



**Date:** June 17, 2021  
**To:** **ConnectGen, LLC**  
**From:** Jun Wang, PE and Shawn McGee, PE  
**CC:** Tegan Kondak, TRC  
**Project:** 438439.0000  
**Subject:** Hydrology Desktop Review and Scour Analysis  
**Mill Point Solar Project**  
Glen, Montgomery County, NY

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ConnectGen, LLC (ConnectGen) is pursuing development of a 250 MW Mill Point Solar facility at an approximately 8,400-acre site located in the Town of Glen, Montgomery County, New York (project site). The project site location was provided in a kmz file named "03.29.2021\_MPS\_hyroStudyArea" by ConnectGen to TRC via email on March 29, 2021. This memorandum was prepared to summarize TRC's findings from a desktop review of readily available public information to identify areas of scour potential and high flood inundation depths so ConnectGen can better understand the risk of flood hazard affecting the proposed site development. We understand this information will be used by ConnectGen during preliminary planning and pre-design phase of the project to identify net "buildable areas" and to limit long-term operational risk. These findings may also be used to determine the need and scope for a more extensive study to support the development of the solar project.

### **Flood Hazard Impact**

The project site is located in the north central part of Montgomery County and just south of Mohawk River. The project site's north project limit borders the River which flows from west to east. Currently the land within the project site is mostly agricultural with several minor tributary streams of Mohawk River traversing across the project site. As seen on Google Earth, these streams appear mostly covered by dense vegetation, which would typically widen the floodplain but slow the velocity of flood water.

According to the current Flood Insurance Rate Map (FIRM) panels published by the Federal Emergency Management Agency (FEMA), the project site is located outside the 100-year floodplain of Mohawk River – see Figure 1 below and Attachment A. The approximate location of the project site is outlined in red in Figure 1. As illustrated in the FEMA FIRM panels provided in Attachment A, areas within the project site is designated as Zone X – Area of Minimum Flood Hazard. It should be noted that the southeast portion of the project site, represented by panel #36057C0190E, does not have a printed panel available per FEMA.

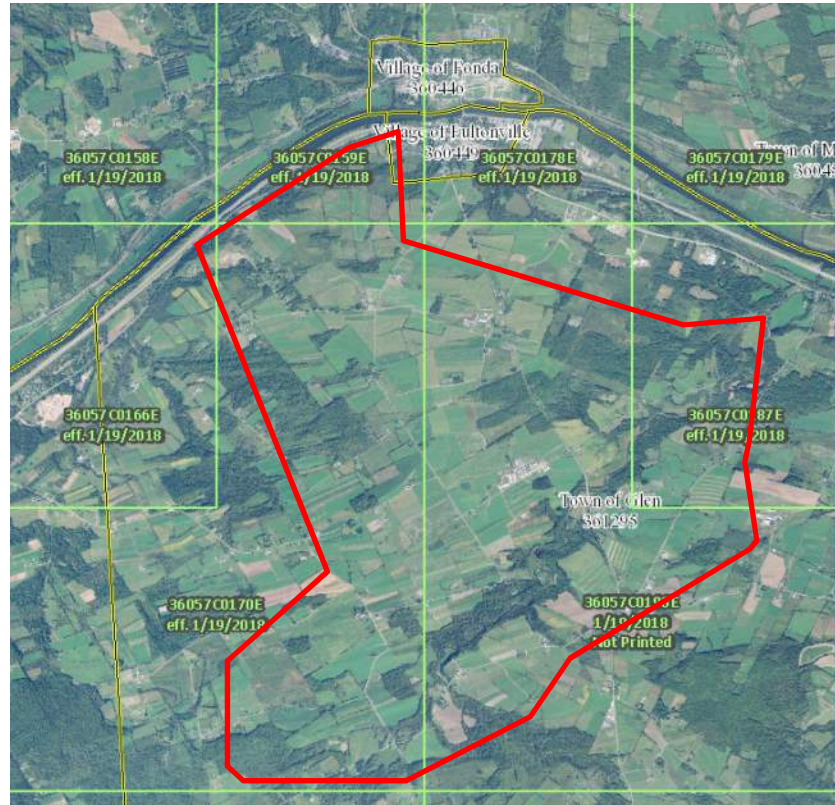


Figure 1: FEMA FIRM Panels

Information on the floodplains associated with the minor tributary streams across the project site are not publicly available based upon the desktop research. To obtain an estimate of their flood potentials, TRC used the US Geological Survey's (USGS) Streamstats hydrologic calculation tool and US Army Corps of Engineers' (USACE) HEC-RAS surface water model to develop a preliminary evaluation of the hydraulics of these streams. The results were also used to create an estimated mapping of their flood boundaries under a 100-year event. Because a detailed topographic survey of the project site was not available at the time of this memorandum preparation, TRC used available USGS topographic data for the ground geometry. The mapped flood boundaries have been drawn in the flood inundation map in Attachment B with the depths shown in different shades of color ranging from less than 2 foot in depth (royal blue) to over 10 feet (red). The floodplains appear mostly narrow and coincide with the ravines created by the tributaries, however, there are a couple of local breakouts. No extensive flooding outside of the stream banks is expected from the tributary stream based upon the preliminary analysis. Flow velocities are generally low ranging from 2 feet per second to 4.5 feet per second due to the heavy vegetation.

### Soil Characteristics and Scour Potential

TRC reviewed soil data information from the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS) online database. Soil survey maps can be used for general farm, local, and wider area planning. On-site soil investigations are needed to validate these interpretations and to confirm the identity of the soil types. There are numerous mapped soil units within the project area; the soil units mostly consist of

Appleton silt loam (ApB), Churchville silty clay loam (ChA and ChB), Darlen silty loam (DaB), Lansing silt loam (LaB, LaC, and LaD), and Madalin silty clay loam (Ma). See the soil survey map provided in Attachment C. These soils are generally described as somewhat poorly drained. A map unit legend that includes a table of the map unit symbols, the soil names, and acreage and percentage of area of each soil type mapped by the NRCS within the project site is also provided in Attachment C.

The WSS was also used to determine the erosion hazard characteristics of the soils within the project area. The erosion hazard rating is described by the NRCS as *the hazard of soil loss caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance activities that expose the soil surface*. The ratings are based on slope, soil erosion characteristics of the soil type, and rainfall erosivity. The hazard for the project area is shown in Figure 2 below and can be described as "slight," "moderate," "severe," or "very severe."

