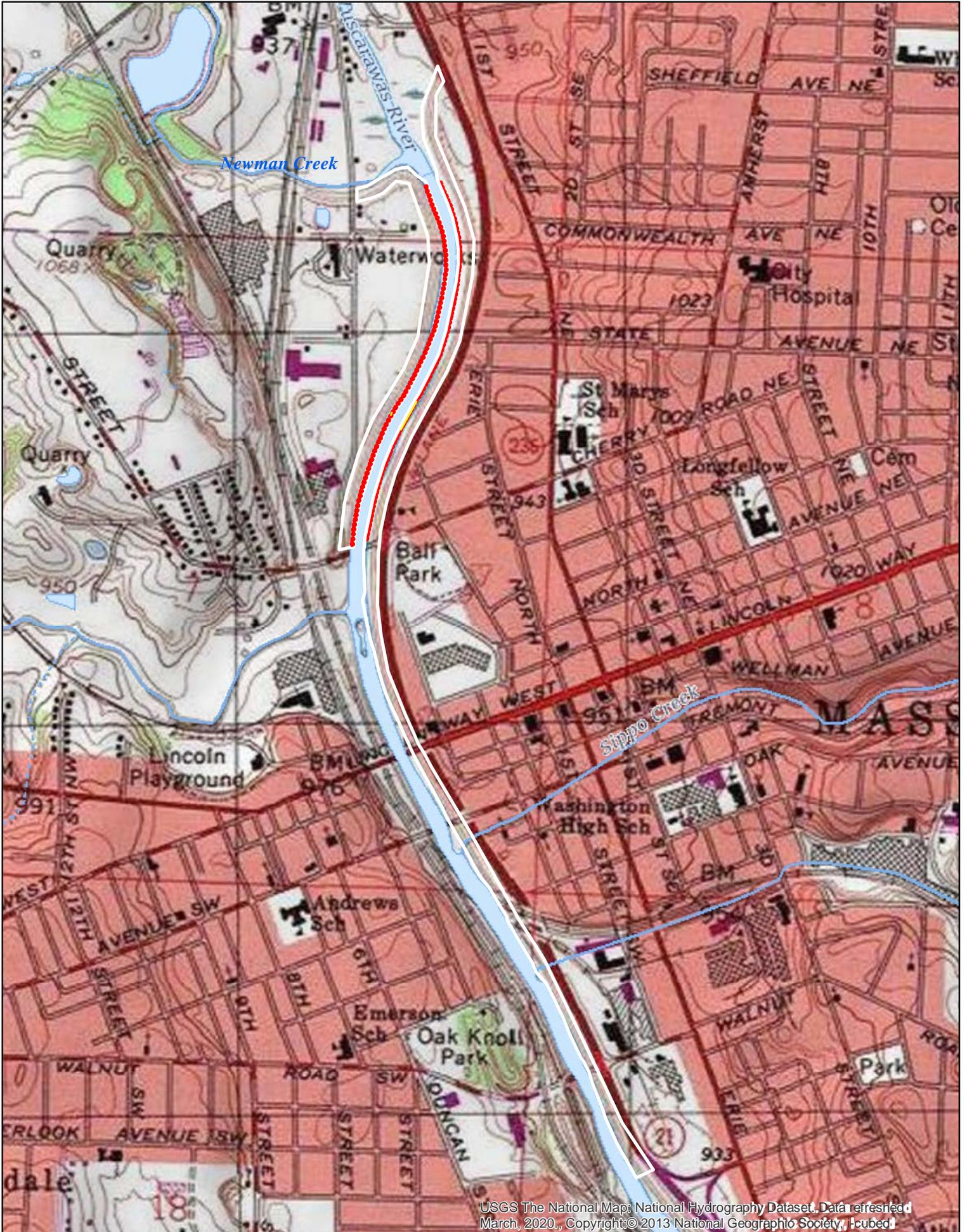
