Draft Environmental Assessment
Massillon Local Protection Project
Emergency Levee Embankment Repair & Stabilization
Stark County, Ohio

U.S. Army Corps of Engineers
Huntington District
Huntington, West Virginia
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MASSILLON LOCAL PROTECTION PROJECT
EMERGENCY LEVEE EMBANKMENT REPAIR & STABILIZATION
STARK COUNTY, OHIO

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Acronyms

BFE – Base Flood Elevations

BMPs- Best Management Practices

CEQ – Council on Environmental Quality

CFR – Code of Federal Regulations

DNL – Day Night Average Noise Levels

EA – Environmental Assessment

EIS – Environmental Impact Statement

EO – Executive Order

FEMA – Federal Emergency Management Agency

FIRM – Flood Insurance Rate Map

FONSI – Finding of No Significant Impact

HTRW – Hazardous, Toxic, and Radioactive Waste

NAA – No Action Alternative

NEPA – National Environmental Policy Act

NHPA – National Historic Preservation Act

NRHP - National Register of Historic Places

NPDES – National Pollutant Discharge Elimination System

NWI – National Wetland Inventory Map

ODNR - Ohio Department of Natural Resources

OEPA – Ohio Environmental Protection Agency

PAA – Proposed Action Alternative

PCBs - Polychlorinated biphenyl

SFHA – Special Flood Hazard Area

TMDL - Total Maximum Daily Load

USACE- U.S. Army Corps of Engineers

USFWS – U.S. Fish and Wildlife Service

WRDA – Water Resource Development Act

The brief and concise nature of this document is consistent with the 40 Code of Federal Regulations (CFR) requirements of the National Environmental Policy Act to reduce paperwork and delay by eliminating duplication with existing environmental documentation, incorporating pertinent material by reference, and by emphasizing interagency cooperation. The majority of data collection and analysis in this document was performed by the U.S. Army Corps of Engineers (USACE).

1.0 PROJECT DESCRIPTION

1.1 Project Background and Authorizations

The Massillon Local Protection Project was authorized under Section 4 of the Flood Control Act of 1938 (Public Law 75-761) as part of a comprehensive flood risk management plan for the Ohio River Basin in Massillon, Ohio. The project was constructed and completed by USACE in 1951 to protect a total of 252 acres of residential, commercial, and industrial development along the Tuscarawas River. The Massillon Local Protection Project consisted of 2.4 miles of channel widening and deepening; 0.8 miles of new channel; relocation of 6 miles of railroad lines, new railroad and highway bridges; 3 miles of earthen levees; construction of a concrete wall (closure structure); installation of 4 pump stations; and two pressure conduits. The East segment of the flood control system consists of approximately 11,600 linear feet of earth fill levee with average heights of 18 and 15 feet and the West segment consists of approximately 4,500 linear feet of earth fill levee with average heights of 20 and 16 feet.

The USACE is responsible for maintenance of the levees, flood walls and improved channel, including the control weir. The City of Massillon as the Sponsor, is responsible for operation and maintenance of the pump stations, drainage structures, pressure conduits, erection and dismantling of the stoplog structures and the sandbag closure, and patrol of the levee during floods.

In 2012, portions of the East Levee were stabilized due to progressive terrace sloughing and erosion. A shallow berm was constructed incrementally along the East Levee from just upstream of Cherry Street NW Bridge to just down channel of the Walnut Road Bridge. This treatment was an interim measure and did not address underlying causes. Site inspections beginning in February 2019 to present, observed severe and worsening erosion along the toe of both the East and West Levee embankments after a series of significant precipitation events. Currently, these failures are progressing further into the embankment and were rated unacceptable under the USACE Levee Safety Program, thus necessitating stabilization to protect the levees.

Figure 1 – Erosion on the East and West Levees

Figure 2 – Tension Crack Features Developing on the West Levee

In 2019, the USACE Huntington District received supplemental funding to construct terrace and embankment stone slope (riverbank) stabilization pursuant to the Bipartisan Budget Act of 2019. As a result of these measures, this Environmental Assessment (EA) is prepared pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality Regulations (40 CFR 1500-1508) and the USACE Implementing regulation, ER-200-2-2.

The project is authorized by Section 4 of the Flood Control Act of 1938 (Public Law 75-761), as amended and as an emergency project under the Supplemental Appropriations for Disaster Relief Act of 2019 (Public Law 116-20).

1.2 Purpose, Need, and Scope

The purpose of the Massillon Local Protection Project is to reduce flooding impacts and to protect the residences and business of Massillon, Ohio within the levee protection area from a Tuscarawas River flood with a peak discharge 20 percent greater than the March 1913 flood of record. The proposed stone slope repair would stabilize the embankment of the levees which have been leading to failures and threatening the integrity of the flood control system. In the absence of proposed stabilization measures, erosion along the toe of both the East and West Levee embankments would continue, progressing further into the streambank and could lead to failure of the flood control system. The need for the proposed stabilization measures is to preserve the integrity of the flood control system and provide the authorized level of protection to the City of Massillon, Ohio.

This EA is being prepared by the USACE to analyze the potential environmental impacts of the proposed terrace and embankment stone slope stabilization measures and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). An EIS is typically conducted where significant human or natural resources exist and the implementation of a proposed project may have significant negative effects to those resources. An EA typically involves projects where no significant resources occur or the project is expected to have less than significant impacts to the human and natural environment. In both EISs and EAs, additional project actions can be implemented to help avoid, minimize, or mitigate for potential project impacts.

1.3 Project Location

The project is located in the City of Massillon on the Tuscarawas River about 200 miles above the mouth of the Muskingum River in Stark County, Ohio. The east levee extends along Great Lakes Blvd. (State Route 21), extending in a north to south direction, from approximately 500 feet south of Lake Avenue to roughly 400 feet north of Oberlin Road. The west levee extends along the southern bank of Newman Creek for a distance of about 1,500 feet and then along the west bank of the Tuscarawas River from the Newman Creek confluence to Cherry Road located about 4,200 feet to the south. Project location mapping can be found in Appendix A.

Figure 3 – Project Location

2.0 PROPOSED ACTION AND ALTERNATIVES

2.1 Proposed Action Alternative (PAA)

The PAA would entail stabilization of approximately 11,500 linear feet of stone slope protection for both the East levee (7,500 linear feet) and West levee (4,000 linear feet). The embankment stabilization work would entail constructing a stone berm with keys, tie-backs, filter fabric, and angle dikes. It is anticipated that approximately 52,000 cubic yards of stone would be needed for the embankment stabilization of which approximately 11,000 cubic yards would be placed below the ordinary high water mark for the stone protection and approximately 3,000 cubic yards would be placed for the angle dikes. Approximately 58,000 cubic yards of excavation would be required.