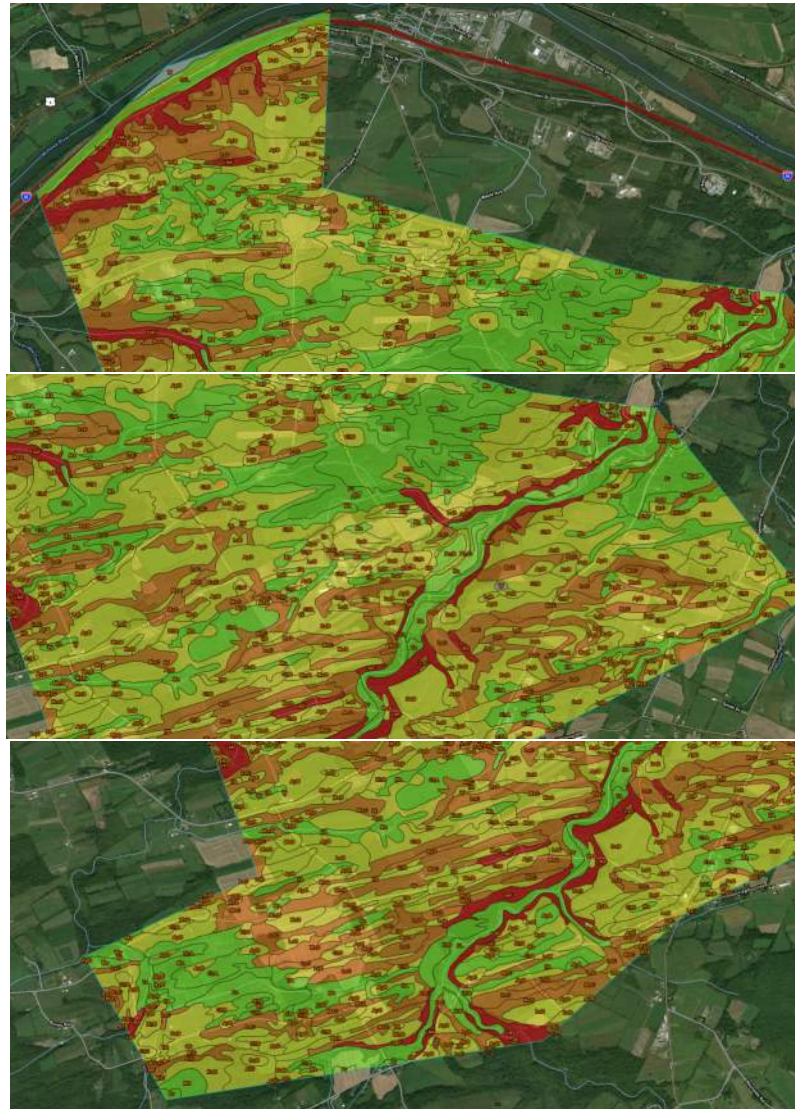


Figure 2: Erosion Hazard Soil Survey Maps (from north to south)



A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical. The soil type mapped as "very severe" erosion hazard potential is the Lansing and Mohawk soils (LMF) and based on the map unit legend table in Attachment C correspond to approximately 4.6% of the project site (approximately 426 acres) and is generally located within the stream ravines associated with the tributaries to the Mohawk River, and specifically the stream within the 100-year floodplain located in the southern portion of the project area (see Attachment B) as discussed above. It is anticipated that erosion can occur a few inches per year within this area and up to a foot during large storm events, such as 100-year flood events, or more within localized scour areas. The erosion hazard soil mapping for the project area is provided in Attachment D.

## Summary

A site map in Attachment E identifies the floodplain boundary as well as soils mapped as having a "very severe" erosion hazard potential as previously discussed. Based on the results of the preliminary HEC-RAS surface water model created by TRC and our review of the NRCS soil survey information related to erosion hazard, it is recommended that development does not occur within 25 feet of these identified areas as illustrated on the site map in Attachment E. TRC will also share these environmental constraints to ConnectGen in kmz format.

## Limitations

This work has been done in accordance with our authorized scope of work and in accordance with generally accepted practice in the fields of geotechnical and foundation engineering. This warranty is in lieu of all other warranties either expressed or implied. Our conclusions and recommendations are based on the data revealed by the desktop review and results from the preliminary flood plain modeling. We are not responsible for any conclusions or opinions drawn from the data included herein, other than those specifically stated, nor are the recommendations presented in this report intended for direct use as construction specifications. This report is intended for use with regard to the specific project discussed herein and any changes in loads, structures, or locations should be brought to our attention so that we may determine how they may affect our conclusions. An attempt has been made to provide for normal contingencies but the possibility remains that unexpected conditions may be encountered during construction. If this should occur, or if additional or contradictory data are revealed in the future, we should be notified so that modifications to this report can be made, if necessary. If we do not review the relevant design and construction documents and witness the relevant construction operations, then we cannot be responsible for any problem, which may arise, from the misunderstanding or misinterpretation of this report or failure to comply with our recommendations.



## References

1. Federal Emergency Management Agency, "Flood Insurance Rate Map Panels No. 36057C0159E, 36057C0166E, 36057C0170E, 36057C0187E, and 36057C0190E".
2. US Geologic Survey, "One Meter Digital Elevation Model"
3. United States Department of Agriculture, Natural Resources Conservation Service; Web Soil Survey; <https://websoilsurvey.nrcs.usda.gov/app/>.

**ATTACHMENT A: FEMA Flood Insurance Rate Map (FIRM)  
Panels**



**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 18N. The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NNGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base map** information shown on this FIRM was provided in digital format by the New York State Office of Cyber Security & Critical Infrastructure Coordination. This information was provided as 60-centimeter resolution panchromatic orthoimagery from photography dated April 2005.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Based on updated topographic information, this map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables for multiple streams in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on the map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

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Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels, community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** 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 MSC website.

