Section 594 Ohio and North Dakota Environmental Infrastructure Program

Draft:

Environmental Assessment
Finding of No Significant Impact

New Sanitary Sewage Collection System for the Unincorporated Community of Summerford, Madison County, Ohio

July 2022

United States Army Corps of Engineers
Louisville District

DRAFT FINDING OF NO SIGNIFICANT IMPACT

New Sanitary Sewage Collection System for the Unincorporated Community of Summerford, Madison County, Ohio

The U.S. Army Corps of Engineers, Louisville District has conducted an Environmental Assessment (EA) in accordance with the National Environmental Policy Act of 1969, as amended, for the New Sanitary Sewage Collection System for the Unincorporated Community of Summerford, Ohio (Project). The draft EA, dated July 2022, details the environmental consequences of the recommended plan for the Project and the other alternatives considered.

The daft EA, incorporated herein by reference, evaluated various alternatives that would deliver cost-effective, environmentally-sound sanitary sewer services to residents within the proposed service area for the unincorporated community of Summerford, Ohio (Summerford). The recommended plan involves the construction of a new sewage collection system that includes multiple pump stations to transport wastewater to an existing wastewater facility for treatment.

In addition to a “no action” plan, three alternatives were evaluated. The alternatives included different combinations of sewage collection system routes and pump combinations to connect the community of Summerford with an existing wastewater treatment facility. Detailed descriptions of the alternatives are found in section 2 of the attached EA.

For all alternatives, 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	☒	☐	☐
Air quality	☒	☐	☐
Aquatic resources/wetlands	☐	☐	☒
Fish and wildlife habitat	☐	☐	☒
Threatened/Endangered species/critical habitat	☐	☐	☒
Historic properties	☐	☐	☒
Other cultural resources	☐	☐	☒
Floodplains	☐	☐	☒

	Insignificant effects	Insignificant effects as a result of mitigation	Resource unaffected by action
Hazardous, toxic & radioactive waste	☐	☐	☒
Land use	☐	☐	☒
Noise levels	☒	☐	☐
Socio-economics	☐	☐	☒
Environmental justice	☐	☐	☒
Soils	☒	☐	☐
Water quality	☒	☐	☐
Climate change	☐	☐	☒

All practical means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best management practices, as outlined in the EA (e.g. silt fences), would be implemented before, during, and after construction, and are expected to minimize the potential for deleterious effects to the environment. After construction is completed, re-seeding and re-vegetation would be performed to minimize erosion losses and protect surface soils.

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

Public review of the draft EA and FONSI was initiated on PENDING. Comments received during the public review period are addressed in section 5.0 of the attached EA (PENDING).

Pursuant to section 7 of the Endangered Species Act of 1973, as amended, the U.S. Army Corps of Engineers 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 U.S. Army Corps of Engineers determined that historic properties will not be adversely affected by the recommended plan. The Kentucky Heritage Council concurred with the determination on 18 November 2020.

A water quality certification pursuant to section 401 of the Clean Water Act is not required to implement the recommended plan, which will not result in any discharge into waters of the United States.

All applicable environmental laws have been or are in the process of being complied with, and coordination with appropriate agencies and officials has been completed.

Technical, environmental, and economic criteria used in the formulation of alternative plans were those specified in the Water Resources Council's 1983 Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies. All applicable laws, executive orders, regulations, and local government plans were considered in evaluation of alternatives. Based on this report, 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 plan would not cause significant adverse effects on the quality of the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date

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

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List of Acronyms

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

ODT – Ohio Department of Transportation

PAA – Proposed Action Alternative

RCRA – Resource Conservation and Recovery Act

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 the potential environmental impacts related to the recommended plan and reasonable alternatives for the proposed New Sanitary Sewage Collection System for the Unincorporated Community of Summerford, Madison County, Ohio (Project), and to determine whether the preparation of an Environmental Impact Statement (EIS) is required.

The proposed Project would be carried out through a partnership agreement between the County of Madison (County) and the Louisville District United States Army Corps of Engineers (USACE) 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 CFR 1500-1508), and Corps of Engineers Regulation ER 200-2-2, *Policy and Procedures for Implementing NEPA* (33 CFR 230). This EA was prepared to describe the existing conditions in the vicinity of the Project and evaluate the potential impacts associated with the proposed action and reasonable alternatives.

1.2 Purpose and Need

The purpose of this project is to deliver a cost-effective, environmentally-sound approach to meet both the existing and future sanitary sewage collection needs for the residents of the unincorporated community of Summerford, Ohio (Summerford) to facilitate the effective treatment of wastewater. The construction of a new sewage collection system will correct unsanitary conditions and negative impacts to water quality currently occurring within Summerford and in nearby waterways.

Wastewater treatment within the proposed service area is currently provided by individual on-lot systems consisting of either a septic tank or an aeration unit. In many cases, these systems discharge untreated sewage to ditches, drainage ways, or underground tile lines with eventual discharge to Deer Creek, which is immediately north and west of the Project area.

The completion of a new sewage collection system will allow for controlled and quality growth of residential and non-residential entities within the Summerford sanitary service area and bring the area into compliance with federal and state water quality requirements.

1.3 Location

The unincorporated community of Summerford is located in Somerford Township in the west central portion of Madison County, Ohio (Figure 1). Summerford is approximately 26 air-miles west of Columbus, Ohio, and ca. 39 air miles northeast of Dayton, Ohio. The town is located off US Hwy 40 ca. 0.75 miles south of Interstate 70. The Project area is within the 8-digit U.S. Geological Survey (USGS) Hydrologic Unit Code (HUC) 05060002, which is the Lower Scioto River Watershed (USGS 2020).

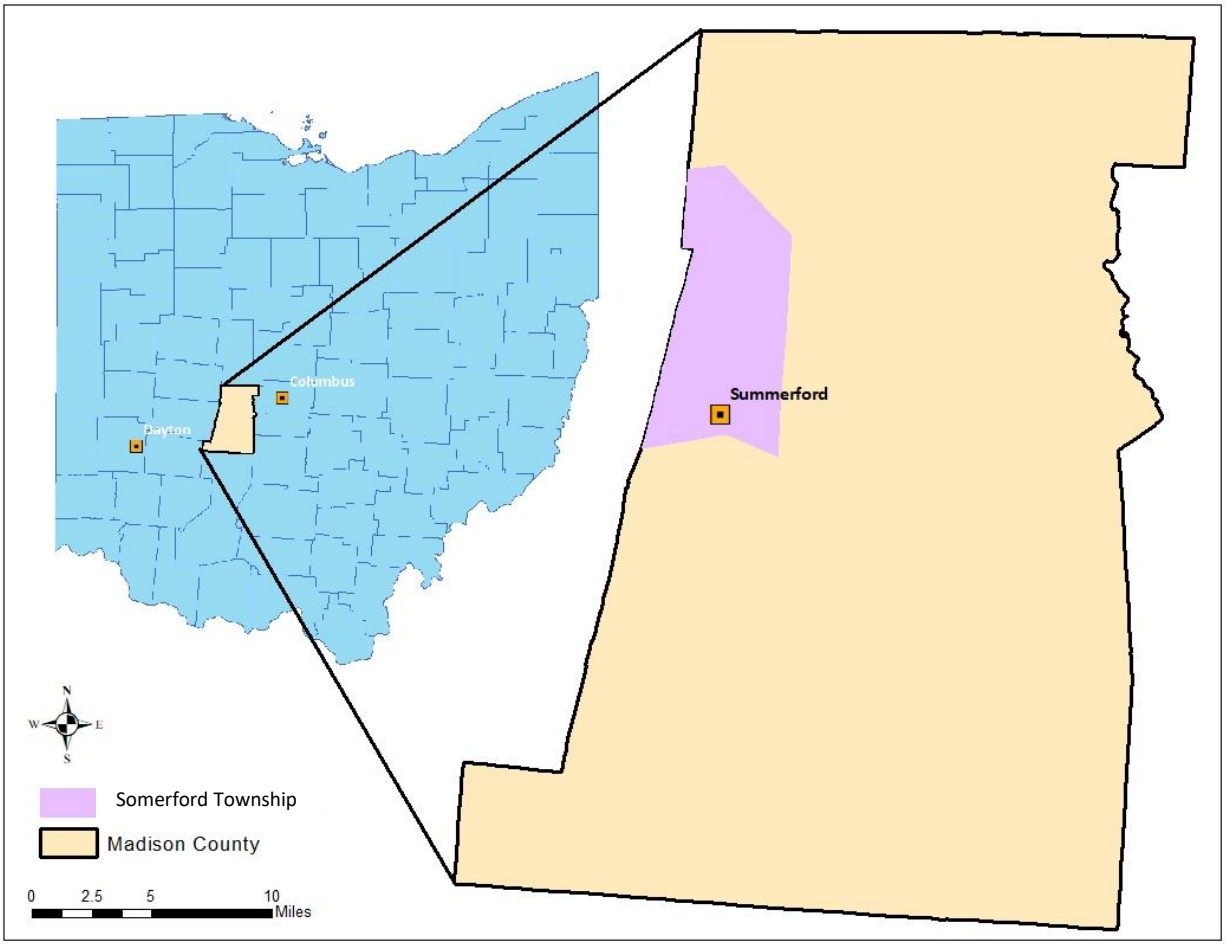

Figure 1. General location of Madison County and Summerford, Ohio.

2.0 PROPOSED ACTION AND ALTERNATIVES

The No Action Alternative (NAA) and three action alternatives, including the Proposed Action Alternative (PAA), are described in detail below.

2.1 No Action Alternative

Under the No Action Alternative (NAA), improperly treated wastewater from individual residences will continue to drain into the surrounding natural waterways, negatively impacting local water quality. Specifically, individual soil absorption systems in Summerford will continue to malfunction, resulting in surface ponding and discharge of improperly treated septic tank effluent. High fecal coliform levels in roadside ditches will continue to present potential health risks to area residents and preclude compliance with Ohio's Water Quality Standards. 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 action alternatives and to evaluate the adequacy of the PAA in meeting the purpose and need of the action.

2.2 Action Alternatives Considered

2.2.1 Alternative 1

Alternative 1 would entail the construction of a new sewer collection system that includes one pump station to transport wastewater to an existing wastewater facility for treatment. This option aims to provide as much gravity sewer as possible. Under this option, new eight-inch gravity sewer lines would be installed along Old US 40 that would combine at the intersection of Old US 40 and State Route 56, where it would flow north to a new pump station, which would pump wastewater via a six-inch force main to the existing Madison County Sewer District 2 Wastewater Treatment Plant.

This alternative would reduce operation and maintenance costs, but the construction costs would be much higher, and feasibility of this option would be a concern, because the topography of the area would require the sewer to be installed at a significant depth. Alternative 1 was not considered to be a reasonable alternative to meet the purpose and need for the Project due to the feasibility risk and higher costs, so this alternative was screened from further consideration, and is not discussed further in this EA.

2.2.2 Alternative 2

Alternative 2 would entail the construction of a new sewer collection system that includes a total of three pump stations to transport wastewater to an existing wastewater facility for treatment. Installing multiple pump stations would provide the shallowest sewer option, which would reduce the cost of construction. An eight-inch gravity sewer would be constructed along Old US 40 flowing away from State Route 56 to the east and west respectively, following the topography. At the distal ends of the sewer system along Old US 40, the gravity sewer would

enter new auxiliary pump stations, where it would be pumped via four-inch force mains to an eight-inch gravity sewer along State Route 56. This gravity sewer would flow to a main pumping station on State Route 56, which would pump wastewater via a six-inch force main to the existing Madison County Sewer District 2 Wastewater Treatment plant. The pump stations in this option would be 30 feet deep. See Figure 2 for the location of the proposed sewer lines as well as the proposed laydown area.

A major benefit of this option is that the pump stations on Old US 40 would be able to accept flow from potential future service areas as development occurs. Additionally, the easement that would be required for the force main going to the wastewater treatment would follow parcel boundaries, allowing for easier real estate acquisition. However, due to the larger construction footprint and higher costs, this alternative was screened from further consideration, and is not discussed further in the EA.

2.2.3 Alternative 3 (Proposed Action Alternative)

Alternative 3 would entail the construction of a new sewer collection system that includes one pump station to transport wastewater to an existing wastewater facility for treatment. This option aims to provide as much force main as possible. Under this option, new force main sewer lines ranging from 1.5-4 inches would be installed along Old US 40 that would combine at the intersection of Old US 40 and State Route 56, as shown in Figure 2. The force main sewer would continue to flow north into a manhole that gravity feeds the new pump station. The pump station would then pump wastewater via a six-inch force main to the existing Madison County Sewer District 2 Wastewater Treatment Plant.

This alternative significantly reduces upfront construction costs in comparison to a gravity collection system because the sewer would not be required to be installed at a significant depth. Alternative 3 would additionally provide a smaller construction footprint due to the size and depth required for installation of force main sewer lines. Alternative 3 was considered to be a reasonable alternative to meet the purpose and need for the Project due to increased construction feasibility and lower capital costs. Because of this, this alternative has been selected as the Proposed Action Alternative (PAA).

