

Draft  
Environmental Assessment  
and  
Finding of No Significant Impact

WASTEWATER TREATMENT PLANT EXPANSION AND  
LIFT STATION IMPROVEMENTS IN THE VILLAGE OF NEW  
MADISON, DARKE COUNTY, OHIO

Section 594 of the Water Resources Development Act  
Ohio and North Dakota  
Environmental Infrastructure Program

August 2022



United States Army Corps of Engineers  
Louisville District

## **DRAFT FINDING OF NO SIGNIFICANT IMPACT**

### **Wastewater Treatment Plant Expansion and Lift Station Improvements in the Village of New Madison, Darke County, Ohio**

The U.S. Army Corps of Engineers, Louisville District (USACE) has conducted an Environmental Assessment (EA) in accordance with the National Environmental Policy Act of 1969, as amended, for the Section 594 New Sanitary Sewage Collection System project (Project) planned for the incorporated community Village of New Madison, Ohio (New Madison). The Draft EA, dated August 2022, details the environmental consequences of the Project as well as the other alternatives considered.

The Draft EA, incorporated herein by reference, evaluates alternatives that would deliver cost-effective, environmentally sound sanitary sewer services to residents within the service area of New Madison and surrounding Villages. In addition to a “no action” plan, three alternatives were evaluated in detail. The recommended plan, involves expansion and improvement of facilities at the existing wastewater treatment plant in New Madison. Major components of the plan include rehabilitating the Rush Road Lift Station, replacing the fine screen and screening building, adding additional secondary treatment, replacing the existing Ultraviolet (UV) disinfection system, and expanding the solids handling processes to account for the additional loadings and provide longer detention time. The proposed wastewater treatment plant (WWTP) expansion project would also allow for the regionalization of wastewater treatment for the nearby Village of Wayne Lakes which currently lacks a WWTP and has 326 properties with Ohio Environmental Protection Agency (Ohio EPA) sewage permits. It is estimated by the Darke County General Health District that approximately 68% of homes within Wayne Lakes are not meeting Ohio EPA discharge standards due to aging or ineffective discharging septic systems such as drywell systems and aged filter beds.

Because the New Madison WWTP was originally constructed in 2002/2003, the majority of plant components are original and are therefore nearing the end of their service life. The proposed expansion and improvement of the New Madison WWTP would address both the design and operational deficiencies of the existing system and also provide the surrounding communities with adequate wastewater treatment and associated public health benefits.

For the recommended plan and the No Action Alternative, the potential effects were evaluated, as appropriate. A summary assessment of the potential effects of the recommended plan are listed in Table 1:

Table 1: Summary of Potential Effects of the Recommended Plan

	Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Aesthetics	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Air quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquatic resources/wetlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Threatened/Endangered species/critical habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Historic properties	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other cultural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Floodplains	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hazardous, toxic & radioactive waste	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Land use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise levels	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Socioeconomics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Environmental justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tribal trust resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water quality	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Prime and unique farmland	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transportation and traffic	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

All practical means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best management practices (BMPs), as detailed in the draft EA (e.g., mulching, seeding, silt fences) will be integrated into the project plans and specifications and implemented during construction to minimize impacts. These actions are described in greater detail in Section 3.0 of the draft EA.

No compensatory mitigation is required as part of the recommended plan.

Public review of the draft EA and FONSI was initiated on [PENDING]. A 30-day state and agency review of the draft EA was initiated on [PENDING]. All comments submitted during the public and state and agency review periods will be responded to in the Final EA and FONSI, and any necessary changes will be incorporated.



Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the USACE determined that the recommended plan would have no effect on Federally listed species or their designated critical habitat.

Pursuant to section 106 of the National Historic Preservation Act of 1966, as amended, the USACE determined that historic properties will not be adversely affected by the recommended plan. The Ohio State Historic Preservation Office concurred with the Corps determination on 13 December 2021.

All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this EA, the reviews by other Federal, State and local agencies, Tribes, input of the public, and the review by my staff, it is my determination that the recommended Project plan would not significantly affect the human environment; therefore, preparation of an Environmental Impact Statement is not required.

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Date

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Eric D. Crispino  
Colonel, U.S. Army  
District Commander



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## List of Acronyms

APE – Area of Potential Effect

CEQ – Council on Environmental Quality

CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act

EA – Environmental Assessment

EIS – Environmental Impact Statement

EPA – Environmental Protection Agency

HTRW – Hazardous, Toxic, and Radioactive Waste

HUC – Hydrologic Unit Code

NEPA – National Environmental Policy Act

NPDES – National Pollutant Discharge Elimination System

NAA – No Action Alternative

ODOT – Ohio Department of Transportation

OSHPO – Ohio State Historic Preservation Office

RCRA – Resource Conservation and Recovery Act

STEP – Septic Treatment Effluent Pump

USACE – United States Army Corps of Engineers

USGS – United States Geological Survey

WPCD – Water Pollution Control District

WRDA – Water Resources Development Act



## 1.0 PROJECT DESCRIPTION

### 1.1 Project Background and Authorization

The purpose of the Environmental Assessment (EA) is to analyze potential environmental impacts that would result from the recommended plan and reasonable alternatives for the proposed expansion and improvement of the wastewater treatment facility in the Village of New Madison (Project) in Harrison Township, Darke County, Ohio, and to determine whether the preparation of an Environmental Impact Statement (EIS) is required.

The Project will be carried out through a public partnership agreement executed 22 September 2021 between the Village of New Madison, Ohio (hereafter “New Madison”) and the United States Army Corps of Engineers Louisville District (USACE) and established under the authority of Section 594 of the Water Resources Development Act (WRDA) of 1999 (Public Law 106-53, 113 STAT 381), as amended. Section 594 authorizes Federal design and construction assistance to non-Federal interests to carry out water-related environmental infrastructure and resource protection and development projects in Ohio and North Dakota.

This EA was prepared pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) Regulations (40 C.F.R. Parts 1500-1508), and Corps of Engineers Regulation ER 200-2-2, *Policy and Procedures for Implementing NEPA* (33 C.F.R. Part 230). This EA was prepared to describe the existing conditions in the vicinity of the Project Area (see Figure 1) and evaluate the potential impacts associated with the recommended plan and reasonable alternatives.

### 1.2 Location

New Madison is a small, incorporated village located in Darke County, Ohio, approximately 5 miles southeast of the Village of Wayne Lakes, and 11 miles south of the City of Greenville (Figure 1). According to the United States Census Bureau, New Madison has a total area of 0.41 square miles. The 2010 population of New Madison was estimated to be 892 (U.S. Census Bureau 2021). Land in the vicinity of the Project is mostly agricultural interspersed with rural residential properties. The Project Area is within the 8-digit U.S. Geological Survey (USGS) Hydrologic Unit Code (HUC) 05080001, which is the Upper Great Miami Watershed (USEPA 2022).

The New Madison Wastewater Treatment Plant (WWTP) is located at 2115 Rush Road, on the New Madison Quadrangle Map in Township 10 North, Range 1 East, Section 14. The Rush Road Lift Station is located at the intersection of Rush Road and the WWTP service road, also on the New Madison Quadrangle Map. New Madison owns the properties on which the existing WWTP and the Rush Road Lift Station are located.

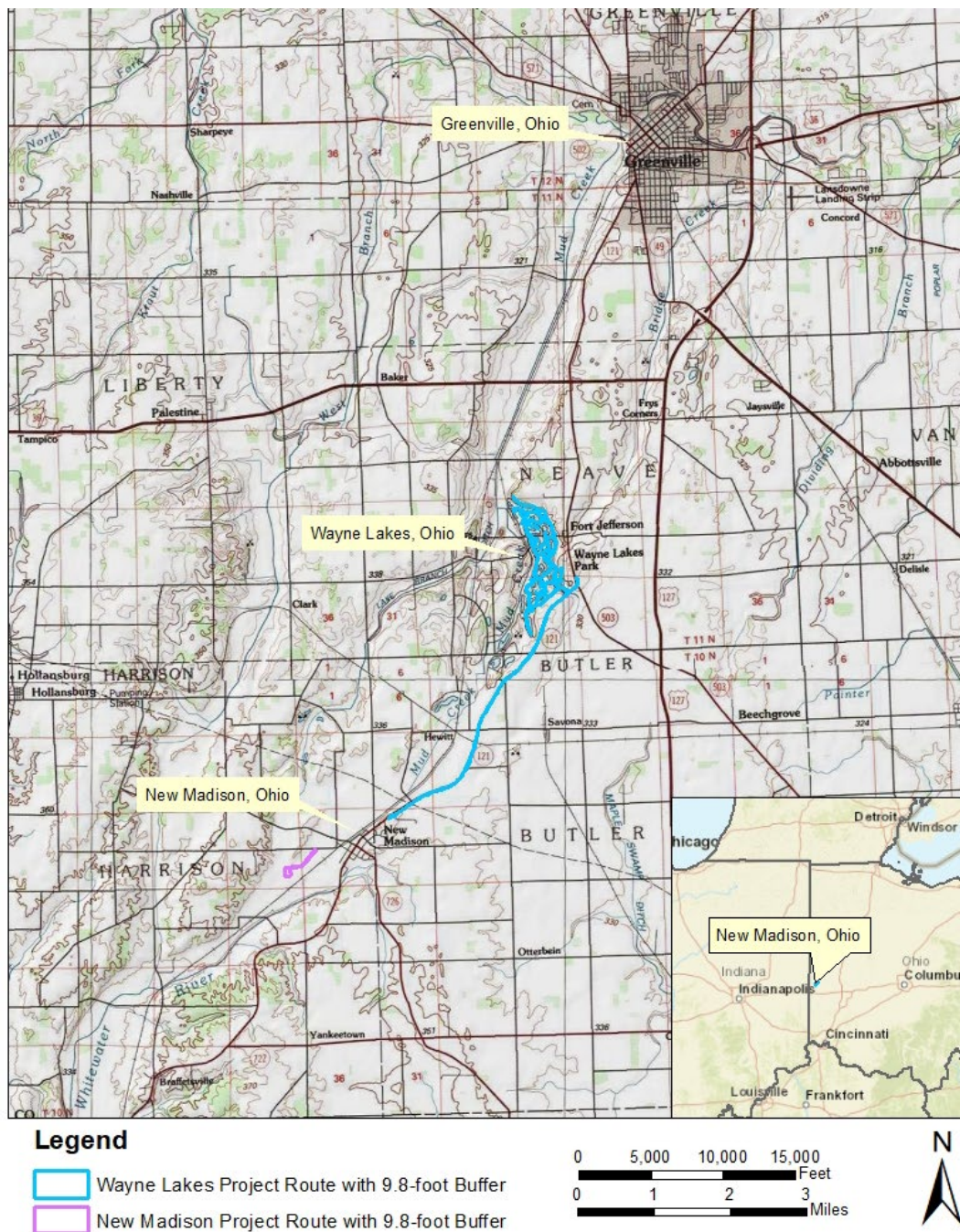


Figure 1. General Location and construction footprint of the proposed New Madison Wastewater Treatment Plant Expansion and Improvement Project, Darke County, Ohio<sup>1</sup>.

<sup>1</sup> Note: the Village of Wayne Lakes Project is a proposed action that is separate from the proposed New Madison Wastewater Treatment Expansion and Improvement Project action considered in this EA.