During construction of the Massillon Local Protection Project, the channel was straightened from the upchannel culvert crossing to Cherry Street Bridge. The channelization caused a decrease in

meander wavelength which equates to an overall increase in channel slope. This increase in slope induces more stream power energy which has the potential to scour larger bed material load which can be manifested by channel incision or bank sloughing and erosion. It is probable that the thalweg could migrate towards the right or left descending banks and continue to scour leading to potential undercutting and launching of the proposed stone slope protection treatment even with the lower stone key component. Therefore, a series of minimally extensive angle dikes are also included within this treatment design to prevent the river from scouring the stone slope protection treatment. Approximately 210 Angle dikes will be spaced at 40 foot centers along the East and West Levees from the culvert crossing to the Cherry Street Bridge, oriented 30 degrees up channel, and extend approximately 10 feet into the channel.

Prior to the stabilization efforts, the USACE is currently constructing roads on the levee to be used as access during the embankment erosion repairs. The creation of the access roads included laying down geotextile fabric on the current ground surface and then covering it with aggregate. All work areas is within the footprint of the levee and constructed by land based equipment.

It is anticipated implementation of the above mentioned measures would be constructed in phases. Approximate locations of the phased construction work is listed below.

Phase A – Newman's Creek and Southward along the Tuscarawas River to the Cherry St. Bridge along the West Levee

Phase B - Finefrock Bridge northward to the Cherry Street Bridge

Phase C – Ernie’s bike shop and Southwards to the Cherry St. Bridge along the East Levee

Proposed laydown and disposal of material locations will be determined by the Contractor pending approval by the USACE and evaluation under NEPA will be required. The Contractor shall submit proposed laydown and disposal sites that require no tree clearing, no impacts to historic properties, and no impacts to waters of the United States.

2.2 No Action Alternative (NAA)

Under the NAA, the without project condition assumes no action by the USACE to stabilize the embankments of the levees. Without implementation of stone slope stabilization, scour and erosion would continue along both the West and East Levees, threatening the integrity of the flood control system and level of flood protection. Additionally, continued sedimentation into the Tuscarawas River and Newman Creek would lead to increases in turbidity/sedimentation and impact aquatic resources. This Local Protection Project protects approximately 359 structures with a population of 1,323. If failure of the levee would occur there would be significant impacts to the City of Massillon. Therefore, this alternative was considered unacceptable due to the potential safety hazards resulting from future floods and protecting the integrity of the authorized flood control system. However, it is included in the alternatives analysis to establish a baseline condition for existing human and natural environmental conditions, to allow comparison between

future without and with project actions, and to determine potential environmental effects of proposed project alternatives.

3.0 ENVIRONMENTAL SETTING AND CONSEQUENCES

This section discusses the existing conditions by resource category and any potential environmental impacts associated with the NAA as well as with implementation of the PAA. The USACE took context and intensity into consideration in determining potential impact significance, as defined in 40 CFR part 1508.27. The intensity of a potential impact is the impact's severity and includes consideration of beneficial and adverse effects, the level of controversy associated with a project's impacts on human health, whether the action establishes a precedent for future actions with significant effects, the level of uncertainty about project impacts and whether the action threatens to violate federal, state, or local laws established for the protection of the human and natural environment. The severity of an environmental impact is characterized as none/negligible, minor, moderate, significant, or beneficial. The impact may also be short-term or long-term in nature.

- **None/negligible –** No measurable impacts are expected to occur.
- **Minor –** A measurable and adverse effect to a resource. A slight impact that may not be readily obvious and is within accepted levels for permitting, continued resource sustainability, or human use. Impacts should be avoided and minimized if possible, but should not result in a mitigation requirement.
- **Significant –** A measurable and adverse effect to a resource. A major impact that is readily obvious and is not within accepted levels for permitting, continued resource sustainability, or human use. Impacts likely result in the need for mitigation.
- **Beneficial –** A measurable and positive effect to a resource. May be minor to major, resulting in improved conditions, sustainability, or viability of the resource.
- **Short-Term –** Temporary in nature and does not result in a permanent long-term beneficial or adverse effect to a resource. For example, temporary construction-related effects (such as, an increase in dust, noise, traffic congestion) that no longer occur once construction is complete. May be minor, significant, adverse or beneficial in nature.
- **Long-Term –** Permanent (or for most of the project life) beneficial or adverse effects to a resource. For example, permanent conversion of a wetland to a parking lot. May be minor, significant, adverse or beneficial in nature.

The USACE used quantitative and qualitative analyses, as appropriate, to determine the level of potential impact from proposed alternatives. Based on the results of the analyses, this EA identifies whether a particular potential impact would be adverse or beneficial, and to what extent. Council on Environmental Quality (CEQ) regulations also require that a proposed action's cumulative impact be addressed as part of a NEPA document. Cumulative impacts are discussed in section 3.14 below.

3.1 Land Use

Land use in the immediate project area is a mixture of residential, commercial, and industrial. According to the National Land Cover Dataset developed low, medium, and high intensity and developed open space primarily occur within one mile of the project area along with small areas of barren land, cultivated crops, deciduous forest, evergreen forest, hay/pasture, herbaceous, open water, and woody wetlands (Figure 4). The proposed stabilization project would be confined along the edge of the river banks within the existing footprint of the flood control project. Therefore, no impacts to land use are anticipated as part of the PAA.