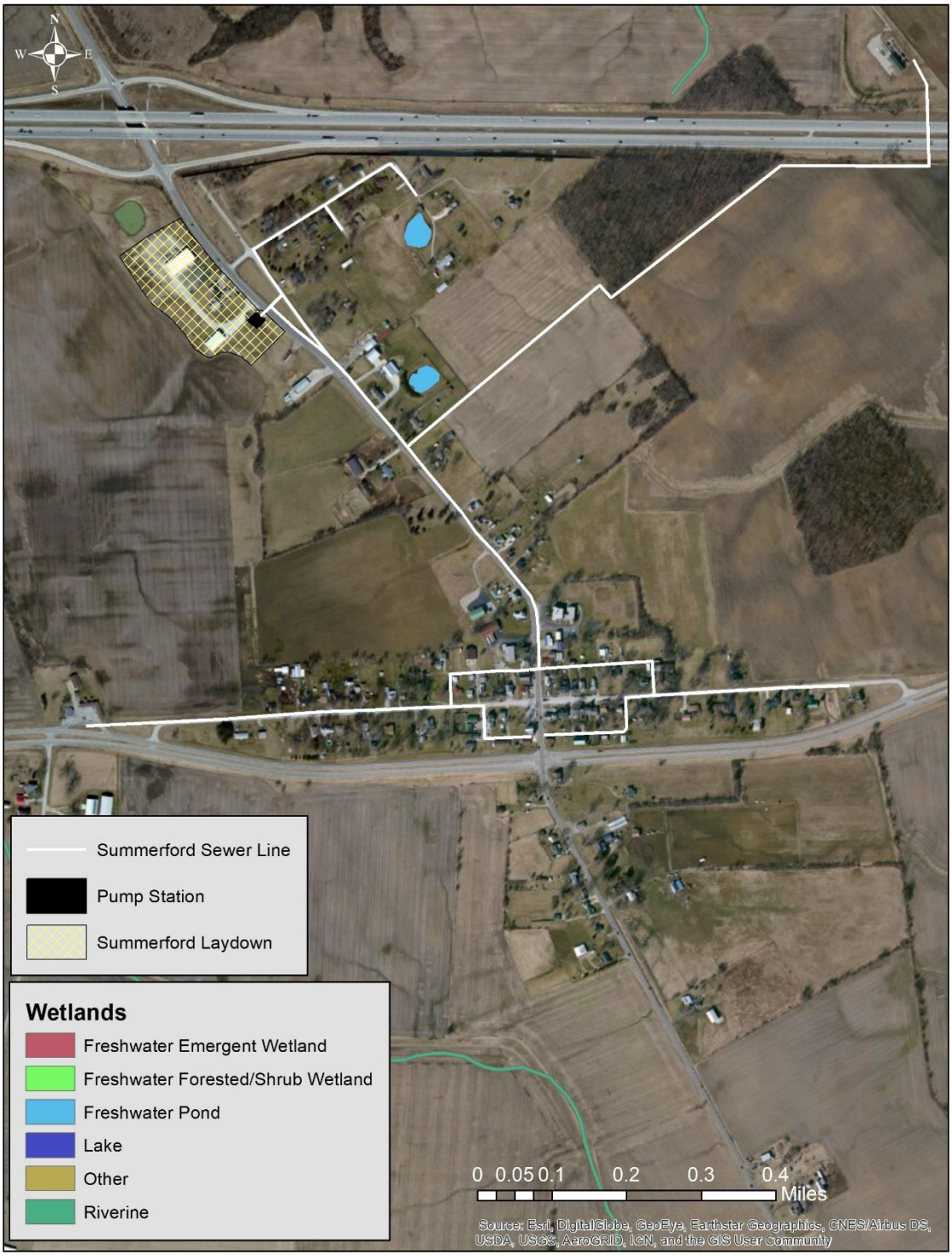

Figure 2. Project area and wetland habitats near the Proposed Summerford Sanitary Sewage Collection Project, Summerford, Ohio (Source: USFWS 2021).

2.2.4 Alternative 4

Alternative 4 is a combination of Alternatives 1 and 2. It would entail the construction of a new sewer collection system consisting of an eight-inch gravity sewer flowing from Karen Drive south on State Route 56, where it would continue east along Old US 40 to a new pump station. This pump station would pump through a six-inch force main to the existing Madison County Sewer District 2 Wastewater Treatment Plant. The west portion of the sewer line along Old US 40 would be similar to Alternative 2, flowing west via eight-inch gravity sewer to where the flow would enter a pump station. The pump station would pump back to the gravity sewer at the intersection of Old US 40 and State Route 56.

Alternative 4 was not considered to be a reasonable alternative to meet the purpose and need for the Project because the easement that would be required for the force main going to the wastewater treatment plant does not follow parcel boundaries under this alternative, which would present a high risk that the necessary easements could not be acquired. As such, this alternative was screened from further consideration, and is not discussed further in this EA.

3.0 ENVIRONMENTAL SETTING AND CONSEQUENCES

NEPA and the Council on Environmental Quality'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. Effects (or impacts) are changes to the human environment that are reasonably foreseeable and have a reasonably close causal relationship to the alternatives evaluated herein. Effects may include ecological, aesthetic, historic, cultural, economic, social, or health effects, and can be either beneficial or adverse.

In considering whether the effects of the proposed action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the action. (40 C.F.R. § 1501.3(b)). The term "affected environment" refers to the areas to be affected or created by the alternatives under consideration and includes reasonably foreseeable environmental trends and planned actions in the area, if applicable (40 C.F.R. § 1502.15). The term "degree" is not defined in the regulations, but generally refers to the magnitude of change that would result from the alternatives evaluated herein.

All potentially relevant resource areas were initially considered for analysis in this EA. Some resource topics are not discussed, or the discussion is limited in scope, due to the lack of anticipated effect from the alternatives on the resource or because that resource is not located within the affected environment.

This Section presents the adverse and beneficial environmental effects of the PAA and the NAA. 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 those descriptions are used.

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

Intensity:

- 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 after construction has been completed and/or when it is in full and complete operation.

3.1 Land Use

3.1.1 Existing Condition

Land use in the vicinity of the PAA is mixed as seen in Figure 2. The majority of the Project area is low density residential land within Summerford, with agricultural lands surrounding it. There is an approximately 11-acre deciduous forest immediately south of Interstate-70 (Figure 2).

3.1.2 Environmental Consequences

3.1.2.1 No Action

Under the NAA, no construction would occur, and all land uses would remain the same. As such, the NAA would have no effect on land use.

3.1.2.2 Proposed Action

The Proposed Action Alternative (PAA) would have a negligible effect on land use. The construction of the sewage collection system would temporarily disturb ground, but most construction would be completed within the road right-of-way, including all pump stations. Any concrete, asphalt, turf, or agricultural land that is disturbed would be repaired to original condition. Some amount of sewer line installation would occur on agricultural land (Figure 2), however this land would be returned to its original condition after installation. Additionally, the 11-acre forest would not be disturbed with the implementation of the PAA.

Implementation of the recommended plan would allow for environmentally sustainable growth of the community by facilitating the proper treatment of wastewater. Growth could be realized by an increase in residential homes or commercial properties and would be subject to any zoning regulations deemed appropriate by the township.

3.2 Climate

3.2.1 Existing Condition

Climate data were gathered from the nearest National Oceanic and Atmospheric Administration weather station in Bellefontaine, Ohio approximately five miles south of Summerford (latitude 39.8972 and longitude -83.5096) at 1,138 feet above mean sea level (National Oceanic and Atmospheric Administration 2020). This station collected temperature and precipitation data between 1981 and 2010. The climate of the area is generally temperate with cold winters and warm summers. The average daily temperature is 50.6°F. The average hottest month is July with a mean daily high of 84.3°F. The coldest average month is January, with the mean daily low being 18.1°F. The average yearly precipitation is 39.33 inches. The wettest average month is May (4.54 inches), and the driest average month is February (2.17 inches).

3.2.2 Environmental Consequences

Although there is no CEQ guidance currently in effect for consideration of greenhouse gas emissions in NEPA, Executive Order 13990 recommends that federal agencies consider all available tools and resources in assessing greenhouse gas emissions and climate change effects of their proposed actions, including, as appropriate and relevant, the 2016 CEQ guidance on greenhouse gas emissions. That guidance recommended that agencies quantify greenhouse gas emissions, taking into account available data and greenhouse gas quantification tools that are suitable for the proposed action. When greenhouse gas emission calculation tools, methodologies, or data inputs are not reasonably available to support a quantitative analysis, agencies should include a qualitative analysis and explain why quantification is not reasonably available. Currently, the USACE does not have an approved tool to quantify greenhouse gas emissions for the Project. Additionally, review of current available tools provided by the CEQ (https://ceq.doe.gov/guidance/ghg-accounting-tools.html), as well as review of publicly available web-based tools, did not result in any reasonable tools or methodologies for quantifying greenhouse gas emissions of varied and complex construction actions. As such, the evaluation of greenhouse gas emissions and climate change effects are discussed in qualitative terms.

3.2.2.1 No Action

Under the NAA there would be no construction activities, and no additional greenhouse gas emissions would be emitted. Therefore, the NAA would have no effect on the climate.

3.2.2.2 Proposed Action

Under the PAA, there would be a negligible short-term increase in greenhouse gas emissions due to the operation of construction equipment. While the amount of greenhouse gases that would be generated as a result of the PAA is not reasonably quantifiable based on existing

tools, the emissions would be localized and temporary, and would not be expected to have any measurable impact on local, regional, or global greenhouse gas emissions. Therefore, the PAA would have no effect on climate.

3.3 Terrestrial Habitat

3.3.1 Existing Condition

The Project is located in the Darby Plains level IV ecoregion, which is within the Eastern Corn Belt Plains. The landscape is predominantly a rolling till plain, with extensive glacial deposits of Wisconsinan age. This area is characterized by extensive corn, soybean, wheat, and livestock farming. Prior to farming becoming the dominant land use of the area, a distinct assemblage of mixed oak forest were present with prairies occurring on end moraines, gravel-filled pre-glacial valleys, and seasonally wet areas. Soils are described in more detail in section 3.6.

The terrestrial habitats located in the vicinity of and within the Project footprint (Figure 2) consist of mowed grass, urban forest, agricultural fields, and an approximately 11-acre deciduous forest immediately south of Interstate-70.

3.3.2 Environmental Consequences

3.3.2.1 No Action

Under the NAA, no construction would occur and no disturbance of terrestrial habitat would occur. As such, the NAA would have no effect on terrestrial habitat.

3.3.2.2 Proposed Action

The PAA would have no effect on terrestrial habitats, as all of the sewer line installation would only cause temporary disturbance and occur within the road right-of-way or agricultural fields. Additionally, all of the pump stations would be installed within the road right-of-way. Any disturbed ground would be restored to its original condition after construction, including with revegetation of bare soil with an appropriate seed mix. The 11-acre deciduous forest immediately south of Interstate-70 would not be disturbed during construction, and no trees over three inches in diameter at breast height (DBH) would be removed.

3.4 Aquatic Habitat/Water Quality

3.4.1 Existing Conditions

The Project is within the Oak Run watershed (HUC 12 – 050600020105) and lies within the larger Headwaters of Deer Creek Watershed (HUC 10 – 0506000201). No perennial or ephemeral streams intersect with the Project area. In 2011, The Ohio EPA (OEPA) conducted a water quality study of the Deer Creek Watershed (Ohio EPA, 2013). Thirty-seven locations in the Deer Creek watershed were sampled for *Escherichia Coli* bacteria five to nine times, between May and October 2011, to assess the attainment status for primary contact recreation use. In all, 36 of the 37 sampled locations failed to attain the Ohio Water Quality Standard for *E.*

Coli bacteria, indicating an impairment for primary contact use. The sources of impairment were determined to be agricultural activities and home sewage treatment systems.

3.4.2 Environmental Consequences

3.4.2.1 No Action

Under the NAA, untreated sewage would continue to be released onto the landscape, which would eventually reach Oak Run and Deer Creek, contributing to the elevated nutrient levels and reduced water quality in the nearby Oak Run and greater Deer Creek watersheds.

3.4.2.2 Proposed Action

The PAA would result in long-term improved water quality for the Oak Run and Deer Creek watersheds. There may be temporary minor increases in turbidity during the installation of underground sewage collection lines. However, best management practices (BMPs), including silt fences and reseeding disturbed ground, will be utilized to reduce any impact. As such, the PAA is expected to have a negligible adverse effect on water quality of the area due to temporary minor increases in turbidity, and an overall beneficial effect on these resources by preventing discharge of untreated sewage to waterways.

3.5 Floodplains

3.5.1 Existing Conditions

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.