### 1.3 Purpose and Need

The purpose of the Project is to deliver a cost-effective, environmentally sound approach to meet both the existing and future sanitary sewer collection needs for residents within the greater New Madison sanitary service area. The New Madison WWTP was originally constructed in 2002/2003, and the majority of plant components are original and are therefore nearing the end of their service life. Specifically, there have been documented operation and management issues with the influent screen and the UV disinfection components due to the extended age of the systems. Replacement of both components is imperative for the WWTP to continue meeting its National Pollutant Discharge Elimination System (NPDES) permit limitations. The WWTP's concrete structures, including the Rush Road Lift Station wet well, headworks, and the UV channel, show signs of corrosion and likely need to be lined with an epoxy coating to extend their service life. Additionally, the existing WWTP drain pumps and WAS/Scum lift station pumps are also original and are well beyond their anticipated service life. The proposed project, as designed, involves the improvement of current facilities to meet the needs the Village of New Madison and the expansion of operational capacity that will address the ongoing public health issues associated with their aging septic tank systems (see Section 1.3.1) of the nearby community of Wayne Lakes.

#### 1.3.1 Regionalization of Wastewater Treatment

In 2020, an amended Sanitary Sewer Feasibility Study was conducted by Access Engineering Solutions which evaluated several project plan alternatives and identified regionalization of wastewater treatment to be developed through an agreement between New Madison and the Village of Wayne Lakes as the only reasonable alternative (ACCESS 2020). In summary, the proposed regionalization would connect households in the Wayne Lakes sanitary service area to existing wastewater treatment facilities in New Madison. Currently, a centralized wastewater collection and treatment system does not exist within Wayne Lakes, so each residence and business is responsible for their own on-site treatment system. In most cases, these on-site treatments systems are comprised of conventional septic systems with subsurface drainage. However, the effluent from the current septic systems passes through the soil too quickly for adequate treatment and leaches to the lakes. Although there have been 324 Household Sewage Treatment System (HSTS) permits issued to Wayne Lakes by the Darke County General Health District (GHD), approximately 54,400 gallons of untreated sewage is discharged per day (ACCESS 2020). As such, these systems do not meet Ohio Environmental Protection Agency (OEPA) NPDES standards and, in many cases, are malfunctioning and discharge untreated sewage to ditches, drainage ways, or underground tile lines which impact water quality in the nearby lakes, Mud Creek, and the surrounding watershed. Untreated sewage loading impairs water quality and associated designated uses and also presents potential public health risks (USEPA 2022).

New Madison has secured funding to expand their WWTP capacity from 130,000 gallons per day (GPD) to 210,000 GPD, which would provide capacity to accept the flows from Wayne Lakes in the future. While the regionalization of sewage treatment involves construction and implementation of infrastructure that will ultimately link both Wayne Lakes and New Madison communities, it is important to note that this EA is limited to potential impacts associated with the expansion and improvement of the New Madison facility alone. The scope, design, and





potential impacts to the human environment for the Wayne Lakes sanitary sewer improvements project were addressed in a separate EA and a FONSI was signed on 10 July 2022.

## 2.0 ALTERNATIVES CONSIDERED

### 2.1 No Action Alternative

Under the No Action Alternative (NAA), expansion and improvement of the New Madison WWTP and implementation of a new regional sanitary sewer collection system would not occur. If no upgrades and/or modifications are made to the existing New Madison WWTP to replace ageing components and allow for increased capacity required to accept and treat effluent from nearby communities, water quality and public health in this region will continued to be impacted. Many of the regional communities have failing septic systems and New Madison's infrastructure is aging. Based on evaluations that have been conducted for the regional communities, it has been determined that the most cost-effective alternative is to send flows from Wayne Lake to New Madison instead of building their own treatment plant (Wessler 2021). Therefore, the NAA will not address these ongoing issues and will lead to continued water quality and public health impacts over both the short- and long-term.

Although the NAA would not meet the purpose and need of the Project, CEQ regulations require analysis of the NAA to serve as a baseline against which to measure the environmental impacts of other alternatives and to evaluate the adequacy of the Recommended Plan in meeting the purpose and need of the action.

### 2.2 Wastewater Treatment Action Alternatives Considered

#### 2.2.1 Alternative 2: New Regional Facility

Under Alternative 2, a new regional facility would be built to treat flows from New Madison as well as other regional communities. The plant will be designed with a capacity of 0.147 Millions of Gallons per Day (MGD) and a peak flow of 0.63 MGD. However, some components of the plant will be designed for a peak flow of 0.75 MGD. This would allow the WWTP to easily increase capacity in the future. The proposed WWTP expansion would consist of the following major components: fine screen and grit removal structure, oxidation ditch, secondary clarifiers, RAS pump station, aerobic digesters, a geotextile bag system for dewatering, and a liquid sludge loading station. The existing WWTP would be abandoned.

A new 8-inch force main would send New Madison's flows from the Rush Road Lift Station to the regional facility. New larger pumps designed for 0.5 MGD at greater head would be installed at the lift station to send flows to the new facility. Wastewater force mains from the other regional communities would be piped directly to the regional facility and all flows would commingle upstream of the screening structure.

#### 2.2.2 Alternative 3: Existing Regional Facility

Alternative 3 would involve directing flows from New Madison and the other regional communities, such as Wayne Lakes and others in Drake County, to the existing Greenville WWTP. The existing New Madison treatment plant would be abandoned. The design capacity



for the Greenville WWTP is 3.5 MGD and the current average daily flow is 2.2 MGD, therefore the plant would have sufficient capacity to accept existing flows from New Madison.

New Madison flows would be sent to the Greenville WWTP via the Rush Road Lift Station and a series of five new lift stations equally spaced along the new route would need to be constructed under this Alternative. The pumps and controls at the Rush Road Lift Station would need to be replaced, but the existing structure would be reused. All six lift stations would be designed for 350 GPM and have approximately 66,000 linear feet of new 8-inch force main. Additionally, other communities that would potentially send their flows to Greenville would also need to develop and/or construct their own lift stations and force mains.

### 2.3 Alternative 4: Expansion and Improvement of the Existing New Madison WWTP Facility

Alternative 4 involves expanding the capacity of existing New Madison WWTP so that flows from regional facilities can be accepted and treated. The WWTP capacity will be designed for an average daily flow of 0.147 MGD and a peak flow of 0.63 MGD. However, some components of the plant will be designed for a peak flow for 0.75 MGD. This will allow future capacity of the WWTP to be easily increased through the addition of oxidation ditches/clarifiers, without having to modify other components such as the fine screen and UV system.

In addition to the expansion, other aging infrastructure within the existing facility will also need to be rehabilitated. In summary, the proposed New Madison WWTP Expansion and Improvement Project will include the following major work components (Wessler 2021):

- Replacing the Rush Road Lift Station control panel, coating the existing wet-well and upstream manhole, repairing portions of the existing Rush Road force main, and adding a flow meter and influent basin.
- Replacing the influent fine screen, coating the existing channels, building a new code compliant building to house the screen, and replacing the grit tank baffles.
- Recoating all steel components on the oxidation ditch and clarifier units. Replacing steel supports for the rotor covers and replacing the rotor motors, drives and bearings.
- Replacing the WAS/scum lift station pumps in kind.
- Building a third aerated sludge storage tank to ensure that 30 days of retention are provided and replacing the three sludge storage/post aeration blowers with larger units.
- Building two additional sludge drying beds and an additional dried sludge storage area. Solids will continue to be land applied.
- Replacing the plant drain lift station pumps in kind.
- Replacing the existing emergency generator with a larger generator and automatic transfer switch (ATS) so that the entire plant can operate on backup power.
- Upgrading the site's electrical system as required to install the new equipment and installing a new telemetry system to replace the existing dialer.
- The WWTP's discharge location will not change as a part of this project.



## 2.4 Recommended Plan

A life cycle analysis (LCA) was completed to compare the long-term costs of the alternatives outlined above. LCA analysis is based on the estimated capital implementation costs, operational and maintenance costs, and the salvage value of each alternative (Wessler 2021). All costs were presented as a net present value (NPV) in 2020 equivalent dollars over a 20-year planning period. Capital costs include equipment, installation, and non-construction cost required for a successfully operational system. In addition to the monetary cost of each alternative, other factors considered in the 2021 LCA study include ease of operation, treatment capabilities, environmental concerns, and past operator experience were taken into consideration (Wessler 2021).

Alternative 4 has a considerably lower NPV than Alternative 2 or 3 (Table 1). The NPV of Alternative 4 is even lower than what is presented in Table 1 since the salvage value of each alternative only includes piping and structures added under this project (Wessler 2021). The proposed WWTP expansion project will not only benefit New Madison, but also the regional community. The WWTP expansion will prevent current and future environmental violations and ensure appropriate wastewater treatment for the entire service area moving forward. The proposed project would address the operational difficulties of the existing Bar Screen and the existing UV System. The replacement of these systems will ensure that the WWTP continues to operate efficiently and meet its effluent permit limitations. It is also the most cost-effective option.

Table 1. Alternative NPV Comparison for the proposed New Madison Sewage Collection System Project, Darke County, Ohio (Source: USACE 2021, Wessler 2021).

Alternative	Capital Cost	Annual O&M Cost	Salvage Value	Net Present Value- 20 Years
Alternative No. 2 (New Regional WWTP)	\$5,850,000	\$204,200	\$684,000	\$9,130,000
Alternative No. 3 (Existing Regional WWTP)	\$9,625,000	\$58,000	\$1,524,000	\$9,220,000
Alternative No. 4 (Upgrade Ex. WWTP)	\$2,490,000	\$204,200	\$81,000	\$6,370,000

After considering the NPVs for Alternatives No. 2 through 4, the options to build a completely new regional facility or divert flows to Greenville were not explored further, and a more thorough evaluation of Alternative No. 4 was performed (Wessler 2021). In addition to the monetary cost of each alternative, other components such as ease of operation, treatment capabilities, environmental concerns and past operator experience were taken into consideration. As a result of this analysis, Alternative 4 is forwarded as the Recommended Plan.

As the Recommended Plan, Alternative 4 will not only benefit New Madison, but also the regional community as a whole. The proposed WWTP improvement and expansion will prevent



current and future environmental violations and ensure appropriate wastewater treatment for the entire service area moving forward. It is also the most cost-effective option.

### 3.0 ENVIRONMENTAL SETTING AND CONSEQUENCES

NEPA and the CEQ's NEPA Implementing Regulations require that an EA identify the likely environmental effects of a proposed project and that the agency determine whether those impacts may be significant. Impacts can be either beneficial or adverse and can be either directly related to the action or indirectly caused by the action. Direct effects are caused by the action and occur at the same time and place (40 CFR § 1508.8[a]). Indirect effects are caused by the action and are later in time or further removed in distance but are still reasonably foreseeable (40 CFR § 1508.8[b]).

The determination of whether an impact significantly affects the quality of the human environment must consider the context of an action and the intensity of the impacts (40 CFR § 1508.27).

The term "context" refers to the affected environment in which the proposed action would take place and is based on the specific location of the proposed action, taking into account the entire affected region, the affected interests, and the locality. The term intensity refers to the magnitude of change that would result if the proposed action were implemented.

Determining whether an effect significantly affects the quality of the human environment also requires an examination of the relationship between context and intensity. In general, the more sensitive the context (i.e., the specific resource in the proposed action's affected area), the less intensive an impact needs to be in order for the action to be considered significant. Conversely, the less intense of an impact, the less scrutiny even sensitive resources need because of the overt inability of an action to effect change to the physical environment. The consideration of context and intensity also must account for the indirect effects from a proposed action. Starting with Section 3.1, this chapter describes the existing environmental conditions in the project area (affected environment) providing a baseline for measuring expected changes that would result from implementation of the considered alternatives.