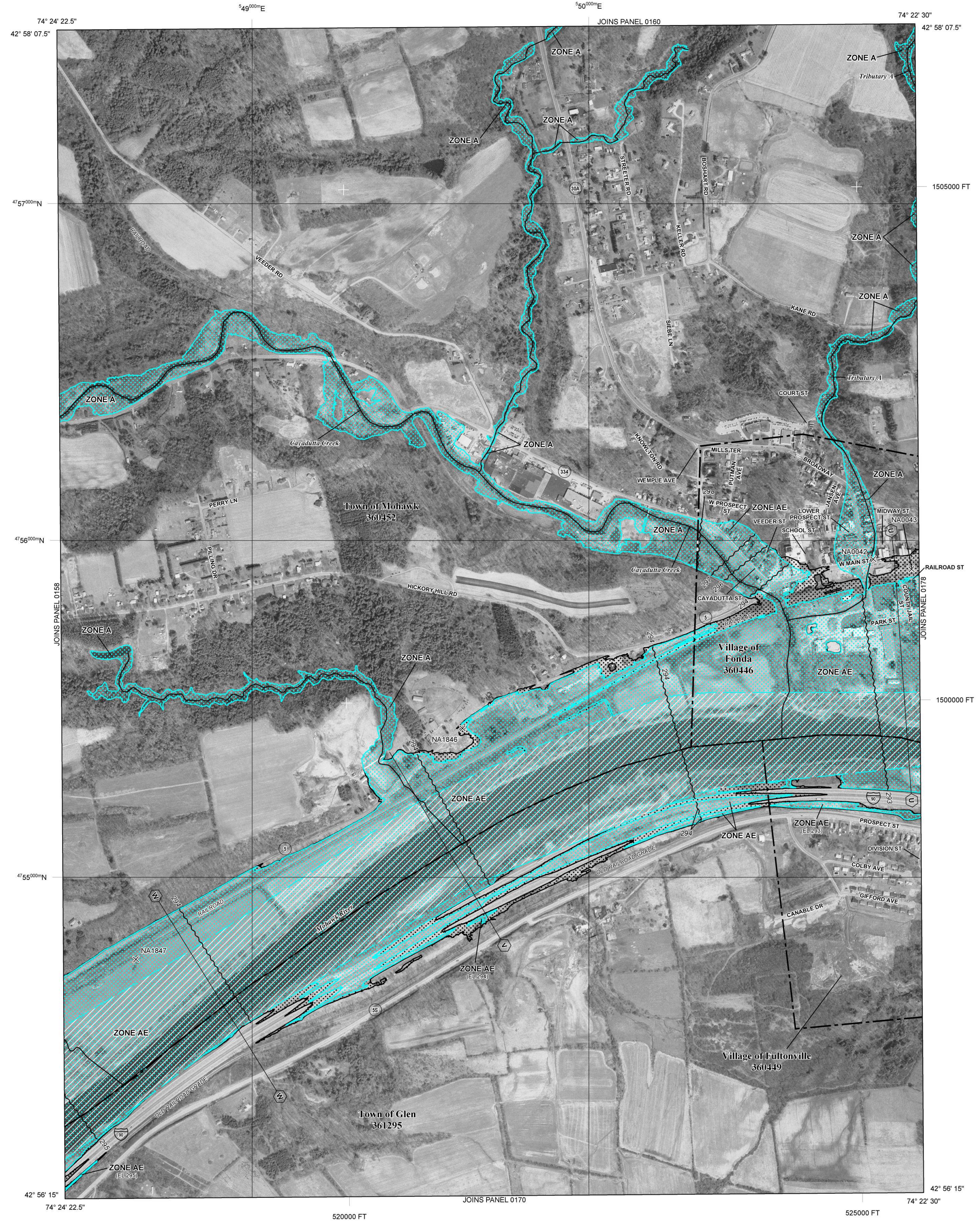
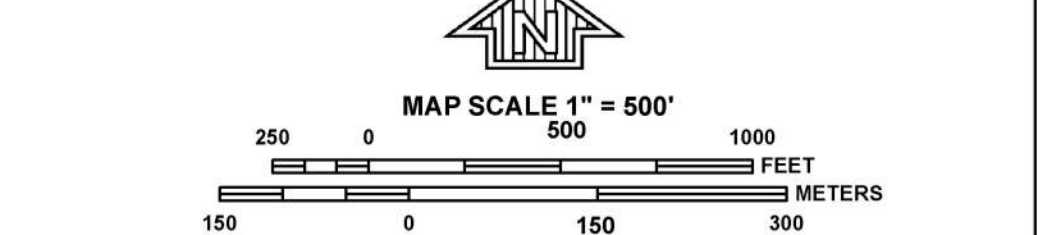
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**LEGEND**

- SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD  
The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently described. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE  
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)

- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

- \*Referenced to the North American Vertical Datum of 1988
- Cross section line
- Transect line
- 45° 02' 08", 93° 02' 12"  
Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT  
5000-foot ticks: New York State Plane East Zone (FIPS Zone 3101), Transverse Mercator projection
- 1000-meter Universal Transverse Mercator grid values, zone 18N
- DX5510 X  
Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M.1.5  
River Mile
- MAP REPOSITORIES  
Refer to Map Repositories list on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP  
January 19, 2018
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0159H**

**FIRM**  
FLOOD INSURANCE RATE MAP  
for MONTGOMERY COUNTY, NEW YORK  
ALL JURISDICTIONS

CONTAINS:	COMMUNITY	NUMBER
	FONDA, VILLAGE OF	360446
	FULTONVILLE, VILLAGE OF	360449
	GLEN, TOWN OF	361295
	MOHAWK, TOWN OF	360452

PANEL 159 OF 385  
MAP SUFFIX: E  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**  
36057C0159H  
**EFFECTIVE DATE**  
JANUARY 19, 2018  
Federal Emergency Management Agency



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**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

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Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