According to the FEMA Flood Map Service Center (2020), the Project Area is not located in a floodplain. Therefore, there would be no impacts to floodplains from either the NAA or PAA.

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 three soil types present in the area of the Project (Table 1). All of them are prime farmland (NRCS 2020). A detailed report and map of the soils found in the area can be found in the Environmental Appendix. The five most predominant soils present are shown in Table 1.

Table 1. Soil types within the immediate area around the Summerford New Sanitary Sewage Collection System Project (Source: NRCS 2021).

Soil Name	Prime Farmland (Yes/No)
Crosby-Leisburg silt loams, 2 to 6 percent slopes	Yes
Kokomo silty clay loam, 0 to 2 percent slopes	Yes
Lewisburg-Celina silt loams, 2 to 6 percent slopes	Yes

3.6.2 Environmental Consequences

3.6.2.1 No Action

Under the NAA, no construction would occur and no disturbance of soil would occur. As such, the NAA would have no effect on soils or prime and unique farmland. However, the movement of untreated sewage from failing or poorly maintained septic treatment facilities in the Project Area would continue to permeate the surrounding soils in the Project Area.

3.6.2.2 Proposed Action

The PAA would have negligible effects on soils or prime and unique farmland. Most construction would occur within road right-of-way, which consist of previously disturbed soils. For construction outside of road right-of-way, installation of sewage collection mains does not preclude agriculture since the land can be returned to original condition after construction. One laydown area would be utilized in the parking lot of a local business (Figure 2) and no impacts to soils would be expected from the utilization of heavy equipment in this area. Additionally, the use of BMP's including silt fences and reseeding would be utilized to prevent potential erosion.

3.7 Wetlands

3.7.1 Existing Condition

Executive Order 11990, Protection of Wetlands, requires federal agencies to minimize the destruction, loss or degradation of wetlands, and to preserve and enhance the natural and beneficial values of wetlands in carrying out the agency's responsibilities.

A desktop analysis for presence of wetlands in the area was conducted using the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory (NWI) mapping tool. The maps revealed that two constructed freshwater ponds occur within the area of the Project (Figure 2). However, these ponds do not intersect with the proposed sewer collection line. No additional wetlands were mapped within the area of the Project. Additionally, no additional wetlands were discovered during an April 20, 2021 site visit.

3.7.2 Environmental Consequences

3.7.2.1 No Action

Under the NAA, no construction would occur and there would be no potential to disturb wetlands. As such, the NAA would have no effect on wetlands.

3.7.2.2 Proposed Action

The PAA would have no effect on wetlands. The proposed sewer collection system lines and related pumps do not intersect with the constructed freshwater ponds (Figure 2), and no other wetlands are present in the area of the Project. Therefore, there are no expected wetland impacts caused by the PAA.

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 PAA.

3.9 Hazardous, Toxic, and Radioactive Waste (HTRW)

3.9.1 Existing Condition

A Phase I HTRW Environmental Site Assessment was conducted to identify environmental conditions and to identify the potential presence of HTRW contamination located in the Project's construction work limits. This investigation included a Federal and state environmental database search, site reconnaissance, review of historical aerial and topographic mapping and interviews. Historic aerial images revealed that the Project area has had a similar land use, including residential, urban forest, agriculture, and small patches of forest, since prior to 1980.

The U.S. Environmental Protection Agency's (EPA) Envirofacts Facility Database was queried regarding the potential location of any Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund) or Resource Conservation and Recovery Act (RCRA) sites in the vicinity of the proposed Project footprint. There is one RCRA site ca. 0.5 miles north of the Project which is classified as a conditionally exempt small quantity hazardous waste generator (EPA 2020). There are no CERCLA or other RCRA facilities on or within two miles of the Project.

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 landfills within the 20 miles of the Project.

3.9.2 Environmental Consequences

3.9.2.1 No Action

The NAA would have no effect on HTRW. The single RCRA site within two miles of the Project would not be expected to impact or be impacted by the NAA, due to distance from the Project Area.

3.9.2.2 Proposed Action

The PAA would have no effect on HTRW. The single RCRA site within two miles of the Project would not be expected to impact or be impacted by the PAA, and would be avoided during construction. Additionally, the PAA would not produce any HTRW.

3.10 Cultural Resources

3.10.1 Existing Conditions

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider 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 31 Tribes, the Ohio State Historic Preservation Officer (OSHPO), the Somerford Township Trustees, the Madison County Historical Society, the Ohio National Road Association, and the Madison County Chapter of the Ohio Genealogical Society was initiated by the Corps on October 28, 2020. The USACE received a response indicating a wish to consult on the Project from the Delaware Nation on November 23, 2020 and did not receive communication from any other Tribe. In a letter dated December 1, 2021, the OSHPO accepted the invitation to consult and identified two historic resources of concern. The historic resources were the National Road Mile Marker 284, and the Old Summerford Cemetery. A background check was conducted on November 15, 2020, which 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 Area of Potential Effects (APE), as defined by CFR 800.16, consists of the sewer line and workspaces that are located within existing ROW along Old U.S. 40, State Route 56, and residential streets in Summerford, Ohio and portions located in an agricultural field located north of Summerford between State Route 56 and Interstate 70. The site background check identified no archaeological sites, and one built structure, Mile Marker 284, was mapped within the APE. There were no archaeological sites, seven historic structures, and two cemeteries within a 1.6 km (1 mile) radius of the APE.

An onsite cultural resources survey was conducted on April 20, 2021 and May 14, 2021. The survey was not able to identify the location of Mile Marker 284, and it is believed to have been moved. The Old Summerford Cemetery is located outside of the APE and will not be affected by

construction activities. The survey identified no archaeological sites or built structures within the APE.

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 Proposed Action

The cultural resources survey conducted on April 20, 2021 and May 14, 2021 identified no archaeological sites or built structures within the APE. Due to the results of the survey the USACE determined the sewer line Project will have no effect on historic properties eligible for the listing or listed in the NRHP in accordance with 36CFR800.4(d)(1). On November 8, 2021 the OSHPO (2020-MAD-49997) concurred with the Corps' determination, and the Corps received a response indicating the Corps can proceed as planned from the Delaware Nation on December 9, 2021.

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. An official threatened and endangered species list from the USFWS, dated April 14th, 2020, for the Project area included eight species with ranges that overlap with the Project (Table 2).

Table 2. Endangered species with ranges that overlap with the Project area.

Classification	Common Name	Scientific Name	Federal Listing
Fishes	Scioto Madtom	*Noturus trautmani*	Endangered
Mammals	Indiana Bat	*Myotis sodalis*	Endangered
	Northern Long-eared Bat	*Myotis septentrionalis*	Threatened
Clams	Clubshell	*Pleurobema clava*	Endangered
	Northern Riffleshell	*Epioblasma torulosa rangiana*	Endangered
	Rabbitsfoot	*Quadrula cylindrica cylindrica*	Threatened
	Rayed Bean	*Villosa fabalis*	Endangered
	Snuffbox Mussel	*Epioblasma triquetra*	Endangered

The Scioto madtom is a species of fish that has only ever been found along Big Darby Creek, which is approximately 15 miles southeast of the Project Area. Only 18 individuals of this species were ever collected, and all but one individual was found in the same riffle on Big Darby Creek. No Scioto madtoms have been observed since 1957, despite intensive surveys. Based on the rarity of species collections, the only known population appears to be extinct (USFWS 2014).

In the spring, Indiana 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 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).

The clubshell is a small freshwater mussel that is known to occur on the Little Darby Creek in Ohio. It is found in small to medium streams with gravel/sand substrate and relatively little silt. Decline of the clubshell has been mainly attributed to pollution from agricultural runoff and alteration of waterways, including drain cleanouts and impoundment construction. Additionally, invasive zebra mussels have become a threat to clubshell populations. The clubshell is especially sensitive to siltation (USFWS 1997).

The northern riffleshell is a freshwater mussel that occurs in a wide variety of streams from large to small. It prefers a firmly packed sand or gravel substrate. This species is threatened by siltation caused by erosion, pollution from agricultural and industrial runoff, and impoundments that flood habitat. Additionally, invasive zebra mussels have become a threat to this species (USFWS 2019).

The rabbitsfoot is a medium to large freshwater mussel that can reach six inches in length. This species primarily occupies small to medium sized streams but can also be found in larger rivers. It can be found in shallow to deep water and prefers sand and gravel substrate. This species is threatened by siltation caused by erosion, pollution from agricultural and industrial runoff, and impoundments that flood habitat. Additionally, invasive zebra mussels have become a threat to this species (USFWS 2019).

The rayed bean is a small (less than 1.5 inches) freshwater mussel that can be found in smaller headwater streams but may also be found in larger rivers or wave-washed areas of glacial lakes. It prefers gravel or sand substrate and is often found around roots of aquatic vegetation. The

rayed bean is threatened by dams and altered flow regimes, pollution from agricultural and private septic runoff, sedimentation, and invasive species (USFWS 2012).

The snuffbox is a small triangular freshwater mussel that can be found in a variety of streams ranging from small streams to larger rivers. This species may be found in gravel, mud, or sand, and prefers areas with swift current. The snuffbox mussel is threatened siltation caused by erosion, pollution from agricultural and industrial runoff, and impoundments that flood habitat. Additionally, invasive zebra mussels have become a threat to this species (USFWS 2012).

There are no federally designated critical habitats found within the Project area (USFWS 2020).

3.11.2 Environmental Consequences

3.11.2.1 No Action

The NAA would result in untreated sewage entering Deer Creek. This would continue to have negative impacts on water quality in the stream and continue to negatively impact any potential listed mussel and Scioto madtom populations in the watershed. The NAA would have no effect on listed bat species in the region.

3.11.2.2 Proposed Action

The PAA would have no impact to the listed bat species in range of the Project area because no trees greater than three inches in DBH would be removed during the course of construction or operation of the Project.

While the PAA footprint does not intersect with any streams, runoff occurring as a result of construction could temporarily increase turbidity in the watershed. Applicable BMPs would be implemented to reduce erosion impacts as much as possible, including silt fences and reseeding disturbed ground. As such, erosion impacts are expected to be short-term and negligible.

Implementation of the PAA would result in long-term improved water quality for the watershed, as there would not be untreated sewage effluent entering the watershed from malfunctioning septic tanks. This would have a positive impact on any listed mussel and Scioto madtom populations in the watershed.

3.12 Air Quality

3.12.1 Existing Condition

The Clean Air Act (CAA) allows the U.S. Environmental Protection Agency (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_2), ozone (O_3), particulate matter (PM_{10} and $PM_{2.5}$), and sulfur dioxide (SO_2), 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 through the evaluation and development of a maintenance plan. The U.S. EPA 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 EPA Green Book, Nonattainment/Maintenance Area Status for Each County by Year for All Criteria Pollutants, Madison County is classified as in "attainment" for criteria pollutants as of March 31, 2020 (EPA 2020).

3.12.2 Environmental Consequences

3.12.2.1 No Action

Under the NAA, no construction would occur and thus there would be no increased emissions from construction vehicles. As such, the NAA would have no effect on air quality.

3.12.2.2 Proposed Action

Construction of the PAA would be expected to cause minor, localized, and short-term air quality impacts. Potential sources of these impacts include emissions from heavy equipment operation which include diesel fuel fumes and exhaust. The PAA would not require around the clock construction; therefore, equipment downtime would allow for dispersion of any fumes generated during construction. Thus, overall impacts of the PAA to air quality in the Project Area are expected to be insignificant.

3.13 Noise

3.13.1 Existing Condition

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

Noise is measured as Day Night average noise levels (DNL) in "A-weighted" decibels that the human ear is most sensitive to (dBA). There are no Federal standards for allowable noise levels. The USACE 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 2; 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

Under the NAA, no construction would occur, and thus there would be no increased noise from construction activities. As such, the NAA would have no effect on noise.

3.13.2.2 Proposed Action

Noise associated with the PAA would be limited to that generated during construction. The noise associated with construction would be short term and would only occur during daylight hours. 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. Because construction equipment would be operated during daylight hours, 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 still 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 PAA, impacts from the noise to local residents would be short term and minor, and would be considered insignificant.

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. According to EJSCREEN the 2017 population estimate for the Project area was 114. Minorities populations make up 11% of the total population. The area is 89% Caucasian, 3% black, and 8% "other". Within the Project area 81% of residents are age 18 and above, and 21% are age 62 and over. The estimated median household income base for the Project area in 2017 was $32,501. The estimated low-income population is 19%, compared to the state and national average of 33%.

3.14.2 Environmental Consequences

3.14.2.1 No Action

Under the NAA, untreated sewage will continue to be released into the environment from malfunctioning septic systems, which could have potential negative impacts to human health. However, based on population demographics and distribution, the NAA would not be expected to disproportionately affect low income or minority populations.