This section presents the adverse and beneficial environmental effects (direct and indirect) of the No Action Alternative and Alternatives 2, 3, and 4 (the preferred alternative). The section is organized by resource topic, with the effects of alternatives discussed under each resource topic. Impacts are quantified whenever possible. Qualitative descriptions of impacts are explained by accompanying text where used.





Qualitative definitions/descriptions of impacts as used in this section of the EA include:

Degree:

- No Effect, or Negligible – a resource would not be affected, or the effects would be at or below the level of detection, and changes would not be of any measurable or perceptible consequence.
- Minor – effects on a resource would be detectable, although the effects would be localized, small, and of little consequence to the sustainability of the resource. Mitigation measures, if needed to offset adverse effects, would be simple and achievable.
- Moderate – effects on a resource would be readily detectable, localized, and measurable. Mitigation measures, if needed to offset adverse effects, would be extensive and likely achievable.
- Significant – effects on a resource would be obvious and would have substantial consequences. The resource would be severely impaired so that it is no longer functional in the Project area. Mitigation measures to offset the adverse effects would be extensive, and success of the mitigation measures would not be guaranteed.

Duration:

- Short term – temporary effects caused by the construction and/or implementation of a selected alternative.
- Long term – caused by an alternative and remain after the action has been completed and/or after it is in full and complete operation.

### 3.1 Land Use

#### 3.1.1 Existing Condition

Land use for the area is of mixed residential, suburban, and agricultural. The construction footprint of the proposed project is generally limited to existing Rights-of-Way (ROWs) and previously disturbed ground. The Project Area was used for agricultural purposes until a wastewater treatment plant was constructed around 2004. Some deciduous forest exists scattered throughout the Project Area, mainly situated along fence rows or property lines, and along watercourses and surrounding the nearby lakes.

#### 3.1.2 Environmental Consequences

##### 3.1.2.1 No Action

The NAA would have no effect on land use. Land use in the Project Area would be expected to remain similar to the existing condition and follow current short- and long-term trends for the reasonably foreseeable future with the implementation of the NAA.

##### 3.1.2.2 Recommended Plan

The proposed expansion and improvements of the existing New Madison WWTP being implemented under the recommended plan would have a negligible effect on land use. All improvements to the facility and potential pump/lift station would be conducted in previously disturbed areas. Any areas of broken pavement will be repaired and any areas of lawn that are disturbed will be seeded. Thus, impacts would be temporary and overall impacts on land use



would be negligible. Implementation of the recommended plan would allow for environmentally sustainable growth of the community by facilitating the ability to meet wastewater treatment requirements. Because most of the Project Area is residential or otherwise governed by zoning regulations, the growth that could be facilitated by the proposed Project is not anticipated to have a significant effect on overall land use.

### 3.2 Climate

#### 3.2.1 Existing Condition

Climate data was gathered from the nearest National Oceanic and Atmospheric Administration weather station in Greenville, Ohio, approximately 10 miles northeast of New Madison (U.S. Climate Data 2021). Historical weather data was obtained from 1981 through 2019. The climate of the area is generally temperate with cold winters and warm summers. The average annual high temperature is 60°F and the average annual low temperature is 40°F. The warmest month is July with a mean daily high of 81.5°F. The coldest average month is January, with the mean daily low being 16.9°F. The average yearly amount of precipitation and snowfall is 39.9 and 18.7 inches, respectively (U.S. Climate Data 2021). The month with highest average precipitation is June (4.5 inches), and the lowest average precipitation month is February (2.4 inches).

According to the climate change models performed in the Ohio River Basin- Climate Change Pilot Study Report, a half- degree average temperature rise per decade is expected for 2011-2040. That number increases to one whole degree Fahrenheit per decade for 2041-2099 (Drum et al. 2017). This represents a 15.8% increase in temperature over this period in the basin. The potential impacts to infrastructure, energy production, and both aquatic and terrestrial ecosystems over the three 30-year time periods range from minimal in some HUC-4 sub-basins to dramatic and potentially devastating in others.

#### 3.2.2 Environmental Consequences

##### 3.2.2.1 No Action

Under the NAA, current land use practices, local traffic patterns, and resource use would remain unchanged from existing levels. As such, there would be no effect to climate as a result of the NAA.

##### 3.2.2.2 Recommended Plan

The recommended plan would not involve activities of sufficient scope that could significantly affect the climate. While the quantity of greenhouse gases generated as a result of the proposed Project is not reasonably quantifiable based on existing tools, the emissions caused by construction activities required by the recommended plan are expected to be localized and temporary in nature. As such, the recommended plan would have a negligible effect on climate.

### 3.3 Terrestrial Habitat

#### 3.3.1 Existing Condition

The Project Area is located in the Clayey, High Lime Till Plains level IV ecoregion, which is within the Eastern Corn Belt Plains (Brockman 1998). The landscape is predominantly a rolling till plain, with glacial deposits of Wisconsinian age being extensive. This area is characterized by



extensive corn, soybean, wheat, and livestock farming. Prior to farming becoming the dominant land use, beech forest and scattered elm-ash swamp were the predominant habitat type. Soils are described in section 3.6.

The terrestrial habitats located in the vicinity of and within the Project Area consist of mowed grass, small, forested fencerows, and property lines, larger but isolated blocks of deciduous forest, and agricultural land.

### 3.3.2 Environmental Consequences

#### 3.3.2.1 No Action

Because existing land use trends would be expected to continue in the absence of the proposed New Madison Wastewater Treatment Expansion and Improvement Project, the NAA would be expected to have no effect on terrestrial habitat.

#### 3.3.2.2 Recommended Plan

The recommended plan would have a negligible effect on terrestrial habitats. The construction related to the expansion of the existing New Madison facility will be conducted entirely within previously disturbed area. No prime farmland will be impacted and it is USACE's understanding that no trees would be removed during implementation of the recommended plan. All trenching required for the repair or replacement of force main will occur in previously disturbed areas. All areas of disturbance will be mulched, seeded, and fertilized after construction and best management practices (BMPs) will be employed to limit erosion. Examples of BMPs that are currently included in the project work plans include drift fencing, seeding, mulching, and fertilizing.

### 3.4 Aquatic Habitat/Water Quality

#### 3.4.1 Existing Conditions

The Project Area is a part of the Headwaters East Fork White River watershed. The Ohio EPA first identified the Headwaters East Fork White River watershed as a priority impaired water on the 1998 303(d) list. The most recent assessment listed the watershed as impaired for aquatic life (warmwater habitat), and recreation (primary contact) caused by the presence of *Escherichia coli* (E. coli). The primary causes of these impairments in the Headwaters East Fork White River watershed are low flow alterations, sedimentation/siltation from channelization, and E. coli (USEPA 2022b).

Section 303(d) of the Clean Water Act (CWA) requires States, Territories, and authorized Tribes to list and prioritize waters for which technology-based limits alone do not ensure attainment of water quality standards. The CWA and the U.S. Environmental Protection Agency (USEPA) regulations require that Total Maximum Daily Loads (TMDLs) be developed for all waters on the section 303(d) lists. A TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, and an allocation or attribution of that amount to the pollutant's sources. Lists of 303(d) waters are made available to the public and submitted to the USEPA and the Ohio EPA. The process of formulating TMDLs for specific pollutants is a method by which impaired water body segments are identified and restoration solutions are developed. Ultimately, the goal of Ohio's TMDL process is full attainment of



biological and chemical Water Quality Standards (WQS) and, subsequently, removal of water bodies from the 303(d) list.

The presence of *E. coli* in water samples is a strong indicator of sewage or animal waste contamination. Sewage and animal waste can contain many types of disease causing organisms which may result in severe illness if consumed. Children under five years of age, those with compromised immune systems, and the elderly are particularly susceptible.

### 3.4.2 Environmental consequences

#### 3.4.2.1 No Action

Under the NAA, current water quality trends would continue; there would be the continued release of untreated sewage onto the surrounding landscape and eventually into nearby Prairie Outlet and Mud Creek of nearby Wayne Lakes. These impacts will continue to contribute poor water quality issues in the greater Stillwater River Watershed.

#### 3.4.2.2 Recommended Plan

The recommended plan would benefit the surrounding watershed by reducing the introduction of organic material to the watershed by providing an important component of a regional wastewater collection and treatment system. This would ultimately result in a long-term improvement of the water quality of the Stillwater River watershed. While construction of the Project will not directly impact any waterbodies, BMPs such as silt fencing, mulching, seeding, and fertilizing disturbed ground will be utilized during construction to prevent stormwater runoff.

### 3.5 Floodplains

#### 3.5.1 Existing Condition

Executive Order 11988 requires Federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative. Analysis of the USEPA NEPAAssist website and Federal Emergency Management Agency (FEMA) floodplain maps indicate that portions of the Project Area are located in the 100-year, or 1% annual chance flood hazard zone (USEPA 2022c; Figure 2). However, it should be noted that the 100-year flood elevation is approximately 13.25 feet below the WWTP lowest controlling weir. The Rush Road Lift Station is located outside of the flood hazard area limit of study, as shown on the FEMA Base Flood Elevation Map. Based on the base flood elevation map, it is assumed that the lift station is located within the 100-year floodplain (Wessler 2021).

#### 3.5.2 Environmental Consequences

##### 3.5.2.1 No Action

The NAA would have no effect on floodplains. Existing land use and development patterns will continue in the Wayne Lakes Project Area.

##### 3.5.2.2 Recommended Plan

Because Project construction will follow existing road ROWs, the implementation of the recommended plan would not alter elevation or otherwise impact function of the floodplain. Permitting and regulation by the Project proponent and Ohio Department of Natural Resources



(ODNR), respectively, as necessary, would ensure that there are no adverse effects on the floodplain from implementation of the recommended plan.