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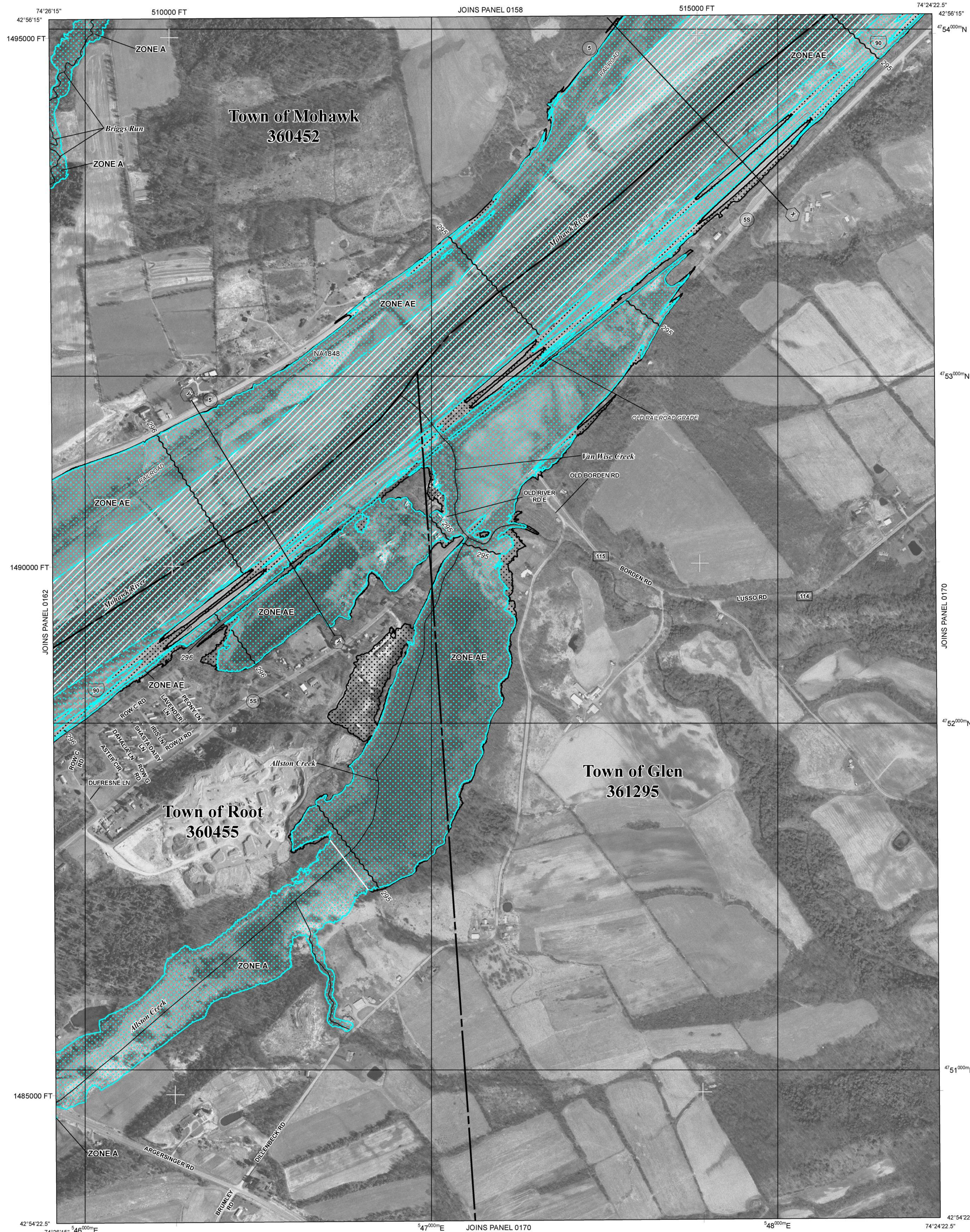
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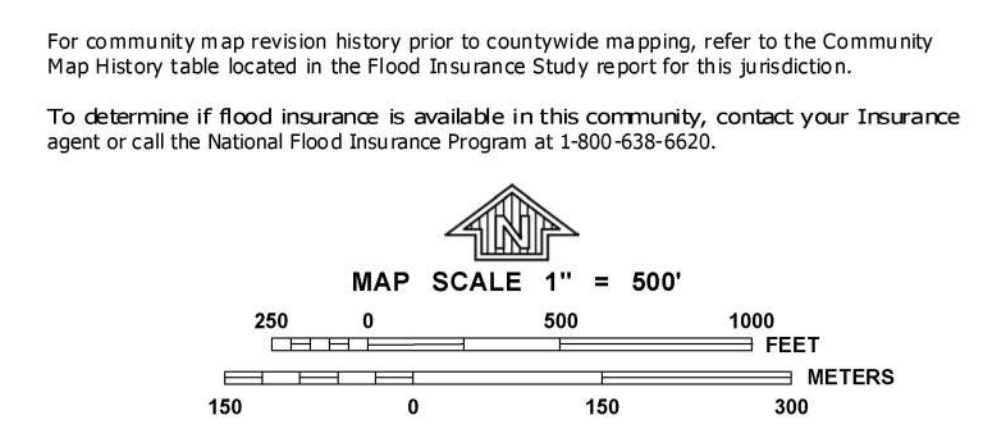
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- DX5510 x Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M 1.5 River Mile
- MAP REPOSITORIES Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP JANUARY 19, 2018
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL



**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0166E**

**FIRM**  
FLOOD INSURANCE RATE MAP

for MONTGOMERY COUNTY, NEW YORK  
ALL JURISDICTIONS

**CONTAINS:**

COMMUNITY	NUMBER
GLEN, TOWN OF	361295
MOHAWK, TOWN OF	360452
ROOT, TOWN OF	360455

PANEL 166 OF 385  
MAP SUFFIX: E  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

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Federal Emergency Management Agency



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**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Information eXchange or FMIX** at 1-877-FEMA MAP (1-877-336-2627) for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The **FEMA Map Information eXchange or FMIX** may also be reached by Fax at 1-800-358-9620 and its website at <http://www.msc.fema.gov/>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/nfip>.



**LEGEND**

- SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD
- The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.
- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently destroyed. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE
- The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.
- OTHER FLOOD AREAS
- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS**
- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)
- CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.
- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*
- \* Referenced to the North American Vertical Datum of 1988
- Cross section line
- Transect line
- 87°07'45", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 76°00'N 1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 18N
- 600000 FT 5000-foot grid ticks: New York State Plane coordinate system, East zone (FIPSZONE 3101), Transverse Mercator projection
- DX5510 x Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

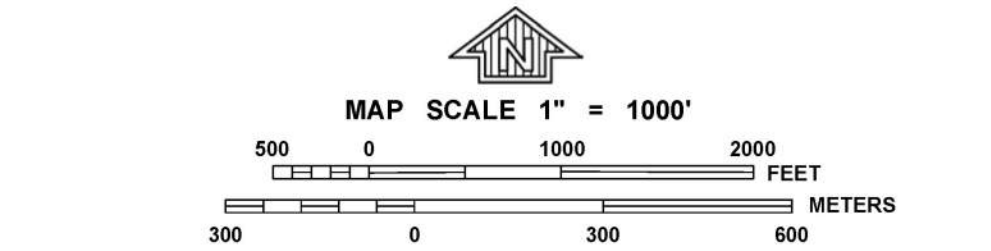
MAP REPOSITORIES  
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP  
JANUARY 19, 2018

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in 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.



