



**US Army Corps
of Engineers®**

Pittsburgh District

Planning and Environmental Branch
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Public Notice Date: **12 December 2018**
Expiration Date: **5 January 2019**

NOTICE OF AVAILABILITY

Draft Environmental Assessment

Village of New Waterford Water Line Replacement in Columbiana County, OH

The U.S. Army Corps of Engineers, Pittsburgh District (USACE) is evaluating a Federal funding request for a proposed water line replacement in the Village of New Waterford, Columbiana County, Ohio.

The USACE invites submission of comments on the environmental impact of the approval of the request. The USACE will consider all submissions received before the expiration date of the public comment period. The nature or scope of the proposal may be changed upon consideration of the comments received.

The draft Environmental Assessment and draft Finding of No Significant Impact are available electronically at:

<http://www.lrp.usace.army.mil/Missions/Planning-Programs-Project-Management/>

Comments can be submitted to the address posted at the top of this notice or to Erin.Stuart@usace.army.mil. Comments must be received by 5 January 2019 to ensure consideration.

DRAFT ENVIRONMENTAL ASSESSMENT

VILLAGE OF NEW WATERFORD WATER LINE REPLACEMENT COLUMBIANA COUNTY, OHIO

October 2018

Prepared for:



Pittsburgh District
Planning and Environmental Branch
William S. Moorhead Federal Building
1000 Liberty Avenue
Pittsburgh, Pennsylvania 15222

Prepared by:



Lawhon & Associates, Inc.
1441 King Avenue
Columbus, Ohio 43212

TABLE OF CONTENTS

SECTION 1 – INTRODUCTION.....	1
1.1 Introduction.....	1
1.2 Purpose and Need	2
1.3 Authority	2
SECTION 2 - ALTERNATIVES.....	3
2.1 Introduction.....	3
2.2 Alternatives	3
2.2.1 No-Action Alternative	3
2.2.2 Water System Improvements (Preferred Alternative)	3
SECTION 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES	4
3.1 Introduction.....	4
3.2 Resources and Analyses Not Considered in Detail	4
3.2.1 Wild and Scenic Rivers.....	4
3.2.2 Aesthetics	4
3.2.3 Cumulative Effects.....	4
3.3 Land Use	5
3.3.1 Affected Environment.....	5
3.3.2 Environmental Consequences	5
3.4 Hazardous Materials and Wastes.....	6
3.4.1 Affected Environment.....	6
3.4.2 Environmental Consequences	6
3.5 Terrestrial Resources/Wildlife	7
3.5.1 Affected Environment.....	7
3.5.2 Environmental Consequences	7
3.6 Threatened and Endangered Species	7
3.6.1 Affected Environment.....	7
3.6.2 Environmental Consequences	8
3.7 Vegetation	9
3.7.1 Affected Environment.....	9
3.7.2 Environmental Consequences	9
3.8 Streams, Other Water Bodies, and Water Quality	9
3.8.1 Affected Environment.....	9
3.8.2 Environmental Consequences	11

3.9	Wetlands and Floodplains	12
3.9.1	Affected Environment.....	12
3.9.2	Environmental Consequences	12
3.10	Protection of Prime and Unique Farmland.....	13
3.10.1	Affected Environment.....	13
3.10.2	Environmental Consequences	14
3.11	Cultural Resources and Historic Properties	14
3.11.1	Affected Environment.....	14
3.11.2	Environmental Consequences	14
3.12	Socioeconomic Conditions.....	15
3.12.1	Affected Environment.....	15
3.12.2	Environmental Consequences	16
3.13	Transportation and Traffic.....	16
3.13.1	Affected Environment.....	16
3.13.2	Environmental Consequences	17
3.14	Noise.....	17
3.14.1	Affected Environment.....	17
3.14.2	Environmental Consequences	17
SECTION 4 – COORDINATION, CONSULTATION, AND PUBLIC		18
4.1	Agency Coordination	18
4.2	Agency Consultation.....	18
4.3	Public Involvement.....	19
SECTION 5 - CONCLUSION.....		20
SECTION 6 – REFERENCES		21
APPENDIX A - FIGURES		
APPENDIX B - AGENCY COORDINATION AND CONSULTATION		
APPENDIX C – PUBLIC INVOLVEMENT		

SECTION 1 – INTRODUCTION

1.1 Introduction

This Environmental Assessment (EA) is being prepared for the U.S. Army Corps of Engineers, Pittsburgh District (Corps) in compliance with the National Environmental Policy Act (NEPA) of 1969 and in accordance with the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA, 40 Code of Federal Regulations (CFR), Part 1500-1508, and with the Corps' NEPA implementing regulations, Engineer Regulation (ER) 200-2-2 (33 CFR 230). The objective of the EA is to evaluate potential environmental effects of proposed water system improvements in the Village of New Waterford located in northeastern Columbiana County, Ohio (Figure 1, Appendix A).

The Village of New Waterford owns and operates a water system consisting of four ground water supply wells, a water treatment plant (WTP), two elevated storage tanks, and approximately eight miles (44,000 linear feet [lf]) of distribution lines. The system serves approximately 461 customers within the village and five residences outside of the village's corporation limits.

Proposed improvements for the Village of New Waterford's water system will be accomplished in two phases. Phase 1 consists of improvements to New Waterford's WTP, water line replacements (approximately 1,602 lf of 6-inch diameter, 7,158 lf of 8-inch diameter, and 3,884 lf of 12-inch diameter water lines), and 22 new fire hydrants. Phase 1 of the proposed project does not require federal action or funding and was environmentally cleared through a Limited Environmental Review (LER)¹ (Appendix B) that was prepared by the Ohio Environmental Protection Agency (OEPA). A Finding of No Significant Impact determination was issued on the OEPA LER on September 13, 2017.

Phase 2 consists of the replacement of approximately 17,600 lf of undersized (2-inch and 4-inch) and deteriorated water mains with 15,900 lf of 8-inch pipe and 2,056 lf of 6-inch pipe. Phase 2 also includes replacement of 18 fire hydrants, addition of 17 new fire hydrants, and replacement of several service lines, water meters, and one meter vault. This EA focuses on Phase 2 of the proposed project (Figures 2 and 3, Appendix A).

¹ OEPA Rule Number 3745-150-05 authorizes performance of a Limited Environmental Review if the Ohio EPA director determines that the proposed activities will have no potential for significant adverse environmental impacts, will not require extensive impact mitigation, are not the subject of significant public interest, will not create new or relocate existing discharge to surface or ground waters or cause pollution of surface or ground waters, will not result in substantial increases in the volume of discharge or pollutant loading, and will not provide capacity to serve a population substantially greater than the existing population.

1.2 Purpose and Need

The purpose of the proposed project is to ensure that the village's water distribution system is able to provide adequate fire protection flows and to update outdated water distribution infrastructure that is costly to maintain.

As noted in the 2017 OEPA LER, approximately 87% of New Waterford's water distribution system cannot provide adequate fire protection flows. In addition, the village's existing 2-inch, 4-inch, 6-inch, and 8-inch diameter water lines were originally installed during the 1940's and 1950's and are subject to frequent breaks (averaging ten to fifteen breaks per year). According to village records, approximately 43% of the village's total water volume produced in 2016 could not be accounted for and was presumed to be lost in the water distribution system. According to OEPA, an annual loss of water volume greater than 15% is considered to be excessive. The village has identified numerous sections of water mains that have exceeded their useful life, are in critical condition, and/or are subject to frequent breaks. Also, many of the Village of New Waterford's fire hydrants do not function properly, lack shutoff valves, and are located too far apart to provide adequate fire protection.

1.3 Authority

The Water Resources Development Act (WRDA) of 1999 (Public Law 106-53) Section 594 authorizes the Corps to provide assistance to non-Federal interests to implement design and/or construction of publicly owned water related environmental infrastructure projects in Ohio.

SECTION 2 - ALTERNATIVES

2.1 Introduction

Under NEPA, a reasonable range of alternatives must be considered prior to undertaking an action. Alternatives considered must include, at a minimum, the proposed action and the “No-Action” Alternative, which provides a baseline from which to compare other alternatives. The alternatives identified below were evaluated to determine if they satisfy the purpose and need of the project.

2.2 Alternatives

2.2.1 No-Action Alternative

Under the No-Action Alternative, the Village of New Waterford’s existing water distribution system would remain unchanged. Under this alternative, the water distribution system would remain unable to provide adequate fire protection flows and frequent breaks and leaks would continue to occur. A substantial water production volume would continue to be lost (43% in 2016) and remain well above OEPA’s annual water loss threshold of 15%. The water mains that have exceeded their useful life, are in critical condition, and/or are subject to frequent breaks would continue to be subject to frequent repairs. Also, many of the Village of New Waterford’s fire hydrants would continue to malfunction, lack shutoff valves, and be located too far apart to provide adequate fire protection.

2.2.2 Water System Improvements (Preferred Alternative)

Under the Preferred Alternative, the Village of New Waterford’s water distribution system would be upgraded to address existing deficiencies. Approximately 17,600 lf of undersized and deteriorated water mains would be replaced with 15,900 lf of 8-inch pipe and 2,056 lf of 6-inch AWWA C-900 pipe. Replacement of the deteriorated lines is anticipated to substantially reduce the occurrence of breaks and minimize the volume of water loss within the system. The project would also replace 18 fire hydrants and install 17 new fire hydrants in order to provide adequate fire protection within the village. The Preferred Alternative also includes the replacement of several service lines, water meters, and one meter vault to modernize the infrastructure and address the existing deficiencies.

SECTION 3 - AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 Introduction

This section describes the existing affected environment (existing condition of resources relevant to the alternatives being considered) and evaluates potential environmental effects on those resources for each alternative. The action (i.e. project) area is located within and adjacent to the Water Line Replacement Project within the Village of New Waterford, Ohio.

3.2 Resources and Analyses Not Considered in Detail

Based on the nature of the project and specific resources located within the study area, the No-Action and Preferred Alternatives would not be expected to affect the resources identified in the following sections.

3.2.1 Wild and Scenic Rivers

The Wild and Scenic Rivers System was established through the Ohio Scenic Rivers Act passed in February 1968 and the national Wild and Scenic Rivers Act (Public Law 90- 542; 16 U.S.C. 1271 et seq.) passed by Congress in October 1968. The purpose of these acts is to preserve rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. A review of the state and national Wild and Scenic River inventory lists indicates that there are no designated State or National Wild and Scenic Rivers within five miles of the proposed project. As a result, no impacts to Wild and Scenic Rivers are anticipated.

3.2.2 Aesthetics

The proposed action consists primarily of subsurface water system improvements. Permanent aesthetic changes above ground would be minor and limited to removal and/or replacement of some fire hydrants. Replacement of these fire hydrants would not be considered an adverse visual impact. As a result, no permanent adverse aesthetic impacts are anticipated as a result of the proposed action.

3.2.3 Cumulative Effects

Cumulative effects are defined as effects on the environment which result from “the incremental impact of an action when added to other past, present and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative effects can result from individually minor, but collectively significant actions taking place over a period of time” (40 CFR § 1508.7).

The purpose of a cumulative effects analysis is to determine the magnitude and significance of the environmental consequences of the proposed action in the context of the cumulative effects of other past, present, and reasonably foreseeable future actions. No substantial direct impacts to any resources are anticipated. Implementation of the

preferred alternative would maintain and update the existing water supply system for the Village of New Waterford, but would not extend services beyond the existing boundaries. Therefore, future development in and around the project area is unlikely to be influenced by the proposed project and no indirect impacts to any resources are anticipated. The impacts of the proposed project, when considered along with other past, present, and future actions, are not cumulatively significant.

3.3 Land Use

3.3.1 Affected Environment

The Village of New Waterford is located in Unity Township in Columbiana County, Ohio and is part of the Salem Micropolitan Statistical Area. The population of New Waterford at the time of the last census (2010) was 1,238.

The New Waterford Village Administrator, Jason Gorby, provided a copy of the 2005 Zoning Map for the Village of New Waterford (Figure 4, Appendix A). Land in the project area is primarily zoned residential with business designations in the village center clustered around the intersection of State Street and Main Street.

Current land use in the project area is predominantly residential, characterized by low-to medium-density single-family homes. The project area is bisected by a Norfolk Southern railroad line. There are a few industrial properties along the railroad line at the southern end of Silliman Street near the intersection of E. Main Street. There are also some commercial properties near the village center, including a hair salon, a gas station/market, and a Dollar General store.

3.3.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no changes in land use.

Preferred Alternative

Changes in land use would not occur under the Preferred Alternative and community facilities would not be impacted. The proposed project is almost entirely within existing right-of-way. There is only one very small area, adjacent to Boardman Street and east of SR 46, where approximately 190 lf of new 8-inch pipe would be placed just outside of the existing right-of-way. The parcel of property where this would occur is currently owned by the Village of New Waterford and is the site of the existing water well field that serves the community. The property would not be adversely impacted by the project and land use would not change. The project will have no effect on land use.

3.4 Hazardous Materials and Wastes

3.4.1 Affected Environment

The project includes the replacement of approximately 17,600 linear feet of waterline throughout the Village of New Waterford. The project area is almost entirely located within the existing right-of-way adjacent to streets and roadways within the village, and includes linear corridors (i.e. sidewalks, grassy areas) of residential and commercial properties. The only portion of the project area that extends outside of the existing right-of-way is a narrow 190 foot segment along Boardman Street located on Village of New Waterford property. A Phase I Environmental Site Assessment (Phase I ESA) was conducted in support of the proposed project.

During the Phase I ESA, the project area and adjacent properties were inspected/observed to determine what, if any, adverse environmental conditions and/or hazardous materials may be present within and adjacent to the project area.

The project area for the Phase I ESA extended 25 feet from the centerline of various roadways throughout the Village and included linear corridors (i.e. sidewalks, grassy areas) of neighboring residential and commercial properties. No hazardous substances or petroleum products were observed during an on-site inspection, nor were above ground storage tanks or evidence of underground storage tanks observed in the project area. Containers of hazardous substances, petroleum products, or unidentified substances were not observed within the project area.

The Phase I ESA also included a review of information provided by the Village of New Waterford, a review of environmental records assembled by Environmental Data Resources, Inc. (EDR), and interviews with site owners and occupants. The Phase I ESA revealed no evidence of recognized environmental conditions (RECs) in connection with the project area.

3.4.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts related to potential hazardous contaminants.

Preferred Alternative

There are no known hazardous substances, storage tanks, or petroleum products evident within the project area and no evidence of any of these features was observed during the Phase I ESA. No hazardous materials or waste would be generated by construction and subsequent operation of the proposed project. The preferred alternative is unlikely to result in short or long-term impacts with regard to hazardous materials and waste. The preferred alternative will have no effect on hazardous materials and wastes.

3.5 Terrestrial Resources/Wildlife

3.5.1 Affected Environment

The project area is almost entirely located within the existing right-of-way adjacent to streets and roadways within the village. The only portion of the project area that extends outside of the existing right-of-way is a narrow 190-foot long segment along Boardman Street located on Village of New Waterford property. Within the project area, the habitat is maintained turf with scattered maple (*Acer* spp.), oak (*Quercus* spp.), and hickory (*Carya* spp.) trees. These areas also include moderate coverage of impervious surfaces such as asphalt and concrete driveways and parking lots. Portions of the project area along Front Street, Creek Road, and Crestview Road are narrow, maintained right-of-way abutting upland forest. Trees in the forest consist of maple, oak, and hickory with scattered pines (*Pinus* spp.). The understory is relatively sparse and the dominant plants observed were saplings of the canopy trees. Throughout the project area, the topography is undulating and slopes to the south and east along the west side of Bull Creek. The topography slopes to the south and west along the east side of Bull Creek. Wildlife within the project area is generally limited to small ubiquitous mammals, herptiles, and transient birds.

3.5.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no effect on terrestrial resources/wildlife.

Preferred Alternative

The proposed project would have a temporary adverse impact during construction on some forms of fauna. These animals may be displaced to outlying areas during the water line replacement due to increased human presence and noise levels. However, most of the construction is adjacent to the highway or other disturbed areas. These animals are likely accustomed to highway traffic noise and other unnatural noises and are likely to return after the construction activities are complete. Potential removal of trees and shrubs during construction will be limited to those located within the existing right-of-way and will have a negligible effect on the overall availability of wildlife habitat in the vicinity of the project. Under the preferred alternative there would be a minimal effect to terrestrial resources/wildlife.

3.6 Threatened and Endangered Species

3.6.1 Affected Environment

Listed species under the ESA for Columbiana County, Ohio:

The Endangered Species Act (ESA) established a national program for the conservation of threatened and endangered fish, wildlife and plants and the habitat upon which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with the United States Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), as appropriate, to ensure that their actions are not likely to jeopardize the

continued existence of endangered or threatened species or adversely modify or destroy their critical habitats.

There are three ESA-listed species in Columbiana County, Ohio. The Indiana bat (*Myotis sodalis*) is listed as an endangered species and the northern long-eared bat (*Myotis septentrionalis*) and eastern massasauga (*Sistrurus catenatus*) are listed as threatened species.

According to the USFWS and the Ohio Department of Natural Resources (ODNR), no records of threatened and endangered (T&E) species or critical habitat are found within the project area, nor are any federal- or state-listed T&E species known to occur within a one mile radius of the Study Area. Potential roost trees (PRTs) that display suitable summer roost habitat for the Indiana bat and/or northern long-eared bat are present within the project area. Summer habitat for these two species consist of a wide variety of forested/wooded habitats where they roost, forage and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts such as live trees and/or snags, greater than three inches in diameter that have exfoliating bark, cracks, crevices, hollows and/or cavities.

The eastern massasauga uses a range of habitats including wet prairies, fens and other wetlands as well as drier upland habitat. Due to the limited undisturbed habitat within the project area and lack of high quality wetland habitat abutting uplands, the project area does not appear to provide suitable habitat for the eastern massasauga.

ODNR advises that the project lies within the range of the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel, the Tippecanoe darter (*Etheostoma Tippecanoe*), a state threatened fish and the channel darter (*Percina copelandi*), a state threatened fish. ODNR also advises the project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*) a state endangered species and a federal species of concern.

3.6.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to threatened and endangered species.

Preferred Alternative

The USFWS recommends that trees be saved wherever possible during construction of the project. If any tree removal is required to construct the water system improvements, the trees must be removed during October 1 – March 31 in the winter seasonal tree clearing season to avoid adverse effects to the Indiana bat and northern long-eared bat. The USFWS does not anticipate any adverse effects to the eastern massasauga or its habitat from construction of the proposed project. Under the preferred alternative there would be no adverse effect to terrestrial T&E species and there would be no effect on T&E fish and mussel species.

3.7 Vegetation

3.7.1 Affected Environment

The majority of the project consists of residential lots and roadway right-of-way. Within these areas the habitat is maintained turf with scattered maple, oak, and hickory trees. These areas also include moderate coverage of impervious surfaces such as asphalt and concrete driveways and parking lots. Portions of the project area along Front Street, Creek Road, and Crestview Road are narrow, maintained right-of-way abutting upland forest. Trees in the forest consist of maple, oak, and hickory with scattered pines. The understory is relatively sparse and the dominant plants observed were saplings of the canopy trees.

3.7.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to vegetation.

Preferred Alternative

Any trees and shrubs that will be necessary to remove to construct the project will be limited to those within the existing right-of-way and will have a negligible effect on the overall availability of habitat in the vicinity of the project. The portion of the project area along Boardman Street that extends outside of the right-of-way consists of maintained turf. Areas of maintained turf that are disturbed to install the water system improvements will be returned to pre-existing conditions by grading and seeding following construction. Under the preferred alternative there would be a minimal effect to vegetation within the construction limits.

3.8 Streams, Other Water Bodies, and Water Quality

3.8.1 Affected Environment

The Water Line Replacement Project is located entirely in the Village of New Waterford, Columbiana County, Ohio. Phase 2 will include replacing almost 17,600 lf of undersized and deteriorated water mains with 15,900 lf of 8-inch pipe and 2,056 lf of 6-inch pipe. The project will include replacing 18 fire hydrants and adding 17 new fire hydrants. Several service lines, water meters, and one meter vault (at the mobile home park) will be replaced. The project area is almost entirely located within the existing right-of-way. The only portion of the project area that extends outside of the existing right-of-way is a narrow 190-foot long segment along Boardman Street located on Village of New Waterford property.

The Phase 2 water line replacements will cross Bull Creek at three separate locations (Figure 5, Appendix A). Bull Creek is a perennial stream that flows from north to south through the Village of New Waterford. The water line replacements will cross Bull Creek at Boardman Street, Silliman Street, and Main Street (Figure 5, Appendix A). Bull Creek is designated as a warmwater habitat (WWH) by the Ohio EPA in OAC-3745-1-15.

WWH streams are defined in OAC-3745-1-07 as waters capable of supporting and maintaining a balanced, integrated, adaptive community of warmwater aquatic organisms having a species composition, diversity, and functional organization comparable to the twenty-fifth percentile of the identified reference sites within the identified ecoregion. Bull Creek flows through a series of tributaries and eventually discharges into the Ohio River which is classified as a Traditionally Navigable Water (TNW).