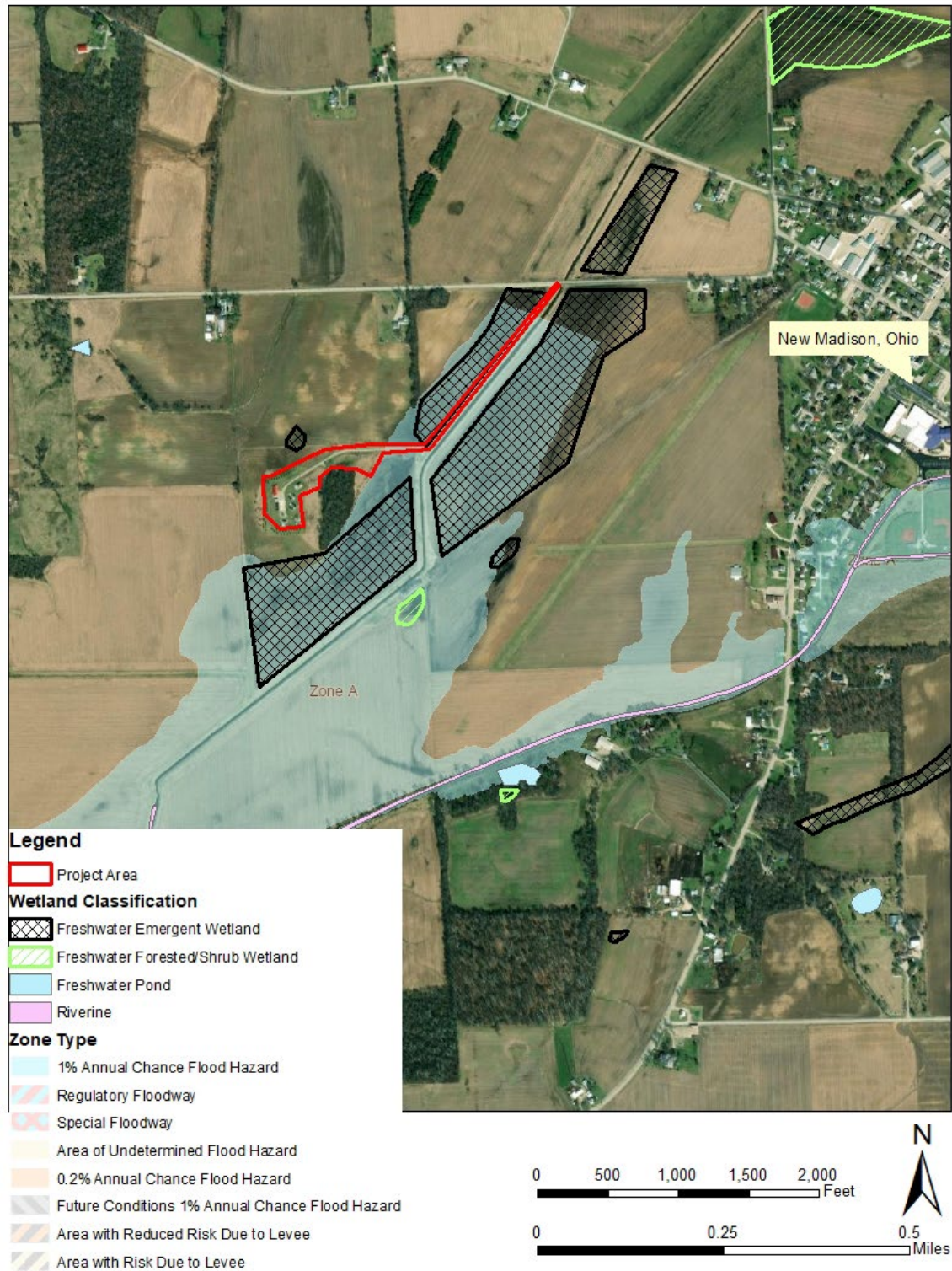


Figure 2. 100-year floodplain and wetland habitats within the proposed New Madison Wastewater Treatment Plant Expansion and Improvement Project, Darke County, Ohio.



### 3.6 Soils and Prime and Unique Farmland

#### 3.6.1 Existing Condition

Review of National Resource Conservation Service (NRCS) soil maps revealed there are 16 soil types present in the Project Area. The soils mapped within the Area of Potential Effect (APE) consist of those belonging to the series of Algiers, Brookston, Celina, Crosby, Edwards, Eldean-Miamian, Lippincott, Miamian, Ockley, Patton, and Udorthents (USDA 2021). The five most predominate soils present are shown in Table 2. Udorthents were the most common soil mapped within the Project Area at approximately 53%. Udorthents represent disturbed soils and were disturbed by the quarrying of stone by the American Aggregate Company. The second most common soil fell in the Miamian Series, which made up approximately 25% of the mapped soils. The Miamian soil profiles are generally characterized by silty loam, clay loam, clay, and loam horizons that are well drained. The parent material for these soils is generally loess derived from quartzite and loamy till derived from limestone and dolomite (USDA 2021). All but the most prevalent soil type (Udorthents) is classified as prime farmland. A detailed report and map of the soils found in the Project Area can be found in the Appendix A.

Table 2. Predominant soil types within the New Madison Wastewater Treatment Plant Expansion and Improvement Project Site, Darke County, Ohio.

Soil Name	Percent of AOI (%)	Prime Farmland (Yes/No)
Udorthents, loamy	53.7	No
Miami silt loam, 2-6 percent slopes	17.5	Yes
Crosby silt loam, 2-6 percent slopes	5.7	Yes
Celina silt loam, 2-6 percent slopes	5.7	Yes
Crosby silt loam, 0-2 percent slopes	5.2	Yes

Source: USDA 2021

#### 3.6.2 Environmental Consequences

##### 3.6.2.1 No Action

The NAA would have no effect on soils or prime and unique farmland because the WWTP would not be expanded.

##### 3.6.2.2 Recommended Plan

The recommended plan would have a negligible effect on soils within the Project footprint, and there would be no impact to prime or unique farmland. All construction would occur within existing ROWs or previously disturbed areas impacted soils and are maintained as mowed areas along roads or along the borders of the existing facility, preclude any agricultural activities.. Impacts to soils from the movement of heavy equipment to and from the staging areas during construction will be limited to a minor, short-term disturbance of the topsoil. The use of BMPs including mulching, seeding, and fertilizing would minimize any potential erosion of soils or long-term effects of these activities.



### 3.7 Wetlands

#### 3.7.1 Existing Condition

Desktop analysis via U.S. Fish and Wildlife (USFWS), National Wetlands Inventory (NWI) was conducted in an effort to locate potential wetland habitats within the construction footprint (USFWS 2021). While several wetland habitat types were identified adjacent to the construction zone(s) via the NWI mapping tool including freshwater emergent and forested/shrub wetlands. The location of identified wetlands near the Project Area can be found in Figure 3.

#### 3.7.2 Environmental Consequences

##### 3.7.2.1 *No Action*

The NAA would have no effect on wetlands. Existing land use and development patterns will continue in the Project Area.

##### 3.7.2.2 *Recommended Plan*

The recommended plan would have no effect on wetlands, as all the designated construction activities will avoid areas designated as wetlands (Figure 3). While several wetland habitat types were identified adjacent to the construction zone(s), nearby wetland habitat is not expected to be impacted because all construction and/or land disturbance associated with the proposed Project will occur in previously disturbed areas associated with the current project footprint. If impacts to surrounding wetlands habitats do prove necessary, it will be the sponsor's responsibility to obtain a Clean Water Act Section 404 Permit. In addition, construction BMPs will be implemented to prevent potential indirect stormwater pollution impacts to wetlands.

### 3.8 Wild and Scenic Rivers

No designated State Wild or Scenic Rivers are present within the Project Area (EPA 2020). Therefore, no change to these resources is anticipated as part of the NAA or recommended plan.





Figure 3. Wetland habitats located within the *New Madison Wastewater Treatment Expansion and Improvement Project Area* (Source: USFWS 2021b).



### 3.9 Hazardous, Toxic, and Radioactive Waste (HTRW)

#### 3.9.1 Existing Condition

A Limited Phase I Hazardous, Toxic, and Radioactive Waste (HTRW) Environmental Site Assessment was conducted to identify environmental conditions and to identify the potential presence of HTRW contamination located in the Project's designated construction and lay down areas (Stone 2021). Phase I HTRW activities are performed to determine if there is a potential for any environmental concerns that may exist within the Project Area due to present and past property usage. Because the USACE has recognized that the majority of water and sewer projects are constructed in road ROWs, HTRW investigations of limited scope have been adopted for these types of projects. The purpose of the limited HTRW investigation is to identify site(s) that warrant further assessment due to the potential of having HTRW concerns. This investigation included a Federal and state environmental database search, site reconnaissance, review of historical aerial and topographic mapping, water well maps, Bureau of Underground Storage Tank Regulations (BUSTR) and Ohio EPA file reviews, and a search of city directories and interviews with city personnel. This investigation was conducted in accordance with the most current American Society of Testing Materials (ASTM) E 1527 and E 1528 standards.

The USEPA Envirofacts Facility Database was queried regarding the potential location of any Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or Resource Conservation and Recovery Act (RCRA) sites in the vicinity of the proposed Project footprint. There are no CERCLA or RCRA facilities on or within two miles of the Project Area (USEPA 2022c). According to the GeoPlus Oil & Gas Report, there are no records of oil and gas wells within the Project boundary and no evidence of underground storage tanks (USTs) was observed on the site via the site reconnaissance conducted on 14 July 2020 (Stone 2021). The EPA's Landfill Methane Outreach Program (LMOP) National Map was viewed to investigate the proximity of landfills to the Project Area. There are no known landfills located within 10 miles of the Project footprint (USEPA 2022c).

The Project Area was used for agricultural purposes until it was developed with a wastewater treatment plant around 2004. Based on these results, it was determined that further assessment is not required for any sites along or near the Project Area. The complete HTRW investigation report is included in Appendix A.

#### 3.9.2 Environmental Consequences

##### 3.9.2.1 *No Action*

The NAA would have no effect on HTRW. However, the NAA would result in the continued release of untreated sewage into the environment that could pose a potential threat to human health.

##### 3.9.2.2 *Recommended Plan*

The recommended plan would have no effect on HTRW. With no HTRW sites in or near the Project Area, the recommended plan would not impact HTRW. Additionally, the recommended plan is not expected to produce HTRW.



### 3.10 Cultural Resources

#### 3.10.1 Existing Conditions

Section 106 of the National Historic Preservation Act (NHPA) requires Federal agencies to take into account the effects federal undertakings will have on districts, sites, buildings, structures, or objects listed in or eligible for inclusion in the National Register of Historic Places (NRHP). Coordination with the 44 Tribes and the Ohio State Historic Preservation Office (OSHPO) was initiated by the Corps on June 1, 2022. A background check was conducted and used multiple sources of information, including: the NRHP online database; Ohio History Connection Online Mapping System; Louisville District Geographic Information System (GIS); historic maps; and previous cultural resources reports. The site background check found that two archaeological surveys and two archaeological sites were mapped within the Area of Potential Effect (APE) as defined under 36 CFR 800.16(d).

An onsite cultural resources survey was conducted on September 1, 2021. The survey identified no new archaeological sites or built structures within the APE and the previously recorded sites were not able to be reidentified within the APE. A detailed archeological report can be found in Appendix B. Correspondence from the OSHPO, and Tribes can be found in Appendix C.

#### 3.10.2 Environmental Consequences

##### 3.10.2.1 No Action

Under the NAA, current development and land use trends would continue in the APE. However, a literature review and archaeological survey yielded no evidence of cultural resources in the Project footprint. As such, the NAA would have no effect on cultural resources.

##### 3.10.2.2 Recommended Plan

The New Madison WWTP had two previous surveys of the entire treatment plant area except the access road. On September 1, 2022 USACE conducted a survey for access road. Neither survey found cultural resources eligible for the National Register. Due to the results of the survey the Corps determined the recommend plan will have no effect on historic properties eligible for the listing or listed in the NRHP in accordance with 36 CFR 800.4(d)(1). Prior to or on June 17, 2022 the Delaware Nation and Shawnee Tribe concurred with the determination of no effect to historic properties. On June 16, 2021, the OSHPO concurred with the Corps determination. However, if any unknown cultural resources are discovered during the process of construction, work must cease immediately, and the OSHPO and the Corps must be notified within 72 hours.

### 3.11 Threatened and Endangered Species

#### 3.11.1 Existing Condition

The Endangered Species Act of 1973 requires Federal agencies to consider the effects of actions on Federally listed endangered, threatened, and/or candidate species. Two listed species have ranges that overlap with the Project Area: the Indiana bat (*Myotis sodalis*) and the northern long-eared bat (*Myotis septentrionalis*). There is no critical habitat within or adjacent to the Project Area (USFWS 2021). An official threatened and endangered species list from the USFWS for the Project Area can be found in Appendix A.





The Indiana bat has a range that intersects with the Project Area. In the spring, bats emerge from hibernation and migrate to summer roost sites. During the summer months, female Indiana bats establish maternity colonies of up to 100 bats under the loose bark of trees and in tree cavities. Loss and fragmentation of forest habitat are among the major threats to Indiana bat populations. Other threats include white-nose syndrome, winter disturbance, and environmental contaminants (USFWS 2006).