**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0170E**

**FIRM**  
FLOOD INSURANCE RATE MAP

for MONTGOMERY COUNTY, NEW YORK  
ALL JURISDICTIONS

CONTAINS:

COMMUNITY	NUMBER
GLEN, TOWN OF	361295
ROOT, TOWN OF	360455

PANEL 170 OF 385  
MAP SUFFIX: E  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Note to User: The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER  
36057C0170E

EFFECTIVE DATE  
JANUARY 19, 2018

Federal Emergency Management Agency



**NOTES TO USERS**

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations (BFEs)** and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

**Coastal Base Flood Elevations** shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) zone 18N. The **horizontal datum** was NAD 83, GRS1980. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services  
NOAA, NINGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

**Base map** information shown on this FIRM was provided in digital format by the New York State Office of Cyber Security & Critical Infrastructure Coordination. This information was provided as 60-centimeter resolution panchromatic orthoimagery from photography dated April 2005.

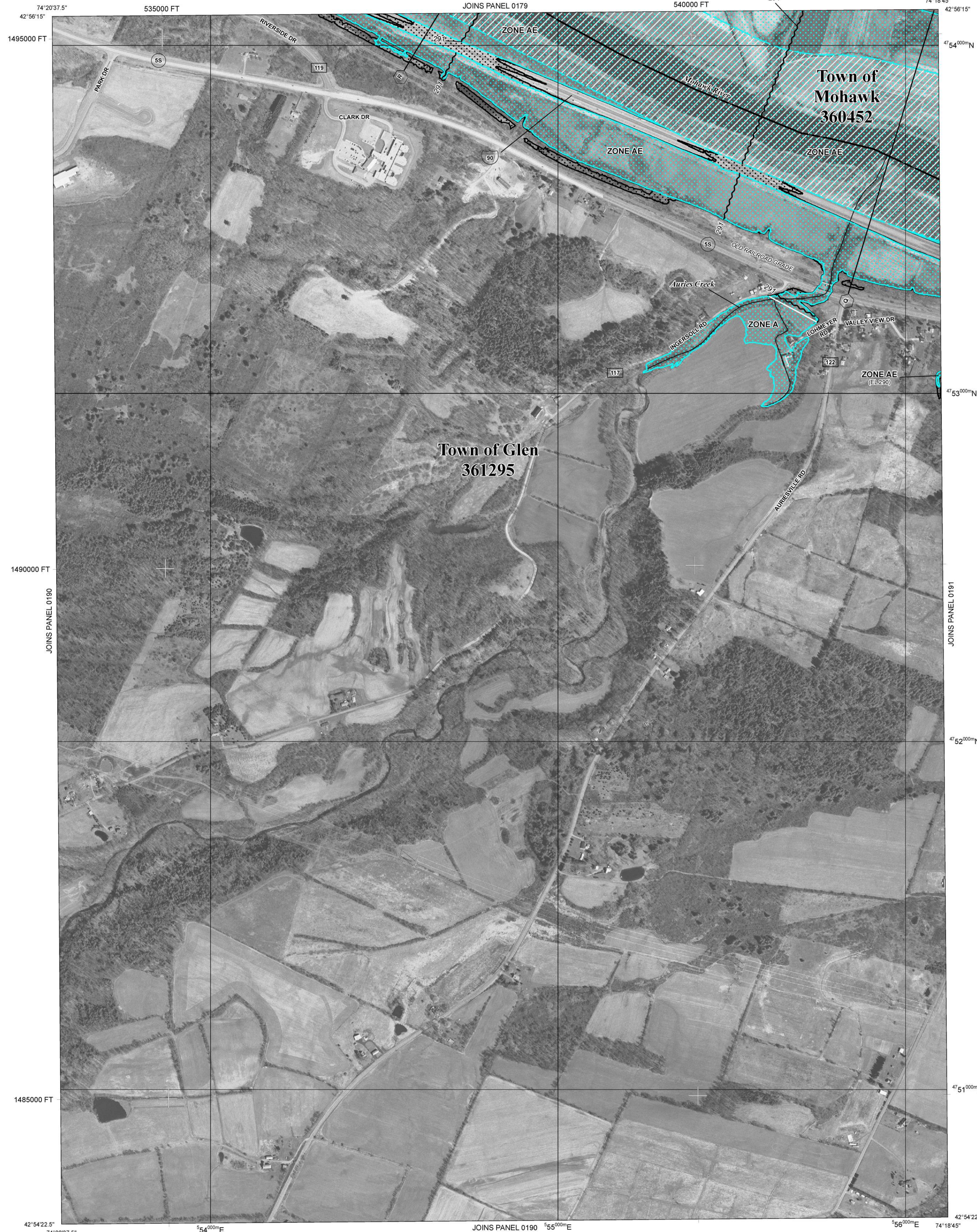
This map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRM for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. Also, the road to floodplain relationships for unreviewed streams may differ from what is shown on previous maps.

**Corporate limits** shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

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**LEGEND**

**SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD**

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
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- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently destroyed. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

**FLOODWAY AREAS IN ZONE AE**

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

**OTHER FLOOD AREAS**

- ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

**OTHER AREAS**

- ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D** Areas in which flood hazards are undetermined, but possible.

**COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS**

**OTHERWISE PROTECTED AREAS (OPAs)**

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- Limit of Moderate Wave Action
- Base Flood Elevation line and value; elevation in feet\*
- Base Flood Elevation value where uniform within zone; elevation in feet\*

\* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- 87°07'45", 32°22'30"
- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 1000-meter Universal Transverse Mercator grid values, zone NAD 1983 UTM Zone 18N
- 5000-foot grid ticks: New York State Plane coordinate system, East zone (FIPSZONE 3101), Transverse Mercator projection
- 600000 FT
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- DX5510 x
- M 1.5
- River Mile

**MAP REPOSITORY**  
Refer to listing of Map Repositories on Map Index

**EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP**  
JANUARY 19, 2018

**EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL**

For community map revision history prior to countywide mapping, refer to the Community Map History table located in 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.

