 15 March -15 June. Work will be coordinated with the WDNR to protect the fishery resources. No warm water fish can pass upstream of the concrete blockage at this time without the installation of the riffles and pools, as proposed.

Construction activities associated with the proposed CAP Section 206 restoration project may result in fine silts and clays to be transported downstream. The magnitude and duration of soil erosion and sediment transport that is released downstream during construction should be managed appropriately. Therefore, during the next project phase (Design and Implementation) water quality based expectations related to turbidity from soil erosion and sedimentation levels shall be developed with

the regulatory agencies and in accordance with USACE policy. The purpose of the plan is to limit erosion and sedimentation within the limits of construction using adequate and efficient control measures during the construction phase. The movement of material downstream may be managed by placing controls such as a low flow diversion, covering the work area with plastic sheeting if rain is imminent and placement of a filter fabric liner over exposed soils during construction. The approach to managing the short and long term impacts of mobilized material will reflect a level of control commensurate with the environmental risk they pose during transport and settlement in the river system.

Minor variations in project design or construction method may occur, depending upon site conditions or as a result of the implementation of cost saving measures. Depending on the method and sequence of construction, temporary staging areas, and associated placement of clean fill material, may be required. These areas would be at USACE approved locations within project boundaries, temporary construction and staging areas or right-of-ways, and would be restored to original condition upon project completion. Any variations that would result in significant changes to either the overall project design or environmental impact would be further evaluated under the National Environmental Policy Act.

Since 2000, several restoration projects on the Menomonee River have been completed by MMSD which include the removal of drop structures, low head dams and concrete panels. There still remains approximately 3,700 LF of concrete channel in the Menomonee River. Concrete removal within this 3,700 LF reach of the Menomonee River consists of two phases: Phase I is being accomplished by MMSD and Phase II is being accomplished by the USACE/MMSD per this Section 206 project. The Phase I project consists of the removal of 1,300 LF of concrete channel and drop structure and the addition of habitat restoration features. The Phase 1 upstream project limit is at Middle Railroad Bridge (RM 4.29) while the downstream project limit is at RM 4.03. The Phase I work is to be completed in 2014. The Phase II project encompasses the removal of 2,400 LF of concrete starting from just downstream of Wisconsin Avenue (RM 4.03) to just downstream of the I-94 bridge crossing (RM 3.55)(**Figure 1**). The downstream limit of this USACE/MMSD Section 206 project corresponds to last remaining concrete channel lining in the Menomonee River. The project eliminates the high flow velocity within these concrete segments and provides lower velocity for fish to migrate upstream to access acres of suitable spawning and juvenile rearing habitat.

The proposed construction sequence for Alternative 1 is as follows: Provide for low flow diversion of the river channel with the following or similar method. The proposed water diversion technique involves driving sheet pile on the upstream end of the work site to create a low flow dam and using a portable pump to move the ponded water thru 18-inch plastic pipe to the downstream end of the project site. This low flow system would be sized to move a maximum capacity of approximately 200 cfs. Daily work is restricted to a maximum 50 foot length that requires securing with plastic liner at the close of each day or if rain is threatening. High flow is allowed to overtop the sheet pile dam and flow over the plastic tarp within the daily work area. This dewatering process will be reviewed and would most probably be incorporated in the Section 401, water quality certification approved by the WDNR as part of the required Wisconsin Chapter 30 permit. Once an area is dewatered, the sequence will continue with the breaking of the concrete and removal of the concrete plates to expose the underlying soil. The work sequence is to excavate one to three feet of soil to proposed project depth, place rock consistent with riffle/pool design and then truck construction materials from and to

the work site. As each 50 foot section is completed, move downstream and repeat the process. The river diversion technique will minimize any sediment migration downstream during construction and when river flows are restored.

The work quantities for the project are as follows: remove approximately 15,000 square yards of concrete (4,000 CYD), excavate 32,000 CYD soil (sediment), and place approximately 3,000 CYD bedding gravel and 16,000 CYD rock (24,000 Tons). Construction materials will be moved by dump trucks. A temporary road would be constructed to be accessed at both ends of the work site. The contractor may use the existing concrete bed as the haul road. If not, a temporary road could be built on the side slope of the paved river section. The construction sequence and environmental impacts of implementing either action Alternatives 1 or 2 are virtually the same. The only major difference is in the final elevations of the stream channel and the ability of fish to move upstream upon project completion. Upon completion of the project, the riffle/pools are designed to be self cleaning and pass bed load materials.



Figure 4. Existing WPA Wall in Background with Storm Drain Outfalls

3.0 Affected Environment and Environmental Consequences

3.0.1 Riparian Habitat

The construction area is heavily urbanized and WPA walls line both sides of the Menomonee River through the project reach. The WPA walls are historic, eligible for the National Register of Historic Places, and they will not be removed. The deteriorated stormwater outfalls within the walls will be repaired consistent with the SHPO requirements by MMSD during the construction period. The project is limited to concrete removal from the river channel and riffle pool construction. Implementing the project will have no effect on the WPA walls or on habitat and vegetation outside of the river channel, which is sparse and heavily impacted by adjacent industrial development.

3.0.2 Wetlands

The proposed project would have no impact on wetlands. The river is lined with concrete and the WPA walls. There are no wetlands adjacent to the project reach.

3.0.3 Aquatic Habitat

The proposed project area lined with concrete supports a minimal fish population and a limited invertebrate community residing on the concrete plates. Fish species found in other areas of the Menomonee River and the Milwaukee Harbor estuary include, but are not limited to: greater Redhorse, White Sucker, Longnose sucker, Shorthead Red Horse, Smallmouth Bass, Walleye, Stone Roller, Blunt Nose Minnow, Blacknose Dace, Johnny Darter, Creek Chub, Golden Red Horse, Northern Pike, Rainbow Trout, Brown Trout, Coho Salmon, and Chinook Salmon. The completed project would eliminate the concrete lined channels and provide greater habitat diversity with riffles and pools, thus attracting fish, wildlife, aquatic invertebrates including insects, and benthos that are currently found elsewhere in the watershed tributaries. The most important habitat restoration feature and primary objective of this project is providing river connectivity and fish passage upstream to over 18 river miles of suitable fishery spawning and rearing habitat to assist in the restoration of the fishery within the harbor and near shore waters of Lake Michigan. The low flow river diversion technique will minimize any sediment migration downstream during construction and thus the impacts to the aquatic environment. Upon completion of the project, the riffle/pools are designed to be self cleaning and pass bed load materials downstream.

3.0.4 Wildlife

Milwaukee County supports a wide variety of wildlife resources. Resident terrestrial forms expected to occur in the project area include those generalist and edge species that can co-exist with humans. These include: small rodents, eastern cottontail, squirrels, and many species of birds. With the restoration of the river, fish and other aquatic organisms would return to this stretch of river that they historically occupied. The existence of natural riffle and pool aquatic habitat would provide food and cover for aquatic organisms.

3.0.5 Federally-Listed Species

There are no known federally-listed “endangered” or “threatened” species in the project area. No Federally-listed species are identified within Milwaukee County from the USFWS data base dated March 2012. The USACE has determined that the project will have “no effect” on Federally-listed endangered or threatened species or their critical habitats. The USFWS concurred with the Corps

determination in email correspondence dated May 3, 2012. Based on information received from the Wisconsin DNR, three state listed endangered species have been observed in the project area:

- Peregrin falcon (*Falco Peregrines*) - bird, endangered
- Cooper's Milkvetch (*Astragalus Neglectus*) - plant, endangered
- Wafer ash (*Ptelea Trifoliata*) - plant, species of concern

After review of the habitat requirements for the two plant species, the plants are not expected to be found on the concrete panels nor in the project work area. The peregrine falcon is not expected to nest under the I-94 bridge. The project is not expected to impact swallows that may be nesting under the I-94 bridge since work under the bridge would occur after their nesting season.

3.0.6 Recreation, Aesthetic Resources

Portions of the Menomonee River are used for recreational activities such as canoeing, tubing and fishing. Removal of the concrete channel lining and the restoration of the aquatic habitat would benefit these uses. Aesthetically, the project site is highly visible due to its location in downtown Milwaukee. Adverse aesthetic impacts would be minor and temporary during construction activities. The finished habitat restoration will result in long term aesthetic benefits through the restoration of the natural aquatic habitat. MMSD may choose to provide signage detailing the benefits of the restoration work.