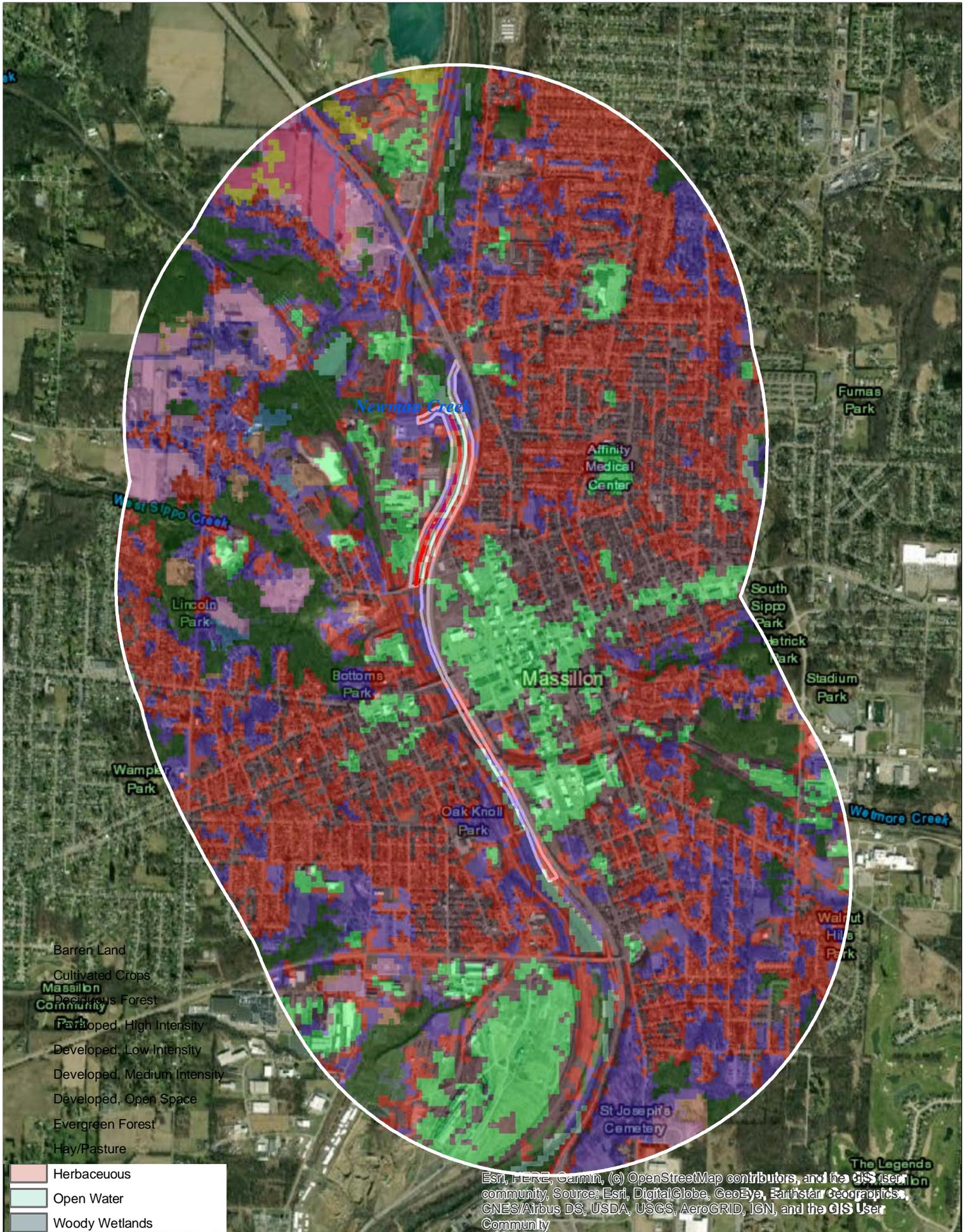