The northern long-eared bat has a range that intersects with the Project Area. The species was listed as threatened in 2015 due to declines mostly associated with white-nose syndrome. Northern long-eared bats spend winter hibernating in caves and mines. During the summer the bats roost singly or in colonies underneath bark or in cavities of both snags and live trees (USFWS 2015).

There are no Federally designated critical habitats found within the Project Area.

### 3.11.2 Environmental Consequences

#### 3.11.2.1 No Action

The NAA would result in no impacts to threatened and endangered species, including listed bat species.

#### 3.11.2.2 Recommended Plan

The recommended plan would have a no direct effect on threatened or endangered species, including listed bat species. All of the designated construction and lay down areas for the Project will occur in existing ROWs with previous disturbance which are void of suitable habitat for roosting bats and no trees will be removed during project construction. There may be a long-term improvement in water quality of the surrounding lakes which could increase aquatic invertebrate populations that are fed on by many bat species. .

### 3.12 Air Quality

#### 3.12.1 Existing Condition

The Clean Air Act (CAA) allows the USEPA to set air quality standards for pollutants considered harmful to public health and welfare. The National Ambient Air Quality Standards (NAAQS) set limits to protect public health, including the health of sensitive populations such as asthmatics, children, and the elderly. These standards have been established for six criteria pollutants including carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and sulfur dioxide (SO<sub>2</sub>), and each state is required to develop implementation plans for each pollutant. Areas are generally designated as being either in “attainment” of the standards for the pollutants listed above or in “nonattainment”.

Nonattainment areas are required by the CAA to comply with the NAAQS standards through the evaluation and development of a maintenance plan. The USEPA makes a conformity determination to assure that the actions within the maintenance plan conform to the respective state’s implementation plan for each nonattainment pollutant.



According to the USEPA Green Book, Nonattainment/Maintenance Area Status for Each County by Year for All Criteria Pollutants, Darke County is classified as in full “attainment” for all criteria[?] pollutants as of 12 July 2022 (USEPA 2022d).

### 3.12.2 Environmental Consequences

#### 3.12.2.1 No Action

In the absence of the proposed New Madison Wastewater Treatment Plant Expansion and Improvement Project, current air quality trends would be expected to continue. As such, the NAA would have no effect on air quality.

#### 3.12.2.2 Recommended Plan

Implementation of the recommended plan would have the potential to cause minor, localized, and short-term air quality impacts. Potential sources of these impacts include emissions from construction and associated heavy equipment operation which include diesel fuel fumes and exhaust. Because the recommended plan would not require around the clock construction, equipment downtime would allow for dispersion of any fumes generated during construction. The recommended plan is therefore exempt from the requirement to make a conformity determination, since estimated emissions from construction equipment would be far below minimum standards of 100 tons/year, which is the minimum threshold for which a conformity determination must be performed.

### 3.13 Noise

#### 3.13.1 Existing Condition

Noise in the vicinity of the Project Area is characterized by light traffic in town, and farm and lawn care equipment.

Noise is measured as Day Night average noise levels (DNL) in “A-weighted” decibels (dBA) that the human ear is most sensitive to. There are no Federal standards for allowable noise levels. The Corps Safety and Health Requirements Manual provides criteria for short-term permissible noise exposure levels for consideration of hearing protection or the need to administer sound reduction controls, which is concurrent with Occupational Safety and Health Administration (OSHA) standards (Table 3; USACE 2014).

Table 3. Non-Department of Defense Continuous Noise Exposures (OSHA Standard).

Duration/day (hours)	Noise level (dBA)
8	85
4	88
2	91
1	94
0.5	97
0.25	100



### 3.13.2 Environmental Consequences

#### 3.13.2.1 No Action

In the absence of the proposed New Madison Wastewater Treatment Expansion and Improvement Project, noise levels would be expected to be maintained at current levels. As such, there would be no change in noise with the NAA.

#### 3.13.2.2 Recommended Plan

Noise associated with the recommended plan would be limited to that generated during construction. The noise associated with construction would be short-term and would only occur during daylight hours over the estimated 1-year construction period. Construction noise would be similar to that of farm equipment and other small machinery used in the local area. A backhoe and a front-end loader are examples of equipment that is likely to be used during construction. Each emits noise levels around 85 dBA at 45 feet. Construction equipment would be operated during daylight hours; therefore, a reasonable exposure time of two hours would be expected during the time residents may be home during the day. Peak outdoor noise levels ranging from 78-90 dBA would occur during the time in which equipment is directly in front of or in proximity to homes and businesses (within 25-100 feet). A maximum noise exposure of approximately 94 dBA, for one hour could occur if equipment were within 10 feet of homes and business. The noise projections do not account for screening objects, such as trees, outbuildings, or other objects that muffle and reduce the noise being emitted. The outdoor construction noise would be further muffled while residents are inside their homes. These limited exposures and time intervals are within allowable USACE safety levels. Further, they are similar to typical neighborhood noise generated by gas powered lawnmowers in the local area, which could range from 90-95 dBA at three feet and 70-75 dBA at 100 feet. Resident exposure to these noise levels would occur if and/or when residents are home and outdoors.

Due to daytime construction and the short and limited duration of elevated noise levels associated with the recommended plan, impacts from the noise to local residents would be short-term and minor.

### 3.14 Socioeconomic Conditions

#### 3.14.1 Existing Conditions

Under Executive Order 12898 “Federal Action to Address Environmental Justice in Minority Populations and Low-income Populations,” Federal agencies are directed to identify, address, and avoid disproportionately high and adverse human health or environmental effects on minority and low-income populations.

The EPA environmental justice tool (EJSCREEN) was used to analyze demographics for the Project Area, and a detailed demographic report can be found in Appendix A. According to EJSCREEN the 2018 population estimate for the Project Area was 687. The area is 94% Caucasian and 83% of residents are age 18 and above, and 23% are age 62 and over. By comparison, the mean proportion of minorities in the state of Ohio and the U.S. population is 21% and 39%, respectively. The estimated median household income base for the Project Area



in 2018 was \$25,885. The estimated low-income population (n = 31%) is approximately the same as that of the state (n = 29%) and the national average (n = 31%).

A comparison of important mean environmental variables between the New Madison Project Area, the region, and nation is provided in Table 4. In general, values for pollution variables for the Project Area are below regional and national averages.

Table 4. Comparison of Selected Environmental Justice Variables for the New Madison Project Area.

Selected Variables	Value	State		EPA Region		USA	
		Avg.	%tile	Avg.	%tile	Avg.	%tile
Pollution and Sources							
Particulate Matter 2.5 (µg/m³)	9.28	9.13	62	8.96	60	8.74	69
Ozone (ppb)	44.7	44.5	51	43.5	59	42.6	72
2017 Diesel Particulate Matter* (µg/m³)	0.157	0.273	14	0.279	<50th	0.295	<50th
2017 Air Toxics Cancer Risk* (lifetime risk per million)	20	24	63	24	60-70th	29	<50th
2017 Air Toxics Respiratory HI*	0.2	0.3	15	0.3	<50th	0.36	<50th
Traffic Proximity (daily traffic count/distance to road)	2.6	370	4	610	4	710	3
Lead Paint (% Pre-1990 Housing)	0.6	0.4	74	0.37	75	0.28	83
Superfund Proximity (site count/km distance)	0.023	0.095	21	0.13	13	0.13	20
RMP Facility Proximity (facility count/km distance)	0.25	0.72	45	0.83	40	0.75	44
Hazardous Waste Proximity (facility count/km distance)	0.068	1.5	6	1.8	9	2.2	10
Underground Storage Tanks (count/km²)	0.12	2.6	25	4.8	24	3.9	24
Wastewater Discharge (toxicity-weighted concentration/m distance)	0.024	0.33	75	9	72	12	75
Socioeconomic Indicators							
Demographic Index	15%	26%	37	28%	34	36%	20
People of Color	2%	21%	16	26%	11	40%	5
Low Income	28%	31%	52	29%	55	31%	51
Unemployment Rate	2%	5%	27	5%	25	5%	22
Linguistically Isolated	0%	1%	69	2%	60	5%	45
Less Than High School Education	9%	10%	55	10%	57	12%	48
Under Age 5	6%	6%	56	6%	56	6%	55
Over Age 64	18%	17%	58	16%	62	16%	65

### 3.14.2 Environmental Consequences

#### 3.14.2.1 No Action

Under the NAA, untreated sewage would continue to be released into the environment from malfunctioning septic systems. Failure to alleviate the ongoing impacts to water quality could have potential minor or moderate negative impacts to human health. However, the based on the relative proportions of low-income populations in the project footprint, the NAA would not be expected to have a disproportionate effect on these groups.

#### 3.14.2.2 Recommended Plan

The recommended plan would improve wastewater treatment for all residents in the Project Area, which would positively impact the low-income and minority populations.

### 3.15 Aesthetics

#### 3.15.1 Existing Conditions

The Project Area landscape is primarily agricultural, with rural residential land use types interspersed among a patchwork of small, forested sections. Agriculture land use predominates in the areas outside of New Madison and the rural landscape may offer limited opportunities to view wildlife.



### 3.15.2 Environmental Consequences

#### *3.15.2.1 No Action*

There would be no impacts in aesthetics with the NAA, aesthetics within the existing Project Area would remain the same.

#### *3.15.2.2 Recommended Plan*

The recommended plan would have insignificant effects to aesthetics. The recommended plan will have short term, negligible impacts on previously disturbed habitat which would be returned to preexisting conditions shortly after construction. The existing WWTP would be expanded so the facility will be larger within the landscape context, however it does not conflict with the current land use and would assimilate with existing aesthetics. There may be an increase in odor associated with the increase in capacity of the New Madison facility. However, this impact is expected to be insignificant due to the limited amount of development around the facility.

### 3.16 Transportation and Traffic

#### 3.16.1 Existing Condition

While the Project Area is located approximately 0.3 miles from the Village of New Madison, the vast majority of the work zone for the proposed WWTP expansion project is situated away from Rush Road and other public transportation or traffic routes. The immediate area around the project is dominated by agriculture with low population densities and very few roads, so traffic would be expected to be light even during peak hours.

#### 3.16.2 Environmental Consequences

##### *3.16.2.1 No Action*

The NAA would have no effect on traffic. Current traffic patterns and trends would be expected to continue in the absence of the proposed New Madison Wastewater Treatment Plant Expansion and Improvement Project.

##### *3.16.2.2 Recommended Plan*

The recommended plan would have short-term minor effects to traffic. Construction could involve some short-term minor delays and potential detours in normal traffic patterns. Construction would follow Ohio Department of Transportation (ODOT) guidelines. All appropriate ODOT guidelines for traffic control would be implemented and emergency access would be maintained. There would be no new permanent traffic diversions as a result of the recommended plan and as such, no long-term impact would occur.

### 3.17 Health and Safety

#### 3.17.1 Existing Condition

Data shows that Darke County, Ohio has similar health patterns as both the Ohio and the U.S. populations. According to the Ohio Department of Health (ODH), Darke County has slightly higher adult obesity rates than the U.S. population and more adults use tobacco products. However, Darke County has fewer uninsured adults than the Ohio and U.S. populations (ODH 2021).





### 3.17.2 Environmental Consequences

#### 3.17.2.1 No Action

The potential effects on future health and safety of not implementing the proposed New Madison Wastewater Treatment Plant Expansion and Improvement Project is difficult to quantify. Under the NAA, untreated sewage would continue to be released into the environment unabated, which could have the potential to cause minor or moderate negative health and safety impacts to the surrounding population.