3.14.2.2 Proposed Action

The PAA would have no negative environmental effect on low-income or minority populations. The PAA would improve wastewater treatment for all residents in the Project area, which would positively impact all populations.

3.15 Aesthetics

3.15.1 Existing Conditions

The landscape of the Project area is dominated by a residential neighborhood, with homes and mowed lawns. There are some views of agriculture and deciduous forest, which may offer opportunities to see wildlife. There are no extraordinary aesthetic resources within the Project area.

3.15.2 Environmental Consequences

3.15.2.1 No Action

Implementation of the NAA is not expected affect the scenic quality of the area.

3.15.2.2 Proposed Action

The PAA would disturb asphalt and mown lawn in the neighborhood, as well as disturbing some agricultural fields, in the short term. However, the aesthetic character of these areas would be returned to their existing condition shortly after construction. Construction of the Project would mostly occur near roads, along ROWs, and in previously disturbed areas. As such, the PAA is not expected to have a significant impact on the local aesthetics.

3.16 Transportation and Traffic

3.16.1 Existing Condition

The Project area is located throughout the town of Summerford, with the proposed sewer collection line crossing Interstate 70 ca. 0.85 miles east of exit 72. There are approximately 48 residential homes in the Project area. Traffic would be expected to be light within Summerford even during peak hours.

3.16.2 Environmental Consequences

3.16.2.1 No Action

Under the NAA, no construction would occur, and thus there would be disruption to traffic from construction activities. As such, no impacts to transportation and traffic are anticipated to occur from the NAA.

3.16.2.2 Proposed Action

Construction of the PAA throughout the town of Summerford would involve some short-term minor delays and potential detours in the normal traffic flow. Construction on and near road surfaces would be undertaken in compliance with Ohio Department of Transportation (ODOT) guidelines. All appropriate ODOT guidelines for traffic control would be implemented and emergency access would be maintained. There could be minor and temporary delays on local roads in Summerford due to traffic being reduced to one lane, or short detours established. The proposed new sewer main would be directionally bored horizontally underneath Interstate 70, and therefore no traffic modifications would occur there. Overall, no significant impacts on traffic and transportation in the Project Area would be expected from implementing the PAA.

4.0 STATUS OF ENVIRONMENTAL COMPLIANCE

The PAA is in full compliance or in the process of attaining compliance with all local, State, and Federal statutes as well as Executive Orders. Compliance status is documented below in Table 4.

Table 4. Environmental Compliance Status.

Statute/Executive Order	Full	In Progress
National Environmental Policy Act		X
Fish and Wildlife Coordination Act	X	
Endangered Species Act	X	
Clean Water Act	X	
Wild and Scenic Rivers Act	X	
Clean Air Act	X	
National Historic Preservation Act	X	
Archeological Resources Protection Act	X	
Comprehensive, Environmental Response, Compensation and Liability Act	X	
Resource Conservation and Recovery Act	X	
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	

5.0 PUBLIC REVIEW AND COMMENTS

The draft EA and unsigned FONSI will be made available for public review for a period of 30 days beginning on [PENDING], as required under USACE's NEPA regulations. A copy will be circulated concurrently to the local community and local, state and Federal government agencies for a 30-day review/comment period. A list of persons, agencies, organizations, and Tribes that will be notified for public review can be found in Table 5.

Table 5. Persons, agencies, organizations, and Tribes to be contacted for public review.

Stakeholder Type	Person/Agency/Organization/Tribe
Federal Agencies / Officials	U.S. Fish and Wildlife Service, Ohio Field Office Environmental Protection Agency, Region 5 Office U.S. Geological Survey Ohio-Kentucky-Indiana Water Science Center National Resource Conservation Service, Ohio Office United States Senator, Robert Portman United States Senator, Sherrod Brown United States Congressman, Mike Carey
State Agencies / Officials	Ohio Division of Wildlife Ohio Division of Natural Areas and Preserves Ohio Division of State Parks and Watercraft Ohio History Connection Ohio Environmental Protection Agency Ohio Department of Transportation Ohio Division of Drinking and Ground Water Ohio Office of Compliance assistance and Pollution Prevention Ohio Division of Surface Water Ohio State Historic Preservation Officer Ohio State Representative, Mark Fraizer Ohio State Senator, Bob D. Hackett
Local Officials	Madison County Commissioner Madison County Engineer Somerford Township Trustees Madison County Historical Society
Non-governmental Organizations	The Nature Conservancy of Ohio Ohio Citizen Action Ohio Environmental Council Ohio River Foundation Ohio Stream Preservation Sierra Club, Ohio Chapter Rivers Unlimited Kentucky Resources Council River Fields
Tribes	Absentee-Shawnee Tribe of Indians Eastern Shawnee Tribe of Oklahoma Shawnee Tribe of Oklahoma Saginaw Chippewa Indian Tribe of Michigan

	Wyandotte Nation of Oklahoma
	Delaware Nation of Oklahoma
	Cayuga Nation of New York
	Bad River Band of Lake Superior Chippewa
	Citizen Potawatomi Nation
	Gun Lake Tribe
	Prairie Band of Potawatomi
	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
	Hannahville Indian Community
	Lac Courte Oreilles Band of Chippewa
	Lac du Flambeau 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
	Sault Ste Marie Tribe of Chippewa
	St. Croix Chippewa Community

6.0 CONCLUSION

Wastewater treatment within Summerford is currently provided by individual on-lot systems consisting of either a septic tank or an aeration unit. In most cases, these systems discharge untreated sewage to ditches, drainage ways, or underground tile lines with eventual discharge to the Deer Creek Watershed. The completion of a new sewage collection system will allow for controlled and quality growth of residential and non-residential entities within the Summerford sanitary service area and help to bring nearby waterways into compliance with federal and state water quality requirements. In general, effects associated with construction would be minor and short term. BMPs would be implemented during construction to minimize impacts to residents and the environment. No significant adverse impacts have been identified as a result of implementation of the proposed Project. Thus, the proposed Project does not constitute a major Federal action significantly affecting the quality of the human environment.

7.0 REFERENCES

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USFWS (U.S. Fish and Wildlife Service) 2019. *Rabbitsfoot (Quadrula cylindrica cylindrica).* Available at: https://www.fws.gov/midwest/endangered/clams/rabbitsfoot/index.html

USFWS (U.S. Fish and Wildlife Service) 2012. *Rayed Bean (Villosa fabalis)*. Available at: https://www.fws.gov/midwest/endangered/clams/rayedbean/rayedbeanfactsheet.html

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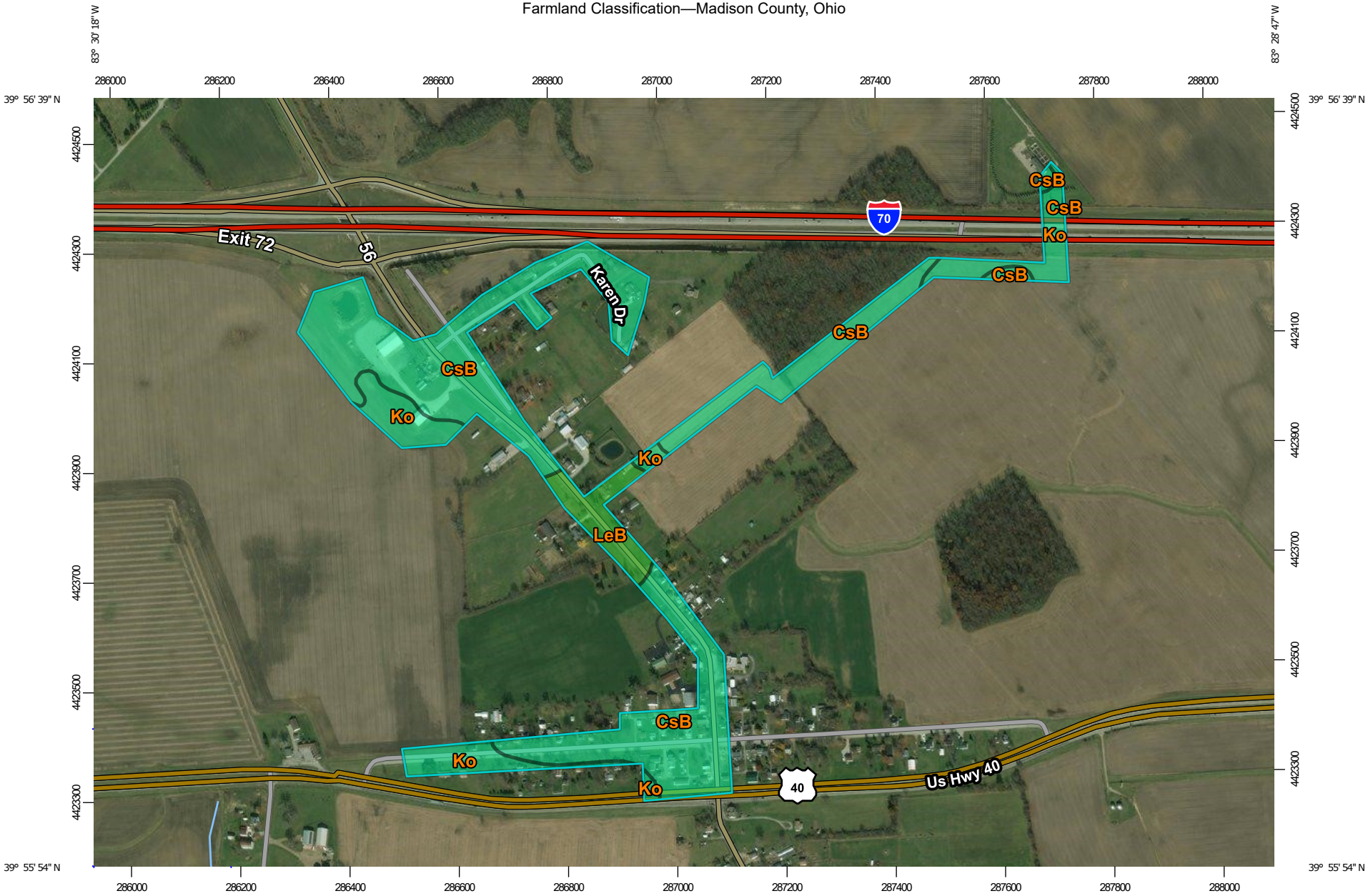
APPENDIX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83° 28' 47" W
39° 56' 39" N
39° 55' 54" N
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286200
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286800
287000
287200
287400
287600
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4423700
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Exit 72
56
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Map Scale: 1:9,880 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 100 200 400 600
Feet
0 450 900 1800 2700
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 17N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

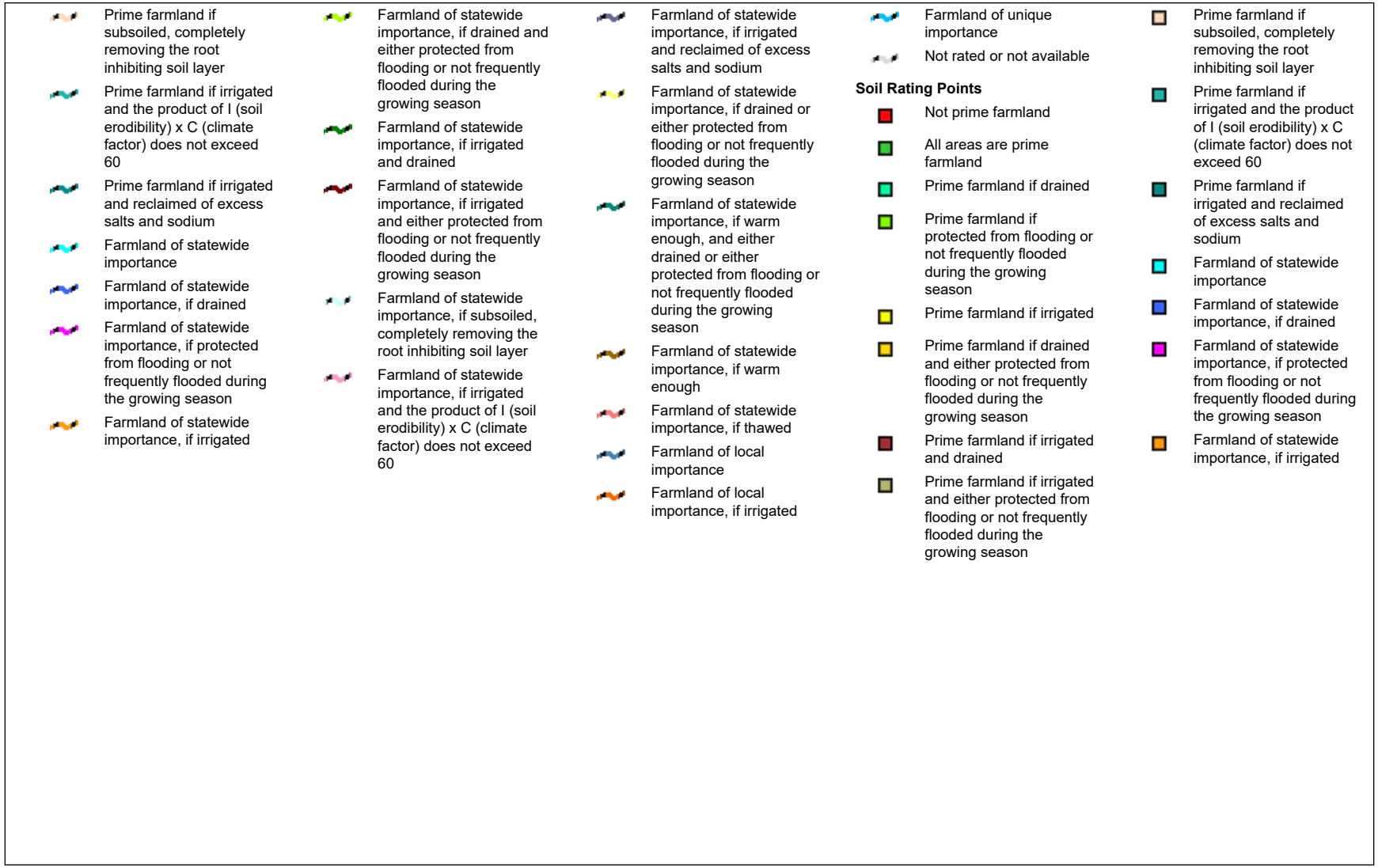
Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season


Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated
Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated and drained
Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if warm enough
Farmland of statewide importance, if thawed
Farmland of local importance
Farmland of local importance, if irrigated
Farmland of unique importance
Not rated or not available
Soil Rating Points
Not prime farmland
All areas are prime farmland
Prime farmland if drained
Prime farmland if protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated
Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
Prime farmland if irrigated and drained
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Prime farmland if subsoiled, completely removing the root inhibiting soil layer
Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
Prime farmland if irrigated and reclaimed of excess salts and sodium
Farmland of statewide importance
Farmland of statewide importance, if drained
Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
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- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
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- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

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

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: Madison County, Ohio
Survey Area Data: Version 19, Jun 11, 2020

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

Date(s) aerial images were photographed: Nov 12, 2009—Dec 26, 2016

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.

Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
CsB	Crosby-Lewisburg silt loams, 2 to 6 percent slopes	Prime farmland if drained	39.8	74.0%
Ko	Kokomo silty clay loam, 0 to 2 percent slopes	Prime farmland if drained	10.2	18.9%
LeB	Lewisburg-Celina silt loams, 2 to 6 percent slopes	All areas are prime farmland	3.8	7.1%
Totals for Area of Interest			**53.8**	**100.0%**

Description

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Rating Options

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

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: April 14, 2020
Consultation Code: 03E15000-2020-SLI-1193
Event Code: 03E15000-2020-E-01688
Project Name: Summerford Environmental Infrastructure Environmental Assessment

Subject: List of threatened and endangered species that may occur in your proposed project location, and/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 http://www.fws.gov/migratorybirds/RegulationsandPolicies.html.

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 http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/BirdHazards.html.

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 http://www.fws.gov/migratorybirds/AboutUS.html.

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

Consultation Code: 03E15000-2020-SLI-1193

Event Code: 03E15000-2020-E-01688

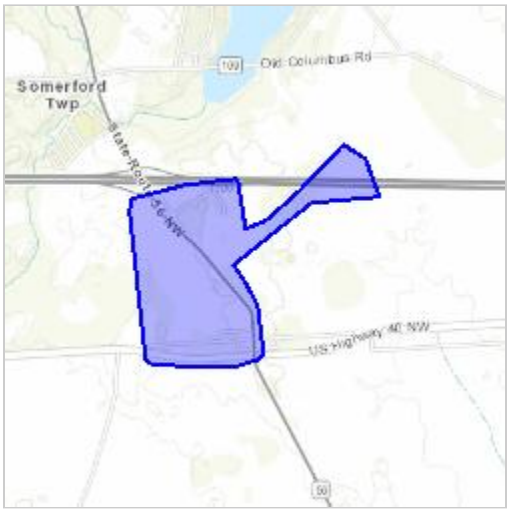
Project Name: Summerford Environmental Infrastructure Environmental Assessment

Project Type: WASTEWATER PIPELINE

Project Description: Sewage collection system for Summerford Ohio

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/39.938204537751574N83.49637440049148W



Counties: Madison, OH

Endangered Species Act Species

There is a total of 8 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[1], 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 *Myotis sodalis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. This species only needs to be considered under the following conditions: ▪ 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 https://www.fws.gov/midwest/endangered/mammals/nleb/s7.html Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Fishes

NAME	STATUS
Scioto Madtom *Noturus trautmani* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5395	Endangered

Clams

NAME	STATUS
Clubshell *Pleurobema clava*	Endangered
Population: Wherever found; Except where listed as Experimental Populations No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3789	
Northern Riffleshell *Epioblasma torulosa rangiana*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/527	
Rabbitsfoot *Quadrula cylindrica cylindrica*	Threatened
There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5165	
Rayed Bean *Villosa fabalis*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5862	
Snuffbox Mussel *Epioblasma triquetra*	Endangered
No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4135	

Critical habitats

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

DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, LOUISVILLE DISTRICT
600 DR. MARTIN LUTHER KING JR PL
LOUISVILLE, KY 40202

August 26, 2020

Civil Works - Planning, Programs
and Project Management Branch
Planning Section

To All Interested Parties:

The U.S. Army Corps of Engineers, Louisville District (Corps) is initiating scoping and preparing an Environmental Assessment (EA), under the National Environmental Policy Act (NEPA) of 1969, as amended, to evaluate alternatives for the construction of a new sanitary sewage collection system for the city of Summerford in Madison County, Ohio (Figure 1 enclosed).

The completion of a new sewage collection system will bring the area into compliance with federal and state water quality requirements and allow for controlled and quality growth of residential and non-residential entities within the Lewistown sanitary service area. Wastewater treatment within the service area is currently provided by individual on-lot systems consisting of either a septic tank or an aeration unit. In most cases, these systems discharge untreated sewage to ditches, drainage ways or underground tile lines with eventual discharge to Deer Creek, which is immediately north and west of the project area.

In accordance with NEPA, and associated implementing regulations, the EA will be prepared to evaluate viable alternatives, including the “No Action” alternative, for the project. We request any information you may have about resources (such as biological and cultural) in or around the project area that should be considered in the assessment. This information will aid in development and evaluation of alternatives. This EA will provide the basis for a decision whether to proceed with an Environmental Impact Statement or a Finding of No Significant Impact. Your agency will be notified when the EA is available for public review.

We request your comments by September 25, 2020. If you have any questions regarding the enclosed aerial view showing location of the proposed sanitary sewage collection system, please contact Steele McFadden at steele.mcfadden@usace.army.mil or (502) 315-7451. You may submit comments to the same email address or send by mail to:

U. S. Army Corps of Engineers, Louisville
Attn: Steele McFadden, Room 708
PO Box 59
Louisville, KY 40201-0059

Sincerely,

Dan Vogler, P.G.
Chief, Planning Section

Enclosure

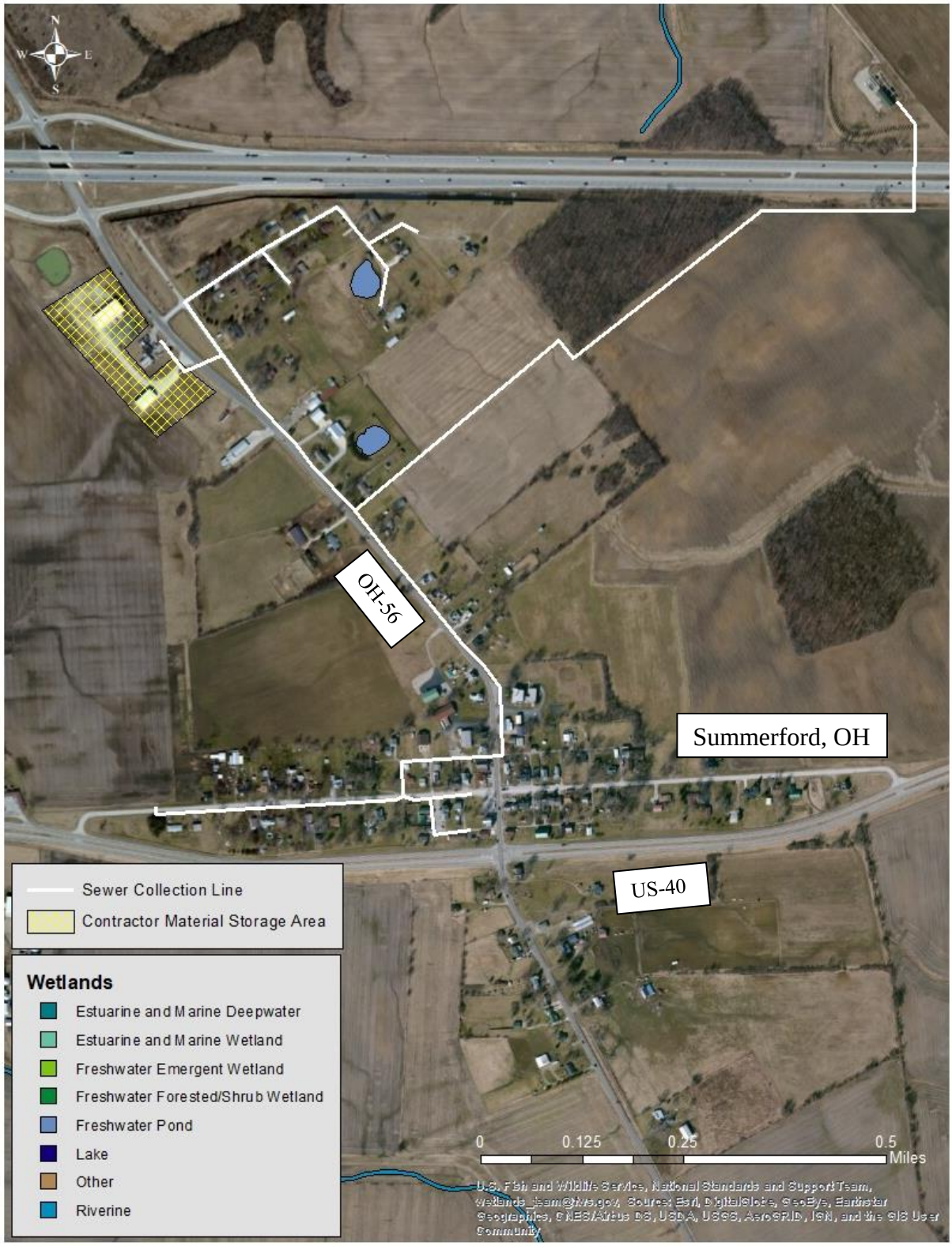


Figure 1: Aerial view showing location of proposed Summerford sanitary sewage collection system.

In reply refer to
2020-MAD-49997

November 8, 2021

Montana Martin
U.S. Army Corps of Engineers
Louisville District
Attn: PMC-Pl
P.O. Box 59
Louisville, Kentucky 40201-0059

Dear Ms. Martin:

RE: Summerford Sanitary Sewer, Madison County, Ohio

This is in response to the receipt of correspondence, on October 29, 2021 of *Phase I Cultural Resources Survey of the Summerford Sanitary Sewer System in Madison County, Ohio.* The comments of the Ohio Historic Preservation Office are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended.

Based on the information submitted, it is my opinion that the proposed undertaking will have no effect on properties listed in or eligible for listing in the National Register of Historic Places. No further coordination is required unless the project changes or archaeological remains are discovered during the course of the project. In such a situation, this office should be contacted as per 36 CFR 800.13.

Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs. If you have any questions, please contact me at (614) 298-2000, or by email at nyoung@ohiohistory.org. Please note the Ohio SHPO now accepts electronic-only submissions for state and/or federal review under Section 106 and ORC 149.53. Please send your submissions to section106@ohiohistory.org. We have also updated our Survey Report Submission Standards.