Appendix A  
Project Maps

# Topographic Map (USGS Topo Maps)

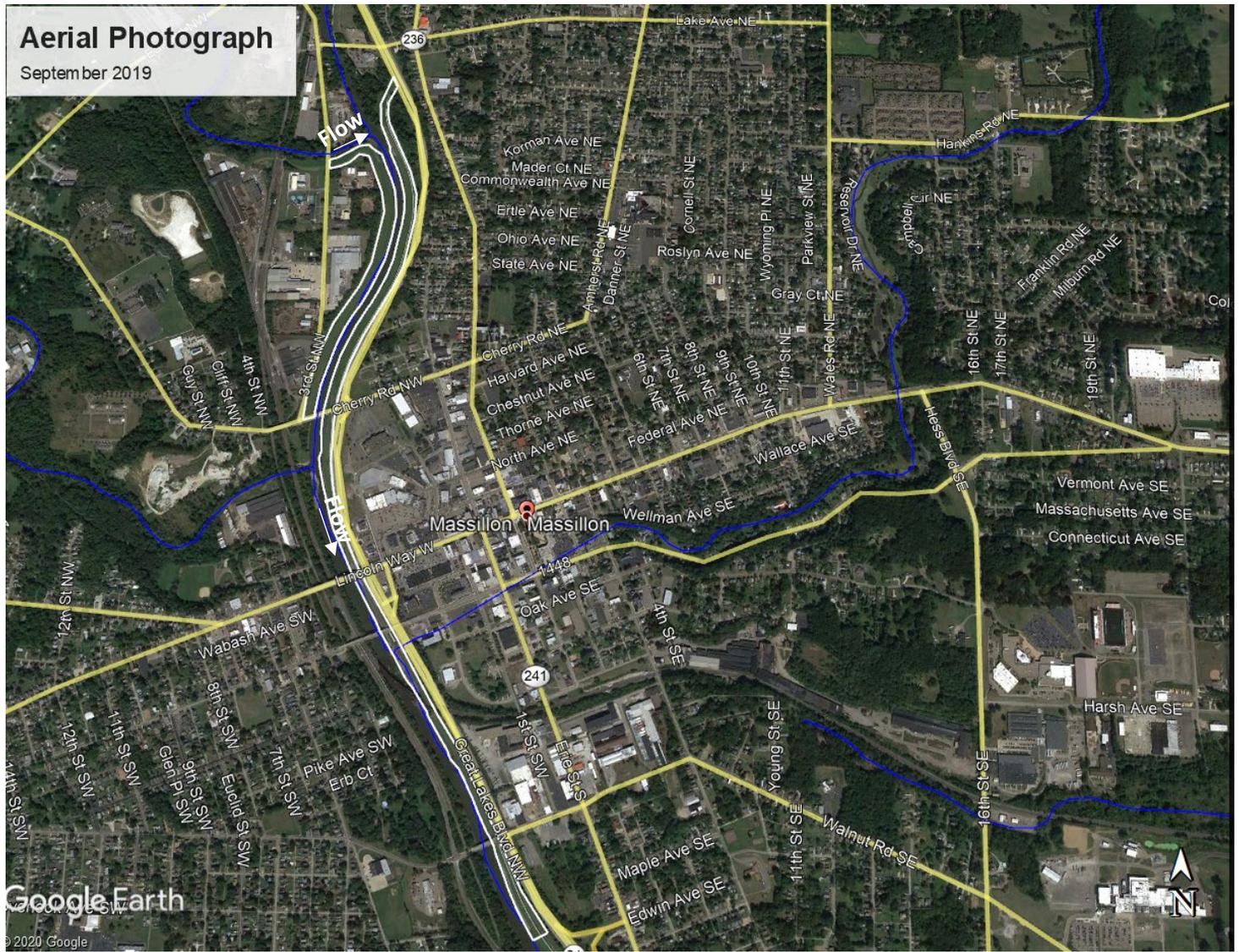


# Vicinity Map - Major Land Use Within One Mile of Project Area

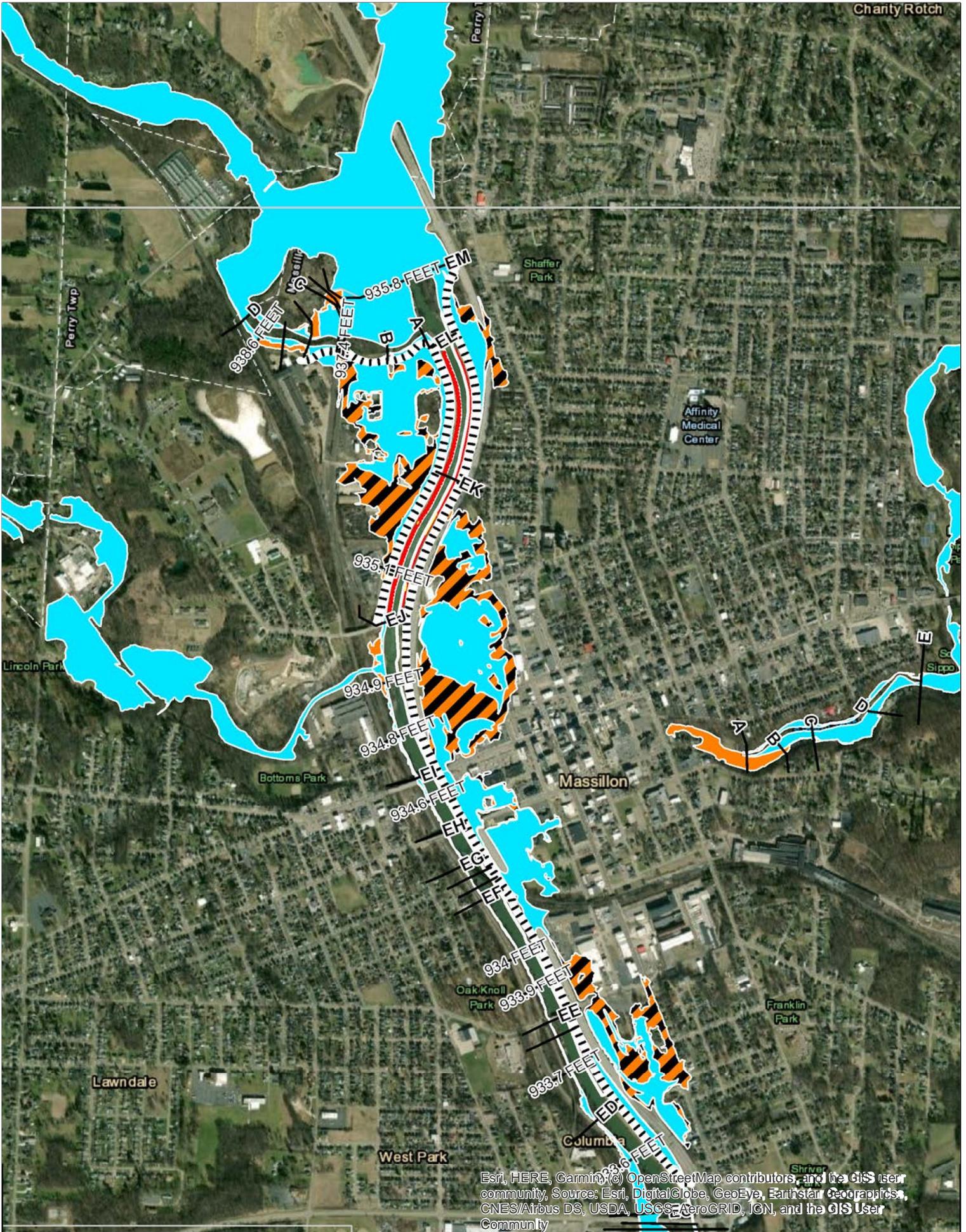