3.0.7 Cultural Resources

In compliance with Section 106 of the National Historic Preservation Act of 1966 and Executive Order 11593, the National Register of Historic Places (NRHP) and the State Historic Preservation Office (SHPO) have been consulted. Work within the river channel and removal of the concrete panels will have no effect on historic structures. The Works Progress Administration (WPA) masonry walls, built circa 1939, are eligible for listing on the NRHP. The project will have no adverse effect on the WPA walls as they will not be removed. The MMSD repairs to the stormwater outfalls will be consistent with SHPO requirements as outlined in their letter dated November 9, 2012. The deteriorated outfalls will be reconstructed in place with materials suitable to the SHPO to maintain the historic nature of the WPA walls. The proposed repair plans to the WPA walls will be coordinated for approval by the SHPO prior to construction. The repair plans will be provided to the SHPO for final approval.

The WPA walls, which are located along both sides of the Menomonee River for most of the project reach, would remain in place. The WPA walls consist of masonry at a 1:4 batter, with a concrete toe and 14-foot driving piles. The height of the WPA walls varies along the length of the project, with a maximum height of approximately 12 feet. Due to the age and condition of the WPA walls, vibration during construction must be limited to prevent further damage to the wall. Low vibratory construction equipment and monitoring will be required in the specifications. The WPA walls were analyzed for bearing capacity, sliding, and overturning failure moments as a result of the removal of the concrete channel lining based on existing soil borings in the general area obtained from previous work. The analysis indicated potential risk to the WPA walls in one section. Therefore, soil borings are being collected adjacent the WPA wall work site. The soil borings will be used to analyze wall stability (deep-seated arc slope stability failure). Based on the new soil borings, designs will be revised, if necessary, and incorporated into the work during plans and specifications for WPA wall

protection. If the slope stability analysis indicates the western WPA wall may be in jeopardy based on soil data, a steel sheet pile (SSP) wall will be installed along the stream side of the upper most concrete paving panels well above the OHWM stream elevation. The impacts from driving SSP wall above the ordinary high water mark are considered negligible.

Construction access to this project site is available without impacting the WPA walls. An existing canoe ramp does exist 1,200 feet upstream (north) of the Wisconsin Avenue Bridge along the west bank. A second canoe ramp may be built at the Wisconsin Avenue Bridge along the west bank as part of MMSD's project. MMSD owns the property adjacent to I-94 where no WPA wall exists and canoe ramp access could be created here as well, if required.

Adverse impacts to archeological resources are not expected. However, the contract specifications will specify that, if during construction the contractor observes unusual items that might have historical, archeological, or cultural value; the contractor will protect those items and immediately report the find to the Contracting Officer so that the USACE District Archeologist may notify the State Historic Preservation Office (SHPO).

3.0.8 Coastal Zone Management

The coastal zone as defined in the Wisconsin Coastal Program consists of the 15 counties bordering on the Great Lakes. Project implementation would cause minimal temporary turbidity from construction activities due to low flow diversion techniques that would minimize disturbances of the river bottom. Placement of the gravel and rock on filter fabric minimizes re-suspension of sediments when the flows are restored to the river. Sediment underlying the concrete varies from silt, sandy-clay, and clay. The turbidity effects would dissipate over time and distance from the work area and would not have significant long-term effects. Any contaminated sediments located under the concrete lined channel would be disposed in accordance with applicable state and Federal laws.

The contractor will be required to develop a materials management plan, construct low flow diversion and sediment barriers for the active construction area, and limit the total length of active construction area that is covered and secured at the end of each day in case of high flows. No significant adverse water quality effects are expected. Stone will be placed in the river channel that is clean and obtained from commercial sources. Sedimentation control measures or silt fencing will be included around disturbed upland areas to prevent soil runoff into the river. The low river flows will be diverted by means of a plastic pipe to allow for work in the dry or in still water areas to minimize erosion and the movement of suspended sediments. The contractor will locate his equipment staging area in an environmentally non-sensitive area and limit the number of access points without impacting the WPA wall.

Implementing either action alternative would not result in direct impacts to Coastal Zone Management resources within the Project area and are consistent to the extent practicable with the Wisconsin Coastal Management Program.

3.0.9 Air Quality

Construction air quality effects would be short term and minor; all equipment would be required to meet emission standards. If dust generated at the work site is deemed to be a potential problem, water will be used for dust control from demolition, stockpiled materials, and earthwork activities.

Emissions from the proposed construction activity are exempted as de minimis and therefore meet the General Conformity Criteria pursuant to Section 107 of the Clean Air Act, as amended. Though Milwaukee County/Milwaukee Racine did not meet air quality standards for 8 hour ozone at least once each year from 2004-2012 nor did they meet particulate matter (PM) from 2009-2012, the proposed work is not expected to affect air quality compliance.

3.1.0 Noise

Implementing the proposed Project would not result in significant adverse noise effects in the Project area. Temporary and minor noise will occur during construction as a result of the mechanized equipment and trucking for the required work. One temporary elevated source of noise associated with the action alternatives would include the use of hydraulic/pneumatic hammers attached to excavators to break up the concrete channel lining. This noise source would be temporary.

A Milwaukee Public High School is located approximately 1,000 feet east of the Project area. The noise related to the hydraulic/pneumatic hammering may be an added disturbance to students, though they are already accustomed to considerable noise from the highway traffic. However, the likely construction period would not significantly overlap with the academic year, and the hydraulic/pneumatic hammering would be temporary. In addition to the high school, other noise sensitive areas include a residential neighborhood to the east adjacent to part of the project reach north of I-94. Noise effects on the residential areas will be limited by having work only during daylight hours or as directed by the on-site contract administration officer to ensure that high noise activities are limited to daylight hours. Implementing either alternative would not result in significant impacts to noise sensitive areas within the Project area given the proximity of the Project area to the elevated I-94/US-41 interchange.

3.1.1 Transportation and Traffic

Operators of trucks and construction equipment used during the proposed project are required to obey all applicable Federal, State of Wisconsin, and local driving laws, construction ordinances, and city-imposed hauling/unloading time restrictions, and are required to obtain the appropriate permit(s).

The area includes several truck marshalling areas located along the northern limits of the Project area. Consequently, truck traffic is common in the area, and the increase of truck traffic due to the project would not noticeably impact the area. Miller Park, a major league baseball stadium, is located near the southern limit of the Project area. The truck traffic will add to the congestion associated with game day events. A Milwaukee Public High School is located in the vicinity of the project; however it is not along any probable trucking routes and the traffic will not interfere with school zone traffic.

Overall, the Project area vicinity is highly urbanized with high capacity surface roads and highways nearby with the capacity to handle the additional truck traffic. Therefore, trucking would not be expected to significantly interfere with local traffic, residential areas, school zones, school buses, or emergency vehicles. Movement of the excavated material to the reclamation site will be along established routes that handle truck traffic. No additional traffic impacts are expected with movement of the sediment to the disposal site.

3.1.2 Utilities and Infrastructure

Area utilities include electric, gas, telephone, sanitary sewer, and domestic water. Because of the nature of the proposed work, it is unlikely service interruptions will be required. Any impacts will be

temporary and limited in nature. Implementing either alternative would have limited direct impacts to utilities and infrastructure resources within the project area.

3.1.3 Hazardous Material

The terms “hazardous materials” refers to any item or agent (biological, chemical, radiological or physical) which has the potential to cause harm to humans, animals, or the environment, either by itself or through interaction with other factors. Issues associated with hazardous materials typically center around waste streams, underground storage tanks (USTs), above ground storage tanks (ASTs), and the storage, transport, use, and disposal of pesticides, fuels, lubricants, hazardous toxic and radioactive waste (HTRW) and other industrial substances. When such materials are improperly used, they can threaten the health and well-being of wildlife species, habitats, soil and water systems, and humans.

USACE policy prohibits the use of Civil Works funds to respond to concerns associated with HTRW and requires appropriate investigation to identify potential HTRW concerns early in planning and development of a civil works project. Several actions were conducted to address the existence of, or potential for, HTRW contamination on lands in and adjacent to the proposed project site, including structures and submerged lands, which could impact, or be impacted by project implementation.

Environmental databases and related records were searched and reviewed for information regarding current and former land use indicating storage, disposal or use of CERCLA regulated substances. Sanborn Fire Insurance Maps indicated the historic use of the site was residential and railroad, consistent with use today. The EPA CerList that provides information on CERCLA sites revealed no CERCLA sites in the project vicinity. The Wisconsin Bureau for Remediation and Redevelopment Tracking System (BRRTS), a state computerized listing of brownfield sites and clean ups, identified four sites in the project vicinity, all of which have been cleaned up and closed.