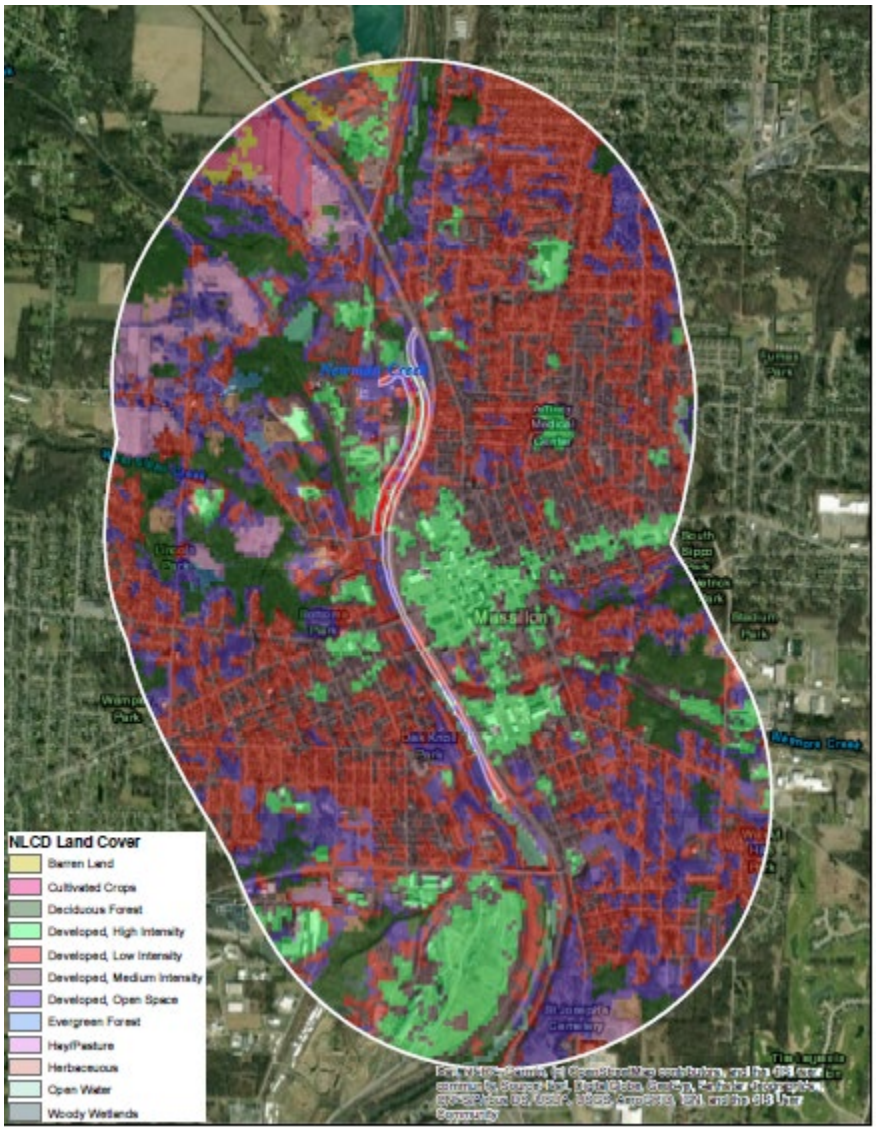

Figure 4 – Land Use within One Mile of the Project Area

There would be no impacts to land use as a result of the NAA.

3.2 Climate

The Tuscarawas River Watershed's geographic location makes it susceptible to highly variable weather throughout the year. The watershed's climate is greatly influenced by oceanic and atmospheric interactions. The watershed experiences seasonal weather patterns throughout the year, with climatic conditions typical of summer, fall, winter, and spring seasons. On average, the winter temperature in Stark County ranges between 19.3 degrees Fahrenheit to 37.2 degrees Fahrenheit. The county receives approximately 39.6 inches of precipitation annually. The majority of rainfall occurs between March and September. February is the driest month, while May is the wettest month for Stark County. The May 2017 Ohio River Basin – Formulating Climate Change Mitigation/Adaptation Strategies Through Regional Collaboration with the Ohio River Basin Alliance study projected the Muskingum River Basin would experience higher spring season incoming flows between 25% and 35% and a fall season with significant reductions in rainfall during the 2040 and 2099 forecast period.

Only short duration, minor discharges of carbon based pollutants would occur during construction activities that could contribute to greenhouse gases. The NAA or PAA would not involve any activity that could significantly affect the environment in regards to climate change and would not likely be influenced by future changes in climate. Therefore, no significant adverse impacts to climate or climate change would occur as a result of the PAA.

3.3 Terrestrial Habitat

The PAA would be constructed in previously disturbed areas within the flood control project along the East and West Levees. The vast majority of the leveed area consists of mowed maintained areas adjacent to the Tuscarawas River. Limited vegetation clearing, up to 0.3 acres, was completed in March 2020 along the right descending bank of Newman Creek within the project area. Vegetation in this area consisted of mainly small trees and shrubs. No additional tree clearing is required. No significant impacts to terrestrial habitat are anticipated as part of the PAA.

As the selection of the NAA would entail no changes to the project area, no impacts to terrestrial habitat would be anticipated as part of the NAA.

3.4 Floodplains

Executive Order (EO) 11988 requires Federal agencies to consider the potential effects of their proposed actions to floodplains. In order to determine the PAA's potential floodplain impact, the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) were reviewed and the majority of the proposed construction work limits are located within the special

flood hazard area as the floodway is contained between the levees (https://www.fema.gov/floodplain-management/flood-zones).

Due to the continued erosion and failing bank and recommended emergency embankment stabilization project being located within the special flood hazard area and floodway, there are no practicable alternatives that would be effective outside of the floodplain area. The Massillon Local Protection Project is a flood control project built along the Tuscarawas River. Stone slope projection would not result in a change in grade or elevation. Additionally, the PAA s designed in a manner that will not result in significant increased flood stages in the regulatory floodplains within the vicinity of the project area, as well as areas both upstream and downstream. The nature of this project does not result in incompatible use of the regulatory floodplain nor does it directly or indirectly encourage development of the floodplain. Therefore, the recommended plan meets the intent of EO 11988 and will not cause a negative impact to the regulatory floodway.

Under the NAA, scour and erosion would continue and floodway conveyance would increase with time, thus having long-term impacts to the floodplain and the area protected by the levees.

3.5 Aquatic Habitat/Water Quality

The Massillon Local Protection Project is located within the Tuscarawas River Watershed. The majority of impairment within the Tuscarawas River Watershed is historical causes, Polychlorinated biphenyl (PCBS), and hexachlorobenzine. Primary causes of impairment within the watershed include but are not limited to nutrient enrichment, habitat alteration, sediment, organic enrichment/dissolved oxygen, and pathogens. Sources of impairment include channelization, urbanization, agricultural activities, removal of vegetation, wastewater, livestock, etc.