**MAP SCALE 1" = 500'**

250 500 1000 FEET  
150 0 150 300 METERS

**NATIONAL FLOOD INSURANCE PROGRAM**

**PANEL 0187E**

**FIRM**  
FLOOD INSURANCE RATE MAP

for MONTGOMERY COUNTY, NEW YORK  
ALL JURISDICTIONS

**CONTAINS:**

COMMUNITY	NUMBER
GLEN, TOWN OF	361295
MOHAWK, TOWN OF	360452

**PANEL 187 OF 385**  
**MAP SUFFIX: E**  
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

Notes to User: The Map Number shown below should be used when placing map orders, the Community Number shown above should be used on insurance applications for the subject community.

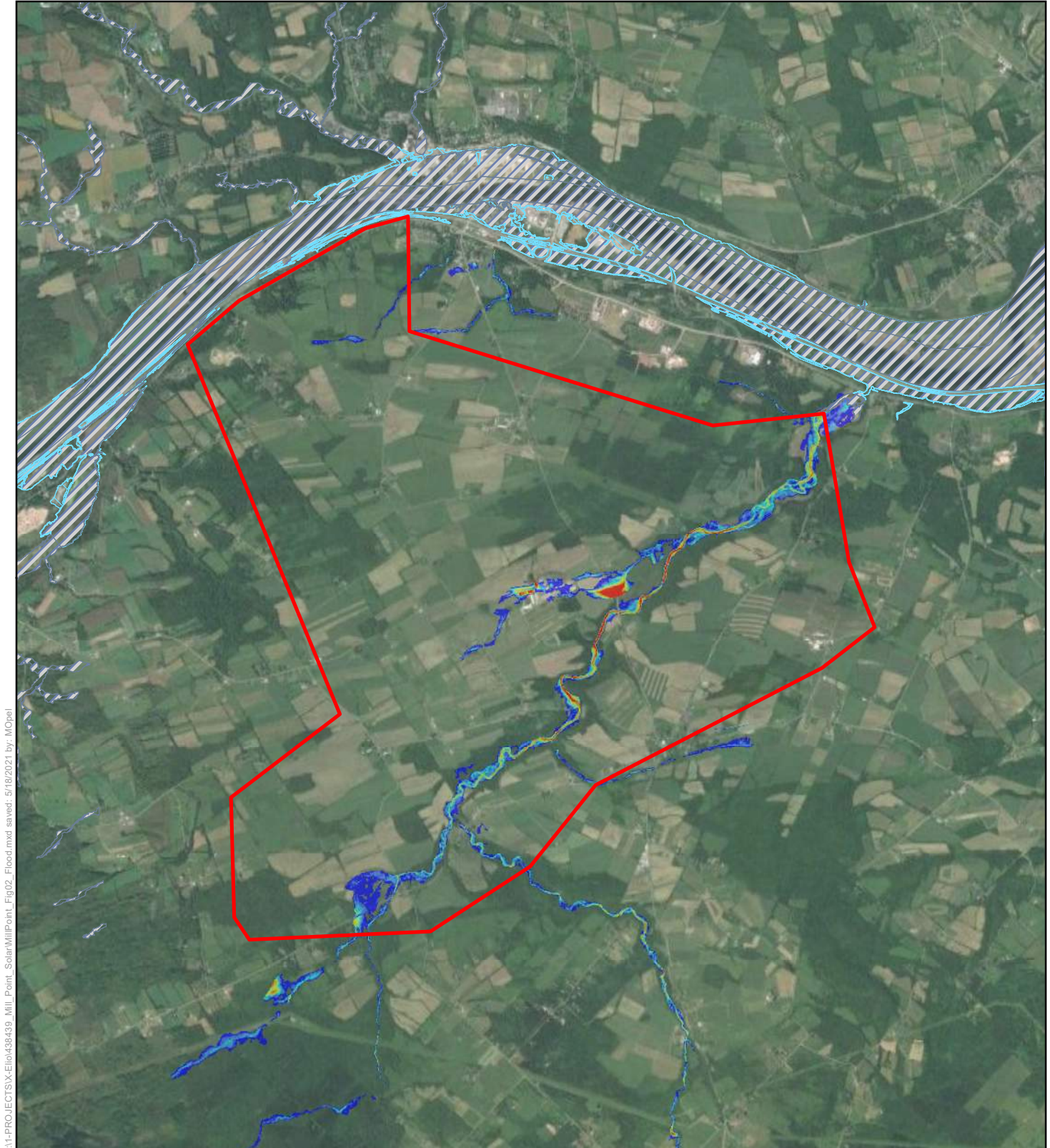
**MAP NUMBER**  
36057C0187E

**EFFECTIVE DATE**  
JANUARY 19, 2018

**Federal Emergency Management Agency**



## **ATTACHMENT B: Flood Inundation Map**



S:\1-PROJECTS\X-Eliot\438439\_Mill\_Point\_Solar\MillPoint\_Fig02\_Flood.mxd saved: 5/18/2021 by: MOPel