Sediment sampling and analysis was conducted in August 2001 to characterize the sediments under the concrete lined channel within the proposed project site (Altech, 2001). Approximate sampling locations are included in **Figure 5**. The following criteria were used to evaluate the sediments:

- EPA Threshold Effect Concentrations (TECs)
- EPA Probable Effect Concentrations (PECs)
- State of Wisconsin Default Background Levels
- Direct Contact Criteria (DCC)¹

Twenty sample locations in the concreted river bed adjacent to flowing water were cored with a four or six inch diameter diamond drill bit to allow for sediment sampling below the concrete. Samples were collected in the bore hole to project depth. The first 5 feet of collected sediment was composited as over burden material. The five to six foot depth of collected sediment was composited

¹ Soil Cleanup Levels for Polycyclic Aromatic Hydrocarbons (PAHs) Interim Guidance, April 1997, Publication RR-519-97, Wisconsin Department of Natural Resources.

to represent what sediment characteristics the new river bed would be comprised of upon project completion.

The collected soil samples were analyzed for organic and non-organic compounds. Organic compounds included PCBs, BTEX (Benzene, Toluene, Ethylbenzene, and Xylene (volatile organic compounds)), and PAHs. The non-organic compounds included analysis for trace metals (arsenic, barium, cadmium, chromium, copper, lead, mercury, selenium, silver and zinc). Because the concrete panels were constructed in the 1960's and 1970's and some of the joint compound from that time period contained asbestos, the potential exists that asbestos could be in the concrete joints located within the proposed project reach which was a concern in early coordination with the WDNR. Therefore, the collected soil samples were also analyzed for the presence of asbestos.

The results of the geotechnical sediment analysis indicated that the sediments contained sands and gravels. Analytical testing results indicated that no VOCs were detected and no PCBs were reported in any of the samples collected. In two of the twenty soil samples, PAHs had detectable levels above RCL non-industrial direct contact, yet none of the PAHs were reported at concentrations in excess of the generic residual contaminant levels (RCL) for industrial sites. The levels of metals detected were low or not detected. Arsenic concentrations in the soil samples varied between 2.3 and 4.9 mg/kg exceeding the Wisconsin industrial-residual contaminant level of 1.6 mg/kg but not the USEPA soil screening level (SSL) value of 29 mg/kg (which is the value used for the protection of groundwater). The average arsenic value detected within the soil samples was 3.2 mg/kg which are less than the naturally occurring background levels for soils in southeast Wisconsin. No asbestos was detected in the soil samples. No HTRW regulated waste materials were detected underneath the concrete located within the proposed project area. In summary, all of the soil under the concrete would be classified as a non regulated material and is suitable for upland placement. The sand and gravel may have some use as construction materials, while the removed concrete may have a beneficial reuse. The analytical testing results are contained in the DPR, Appendix F – Phase II ESA.

MMSD has tested sediments immediately upstream of the proposed Section 206 project reach (Bloom Companies, LLC, 2010). Soil samples were collected from beneath the concrete lined channel. The collected sediment was analyzed for VOCs, PAHs, PCBs, and RCRA metals. Testing results indicated that no VOCs were detected. Some of the soil samples contained PAHs that were reported at concentrations in excess of the generic residual contaminant levels (RCL) for non-industrial sites for direct contact. The remaining PAH compounds detected in the soil samples were less than the RCL for non-industrial direct contact levels. No PCBs were reported in any of the samples collected. All samples collected exceeded the industrial RCL for arsenic. Two soil sample locations had arsenic levels above 10 mg/kg (11 mg/kg and 13 mg/kg) yet most of the samples contained arsenic concentrations at levels less than 10 mg/kg which is within common background levels for soils in southeast Wisconsin. No other metals (barium, cadmium, chromium, lead, mercury, selenium, and silver) were reported at concentrations of concern. No HTRW regulated material was detected. MMSD has tested for the presence of asbestos within the concrete joint compounds located at their other concrete removal projects. Their testing results indicate that no asbestos has been found in the concrete joint compound at their project site.

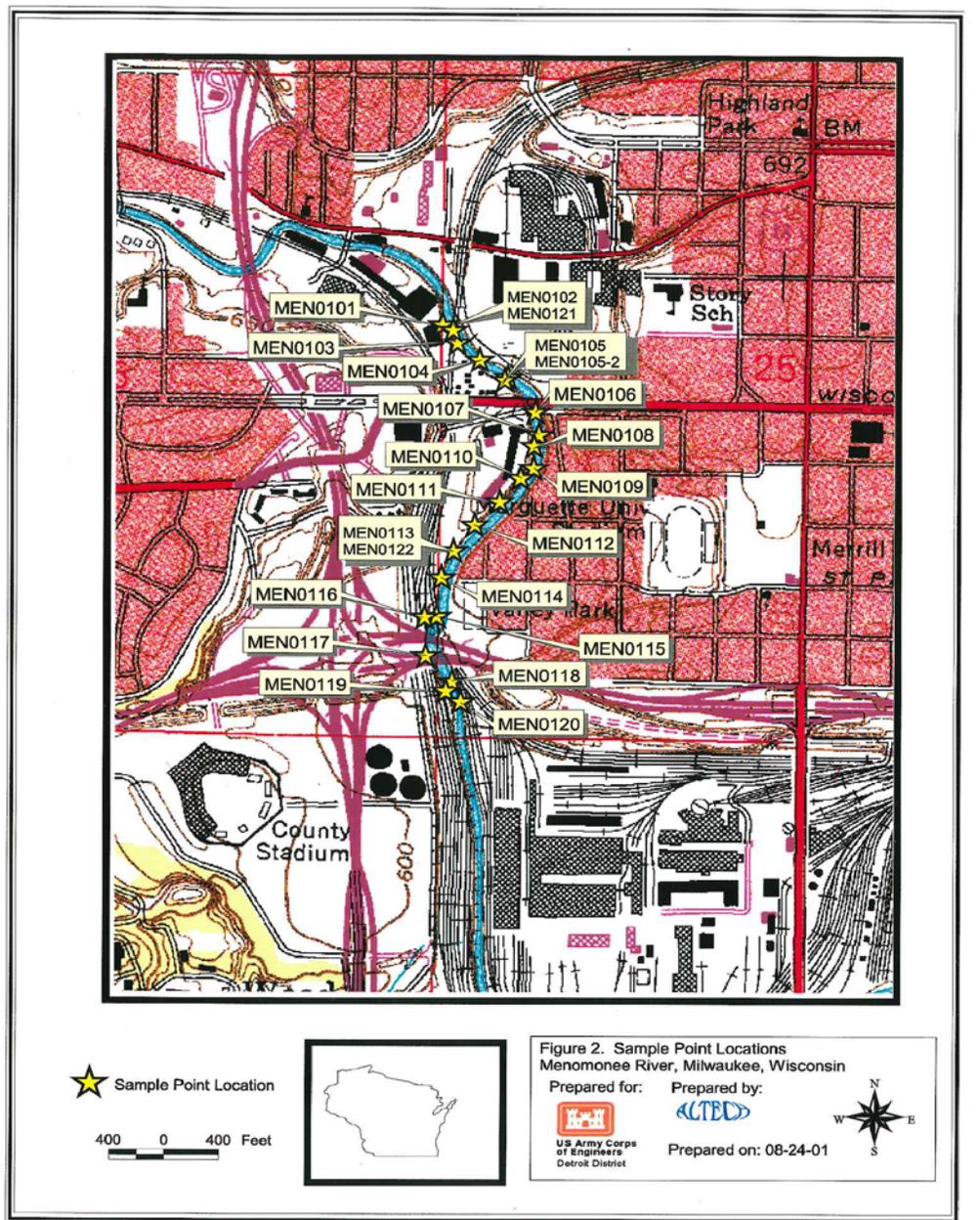


Figure 5 – Menomonee River, Milwaukee, Wisconsin Sample Locations (Altech, 2001)

During MMSD construction activities at their project site located immediately upstream from the proposed Section 206 project site, MMSD put the burden of spoil placement on their contractor. MMSD’s contractor took the spoils removed from the construction site to several locations including property that the contractor owned. None of the removed spoils went to a regulated hazardous waste landfill because soil testing deemed the spoils suitable for upland placement. The MMSD contractor was required to obtain all applicable Federal, State, and local permits for the spoil removal and

placement activities. The construction activities at this MMSD project site are anticipated to be completed in 2014.