# Aerial Photograph

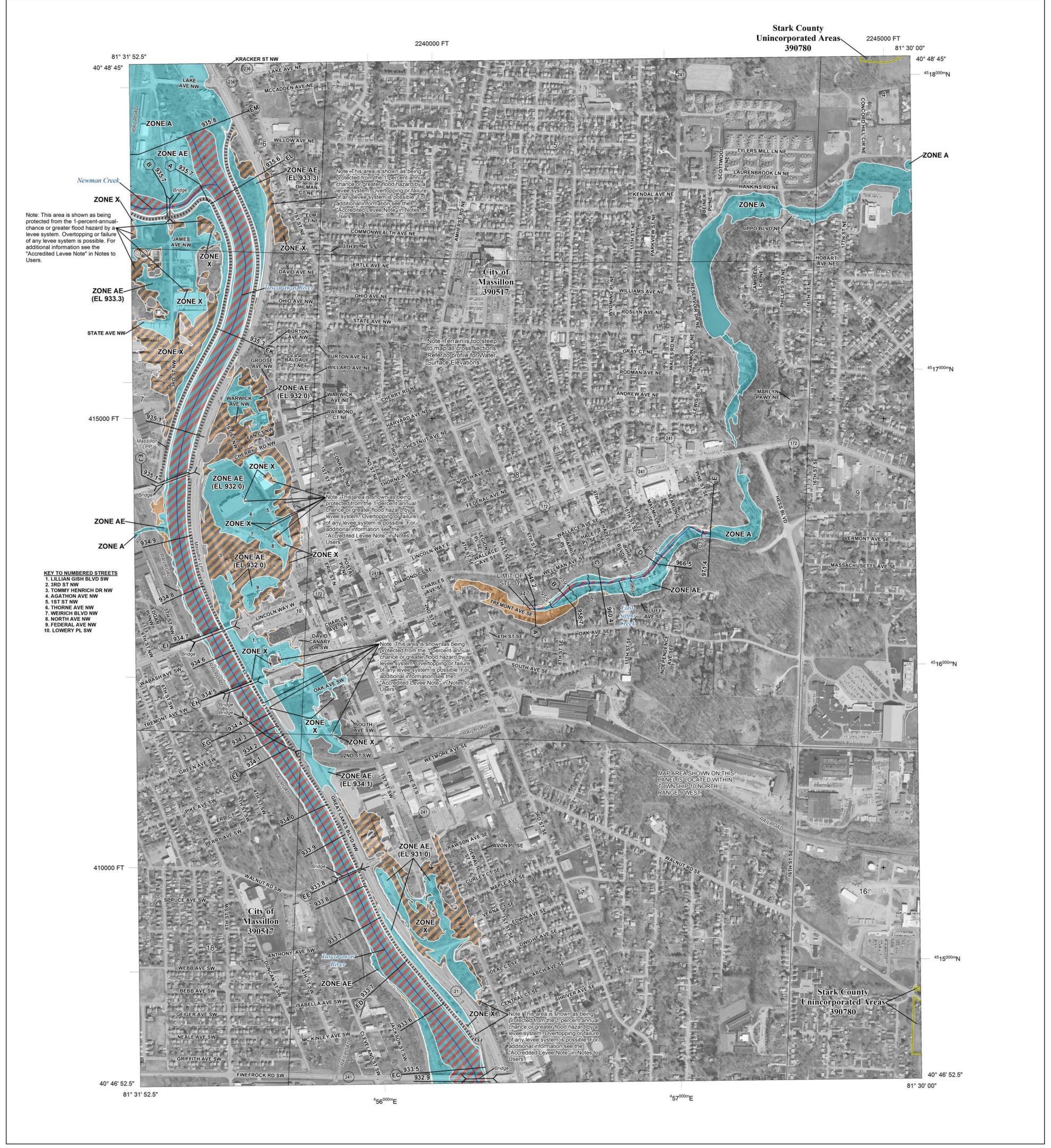
September 2019



# Floodplain Map



Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community, Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



### FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT  
**THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT [HTTP://MSC.FEMA.GOV](http://msc.fema.gov)**

	Without Base Flood Elevation (BFE) Zone A, V, A99
	With BFE or Depth Zone AE, AO, AH, VE, AR
	Regulatory Floodway
	0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
	Future Conditions 1% Annual Chance Flood Hazard Zone X
	Area with Reduced Flood Risk due to Levee See Notes. Zone X
	NO SCREEN Area of Minimal Flood Hazard Zone X
	Area of Undetermined Flood Hazard Zone D
	Channel, Culvert, or Storm Sewer
	Levee, Dike, or Floodwall
	Cross Sections with 1% Annual Chance Water Surface Elevation
	Coastal Transect
	Profile Baseline
	Hydrographic Feature
	Base Flood Elevation Line (BFE)
	Limit of Study
	Jurisdiction Boundary

### NOTES TO USERS

For information and questions about this Flood Insurance Rate Map (FIRM), available products associated with this FIRM, including historic versions, the current map date for each FIRM panel, how to order products, or the National Flood Insurance Program (NFIP) in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at <http://msc.fema.gov>. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

Base map information shown on this FIRM was provided from multiple sources, including Stark County, and Ohio Statewide Imagery Program dated 2012.

ACCREDITED LEEVEE: Check with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent-annual-chance level) and Emergency Action Plan, on the levee system(s) shown as providing protection for areas on this panel. To mitigate flood risk in residual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA website at <http://www.fema.gov/national-flood-insurance-program>.

### SCALE

Map Projection:  
 NAD 1983 StatePlane Ohio North FIPS 3401 Feet;  
 Western Hemisphere, Vertical Datum: NAVD 88

1 inch = 500 feet      1:6,000

### PANEL LOCATOR

\* PANEL NOT PRINTED

**National Flood Insurance Program**

**NATIONAL FLOOD INSURANCE PROGRAM**  
**FLOOD INSURANCE RATE MAP**

**STARK COUNTY, OHIO**  
 and Incorporated Areas

PANEL 192 of 428

FEMA

Panel Contains:			
COMMUNITY	NUMBER	PANEL	SUFFIX
MASSILLON, CITY OF STARK COUNTY	390517 390780	0192 0192	F F

VERSION NUMBER  
2.3.3.0

MAP NUMBER  
39151C0192F

MAP REVISED  
SEPTEMBER 14, 2018

# Appendix B

## Coordination



In reply, refer to  
2020-STA-47594

February 21, 2020

Mark Durant  
U.S. Army Corps of Engineers, Huntington District  
502 Eighth St.  
Huntington, WV 25701  
[Mark.V.Durante@usace.army.mil](mailto:Mark.V.Durante@usace.army.mil)

**RE: Massillon Levee Emergency Access Road Construction and Embankment Stabilization,  
City of Massillon, Stark County, Ohio**

Dear Mr. Durant:

This is in response to the correspondence, received on January 27, 2020, regarding the proposed Massillon Levee Emergency Access Road Construction and Embankment Stabilization, City of Massillon, Stark County, Ohio. The comments of the Ohio State Historic Preservation Office (SHPO) are submitted in accordance with the provisions of Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C.470 [36 CFR 800]).

The proposed undertaking involves the construction of access roads and embankment stabilization. The undertaking involves the Massillon Levee, which was previously determined eligible for listing on the National Register of Historic Places (NRHP) as part of the greater Muskingum Watershed Conservancy District. The potential for archaeological resources within the project area are low. The proposed disturbances to the levee will be temporary and all work areas will be returned to their original character.

Based on the information provided, we agree the project will have no adverse effect to historic properties. No further coordination with this office is necessary, unless the project changes or unless new or additional historic properties are discovered during implementation of this project. In such a situation, this office should be contacted as per 36 CFR 800.13. Please be advised that this is a Section 106 decision. This review decision may not extend to other SHPO programs.

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

Sincerely,

A handwritten signature in blue ink, appearing to read "Krista Horrocks", is written over a horizontal line.