Surface waters within the project area are the Tuscarawas River and Newman Creek. Both of these surface waters are perennial and designated as Warmwater Habitat (WWH) by the Ohio Environmental Protection Agency (OEPA). The OEPA's 2020 Integrated Water Quality Monitoring and Assessment Report identifies the following:

- Newman Creek: Aquatic life use is in attainment, recreation use is impaired, and fish tissue is impaired. A Total Maximum Daily Load (TMDL) was completed in 2004 and does not include fish tissue.
- Tuscarawas River: Aquatic life use is impaired, recreation is impaired, and fish tissue is also impaired. Impairments for fish tissue from a 2017 assessment include Polychlorinated biphenyl (PCBS) and hexachlorobenzine A TMDL evaluating fecal coliform, sediment, and phosphorus was approved in 2009. The Qualitative Habitat Evaluation Index (QHEI) score of 63 was assessed directly downstream of the project area.

Implementation of the PAA would not result in any new discharge of pollutants and would prevent the loss of additional material (sedimentation) into the river. Under the Clean Water Act, the USACE has submitted a 401 Water Quality Certification application for the proposed project to the OEPA. Water Quality Certification will be obtained prior to any in-water work. A

National Pollutant Discharge Elimination System (NPDES) permit would be required due to the size of construction area. Best Management Practices (BMPs) including measures outlined in the NPDES permit, Sediment and Erosion Plan, and Stormwater Pollution Prevention Plan would be used throughout the project to prevent runoff from the project into adjacent surface waters and maintain water quality.

The Tuscarawas River and Newman Creek within the project area has been substantially altered from natural conditions due to stormwater runoff, development, and construction of the flood control project which included creation of the levee system and channelization of a portion of the Tuscarawas River. These water bodies support an aquatic community of species including invertebrates, mussels, fish, amphibians, and reptiles. As a result of erosion, silt and sediment are transported into the adjacent waterbodies, resulting in excessive sedimentation, which can harm sensitive mussel species that are filter feeders and live in the benthic substrate and fish species.

Minor impacts to aquatic resources may occur due to placement of approximately 14,000 cubic yards (11,000 cubic yards embankment stabilization and 3,000 cubic yards for creation of angle dikes) of stone placed below the Ordinary High Water Level and in the river for embankment stabilization and creation of angle dikes. The project would not have significant adverse impacts on aquatic life due to the nature of the project and the extents of treatment. No Federally listed aquatic species reside in the project area. However, all native mussel species are protected in the State of Ohio (Section 1533.324 of the Ohio Revised Code). Therefore, in accordance of the Ohio Mussel Survey Protocol, a survey and relocation effort within and adjacent to the project is scheduled to occur between July and August 2020. Mussels would be relocated to an area downstream of the project (approximately one mile) as agreed upon through coordination with U.S. Fish and Wildlife Service (USFWS) and Ohio Department of Natural Resources (ODNR). Additionally, when constructed, the angle dikes would provide secondary benefits to the aquatic habitat of the Tuscarawas River by creating shelter and shallow water habitat features for fish.

Based on the above, implementation of the PAA would not result in significant adverse environmental impacts to aquatic habitat and water quality. In the long-term, implementation of the PAA is expected to have an overall positive impact on the aquatic habitat and water quality within the project area. Implementation of the PAA would ensure the reduction of sedimentation from the riverbank into the Tuscarawas River and Newman Creek.

Under the NAA, scour and erosion would continue to encroach along the East and West Levees and riverbank leading to increases in turbidity and sedimentation and potential failure of the levees. Therefore, significant impacts to aquatic habitat and water quality would continue to occur in the project area.

3.6 Wetlands

The U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapping was used to assess the possibility of wetlands occurring on site and potential impacts (USFWS, 2019). NWI mapping only identified riverine habitat and did not identify any wetlands within the study area. A site reconnaissance was conducted in 2019 to determine the validity of the NWI

maps. The site reconnaissance confirmed that no wetlands are located within the project area. Therefore, there would be no impacts to wetlands under the PAA.

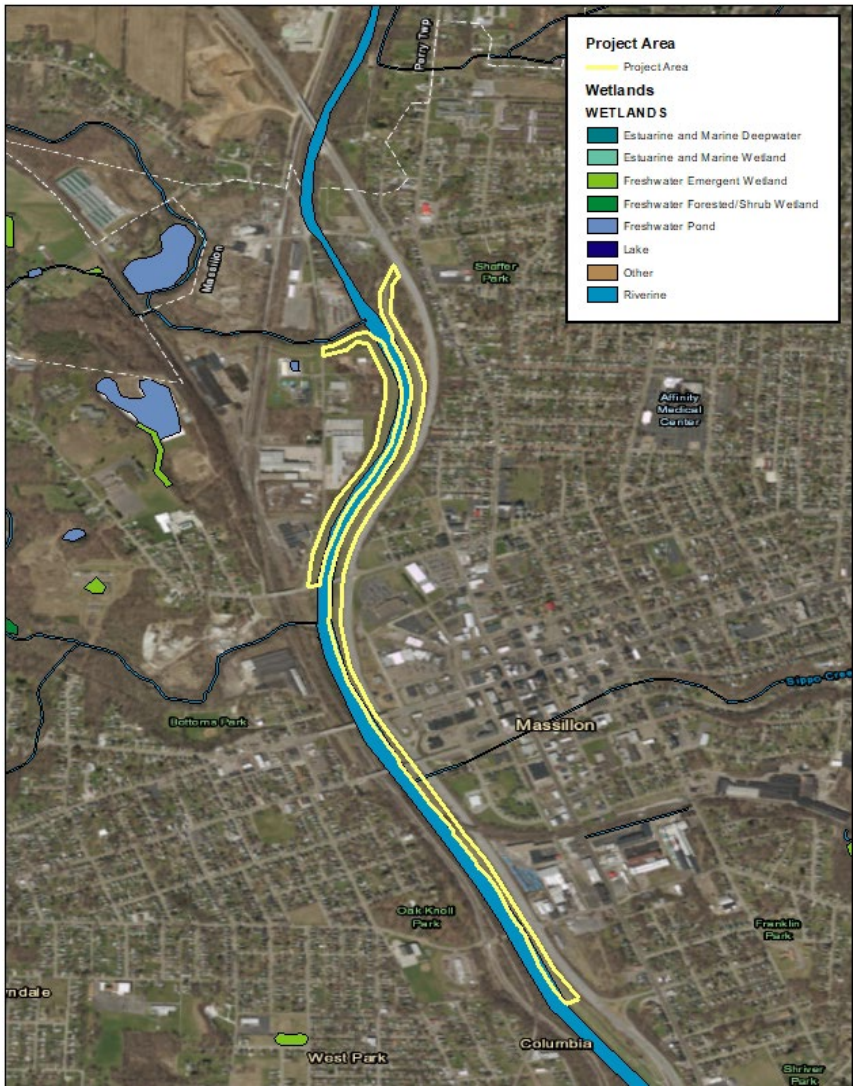

Figure 5 - National Wetland Inventory Map

No impacts to wetlands are anticipated as part of the NAA. However, there is potential for increased risk of sedimentation to any wetlands that may be located downstream of the project.