The preliminary sediment management framework for the proposed project assumes that all sediment exists at a contamination level below thresholds requiring special handling and management techniques. This assumption is based on the sediment analysis mentioned above. Sediment within and around the project areas have been analyzed and determined to not contain HTRW regulated material. Based on the testing results, implementing the proposed project is not expected to adversely impact sediment and water quality. The sediments within the proposed construction area do not pose unacceptable exposure risk if removed from the exposed concrete channel and riverbed and spread on floodplain areas.

While implementing the proposed project is not expected to result in the identification or the release of HTRW regulated material, some additional testing is likely to occur prior to or during construction. If the additional testing indicates the presence of CERCLA substances above State of Wisconsin criteria in soils to be excavated and removed from the project, those soils will be transported and disposed of in accordance with applicable Federal, State, and local laws consistent with USACE polices. The non-Federal project sponsor (MMSD) will pay 100% of the costs associated with the removal and disposal of any HTRW regulated waste materials encountered during construction activities. The HTRW regulated materials will be taken to a properly permitted Type II landfill. One such Type II landfill site is the Waste Management Facility at 2101 W. Morgan Avenue, Milwaukee, Wisconsin.

Excavated non-HTRW regulated material will be disposed of in accordance with applicable Federal, State, and local laws and USACE polices. MMSD has identified the Road and Construction Materials Facility, located approximately 15 miles from the project site at 6401 South Racine Avenue, New Berlin, Wisconsin, as a primary disposal site. This site is a disposal for fee site and is compliant with all Federal, State and Local permit requirements to accept this material. If the construction contractor can find an economically favorable alternative site(s) that is/are suitable for disposal of this material, then the contractor will be required to prove to the government that they have properly obtained all Local, State and Federal permits required for disposal at these alternative sites. The placement of non-HTRW regulated material into an appropriate off site licensed disposal area is considered a project feature and the non-federal project sponsor can obtain Lands, Easements Rights-of-Ways, Relocations, and Disposal (LERRDS) credit. For additional information, see the Real Estate plan located in the DPR, Appendix E - Real Estate.

3.1.4 Public Services

Implementing either alternative would not result in direct, indirect, or cumulative impacts to public safety services such as police, fire protection, or local hospitals within the Project area. No major roadways would be closed and any detours or partial road blockage would be minimal.

44CFR 65.12 states: "When a community proposes to permit encroachments upon the floodplain when a regulatory floodway has not been adopted or to permit encroachments upon an adopted regulatory floodway which will cause base flood elevation increases in excess of (0.00ft in floodway) and/or (0.1 in floodplain)...the community shall apply to the Administrator for conditional approval

of such actions prior to permitting the encroachments to occur." The implementation of Alternative 1 will not cause an increase in the currently mapped base flood elevation because MMSD has previously implemented projects to mitigate the increases associated with construction of this project. MMSD has/will obtain any required flowage easements, and will work with FEMA and the WDNR to obtain a Letter of Map Revision (LOMR) for documenting the alteration of a flood plain. Any stage increase compared to existing conditions (that occur after MMSD mitigation efforts) will not result in significant enlargement of the flood zone. The proposed project will not result in further development or occupation of the floodplain.

3.1.5 Environmental Justice

The project area is bounded by industrial development to the north, west and south with the major league baseball stadium to the southwest. Residential development is located easterly of the riverfront walkway with the closest homes being approximately 100-150 feet east of the river corridor. Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was instituted to ensure fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, tribal, and local programs and policies.

Implementing either of the action alternatives would not result in direct impacts to socioeconomic and environmental justice resources within the Project area. The overall socioeconomic impact of the proposed alternatives would be minor because the effects of the construction are temporary and no economic impacts would be felt. Therefore, negative impacts to minority populations and low-income populations would not occur. However, positive impacts through increased fishing and recreation activities are expected with completion of the proposed project.

The 2000 census data for the greater Milwaukee area indicated a population of about 600,000 with 37 percent black but the total population has dropped since then. Over 1,000,000 persons live an hour or less from the downtown Milwaukee estuary and access to an urban fishery supported, in part, by the Menomonee River habitat project.

3.2 Cumulative Effects

The completed aquatic ecosystem restoration would not result in significant cumulative or long-term adverse environmental impacts, nor would it have significant adverse impacts on existing habitat in the Menomonee River. The current degraded condition of the lower Menomonee River and the Milwaukee River estuary is a direct result of industrialization that resulted in the channelization and dredging and filling of estuary wetlands and tributaries. The completed project would provide environmental as well as social benefits as this project provides connectivity to 18 upstream river miles for fish spawning and rearing. This project, in conjunction with other proposed projects on tributaries (Underwood Creek, Kinnickinnic River) to the Milwaukee River will assist in the removal of the Milwaukee River AoC BUI's and restoration of the Milwaukee Harbor estuary.

3.2.1 Recent, Present, and Reasonably Foreseeable Future Projects

The proposed project is designed to remove the last impediment to fish passage to upstream spawning habitat on the Menomonee River, which is the primary objective of the project. The MSSD has completed several projects within the Milwaukee River tributaries to remove concrete lined channel sections and restore the natural riffle and pool habitat of the rivers. The Menomonee River has had 6 different projects with Federal funding assistance. Sustain Our Great Lakes Program announced on July 29, 2013 a \$400,000 grant to MMSD for the removal of five (5) partial concrete blockages that restrict upstream fish passage in the summer. These pipeline/remnant structures do not block passage during spring migration events. Similar projects are proposed on other tributaries within Milwaukee, including work on the Kinnickinnic River and Underwood Creek. These proposed projects do not cause or create significant cumulative adverse effects.

3.2.2 Climate Considerations

The majority of Global Atmospheric Circulation Model runs indicate that, under a continuing global warming trend, air mass differences will become greater in the Great Lakes and upper Midwest regions during the fall and spring (transition) seasons, with stronger resultant atmospheric disturbances. This suggests precipitation events in the project region that will be more frequent and more intense. As such, there is the possibility that river and stream systems in the Great Lakes region could experience more frequent events of intense rain falling during a short period of time which would increase the likelihood of significant stream bank erosion, greater sediment loading into the stream, increased flashiness of the system, and shorter flood warning lead time. These effects would not have a significant cumulative effect in conjunction with the proposed channel restoration.

3.2.3 Effects on Natural and Biological Resources, Invasive Species

This project and similar projects on other tributaries of the Milwaukee River are designed to restore riverine habitat, provide improved habitats for benthos and fish and remove BUI's as listed in the Milwaukee River AoC. The restoration of tributary rivers with natural channel design using riffles and pools will benefit the aquatic ecosystem without causing adverse effects to the environment. This project, in conjunction with other projects proposed for the Kinnickinnic River, Underwood Creek and the harbor estuary are designed for habitat improvements to beneficially affect the environment. Invasive species, environmental contaminants, and harmful pathogens are not increased or accessed with implementation of the project. Implementation of this project is not expected to create or expand suitable habitat for invasive species. Zebra and quagga live on rocks but the breakwaters and previously restored rock riffle pool areas are not infested with invasive mussels. Some round gobies may move into the reconstructed rock riffle pool segment but the fish already reside in the harbor. Prior to implementation of any of the concrete removal projects, the USFWS sea lamprey control determined that the Menomonee River and tributaries were not suitable for sea lamprey production. No significant detriments caused by invasive species are anticipated with this project and the anticipated gains from river connectivity outweigh the potential adverse effects of expanding river connectivity.

4.0 Findings and Conclusions

Environmental review of the proposed action has indicated that no significant adverse long-term environmental effects would occur, nor would any significant adverse secondary effects occur. The

selected alternative, Alternative 1, removing the concrete channel lining and replacing it with rock, in a riffle pool configuration is the most environmentally beneficial alternative.

Minor, temporary effects of increased turbidity and increased air and noise emissions would occur during construction. Post construction effects would be beneficial and meet the primary objective of improved fish access to upstream spawning and nursery areas through river connectivity and riffle pool habitat within the work area.

The proposed action has been reviewed pursuant to the following Acts and Executive Orders, as amended: Fish and Wildlife Act of 1956; Fish and Wildlife Coordination Act of 1958; National Historic Preservation Act of 1966; National Environmental Policy Act of 1969; Clean Air Act of 1970; Executive Order 11593, Protection and Enhancement of the Cultural Environment, May 1971; Coastal Zone Management Act of 1972; Endangered Species Act of 1973; Clean Water Act of 1977; Executive Order 11988, Flood Plain Management, May 1977; and Executive Order 11990, Wetland Protection, May 1977. The proposed project has been found to be in compliance with the above Acts and Executive Orders for this phase of the study.