Krista Horrocks, Project Reviews Manager  
Resource Protection and Review

RPR Serial No: 1082604



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# 03E15000-2020-TA-0964

Dear Ms. Stephans,

We have received your recent correspondence regarding the above-referenced project. You have requested concurrence with your determination of effects to federally listed species, pursuant to section 7(a)(2) of the Endangered Species Act of 1973, as amended (ESA).

The U.S. Fish and Wildlife Service (Service) has reviewed your project description and concurs with your determination that the project, as proposed, is not likely to adversely affect the federally listed endangered Indiana bat (*Myotis sodalis*) or threatened northern long-eared bat (*Myotis septentrionalis*). This is based on the commitment to cut all trees  $\geq 3$  inches dbh only between October 1 and March 31 to avoid adverse effects to the Indiana bat and northern long-eared bat.

This concludes consultation on this action as required by section 7(a)(2) of the ESA. Should, 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 reinitiated to assess whether the determinations are still valid.

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](mailto:ohio@fws.gov).

Sincerely,

A handwritten signature in blue ink, appearing to read "Patrice M. Ashfield".

Patrice M. Ashfield  
Field Office Supervisor

**From:** [Stephens, Ashley L CIV USARMY CELRH \(US\)](#)  
**To:** [Applegate, Jeromy](#)  
**Subject:** Massillon  
**Date:** Tuesday, March 3, 2020 8:57:00 AM  
**Attachments:** [Exhibit 001 Tree Clearing Location Plan 3 2 20.pdf](#)  
[Exhibit 002 West Levee Newman Creek Tree Clearing.pdf](#)  
[Massillon Tree Clearing.jpg](#)

---

Hi Jeromy,

I wanted to follow-up with you in regards to the U.S. Army Corps of Engineers Massillon Local Protection Project. As discussed at your office in January, the project is located in the City of Massillon in Stark County, Ohio, along east bank of the Tuscarawas River, about 200 miles above the mouth of the Muskingum River. The City of Massillon as the Sponsor is responsible for maintenance and operation of the pump stations, drainage structures, pressure conduits, and erection and dismantling of the gate closures. USACE maintains the levees, flood walls and improved channel, including the control weir. In 2011, erosion conditions were noted during the National Flood Insurance Program (NFIP) certification study. As a result, the approximately 4,100 linear feet of stone slope protection was constructed in 2012 for the most critical reaches along the east LPP. During routine inspection in 2018, severe erosion along the toe of both the east and west levee embankments was observed. This erosion was rated unacceptable under the USACE Levee Safety Program and requires stabilization to protect the levee. As a result of the severe erosion, the USACE is planning to construct approximately 11,500 linear feet of embankment stabilization on the east levee (7,500 linear feet) and west levee (4,000 linear feet). The embankment stabilization work would entail constructing a stone berm with keys, tie-backs, filter fabric, and angle barbs (small hard rock points into the channel using existing stone).

Currently, staging will occur on the area the Corps has real estate rights-of-entry for adjacent to the levee. The previously proposed staging area (below the bridge) is no longer valid due to rights-of-entry. The Corps is looking at other staging sites and will coordinate these sites under ESA as soon as more information is available.

The Federally listed threatened and endangered Indiana Bat and Northern Long-eared Bat are suspected to reside throughout Stark County, Ohio. Tree clearing of up to approximately .3 acres is needed for treatment adjacent to Newman Creek along the west levee (see tree clearing image). No maternal roost trees are present within this location. Due to limited tree clearing and lack of suitable roosting habitat, the Corps has determined the proposed action may affect but is not likely to adversely affect, the Indiana Bat and Northern-Long eared Bat. Tree clearing would take place before March 31st.

No Federally listed mussel species are known to be located within the Tuscarawas River or its tributaries in Stark County, Ohio. The Corps has determined there would be no effect to any Federal listed species. However, to comply with the National Environmental Policy Act (NEPA), 401 State Water Quality Certification, and the Ohio Mussel Survey Protocol, the Corps is proposing a mussel survey and relocation of the project within the area of the proposed embankment stabilization work. The Corps will continue to coordinate with the U.S. Fish and Wildlife Service and the Ohio Department of Natural Resources as we move forward on the survey/relocation efforts.

The Corps is requesting coordination/concurrence under the Fish and Wildlife Coordination Act and Section 7 of the Endangered Species Act with regards to the Massillon Project. Please feel free to contact me if you have any questions.

Thank you for your continued coordination.