3.7 Wild and Scenic Rivers

No designated State Wild or Scenic Rivers are present within the Project Area. Therefore, no impacts to these resources are anticipated as part of the PAA or NAA.

3.8 Hazardous, Toxic, and Radioactive Waste (HTRW)

A Phase 1 HTRW Environmental Site Assessment was conducted for the Massillon Local Protection Project to identify environmental conditions and to identify the potential presence of HTRW contamination located in the project's construction work limits.

A site reconnaissance on February 4, 2020 was conducted during which the grounds surface was examined for signs of recognized environmental conditions (RECs) and also assessed the potential for contamination from adjacent properties. Following the site visit, USACE staff reviewed environmental records of the project site and adjacent properties along with historical aerial photographs and current topographic maps.

No RECs were observed within the project's work limits; significant riverbank erosion is evident. Data obtained from Environmental Data Resources showed several historic leaking underground storage tanks (LUSTs) near the project area. All LUSTs of potential concern have received clean closure and are not a concern for the project area; however, if there is evidence of petroleum contamination during construction, then construction should be halted for additional investigation. A clearance memorandum was signed by the USACE HTRW staff on April 14, 2020.

Therefore, there are no anticipated HTRW impacts as a result of the PPA or the NAA.

3.9 Cultural Resources

According to the "Muskingum River Basin Flood Control Projects, Ohio Historic Architectural and Engineering Context, with Treatment and management Recommendations" (McCroskey 2016), the Massillon Local Protection Project is not eligible for listing on the National Register of Historic Places (NRHP) because it falls outside the period of significance and "lacks associated features common to the New Deal era projects…" (McCroskey 2016:11). However, the USACE Huntington District believes that the Massillon LPP is eligible for listing on the NRHP under criterion A, because it is associated with the larger flood control of the Muskingum Basin. No historic resources have been identified within the project areas. In accordance with 36 CFR 800.5 (b), the USACE Huntington District determined there will be no adverse effect to historic resources during this undertaking. The Ohio State Historic Preservation Office (SHPO) concurred with this determination on February 21, 2020. In accordance with 36 CFR 800.4(d)(1)(i), the Huntington District has fulfilled its obligations under Section 106 of the National Historic Preservation Act.

If unanticipated archaeological deposits or human remains are discovered during construction, all work near the location of the discovery shall cease and the Project Manager and Huntington District Archaeologist shall be contacted immediately. The Ohio State Police, the Stark County Coroner, and Ohio Historic Preservation Office shall also be notified immediately if human remains are discovered.

There are no anticipated cultural resource impacts under the NAA.

3.10 Threatened and Endangered Species

According to the U.S. Fish and Wildlife Service (USFWS), the project area is within the range of the Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*). As mentioned above in Section 3.2, the PAA would be implemented in previously disturbed artea within the flood control project along the East and West Levees. In March 2020, limited clearing of vegetation along the right decending bank of Newman Creek occurred in preparation of the stone slope protection. Vegetation in this area consisted of mainly small trees and shrubs. No maternal roost trees were present within this location. No additional tree clearing is required. Due to the limited tree clearing and lack of suitable roosting habitat, the USACE Huntington District determined the proposed action may affect but is not likely to adversely affect the Indiana Bat and Northern Long-eared bat. The USFWS concurred with this determination under on March 9, 2020. No further coordination under Section 7 of the Endangered Species Act or Fish and Wildlife Coordination Act is required.

The NAA would not result in ground disturbing activities. Therefore, there would be no effect to Threatened and Endangered Species associated with the NAA.

3.11 Air Quality

According to the OEPA website, Stark County is classified as "in attainment" (maintaining applicable standards) for all criteria pollutants. Construction activities of the PAA would have the potential to cause localized temporary, nuisance air quality impacts which includes particulate emissions from construction equipment and fugitive dust from excavation. Emission sources include diesel exhaust and fuel odors associated with operation of heavy equipment, engine emissions associated with construction and construction activities. All construction would be performed in compliance with applicable control requirements established by the OEPA. The PAA is exempted by 40 CFR Part 93.153 from making a conformity determination, since estimated emissions from construction equipment would not be expected to exceed deminimis levels, direct emissions of a criteria pollutant, or its precursors. Any impacts would be localized, and would occur only during construction phase activities. During construction, the contractor shall meet all existing federal and state regulations regarding equipment emissions. Impacts to air quality under the PAA would be minor and temporary during construction and would not have significant long-term adverse impacts.

No impacts to air quality are anticipated to occur as part of the NAA.

3.12 Noise

Ambient noise around the project area is representative of mixed industrial, commercial and residential. Heavier noise generated by traffic on State Highway Route 21. Noise associated with

the PAA would be limited to that generated during construction. The noise associated with construction would be short in duration and would only occur during daylight hours.

Noise is measured as Day Night average noise levels (DNL) in "A-weighted" decibels that the human ear is most sensitive to (dBA). There are no Federal standards for allowable noise levels. According to the Department of Housing and Urban Development Guidelines, DNLs below 65 dBA are normally acceptable levels of exterior noise in residential areas. The Federal Aviation Administration (FAA) denotes a DNL above 65 dBA as the level of significant noise impact. Several other agencies, including the Federal Energy Regulatory Commission, use a DNL criterion of 55 dBA as the threshold for defining noise impacts in suburban and rural residential areas. According to Dr. Paul Schomer in his 2001 Whitepaper, while there are numerous thresholds for acceptable noise in residential areas, research suggests an area's current noise environment, which has experienced noise in the past, may reasonably expect to tolerate a level of noise about 5 dBA higher than the general guidelines. The USACE Safety and Health Requirements Manual provides criteria for temporary permissible noise exposure levels (see Table 3.1 below), for consideration of hearing protection or the need to administer sound reduction controls. Ambient noise around the project area is representative of a mixed commercial and residential.