The USACE, Detroit District and the SHPO have determined pursuant to the National Historic Preservation Act that the project will have no adverse effect on sites listed in the National Register of Historic Places or the potentially eligible WPA walls with the proposed reconstruction of the WPA stormwater outfalls by MMSD consistent with the SHPO recommendations.

The USFWS concurred with the USACE determination that the proposed project would have “no effect” on Federally-threatened or endangered species or the critical habitats of those species.

The aquatic habitat restoration complies with the Federal Executive Order on Flood Plain Management (E.O. 11988) because there is no practicable alternative to construction in the floodplain and the project would not encourage floodplain development. The project is within the coastal zone of Wisconsin and complies to the extent practicable with a Wisconsin’s Coastal Management Program.

Pursuant to the Clean Water Act (CWA), a Section 404(b)(1) Evaluation of the environmental effects of the discharge of fill material, associated with the aquatic habitat restoration, into waters of the U.S. has been prepared (Attachment A to this EA). The Section 404(b)(1) evaluation concludes with the determination that “the proposed action is in compliance with Section 404 of the Clean Water Act.”

This Environmental Assessment has been prepared in accordance with the National Environmental Policy Act (NEPA); the Council on Environmental Quality, Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508); and the Corps of Engineers, Policy and Procedure for Implementing NEPA (33 CFR Part 230).

This Environmental Assessment concludes that environmental impacts of the proposed aquatic habitat restoration along the Menomonee River, City of Milwaukee, Milwaukee County, Wisconsin, are minor and local in scope; the benefits of the proposed action outweigh the minor impacts that would result from implementation of the proposed action; and the proposed action does not constitute a major Federal action significantly affecting the quality of the human environment.

Based on the conclusions of this Environmental Assessment, it appears that preparation of an EIS will not be required. Therefore, a Preliminary Finding of No Significant Impact (FONSI) is contained in Attachment B to this EA. If the District Engineer determines that an EIS is not necessary, the Preliminary FONSI would be finalized and the proposed action implemented.

5.0 Agency Coordination

5.1 Early Coordination Comments

Early project coordination did occur with USFWS, USEPA, Wisconsin Historical Society, and the WDNR and concerns/questions/issues raised have been addressed in the EA. Project information was coordinated via written correspondence for the proposed action in May and October 2012. The coordination resulted in early comments which were incorporated into the EA. These entities will receive a copy of the EA for review and comment during the 30-day public review period. Agency early project coordination responses are located in Attachment C to this EA.

The SHPO responded that the reconstruction of the channel will not affect historic structures or property. Reconstruction of the failing stormwater outfalls in the WPA walls needs to essentially be “in place and in kind” as described in their November 9, 2012 letter. MMSD indicates the proposed WPA stormwater outfall reconstruction will comply with the SHPO requirements.

On May 17, 2012, the USEPA responded with several questions regarding specific project details that were not available in the early coordination phase. The information has been addressed within this EA.

On May 3, 2012, the USFWS concurred with the USACE determination that the proposed project would have “no effect” on Federally-threatened or endangered species or the critical habitats of those species. The sea lamprey control unit previously determined the project would not increase sea lamprey access to suitable habitat. The overall Milwaukee restoration plan is acceptable to the agency.

On May 24, 2012, the Wisconsin DNR responded with several questions regarding specific project details that were not available in the early coordination phase. The information has been addressed within this EA and many of the concerns will be incorporated by the WDNR into the Wisconsin Chapter 30 permit.

6.0 References

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ATTACHMENT A

Section 404(b)(1) Evaluation

**CLEAN WATER ACT
SECTION 404(b)(1) EVALUATION**

**Of the Effects of Placing Fill Material into the Waters of the United States
Menomonee River, Environmental Restoration
City of Milwaukee, Milwaukee County, Wisconsin**

I. PROJECT DESCRIPTION:

a. Project Location, Description, and Authority: The U.S. Army Corps of Engineers (USACE), Detroit District, proposes aquatic habitat restoration of the Menomonee River, Milwaukee, under Section 206 of the Water Resources Development Act (WRDA) of 1996, (P.L. 104-303) as amended; U.S. Code 33 USC 2330. Since 2000, several restoration projects on the Menomonee River have been completed by MMSD which include the removal of drop structures, low head dams and concrete panels. There still remains approximately 3,700 LF of concrete channel in the Menomonee River. Concrete removal within this 3,700 LF reach of the Menomonee River consists of two phases: Phase I is being accomplished by MMSD and Phase II is being accomplished by the USACE/MMSD per this Section 206 project. The Phase I project consists of the removal of 1,300 LF of concrete channel and drop structure and the addition of habitat restoration features. The Phase 1 upstream project limit is at Middle Railroad Bridge (RM 4.29) while the downstream project limit is at RM 4.03. The Phase I work is to be completed in 2014.

The Phase II project (the proposed Section 206 project) encompasses the removal of 2,400 LF of concrete starting from just downstream of Wisconsin Avenue (RM 4.03) to just downstream of the I-94 Bridge crossing (RM 3.55). The downstream limit of this proposed Section 206 project corresponds to last remaining concrete channel lining in the Menomonee River. The project eliminates the high flow velocity within these concrete segments and provides lower velocity for fish to migrate upstream to access acres of suitable spawning and juvenile rearing habitat. The work area encompasses 3 acres (2,400 LF of river x 50-60 feet wide/43,560 ft²/acre) that are classified as waters of the United States. During construction, the low river flows will be diverted through an 18 inch plastic pipe all the way down stream as work is completed in 50 foot work sections to allow work in the dry or slack water while the concrete is broken and removed, sediments excavated and stone placed to construct riffles and pools in accordance with the described plan.

b. Description of Disposal Methods: The project involves the removal of approximately 15,000 square yards (SYD) of concrete lining in 2,400 LF of river channel, excavation of 32,000 CYD of sediment from under the concrete to shape the river bed and placement of 16,000 cubic yards (CYD) of rock and 3,000 CYD of bedding gravel (or concrete bedding, as required) to create the riffle and pool design. The proposed work will not result in the loss of any waters of the U.S. but result in the creation of a free flowing river segment with riffles and pools in the formerly concrete lined channel, restoring this river segment to a more natural condition. This armored river segment will pass flood

flows without causing a significant harmful interference, allow for fish passage upstream and provide aquatic habitat within the work area. All exposed earthwork will include erosion and stormwater controls until the project is complete and bare earth areas are stabilized.

c. Description of Habitat: The existing 2,400 LF of river is concrete lined and in a deteriorated condition requiring removal or replacement. The selected alternative is removal and replacement with stone forming riffles and pools. The river channel habitat is of low quality without wetlands or natural substrate for fish and invertebrates.

II. FACTUAL DETERMINATION

a. Physical Substrate Determinations: No significant adverse effects. Existing concrete will be replaced with stone set in place to create a river with riffles and pools and extensive interstitial space for both invertebrates and fish.

b. Water Circulation, Fluctuation, and Salinity Determinations: No adverse effects. The reconstructed river channel will handle flood flows. The implementation of Alternative 1 will not cause an increase in the currently mapped base flood elevation because MMSD has previously implemented projects to mitigate the increases associated with construction of this project. MMSD has/will obtain any required flowage easements, and will work with FEMA to obtain a CLOMAR and LOMAR, if required. Any stage increase compared to existing conditions (that occur after MMSD mitigation efforts) will not result in significant enlargement of the flood zone. The proposed project will not result in further development or occupation of the floodplain.

c. Suspended Particulate/Turbidity Determinations: No significant adverse effect. Project construction will occur in segments and could cause temporary turbidity if rains occurred prior to placement of the rock. Turbidity effects would dissipate over a short time period and distance from the work area and would not have significant, short term or long term effects. The armor stone would reduce erosion from scour of the underlying sediments from the deteriorated concrete lining and minimize suspended solids discharge to the receiving waters. The project has a plan for minimizing erosion including fluming the waters in the work area, placement of silt fence where required and seeding of exposed areas.