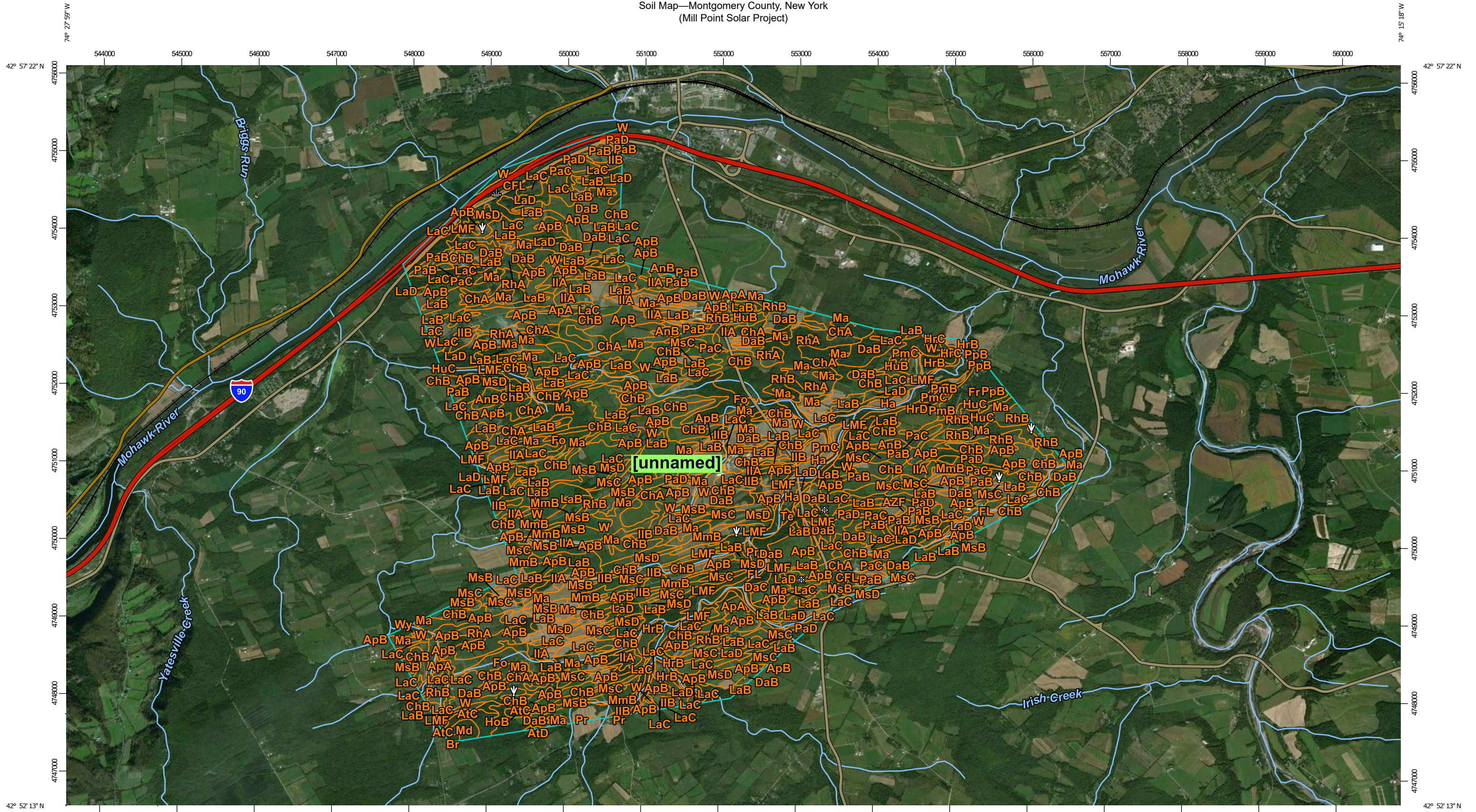
Basemap from: Google Data Source: FEMA, <https://hazards.fema.gov/gis/nfhl/services>, TRC GIS 2020. NO OTHER FEMA FLOOD TYPE IN CURRENT MAP EXTENT 5/18/2021

<p><b>Project Location</b></p>	Project Boundary	4-5	 1:60,000 1 inch = 5,000 feet (when printed 8.5x11) 	 <b>Mill Point Solar Site</b> Montgomery County, New York 100-Year Flood Inundation Map Figure 2
	Area inside 100 Year Floodplain	5-6		
	Area inside 500 Year Floodplain	6-7		
	<b>Depth (ft)</b> < 2 2-3 3-4	7-8 8-9 > 10		

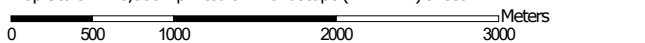
## **ATTACHMENT C: NRCS Soil Survey Map**



Soil Map—Montgomery County, New York  
(Mill Point Solar Project)



Map Scale: 1:46,500 if printed on B landscape (17" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey






Soil Map—Montgomery County, New York  
(Mill Point Solar Project)

### MAP LEGEND




















**Area of Interest (AOI)**







Area of Interest (AOI)

**Soils**


-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points

**Special Point Features**






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


**Water Features**

-  Streams and Canals

**Transportation**

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

**Background**

-  Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

Soil Survey Area: Montgomery County, New York  
Survey Area Data: Version 18, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Nov 9, 2016