Two unnamed primary headwater habitat (PHWH) streams will also be crossed to complete the proposed improvements (Figure 5, Appendix A). These unnamed streams are tributaries to Bull Creek. Stream 1 is a Class IIIB PHWH that flows from west to east under Creek Road and Stream 2 is a Modified Class II PHWH that flows from east to west under Silliman Street. Stream 2 has been channelized and culverted resulting in a modified classification. Stream 3 is a Class II PHWH located south of Crestview Road and is located outside of the preferred alternative construction limits. Stream 3 will not be impacted by construction of the waterline installation. The aquatic life use of Streams 1, 2, and 3 are not designated in OAC-3745-1-15 and are provisional use designations based on habitat evaluations using the Field Evaluation Manual for Ohio's Primary Headwater Streams version 3.0 and are subject to review and concurrence by the Ohio EPA (2012).

The Phase 2 water line replacements will also cross one potentially jurisdictional wetland adjacent to Bull Creek near the Boardman Street Bridge (Figure 5, Appendix A). The proposed waterline will span along the existing bridge from one bridge abutment to the other bridge abutment and span both Bull Creek and Wetland 1, avoiding impacts to both. The waterline will avoid impacting Wetland 1 by approximately 12 feet (Figure 8, Appendix A). Wetland 1 is a non-forested resource that attained an Ohio Rapid Assessment Method (ORAM) score of 28, identifying it as a provisional Category 1 Wetland. No impacts to wetlands or streams are proposed and therefore the proposed project will have no effect on streams, other water bodies, or water quality.

The proposed project was coordinated with various federal and state agencies to identify waterbodies that may contain federally or state-listed threatened, endangered, or candidate species and their habitats, coldwater fisheries, and other fisheries resources that could be considered fisheries of special concern. The National Marine Fisheries Service has not identified any designated essential fish habitat in the vicinity of the proposed project (NOAA, 2018). No commercial fisheries are present in the vicinity of the proposed project and no fisheries of significant recreational value (i.e., those that support stocking programs, natural populations, or spawning of native trout species) would be crossed.

Throughout the preferred alternative project area Bull Creek is designated as WWH in OAC-3745-1-15. The waterlines will be installed over Bull Creek with a clear span across the wing walls of each bridge using casing and carrier pipe. As a result, no surface disturbance (impacts) to Bull Creek will occur. Construction of the preferred alternative will have no effect on aquatic life/fisheries.

3.8.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to streams, other water bodies, or water quality.

Preferred Alternative

Horizontal directional drilling (HDD) will be utilized by the contractor when installing the waterline under the unnamed tributary to Bull Creek under Creek Road (Stream 1). HDD will also be used to install the waterline under the culvert that conveys Stream 2, which is an unnamed tributary to Bull Creek that flows under Silliman Street. HDD consists of creating a tunnel-like shaft for the waterline to be installed below the stream without affecting the surface of the resource. The waterline will be installed five feet below the stream bed. Bore pits will be excavated between 25 and 40 feet on either side of the resource and a boring machine will then be used within the bore pit to tunnel under the stream by using a cutting head mounted on an auger, creating a horizontal hole. The auger would rotate and be advanced forward as the hole is bored. The waterline would then be installed through the bore hole. The HDD method will avoid disturbing the surface of the streams and no impacts to the stream habitat or water quality are anticipated. No impacts to wetlands or streams will result from the excavation of the bore pits. Excavated material will be stored in an upland location during the installation of the waterline and the pits will be backfilled and seeded upon completion. Due to the presence of shallow bedrock at all three crossings of Bull Creek, the water line at these locations will be installed using a clear span across the wing walls of each bridge using casing and carrier pipe. The pipe will extend over the wetland (Wetland A) at the Boardman Street Bridge and no surface disturbance will occur during installation or following construction. Wetland A will not be impacted and has been identified for avoidance on the plan drawings.

Avoidance and minimization of impacts to aquatic resources have been incorporated to the greatest extent possible throughout design and planning of the water system improvements. The construction footprint has been confined to the minimum area necessary to provide construction access and the replacement of existing infrastructure during the project design has avoided and minimized the amount of fill into streams and wetlands to the greatest extent practicable. Best management practices will be implemented by the contractor to ensure that impacts to downstream water quality will be minimized to the greatest extent practicable, and it is anticipated that the project will have no effect on streams, other water bodies, and water quality.

No commercial fisheries are present in the vicinity of the proposed project and no fisheries of significant recreational value (i.e., those that support stocking programs, natural populations, or spawning of native salmonid species) would be crossed. The waterlines will be installed over Bull Creek with a clear span across the wing walls of each bridge using casing and carrier pipe. As a result, no surface disturbance to Bull Creek will occur. The preferred alternative would have no effect on aquatic life/fisheries.

3.9 Wetlands and Floodplains

3.9.1 Affected Environment

The Federal Emergency Management Agency (FEMA) Flood Information Rate Map (FIRM) panels 39029C0226E and 39029C0228E were reviewed for the presence of flood hazard zones (FEMA, 2012). Areas immediately adjacent to Bull Creek are located within the 100-year floodplain of Bull Creek (Figure 6, Appendix A). The floodplain along Bull Creek is relatively narrow due to the steep banks that laterally contain much of the stream and does not extend into a significant portion of the project area.

The Phase 2 water line replacements will span one potentially jurisdictional wetland adjacent to Bull Creek near the Boardman Street Bridge (Figure 6, Appendix A). Impacts to both Wetland 1 and Bull Creek will be avoided by spanning these resources along the existing bridge. Wetland 1 is a non-forested resource that attained an ORAM score of 28, identifying it as a provisional Category 1 Wetland. OAC-3745-1-54 defines Category 1 Wetlands as “wetlands that support minimal wildlife habitat and minimal hydrological and recreational functions, and as wetlands which do not provide critical habitat for threatened or endangered species or contain rare, threatened, or endangered species.” In addition, Category 1 wetlands often have low species diversity, no significant habitat or wildlife use, limited potential to achieve beneficial wetland functions, and/or a predominance of non-native species. They are considered to be a resource that has been degraded with such limited potential for restoration, or of such low functionality, that no social or economic justification and lower standards for avoidance and minimization are applied. Category 1 wetlands are not considered a scarce or rare resource. The final determination of jurisdictional status is subject to review and concurrence by the Corps and the wetland anti-degradation categorization of the wetland is subject to review and concurrence by the Ohio EPA.

3.9.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to wetlands and floodplains.

Preferred Alternative

There is one wetland adjacent to Bull Creek at the Boardman Street Bridge that will be entirely avoided by spanning the wetland and Bull Creek along the existing bridge. The proposed project is located within the 100-year floodplain of Bull Creek. The Floodplain along Bull Creek is relatively narrow due to the steep banks that laterally contain much of the stream. It is not anticipated that any long-term impacts will occur to the floodplain. All areas of construction have been previously disturbed and the proposed project will not impede flood flow. Any necessary floodplain permits will be obtained from the Columbiana County Floodplain Management Coordinator and all required regulations will be implemented.

Wetland A has been identified for avoidance on the plan sheets. It is not anticipated that impacts to wetland areas will occur as a result of the proposed project. All three crossings of Bull Creek will be constructed using a clear span across the wing walls of each bridge using casing and carrier pipe. The presence of bedrock at each crossing of Bull Creek precludes the use of HDD. The carrier pipe will extend over the wetland along Bull Creek at the Boardman Street Bridge and therefore no surface disturbance to this wetland will occur during installation or following construction. No in-water work will occur during construction of the proposed project and no discharges within streams or their floodplains and wetlands are proposed. The preferred alternative will have no effect on wetlands and floodplains.

3.10 Protection of Prime and Unique Farmland

The purpose of the Farmland Policy Protection Act (FPPA) (7 U.S.C. 4201 et seq, implementing regulations 7 CFR Part 658, of the Agriculture and Food Act of 1981, as amended) is to minimize the impact of Federal programs on prime farmland, unique farmland, and land of statewide or local importance.

3.10.1 Affected Environment

Specific soils within and near the project site are described in **Table 1**.

TABLE 1: SOILS WITHIN THE NEW WATERFORD WATER LINE REPLACEMENT PROJECT AREA

Soil Identifier	Soil Name	% Slope	Drainage Class	Prime Farmland
BkE	Berks channery silt loam	25-40	Well-drained	No
CcB	Canfield silt loam	2-6	Moderately well- drained	Yes
CcC	Canfield silt loam	6-12	Moderately well- drained	No
CcD	Canfield silt loam	12-24	Moderately well- drained	No
ChB	Chili silt loam	2-6	Well-drained	Yes
ChC	Chili silt loam	6-12	Well-drained	No
FdA	Fitchville silt loam	0-2	Somewhat poorly drained	Yes, if drained
GnD	Gilpin silt loam	15-25	Well-drained	No
KnD	Kensington silt loam	15-25	Moderately well- drained	No
ZeA	Zepernick silt loam	0-2	Somewhat poorly drained	Yes, if drained

Source: USDA NRCS Soil Survey

According to the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) soil survey of Columbiana County, soil types indicative of prime farmland that are present in the project area include CcB, ChB, and ZeA.

3.10.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to farmland.

Preferred Alternative

The project area is almost entirely limited to the existing right-of-way. There is one parcel within the project study area where the construction limits extend beyond the existing right-of-way (southeast corner of the South State Street/Boardman Street intersection). This parcel is owned by the Village of New Waterford and is not currently used for agricultural purposes. Following construction of the project, the ownership and land use for this parcel would remain unchanged from its existing ownership and land use. The preferred alternative will have no effect on the protection of prime and unique farmland.

3.11 Cultural Resources and Historic Properties

The National Historic Preservation Act (NHPA) of 1966, as amended, directs federal agencies to assume responsibility for all cultural resources under their jurisdiction. Section 106 of NHPA requires agencies to consider the potential effect of their actions on properties that are listed, or are eligible for listing, on the National Register of Historic Places (NRHP). The NHPA implementing regulations, 36 CFR Part 800, requires that the federal agency consult with the State Historic Preservation Office (SHPO), Tribes and interested parties to ensure that all historic properties are adequately identified, evaluated and considered in planning for proposed undertakings.

3.11.1 Affected Environment

A Phase I archaeological investigation was conducted for the proposed project in March 2018. A Buckeye Assets bridge (SFN#1532715) was present within the project area. Built in 1922, the bridge carries East Main Street over Bull Creek. This bridge is not eligible for listing on the NRHP. No additional cultural resources were identified during the Phase I archaeological investigation.

3.11.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to cultural resources.

Preferred Alternative

The proposed project will not result in adverse impacts to any known cultural resources. The Buckeye Assets Bridge (SFN#1522715) is not eligible for the NRHP. No further work is recommended in regards to compliance with Section 106 of the NHPA. The preferred alternative will have no effect on cultural resources and historic properties.

If previously unidentified archaeological or historic properties or unanticipated effects are discovered after completion of Section 106 review, work in the direct vicinity of the findings will stop immediately until the proper course of action can be coordinated with the SHPO. No further construction in the area of discovery will proceed until the requirements of 36 CFR Section 800.13 have been satisfied, including consultation with federally recognized Native American tribes that may attach traditional cultural and religious significance to the discovered property. The Corps will consult with the SHPO and Native American tribes, as appropriate, to record, document, and evaluate NRHP eligibility of the property and the project's effect on the property, and to design a plan for avoiding, minimizing, or mitigating adverse effects on the eligible property. If neither the SHPO nor a federally recognized Native American tribe files a timely objection to the Corps' plan for addressing the discovery, the Corps may carry out the requirements of 36 CFR Section 800.13 and the Advisory Council on Historic Preservation need not be notified.

3.12 Socioeconomic Conditions and Environmental Justice

Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs Federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.

3.12.1 Affected Environment

According to the Office of Policy, Research and Strategic Planning with the Ohio Department of Development, the 2016 population estimate is 103,685 individuals within Columbiana County. The 2016 US Census population estimate for New Waterford is 1,191 individuals. The trade, transportation, and utilities industry and the manufacturing industry employ the most workers in the county. The range of weekly earnings for all employment sectors (private and public) was \$234 to \$1,236 per week in 2016. The median household income for Columbiana County in 2016 was \$44,497. The median household income of New Waterford was \$40,119 and 23.2 percent of the village population is below the poverty line based on 2016 US Census data. The average unemployment rate of Columbiana County was 6.6 percent for 2016, which is higher than the state unemployment rate of 4.9 percent.

The USEPA EJ Screen Mapper tool was used to review demographic data to identify environmental justice populations in the project area. There are two census block groups in the project area: Census Tract (CT) 9501.04, Block Group (BG) 4 and CT 9514.00, BG 5. Table 2 provides details about the percentage of the total population that is low-income or minority within the census block groups in the project area.

TABLE 2: LOW-INCOME AND MINORITY POPULATIONS IN PROJECT AREA

Census Block Group	% Low-Income	% Minority
CT 9501.04 BG 4	28.2	1.2
CT 9501.04 BG 5	42.6	15.1

Several community facilities are located within close proximity to the proposed project. Community facilities are listed in Table 3 and shown on Figure 7 in Appendix A.

TABLE 3: COMMUNITY FACILITIES

Facility Name	Address
New Waterford Presbyterian Church	3703 Front Street, New Waterford, OH 44445
New Waterford City Hall and Village Park	3760 Village Park Drive, New Waterford, OH 44445
New Waterford Police Department	3760 Village Park Drive, New Waterford, OH 44445
New Waterford Fire Department	3766 E. Main Street, New Waterford, OH 44445
United States Postal Service	3818 W. Main Street, New Waterford, OH 44445
New Waterford united Methodist Church	46925 South State Street, New Waterford, OH 44445

3.12.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. The village's water distribution system would remain outdated and costly to maintain.

Preferred Alternative

The project area is almost entirely limited to the existing right-of-way. No changes in land use are anticipated as a result of the proposed project. There would be no displacements to residences or commercial facilities as a result of the proposed project. No impacts to community facilities are anticipated. The proposed project would not result in impacts to community cohesion. There would be no disproportionate adverse impacts to environmental justice populations as a result of the proposed project. All community members, including environmental justice populations, would be expected to benefit from the proposed upgrades to the village's water distribution system. The preferred alternative will have no effect on socioeconomic conditions.

3.13 Transportation and Traffic

3.13.1 Affected Environment

State Route (SR) 46 is the main thoroughfare through the Village of New Waterford. SR 46 travels through four counties in northeast Ohio (Columbiana, Mahoning, Trumbull, and Ashtabula), connecting East Palestine to SR 11 approximately five miles south of

Ashtabula. SR 46 is intersected by Main Street near the village center of New Waterford. The proposed action includes water system improvements along Main Street east of SR 46 within the village limits, which is a municipal route. Water system improvements are also proposed along a number of other municipal routes (Hatcher Road, Creek Road, Silliman Street, Spruce Street, Park Avenue, Elm Street, and Crestview Road) and a county road (Boardman Street) within the village.

3.13.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no impacts to traffic.

Preferred Alternative

The proposed action would be constructed almost entirely within the existing right-of-way. There would be temporary disruptions to traffic during construction of the project. Following construction, the transportation system would return to its existing condition. No permanent impacts to traffic or transportation are anticipated as a result of the project. The preferred alternative will have a minimal effect on transportation and traffic.

3.14 Noise

The Noise Control Act of 1972 directs Federal agencies to comply with Federal, State, interstate, and local requirements respecting control and abatement of environmental noise.

3.14.1 Affected Environment

Noise-sensitive receptors include sensitive land uses and those individuals and/or wildlife that could be affected by changes in noise sources or levels due to the project. Noise sensitive land uses in the project area include residential areas, businesses, and schools. Sensitive receptors in the project area include residents, employees and customers of businesses, and students.

3.14.2 Environmental Consequences

No-Action Alternative

Under the No-Action Alternative, no improvements would be made. There would be no noise-related impacts.

Preferred Alternative

There may be temporary increases in noise levels within the project area during construction of the proposed project. No permanent noise impacts are anticipated as a result of the proposed action. The preferred alternative will have a minimal effect on noise.

SECTION 4 – COORDINATION, CONSULTATION, AND PUBLIC INVOLVEMENT

4.1 Agency Coordination

Coordination with state and federal agencies has been completed throughout the design and development of the proposed project. Response letters from agencies are provided in Appendix B.

A project review letter was coordinated with the USFWS (TAILS# 03E15000-2018-TA-0223) to determine the potential effects on the project with regard to Section 7(a)(2) of the ESA. All projects in the State of Ohio lie within the range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs. A presence/absence survey has not been completed for the proposed project and the presence of these species has been assumed. The USFWS technical assistance letter indicated there are no other records of T&E species or critical habitat found within the project area, nor are there any other federal listed T&E species known to occur within a one mile radius of the project area. A coordination letter was also sent to the ODNR-Division Real Estate for an environmental review. ODNR does not have record of any state listed plants and/or animals, unique assemblages, or geologic features within a one-mile radius of the project area.

A Phase I archaeological investigation was conducted for the proposed project and submitted to SHPO for review in March 2018. In a letter dated May 4, 2018, the SHPO agreed that the proposed project will not affect cultural resources. The SHPO response letter is provided in Appendix B.

A portion of the 100-year floodplain of Bull Creek is located within the project area. As the design progresses, coordination with the Columbiana County Floodplain Management Coordinator will occur. All required floodplain permits will be obtained from the Columbiana County Floodplain Management Coordinator and all required regulations will be implemented.

4.2 Agency Consultation

The Ohio EPA – Division of Environmental & Financial Assistance (DEFA) was consulted to provide an environmental review of the proposed project. The Ohio EPA provided a Limited Environmental Review (LER) of the proposed project prior to approval of loan funding as part of the Drinking Water Assistance Fund's (DWAFF) Water Supply Revolving Loan Account (WSRLA). The LER concluded that the proposed project is expected to have no short- or long-term adverse impacts on the human or natural environment including surface waters, floodplains, wetlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, threatened or endangered species, or wild, scenic or recreational rivers. The LER can be found in Appendix B.

4.3 Public Involvement

The Village of New Waterford mailed a project fact sheet to all residents of the village in July 2017. The fact sheet included information about the project's plans, costs, long-term financial effects, and the implementation schedule (Appendix C). The public was provided the opportunity to provide comments on the proposed project from July 1, 2017 until July 16, 2017 by mail, email, or phone. The Village of New Waterford received three comments in response to the mailing. The comments focused on tree removal and disposal, project alignment in the vicinity of Hatcher Drive, maintenance of traffic, potential effects of doing work near culverts, potential impacts of the project on lawns, and project phasing. The village addressed all comments by phone or email by July 17, 2017. There are no public meetings or public hearings planned for this project prior to construction.

SECTION 5 – CONCLUSION

Based on the information presented in this EA, the proposed project would result in no significant adverse impacts to the human or natural environment. A summary of the resources evaluated is provided in Table 4. Therefore, it is anticipated that the project meets the requirements for issuance of a Finding of No Significant Impacts (FONSI) per 40 CFR 1508.13.

TABLE 4: RESOURCES EVALUATED AND DETERMINATION OF POTENTIAL EFFECTS

Environmental Parameter	No Effect	Minimal Effect	Significant Effect	Basis for Determination
Land Use	X			No changes in land use.
Hazardous Materials & Wastes	X			No evidence of recognized environmental conditions in connection with the project area.
Terrestrial Resources/Wildlife		X		Temporary adverse impacts to fauna and potential removal of trees and shrubs during construction.
Terrestrial T&E Species		X		No impacts to eastern massasauga or its habitat. May affect, not likely to adversely affect Indiana bat and northern long-eared bat with the implementation of seasonal tree clearing. All tree removal to occur between October 1 – March 31 to avoid adverse effects to bat species.
T&E Fish and Mussel Species	X			No in-water work will occur during construction of the proposed project and no discharges within streams are proposed.
Vegetation		X		Tree and shrub removal limited to existing right-of-way. Maintained turf that is disturbed will be returned to pre-existing conditions by grading and seeding.
Streams, Other Water Bodies, and Water Quality	X			No impact to streams or other water bodies are proposed by this project. The proposed waterline will span Bull Creek, avoiding impacts at all three proposed waterline crossings. HDD will be utilized to install the waterline under the unnamed tributary to Bull Creek (Stream 1) along Creek Road and culvert that conveys Stream 2 under Silliman Street. Best Management Practices will be implemented.
Aquatic Life/ Fisheries	X			No surface disturbance to Bull Creek will occur.
Floodplains & Wetlands	X			No in-water work will occur during construction of the proposed project and no discharges within streams or their floodplains and wetlands are proposed.
Prime & Unique Farmland	X			No conversion of farmland for the project.
Cultural Resources & Historic Properties	X			Buckeye Assets bridge (SFN #1532715 determined ineligible for NRHP. No other cultural or historic resources identified.
Socioeconomic Conditions	X			No changes in land use anticipated. No displacements, no impacts to community facilities, no disproportionate impacts to environmental justice populations.
Transportation & Traffic		X		Temporary disruptions to traffic during construction. No permanent impacts to transportation & traffic.
Noise		X		Temporary increases in noise levels during construction. No permanent noise impacts.

Note: "Effect" includes direct and indirect effects

SECTION 6 – REFERENCES

American Society for Testing and Materials (ASTM) Designation: E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, 2013.

Columbiana County, Ohio. Auditor's Office. Property Records. Accessed 2017.

Columbiana County, Ohio. Recorder's Office. Property Records. Accessed 2017.

Environmental Data Resources, Inc., Shelton, CT. City Directories, Radius Report, Sanborn Fire Insurance Maps, Aerial Photographs and Topographic Maps. Accessed 2017.

FEMA. FIRM Panels 39029C0226E & 39029C0228E. Data publication date: May 2012. <http://www.msc.fema.gov>. Accessed 2017.

Google Earth Pro. 2017. 1994-2015 Aerial Imagery.