#### 3.17.2.2 Recommended Plan

The recommended plan would improve wastewater treatment for the population, which would reduce or eliminate any possible negative health effects caused by discharge of untreated sewage. Therefore, the recommended plan would be anticipated to have a long-term beneficial impact on health and safety.

## 4.0 CUMULATIVE EFFECTS

NEPA requires a Federal agency to consider not only the direct and indirect impacts of a proposed action, but also the cumulative impact of the action. A cumulative impact is defined as “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 other actions. Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time.” (40 C.F.R. § 1508.7). These actions include on- or off-site projects conducted by government agencies, businesses, or individuals that are within the spatial and temporal boundaries of the actions considered.

As previously discussed herein, it is anticipated that the proposed New Madison Wastewater Treatment Expansion and Improvement Project will have no effect or negligible effects on the following resource types: reservoir operation, air quality, topography, geology, soils, surface water hydrology, groundwater, listed species, demographics and environmental justice, recreation and visitation, cultural resources, HTRW materials, aesthetics and visual resources, and noise. The proposed project is expected to have beneficial effects on water quality of the surrounding watershed.

There is the potential for cumulative effects of the Proposed Action on these resources when added to the impacts of other past, present, and reasonably foreseeable future actions in the region. Any future development by USACE on Project resources has the potential to produce some temporary and minor construction-related effects (e.g., noise, fugitive dust, vehicle emissions, etc.).

## 5.0 STATUS OF ENVIRONMENTAL COMPLIANCE

The recommended plan is in full compliance or in the process of attaining compliance with all applicable local, State, and Federal statutes as well as Executive Orders. Compliance status is documented below in Table 5.



Table 5. Status of Environmental Compliance with the New Madison Wastewater Treatment Plant Expansion and Improvement Project.

<b>Statute/Executive Order</b>	<b>Full</b>	<b>In Progress</b>
National Environmental Policy 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	
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	

## 6.0 PUBLIC REVIEW AND COMMENTS

This draft EA and unsigned FONSI will be made available for public review for a period of 30 days [pending]. Table 6 lists the persons, agencies, Tribes, and organizations that will be notified for the public review. Any comments received will be considered by USACE before finalizing the EA and executing the FONSI. All agency and Tribal correspondence will be included in Appendix C.

Table 6. Agencies, Organizations, Persons, and Tribes contacted for public review of the New Madison Wastewater Treatment Expansion and Improvement Project, Darke County, Ohio.

<b>Stakeholder Type</b>	<b>Agency/Organization/Person/Tribe</b>
Tribes	Absentee-Shawnee Tribe of Indians
	Eastern Shawnee Tribe of Oklahoma
	Shawnee Tribe of Oklahoma
	Saginaw Chippewa Indian Tribe of Michigan
	Quapaw Tribe
	Miami Tribe of Oklahoma
	Peoria Tribe of Oklahoma
	Osage Nation of Oklahoma
	Wyandotte Nation of Oklahoma
	Tuscarora Nation of New York
	Tonawanda Seneca Nation



Stakeholder Type	Agency/Organization/Person/Tribe
	St. Regis Mohawk Tribe
	Seneca Nation of Indians of New York
	Onondaga Nation of New York
	Oneida Nation of Wisconsin
	Oneida Nation of New York
	Delaware Nation of Oklahoma
	Cayuga Nation of New York
	Bad River Band of Lake Superior Chippewa
	Citizen Potawatomi Nation
	Prairie Band of Potawatomi
	Gun Lake Tribe
	Pokagon Band of Potawatomi
	Delaware Tribe of Indians Oklahoma
	Nottawaseppi Huron Band of Potawatomi
	Bois Forte Band of Chippewa
	Fond du lac Band of Lake Superior
	Forest County Potawatomi
	Grand Portage Band of Lake Superior Chippewa
	Grand Traverse Band of Ottawa and Chippewa
	Seneca-Cayuga of Oklahoma
	Hannahville Indian Community
	Keweenaw Bay Indian Community
	Kickapoo Tribe of Kansas
	Kickapoo Tribe of Oklahoma
	Kickapoo Traditional Tribe of Texas
	Lac Courte Oreilles Band of Chippewa
	Lac du Flambeau Band of Lake Superior
	Lac Vieux Desert Band of Lake Superior
	Leech Lake Band of Ojibwe
	Little River Band of Ottawa
	Little Traverse Bay Band of Odawa
	Mille Lacs Band of Ojibwe
	Ottawa Tribe of Oklahoma
	Red Cliff Band of Lake Superior Chippewa
	Red Lake Chippewa
	Sac and Fox Nation of Missouri in Kansas and Nebraska
	Sac and Fox Nation of Oklahoma
	Sac and Fox Tribe of Mississippi in Iowa
	Sault Ste Marie Tribe of Chippewa
	Sokaogon Chippewa
	St. Croix Chippewa Community
	Turtle Mountain Band of Chippewa
State Agencies	Ohio State Historic Preservation Officer
	Ohio Department of Natural Resource
	Ohio Environmental Protection Agency



Stakeholder Type	Agency/Organization/Person/Tribe
Federal Agencies	United States Environmental Protection Agency, Region 5 Office National Resource Conservation Service, Ohio State Office United States Fish and Wildlife Service
Local Agencies	Washington Township Office
People	United States Congressman Jim Jordan United States Senator Rob Portman United States Senator Sherrod Brown Ohio State Senator Rob McColley Ohio State Senator Matt Huffman Ohio State Representative Jon Cross Ohio State Representative Nino Vitale

## 6.0 CONCLUSION

Because the New Madison WWTP was originally constructed in 2002/2003, the majority of plant components are original and are therefore nearing the end of their service lives. The proposed expansion and improvement of the New Madison WWTP would address both the design and operational deficiencies of the existing system and also help the surrounding communities address their waste removal and public health issues.

The completion of the proposed New Madison and Wayne Lakes projects will allow for controlled and quality growth of residential and non-residential entities within their respective sanitary service areas and bring the area into compliance with Federal and state water quality requirements. For the proposed New Madison project, construction would take place on previously disturbed land on the boundaries of the existing WWTP and within the road ROWs. Effects associated with construction would be minor and short-term and construction BMPs would be implemented to minimize impacts to residents and the environment. No significant adverse impacts have been identified as a result of implementation of the recommended plan.

This EA 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 C.F.R. Parts 1500-1508); and the Corps of Engineers, Policy and Procedure for Implementing NEPA (33 C.F.R. Part 230).

This EA concludes that environmental impacts of the proposed expansion of the existing wastewater treatment plant for the Village of New Madison are minor and local in scope; the benefits of the recommended plan outweigh the minor impacts that would result from its implementation; and the recommended plan does not constitute a major Federal action significantly affecting the quality of the human environment.

Based on the conclusions of this Draft EA, preparation of an EIS is not required. Therefore, a draft FONSI is presented at the beginning of this document and the recommended plan, as described herein, is expected to be implemented.



## 7.0 REFERENCES

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# Appendix A

## Supporting Environmental Materials



## **LIMITED PHASE I HAZARDOUS, TOXIC, & RADIOACTIVE WASTE (HTRW) INVESTIGATION**

Wastewater Treatment Plant Expansion  
Village of New Madison, Darke County, Ohio

### **Prepared for:**

**Village of New Madison**  
124 S. Harrison Street  
New Madison, OH 45346

### **Prepared by:**

**Stone Environmental Engineering and Science, Inc.**  
748 Green Crest Drive  
Westerville, OH 43081

August 23, 2021  
C1256-001-21

**ASSESSMENT • DESIGN • PERMITTING • COMPLIANCE**

748 Green Crest Drive • Westerville, Ohio 43081 • 614.865.1874 • [StoneEnvironmental.com](http://StoneEnvironmental.com)  
1435 Vine Street • Cincinnati, Ohio 45202 | 2710E Linden Avenue • Dayton, Ohio 45410 | 12 East Exchange Street, 7<sup>th</sup> Floor • Akron, Ohio 44308



August 23, 2021  
C1256-001-21

Village of New Madison  
Attn: Mayor Monyca Schlechty  
124 S. Harrison Street  
New Madison, OH 45346

**Re: Limited Phase I Hazardous, Toxic, & Radioactive Waste (HTRW) Investigation**  
Wastewater Treatment Plant Upgrades  
New Madison, Darke County, Ohio

Dear Mayor Schlechty,

Stone Environmental Engineering & Science, Inc. (STONE) has completed the Limited Phase I HTRW Investigation for the New Madison Wastewater Treatment Plant Upgrades Project located west of the Village located on Rush Road. A copy of the report is enclosed. The report has revealed no HTRW concerns.

If you have any questions about this submittal please contact us at 614-865-1874.

Sincerely,  
**Stone Environmental Engineering & Science, Inc.**



Kyle Howe, AHES, CESSWI  
Staff Geologist



Mary Sharrett, PE, LEED AP, CPESC  
President

Submitted: 1 electronic copy (PDF) via e-mail

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## APPENDICES

### Appendix A

Figure 1 – Vicinity Map

Figure 2 – Project Observation Map

Select Site Photographs

### Appendix B

GeoSearch Radius Database Report

GeoPlus Oil and Gas Report

GeoPlus Water Well Report

### Appendix C

Historical Aerial Photographs

Historical Topographic Maps

City Directory Pages

## **PHASE I HAZARDOUS, TOXIC, & RADIOACTIVE WASTE INVESTIGATION**

Wastewater Treatment Plant Expansion  
Village of New Madison, Darke County, Ohio

### **1. SUMMARY**

Stone Environmental Engineering & Science, Inc. (STONE) completed a Limited Phase I Hazardous, Toxic, & Radioactive Waste (HTRW) Investigation for the Village of New Madison for the Wastewater Treatment Plant Upgrades Project in the Village of New Madison, Ohio. The Project is to include improvements/additions to the current wastewater treatment plant located on Rush Road. This Limited Phase I HTRW Investigation has revealed no HTRW concerns.

### **2. INTRODUCTION**

#### **2.1 Purpose**

The purpose of the Limited Phase I HTRW Investigation is to provide a professional opinion, based on obvious and reasonably ascertainable information, on the identification of HTRW within the Project.

#### **2.2 Project Limits**

It is planned to make additions to the current New Madison wastewater treatment plant. The Project Area consist of the fenced in area of the current treatment plant and including a 50 foot buffer outside of the fenced area.

#### **2.3 Detailed Scope of Services**

The purpose of the Limited Phase I HTRW Investigation is to identify sites within the Project Area that may contain HTRW. The most widely utilized standard for performing environmental assessments, which includes HTRW, is the standard developed by the American Society of Testing and Materials (ASTM) entitled E 1527-13, Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process. Accordingly, the purpose of the assessment is to identify *recognized environmental conditions* (RECs) as defined by ASTM. RECs are defined as “the presence or likely presence of hazardous substances or petroleum products on the Project under conditions that indicate an existing release, past release, or a material threat of a release of hazardous substances or petroleum products into the structures on the Project or into the ground, groundwater, or surface water of the Project.”

The HTRW scope presented is modified based on past U.S. Army Corps of Engineers (USACE) conversations. Since the proposed sewer is being placed in or adjacent to the existing right-of-way (ROW), the following scope was performed by STONE:

- a review of historical information (historical aerial photographs, topographic maps, and fire insurance maps);
- a review of environmental record databases as specified by ASTM; and,
- a visual reconnaissance of the Project.