d. Contaminant Determinations: Only suitable bedding aggregate either as gravel or crushed concrete and stone would be placed in the river bed for river reconstruction. The concrete will be broken and transported to a licensed concrete recycling facility. The excavated sediments will be tested and disposed of according to state and Federal regulations. The sediments that are suitable for upland disposal will be taken to the MMSD identified Road and Construction Materials Facility located approximately 15 miles from the project site at 6401 S. Racine Avenue, New Berlin, Wisconsin. This site is a disposal for fee site and is compliant with all Federal, State and Local permit requirements to accept this material. If the construction contractor can find an economically favorable alternative site(s) that is/are suitable for disposal of this material, then the contractor will be required to prove to the government that they have properly obtained all Local, State and Federal permits required for disposal at these alternative sites. Any materials determined to be unsuitable for disposal at the New Berlin site, based on further sediment analysis, will be taken to a Type II landfill

with all disposal costs attributed to MMSD. Controls will be in place to prevent sediment movement downstream during construction.

e. Aquatic Ecosystem and Organism Determinations: No significant adverse effects. Construction would destroy any invertebrates living on the concrete. The reconstructed stone river bed with the resulting interstitial spaces will provide additional aquatic habitat for invertebrates and fish. Wildlife would temporarily avoid the area because of the noise and activity. The WDNR has indicated a fishery restriction on work in the river channel 15 March -15 June. Work will be coordinated with the WDNR to protect the fishery resources. No warm water fish can pass upstream of the concrete blockage at this time without the installation of the riffles and pools, as proposed.

f. Federally Listed Species: No Federally listed “threatened” or “endangered” species are known to be present in the work area nor are any species proposed for listing that inhabit the project area. In email correspondence dated May 3, 2012, the U.S. Fish and Wildlife Service (USFWS) concurred that the project will have no effect on Federally listed or proposed threatened or endangered species and concurred with the USACE, Detroit District determination that there will be “no effect” on Federally listed species or their critical habitat.

g. Proposed Disposal Site Determinations: The placement of stone fill material would have no significant adverse impacts on municipal or private water supplies, recreational or commercial fisheries, water related recreation, aesthetics, parks, monuments, wilderness areas, research sites, or similar preserves. The State Historic Preservation Office (SHPO) concurred that the concrete removal project work area, as proposed, will not affect historic properties in a letter dated May 15, 2012. Repairs to the stormwater outfalls through the WPA walls must and will be completed consistent SHPO requirements. MMSD has agreed to complete those repairs consistent with SHPO requirements. If the slope stability analysis indicates the western WPA wall may be in jeopardy based on soil data, a steel sheet pile (SSP) wall will be installed along the stream side of the upper most concrete paving channel well above the OHWM stream elevation. The impacts from driving SSP wall above the ordinary high water mark are considered negligible.

h. Determination of Cumulative and Secondary Effects on the Aquatic Ecosystem: No significant cumulative or secondary impacts are expected to occur from the proposed work and shaping the river bed or banks for placement of rock.

III. FINDING OF COMPLIANCE:

No significant adaptations of the Section 404 (b)(1) Evaluation guidelines were made relative to this project. The proposed concrete removal, 32,000 CYD of sediment excavation with testing and appropriate disposal consistent with state and Federal requirements and the placement of approximately 19,000 CYD of stone to reconstruct 2,400 LF of channel in the riffle and pool configuration would meet applicable water quality standards; would not result in significant adverse effects on human health and welfare, aquatic life, or other wildlife dependent on the aquatic ecosystem, nor impact the diversity, productivity, and stability of the aquatic ecosystem. The proposed riffle pool project would maintain bedload discharge and not cause excessive sedimentation during construction. Coordination of the project with the USFWS indicates that no Federally-listed “threatened” or “endangered” species or their critical habitat have been identified that would be

affected by the project. Appropriate steps have been taken to minimize adverse effects on the aquatic ecosystem including specific environmental protection clauses in the project contract specifications to ensure protection of natural resources. On the basis of *Section 404 (b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material* (40 CFR part 230), it has been determined that the proposed action is in compliance with Section 404 of the Clean Water Act.

ATTACHMENT B

PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT

PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT

MENOMONEE RIVER, ENVIRONMENTAL RESTORATION CITY OF MILWAUKEE, MILWAUKEE COUNTY, WISCONSIN SECTION 206 OF THE WATER RESOURCES DEVELOPMENT ACT

In accordance with the National Environmental Policy Act of 1969, the Detroit District, U.S. Army Corps of Engineers (USACE), prepared an Environmental Assessment (EA) and an evaluation pursuant to Section 404(b)(1) of the Clean Water Act (CWA) for the purpose of conducting a comprehensive evaluation of the existing conditions and environmental consequences of reconstruction of approximately 2,400 lineal feet (LF) of the Menomonee River located in Milwaukee, Wisconsin. The project begins at Middle Railroad Bridge and extends downstream to just south of Interstate Highway I-94 and includes the removal of 2,400 LF of concrete (15,000 square yards, excavation of 32,000 cubic yards (CYD) of material and placement of 19,000 CYD of rock to create riffles and pools within this river segment.

Alternatives considered under this study include: 1) removal of the concrete channel lining and placing stone designed to remain stationary to create riffle and pool complexes; 2) removal of the concrete channel lining and replacing the lining with stone, without the creation of any riffle or pool complexes and 3) No Federal Action. Alternative 1 is the selected alternative as it would restore access to the aquatic ecosystem along the Menomonee River. Alternative 2 would restrict upstream fish passage during spring runoff.

This study is being conducted under the authority of Section 206 of the Water Resources and Development Act (WRDA) of 1996, (P.L. 104-303) as amended; U.S. Code 33 USC 2330. This EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA), Section 102(2)(C); the CEQ, "Regulations for Implementing the Procedural Provisions of NEPA"; 40 Code of Federal Register (CFR) Parts 1500 through 1508; and the USACE, Policy and Procedure for Implementing NEPA (33 CFR Part 230). No wetlands will be destroyed by implementing the proposed project but 3 acres of concrete lined channel will be replaced with rock, creating riffles and pools in a natural channel design

Based on the findings of the EA and 404(b)(1) evaluation (for placement of fill material into 3 acres of waters of the United States), implementation of the selected project alternative would be in compliance with Section 404 of the CWA and would not result in significant short term, long term or cumulative adverse environmental impacts. Adverse effects will be minor, limited primarily to short term noise, air emissions and turbidity from construction activities. The proposed project will provide a long term, environmentally sound solution for aquatic habitat restoration by providing connectivity to 18 miles of river for spawning habitat.

The proposed project complies with Federal Executive Order 11988 on Flood Plain Management as it would not encourage floodplain development. The proposed project would be “consistent to the maximum extent practicable” (as defined in 16 USC 1456, Coastal Zone Management Act, approved 1978) with the Wisconsin Coastal Management Program as it would have no effect on the coastal zone or waterways discharging into Lake Michigan.

Review of the proposed project and the comments received during public review of the EA and 404(b)(1) evaluation indicates that the project does not constitute a major federal action significantly affecting the quality of the human environment; therefore, an Environmental Impact Statement will not be prepared.

DATE

Robert J. Ells
Lieutenant Colonel, U.S. Army
District Engineer

ATTACHMENT C

Agency Comments



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

MAY 17 2012

REPLY TO THE ATTENTION OF: E-19J

Adam C. Wagner
U.S. Army Corps of Engineers - Detroit District
P.O. Box 1027
Detroit, Michigan 48231

Re: Scoping Request, Menomonee River Ecosystem Restoration, Milwaukee, Wisconsin

Dear Mr. Wagner:

The U.S. Environmental Protection Agency (EPA) reviewed the scoping materials dated May 3, 2012, concerning the above-mentioned project. Our comments in this letter are provided in accordance with our responsibilities under the National Environmental Policy Act (NEPA), the Council on Environmental Quality's NEPA Implementing Regulations (40 CFR 1500-1508), and Section 309 of the Clean Air Act.

The U.S. Army Corps of Engineers (USACE) is proposing aquatic habitat restoration along the Menomonee River in Milwaukee County, Wisconsin. The Menomonee River was degraded by construction of a concrete channel for flood control purposes during the 1960's.

In addition to the no-action alternative, USACE is considering two action alternatives. One alternative, which is designated as the preferred alternative, includes removing the concrete channel lining, replacing it with stone and sand, and constructing pools and riffles. A second action alternative includes removing the concrete channel lining, replacing it with stone and sand, and allowing natural pools and riffles to re-establish naturally.

Based on the information provided, EPA has the following questions and comments:

Project Design:

- We recommend the forthcoming Environmental Assessment (EA) discuss selection of the upstream restoration terminus as indicated in Attachment 2. It appears that the channel continues as a concrete channel upstream of the indicated restoration starting point. Is the upstream concrete portion of the river slated to remain in its present condition? If so, how might the concrete channel affect the proposed restoration, particularly upstream passage for desirable fish species?
- The scoping materials indicate that construction will be done from the channel with water being diverted from those sections under construction. Assuming that the concrete channel invites flashy flood flows and due to the size of the river, EPA recommends that the forthcoming EA discuss how flow will be handled during construction. Is a dam and pump around proposed?
- EPA recommends that the EA discuss how many riffle/pool structures will be installed, and how the structures will be designed.