Lawhon & Associates, Inc. 2017. New Waterford Water System Improvement Jurisdictional Waters & Isolated Wetlands Delineation Report. Columbus, Ohio.

Lawhon & Associates, Inc. 2017. New Waterford Water System Improvement Phase I Environmental Site Assessment. Columbus, Ohio

Lawhon & Associates, Inc. 2018. New Waterford Water System Improvement Phase I Cultural Resources Survey. Columbus, Ohio

Mack, John J. 2001. Ohio Rapid Assessment Method for Wetlands, Manual for Using Version 5.0. Ohio EPA Technical Bulletin Wetland/2001-1-1. Ohio Environmental Protection Agency, Division of Surface Water, 401 Wetland Ecology Unit, Columbus, Ohio. 64 pp.

National Environmental Title Research (NETR). 2017. Historic Aerials. <http://www.historicaerials.com/>. Accessed 2017.

Ohio Development Services Agency. 2017. Ohio County Profiles: Columbiana County. <https://development.ohio.gov/files/research/C1016.pdf>. Accessed 2017.

Ohio Division of Geological Survey (ODGS). 1998. Physiographic Regions of Ohio: Ohio Department of Natural Resources, Division of Geological Survey. 2 pp.

Ohio Division of Geological Survey (ODGS). 2006. Bedrock Geologic Map of Ohio. Ohio Department of Natural Resources, Division of Geological Survey, Columbus.

Ohio EPA. 2017. Limited Environmental Review and Finding of No Significant Impact for WSIP Loan #FS390682-0002, -0005. Ohio EPA. Columbus, Ohio.

Ohio Historic Preservation Office (OHPO).1994.Archaeology Guidelines. Historic Preservation Office, Columbus, Ohio.

U.S. Census Bureau. 2010. 2010 Census. Profile of General Population and Housing Characteristics: 2010 for New Waterford, Ohio. <http://www.census.gov/prod/cen2010>. Accessed 2017.

U.S. EPA. 2017. EnviroMapper. <http://www.epa.gov/emefdata/em4ef.home>. Accessed 2017.

U.S. EPA. Interactive Map of Air Quality Monitors. <https://www.epa.gov/outdoor-air-quality-data/interactive-map-air-quality-monitors>. Accessed 2018.

U.S. Federal Highway Administration. 2011. Construction Noise Handbook. Available on line at: https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm.

United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS) 2017. Web Soil Survey. <http://websoilsurvey.nrcs.usda.gov>. Accessed 2017.

United States Department of Agriculture, Natural Resources Conservation Service (USDA SCS) 2007 Soil Survey of Columbiana County, Ohio. U.S. Government Printing Office, Washington, D.C.

USFWS. 2017. National Wetland Inventory Map. East Palestine, Ohio Quadrangle. U.S. Fish and Wildlife Service. Google Earth Pro. Accessed 2017.

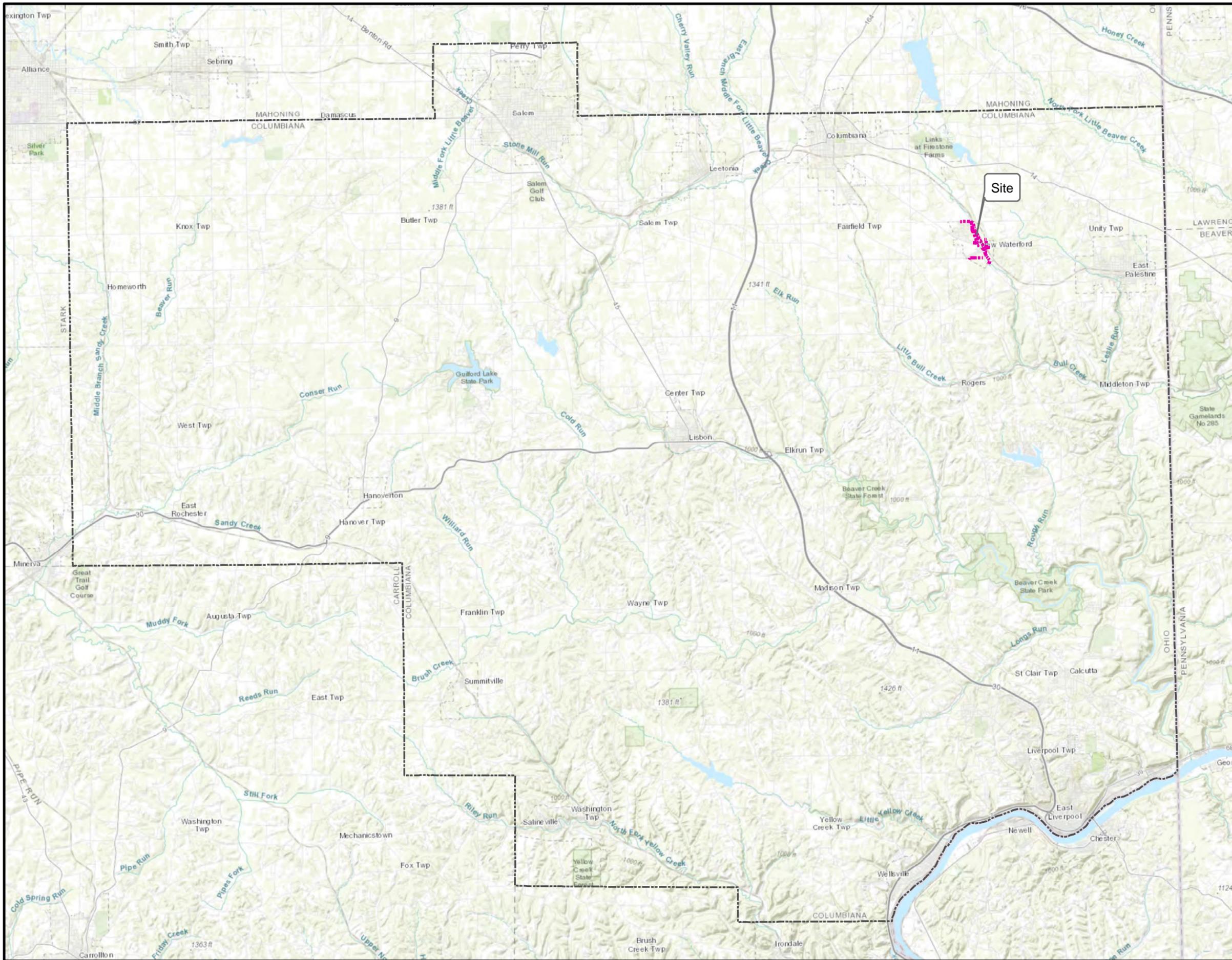
USFWS. 2017. National Wetlands Inventory. Ohio dataset. <http://www.fws.gov/wetlands/Data/State-Downloads.html>

USFWS. 2017. Threatened, Endangered, and Candidate Species for Columbiana County, Ohio. <https://www.fws.gov/midwest/endangered/lists/ohio-cty.html>

USGS. 1990. East Palestine quadrangle, Ohio [map]. 1:24,000. 7.5 Minute Series. Washington, D.C.: USGS, 1960 Revised 1990.

USGS. 2002. National Hydrography Dataset. Ohio dataset. ftp://nhdftp.usgs.gov/DataSets/Staged/States/FileGDB/HighResolution/NHDH_OH_931v220.zip

APPENDIX A - FIGURES



Overview of Ohio

Legend

- Columbiana County
- Study Area

N

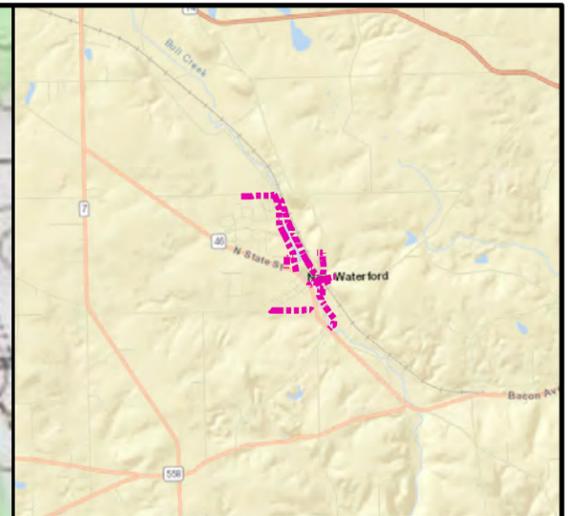
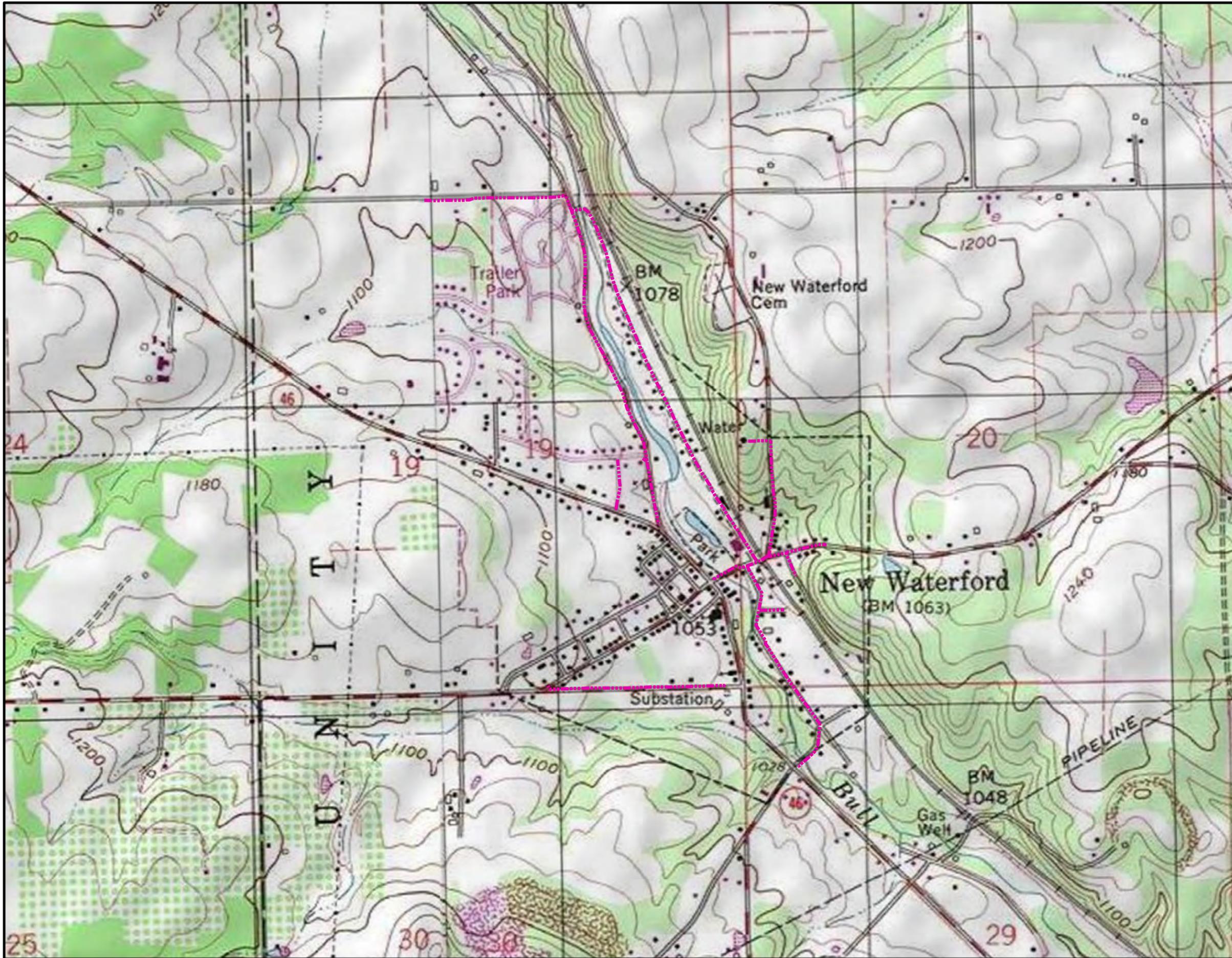
0 1 2 4
Miles

Village of New Waterford

Columbiana County Map
with an Overview of Ohio

Lawhon & Associates, Inc

Date: April 2018	Approved by: LS	L&A No. 17-0528	Figure 1
----------------------------	---------------------------	---------------------------	--------------------



Site Location Map

Legend

Study Area



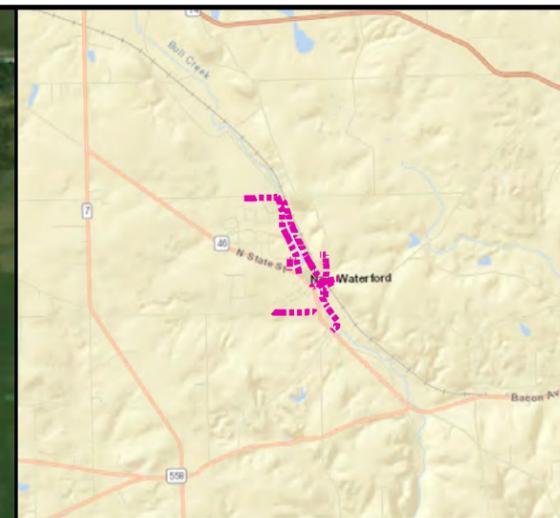
Village of New Waterford

Modern Topographic Map
East Palestine and Elkton Quads



Lawhon & Associates, Inc

Date: April 2018	Approved by: LS	L&A No. 17-0528	Figure 2
---------------------	--------------------	--------------------	-------------



Site Location Map

Legend

----- Study Area



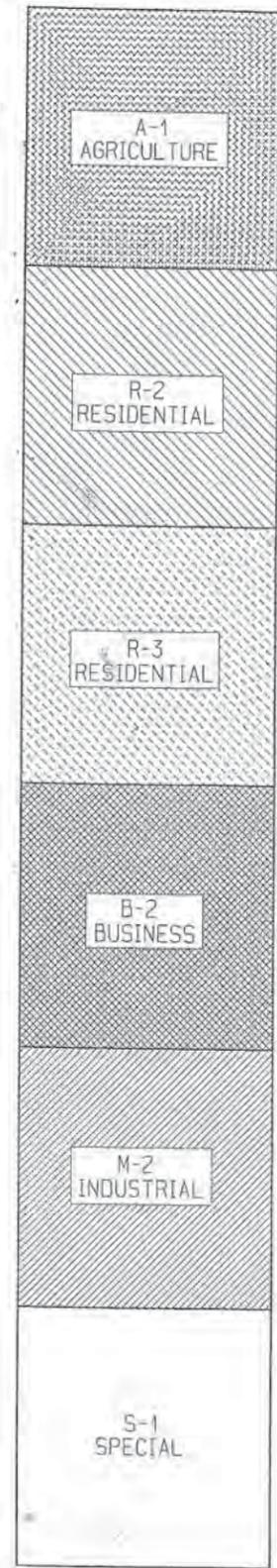
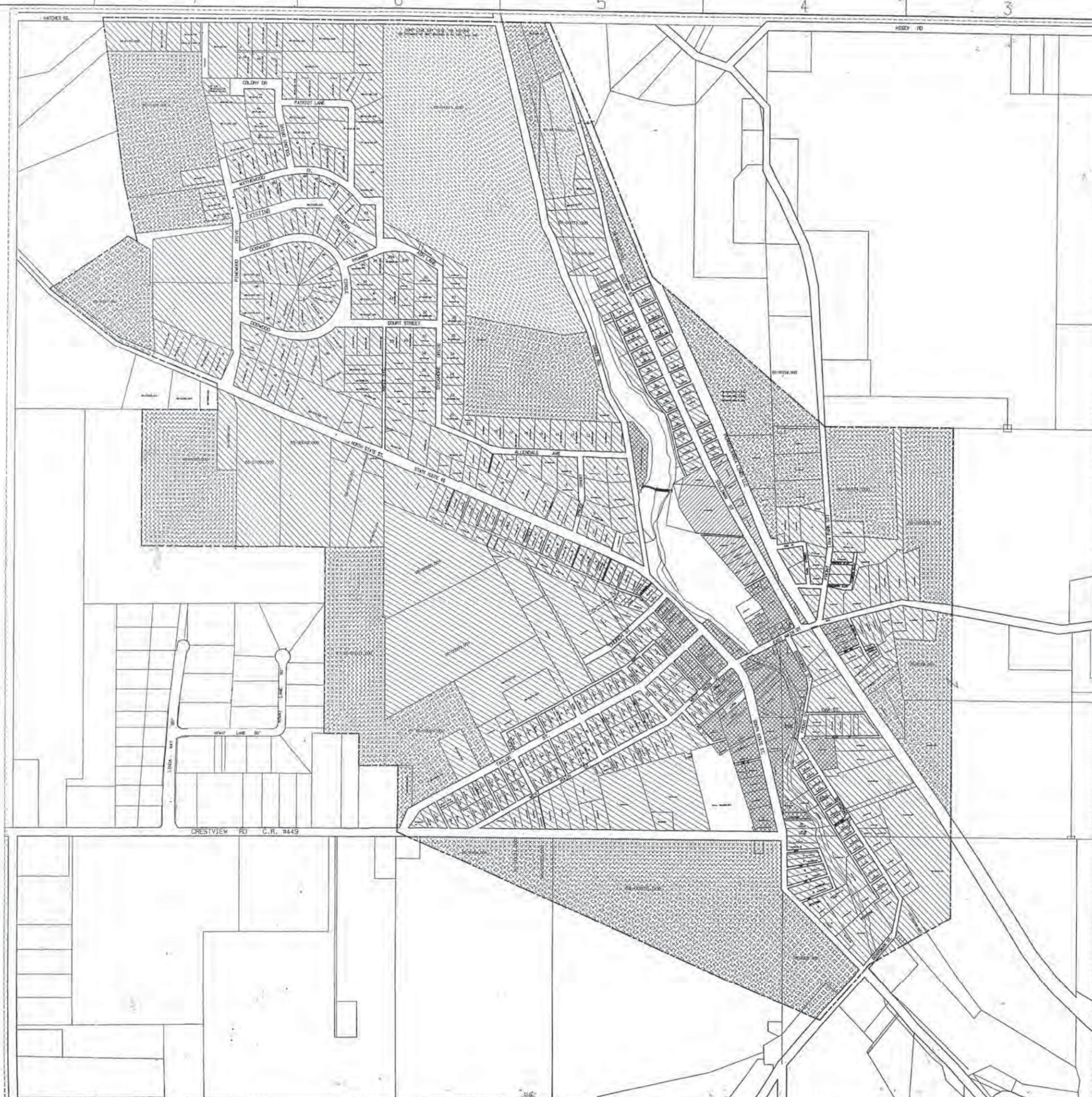
Village of New Waterford



Modern Aerial Imagery Map

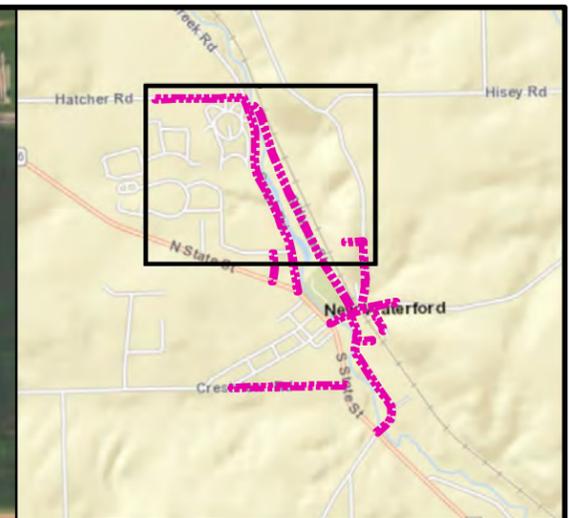
Lawhon & Associates, Inc

Date: April 2018	Approved by: LS	L&A No. 17-0528	Figure 3
---------------------	--------------------	--------------------	-------------



ZONING MAPS FOR PURPOSES ONLY
 • SEE DEED REFERENCE •
 This map has been constructed using County tax maps and is to be used for assessment purposes only. This Map does not represent the Official Survey of Land. Please Refer to the Official Recorded Plats or Deeds for the Actual Descriptions and Property Dimensions.