Due to the size and nature of the Project, an initial “Limited” scope was agreed upon, with the

purpose of identifying site(s) that warrant further assessment due to the potential of having HTRW concerns.

## **2.4 Limitations and Exceptions**

The findings of this report are applicable and representative of conditions encountered at the Project on the date of this assessment and may not represent conditions at a later date. The review of public records was limited to that information which was readily available to STONE at the time this report was prepared. Interviews with local and state government authorities were limited to those people whom STONE was able to contact during the preparation of this report. Information was derived from “reasonably ascertainable” and “practically reviewable” sources in compliance with our understanding of the standards set forth by ASTM E 1527-13.

This Limited Phase I HTRW Investigation report is limited in scope to the specific terms of the agreement previously entered into between STONE and the Village of New Madison. STONE shall not be liable for any damage, consequential or otherwise, caused by or resulting from the information and/or conclusions contained herein, except for damage resulting from the negligence of STONE.

The Limited Phase I HTRW Investigation is based solely on a visual site reconnaissance and limited environmental records review, and should not be construed as a Phase I ESA, Wetland or Stream Delineation or Determination, Asbestos Survey, Mold Survey, Lead-Based Paint Inspection, Ecological Survey, Risk Assessment, or Compliance Survey, and should not be relied upon as such.

## **3. SITE DESCRIPTION**

The Project is located off of Rush Road to the west of the Village of New Madison, Darke County, Ohio (Lat.: 39.963552, Long.: -84.727074). Land in the vicinity of the Project is agricultural. The Village of New Madison is located in western Ohio, in the southwest portion of Darke County. The general elevation is 1,105 feet above mean sea level. General groundwater flow is presumed to be towards East Fork Whitewater River (to the southeast). A Vicinity Map illustrating the Project location is presented as Figure 1 in Appendix A.

## **4. RECORDS REVIEW**

### **4.1 Standard Environmental Records Sources**

STONE reviewed selected federal and state standard and supplementary regulatory lists in an attempt to identify recorded information concerning HTRW associated with the Project. The regulatory lists included in the Radius Database Report as obtained from GeoSearch through Historical Information Gatherers (HIG) were reviewed. The GeoSearch Radius Database Report is attached in Appendix B, and includes a listing of the databases, search radii, explanation of each database, and figures depicting the approximate locations of regulated facilities in the vicinity of the Project.

Regulatory listings are limited and include only those facilities or incidents that are known to the regulatory agencies at the time of publication to be contaminated, in the process of evaluation for

potential contamination, or to store/generate potentially hazardous substances, waste, or petroleum. Only one site was listed within a mile of the Project Area. No unplotable sites were identified.

### **New Madison Wastewater Treatment Plant, 2115 Rush Road (Within Project Area)**

Enforcement and Compliance History Information (ECHOR05), Facility Registry System (FRSOH), Integrated Compliance Information System (ICIS), Integrated Compliance Information System National Pollutant Discharge Elimination System (ICISNPDES), National Pollutant Discharge Elimination System Permits (NPDESR05), and Spills Listing (SPILLS). The wastewater treatment plant is listed on these databases for compliance inspections, associated violations and documented spills of wastewater at the site.

## **4.2 Historical Use Information on the Project**

### **4.2.1 Historic Sanborn Fire Insurance Maps (FIMs)**

No Sanborn Fire Insurance Maps were available for the Project area.

### **4.2.2 Historic Aerial Photographs**

Aerial photographs from 1938, 1949, 1953, 1959, 1973, 1979, 1981, 1984, 1994, 2004, 2009, 2011, 2013, 2015, 2017 and 2019 were reviewed. Copies of the aerial photographs are included in Appendix C. It appears that the Project area was used agriculturally until the wastewater treatment plant was developed around 2004. The area surrounding the Project Area has been agricultural since at least 1938.

### **4.2.3 City Directories**

A search was conducted by HIG for City Directory Listings along Rush Road in the vicinity of the Project Area. The wastewater treatment plant is not listed in any of the directories. The City Directory Listings are presented in Appendix C. In general, the listings in the vicinity of the Project Area were residential.

### **4.2.4 Historic Topographic Maps**

The Project is shown on the United States Geological Survey's (USGS) New Madison, Ohio Quadrangle 7.5 Minute Maps (1960, 1973, 1984, 2010, 2013, 2016 and 2019). Copies of the historical topographic maps are included in Appendix C. The following was noted:

**1960-1984:** No development is shown. A railroad is located approximately 500 feet to the southeast of the Project Area.

**2010-2016:** Structures are not shown for these years. The railroad is not illustrated.

### **4.2.5 Oil and Gas Maps**

According to the GeoPlus Oil & Gas Report, there are no records oil and gas wells within the Project Area. There is one well within a half mile of the boundary but it is listed with a status of "Not Drilled". The Oil & Gas Report is provided in Appendix B.

### **4.2.6 Water Well Maps**

According to the GeoPlus Water Well Report, there are no water wells located within the Project Area. The closest well to the Project is approximately 1,117 feet northeast and is located on a residential property. A copy of the Water Well Report is presented in Appendix B.

## **5. INFORMATION FROM SITE RECONNAISSANCE**

STONE representative Kyle Howe, under the direction of Mary Sharrett, PE, an environmental professional as defined by ASTM E-1527, conducted the Project site visit on July 14, 2021. Weather conditions were clear with a high temperature of approximately 83°F. Figure 2- Project Observation Map illustrates observations made during the visit along with the approximate locations of selected photographs is presented in Appendix A. Color copies of selected photographs are also included in Appendix A.

The Project Area consists of the current wastewater treatment plant. There are six structures on the Property; two settling tanks, a pump house, shed, sludge reduction pit pavilion, and the main office building (Photographs 1 through 4). The main office building was not accessed but the south side of the structure is a garage area. The garage appeared to be used for maintenance on vehicles or other machinery (Photograph 5). There was no spills, staining or drains were observed inside the garage. The north side of the structure was observed to be offices. A diesel emergency generator is located on the west side of the main office and three pole-mounted transformers are to the northwest (Photograph 6). PCB content of the transformers, if any, is unknown. An above ground storage tank (AST) labeled as containing gasoline is located at the southeast corner of the main office structure (Photograph 7).

The southeast corner of the Project area was observed to be used as an open storage/dumping area. No HTRW concerns were observed as only extra piping, asphalt spoils, cinder blocks, and sand was observed (Photograph 8).

## **6. INTERVIEWS**

### Darke County Emergency Management Agency (EMA)

The Darke County EMA was contacted via email on August 13, 2021. EMA responded on August 18, 2021 with two spill reports attached. The spill reports are both for NPDES permit violations. One violation was for fecal levels on June 23, 2004 and the other was for increased ammonia on February 2, 2009.

### New Madison WWTP

Mr. Steve Crawford, the WWTP manager, was interviewed on August 23, 2021. Mr. Crawford explained that the plant was installed in 2004. The waste sludge is spread out on the adjacent farm fields as fertilizer and the treated water is discharged to the nearby ditch to the east which then feeds into the East Fork Whitewater River. Chemicals that are used are chlorine for treating the wastewater and various polymers used to dewater the sludge. The dumping area at the southeast corner of the fenced in area is used by the New Madison Street Department. Only roadway materials are kept there from time to time. The generator to the west of the office building is powered by diesel fuel and is for emergency power.



## 7. FINDINGS AND CONCLUSIONS

Figure 2 – Site Observation Map (Appendix A) illustrates the Project Area, photograph locations and observations from the site visit. The Project Area has also been added to the aerials, and topographic maps (Appendix C).

The Project Area was used for agricultural purposes until it was developed with a wastewater treatment plant around 2004. Based on the information reviewed, no HTRW concerns were identified within the Project Area.



## United States Department of the Interior

### FISH AND WILDLIFE SERVICE

Ohio Ecological Services Field Office

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

Phone: (614) 416-8993 Fax: (614) 416-8994



In Reply Refer To:

August 16, 2022

Project Code: 2022-0075322

Project Name: New Madison Wastewater Treatment Improvement and Expansion Project

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

**Migratory Birds:** In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

---

Attachment(s):

- Official Species List

## Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

**Ohio Ecological Services Field Office**

4625 Morse Road, Suite 104

Columbus, OH 43230-8355

(614) 416-8993

---

## Project Summary

**Project Code:** 2022-0075322  
**Project Name:** New Madison Wastewater Treatment Improvement and Expansion Project  
**Project Type:** Federal Grant / Loan Related  
**Project Description:** The proposed New Madison Wastewater Treatment Improvement and Expansion Project involves expansion and improvement of facilities at the existing wastewater treatment plant in New Madison, Ohio. New Madison is a small, incorporated village located in Darke County, Ohio, approximately 5 miles southeast of the Village of Wayne Lakes, and 11 miles south of the City of Greenville. Major components of the project plan include rehabilitating the Rush Road Lift Station, replacing the fine screen and screening building, adding additional secondary treatment, replacing the existing Ultraviolet (UV) disinfection system, and expanding the solids handling processes to account for the additional loadings and provide longer detention time. The proposed project would also allow for the regionalization of wastewater treatment for the nearby Village of Wayne Lakes. As a result, the New Madions WWTP will require the improvement and expansion of existing facilities to increase capacity.

### Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@39.9636156,-84.72563793894304,14z>



**Counties:** Darke County, Ohio

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## Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Note that 1 of these species should be considered only under certain conditions.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries<sup>1</sup>, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

- 
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

## Mammals

NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is <b>final</b> critical habitat for this species. The location of the critical habitat is not available. Species profile: <a href="https://ecos.fws.gov/ecp/species/5949">https://ecos.fws.gov/ecp/species/5949</a>	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: <ul style="list-style-type: none"> <li>▪ Incidental take of the northern long-eared bat is not prohibited at this location. Federal action agencies may conclude consultation using the streamlined process described at <a href="https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html">https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html</a></li> </ul> Species profile: <a href="https://ecos.fws.gov/ecp/species/9045">https://ecos.fws.gov/ecp/species/9045</a>	Threatened

## Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	Candidate

## Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

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United States  
Department of  
Agriculture