Table 1 - Permissible Non-Department of Defense Noise Exposures	
Duration/day (hours)	Noise level (dBA)
8	90
6	92
4	95
3	97
2	100
1.5	102
1	105

Construction of the proposed project would have temporary long-term elevated noise levels for approximately two years. These impacts would vary depending on the construction phasing in the project area. Construction would temporarily increase ambient noise levels due to the operation of construction equipment. The noise levels at the site would fluctuate depending on the types of equipment are in use, the way the equipment is operated, and location based on construction phasing. Therefore noise levels would be variable throughout the workday and project duration. Construction projects are usually executed in stages, each having its own combination of equipment and noise characteristics and magnitudes. Construction activities of the proposed Project area expected to be typical of similar construction projects and will include mobilization, site preparation, excavation, equipment movement, etc.

Noise exposure would occur when persons are entering/exiting residences or businesses and driving on roads such as State Highway 21. Noise generated from construction equipment to be utilized during construction would likely range from 80 and 85 dBA, measured from a distance of 50 feet (Federal Highway Administration, 2006). The USACE Safety and Health

Requirements Manual, indicate that temporary noise exposure for a period of eight hours at a level of 90 dBA is permissible for Non-Department of Defense Noise Exposures. Since individual noise receptors would be located more than 90 feet from the project construction area, the noise levels and the period of exposure would fall within acceptable limits and would not require additional sound reduction controls. Indirect impacts include noise from worker commuting and material transport, increasing noise levels. Nearby areas may experience increased traffic noise during day-time hours as trucks needed for construction transit to and from the site.

While the anticipated noise levels generated from construction would be below the level necessary to protect human health, they have the potential to be a nuisance and interfere with outdoor activities. Short term noise impacts would be further mitigated to the extent feasible using Best Management Practices (i.e. monitoring) and complying with applicable state regulations. Given that the elevated noise levels would be short in duration for individual receptors, and no risk to hearing damage would be present, no significant adverse impacts from the PPA would be expected.

There would be no change in noise and thus no impact under the NAA.

3.13 Environmental Justice and Protection of Children

Under EO 12898 "Federal Action to Address Environmental Justice in Minority Populations and Low Income Populations," as amended, Federal agencies are directed to identify, address, and avoid disproportionately high and adverse human health or environmental effects on minority and low income populations. According to the U.S. Census Bureau, the total population of Massillon, Ohio is 32,584 and has a median household income of $32,584. Minority populations makeup approximately 13.8% of the population in Massillon and individuals residing in the city below the poverty level is 17.1% compared to 13.9% statewide.

EO 13045 "Protection of Children from Environmental Health Risks and Safety Risks" was issued in 1997 and has been amended twice. This order applies to economically significant rules under EO 12866 "Regulatory Planning and Review", as amended, that concerns an environmental health or safety risk that USEPA has reason to believe may disproportionately affect children. EO 13045 requires each Federal agency "to identify and assess environmental health risks and safety risks that may disproportionately affect children" and "ensure that its policies, programs, activities, and standards address disproportionate risks to children that result from environmental health risks or safety risks." This EO was prompted by the recognition that children, still undergoing physiological growth and development, are more sensitive to adverse environmental health and safety risks than adults. The potential for impacts on the health and safety of children is greater where projects are located near residential areas.

Implementation of the Recommended Plan would aid in protection of the levees, thereby improving the living environment for all residents and providing a benefit to the general public. No homes or buildings would be adversely impacted by the proposed project; therefore, the PPA meets the directive of EO 12898, as amended, by avoiding any disproportionately high adverse

human health or environmental effects on minority or low-income populations. In addition, the project is in compliance with EO 13045 "Protection of Children from Environmental Health Risks and Safety risks," as amended, as there are no health or safety concerns affecting children. Under the NAA, continued erosion and encroachment along the riverbanks of the levees could lead to undue hardship on the entire population of the City of Massillon. The NAA, similar to the PAA, would have no effect on minority and low-income populations and no safety concerns affecting children.

3.14 Recreation and Aesthetics Resources

The Ohio & Erie Canal Towpath Trail (Congressman Ralph Regula Towpath Trail) runs along the top of the East Levee and is used heavily by recreational users for walking and biking. The towpath trail is maintained by the Stark County Park District (Stark Parks). The Tuscarawas River is used by non-motorized watercraft recreational users such as kayaks and paddle boats. Ernie's Bike Shop, a local shop located adjacent to the project area provides rentals for bikes, canoes, and kayaks. Recreation in the Tuscarawas River within the project area is limited due to the low head dam and shallow depth of the river.

Construction of the embankment stone slope stabilization would occur in phases along the East and West Levee, beginning in the upper reach of the project area and working downstream in segments, reducing impacts to recreational users. The towpath would not be directly impacted by construction of the project but temporary closures would be required for safety measures. Meetings with the City of Massillon and Stark Parks was held in February and April 2020 to discuss impacts to recreation and potential towpath trail detours. Due to safety and other factors, there will be no detour route during construction. Signage would be placed notifying recreational users that the trails are temporarily closed. Additionally, Stark Parks will provide trail closure information on their website. Paddlers may be temporarily diverted during construction for safety reasons within the active construction area. Temporary impacts to recreation for both the trail and river reach would be limited to areas under active construction and would be reopened when the next construction phase begins.