VILLAGE OF NEW WATERFORD, OHIO		
ZONING DISTRICTS		
DRAWN BY	DATE	SCALE
DTC	2/14/2005	.3" = 100'-0"
DO NOT SCALE		SHEET 4 OF 4



Extent Indicator Map

Legend

-  Study Area
-  Stream
-  Culvert
-  Sample Point

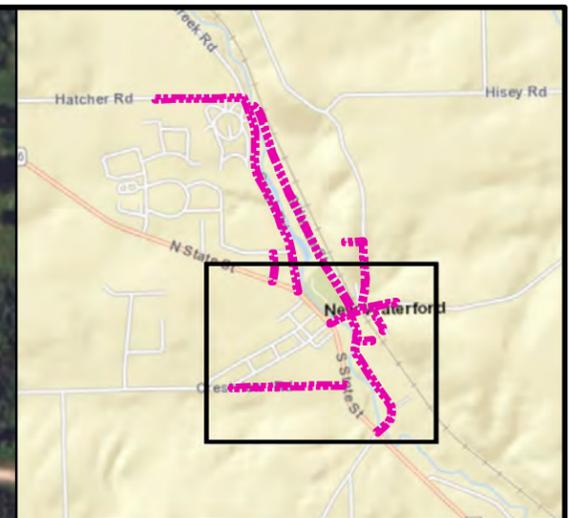


Village of New Waterford



Ecological Resources Map

Date: Dec 2017	Approved by: LS	L&A No. 17-0528	Figure 5a
-------------------	--------------------	--------------------	--------------



Extent Indicator Map

Legend

-  Study Area
-  Stream
-  Culvert
-  Wetland
-  Sample Point



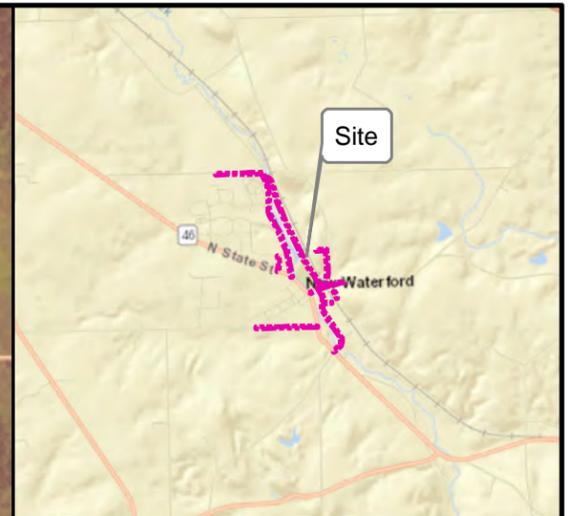
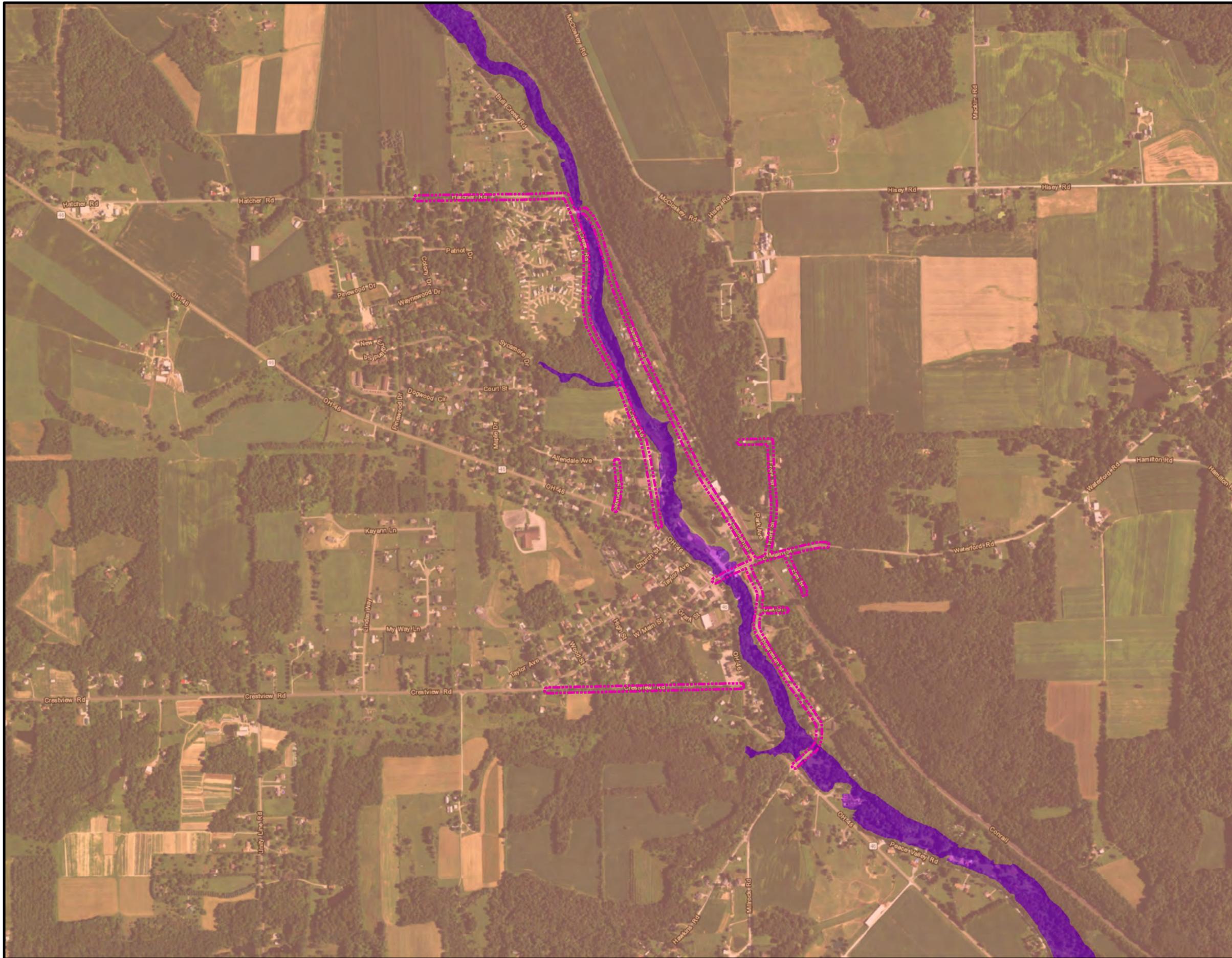
Village of New Waterford

Ecological Resources Map



Lawton & Associates, Inc

Date: Dec 2017	Approved by: LS	L&A No. 17-0528	Figure 5b
-------------------	--------------------	--------------------	--------------



Site Location Map

Legend

Study Area

Flood Zone

A - 100-year floodplain

X

N
↑

0 500 1,000 2,000
Feet

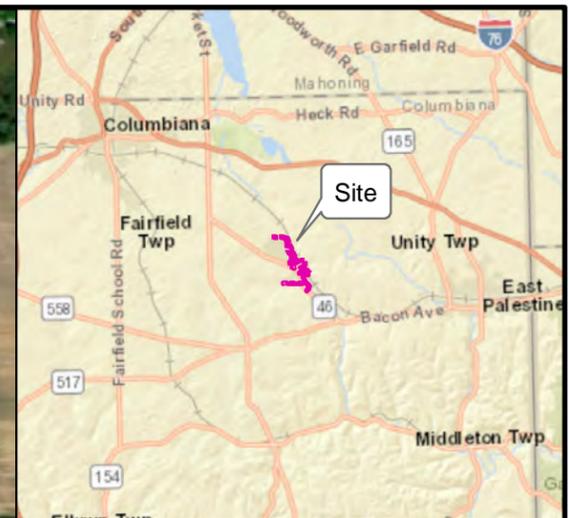
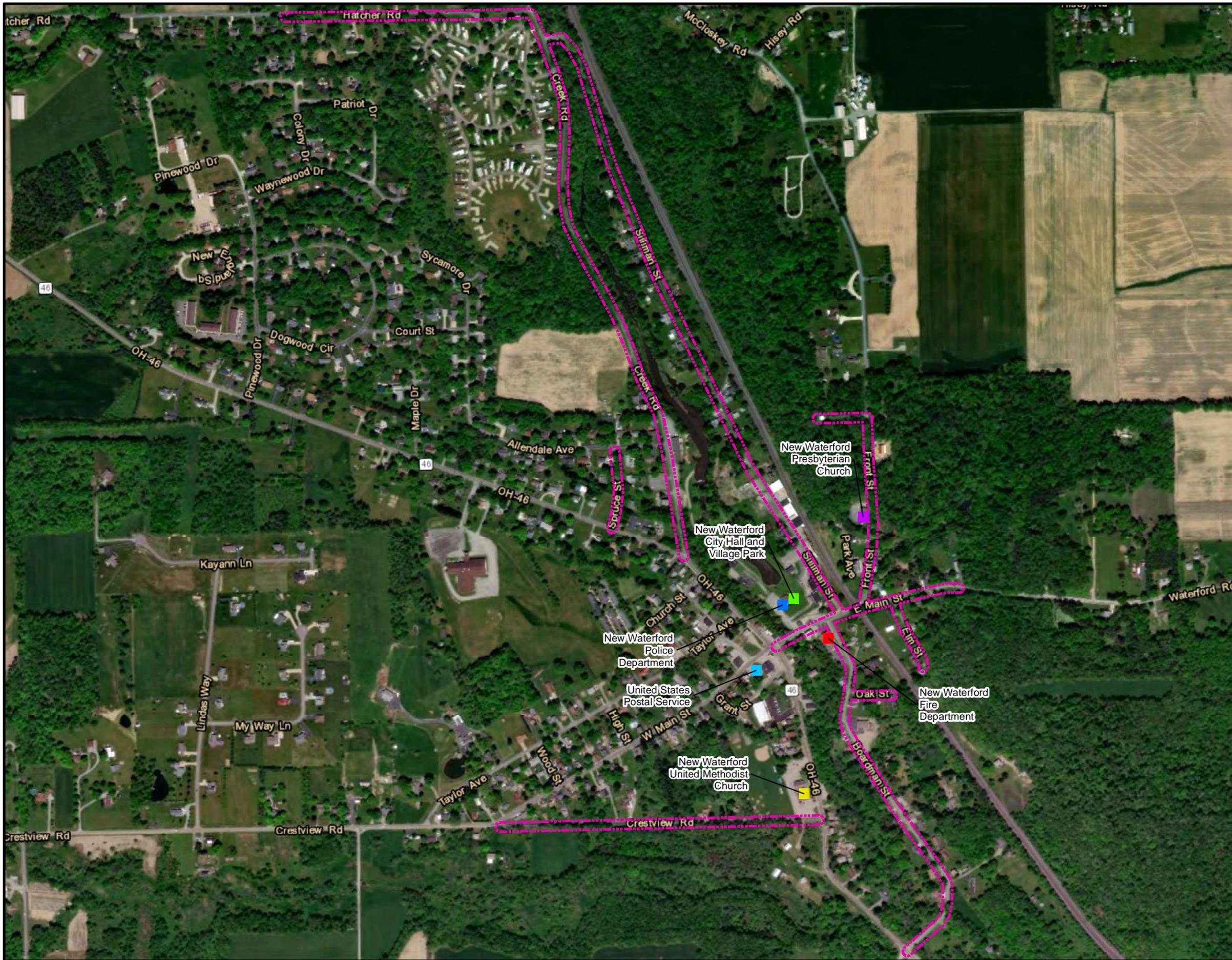
Village of New Waterford

FEMA Flood Hazard Map



Lawhon & Associates, Inc

Date: Dec 2017	Approved by: LS	L&A No. 17-0528	Figure 6
-------------------	--------------------	--------------------	-------------



Site Location Map

Legend



Study Area

Community Facilities

- New Waterford City Hall and Village Park
- New Waterford Fire Department
- New Waterford Police Department
- New Waterford Presbyterian Church
- New Waterford United Methodist Church
- United States Postal Service



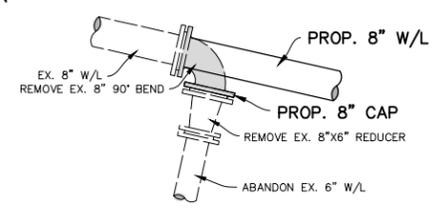
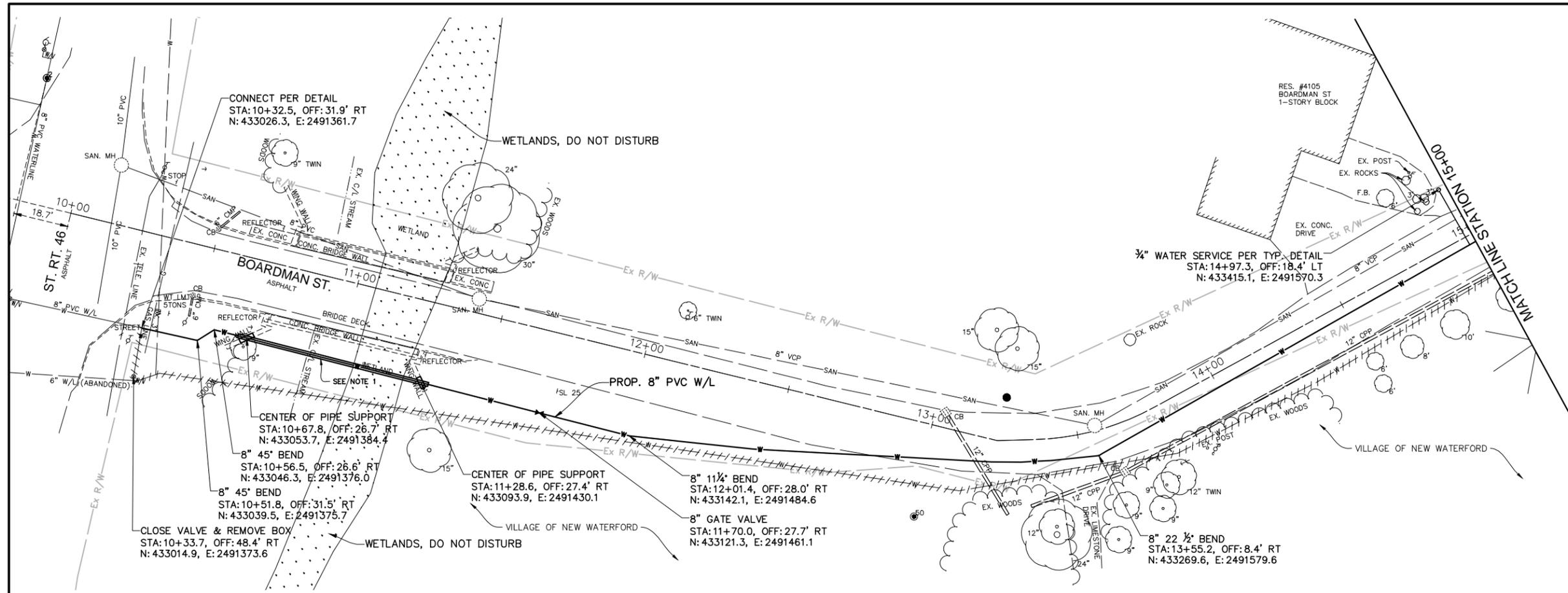
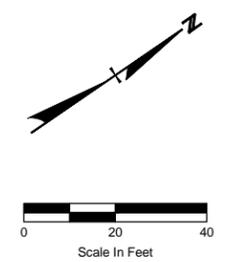
Village of New Waterford



Community Facilities Map

Lawhon & Associates, Inc

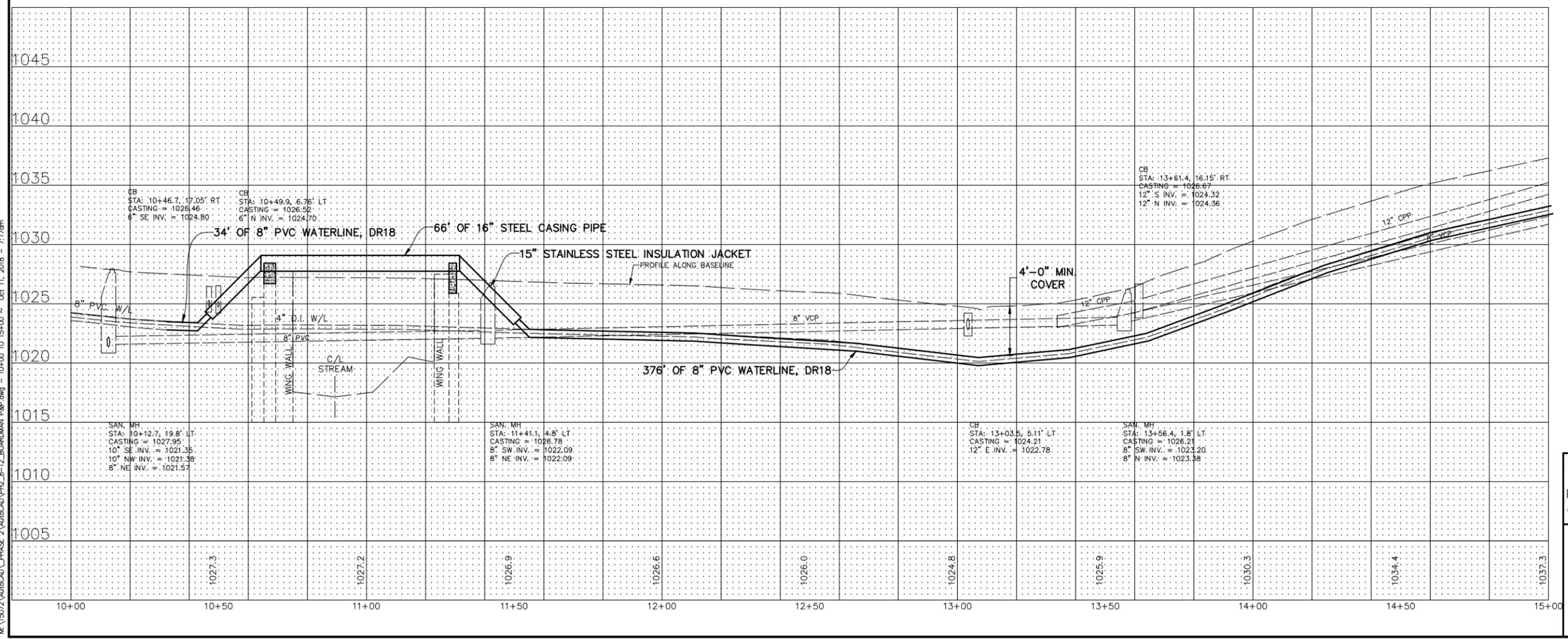
Date: April 2018	Approved by: LS	L&A No. 17-0528	Figure 7
---------------------	--------------------	--------------------	-------------



* NOTE: RESTRAIN ALL JOINTS

INDICATES PIPE TO BE REMOVED

CONNECTION DETAIL
N.T.S.
STA. 10+32.5, 31.9' RT.±



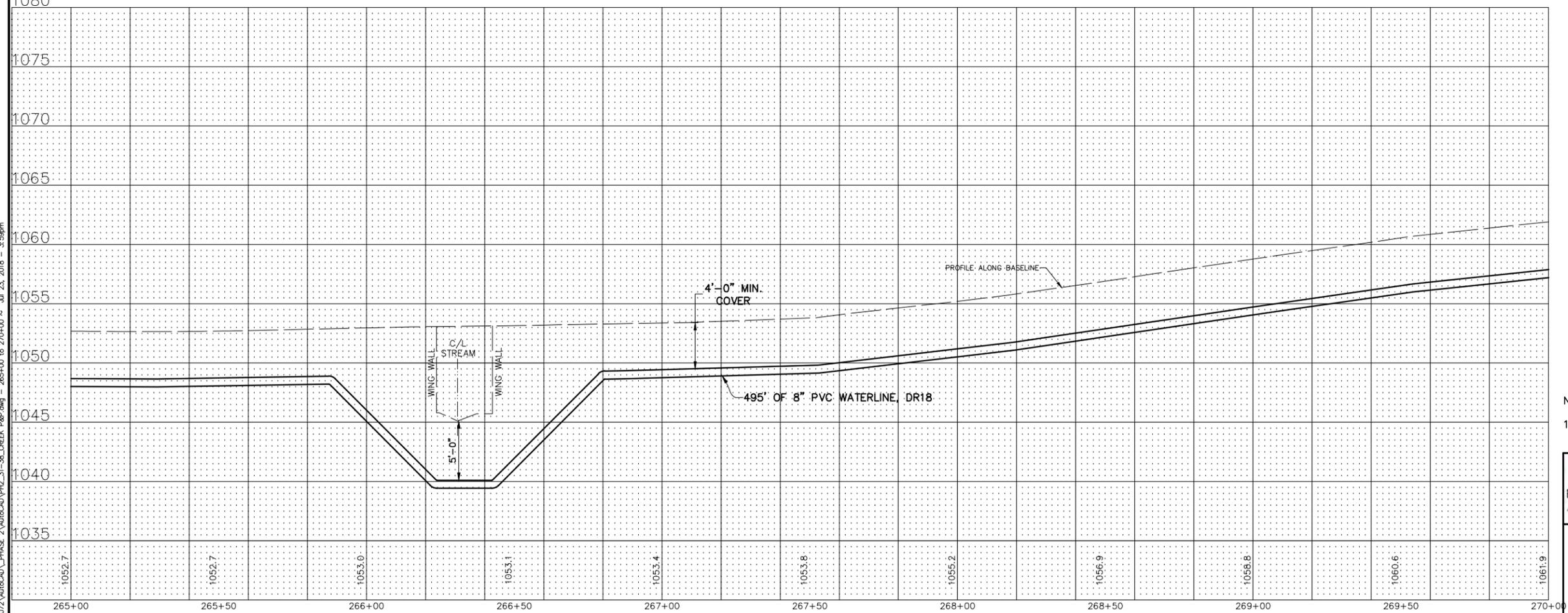
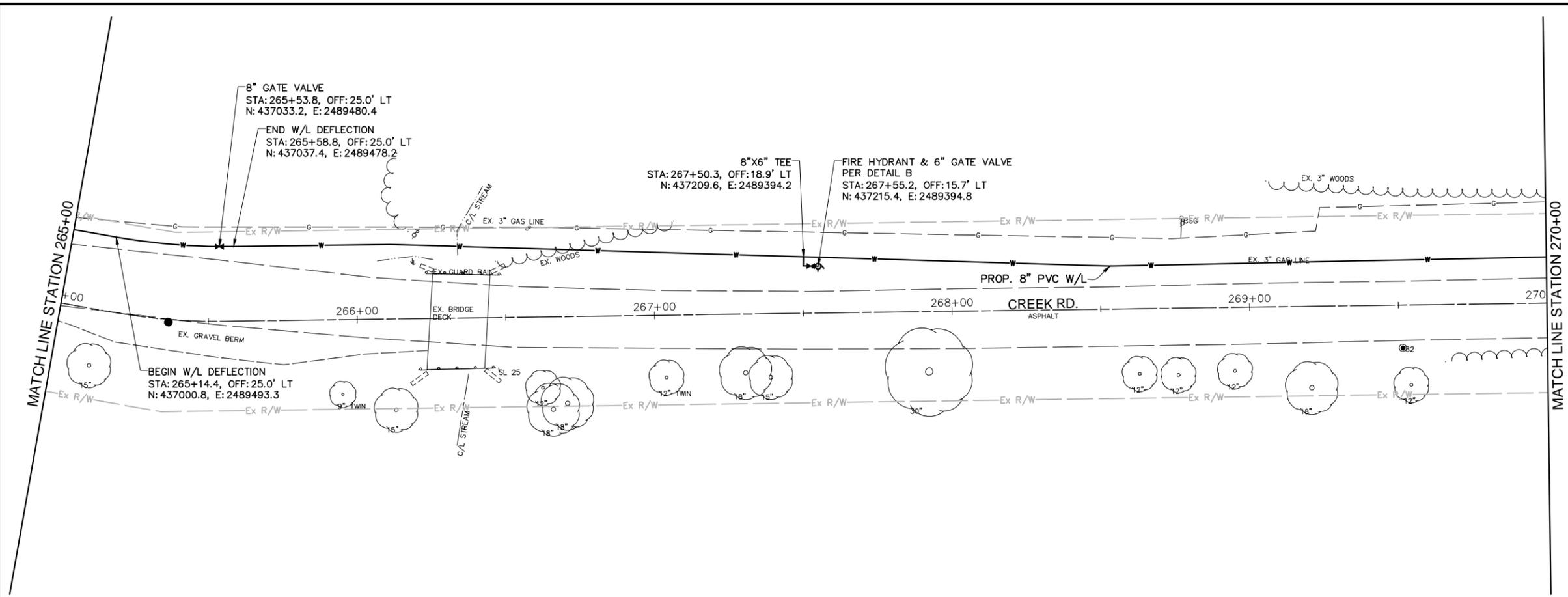
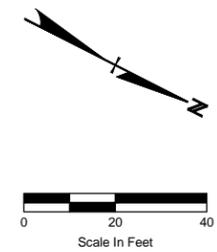
NOTES:

1. CONTRACTOR TO INSTALL CASING PIPE WITH INSULATION PER DETAIL ON SHEET 48.

	1935 Eagle Pass	DESIGNED	KDB
	Wooster, Ohio 44691	DRAWN	AER
	Phone : (330) 345-6556	REVIEWED	-
	Fax : (330) 345-8077	DATE	5/2018

**VILLAGE OF NEW WATERFORD, OHIO
WATER SYSTEM IMPROVEMENTS
PHASE 2
WATER LINE REPLACEMENT
BOARDMAN STREET
STA 10+00 TO STA 15+00 Figure 8**

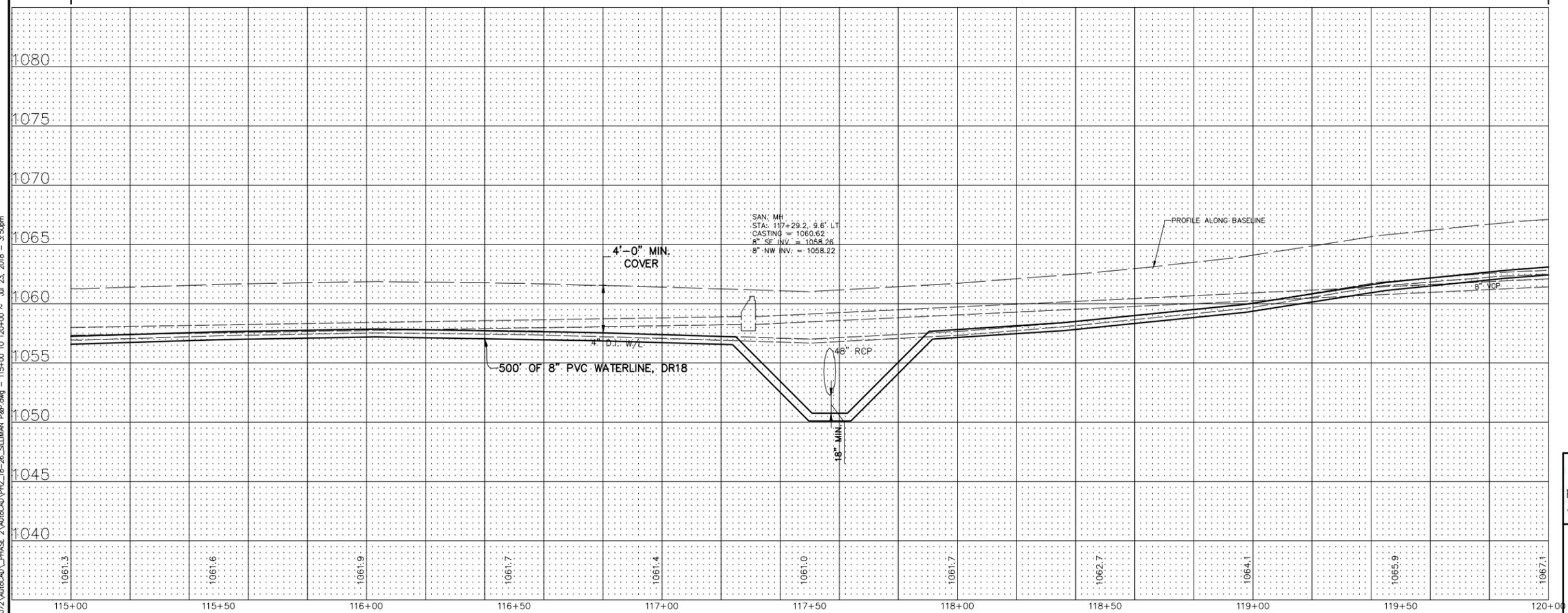
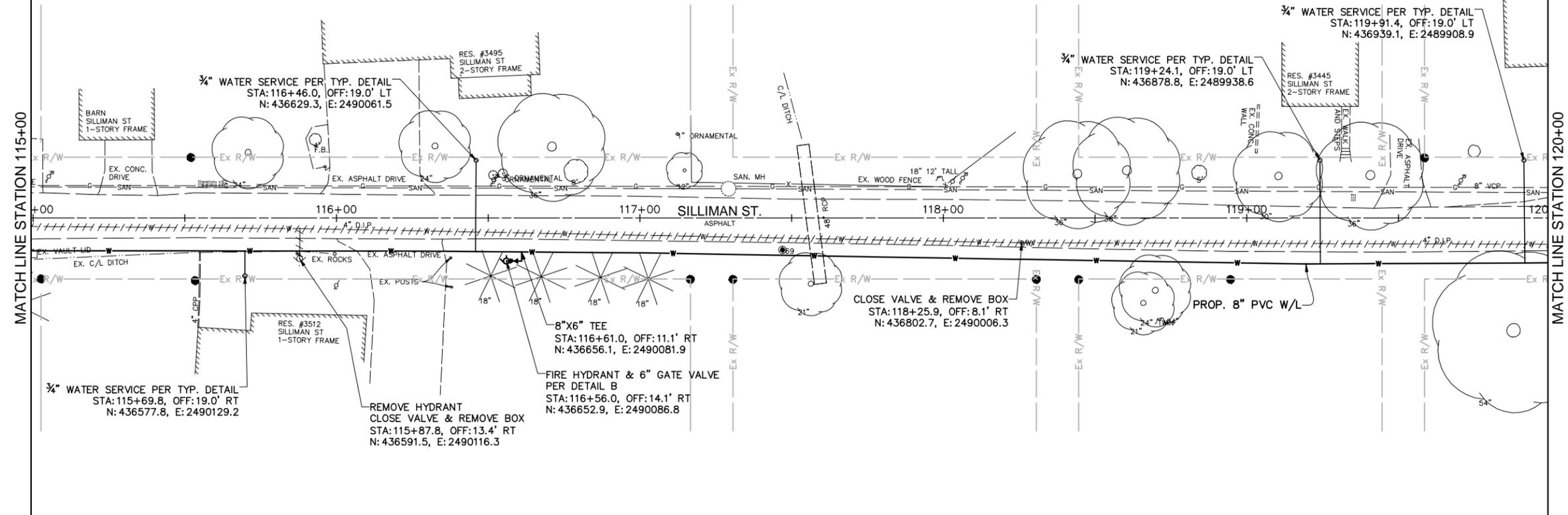
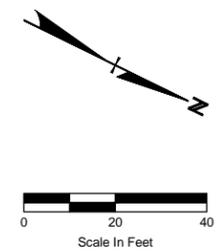
M:\5072\AUGCAD_PHASE 2\AUGCAD\PH2_B-12_BOARDMAN P&P.dwg - 10:00 TO 15:00 - Oct 11, 2018 - 7:17am



- NOTES:
- CONTRACTOR TO DIRECTIONAL DRILL UNDER EXISTING STREAM

<p>ENGINEERING ASSOCIATES INC.</p>	1935 Eagle Pass Wooster, Ohio 44691 Phone : (330) 345-6556 Fax : (330) 345-8077	DESIGNED KDB DRAWN AER REVIEWED — DATE 5/2018
	VILLAGE OF NEW WATERFORD, OHIO WATER SYSTEM IMPROVEMENTS PHASE 2 WATER LINE REPLACEMENT	
	CREEK ROAD STA 265+00 TO STA 270+00	
	Figure 9	

M:\15072\AUGCAD_PHASE 2\AUGCAD\PH2_31-38_CREEK PAP.dwg - 265+00 to 270+00 ~ Jul 23, 2018 - 3:59pm



- NOTES:
- CONTRACTOR TO DIRECTIONAL DRILL LINE ADJACENT TO FOUR PINE TREES

	1935 Eagle Pass Wooster, Ohio 44691 Phone : (330) 345-6556 Fax : (330) 345-8077	DESIGNED KDB
		DRAWN AER
		REVIEWED -
		DATE 5/2018

VILLAGE OF NEW WATERFORD, OHIO
WATER SYSTEM IMPROVEMENTS
PHASE 2
WATER LINE REPLACEMENT

SILLIMAN STREET
STA 115+00 TO STA 120+00 Figure 10

M:\15072\AUGCAD_PHASE 2\AUGCAD\PH2_18-26_SILLIMAN P&P.dwg - 115+00 TO 120+00 ~ JUL 23, 2018 ~ 3:50pm

APPENDIX B - AGENCY COORDINATION AND CONSULTATION



November 7, 2017

Ohio Department of Natural Resources,
Division of Wildlife, Ohio Natural Heritage
Program 2045 Morse Road, Building G-3
Columbus, Ohio 43229

RE: Request for database search for the proposed New Waterford Water System Improvements project:

To whom it may concern:

I would like to request information regarding potentially important terrestrial and aquatic wildlife species and their habitat that may be present within 1 (one) mile of the proposed New Waterford Water System Improvements project as depicted on the attached 7.5-minute USGS topographic maps (Elkton & East Palestine). The proposed project is centered on the following latitude/longitude:

New Waterford Water Line Northern Terminus	40.856783° N	-80.625432° W
New Waterford Water Line Southern Terminus	40.839630° N	-80.611197° W

Please include all database records within 1 (one) mile of the study area for animal (including bald eagles) and plant species. Please also include any records pertaining to the capture of Indiana bats within 5 miles and known Indiana bat hibernacula within 10 miles of the proposed study area.

Please do not hesitate to contact me at nviau@lawhon-assoc.com, or at 614.481.8600 if there are questions. Thank you in advance for your time.

Sincerely,

Nick Viau
Ecological Scientist
Lawhon & Associates, Inc.



NATURAL HERITAGE DATA REQUEST FORM

ODNR Division of Wildlife
Ohio Natural Heritage Program
2045 Morse Rd., Bldg. G-3
Columbus, OH 43229-6693
Phone: 614-265-6818
Email: obdrequest@dnr.state.oh.us

INSTRUCTIONS:

Please complete all the information on both sides of this form, sign (required) and email it to the address given above. Please provide a description of the work to be performed at the project site, and a map detailing your project site boundaries. If you have GIS capabilities or request a GIS response, please also submit a shapefile of your project site (unbuffered). Data requests will be completed within approximately 30 days, usually sooner. There is currently no charge to process requests.

WHAT WE PROVIDE:

As applicable to your project, the Ohio Natural Heritage Database (ONHD) will provide records for state and federally listed plants and animals, high quality plant communities, geologic features, breeding animal concentrations, scenic rivers, protected natural areas (managed areas), and significant unprotected natural areas (conservation sites). A one mile radius around the project site will automatically be searched. Because the ONHD contains sensitive information, it is our policy to provide only the data needed to complete your project.

Please note that this information is provided without comment on potential impacts to the species and their habitats, and therefore does not constitute coordination with ODNR under NEPA, the Fish & Wildlife Coordination Act, the Federal Water Pollution Control Act and other laws. If your project requires ODNR coordination, please submit it for a more extensive environmental review to environmentalreviewrequest@dnr.state.oh.us. Additional information on the environmental review process is available at <http://realestate.ohiodnr.gov/environmental-review>. If you have questions, please contact John Kessler at 614-265-6621 or john.kessler@dnr.state.oh.us. A ONHD search is included as part of the environmental review process.

Date: 11/7/2017 Company name: Lawhon and Associates, Inc.

Name of person response letter should be addressed to:

Mr. Ms. Nick Viau

Address: 1441 King Ave.

City/State/Zip: Columbus, Ohio, 43212

Phone: 614.481.8600

E-mail address: nviau@lawhon-assoc.com

Project Name: New Waterford Water System Improvements

Project Site Address: Various streets within the city limits of New Waterford

Project County: Columbiana

Project City or Township: City of New Waterford / Unity Twp.

Project site is located on the following USGS 7.5 minute topographic quad(s):

Elkton & East Palestine Quads

Project latitude and longitude: N. Term: 40.856783, -80.625432; S. Term: 40.839630, -80.611197

Description of work to be performed at the project site:

There are proposed improvements to the existing waterline and infrastructure within the city of New Waterford. These improvements include upgrading and replacing the existing water treatment, storage, and distribution system. The proposed project includes installation of approximately 17,000 feet of replacement waterline and upgrades to two water storage tanks.

How do you want your data reported? (Both formats provide the same data. The manual search is most appropriate for small scale projects or for those without GIS capabilities. With this option we will send you a list of records and a map showing their location. If you request a GIS shapefile, we will send you a shapefile of data layers. You will then need to make your own map and list of data for your report. You must have GIS capabilities. If you choose this option, please email your project shapefile with your request. If you do not make a selection, a manual search will be performed. Please choose only one option below.)

Printed list and map (manual search) **OR** GIS shapefile (computer search)

Other than the standard data (see “what we provide” at top of form), additional information you require:

Please identify any known Indiana Bat hibernacula within a 10 mile radius of the project and any capture records within 5 miles of the project.

How will the information be used?

The information will be used for an environmental assessment document.

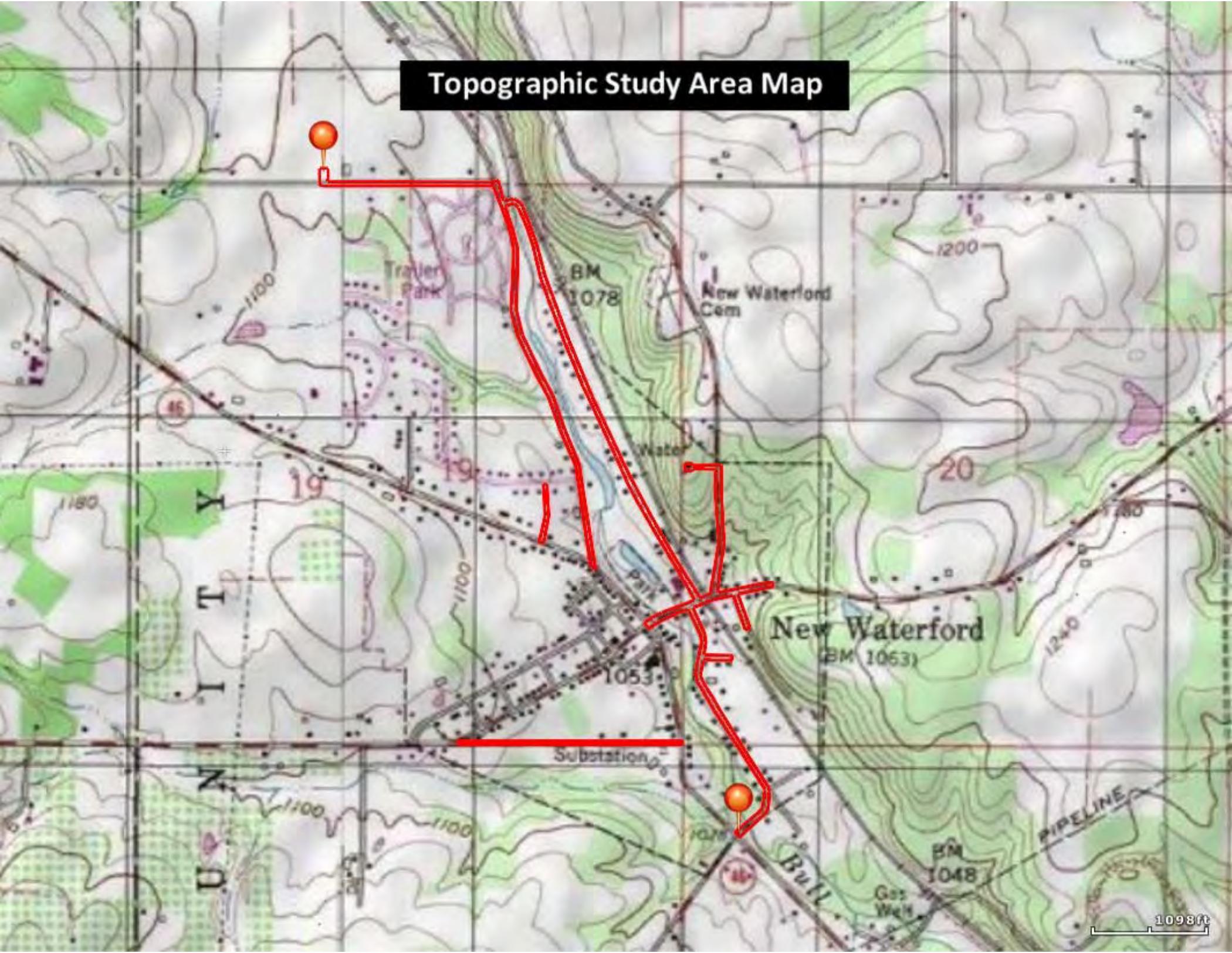
The chief of the Division of Wildlife has determined that the release of the ONHD information you have requested could be detrimental to the conservation of a species or unique natural feature. Pursuant to section 1531.04 of the Ohio Revised Code, this information is not subject to section 149.43 of the Revised Code. By signing below, you certify that the data provided will not be disclosed, published, or distributed beyond the scope of your specific project.