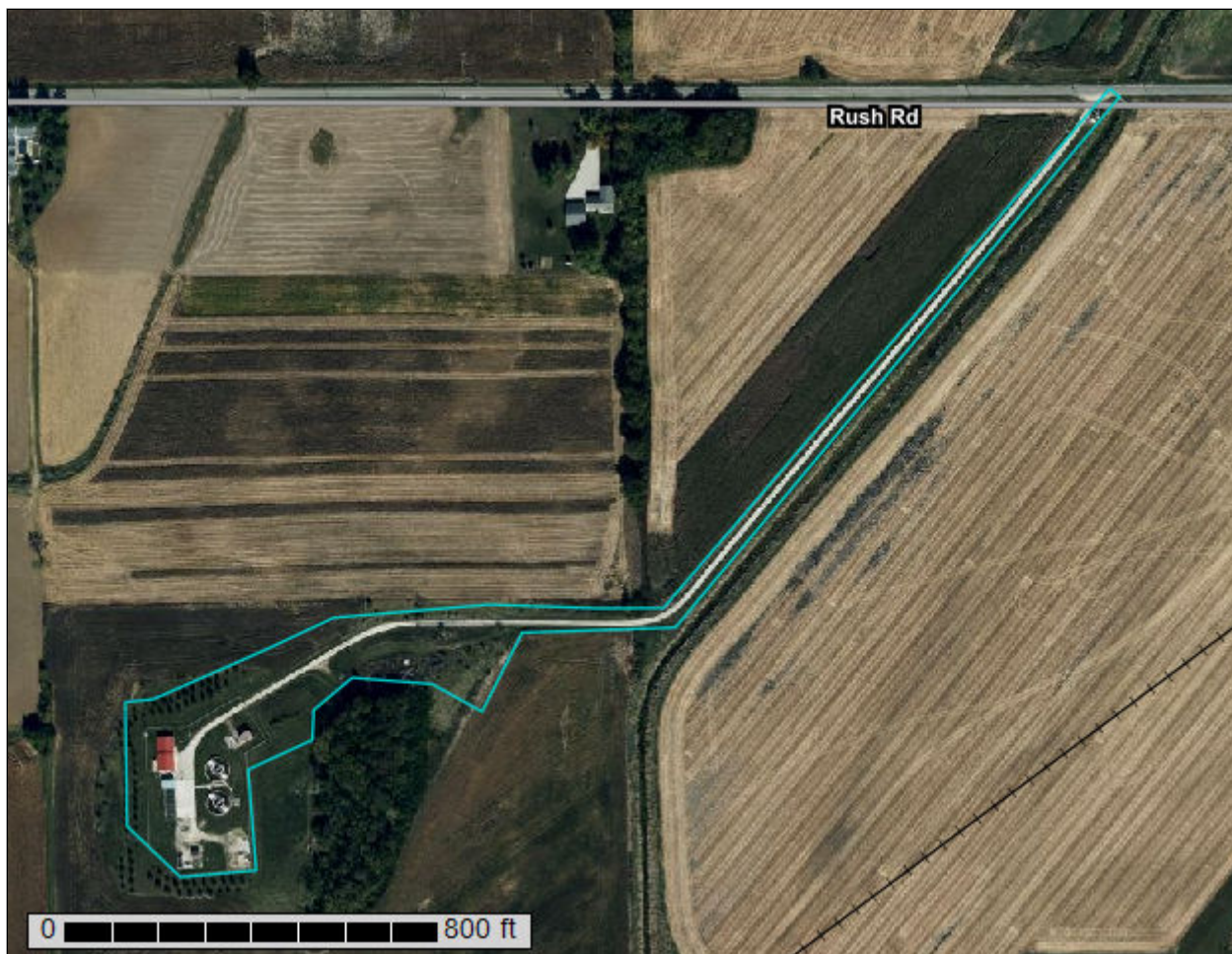
NRCS

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for **Darke County, Ohio**

**Proposed Wastewater Treatment  
Plant Expansion Project, New  
Madison, Ohio**



May 27, 2022

# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

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# Custom Soil Resource Report Soil Map





# Custom Soil Resource Report


## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)

### Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

### Special Point Features

 Blowout

 Borrow Pit

 Clay Spot

 Closed Depression

 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp

 Mine or Quarry

 Miscellaneous Water

 Perennial Water

 Rock Outcrop

 Saline Spot

 Sandy Spot

 Severely Eroded Spot


 Sinkhole

 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot

 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

### Water Features

 Streams and Canals

### Transportation

 Rails

 Interstate Highways

 US Routes

 Major Roads

 Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Darke County, Ohio  
Survey Area Data: Version 21, Sep 7, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 14, 2019—Oct 23, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ed	Edwards muck	1.0	16.0%
MmC2	Miamian silt loam, 6 to 12 percent slopes, eroded	4.1	63.2%
MmD2	Miamian silt loam, 12 to 18 percent slopes, eroded	0.8	12.1%
Pa	Patton silty clay loam, 0 to 2 percent slopes	0.6	8.7%
<b>Totals for Area of Interest</b>		<b>6.4</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

## Custom Soil Resource Report

*Ecological site:* F111AY004IN - Wet Alluvium

*Hydric soil rating:* No

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United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. [http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_052290.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf)

Location: User-specified point center at 39.961736, -84.721874

Ring (buffer): 5-miles radius

Description: New Madison WWTP Expansion

Summary of ACS Estimates		2015 - 2019		
Population				4,535
Population Density (per sq. mile)				60
People of Color Population				107
% People of Color Population				2%
Households				1,827
Housing Units				1,992
Housing Units Built Before 1950				942
Per Capita Income				29,689
Land Area (sq. miles) (Source: SF1)				75.18
% Land Area				100%
Water Area (sq. miles) (Source: SF1)				0.22
% Water Area				0%
		2015 - 2019 ACS Estimates	Percent	MOE (±)
<b>Population by Race</b>				
Total		4,535	100%	378
Population Reporting One Race		4,481	99%	480
White		4,455	98%	377
Black		7	0%	45
American Indian		6	0%	20
Asian		12	0%	14
Pacific Islander		0	0%	12
Some Other Race		0	0%	12
Population Reporting Two or More Races		55	1%	74
Total Hispanic Population		31	1%	28
Total Non-Hispanic Population		4,505		
White Alone		4,428	98%	378
Black Alone		7	0%	45
American Indian Alone		6	0%	20
Non-Hispanic Asian Alone		12	0%	14
Pacific Islander Alone		0	0%	12
Other Race Alone		0	0%	12
Two or More Races Alone		52	1%	74
<b>Population by Sex</b>				
Male		2,293	51%	214
Female		2,242	49%	221
<b>Population by Age</b>				
Age 0-4		270	6%	82
Age 0-17		1,008	22%	113
Age 18+		3,528	78%	184
Age 65+		808	18%	78

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2015 - 2019



Location: User-specified point center at 39.961736, -84.721874

Ring (buffer): 5-miles radius

Description: New Madison WWTP Expansion

	2015 - 2019 ACS Estimates	Percent	MOE (±)
<b>Population 25+ by Educational Attainment</b>			
Total	3,210	100%	225
Less than 9th Grade	19	1%	29
9th - 12th Grade, No Diploma	258	8%	79
High School Graduate	1,589	49%	116
Some College, No Degree	611	19%	99
Associate Degree	317	10%	60
Bachelor's Degree or more	417	13%	71
<b>Population Age 5+ Years by Ability to Speak English</b>			
Total	4,265	100%	359
Speak only English	4,201	99%	315
Non-English at Home <sup>1+2+3+4</sup>	64	1%	64
<sup>1</sup> Speak English "very well"	30	1%	34
<sup>2</sup> Speak English "well"	29	1%	64
<sup>3</sup> Speak English "not well"	5	0%	20
<sup>4</sup> Speak English "not at all"	0	0%	12
<sup>3+4</sup> Speak English "less than well"	5	0%	20
<sup>2+3+4</sup> Speak English "less than very well"	34	1%	64
<b>Linguistically Isolated Households*</b>			
Total	6	100%	13
Speak Spanish	4	66%	12
Speak Other Indo-European Languages	2	34%	12
Speak Asian-Pacific Island Languages	0	0%	12
Speak Other Languages	0	0%	12
<b>Households by Household Income</b>			
Household Income Base	1,827	100%	101
< \$15,000	93	5%	41
\$15,000 - \$25,000	211	12%	76
\$25,000 - \$50,000	483	26%	83
\$50,000 - \$75,000	380	21%	68
\$75,000 +	660	36%	81
<b>Occupied Housing Units by Tenure</b>			
Total	1,827	100%	101
Owner Occupied	1,451	79%	90
Renter Occupied	376	21%	73
<b>Employed Population Age 16+ Years</b>			
Total	3,697	100%	287
In Labor Force	2,319	63%	178
Civilian Unemployed in Labor Force	39	1%	62
Not In Labor Force	1,379	37%	151

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of anyrace.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS)

\*Households in which no one 14 and over speaks English "very well" or speaks English only.

Location: User-specified point center at 39.961736, -84.721874

Ring (buffer): 5-miles radius

Description: New Madison WWTP Expansion

	2015 - 2019 ACS Estimates	Percent	MOE (±)
<b>Population by Language Spoken at Home*</b>			
Total (persons age 5 and above)	3,581	100%	362
English	3,511	98%	374
Spanish	20	1%	33
French	0	0%	36
French Creole	N/A	N/A	N/A
Italian	N/A	N/A	N/A
Portuguese	N/A	N/A	N/A
German	6	0%	11
Yiddish	N/A	N/A	N/A
Other West Germanic	N/A	N/A	N/A
Scandinavian	N/A	N/A	N/A
Greek	N/A	N/A	N/A
Russian	N/A	N/A	N/A
Polish	N/A	N/A	N/A
Serbo-Croatian	N/A	N/A	N/A
Other Slavic	N/A	N/A	N/A
Armenian	N/A	N/A	N/A
Persian	N/A	N/A	N/A
Gujarathi	N/A	N/A	N/A
Hindi	N/A	N/A	N/A
Urdu	N/A	N/A	N/A
Other Indic	N/A	N/A	N/A
Other Indo-European	11	0%	36
Chinese	2	0%	5
Japanese	N/A	N/A	N/A
Korean	0	0%	16
Mon-Khmer, Cambodian	N/A	N/A	N/A
Hmong	N/A	N/A	N/A
Thai	N/A	N/A	N/A
Laotian	N/A	N/A	N/A
Vietnamese	0	0%	16
Other Asian	2	0%	4
Tagalog	5	0%	14
Other Pacific Island	N/A	N/A	N/A
Navajo	N/A	N/A	N/A
Other Native American	N/A	N/A	N/A
Hungarian	N/A	N/A	N/A
Arabic	0	0%	16
Hebrew	N/A	N/A	N/A
African	N/A	N/A	N/A
Other and non-specified	24	1%	63
Total Non-English	70	2%	520

**Data Note:** Detail may not sum to totals due to rounding. Hispanic population can be of any race.

N/A means not available. **Source:** U.S. Census Bureau, American Community Survey (ACS) 2015 - 2019.

\*Population by Language Spoken at Home is available at the census tract summary level and up.



In reply refer to:  
2022-DAR-54999

June 16, 2022

Montana Martin  
Archaeologist  
Civil Works- Planning, Programs, and Project Management Branch  
U.S. Army Corps of Engineers, Louisville District  
600 Dr. Martin Luther King Jr. Place  
Louisville, Kentucky 40202  
Email: [montana.martin@usace.army.mil](mailto:montana.martin@usace.army.mil)

RE: Section 106 Review – Wastewater Treatment Plant Expansion and Lift Station Improvements  
Project, Village of New Madison, Darke County, Ohio

Dear Mr. Martin:

This letter is in response to correspondence received on June 1, 2022 regarding the above referenced project in Darke County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]). The United States Army Corps of Engineers, Louisville District (Corps) is the lead federal agency for the undertaking. The project will involve improvements to the existing wastewater treatment plant property which was constructed in 2003. These improvements include expanding the fenced area around the facility, add settling basins, and improve an existing lift station.

According to the information submitted, the Corps has determined that the project is an undertaking as described in 36 CFR 800. In addition, the Corps conducted a file search and site visit of the proposed Area of Potential Effect (APE) and has determined that the undertaking will have no effect on historic properties. After review of the information submitted, including the results of the site visit, the SHPO concurs with the Corps' *No Historic Properties Affected* determination for the above referenced undertaking. No further coordination is required for this project unless the scope of work changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as required by 36 CFR § 800.13. If you have any questions concerning this review, please contact me via email at [sbiehl@ohiohistory.org](mailto:sbiehl@ohiohistory.org). Thank you for your cooperation.

Sincerely,

A handwritten signature in blue ink that reads "Stephen M. Biehl".

Stephen M. Biehl, Project Reviews Coordinator (archaeology)  
Resource Protection and Review  
State Historic Preservation Office

RPR Serial No. 1093576

*"Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs."*



## Appendix B

### Cultural Report



## Appendix C

### Agency and Tribal Coordination