Ashley Stephens  
USACE Huntington District  
304-399-5947

**From:** [John.Navarro@dnr.state.oh.us](mailto:John.Navarro@dnr.state.oh.us)  
**To:** [Applegate, Jeromy](mailto:Applegate,Jeromy)  
**Cc:** [Stephens, Ashley L CIV USARMY CELRH \(US\)](mailto:Stephens, Ashley L CIV USARMY CELRH (US))  
**Subject:** [Non-DoD Source] Re: [EXTERNAL] Massillon Levee  
**Date:** Tuesday, May 21, 2019 10:26:52 AM

---

The finding of live mussels triggers a survey/relocation. You can concentrate on areas where you found mussels.

---

From: Applegate, Jeromy <[jeromy\\_applegate@fws.gov](mailto:jeromy_applegate@fws.gov)>  
Sent: Monday, May 20, 2019 4:56:10 PM  
To: Navarro, John  
Cc: Stephens, Ashley  
Subject: Fwd: [EXTERNAL] Massillon Levee

Hi John,

My observations from last week's site visit are attached. Feel free to give me a call to discuss.

Jeromy

Jeromy Applegate  
Fish and Wildlife Biologist  
U S Fish and Wildlife Service  
Ohio Ecological Services Field Office  
4625 Morse Rd., Suite 104  
Columbus, OH 43230  
Phone: 614-416-8993 ext. 21  
FAX: 614-416-8994

----- Forwarded message -----

From: Stephens, Ashley L CIV USARMY CELRH (US) <[Ashley.L.Stephens@usace.army.mil](mailto:Ashley.L.Stephens@usace.army.mil)>  
<<mailto:Ashley.L.Stephens@usace.army.mil>> >  
Date: Mon, May 20, 2019 at 9:22 AM  
Subject: [EXTERNAL] Massillon Levee  
To: John.navarro@dnr.state.oh.us <<mailto:John.navarro@dnr.state.oh.us>> <[John.navarro@dnr.state.oh.us](mailto:John.navarro@dnr.state.oh.us)>  
<<mailto:John.navarro@dnr.state.oh.us>> >  
Cc: Jeromy Applegate <[jeromy\\_applegate@fws.gov](mailto:jeromy_applegate@fws.gov)> <[mailto:jeromy\\_applegate@fws.gov](mailto:jeromy_applegate@fws.gov)> >

Hi John,

I wanted to follow-up with you in regards to the U.S. Army Corps of Engineers Massillon, Ohio Local Protection Project (Levee). The project is located in Stark County, OH on both banks of the Tuscarawas River, 88 miles upstream from its confluence with the Walhonding River forming the Muskingum River. The original project was completed in 1951 and included channel improvements, levee, and pump station to provide protection from a Tuscarawas River flood with a peak discharge 20% greater than the maximum flood of record (March 1913). It protects approximately 630 acres comprising the main business district, a majority of the industries, and portions of the residential area. Project features include 12,800 ft. of improved channel; 4,300 ft. of new channel; 15,900 ft. of earth levee; 200 ft. of concrete wall, 4 pump stations; 3 gate openings and 2 pressure conduits with a total length of 4,300 feet. USACE is responsible for the levees, floodwalls, control weir, seepage control features, and instrumentation. The City of Massillon is responsible for pump stations, drainage structures, pressure conduits, and gate closures, and patrol of the levee during flood periods.

Currently as previously discussed, the existing project is experiencing significant erosion on the toe of the levee, increasing probability of levee embankment failure and levee breach. The USACE Huntington District is in the processes of seeking emergency funding to implement interim risk reduction measures until funding is available for a complete solution. Interim measures for levee stability include stone slope protection in the most critical section. The proposed stone slope protection treatment includes approximately 3200 lft of the attached typical section on the West Levee, including 100 lft on the bend just north of the weir, along with approximately 3800 lft on the East Levee, running from the weir southwards to the gate well just past the Cherry Rd. bridge. Due to funding constraints, we are currently seeking to prioritize the treatment to address the most critical reaches in this identified area first. Attached are some background slides and a draft typical cross section with quantities expected for the whole proposed treatment. The quantities are anticipated to lower as we identify the most critical reaches to protect.

Additionally, last week Mr. Jeromy Applegate with U.S. Fish and Wildlife met us at the site and will be providing via email information from what was found during the site visit.

Please let me know a good day/time this week to discuss the path forward on this action.

Thanks!