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- In the forthcoming EA, EPA requests information on the size (D50¹) of and type of rock proposed to be installed to create the new river bed. Due to the desire to naturalize the channel, EPA recommends that natural river rock be utilized in lieu of riprap and recommend that additional evaluation of stream bank bioengineered stabilization methods be utilized as an alternative to rip-rap.

Indirect Impacts:

- Once the river system has re-stabilized, what are the anticipated impacts (if any) to river morphology as a result of converting portions of the river from a concrete river channel to an area with natural substrate (e.g., stream load, turbidity, sediment accumulation, erosion, etc.)?
- How will the re-direction of energy cause downstream changes to the form and function of the river?
- How might this activity impact water quality?

Measures of Success:

- What types of measures of success will be used?
- At what stages of project (i.e., planning, design) are measures determined?
- At what intervals after construction is completed will project performance be measured?

Monitoring/Maintenance:

- Which entity(s) (e.g., USACE, state resource agency, local government, non-governmental organization) will handle monitoring/maintenance activities?
- If an entity other than USACE will be responsible for monitoring/maintenance activities, will USACE be involved in these activities to ensure agreed-upon standards are met?

Public Involvement:

- Given the proposed project's proximity to residential neighborhoods and Marquette University High School, we recommend USACE install signage (covering the different phases of construction, maintenance activities, and anticipated final results, among others) along the restoration site. Signage has the benefit of informing those who may come in contact with the restoration of the proposed project's purpose and anticipated benefits.

Thank you for the opportunity to comment early in the process. Please send us a copy of the draft Environmental Assessment once it is available. If you have any questions, please contact Kathy Kowal of my staff at 312-353-5206 or at kowal.kathleen@epa.gov.

Sincerely,



Kenneth A. Westlake
Chief, NEPA Implementation Section
Office of Enforcement and Compliance Assurance

¹ D50 = median angular rock size (50% of the sample is finer by weight) in inches

State of Wisconsin
DEPARTMENT OF NATURAL RESOURCES
101 S. Webster Street
Box 7921
Madison WI 53707-7921

Scott Walker, Governor
Cathy Stepp, Secretary
Telephone 608-266-2621
Toll Free 1-888-936-7463
TTY Access via relay - 711



May 24, 2012

Adam Wagner
US Army Corp of Engineers
Detroit Division
477 Michigan Ave # 600
Detroit, MI 48226

Subject: Initial Scoping Comments for proposed Aquatic Habitat Restoration Project, Menomonee River, I-94 to Wisconsin Avenue, Milwaukee County

Dear Mr. Wagner:

Thank you for the opportunity to provide comments for the proposed Aquatic Habitat Restoration Project on the Menomonee River from I-94 to Wisconsin Avenue in Milwaukee County. It is understood the project involves the removal of the 8 inch thick concrete channel lining and up to 3 feet of river bottom from a 3,700 foot stretch of the Menomonee River. The removal of the concrete channel lining will improve upstream passage for spawning of lake-run and resident fish species which has been greatly impaired by excessive currents created by the concrete channel. Department initial review and scoping comments are listed below.

Remediation and Redevelopment/Waste and Materials Management

- 1) Asbestos containing material may have been used as expansion joint material between concrete slabs. An asbestos assessment of the corridor should be completed prior to demolition. If the project includes asbestos removal an abatement plan needs to be defined and a **Notification of Demolition and/or Renovation and Application for Permit Exemption (NR 406, 410, and 447 Wis. Adm. Code)** may be required. Please contact Mark Davis, Asbestos Specialist (414) 263-8674 to request additional information and permit application materials.
- 2) Hazardous substance releases have been reported in the in the project area. The Department of Solid and Hazardous Waste Information Management provides an on-line database of landfills, waste transporters, hazardous waste generation, and waste processing facilities. The web address is: <http://dnr.wi.gov/botw/SetUpBasicSearchForm.do> . Please develop a plan to dispose of contaminated waste should it be encountered during construction. Should contamination be encountered within the right-of-way either before or during construction, you must notify the appropriate person in the DNR Solid Waste Section at 1-800-943-0003 prior to continuing operations.

Land Resources

- 1) Primary Environmental Corridors and Areas of Isolated Resources exist in the project area. The majority of the corridor is along the Menomonee River. Threatened and endangered species habitat may exist in these corridors. See the SEWRPC website for more information on Environmental Corridors at <http://www.sewrpc.org/regionallandinfo/regionalmapping/default.shtm>.
- 2) Maps indicate the presence of a trail crossing the project area near 44th Street. The trail has been identified as the Hank Aaron State Trail/Oak Leaf Trail connector. The Department would recommend that trail stays open; however, if this is not possible then detours should be determined and proper signage placed at next entrances. Any construction impacts on the trail shall be replaced

at or above current condition. Contact Melissa Cook, WDNR Trail Coordinator, at 414-263-8559 or Melissa.cook@wisconsin.gov for information.

- 3) Milwaukee County owned land exists adjacent to the project area. Impacts to this property may have to be mitigated through the 4(f) conversion process. Contact Jim Ritchie, Outreach Team Supervisor, at 414-263-8610 or Jim.ritchie@wisconsin.gov for information.

Water Resources

- 1) The project area is located in the Menomonee River basin. DNR basin report provides an overview of land and water resource quality is available at <http://www.dnr.state.wi.us/org/gmu/rootpike/rootpikefinal.pdf>.
- 2) The Department recommends that all in-water construction activity be avoided from March 15 to June 15 to protect endemic fish population during spawning activities. It is also necessary to maintain an unobstructed passageway through the construction area at these locations at all times to allow for continuous fish movements.
- 3) Channel stability and fish and wildlife passage should be standard design and construction objectives. A preliminary draft of the Southeastern Wisconsin Regional Planning Commission (SEWRPC) *Planning Report No. 50, Criteria and Guidelines for Stream Crossings to Allow Fish Passage and Maintain Stream Stability Within the Regional Water Quality Management Plan Update Study Area* is attached. The document is also available at http://www.sewrpc.org/SEWRPCFiles/Publications/ppr/pr-050_summary_water_quality_plan_greater_mike_watersheds.pdf. Well designed and installed structures keep channels stable; accommodate fish and wildlife passage, and lower maintenance costs.
- 4) No wetlands are present in the proposed Project Area.
- 5) The City of Milwaukee implements shore land and floodplain zoning in the project area. The Federal Emergency Management Agency (FEMA) is implementing a map modernization initiative to upgrade the Floodplain Map development process in which maps are created and distributed in a geographic information systems (GIS) format. The Department's floodplain management program has scanned the existing paper maps and geo-registered them. They are displayed on our web interactive maps <http://dnr.wi.gov/topic/floodplains/faddisclaimer.html>, and can be overlaid on top of air photos or topographic maps. Contact Tanya Lourigan, WDNR Floodplain Engineer, at 414-263-8641 or Tanya.lourigan@wisconsin.gov for more information.