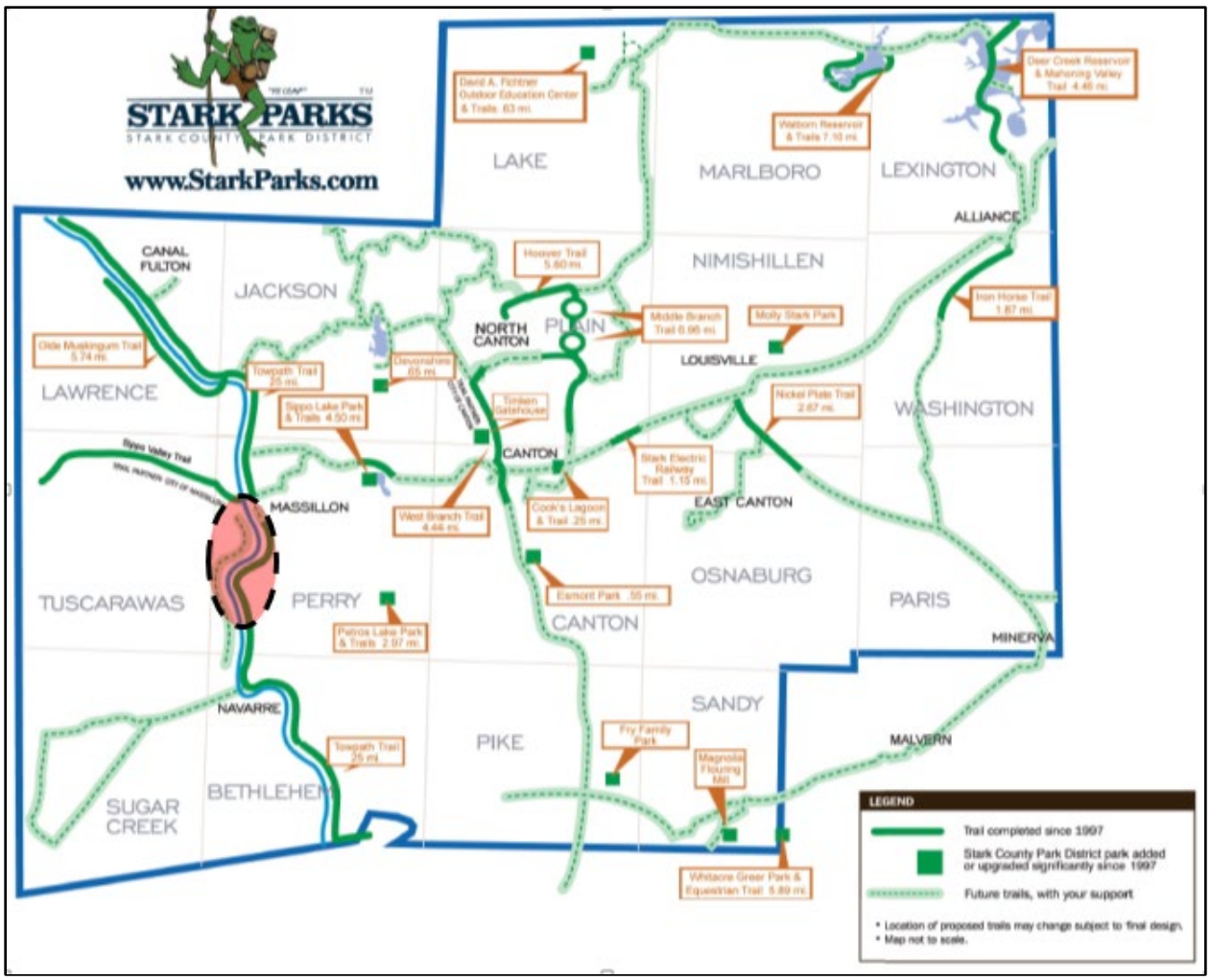

Figure 6 – Location of Towpath Trail Impacts

Due to the temporary nature of these impacts, following construction, all recreational activities would resume to existing uses. There would be no long term impacts to aesthetics. The Local Protection Project currently consists of stone slope protection and angle dikes along portions of the Tuscarawas River. The extent of these stabilization features would be increased and more stone would be placed along the riverbank; however, the project would not alter the design of the levees and the viewshed to users would be similar to existing conditions. Therefore, the PAA would not have any adverse impacts to recreation and aesthetics and only temporary impacts would occur.

Under the NAA no impacts to recreation and aesthetics would occur.

3.15 Health and Safety

The PAA has been designed to stabilize the existing East and West Levees at the Massillon Local Protection Project. Current scour and erosion of the riverbank continues to threaten the integrity of the levee system which could impact the City of Massillon. Continued erosion and bank failure would also negatively impact aquatic resources within the Tuscarawas River, which could also impact recreation amenities. The PAA would increase safety to the levee protected area and would not cause safety concerns to recreational users as the stone treatment does not reach into the channel and is confined adjacent to the riverbank. Non-motorized watercraft users may be temporarily diverted within the active construction area to ensure safety of recreation users. The Ohio & Erie Canal Towpath, situated on top of the levee, would be temporarily closed to ensure public safety during active construction. Additionally, stabilizing the levees will minimize impacts to water quality and aquatic resources by reducing the amount of sediment discharged into the Tuscarawas River and Newman Creek. Therefore, the PAA is anticipated to have a long-term, beneficial impact on health and safety.

Under the NAA, continued erosion and encroachment on the levee systems would lead to safety risks that could cause negative impacts on the community. In addition, sedimentation and siltation would continue to increase and negatively affect water quality and aquatic resources in the Tuscarawas River and Newman Creek. Therefore, under the NAA long-term negative impacts would likely continue to occur.

3.16 Transportation and Traffic

The project area is located along the Tuscarawas River adjacent to State Route 21, which would be used for access to the site for construction. State Route 21 serves as the main thorough fair through the City of Massillon. Construction of the PAA would be land based and stone and equipment would be transported via truck to the project site. Disposal material would be transported to an approved site, via haul trucks as well. Construction of roads on the levees are currently underway to provide access during the embankment erosion repairs. Prior to implementation of the project, the Contractor shall provide a traffic control plan for approval to detail the proposed controls to traffic movement. Provisions such as project identification and safety signs along with fencing and barricades will be implemented. Maintenance of traffic will be in accordance with Ohio Department of Transportation and local regulations. Therefore, impacts under the PAA to traffic and transportation would be minor and temporary.

No impacts to transportation and traffic are anticipated to occur from the NAA.

3.17 Cumulative Effects

USACE must consider the cumulative effects of the proposed project on the environment as stipulated in the National Environmental Policy Act as amended, (42 U.S.C. § 4321 et seq) (NEPA). Cumulative effects are "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or Non-Federal) or person undertakes such

actions". Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR § 1508.7, Council on Environmental Quality [CEQ] Regulations).

The cumulative effects analysis is based on the potential effects of the proposed project when added to similar impacts from other projects in the region. An inherent part of the cumulative effects analysis is the uncertainty surrounding actions that have not yet been fully developed. The CEQ regulations provide for the inclusion of uncertainties in the analysis and states that "when an agency is evaluating reasonably foreseeable significant adverse effects on the human environment...and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking" (40 CFR § 1502.22).