Ashley Stephens  
USACE Huntington District  
304-399-5947

**To:** John Navarro, ODNR – DOW

**From:** Jeromy Applegate, USFWS

**Subject: Observations regarding unionid mussels and stream substrates in the vicinity of the proposed Massillon Levee repair, Tuscarawas River. Site visit on May 15, 2019.**

**Date:** 5/20/2019

- The Tuscarawas River in the project area is a maintained channelized reach with a mowed grass riparian zone (Photo 1).
- The Tuscarawas River in Stark County is a Group 1 stream.
- Water clarity was poor on the day of the site visit. Visibility was approximately 1 foot.
- I walked the bank. I did not enter the water, except for the gravel bar upstream of the weir (Figure 1). Entering the water was not safe because banks were slippery, and poor water clarity prevented me from seeing the bottom contours (Photo 2).
- I observed **nine live fatmucket** (*Lampsilis radiata luteola*) (Photo 3), all on the right descending bank in muck substrate (Figure 1). I did not observe any other live mussel species.
- Substrate within approximately 3-5 feet of shore (my typical limit of observation due to poor water clarity) was composed of 1) muck (Photo 2); 2) rip-rap and muck (Photo 4); and 3) riprap, muck, and imbedded cobble and gravel (Photo 5) (Figure 1).
- Upstream of the weir, on the right descending bank, there was a gravel bar with excellent visibility of the substrates and exposed mussel shells due to very shallow water depth (Figure 1). On the gravel bar, I observed:
  - One subfossil white heelsplitter (*Lasmigona complanata*) (Photo 6)
  - Two weathered to subfossil spikes (*Elliptio dilatata*) (Photo 7)
  - One weathered fatmucket
- Brandon Moore, ACOE project manager, stated that rock fill would extend a maximum of 5 ft from the bank along the entire project.
- General thoughts
  - Some mussels would likely be crushed by placement of rock fill for bank stabilization.
  - Although fatmuckets were the only live species observed during the site visit, poor water clarity prevented a thorough reconnaissance survey.
  - The poor substrate quality observed along the banks, coupled with the channelized nature of the river, suggests that the mussel assemblage in the Tuscarawas River in the project area is likely composed primarily of common, generalist species.

**General substrate composition within 3-5 feet from bank:**

-  Muck
-  Rip-rap and muck
-  Rip-rap, muck, and embedded cobble and gravel



Gravel Bar

Weir

Direction of Stream Flow

**Figure 1.** Massillon Levy project area, Tuscarawas River. Nine live fatmucket (*Lampsilis radiata luteola*) were found in the muck substrates on the right descending bank. One subfossil white heelsplitter (*Lasmigona complanata*), two weathered to subfossil spikes (*Elliptio dilatata*), and one weathered fatmucket were found on the gravel bar upstream of the weir.

Photograph 1

Tuscarawas River at Massillon, looking upstream from the Cherry Rd. NW bridge.



Photograph 2

Tuscarawas River at Massillon, Looking downstream at Cherry Rd. NW bridge, from right descending bank.



Photograph 3

Two of nine live fatmuckets (*Lampsilis radiata luteola*) found within five feet of the right descending bank in muck substrates.



Photograph 4

Tuscarawas River at Massillon, looking downstream from weir along the left descending bank, from the northern limit of the project area.



Photograph 5

Tuscarawas River at Massillon, looking upstream at the Cherry Rd. NW bridge, from the left descending bank.



Photograph 6

White heelsplitter (*Lasmigona complanata*), found on the gravel bar, right descending bank above the weir at the northern limit of the project area.



Photograph 7

Two spikes (one complete and one single-valve), found on the gravel bar, right descending bank above the weir at the northern limit of the project area.



Appendix C  
Mailing List

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

**Federal Agencies and Officials**

The Honorable Sherrod Brown  
United States Senate  
200 North High St.  
Room 614  
Columbus, OH 43215

The Honorable Rob Portman  
United States Senate  
37 West Broad Street  
Room 300  
Columbus, OH 43215

The Honorable Bob Gibbs  
United States House of Representatives  
110 Central Plaza South  
Canton, Ohio 44702

Mr. Steve Baker  
USDA Natural Resources Conservation  
Service  
200 North High Street, Room 522,  
Columbus, OH 43215

Mr. Jeromy Applegate  
United States Fish and Wildlife Services  
4625 Morse Road, Suite 104  
Columbus, OH 43230

US Environmental Protection Agency  
Region 5  
Ralph Metcalfe Federal Building  
77 West Jackson Blvd.  
Chicago, IL 60604-3590

**State Agencies and Officials**

The Honorable Mike DeWine  
Governor of Ohio  
Riffe Center, 77th Floor  
77 South High Street  
Columbus, OH 43215-6117

Mr. John Navarro  
Ohio Division of Natural Resources  
2045 Morse Road, Building G-3  
Columbus, OH 43229

Mr. Nathan Young  
State Historic Preservation Office  
Ohio History Center  
800 E. 17th Ave.  
Columbus, OH 43211

Mr. Jeffery Boyles  
Ohio Environmental Protection Agency  
P.O. Box 1049  
Columbus, OH 43216-1049

**County Agencies and Officials**

Massillon Public Library  
208 Lincoln Way E  
Massillon, OH 44646

Mr. Frank Silla  
Floodplain Coordinator  
151 Lincoln Way E.  
Massillon, OH 44646