Endangered Resources

- 1) There is potential for swallow nesting under bridges. The International Migratory Bird Act protects international migratory birds such as seagulls, swallows, and terns. It is a violation of federal law to disturb nests if eggs or fledgling young are present. Please contact Brian Nelson, United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services at (920) 324-4514 if eggs or fledgling young are present.
- 2) Endangered resources recently observed within the project area include:

Falco peregrinus Peregrine Falcon – bird, endangered
Astragalus neglectus Cooper's Milkvetch – plant, endangered

Ptelea trifoliata Wafer-ash – plant, species of concern

Construction Impacts

- 1) Construction erosion and sedimentation must be controlled to the disturbed area. The project must conform to TRANS 207.09 and 207.10. An effective erosion control plan needs to be developed for this project to prevent downstream migration of sediment and other potential pollutants. Erosion control devices shall be specified on the final construction plans. All erosion control BMPs must be in place prior to ground disturbing activity. All disturbed areas shall be adequately protected against erosion within seven days of work completion. Erosion control can be removed entirely after vegetation is established. Contact Jamie Lambert, WDNR Wastewater Specialist, at 414-263-8485 or Jamie.lambert@wisconsin.gov for more information.
- 2) Department of Natural Resources Waterway approvals are required for removal of concrete channel lining, dredging, sediment removal and by-pass pumping. If sediments need to be altered in the waterway a sediment analysis may be required.
- 3) If site dewatering is required, sediment-laden water shall be pumped into an adequate sediment basin located in an upland location prior to discharge to the waterway.
- 4) Excess fill/borrow material or spoils should be stockpiled on upland areas an adequate distance away from wetlands, stormsewer inlets, floodplains, and the waterways. Piles of stockpiled soil shall be protected against erosion and shall not create nuisance dust emissions.
- 5) Fertilizer (liquid or granular) should not be used on re-vegetated areas that are adjacent to waterways. This minimizes the risk of concentrated nutrients entering into waters of the state that can cause habitat impairments. Temporary cover crops can be used in lieu of fertilizers in these sensitive areas while the seed germinates during the growing season.
- 6) The proposed project exists within the Emerald Ash Borer Quarantine area. Please include WisDOT Specifications for Clearing and Grubbing within the Quarantine Zone to the contract special provisions.
- 7) All equipment must be properly cleaned and disinfected to address the spread of invasive species and viruses. Contract special provisions should require contractors to implement the following before and after mobilizing in-water equipment to prevent the spread of viral hemorrhagic septicemia (<http://dnr.wi.gov/fish/vhs/>) and other invasive species. Disinfect your boat, equipment and gear by either:
 - a. Washing with ~212° F water (steam clean), OR
 - b. Drying thoroughly for 5 days after cleaning with soap and water and/or high pressure water, OR
 - c. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. This disinfect should be used in conjunction with a hot water (>104° F) application.

Thanks again for the opportunity to provide scoping comments for the proposed Habitat Restoration Project on the Menomonee River from I-94 to Wisconsin Avenue in Milwaukee County. I would be glad to speak or meet with you to discuss the Department's comments and provide additional information.

Sincerely,

 *Kristina Betzold*

Kristina Betzold
Environmental Analysis and Review Specialist
(414) 263-8517
kristina.betzold@wisconsin.gov

REQUEST FOR SHPO COMMENT AND CONSULTATION ON A FEDERAL UNDERTAKING

RECEIVED

MAY 07 2012

WISCONSIN HIST PRES

Submit one copy with each undertaking for which our comment is requested. Please print or type. Return to:

Wisconsin Historical Society, Division of Historic Preservation, Office of Preservation Planning, 816 State Street, Madison, WI 53706

Please Check All Boxes and Include All of the Following Information, as Applicable:

I. GENERAL INFORMATION

- This is a new submittal.
- This is supplemental information relating to Case #: _____ and title: _____
- This project is being undertaken pursuant to the terms and conditions of a programmatic or other interagency agreement. The title of the agreement is _____

- a. Federal Agency Jurisdiction (Agency providing funds, assistance, license, permit): U.S. Army Corps of Engineers
- b. Federal Agency Contact Person: Charles Uhlarik, Chief, Environmental Branch Phone: 313-226-2476
- c. Project Contact Person: Karen Krepps, District Archaeologist Phone: 313-226-6238
- d. Return Address: 477 Michigan Ave, Detroit, MI Zip Code: 48226-2550
- e. Email Address: Karen.L.Krepps@usace.army.mil
- f. Project Name: Menomonee Section 206
- g. Project Street Address: Menomonee River, Milwaukee, between I-94 and Wisconsin Ave. and East of US-41
- h. County: Milwaukee City: Milwaukee Zip Code: 53208
- i. Project Location: Township 7 North, Range 21 E, E/W (circle one), Section 25, Quarter Sections SW
- j. Project Narrative Description—Attach Information as Necessary. See Attachment 2.
- k. Area of Potential Effect (APE). Attach Copy of U.S.G.S. 7.5 Minute Topographic Quadrangle Showing APE. See Attachment 1.

II. IDENTIFICATION OF HISTORIC PROPERTIES

- Historic Properties are located within the project APE per 36 CFR 800.4. Attach supporting materials.
- Historic Properties are not located within the project APE per 36 CFR 800.4. Attach supporting materials. See Attachment 2.

III. FINDINGS

- No historic properties will be affected (i.e., none is present or there are historic properties present but the project will have no effect upon them). Attach necessary documentation, as described at 36 CFR 800.11.
- The proposed undertaking will have no adverse effect on one or more historic properties located within the project APE under 36 CFR 800.5. Attach necessary documentation, as described at 36 CFR 800.11.
- The proposed undertaking will result in an adverse effect to one or more historic properties and the applicant, or other federally authorized representative, will consult with the SHPO and other consulting parties to resolve the adverse effect per 36 CFR 800.6. Attach necessary documentation, as described at 36 CFR 800.11, with a proposed plan to resolve adverse effect(s).

Authorized Signature: Charles A. Uhlarik Date: 02 May 12

Type or print name: Charles A. Uhlarik

IV. STATE HISTORIC PRESERVATION OFFICE COMMENTS

- Agree with the finding in section III above.
- Object to the finding for reasons indicated in attached letter.
- Cannot review until information is sent as follows: _____

Authorized Signature: Steven Baker Date: 5/15/12



November 9, 2012

Ms. Karen I. Krepps
U. S. Army Corps of Engineers
Detroit District
P.O. Box 1027
Detroit, MI 48231

SHSW#: 12-0423/MI
RE: Menomonee River Aquatic Habitat Restoration Project

Dear Ms. Krepps:

We have reviewed your submittal of October 12, 2012 regarding the above referenced project. The proposal does not explain how the project will meet the Secretary of the Interior's Standards. Project plans that are submitted for review and comment need to explain what is meant by "in kind". In the absence of a more complete project plan than what has been provided we offer the following general guidelines.

Existing stones should be reused whenever possible in the reconstruction. When missing new stones of the same material and approximate size as other wall stones shall be used.

It is best to test and match the new mortar to the surrounding historic mortar. The mortar should match in color composition, hardness, and joint profile with hardness being the most significant. The repair mortar should be equal to or softer than the historic mortar not harder than. If testing is not done then nothing harder than a type "N" mortar should be used. To match the color of the original mortar, the mason may need to use white, rather than gray, Portland cement tinted to match the existing.

New work should be laid in the same plane and with the same batter angle as the existing wall however it is acceptable to extend the replaced concrete outfall pipe slightly beyond the wall face enough to create a drip edge and not have the outfall run directly down the wall face.

The use of a poured concrete wall with a stamped stone pattern does not meet the standards and is not approved for use on the repair.

We look forward to reviewing more comprehensive project plans when they become available, at which time we will be able to assess the effects that the proposed project may have on historic properties. If you have any questions concerning these matters please call me at (608) 264-6507.

Sincerely,

A handwritten signature in cursive script, appearing to read "Sherman Banker".

Sherman Banker
Wisconsin State Historic Preservation Office

Re Early Coordination.txt

From: Joel_Trick@fws.gov
Sent: Thursday, May 03, 2012 3:05 PM
To: Wagner, Adam C LRE
Cc: Harrington, Hal F LRE
Subject: Re: Early Coordination,

Mr. Wagner:

I have reviewed the documents you attached to your message below, and agree that a determination of no effect to federally listed species is appropriate.

Joel A. Trick
U.S. Fish and wildlife Service
2661 Scott Tower Drive
New Franken, WI 54229
phone 920-866-1737
fax 920-866-1710
joel_trick@fws.gov
Inactive hide details for "Wagner, Adam C LRE"
<Adam.C.wagner@usace.army.mil>"Wagner, Adam C LRE"
<Adam.C.wagner@usace.army.mil>

"Wagner, Adam C LRE" <Adam.C.Wagner@usace.army.mil>

05/03/2012 07:36 AM

To

"Joel_Trick@fws.gov" <Joel_Trick@fws.gov>

cc

"Harrington, Hal F LRE" <Hal.F.Harrington@usace.army.mil>

Subject

Early Coordination,

The U.S. Army Corps of Engineers, Detroit District, is evaluating a proposed aquatic habitat restoration project along the Menomonee River in downtown Milwaukee, Milwaukee County, Wisconsin. We find that the project will have no effect on Federally recognized T&E species. A brief description of the project and our determination is attached. If you have other recommendations or items that we should discuss in the EA that is being prepared, please let me know.

Your assistance is appreciated.

Adam C. Wagner
U.S. Army Corps of Engineers - Detroit District
Office: 313-226-2138
Email: adam.c.wagner@usace.army.mil

[attachment "TE Summary.docx" deleted by Joel Trick/R3/FWS/DOI] [attachment
Page 1