Signature Nicholas Viau

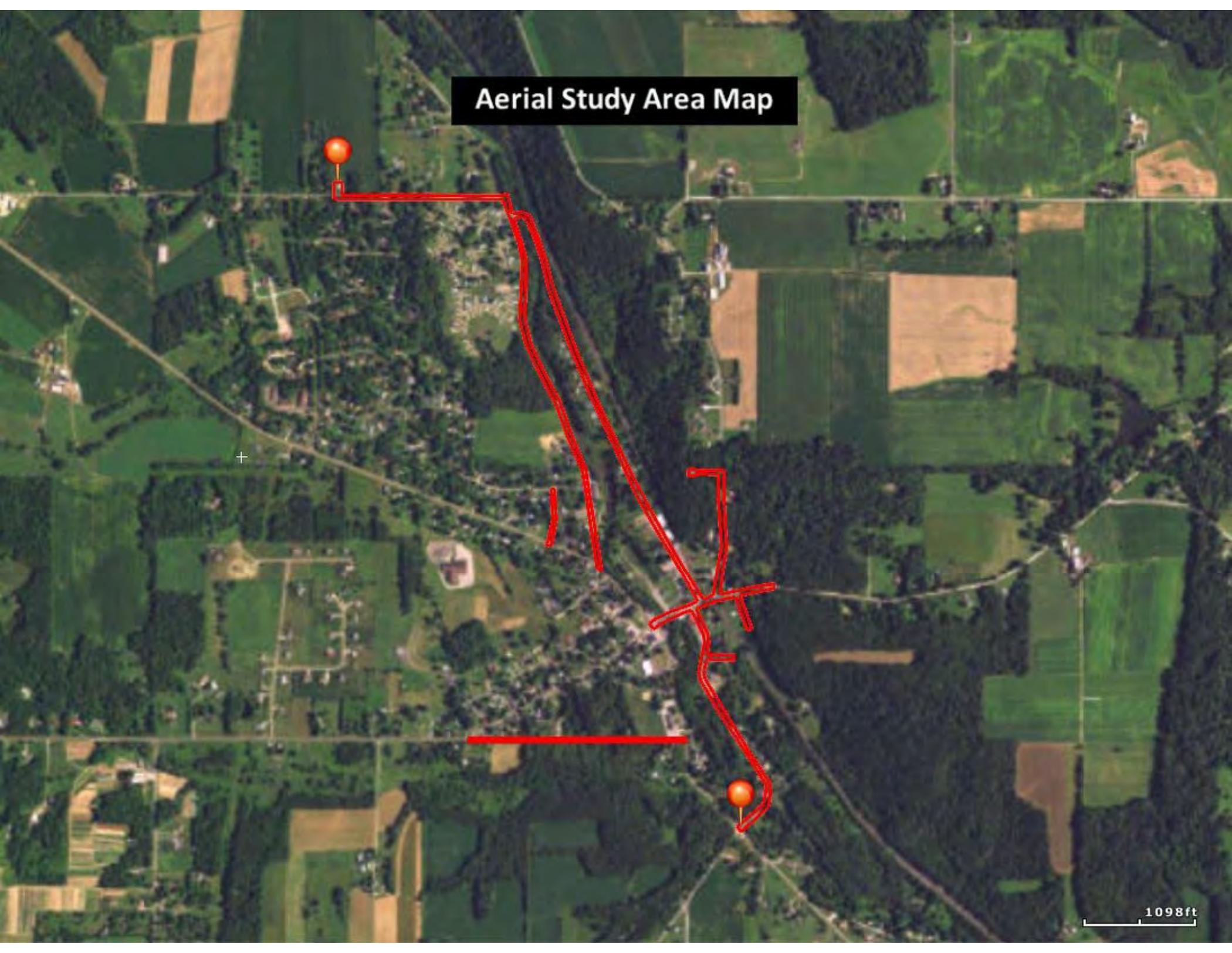
Digitally signed by Nicholas Viau
DN: cn=Nicholas Viau, o=Lawhon & Associates, ou=Ecological units,
email=nviau@lawhon-assoc.com, c=US
Date: 2017.11.07 09:31:17 -05'00'

Date: 11/7/2017

Topographic Study Area Map



Aerial Study Area Map



1098ft



Ohio Department of Natural Resources

JOHN R. KASICH, GOVERNOR

JAMES ZEHRINGER, DIRECTOR

Office of Real Estate
Paul R. Baldrige, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6649
Fax: (614) 267-4764

July 28, 2017

Kevin Hinkle
Ohio EPA
50 West Town Street Suite 700
P. O. Box 1049
Columbus, Ohio 43216-1049

Re: 17-411; Village of New Waterford's Phase 1 Potable Water System Improvements

Project: The proposed project involves upgrades to the wastewater treatment plant as well as the replacement of approximately 12,400 linear feet of water lines within road rights-of-way. Phase 2 involves the replacement of deteriorated distribution pipes, addition a new waterline, meter vault, and backflow preventer will be added to the entrance of a mobile home park to address unaccounted water.

Location: The proposed project is located in the Village of New Waterford, Columbiana County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has no records at or within a one-mile radius of the project area.

A review of the Ohio Natural Heritage Database indicates there are no records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national forests, national wildlife refuges, or other protected natural areas within the project area. The review was performed on the project area you specified in your request as well as an additional one mile radius. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare

species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees: shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), black ash (*Fraxinus nigra*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus americana*), shingle oak (*Quercus imbricaria*), northern red oak (*Quercus rubra*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), eastern cottonwood (*Populus deltoides*), silver maple (*Acer saccharinum*), sassafras (*Sassafras albidum*), post oak (*Quercus stellata*), and white oak (*Quercus alba*). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the threehorn wartyback (*Obliquaria reflexa*), a state threatened mussel. Because there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

The project is within the range of the Tippecanoe darter (*Etheostoma tippecanoe*), a state threatened fish, and the channel darter (*Percina copelandi*), a state threatened fish. Because there is no in-water work proposed in a perennial stream, this project is not likely to impact these species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Because there is no in-water work proposed in a perennial stream, this project is not likely to impact this species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, the type of habitat present at the project site and within the vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the American bittern (*Botaurus lentiginosus*), a state endangered bird. Nesting bitterns prefer large undisturbed wetlands that have scattered small pools amongst dense vegetation. They occasionally occupy bogs, large wet meadows, and dense shrubby swamps. Due to the location, the type of habitat present at the project site and within the

vicinity of the project area, and the type of work proposed, this project is not likely to impact this species.

The project is within the range of the black bear (*Ursus americanus*), a state endangered species. Due to the mobility of this species, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler
ODNR Office of Real Estate
2045 Morse Road, Building E-2
Columbus, Ohio 43229-6693
John.Kessler@dnr.state.oh.us



John R. Kasich, Governor
Mary Taylor, Lt. Governor
Craig W. Butler, Director

September 13, 2017

Notice of Issuance of a Limited Environmental Review and Final Finding of No Significant Impact to
All Interested Citizens, Organizations, and Government Agencies

Village of New Waterford, Columbiana County, Ohio, Phases 1 and 2 Water System Improvements
Projects, Loan #FS390682-0002, -0005

The purpose of this notice is to advise the public that Ohio EPA has reviewed the referenced projects and finds that neither an Environmental Assessment (EA) nor a Supplemental Study (SS) is required to complete the environmental review of the projects. Instead, the proposed projects meet the criteria for a Limited Environmental Review (LER). These criteria are summarized below in this document and in the attached LER.

The Ohio EPA Drinking Water Assistance Fund's (DWAF) Water Supply Revolving Loan Account (WSRLA) program requires the inclusion of environmental factors in the decision-making process for project approval. Ohio EPA has done this by incorporating a detailed analysis of the environmental effects of the proposed actions in its project planning review and approval process. Environmental information was developed as part of the project planning process. A subsequent review by this Agency has found that the proposed actions do not require the preparation of an EA or an SS.

Our environmental review concluded that because the proposed projects are limited in scope and meet all applicable criteria, an LER is warranted. Specifically, the proposed projects constitute actions in a community with an existing public water system, which involves minor upgrades and/or minor expansion of existing water treatment and distribution systems including, but not limited to, minor rehabilitation of existing facilities, functional replacement of existing mechanical equipment or structures, and construction of new ancillary facilities adjacent or appurtenant to existing facilities. As such, the Village of New Waterford's proposed projects constitute activities meeting these criteria. Furthermore, the proposed projects:

- have no potential for associated significant environmental impacts;
- will not require extensive impact mitigation unique to the assistance proposal;
- will have no effect on high value environmental resources;
- are cost-effective and are not the subject of significant public interest;
- will not create a new, or relocate an existing discharge of wastewater to surface or ground waters, or cause pollution of surface or ground waters;
- will not create a new source of water withdrawals from either surface or ground waters, or significantly increase the amount of water withdrawn from an existing water source;
- will not result in substantial increases in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters; and
- will not provide capacity to serve a population substantially greater than the existing population.

Maps depicting the locations of the proposed projects are included as part of the LER. The LER presents additional information on the proposed projects, their costs, and the basis for our decision. Further information can be obtained by calling or writing the contact person named at the end of the LER.

The LER was completed for these proposed projects as they will not individually, cumulatively over time, or in conjunction with other Federal, State, local, or private actions have a significant adverse effect on the quality of the human environment. Consequently, a Finding of No Significant Impact (FNSI) can be issued now for these proposed projects.

Upon issuance of this FNSI determination, loan awards may proceed without being subject to further environmental review or public comment, unless information is provided which determines that environmental conditions for the proposed projects have changed significantly.

Sincerely,



for
//
Jerry Rouch, Assistant Chief
Division of Environmental &
Financial Assistance

JR/KH
Attachment

LIMITED ENVIRONMENTAL REVIEW

Date: September 13, 2017

A. Project Identification

Name: Village of New Waterford, Columbiana County, Ohio
Phases 1 and 2 Water System Improvements Projects

Address: The Honorable Shane Patrone
Mayor, Village of New Waterford
P.O. Box 287, 3760 Village Park Drive
New Waterford, OH 44445-0287

Loan No: FS390682-0002, -0005 (PWSID#: OH1501722)

B. Existing Need

The Village of New Waterford in northeastern Columbiana County (see Figure 1 on Page 2) owns and operates a water system consisting of four ground water supply wells, a water treatment plant (WTP), two elevated storage tanks, and approximately eight miles (44,000 lineal feet [lf]) of distribution lines. This system serves approximately 461 customers within the village and five residences outside the village's corporation limits.

According to the village and its consultants, 87% of the village's water distribution system cannot provide adequate fire protection flows. In addition, numerous water lines have a history of breaking and need to be replaced due to age and materials used (e.g., asbestos cement [Transite™], cast iron, and black iron pipe). More specifically, the village's two-inch, four-inch, six-inch, and eight-inch diameter water lines were originally installed during the 1940's and 1950's. Four-inch and six-inch water mains are the most common. The village estimates that 20% (10,500 lf) of its water mains are made of asbestos cement. Copper service lines are typically found in the village's service area.

Many of these same water lines "dead end" resulting in inadequate water pressure at these locations, and inadequate circulation within the distribution system. In 2016, New Waterford's records showed that 43% of the total volume produced could not be accounted for and presumably was lost from the village's distribution system. For comparison purposes, Ohio EPA considers more than 15% annual water loss to be excessive. Also, indicative of the types of problems the village is facing with its potable water distribution system, it issued six boil orders in 2016. The mobile home park in the village has 6,000 lf of privately-owned water mains that were installed in the 1970s.

New Waterford has identified numerous sections of water mains under its major streets that have exceeded their useful life, are in critical condition, and subject to frequent breaks (on average, 10-15 a year). As a result, the village has proposed to replace the water mains throughout its service area that do not currently meet the existing needs of the project areas and their residents. In addition, many fire hydrants do not work properly, lack shut-off valves, and are too far apart to provide adequate fire protection.

Regarding the village's elevated water storage tanks and WTP, minor upgrades are needed to provide a long-term solution to their current needs (adding proper mixing in the water tanks, replacing the existing pressure filters, high service pumps, valves, piping, metering equipment, and chemical feed equipment at the WTP, and increasing the WTP's chlorine contact time). The rest of this document describes New Waterford's initial two phases of proposed projects and their suitability for a Limited Environmental Review (LER).

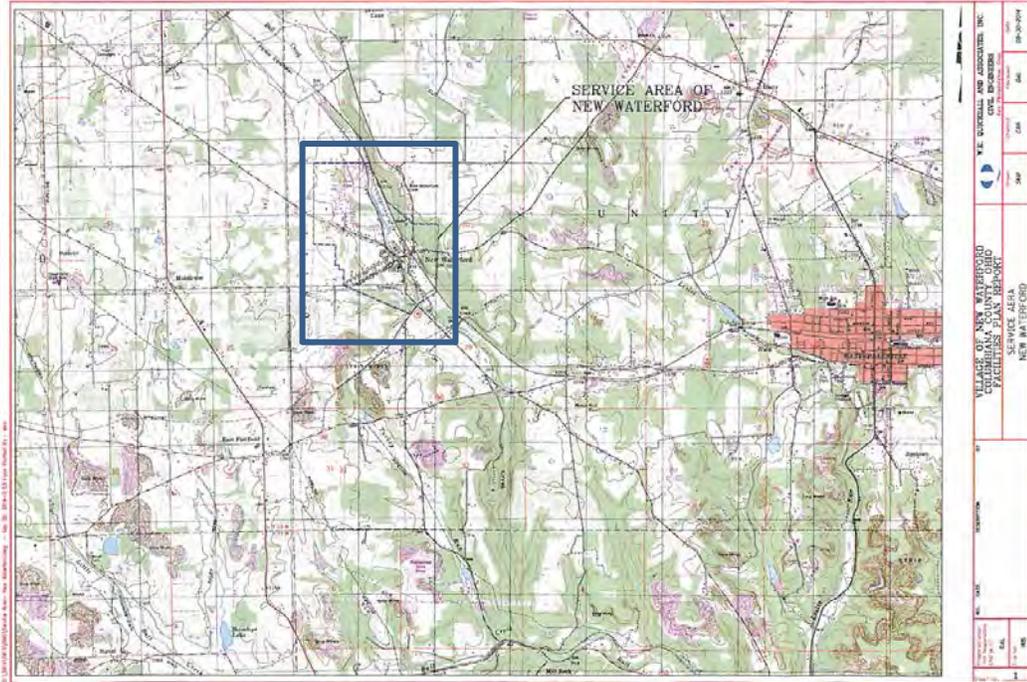


Figure 1, New Waterford Water Treatment Plant Service Area

Figure 2 below shows the known homes served on the perimeter of the village's iron and manganese removal WTP service area.

Houses Outside of Village Limits



Figure 2, Homes Outside Village Limits on Village Water

C. Alternatives Analysis and Project Description

During the initial planning for these proposed projects, New Waterford considered two, very broad, alternatives for its water distribution system improvements: (1) a no-action alternative that would basically leave the current situation unchanged and (2) a proposal to phase-in the village's water system improvements projects over time as grant funding and other financing arrangements allow. More details on the phased improvements to the village's WTP, elevated water storage tanks, and its potable water distribution system are provided below. At present, the village is proposing to complete at least two phases of improvements to its overall water system at a total project cost of about \$5.4 million (see Tables 1 and 2). Future phases (e.g., Phase 3) may cost as much as another \$3 to \$4 million.

No-Action Alternative. As noted above, this alternative would leave the village's existing water treatment, storage, and distribution system as it now stands. Because this option would not address any of the village's water infrastructure needs, this alternative will not receive any further consideration in this document.

Phased Improvements Approach. As it currently stands, the village and its consultants have proposed that the village construct improvements to its overall water treatment, storage, and distribution system in three phases. Phase 1 broadly consists of two contracts as follows, while Phase 2 is currently planned to be bid as one contract:

Phase 1 Elevated Storage Tanks and WTP Actions (Contract A). Mixing equipment will be added to the village's two existing water storage tanks to improve water quality and prevent damage from freezing in the tanks. The improvements to the WTP include replacing its two existing pressure filters with three six-foot diameter filters, and its two existing high service pumps with two 225 gallons per minute (gpm) pumps; and increasing the chlorine contact time. Existing valves, piping, metering equipment and chemical feed equipment also will be removed and replaced. The WTP improvements are proposed to cover a projected 6.5% population increase over the next 20 years, as well as address existing needs. In 2016, the village's WTP was operating below its rated capacity.

Phase 1 Water Line Replacements (Contract B). These system improvements will be located between the village's WTP south of New Waterford and the Hatcher Road elevated storage tank on the village's north side along the following route: State Route (SR) 46 to Pinewood Drive to Waynewood to Colony Drive then north to Hatcher through a village-owned easement. Water lines will also be installed on Maple Drive and one block south of SR 46 on Taylor Avenue and Church Street. In addition, 126 new remote read water meters will be installed in pits in the yards as part of Phase 1. Approximately 1,602 lf of six-inch diameter, 7,158 lf of eight-inch diameter, and 3,884 lf of twelve-inch diameter water lines will be installed. Also included in Phase 1 are twenty-two new fire hydrants (see Figure 3 below). Creek crossings using horizontal directional drilling techniques are proposed.

Phase 2 Water Line Replacements. The water line replacements planned for Phase 2 are shown below in Figure 4. Phase 2 will include replacing almost 17,600 lf of undersized and deteriorated water mains with 13,960 lf of 8-inch pipe and 4,400 lf of 6-inch pipe. The project will include replacing 18 fire hydrants and adding 23 new fire hydrants. Several service lines, water meters, and one meter vault (at the mobile home park) will be replaced.

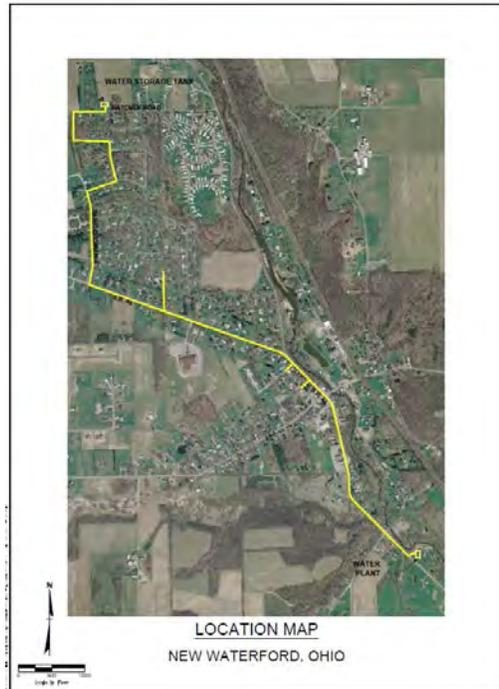


Figure 3, Phase 1 Improvements

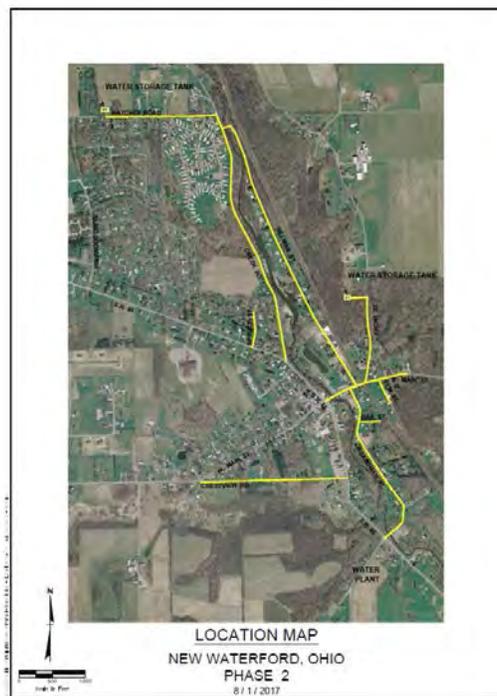


Figure 4, Phase 2 Improvements

As with Phase 1, multiple creek crossings are proposed in Phase 2. Figure 5 below shows the location of creeks in the village which will need to be crossed during the village's water system improvements projects. Phase 3's final scope and schedule has not been set yet.

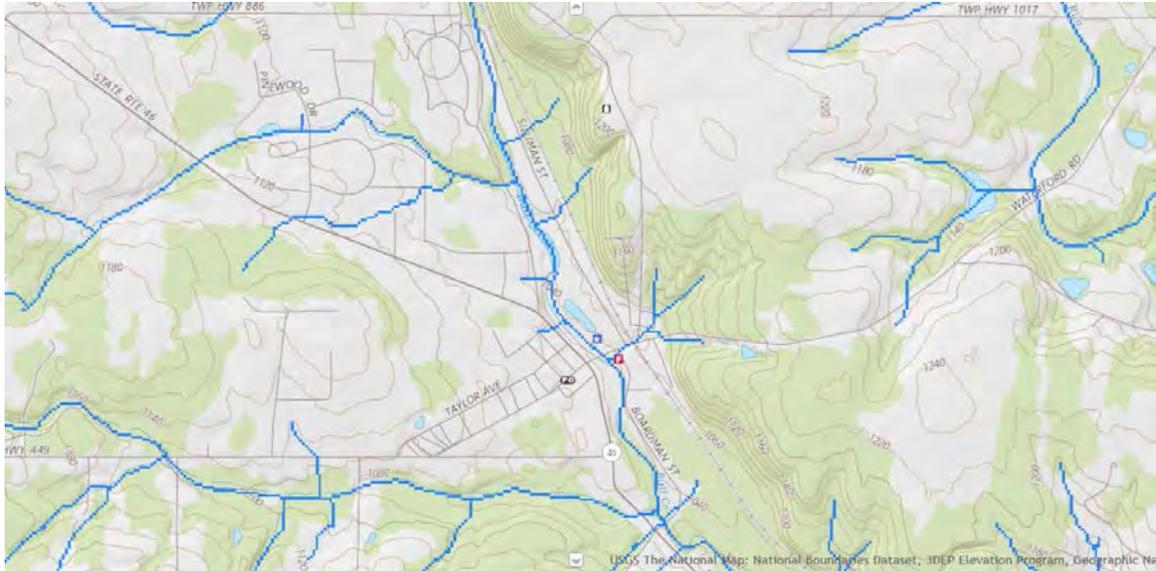


Figure 5, Streams in the New Waterford Vicinity (Source: USGS, Streamstats)

In addition to evaluating a phased approach (in contrast to no-action), the village also considered various, specific water line installation techniques and materials during its initial planning. These materials and techniques included (1) polyvinyl chloride (PVC) C900 pipe in an open-cut trench, (2) ductile iron pipe in an open-cut trench, and (3) high-density polyethylene pipe (HDPE) using directional drilling techniques. According to the consulting engineer's report, option #1 was selected for installation of water line replacements throughout the village on the basis of having the lowest cost. In each open-cut trench option, forty percent of the replacement water lines would be installed under existing sidewalks or roadways, while sixty percent would be installed under tree lawns and private lawns where granular backfill would not be needed as extensively as under streets and sidewalks. Readers should also note that option #1 was chosen in part because it included selective use of directional drilling techniques to minimize restoration costs associated with stream and railroad crossings.

Overall, the village's chosen final alignments present cost-effective and environmentally sound alternatives to no-action, and are expected to ensure adequate fire protection and water pressure, with minimal impacts to residents and the natural setting.

Prior to bidding Phase 1 of the village's projects, New Waterford's engineering consultant prepared estimates for two phases of the village's proposed water system improvements. These costs are presented in Table 1 below.

Based on the bids recently received on Phase 1, construction is expected to cost about \$1,950,247, and the total project cost is about \$2,585,078. These cost figures are lower than the final estimates during design for Phase 1 of \$2,185,000 for construction and \$2,792,127 for the total project cost shown below.