Temporal and geographical limits for this project must be established in order to frame the analysis. These limits can vary by the resources that are affected. Constructed of the PPA would have very localized effects confined to the area immediately in the vicinity of the project area, specifically the project area of the Tuscarawas River and Newman Creek adjacent to the City of Massillon. Long term benefits to the area as a result of stabilizing the levee embankments would result from the proposed action. The geographical extent would be broadened to consider effects beyond the PPA and is considered to be the Tuscarawas River Watershed. The temporal limits for assessment of this impact would initiate in 1951 with the construction of the Massillon Local Protection Project and end 50 years after completion of this proposed stabilization effort.

The Tuscarawas River Watershed is listed in the 2020 Integrated Water Quality Monitoring and Assessment Report for the State of Ohio where the watershed is listed as impaired for Polychlorinated biphenyl (PCBs) and Hexachlorobenzene, In the past, flood risk management measures have occurred or ongoing in other communities in the Tuscarawas River Watershed. These measures include Beach City Lake, Silica Sand Levee, Bolivar Dam, Magnolia Levee, East Sparta Levee, Dover Dam, Norton Levee, Fairfield Brick Levee, Corundite Levee, Somerdale Levee, Atwood Lake, Leesville Lake, Tappan Lake, Clendening Lake, Piedmont Lake, Senecaville Lake, and Wills Creek Lake in partnership with the Muskingum Watershed Conservancy District (MWCD). As mentioned previously, past interim stone slope stabilization measures at the Massillon Local Protection Project have occurred. These past actions had similar temporary impacts but no significant cumulative impact. Long-term beneficial flood risk management impacts as a result of these past actions have been realized.

The Tuscarawas River Watershed is part of the Muskingum River Basin. Watershed studies for the Muskingum River Basin have been undertaken recently by both the USACE and the MWCD. The Stark County Soil and Water Conservation District are active in conserving the natural resources of the watershed by educating, guiding and assisting the citizens of Stark County. The MWCD has also established “Partners in Watershed Management Project Assistance Program” and funds eligible projects. In the future, watershed programs may address flood risk management and conservation activities in the watershed. Impairment of the Tuscarawas River is expected to continue.

Section 3.0 documents the environmental effects of the PPA and NAA with respect to existing conditions. The effects of the PAA, as discussed beforehand, are localized and temporary. Past actions that may have resulted in similar effects include stone slope protection measures. Present actions such as creation of access roads in preparation for the project would also result in similar effects. Impacts as a result of the proposed project are not considered significant. No adverse impacts would occur to federally listed species and mussels within the project area will be relocated downstream. Temporary impacts would occur during construction and include localized noise, transportation and traffic, and temporary recreational impacts. Project implementation would result in minor impacts to aquatic habitat from placement of stone. However, long-term beneficial impacts from implementation of embankment stabilization measures would be realized by protecting and maintaining the levee system and halting continued riverbank failure. Additionally continued erosion and potential failure of the levee could also adversely impact water quality and aquatic resources.

Under the NAA, it is foreseeable that cumulative impacts would be more significant due to continued erosion and extended failure of the riverbank and levee system.

The availability of Federal funds through supplemental appropriations, provides emergency assistance to protect the existing Massillon Local Protection Project. The significance of this action on safety, aquatic resources, and water quality would be positive. Given the overall beneficial effect from implementation of the Proposed Action, there is expected to be a positive cumulative effect by providing continued flood protection based on past, present, and reasonably foreseeable actions.

4.0 Status of Environmental Compliance

The PAA will be in full compliance with all local, state, and Federal statutes as well as Executive Orders. Under the Clean Water Act, the Water Quality Certification will be obtained prior to work in surface waters and the NPDES permit will be obtained prior to construction activities. Compliance is documented below in Table 5.

Table 5- Environmental Compliance Status

Statute/Executive Order	Full	Partial	N/A
National Environmental Policy Act (considered partial until the FONSI is signed)**		X	
Fish and Wildlife Coordination Act	X		
Endangered Species Act	X		
Clean Water Act	X		
Wild and Scenic Rivers Act	X		
Clean Air Act	X		
National Historic Preservation Act	X		
Archeological Resources Protection Act	X		
Comprehensive, Environmental Response, Compensation and Liability Act	X		
Resource Conservation and Recovery Act	X		

Table 5- Environmental Compliance Status			
Toxic Substances Control Act	X		
Quiet Communities Act	X		
Farmland Protection Act	X		
Executive Order 11988 Floodplain Management	X		
Executive Order 11990 Protection of Wetlands	X		
Executive Order 12898 Environmental Justice in Minority Populations and Low-Income Populations	X		
Executive Order 13045 Protection of Children	X		

5.0 REQUIRED COORDINATION

5.1 Stakeholder Agency Coordination

Coordination with Federal, State, and Local resource agencies has been initiated in conjunction with the preparation of the EA. Direct coordination with USFWS, ODNR, OEPA, SHPO, City of Massillon, and Stark Parks was completed prior to publication of the EA. Below is a list of coordination meetings.

- May 15, 2018 – Site visit conducted with staff from USACE, USFWS, and OEPA.
- January 8, 2020 – Meeting held with staff from USACE, USFWS, ONDR, and OEPA to continue coordination on the project
- February 19, 2020 – Meeting held with staff from the USACE, City of Massillon and Stark Parks
- April 7, 2020 – Teleconference meeting with staff from USACE, City of Massillon, and Stark Parks to coordinate on temporary impacts to recreation

Agency correspondence is included in Appendix B.

5.2 Public Review and Comments

The SEA and FONSI will be made available for public review and comment for a period of 30 days, as required under NEPA. A Notice of Availability will be published in the local newspaper, The Independent, advising the public of this document's availability for review and comment. A copy of the SEA was also be placed in the Massillon Public Library and available on-line at ***http://www.lrh.Corps.army.mil/Missions/PublicReview.aspx***.

The mailing list for the EA is located in Appendix C.

6.0 CONCLUSION

The proposed emergency stabilization efforts would ensure that the Massillon Local Protection Project operates as originally authorized by providing flood protection from a Tuscarawas River flood with a peak discharge 20 percent greater than the March 1913 flood of record in Massillon, Ohio. No significant adverse impacts have been identified as a result of implementation of the

proposed project. The majority of construction would take place on previously disturbed land. Effects associated with construction would be minor and temporary. Best Management Practices would be implemented during construction to minimize impacts to residents and the environment. Therefore, the PAA would not be expected to have significant adverse impacts on the human environment.

7.0 LIST OF INFORMATION PROVIDERS AND PREPARERS

U.S. Army Corps of Engineers Huntington District
Planning Branch
502 Eighth Street
Huntington, WV 25701

8.0 REFERENCES

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