Sincerely,

Nathan J. Young, Project Reviews Manager
Resource Protection and Review

US Army Corps
of Engineers
Louisville District®

PHASE I CULTURAL RESOURCES SURVEY OF THE SUMMERFORD SANITARY SEWER SYSTEM IN MADISON COUNTY, OHIO

Report authored by:

December 13, 2021

United States Army Corps of Engineers

Louisville District

U.S. ARMY CORPS OF ENGINEERS
LOUISVILLE DISTRICT
ATTN: PMC-PL
P.O. BOX 59
LOUISVILLE, KENTUCKY 40201-0059
PHONE: (502) 315-7433
Email: montana.martin@usace.army.mil

Abstract

The U.S. Army Corps of Engineers-Louisville District (Corps) received a request for financial assistance from County of Madison Ohio for construction of the Summerford Sanitary Sewer System (undertaking). The undertaking is authorized by 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. The Area of Potential Effects (APE) for the undertaking consists of the proposed sewer line that is located within existing Right-of-Ways (ROWs) along Old U.S. 40, State Route 56, and residential streets in Summerford, Ohio and portions located in an agricultural field located north of Summerford between State Route 56 and Interstate 70. The APE consists of the proposed sewer line measuring approximately 4800 meters (m) in length and is approximately 6.8 acres (2.8 hectares). Standard mechanical excavating equipment such as a trencher, excavator, and directional drill will be used to construct the sewer system. The equipment will cause minimal vibration and all sewer components will be installed underground, thus there will be no effect to historic structures. A cultural resources survey was carried on April 20, 2021 and May 14, 2021 to identify any historic structures and/or archaeological sites within the APE. The results of this survey identified no historic structures or archaeological sites within the APE. Given these results, the Corps, in accordance with part 36CFR800.4(d)(1) of the National Historic Preservation Act (NHPA), has reached a determination of no effect to historic properties. Therefore, no additional cultural resource surveys are recommended for the Federally funded portion of the Summerford Sanitary Sewer System project.

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Appendices

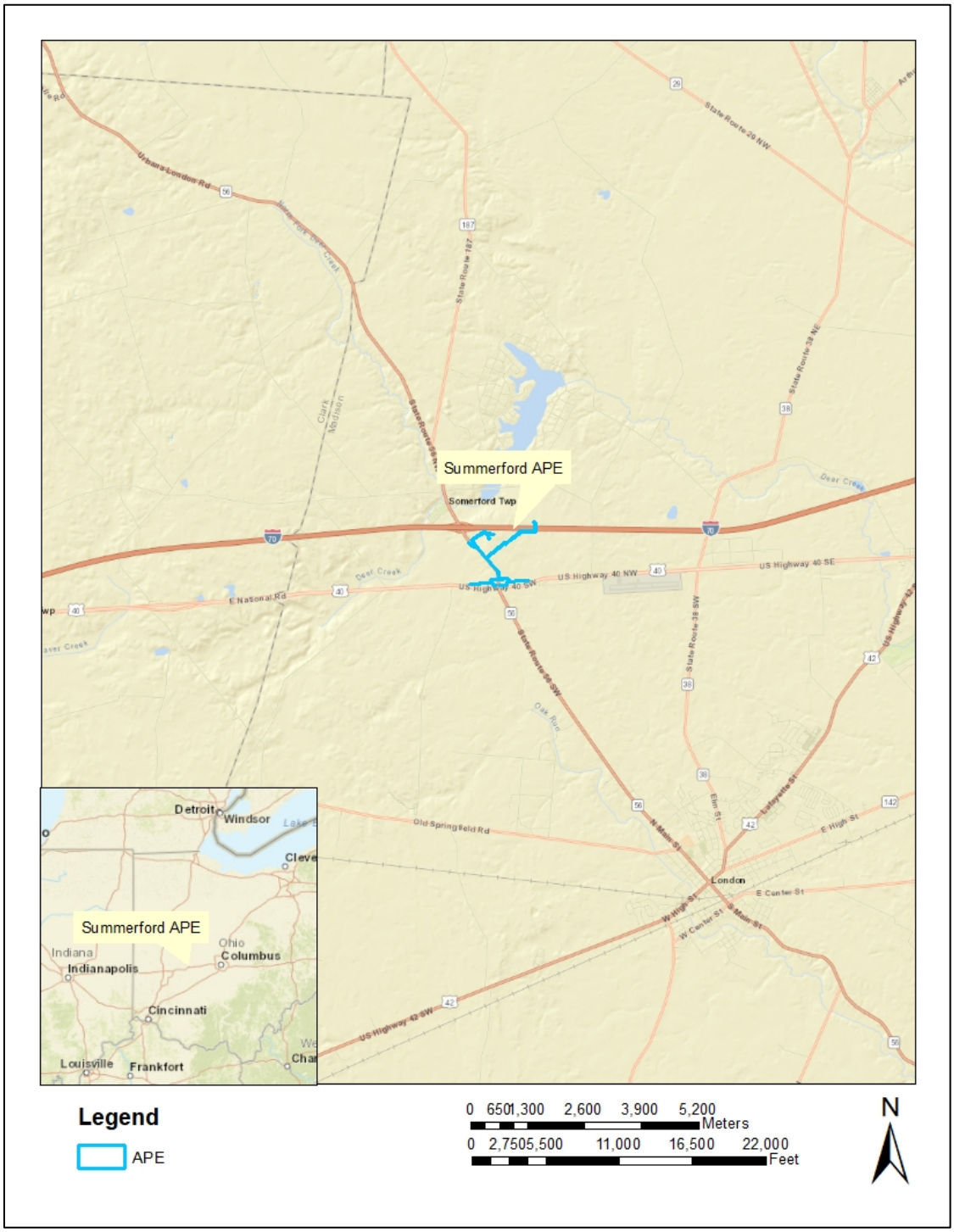
1. Introduction

The following report describes the results of the Phase I cultural resources survey of the proposed Summerford Sanitary Sewer System located in Madison County, Ohio (Figure 1). The undertaking is authorized by 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. The U.S. Army Corps of Engineers (Corps) received a request for financial assistance for the Summerford Sanitary Sewer System from the Madison County Ohio. The Area of Potential Effects (APE) for the undertaking consists of the sewer line that is located within the existing road Right-of-Way (ROW) along Old U.S. 40, State Route 56, and residential streets in Summerford, Ohio and portions located in an agricultural field north of Summerford between State Route 56 and Interstate 70 (Figures 2-3). The APE consists of the proposed sewer line measuring approximately 4800 meters (m) in length and is approximately 6.8 acres (2.8 hectares). Standard mechanical excavating equipment such as a trencher, excavator, and directional drill will be used to construct the sewer system. The equipment will cause minimal vibration and all sewer components will be installed underground, thus there will be no effect to historic structures.

A cultural resource survey was conducted throughout the entire APE to meet the requirements of Section 106 of the National Historic Preservation Act (NHPA) of 1966. The survey followed the professional standards and guidelines in the Secretary of the Interior Standards and Guidelines for Archaeology and Historic Preservation (Secretary of the Interior 1983) and the Ohio State Historic Preservation Office (OSHPO) *Archaeology Guidelines* and *Guidelines for Conducting History/Architecture Surveys* in Ohio (OSHPO 1994; 2014).

The survey was performed by personnel from the Corps and had a primary objective to identify any prehistoric and historic sites that could be eligible for the National Register of Historic Places (NRHP). This objective was met through a literature review and records search to identify any known cultural resources, as well as a field survey to locate any previously unknown cultural resources in the APE. Fieldwork was conducted on April 20, 2021 and May 14, 2021 by Corps Archaeologist Montana Martin (Principal Investigator), Biologist Steele McFadden, and Planner Laura Mattingly.

Results of this investigation identified a no historic structures or archaeological sites within the APE. Given these results, the Corps, in accordance with part 36CFR800.4 (d)(1) of NHPA, has reached a determination of no effect to historic properties. Therefore, no additional cultural resource surveys are recommended for the Federally funded portion of the Summerford Sanitary Sewer System project.


Summerford APE
Somerford Twp
Detroit
Windsor
Cleve
Summerford APE
Indiana
Indianapolis
Ohio
Columbus
Cincinnati
Louisville
Frankfort
London
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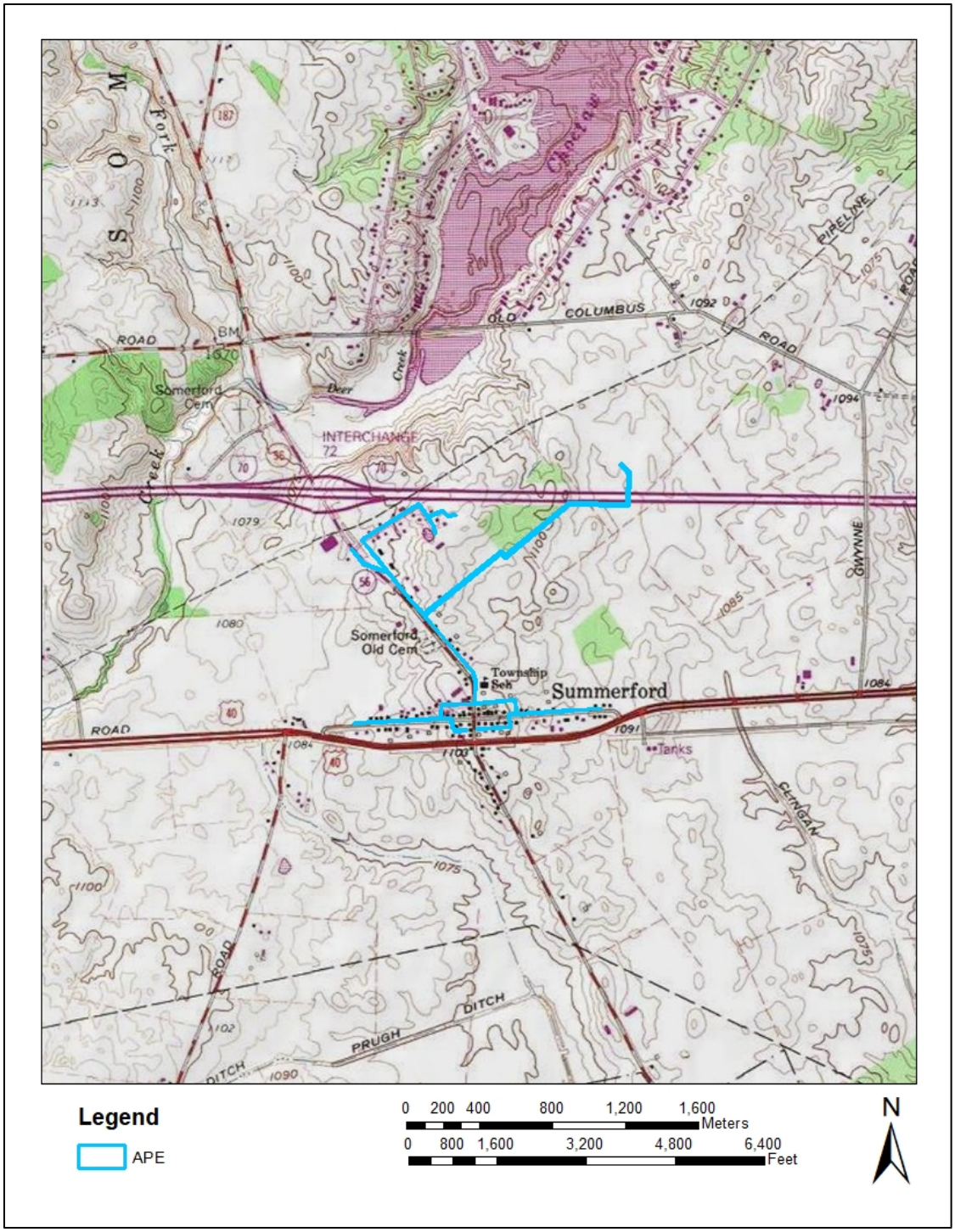
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APE
0 200 400 800 1,200 1,600
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N
Summerford
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Somerford Old Cem
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INTERCHANGE 72
OLD COLUMBUS ROAD
ROAD
PIPELINE
GWYNNE
SLINGAN
PRUGH
DITCH
Tanks
Deer Creek
Fork
1670
1092
1094
1079
1080
1085
1084
1091
1075
1090
1102


Legend
APE
0 80 160 320 480 640
Meters
0 335 670 1,340 2,010 2,680
Feet
N

2. Environmental Setting

2.1 General Project Area Description

Land use within the APE consisted of an agricultural field and existing ROW along Old U.S. 40, State Route 56, and residential Summerford streets. The ROW was previously disturbed by the construction of above and below ground utilities, residential projects, roads, ditches, and farming activities (Figures 4-8). Vegetation within the APE consisted of mowed grasses and a plowed field with little ground cover. The APE is in the Oak Run Hydrologic Unit Code-14 sub-watershed and is drained by unnamed ditches (USGS 2021). Elevations of the APE range from between 1090 to 1110 feet Above Mean Sea Level (AMSL).

2.2 Physiography

The APE lies within the Southern Ohio Loamy Till Plain region of the Till Plains section in the Central Lowland physiographic province. The Southern Ohio Loamy Till Plains are characterized by areas of loamy till, featuring moraines, glacial deposits of boulder belts, and large floodplains with glacial outwash (Brockman 1998). The bedrock underlying the APE consists of Silurian sedimentary rocks represented by mainly dolomites and shales (ODGS 2006). These sedimentary bedrock deposits have been covered by Wisconsinan age glacial till, outwash, and loess.