Table 1. Phases 1 and 2 Project Costs – Engineer’s Estimates	
Description	Costs
Pre-construction Costs	\$377,527
Water Storage Tank Upgrades	\$45,000*
Water Treatment Plant Upgrade	\$500,000*
Phase 1 Water Line Replacement (16,600 lf)	\$1,640,000 (with 126 new water meters) **
Total Phase 1 Construction Cost	\$2,185,000
Other Costs (Contingency, Permits, etc.)	\$229,600
Total Phase 1 Project Costs	\$2,819,831
* Contract A; ** Contract B	
Phase 2 Water Line Replacements (18,360 lf)	\$2,100,000
Phase 2 Engineering Costs	\$298,500
Other Related Costs	\$265,100
Total Phase 2 Project Costs	\$2,663,600

Table 2. Estimated Funding Sources	
Description	Costs
Phase 1	\$2,819,831
Ohio EPA Water Supply Revolving Loan Account	\$2,119,832 (\$1,059,916 in loan and \$1,059,916 in principal forgiveness)
Ohio Public Works Commission	\$499,999
Governor’s Office of Appalachia	\$200,000
Phase 2	\$2,663,600
WSRLA	\$831,800 in loan and same in principal forgiveness.
Army Corps of Engineers	\$1,075,000 (net \$1,000,000)

D. Limited Environmental Review Criteria

Because the two proposed phases of improvements meet certain minimum conditions and will not individually, cumulatively over time, or in conjunction with other federal, state, or private actions have a significant adverse effect on the quality of the human environment, an LER is warranted. More specifically, these conditions cover actions in communities with an existing public water system where minor upgrades and/or minor expansion of existing water treatment and distribution systems including, but not limited to, minor rehabilitation of existing facilities, functional replacement of existing mechanical equipment or structures, and construction of new facilities adjacent to or appurtenant to existing facilities are proposed; and where extensions of new water distribution systems are not included. In addition, the proposed projects meet the following criteria for an LER:

1. **The proposed projects will have no significant adverse environmental effects.** As noted above, all the proposed work covered by these two phases of improvements will take place in an urbanized setting within the Village of New Waterford’s service area, including road rights-of-way, the village’s WTP site, and at its two elevated water storage tanks (see Figure 6 below) that have been previously disturbed. In addition, the

3. **The proposed projects will have no adverse effect on high value environmental resources.** According to the site reviews completed by Ohio EPA and other federal, state, and regional government agencies, no high value environmental resources (e.g., coastal zones, endangered species habitats, creeks and floodplains, wetlands, wild and scenic rivers, prime farmland) are present within the immediate water line project corridors, WTP site, and elevated water storage tank locations. As a result, no direct, adverse effects on these resources are anticipated. In addition, because of the minimal population growth projected for New Waterford's service area over the life of the village's loans (30 years), no significant, adverse indirect or cumulative impacts on them are expected. This small amount of population growth, the fluctuating population of the village recently, and the fact that the village leadership has indicated that it knows of no specific plans to further develop its WTP's service area supports this conclusion. In addition, any future extension of water lines off the proposed water main improvements would require additional Ohio EPA review and approval.
4. **The selected alternatives are clearly cost-effective.** In comparison to a no-action alternative (maintaining the existing WTP, storage tanks, and distribution system with their deficiencies intact), New Waterford's two phases of water system improvement proposals are clearly cost-effective and a more efficient approach to the fire flow, water loss, and other capacity concerns identified during project planning.
5. **The proposed projects are not a controversial action.** The proposed improvements to the areas encompassed by the village's two project phases are noncontroversial because they will not result in direct, indirect, or cumulative adverse impacts on the environment (see above), or on the average residential user of New Waterford's drinking water production, treatment, storage, and distribution systems. This finding was reached because the village previously enacted three water system rate increases (2016-2017) and only minor, future rate increases to keep pace with inflation are anticipated to repay the village's loans for these project phases. For example, the village has indicated that a 3% annual increase in water rates is needed to address inflation in its variable water distribution system costs, and has been budgeted to keep revenues ahead of incurred costs. Currently, New Waterford charges an average residential customer using 3,557 gallons of water per month a usage fee of about \$55.82, or about \$670 per year. This usage fee was calculated using the village's monthly base fee of \$40.25 per 2000 gallons plus \$10 per 1000 gallons. This fee schedule was implemented in November 2016. When expressed as a percentage of the village's current median household income (MHI) figure of \$39,219, the average annual fee is about 1.71% of the village's 2010-2014 MHI, and thus is considered generally affordable for an average residential water customer of New Waterford.
6. **The proposed two phases of improvements do not involve new or relocated discharges of wastewater to surface or ground waters.** Given the fact that the village's two phases of improvements mainly relate to its drinking water distribution system, elevated storage tanks, and WTP with its discharge to its adjacent wastewater treatment plant (WWTP), it will not directly result in any new or relocated discharges of wastewater to surface or ground waters. The village has indicated that no increase in the amount of wastewater its WWTP handles is expected during these project phases.

7. **The proposed projects do not create a new source of water withdrawals from either surface or ground waters, or significantly increase the amount of water withdrawn from an existing water source.** New Waterford will continue to depend on ground water drawn from its own four wells, so no new sources of potable water withdrawal will be developed with these two phases of improvements. Rather, the village expects its water main replacement projects and the other improvements to its WTP and elevated storage tanks will improve the overall performance of New Waterford's water system. This improved efficiency should help the village better manage its water usage. As a result, no increase in the amount of water usage during normal operating conditions in New Waterford is expected. Rather, the increase in water pressure and flows provided by the new water mains, and the ability to better fight fires under high water demand conditions are all expected additional benefits of these proposed projects.
8. **No substantial increase in the volume of discharge or the loading of pollutants from an existing source or from new facilities to receiving waters will occur.** Since the amount of water drawn from its ground water wells will not increase significantly with these projects, no increase in the volume of wastewater or the loading of pollutants from the New Waterford WWTP that receives sanitary sewer flows from the village will result from these projects. Similarly, because these project phases will not change the water treatment flows, it will not increase the wastewater flows associated with the water treatment process, such as filter back-flush water.
9. **The proposed projects will not provide capacity to serve a population substantially greater than the existing population.** As indicated above, these two phases of water system improvements are intended to only address the current needs of New Waterford's water distribution system (low pressure and lack of adequate fire flows) and its two storage tanks in the projects area. While the replacement water mains and WTP upgrade will also provide a 6% increase in capacity to meet future needs, the village does not expect water demand and the population of the project areas to increase dramatically in response. On this basis, this LER criterion is met. As recently as 2016, New Waterford reported an average of 137,000 gpd of water demand from its service area. This is below the rated capacity of the WTP of 219,000 gpd.

E. Project Costs and Funding Source

The total Phase 1 project costs based on the accepted bids is between \$X and \$Y, which will be covered by a combination of funding shown in Table 2. A below-market interest rate loan from the Ohio EPA – Water Supply Revolving Loan Account (WSRLA) program, including a large principal forgiveness amount, will help assure that Phases 1 and 2 are affordable. New Waterford currently qualifies for a 0% WSRLA interest rate and 50% principal forgiveness in September 2017, the anticipated month of loan award for Phase 1. The village expects to get the same terms on its Phase 2 WSRLA loan in 2018.

The Village of New Waterford expects that the WSRLA 0% interest rate loan, principal forgiveness funding, and other sources of grant funds for which it qualifies, and its existing fund balances, will reduce the need for future rate increases over the 30-year loan repayment period to pay for the two phases of needed improvements, and that its current

water revenues will be sufficient to repay the WSRLA loan financing it. Compared to a market-rate (3.29%) loan, New Waterford expects to save an estimated \$1,099,021.57 over the 30-year life of its loans by funding Phases 1 and 2 through the WSRLA program. Information on the village's water rates and the effects of these projects on them can be found in the previous section of this document.

On this basis, Ohio EPA has determined that the capital costs of these proposed projects appear to be affordable for an average residential customer of New Waterford's water system. As a result, no adverse economic impacts on local residential users of New Waterford's water system are anticipated to result from this financing approach.

F. Proposed Project Schedule

The village expects the Phase 1 work to begin in November 2017 and take six to eight months to complete, including final site restoration. Loan award is currently scheduled for September 2017. Phase 2 improvements are not expected to be underway until July 2018 at the earliest, and to be completed in early 2019.

G. Public Participation and Notice

To address the need for public involvement in planning these proposed projects, the village provided the public with information about its phased approach in two main ways. These included holding village council meetings during 2016 and most recently providing all of its WTP service area residents with a project fact sheet in July 2017. The fact sheet included an introduction to the village's projects, and information on the projects' bases of design, scopes, total costs, resulting water rates and financial effects, implementation schedules, expected impacts during construction, and mitigation to address these effects. Project area residents were provided with a 15-day window (July 1 – July 16) to comment on the project fact sheet. According to the village's consultants and leaders, the village mailed out fact sheets to all its water system customers and, in reply, received three comments on the project fact sheet. All of these comments were addressed, either over the phone or via email by July 17, 2017. The focus of these comments were on (1) tree removal and disposal, (2) the alignment of the northern part of the project as it approaches Hatcher Drive, (3) road closures, (4) the effects of working near culverts on the project, (5) impacts of the project on lawns (versus streets), and (6) how the phasing approach would affect current water customers (e.g., access to village water during Phase 1 construction, rusty water concerns, splitting the Phase 1 project into fall and spring work, damage to homes and streets, and future rate increases). On this basis, the village appears to have adequately provided for public involvement during the planning for construction of the two phases of water system improvements discussed in this document.

H. Interagency Coordination

The village's proposed projects have been reviewed by the following agencies or by Ohio EPA under laws and regulations administered by the agencies listed below. Ohio EPA's and their findings support a LER:

I. Conclusion

The two proposed project phases are sufficiently limited in scope and meet all applicable criteria to warrant a LER. The planning activities for the proposed projects identified no potentially significant adverse impacts. The proposed projects are expected to have no short- or long-term adverse impacts on the quality of the human environment or on sensitive resources such as surface waters, floodplains, wetlands, prime or unique agricultural lands, aquifer recharge zones, archaeologically or historically significant sites, threatened or endangered species, or wild, scenic or recreational rivers. Noise, dust and odors will be controlled to acceptable levels. Ohio EPA expects that the village's two-phase improvements project will result in an overall improvement to New Waterford's public water system. In particular, the village expects its projects will save it money over time and improve potable water quality and service reliability, by reducing the number of emergency waterline breaks occurring each year.

J. For further information, please contact:

Kevin Hinkle
Ohio EPA, Division of Environmental and Financial Assistance
Office of Financial Assistance, Technical Review Section, Environmental Planning Unit
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-3712
e-mail: kevin.hinkle@epa.ohio.gov



In reply, refer to
2009-COL-7104

May 4, 2018

Justin Zink
Lawhon & Associates, Inc.
1441 King Avenue
Columbus, OH 43212
jzink@lawhon-assoc.com

RE: New Waterford Water System Improvement Project, Village of New Waterford, Unity Township, Columbiana County, Ohio

Dear Mr. Zink:

This is in response to the correspondence, received on April 17, 2018, regarding the proposed New Waterford Water System Improvement Project, Village of New Waterford, Unity Township, Columbiana County, Ohio. We appreciate the opportunity to comment on this project. The comments of the Ohio State Historic Preservation Office (SHPO) are made pursuant to Section 149.53 of the Ohio Revised Code and of Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. 306108 [36 CFR 800]).

The proposed project includes the upgrade and replacement of approximately 17,000 feet of water distribution system within the Village of New Waterford. Our office has previously reviewed this project in 2007 for the USDA, Rural Development and in 2017 for the Ohio EPA. Slight modifications in the project area differ from the 2007/2017/2018 submittals; however, the same general project area (previously disturbed existing water distribution system in the Village of New Waterford) was presented in all submittals. In previous submittals, it was determined the proposed undertaking will not affect properties listed in or eligible for listing in the National Register of Historic Places (NRHP).

Phase I Archaeology Survey New Waterford Water System Improvement Project Columbiana County Ohio by Lawhon & Associates, Inc. (2018) was submitted for our review. No previously identified cultural resources are located within the project area and no new archaeological sites were identified during the survey. We agree the proposed project will not affect cultural resources.

Based on the information provided, we have no objections to the proposed undertaking should it proceed as currently proposed. Under 36 CFR 800.4(d), federal agencies are required to make an effect determination regarding their undertakings and request concurrence from the applicable State Historic Preservation Officer. If the U.S. Army Corps of Engineers (USACE) were to determine that this project was a federal undertaking and determined through consultation that no historic properties would be affected by the proposed project, we would concur with that effect finding.

If you have any questions, please contact me at (614) 298-2022, or by e-mail at khorricks@ohiohistory.org. Thank you for your cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Krista Horrocks", written over a white background.

Krista Horrocks, Project Reviews Manager
Resource Protection and Review

RPR Serial No: 1073569



November 7, 2017

USFWS
ATTN: Columbus Ohio Field Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230

RE: Threatened and Endangered Species Information Request:

Dear Sir or Madam:

On behalf of the City of New Waterford, Lawhon & Associates, Inc., is requesting available information of threatened and endangered species that may occur within one mile of the project area as depicted on the enclosed figures. L&A is under contract to complete an ecological survey and environmental assessment for the New Waterford Water System Improvements project, in the city of New Waterford (Unity Twp.), in Columbiana County, Ohio. The project lies on the Elkton and East Palestine 7.5 minute topographic quadrangle maps. Mapping is attached to assist with the database search. The project's center point is located at coordinates: 40.848457°, -80.616557°.

The proposed New Waterford Water System Improvements project will include improvements to the existing waterline and infrastructure within the city of New Waterford. These improvements include upgrading and replacing the existing water treatment, storage, and distribution system. The proposed project includes installation of approximately 17,000 feet of replacement waterline and upgrades to two water storage tanks.

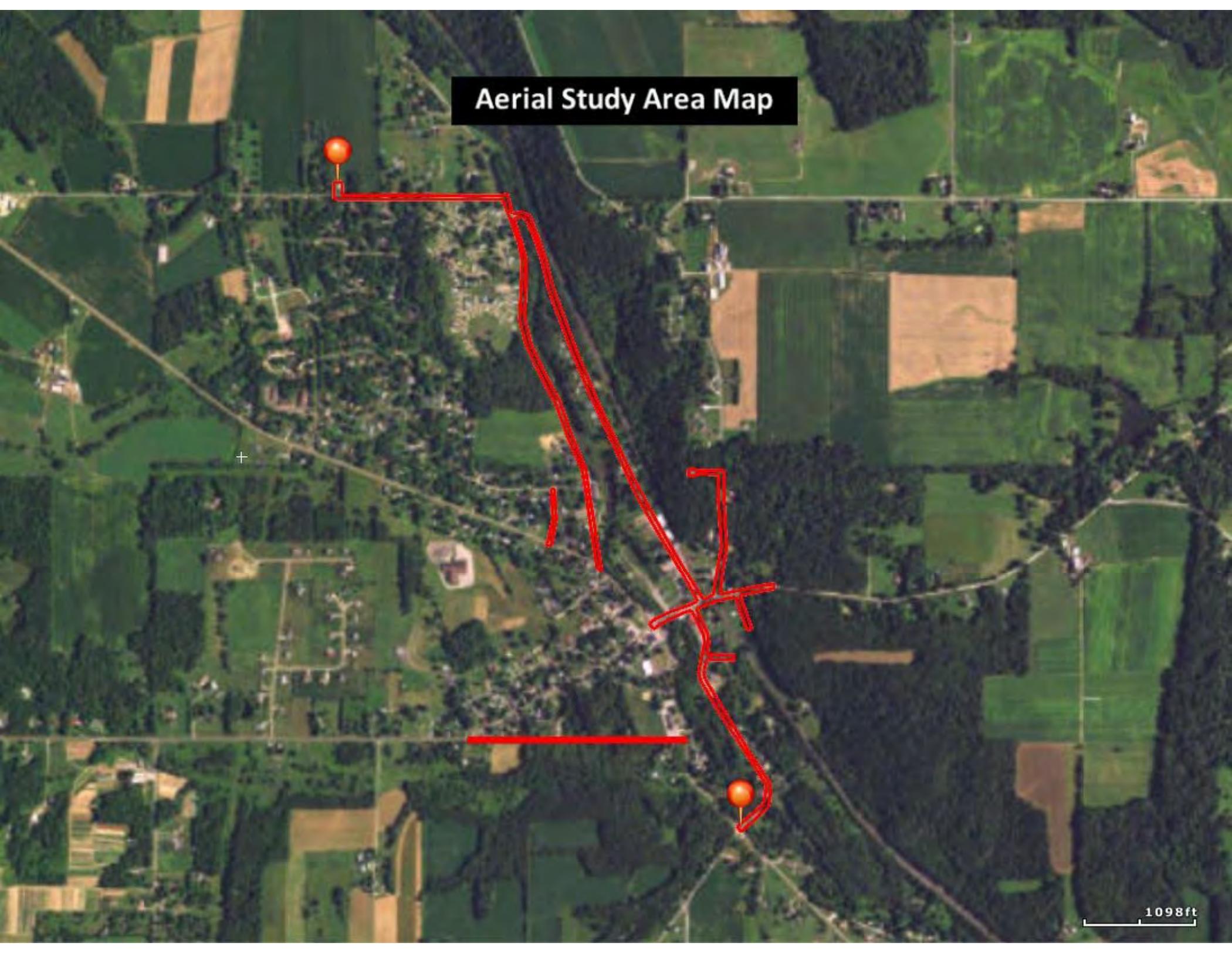
We are requesting any information on location, including latitudinal and longitudinal coordinates, which your agency may have regarding the occurrence of federally listed plants and animals.

Please do not hesitate to contact me at nviau@lawhon-assoc.com, or at 614.481.8600 if there are questions. Thank you in advance for your time.

Sincerely,

Nicholas Viau
Ecological Scientist
Lawhon & Associates, Inc.

Aerial Study Area Map



1098ft

From: susan_zimmermann@fws.gov on behalf of [Ohio, FW3](#)
To: [Nicholas Viau](#)
Cc: nathan.reardon@dnr.state.oh.us; kate.parsons@dnr.state.oh.us
Subject: City of New Waterford Water System, Unity Township, Columbiana County
Date: Tuesday, November 21, 2017 2:25:05 PM
Attachments: [Capture of Dan.PNG](#)



UNITED STATES DEPARTMENT OF THE INTERIOR
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, Ohio 43230
(614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2018-TA-0223

Dear Mr. Viau,

We have received your recent correspondence requesting information about the subject proposal. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. The following comments and recommendations will assist you in fulfilling the requirements for consultation under section 7 of the Endangered Species Act of 1973, as amended (ESA).

The U.S. Fish and Wildlife Service (Service) recommends that proposed developments avoid and minimize water quality impacts and impacts to high quality fish and wildlife habitat (e.g., forests, streams, wetlands). Additionally, natural buffers around streams and wetlands should be preserved to enhance beneficial functions. If streams or wetlands will be impacted, the Corps of Engineers should be contacted to determine whether a Clean Water Act section 404 permit is required. Best management practices should be used to minimize erosion, especially on slopes. All disturbed areas should be mulched and revegetated with native plant species. Prevention of non-native, invasive plant establishment is critical in maintaining high quality habitats.

FEDERALLY LISTED SPECIES COMMENTS: All projects in the State of Ohio lie within the range of the federally endangered **Indiana bat** (*Myotis sodalis*) and the federally threatened **northern long-eared bat** (*Myotis septentrionalis*). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags =3 inches diameter at breast height (dbh) that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

Should the proposed site contain trees =3 inches dbh, we recommend that trees be saved wherever possible. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring portal surveys are warranted. If no caves or abandoned mines are present and trees =3 inches dbh cannot be avoided, we recommend that removal of any trees =3 inches dbh only occur between October 1 and March 31. Seasonal clearing is being recommended to avoid adverse effects to Indiana bats and northern long-eared bats. While incidental take of northern long-eared bats from most tree clearing is exempted by a 4(d) rule (see <http://www.fws.gov/midwest/endangered/mammals/nleb/index.html>), incidental take of Indiana bats is still

prohibited without a project-specific exemption. Thus, seasonal clearing is recommended where Indiana bats are assumed present.

If implementation of this seasonal tree cutting recommendation is not possible, summer surveys may be conducted to document the presence or probable absence of Indiana bats within the project area during the summer. If a summer survey documents probable absence of Indiana bats, the 4(d) rule for the northern long-eared bat could be applied. Surveys must be conducted by an approved surveyor and be designed and conducted in coordination with the Endangered Species Coordinator for this office. Surveyors must have a valid federal permit. Please note that summer surveys may only be conducted between June 1 and August 15.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

Due to the project type, size, and location, we do not anticipate adverse effects to any other federally endangered, threatened, proposed, or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the Service should be initiated to assess any potential impacts.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,



Dan Everson

Field Supervisor

cc: Nathan Reardon, ODNR-DOW

Kate Parsons, ODNR-DOW

APPENDIX C – PUBLIC INVOLVEMENT

July 1, 2017 Project Fact Sheet: Request for Public Input
Comments Requested by July 16, 2017 (15 days)

Public Comment Period and Who to Contact for More Information

The Village of New Waterford appreciates your review of the following project fact sheet and is interested in hearing from you. If you have any questions, concerns or comments on the information presented in this fact sheet, please list them on the form provided and return the form to Mr. Dave Slagle, Fiscal Officer, Village of New Waterford, 3760 Village Park Drive, P.O. BOX 287, New Waterford, Ohio 44445 by July 16, 2017. A representative of the Village will respond to your concerns. Or, if you prefer to provide verbal comments, please contact Mr. Slagle at the Village Hall at (330) 457-2225 between 8:00 A.M. and 4:00 P.M. You may also e-mail your comments to Mr. Slagle at nwvillagefo@yahoo.com.

Upon completing a 15-day comment period on this fact sheet and reporting to Ohio Environmental Protection Agency (EPA) Division of Environmental and Financial Assistance on the results, the Village will have met its responsibilities for notifying the public about the proposed project and the expected funding through Ohio EPA's Water Supply Revolving Loan Account (WSRLA) program, as well as involving the public in its decision-making process.

All written and verbal comments on this fact sheet will be responded to during the 15-day public comment period, and will become part of the public participation record sent to Ohio EPA's Division of Environmental and Financial Assistance. Recipients of this fact sheet may also receive a copy of Ohio EPA's environmental review document(s) on this project and its proposal to finance this project through the WSRLA program.

INTRODUCTION

The Village of New Waterford is proposing to make improvements to its water distribution system with financial assistance from Ohio EPA, Ohio Public Works Commission (OPWC) Small Government and Governor's Office of Appalachia (GOA). The Village has divided the work into two phases, with the potential for a third phase depending upon the availability of grant funding. In the first phase, the Village's proposed project involves upgrades to the existing water treatment plant and replacing water lines (including new hydrants and water meters) between the water treatment plant and the elevated water storage tank on Hatcher Road. Design work will begin on a Phase 2 project this fall to replace additional waterlines throughout the Village.

The project is being completed to increase the capacity of the existing water treatment plant which is running at capacity. The water treatment plant capacity is being increased to cover a projected 6.5% population increase over the next 20 years. This project will also eliminate water lines that have a history of breaking and increase the ability of the Village to adequately fight fires. Currently 87 percent of the water distribution system cannot provide adequate fire flows.

More information on the Village's proposed project can be found below.

PROJECT DESCRIPTION

The improvements to the water treatment plant include replacing two existing pressure filters with three 6 ft. diameter filters, replacing the two existing high service pumps with two 225 gallons per minute (gpm)

VILLAGE OF NEW WATERFORD'S WATER SYSTEM IMPROVEMENTS – PHASES 1 & 2

pumps and increasing the chlorine contact time. Existing valves, piping, metering equipment and chemical feed equipment will be removed and replaced. Mixing equipment will be added to the two existing water storage tanks to improve water quality and prevent damage from freezing in the tanks.

The water line replacements in Phase 1 will be located between the water treatment plant and the elevated storage tank on Hatcher Road along the following route: SR 46 to Pinewood Drive to Waynewood to Colony Drive then north to Hatcher. Water lines will also be installed on Maple Drive and one block south of SR 46 on Taylor Avenue and Church Street. 126 new remote read water meters will be installed in pits in the yards as part of this project. Approximately 1,602 lineal feet of 6 inch, 7,158 lineal feet of 8 inch and 3,884 lineal feet of 12 inch water line will be installed. This project will also include 22 new fire hydrants. A map of Phase 1 improvements is attached.

The water line replacements planned for Phase 2 are shown on the attached Phase 2 project map. Phase 2 will include replacing almost 13,200 lineal feet of undersized and deteriorated water mains with 8-inch pipe and 4,400 lineal feet with 6-inch pipe. The project will include replacing 18 fire hydrants and adding 23 new fire hydrants. Several service lines and one meter vault will be replaced.

PROJECT COSTS AND FINANCIAL EFFECTS

The Village has been successful in securing over 62% of the Phase 1 project funding in grants. The total Phase 1 project cost estimate is \$2.752 Million, which includes all planning, design, construction, and contingency expenses. The Village has secured \$500,000 in grant funding from the Ohio Public Works Commission, \$200,000 from the Governor's Office of Appalachia, and anticipates receiving 50% principal forgiveness for the remaining amount to be financed through the Ohio EPA Water Supply Revolving Loan Account (WSRLA) Disadvantaged Program.

Following the completion of the Phase 1 project, the estimated loan amount the Village expects to pay back over 30 years at 0% interest is \$1.026 Million. Annual loan repayments will be approximately \$34,200 per year.

The Phase 2 project cost estimate is \$2.550 Million, which includes all planning, design, construction and contingency expenses. The Village currently qualifies for 50% principal forgiveness through Ohio EPA's WSRLA Disadvantaged Program, and will seek additional grant funding over the coming year to help offset additional debt service costs.

The Village proactively raised rates in 2015, 2016 and 2017 in preparation for these projects. The Phase 1 project will not necessitate additional rate increases to cover loan repayments. Future rate increases would be expected to cover inflationary impacts to the water fund budget. Phase 2 may require additional rate increases to cover up to \$43,075 in additional annual loan payments beginning in 2020. The Village expects these projects will save money over time, as well as improve water quality and service reliability, by reducing the number of emergency waterline breaks each year.

IMPLEMENTATION SCHEDULE

Upon completion of the detail design review and project bidding process, the village expects the Phase 1 project will take about 6-8 months to complete. Currently, the construction of these improvements is not expected to begin until November 2017.

The design of Phase 2 could be completed by March 2018, and advertising for bids could happen as early as July 2018. Phase 2 would be expected to begin construction in October or November 2018, and require 6-8 months to complete.

SUMMARY OF EXPECTED CONSTRUCTION IMPACTS

All improvements to the water treatment plant will be inside the existing fenced in area and should result in little to no construction or environmental impacts. The water mains will be located in road right of way or easements. All disturbed areas will be returned original (or better) condition. The contractor will also be responsible for protecting any and all existing underground utilities.

The stream crossing on the project will be completed by directional drilling to minimize water quality impacts. There is one stream crossing in Phase 1 and three stream crossings in Phase 2. A frac-out contingency plan will also be required to mitigate any potential impacts to the stream.

A Storm Water Pollution Prevention Plan has been completed for this project. This plan details specific requirements the contractor must follow to mitigate water quality impacts due to runoff and erosion.

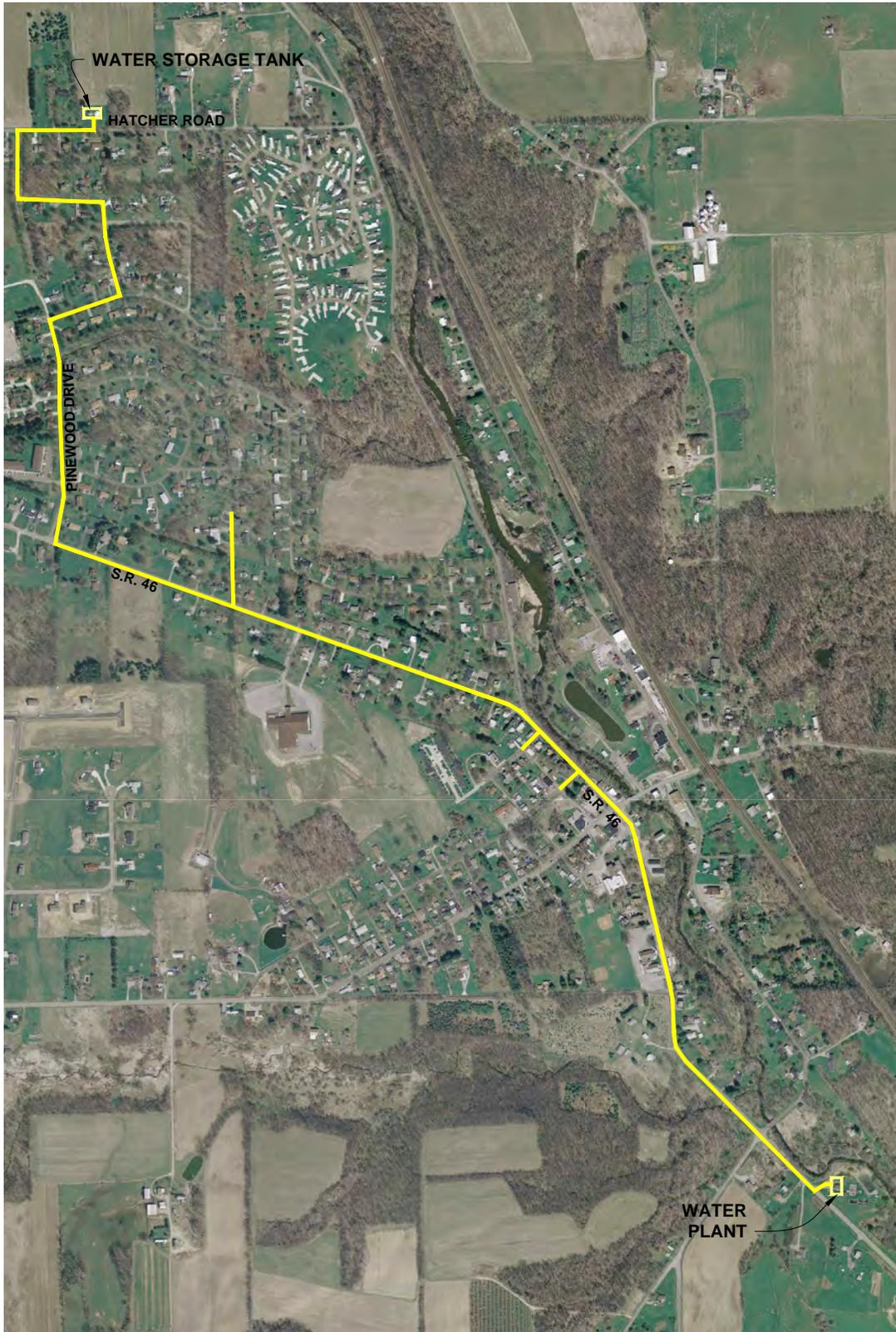
This project will require cutting down several trees. All trees removed will be in public right of way and will not be replaced since they will have adverse impacts on utilities buried in the public right of way.

The project was reviewed by the State Historic Preservation Ohio (SHPO) and no survey work was needed; should the contractor uncover any archaeological or historic resources during the project, then coordination with the SHPO will occur.

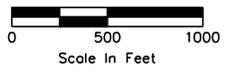
Dust control methods will be utilized as necessary during construction. Construction equipment should be maintained in good working order to control emissions.

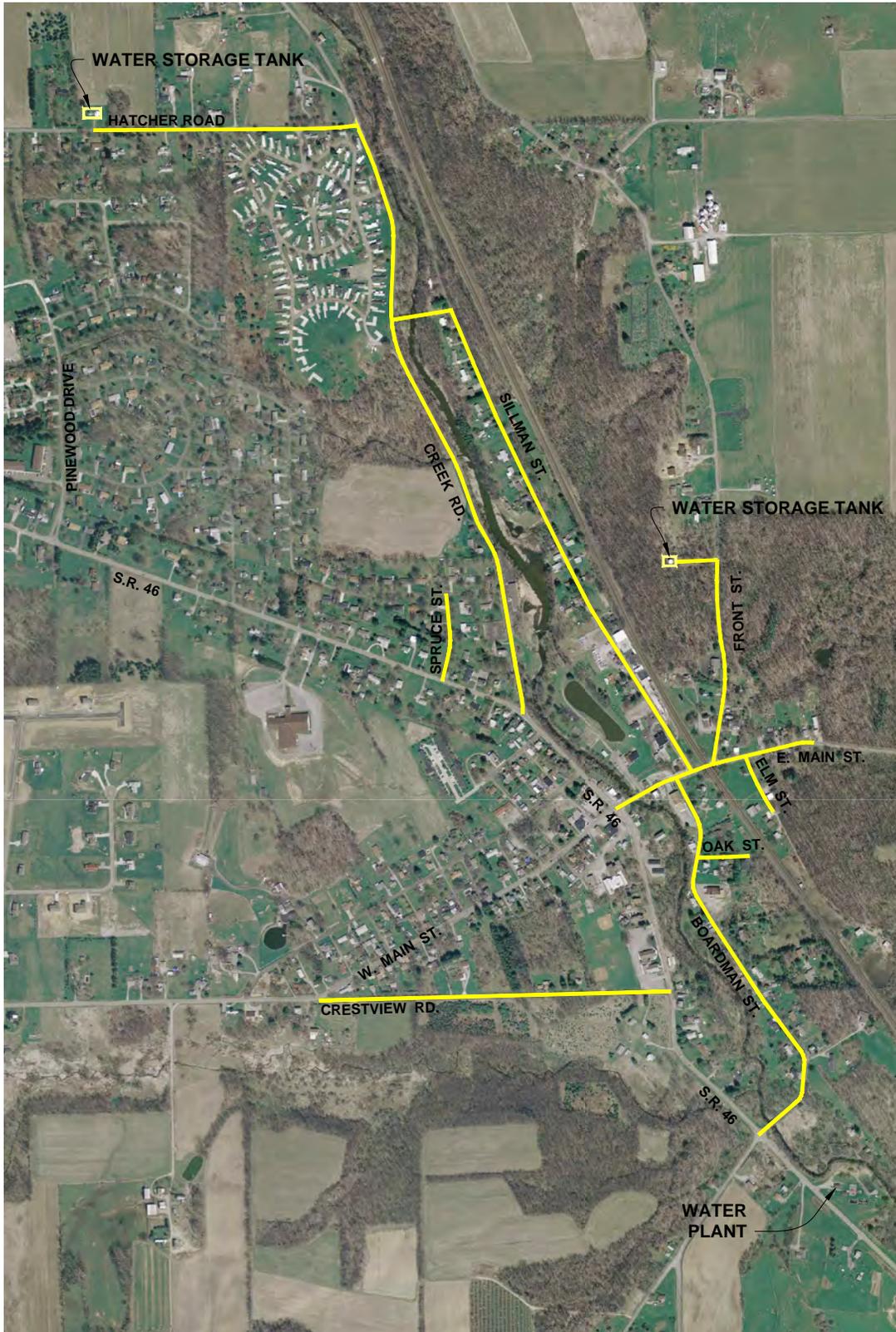
All Ohio Department of Transportation (ODOT) and Occupational Safety and Health Administration (OSHA) traffic control regulations must be implemented during construction. At least one lane of traffic should be maintained at all times. If roads must be temporarily closed for construction, appropriate officials will be notified in advance.

Overall, New Waterford officials expect that this project will not result in any adverse environmental or socioeconomic impacts. Any effects can be addressed by routine mitigation measures to control impacts to important environment attributes of the project area, such as water quality, air and noise pollution levels, public safety and local aesthetics.



LOCATION MAP
NEW WATERFORD, OHIO





LOCATION MAP

NEW WATERFORD, OHIO PHASE 2

From: Stuart, Erin E CIV USARMY CELRP (US)
To: ohio@fws.gov
Cc: [Stuart, Erin E CIV USARMY CELRP \(US\)](#)
Subject: Section 7(a)(2) informal consultation request: TAILS# 03E15000-2018-TA-0223
Date: Friday, November 16, 2018 8:37:00 AM
Attachments: [Additional USFWS correspondence.pdf](#)
[New Waterford EA Revised October 2018_reducedsize.pdf](#)

Good morning,

The USACE Pittsburgh District is evaluating a request for federal funding under the Water Resources Development Act (WRDA) of 1999, Section 594 for a water line replacement project for the Village of New Waterford, Columbiana County, Ohio. The Village of New Waterford's consultant, Lawhon & Associates, submitted project information to your office and received a letter in return dated 21 November, 2017 (TAILS#: 03E15000-2018-TA-0223). Attached is a copy of the draft Environmental Assessment prepared by Lawhon & Associates which contains the project location and proposed water line replacement work (Section 3.6 and Appendix B contain T&E species information/agency coordination). Based on the information provided, wetland and stream impacts will be avoided.

The Corps is requesting concurrence with a May Affect Not Likely to Adversely Affect determination for the Indiana bat and the Northern Long-Eared bat with the implementation of a seasonal tree cutting restriction (all cutting of trees = 3 inches dbh will only occur between 1 October and 31 March). No effect to any other federally listed species is anticipated.

If you need any other information to complete your review, please let me know.

Thank you!

Erin

Erin Stuart
Biologist
Environmental and Cultural Resources Section
USACE Planning & Environmental Branch
1000 Liberty Ave, Suite 2200
Pittsburgh, PA 15222-4186

From: [Finfera, Jennifer](#)
To: [Stuart, Erin E CIV USARMY CELRP \(US\)](#)
Subject: [Non-DoD Source] Fwd: [EXTERNAL] Section 7(a)(2) informal consultation request: TAILS# 03E15000-2018-TA-0223
Date: Friday, November 16, 2018 11:31:14 AM

TAILS# 03E15000-2018-I-0223

Dear Ms. Stuart,

This is in response to your request for U.S. Fish and Wildlife Service concurrence on your Endangered Species Act section 7(a)(2) effect determinations for federally listed species that may occur within the area of a proposed project that will involve water line replacement for the Village of New Waterford, Columbiana County, Ohio.

ENDANGERED SPECIES COMMENTS: The project occurs within the range of the Indiana bat (*Myotis sodalis*) and northern long-eared bat (*Myotis septentrionalis*). These species will use forested habitat. You have indicated that tree clearing of any trees ≥ 3 inches dbh will only be removed between October 1 and March 31. You have determined that the proposed project may affect but is not likely to adversely affect these bat species. Due to the implementation of seasonal clearing, we concur with your determination for these species.

Should additional information on listed or proposed species or their critical habitat become available or if new information reveals effects of the action that were not previously considered, this determination may be reconsidered.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C.661 et seq.), the Endangered Species Act of 1973, as amended, and are consistent with the intent of the National Environmental Policy Act of 1969, and the U.S. Fish and Wildlife Service's Mitigation Policy.

If you have any questions regarding our response or if you need additional information, please contact me.

Sincerely,

Jenny Finfera

--

Jenny Finfera
Wildlife Biologist
Ecological Services
4625 Morse Road, Suite 104
Columbus, Ohio 43230

DRAFT FINDING OF NO SIGNIFICANT IMPACT

Village of New Waterford Water Line Replacement Village of New Waterford, Columbiana County, Ohio

The U.S. Army Corps of Engineers, Pittsburgh District (Corps) has conducted an environmental analysis in accordance with the National Environmental Policy Act of 1969, as amended. The DRAFT Environmental Assessment (EA) dated October 2018 for the Village of New Waterford Water Line Replacement evaluates potential environmental impacts associated with a water line replacement project considered for Federal funding under the Section 594 program in the Village of New Waterford, Columbiana County, Ohio. Water Resources Development Act (WRDA) of 1999 (Public Law 106-53), Section 594 allows USACE to consider reimbursement for design and/or construction of environmental infrastructure.

The DRAFT EA, incorporated herein by reference, evaluated various alternatives that would update outdated water distribution infrastructure and provide adequate fire protection flows in the Village of New Waterford. The recommended plan includes Federal funding for:

- the replacement of approximately 17,600 linear feet (lf) of undersized (2-inch and 4-inch) and deteriorated water mains with 15,900 lf of 8-inch pipe and 2,056 lf of 6-inch pipe;
- the replacement of 18 fire hydrants and the addition of 17 new fire hydrants; and
- the replacement of several service lines, water meters, and one meter vault.

In addition a “no action” alternative (no federal funding) was evaluated. Under the no action alternative, the existing water distribution system would remain unchanged. No other feasible alternatives were identified for evaluation in the EA.

For all alternatives, the potential effects to the following resources were evaluated:

	In-depth evaluation conducted	Brief evaluation due to minor effects	Resource unaffected by action
Aesthetics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Air quality	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Aquatic resources/wetlands	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Invasive species	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fish and wildlife habitat	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Threatened/Endangered species	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Historic properties	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other cultural resources	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Floodplains	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Hazardous, toxic & radioactive waste	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydrology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Land use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Navigation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Noise levels	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Public infrastructure	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Socio-economics	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Environmental justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Soils	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Tribal trust resources	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Water quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Climate change	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

All practical means to avoid or minimize adverse environmental effects were analyzed and incorporated into the recommended plan. Best management practices (BMPs) during construction activities will be implemented to minimize impacts. Wetland and stream impacts have been avoided. No compensatory mitigation is required.

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 may affect but is not likely to adversely affect the following federally listed species or their designated critical habitat: Indiana bat and Northern Long-Eared bat with the implementation of a seasonal tree clearing restriction where all tree cutting must occur between 1 October and 31 March. The U.S. Fish and Wildlife Service (FWS) concurred with the Corps' determination on 16 November 2018.

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended, the U.S. Army Corps of Engineers determined that the recommended plan has no potential to cause effects on historic properties. The Ohio History Connection stated in a letter dated 4 May 2018 that the proposed project will not affect cultural resources nor historic properties.

Pursuant to the Clean Water Act of 1972, as amended, no discharge of dredged or fill material will occur, therefore the recommended plan has been found to be compliant with section 404(b)(1) Guidelines (40 CFR 230). Horizontal directional drilling will be used for all stream crossings, avoiding all impacts to waters of the U.S.

A 25-day public comment period will occur from **12 December 2018 to 5 January 2019**. The USACE will consider all submissions received before the expiration date of the public comment period. The nature or scope of the proposal may be changed upon consideration of the comments received. If significant effects on the quality of the human environment are identified during public comment which cannot be mitigated, the USACE will initiate an Environmental Impact Statement, and afford all of the appropriate public participation opportunities attendant to an EIS.

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 significantly affect the human environment; therefore, preparation of an Environmental Impact Statement is not required.

Date

ANDREW J. SHORT
COLONEL, Corps of Engineers
District Commander