2.3 Soils

The soils mapped within the APE consist of Kokomo silty clay loam, 0% to 2% slopes, Crosby-Lewisburg silt loams, 2% to 6% slopes, and Lewisburg-Celina silt loams, 2% to 6% slopes (USDA 2021). These soil profiles are generally characterized by silty clay loam, silt loam, and clay horizons and range from somewhat poorly drained to very poorly drained. The parent material for these soils is generally the underlying limestone, dolomites, and shales that were weathered and transported via glacial drift to the current location.

2.4 Climate

The climate of Madison County is of the continental type, which can fluctuate between the seasons. Summers are usually warm and humid, whereas winters are usually cold. In Madison County the month of July had the highest average temperature at 84 degrees Fahrenheit and January had the lowest at 18 degrees Fahrenheit. The average precipitation in the area is 39.33 inches (U.S. Climate Data 2021).

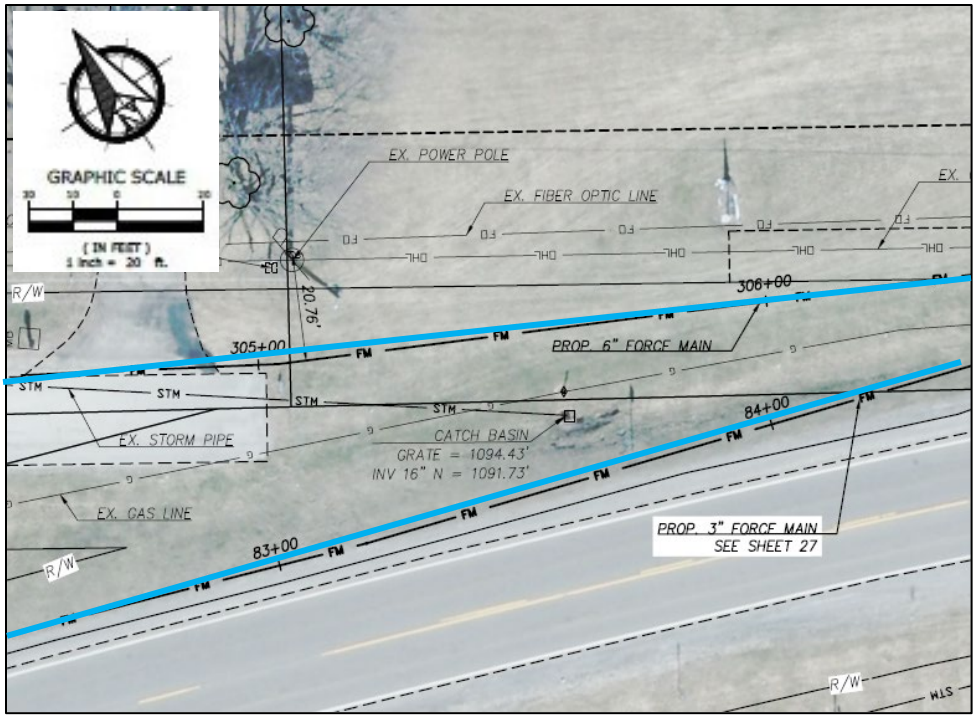

Figure 4: Construction Plans showing previously installed utilities in relation to the proposed path of the new sewer line (in blue).

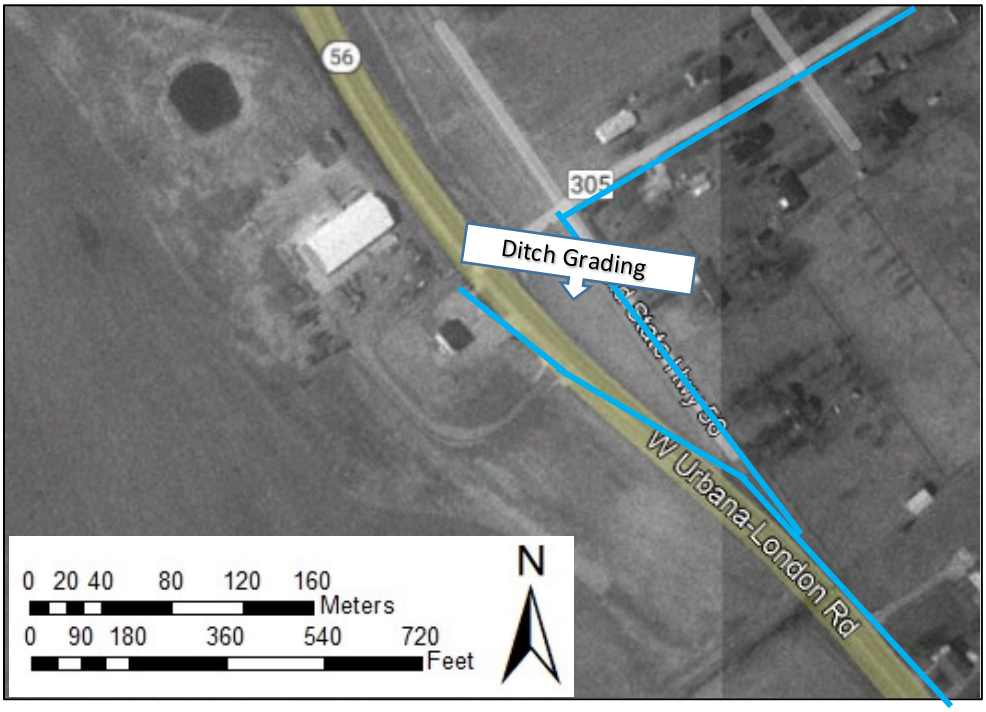

Figure 5: 1994 Aerial showing a previous ditch grading within a portion of the APE (in blue) between Old 56 and State Route 56.

Figure 6: Overview of Karen Drive in Summerford, Ohio (in blue) showing the location of proposed sewer line within the ROW (in blue), facing northeast.

Figure 7: Overview of Old U.S. 40 in Summerford, Ohio showing the location of proposed sewer line within the ROW (in blue), facing east.

Figure 8: View of proposed sewer line (in blue) in plowed field, facing northeast.

2.5 Flora and Fauna

This information has been adapted from Lewthwaite et al. 1997, to provide a background setting for the flora and fauna of the proposed project undertaking.

Late Pleistocene and Holocene environmental profiles for the Ohio region are of a general nature and apply to a large section of eastern North America. Pollen profiles for areas in Indiana, Ohio, Pennsylvania, and New England indicate a relatively consistent climatic sequence across the northeast. This sequence originated around 15,000 BC with a moist cool climate. Between 9000

and 7000 BC a warming trend started, lasting until 2000 BC. This warming trend initiated the northern advance of deciduous forests (O'Malley 1984). Around 1000 BC the forests were dominated by the Oak-Chestnut climax forest that are still prevalent in the eastern woodlands today.

Pleistocene fauna were significantly different from modern fauna. The Till Plains supported species such as mammoth (Mammuthus jeffersoni), mastodon (Mammut americanus), and musk ox (Ovibos muschatos), as well as elk (Cervus sp.), caribou (Ragnifer sp.), moose (Alces sp.), wolf (Canis lupus), and black bear (Ursus americanus). With the retreat of the glaciers, the Pleistocene megafauna in the area became less common, species such as the mastodon and mammoth became extinct, and the moose and elk migrated northward. Post-glacial animal species were probably similar to modern types; the major differences being with population size and range (O'Malley 1984).

3. Cultural Setting

Archaeologists have developed a general chronology for the eastern United States that provides a useful framework for organizing and describing archaeological data (Griffin 1967; Jennings 1974). The cultural-historical sequence developed for the region is generally divided into the following chronological periods: Paleo-Indian (12,800-8000 BC), Early Archaic (8000-6000 BC), Middle Archaic (6000-3000 BC), Late Archaic (3000-600 BC), Early Woodland (600-200 BC), Middle Woodland (200 BC- AD 500), Late Woodland (AD 500- 1000), Fort Ancient (AD 1000-1750), and European contact and settlement (AD 1750- present) covering more than 14,000 years of human adaptation and re-adaptation to an every changing physical and socio-cultural environment.

The prehistoric cultural sequence in Ohio reflects a general trend toward increasing socio-cultural and technological complexity beginning with small mobile bands during the Palo-Indian period that later developed into more sedentary, complex societies. The subsistence activities of the earliest societies focused on hunting and gathering. By late prehistoric times agricultural economies were based primarily off the cultigens of corn, beans, and squash in the eastern United States. Increases in the size and density of the human population and trends toward increasing sedentism were also evident and reached their highest levels during the Fort Ancient period. In all, these cultural trends are marked by stylistic differences in artifacts and correspond to major technological, social, cultural, and/or subsistence innovations (Ford 1977). However, there was considerable regional variation in the timing and extent to which these trends were expressed.

The town of Summerford (originally Somerford) was laid out in 1834 and the Somerford Township was established in Madison County, Ohio in 1839 (Somerford Township 2021). The town was connected to the outside world mainly through the National Road, which was constructed by the Federal Government in Cumberland, Maryland in 1806. The section of the National Road that connected to Springfield, Ohio was completed in 1838 and ran through Summerford, Ohio. The Federal Government decreed that there should be a marker every mile on the road to inform

travelers of the distance from Cumberland, Maryland as well as other major cities in the area. National Road Mile Markers in Ohio were generally made of concrete, sandstone, or limestone and set two feet into the ground on the north side of the National Road. Two such markers were located in the town of Summerford (National Road 2021). The National Road was renamed U.S. 40 in the 1920's and with the popularity of automobile traffic it was nicknamed "The Main Street of America." U.S. 40 now bypasses Summerford and the path of the National Road in the town is now called Old U.S. 40.

4. Literature Review and Records Check

A background check was conducted within a 1.6 kilometer (km [1 mile]) radius of the APE. Multiple sources of information were used: the NRHP online database; Ohio History Connection Online Mapping System; Louisville District Geographic Information System (GIS); historic maps; and previous cultural resources reports. The Corps also assessed the Ohio online database on November 15, 2020. The site file search of the GIS and Ohio online database allowed the identification of previous investigations, archaeological sites, and historic structures within the APE (Figure 9). A review of historic maps including the 1875 Somerford Township plat map shows how the area has remained relatively rural in nature with most mapped structures being near major roads (Figure 10). The 1875 plat map also shows structures near the APE, but none were location within the APE.

Reviews of the previous archaeological investigations carried out near the APE were used to provide background information on the area of the APE. The NRHP online database was used to collect information on NRHP eligible or listed properties within a 1.6 km (1 mile) radius of the APE. The background check and literature review found that no NRHP listed properties are located within the APE. However, one NRHP listed property was mapped within the 1.6 km (1 mile) radius of the APE but was destroyed and delisted on the Ohio Historic Inventory (OHI). A search of the Ohio online database found that seven historic structures and two cemeteries have previously been recorded within a one mile radius of the APE (Table 1 and 2).

Ohio History Connection sent a response letter to the Corps on December 1, 2021 that identified two historic resources of concern. The historic resources were the National Road Mile Marker 284 (MAD0025105) and the Old Summerford Cemetery (OGSID 7174) (Appendix A).

There are two National Road Mile Markers 284 that are mapped within the Town of Summerford. The older Mile Marker 284 (MAD0025205) is located 80 m south of the APE on the north side of the new U.S. 40 bypass (Figure 11). The National Road Mile Marker 284 (MAD0025105) is mapped within the APE; however, the marker was not located. The Ohio Historic Inventory Form describes the marker as being located the front yard of 2810 Old U.S. 40, which is outside the APE. No marker was located; but a weathered concrete pad was observed in the front yard of 2810 Old U.S. 40 (Figure 12). Moreover, the concrete pad appears to be covering a void that may indicate the previous location National Road Mile Marker 284 (MAD0025105).

The Old Summerford Cemetery is located outside the APE and is situated on the southwest side of State Route 56 (see Table 2, Figure 9, and Figure 13). The exact date of the cemetery founding is unknown; however, the earliest grave marker is from the 1780's and there are seven grave markers from the 1830's. The seven stones from the 1830's suggest the cemetery was likely founded around the time the town of Summerford was established.

Neither the two historic resources, the National Road Mile Marker 284 (MAD0025105) or the Old Summerford Cemetery (OGSID 7174) will be affected by the construction of the Summerford Sanitary Sewer System. National Road Mile Marker 284 (MAD0025105) was unable to be located and has likely been removed from the previous location. Old Summerford Cemetery is located 18 m from the APE and is on the opposite side of State Route 56, which will be a greater distance than the 15 m buffer recommended by the OSHPO (see Appendix A).

The records search found that no archaeological surveys, no archaeological sites, and one architectural survey was recorded within the APE. There were three archaeological surveys and no archaeological sites identified within 1.6 km (1 mile) radius of the APE.

In 1998, Gray & Pape conducted an inventory of the above ground historic resources along 225 miles of U.S. 40 (formerly the National Road). Gray & Pape, Inc identified 30 historic resources along U.S. 40 within Madison County, Ohio; including the two National Road Mile Markers 284 located near the APE in Summerford (Miller et al. 1998).

In 2006, EMH&T conducted an archaeological survey for a proposed cellular tower and found the Valentine Wilson House which is listed on the NRHP (73001505) was demolished sometime around 1997. They determined that no historic properties would be adversely affected by the project and recommended no further work (Meyer 2006).

Weller & Associates, Inc. preformed a cultural resources survey in 2014 for a proposed T-Hangar Facility in Madison County. The survey found disturbed soils within the project area and no historic properties within the APE and recommended no further work for the project (Weller 2014).

Gray & Pape Heritage Management conducted an archaeological survey in 2018 for a fiber optic cable in Montgomery, Clark, Madison, and Franklin counties. The survey looked at areas within 61 m of the Great Miami, Scioto, and Olentangy rivers and found that no historic properties would be affected by the project (Picklesmier 2018).

Table 1: Historic structures recorded a within 1.6km (1mile) radius of the APE.

OHI NUMBER	Name	Historic Use	Date	Distance from APE
MAD00251 05	National Road Mile Marker 284	Monument/Marker	1860	Not Located
MAD00252 05	National Road Mile Marker 284	Monument/Marker	1860	100 m
MAD00185 05	Summerford United Methodist Church	Church/Religious Structure	1874	15 m
MAD00134 05 (NRHP 73001505)	Wilson Valentine House (Delisted-on OHI)	Entertainment/ Recreation/Cultural Activities	1820	990 m
MAD00250 05	Old U.S. 40 Concrete Culvert	Road/Vehicle Related	1960	2 m
MAD00260 05	U.S. 40 Concrete Culvert	Road/Vehicle Related	1960	730 m
MAD00261 05	U.S. 40 Concrete Box Culvert	Road/Vehicle Related	1960	650 m

Table 2: Cemeteries within a 1.6km (1mile) radius of the APE.

OGSID	Cemetery Name	Date Established	Distance from APE
7173	Somerford	Unknown	975 m
7174	Old Summerford	Unknown	18 m

Figure 9: Labeled location of historic resources near the APE on an aerial map.

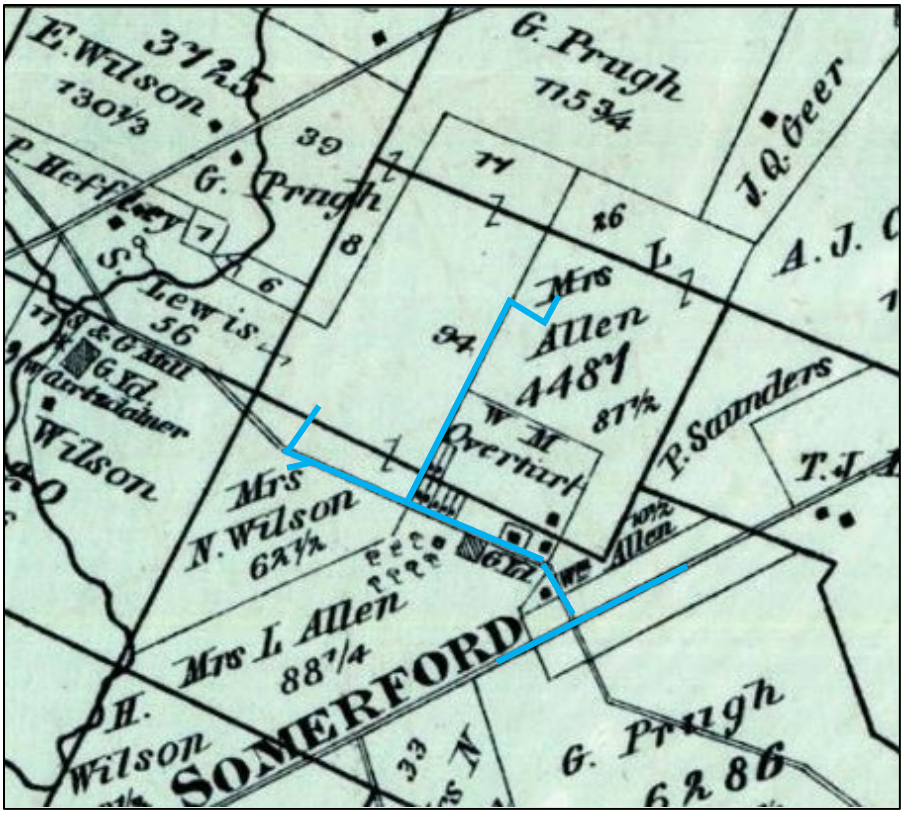

Figure 10: Excerpt of Madison County, Ohio plat map from 1875 showing location of proposed sewer line (in blue) (Somerford Township 1875).

Figure 11: National Road Mile Marker 284 (MAD0025205) located on the north side of U.S. 40, facing north.

Figure 12: View of the concrete pad in the front yard of 2810 U.S. 40 that may represent the former location of National Road Mile Marker 284 (MAD0025105), facing west.

Figure 13: View from the APE to the Old Summerford Cemetery located across the Highway 56, facing west.

5. Archaeological Field Methods

The APE for the undertaking consists of the sewer line that is located within the existing road ROW along Old U.S. 40, State Route 56, and residential streets in Summerford, Ohio and portions located in an agricultural field north of Summerford between State Route 56 and Interstate 70 (Figures 2-3). The APE consists of the proposed sewer line measuring approximately 4800 m in length and is approximately 6.8 acres (2.8 hectares). The elevation of the project ranges between 1090 to 1110 feet AMSL. A phase I cultural resources survey was conducted within the APE to identify any cultural resources and to evaluate their potential for inclusion in the NRHP.

The APE is located within a plowed field and throughout a residential area. The plowed field portion of the APE had a light scattering of leaf litter creating a ground surface visibility between 80-100% (see Figure 8). The plowed field was subjected to a pedestrian survey with 5 m intervals. The portion of the APE within the residential area is located within the ROW of Old U.S. 40, State Route 56, and Summerford residential streets. The area within the ROW was previously disturbed by a road, ditch, driveway, house, and utility construction projects. The residential portion of the APE generally consisted of previously disturbed grassy ditches with a visibility between 5-50% (see Figures 4-7). Developed and disturbed areas within the APE were visually inspected and recorded, but no shovel tests were excavated due to previous disturbance and the presence of underground utilities. The Principal Investigator maintained field notes during the project, recording work accomplished, and general observations. Photographs of the APE were taking using a digital camera and a detailed photographic log was kept. All records associated with the survey are on file with the Corps.

6. Results and Conclusions

On April 20, 2021 and May 14, 2021, a cultural resources survey was conducted by Corps Archaeologist Montana Martin, Biologist Steele McFadden, and Planner Laura Mattingly. The survey covered the APE which measures approximately 4800 m in length and follows the ROW in Summerford and crosses a plowed field. The ROW was visually inspected, and a pedestrian survey was conducted in the plowed field at 5 m intervals. The survey identified no cultural resources or building structures located within the APE.

A Phase I cultural resource survey of the proposed sanitary sewer line for the City of Summerford revealed no evidence of significant archaeological sites or historic structures. Given the results of the cultural resource survey and lack of impacts to historic structures, the proposed undertaking was determined to have no effect to historic properties eligible for the listing or listed in the NRHP in accordance with 36CFR800.4(d)(1). Therefore, Corps recommends that no additional cultural resource surveys are needed for the Summerford Sanitary Sewer System project.

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Appendix A: Ohio State Historic Preservation Letter

In reply refer to:
2020-MAD-49997

December 1, 2020

Montana Martin, Archaeologist
Planning, Programs and Project Management Division-Planning Section
Department of the Army
U.S. Army Corps of Engineers, Louisville District
600 Dr. Martin Luther King Jr. PL
Louisville, Kentucky 40202
Email: montana.martin@usace.army.mil

RE: Summerford Ohio Sewage Collection System, Summerford Township, Madison County, Ohio

Dear Mr. Martin:

This letter is in response to your letter sent October 29, 2020, concerning the above-referenced project. These comments of the Ohio State Historic Preservation Office (SHPO) are made in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended, and the associated regulations at 36 CFR Part 800.

As authorized by Section 594 of the Water Resources Development Act (WRDA) of 1999 (Public Law 106-53, 113 STAT 381), the U.S Army Corps of Engineers, Louisville District (Corps) has received a request for financial reimbursement assistance for the above-referenced project. The proposed sewer line project (Undertaking) will begin just north of Interstate 70 and will travel south across agricultural fields where it meets Urbana-London Road, and will then follow sections Urbana-London Road, Karen Drive, Old Highw2ay 56, Old Highway 56 NW, Old Highway 40, and multiple unnamed Summerford streets. The Corps has determined that this Undertaking has the potential to affect historic properties, and that the area of potential effect (APE) consists a 5-meter buffer on either side of the proposed sewer line path creating a 10-meter-wide corridor covering 12 acres in total.

The Corps completed a preliminary online records and reports review through the National Park Services and the Ohio History Connection databases and did not identify any historic properties within the APE; however, three cultural resources surveys, no archaeological sites, and eight (8) historic structures were identified within a 1.6 – kilometer (1 mile) study radius of the APE. As a result, the Corps has anticipated that a cultural resources inventory of the corridor will be necessary to identify historic properties within the APE, and that this survey will be conducted using the archaeology guidelines set for by the SHPO.

In reviewing the information provided by the Corps, the SHPO concurs that there are no previously documented archaeological sites recorded within or immediately adjacent to the proposed project area. However, the SHPO does not have enough information at this time to conclusively concur that there are no previously documented historic properties within the proposed APE for the following two (2) reasons:

1) **National Road Marker (MAD0025105) (see attached pdf)** One of only two surviving objects directly associated with the original National Road within the limits of the village of Summerford, is a stone marker (MAD-251-5) located on the north side of Old U.S. 40 in Summerford on the front yard of the residence at 281 Old U.S. 40. It is not clear from the information provided whether or not this previously documented historic resource is within the APE for this Undertaking, and it is the opinion of the SHPO that the best course of action is for avoidance if possible.

2) **Old Summerford (a.k.a. Somerford) Cemetery (OGSID 7174)** On the west side of State Route 56 between Old U.S. Route 40 and Interstate 70, approximately 600 feet north of the intersection of SR 56 and Old US 40, is the Old Summerford Cemetery. Based on the information provided it is not clear whether or not any portion of this highly-maintained is within the APE for this Undertaking. While cemeteries are frequently not considered eligible to the National Register of Historic Places (NRHP), it is the opinion of the SHPO that these cultural resources should be avoided and preserved in place whenever this is possible. Additionally, particularly in the case of older cemeteries such as the Old Summerford Cemetery, the SHPO recommends a buffer of at least 50 ft. (15 meters) or greater as a means of reducing the possibility of inadvertent disturbance of burials, memorial markers, or any other cemetery features.

The SHPO is in concurrence with the Corps in recommending that a Phase I archaeological resources survey be conducted in order to comply with Section 106 of the National Historic Preservation Act. This Phase I archaeological survey should focus on identifying areas of previous disturbance within the APE- particularly associated with portions of the Undertaking that are immediately adjacent and/or within existing roadway right-of-way (ROW), as well as that of other forms of previous ground-disturbance activities such as the installation of above or below-ground utilities within the APE. This survey should be conducted by qualified cultural resources consultants. You may contact me for a list of qualified archaeologists or use the lists we provide on our website: https://www.ohiohistory.org/preserve/state-historic-preservation-office/hpforms/consultants

Based on the Corps findings, it appears that most if not all of the APE has not yet been previously surveyed for above ground resources, therefore if there is any potential for effects to any history/architecture resources within the APE. A reconnaissance level History/Architecture survey be done to determine if any properties in the area are eligible for listing in the NRHP. The history/architecture survey will need to include those properties over 50 years old from which above-ground structures or other appurtenances for this Undertaking will be visible. This survey should to be conducted by individuals meeting the Secretary of Interior's Professional Standards and using the guidelines that can be found on our website at: https://www.ohiohistory.org/OHC/media/OHC-Media/Documents/Guidelines-for-Conducting-History_Architecture-Surveys-in-Ohio.pdf.

A combined Phase I cultural resources survey is also acceptable option to submit to this office. We look forward to receipt of this report and to provide further comment. Please be advised that this is a Section 106 decision and that this review decision may not extend to other SHPO programs.

The SHPO also recommends contacting the following parties who may also wish to participate in the consultation process for this undertaking:

1) Summerford Township Trustees
2) Madison County Historical Society
3) Madison County Chapter of the Ohio Genealogical Society
4) Ohio National Road Association
5) Federally Recognized Tribes with historical ties and/or interests in the region.

If you have any questions please contact me by email at: jschweikart@ohiohistory.org.

Sincerely,

John F. Schweikart, Project Reviews Manager (archaeology)
State Historic Preservation Office

Serial No. 1086227