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

## Map Unit Legend

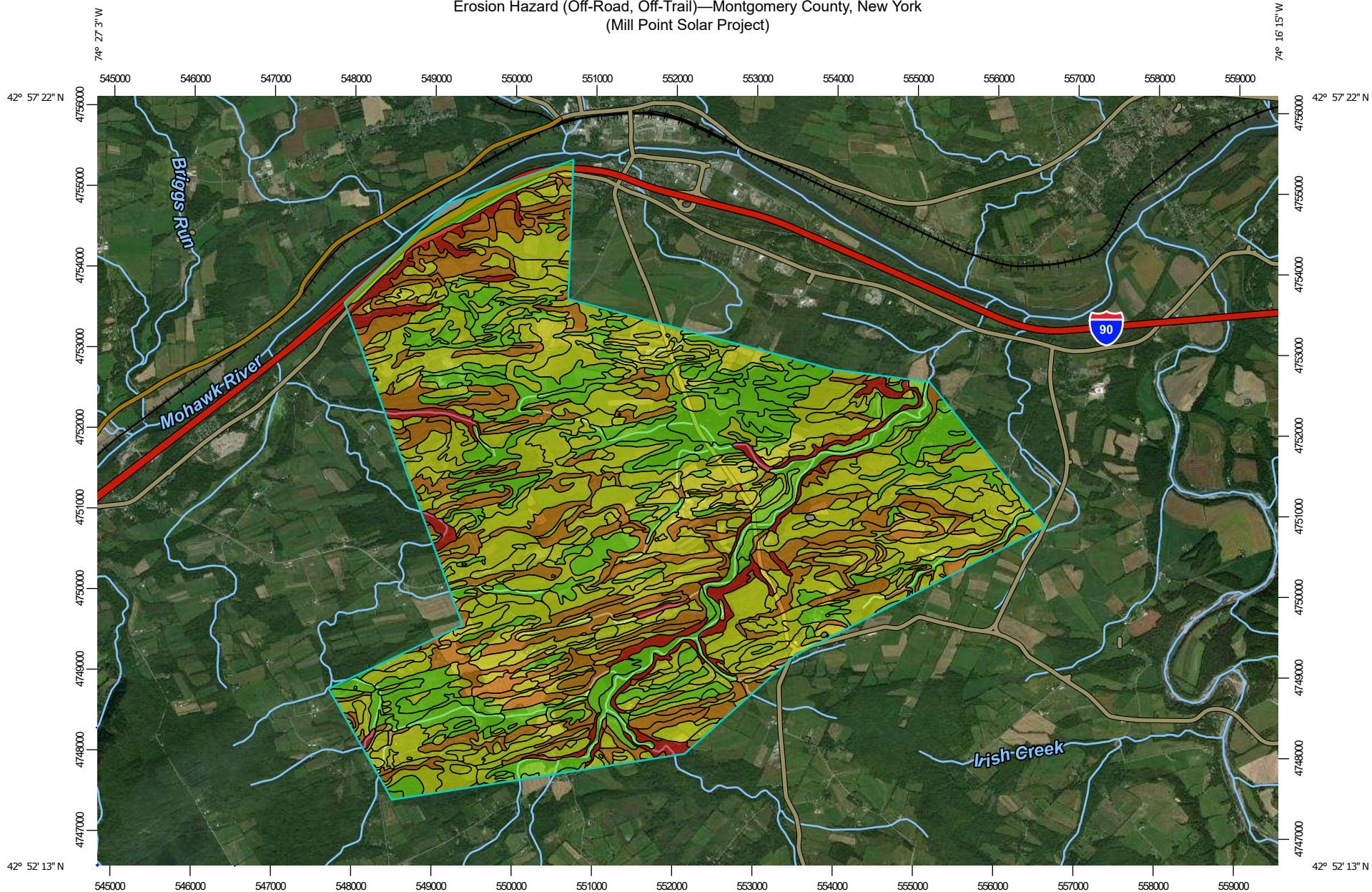
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AnB	Angola silt loam, 3 to 8 percent slopes	40.6	0.4%
ApA	Appleton silt loam, 0 to 3 percent slopes	30.5	0.3%
ApB	Appleton silt loam, 3 to 8 percent slopes	1,392.2	15.0%
AtC	Arnot channery silt loam, 8 to 15 percent slopes, rocky	39.0	0.4%
AtD	Arnot channery silt loam, 15 to 25 percent slopes, rocky	14.9	0.2%
AZF	Arnot-Rock outcrop association, very steep	10.5	0.1%
Br	Brockport silt loam	3.9	0.0%
CFL	Cut and fill land	106.7	1.2%
ChA	Churchville silty clay loam, 0 to 3 percent slopes	386.6	4.2%
ChB	Churchville silty clay loam, 3 to 8 percent slopes	921.8	9.9%
DaB	Darien silt loam, 3 to 8 percent slopes	659.3	7.1%
DaC	Darien silt loam, 8 to 15 percent slopes	5.0	0.1%
FL	Fluvaquents, loamy	285.7	3.1%
Fo	Fonda mucky silty clay loam	171.4	1.8%
Fr	Fredon silt loam	63.6	0.7%
Ha	Hamlin silt loam	44.7	0.5%
HoB	Hornell silt loam, 3 to 8 percent slopes	28.2	0.3%
HrB	Howard gravelly silt loam, 3 to 8 percent slopes	76.4	0.8%
HrC	Howard gravelly silt loam, 8 to 15 percent slopes	11.1	0.1%
HrD	Howard gravelly silt loam, 15 to 25 percent slopes	10.2	0.1%
HTF	Howard soils, very steep	12.4	0.1%
HuB	Hudson silty clay loam, 3 to 8 percent slopes	14.8	0.2%
HuC	Hudson silty clay loam, 8 to 15 percent slopes	7.7	0.1%
IIA	Ilion silt loam, 0 to 3 percent slopes	199.1	2.1%
IIB	Ilion silt loam, 3 to 8 percent slopes	110.2	1.2%



Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LaB	Lansing silt loam, 3 to 8 percent slopes	539.4	5.8%
LaC	Lansing silt loam, 8 to 15 percent slopes	920.7	9.9%
LaD	Lansing silt loam, 15 to 25 percent slopes	250.0	2.7%
LMF	Lansing and Mohawk soils, 25 to 60 percent slopes	426.5	4.6%
Ma	Madalin silty clay loam, 0 to 3 percent slopes	783.3	8.4%
Md	Madalin silty clay loam, moderately shallow variant	31.8	0.3%
MmB	Manheim silt loam, 3 to 8 percent slopes	120.0	1.3%
MsB	Mohawk silt loam, 3 to 8 percent slopes	216.6	2.3%
MsC	Mohawk silt loam, 8 to 15 percent slopes	470.2	5.1%
MsD	Mohawk silt loam, 15 to 25 percent slopes	135.3	1.5%
PaB	Palatine silt loam, 3 to 8 percent slopes	113.0	1.2%
PaC	Palatine silt loam, 8 to 15 percent slopes	86.1	0.9%
PaD	Palatine silt loam, 15 to 25 percent slopes	81.7	0.9%
PmB	Palmyra gravelly silt loam, 3 to 8 percent slopes	32.0	0.3%
PmC	Palmyra gravelly silt loam, 8 to 15 percent slopes	23.4	0.3%
PpB	Phelps gravelly loam, 3 to 8 percent slopes	27.8	0.3%
Pr	Phelps gravelly loam, fan	14.2	0.2%
RhA	Rhinebeck silty clay loam, 0 to 3 percent slopes	139.7	1.5%
RhB	Rhinebeck silty clay loam, 3 to 8 percent slopes	156.3	1.7%
Te	Teel silt loam	19.0	0.2%
W	Water	23.3	0.3%
Wy	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	14.6	0.2%
<b>Totals for Area of Interest</b>		<b>9,271.5</b>	<b>100.0%</b>

**ATTACHMENT D: NRCS Erosion Hazard Soil Survey Map**

Erosion Hazard (Off-Road, Off-Trail)—Montgomery County, New York  
(Mill Point Solar Project)



Map Scale: 1:67,200 if printed on A landscape (11" x 8.5") sheet.

0 500 1000 2000 3000 Meters























0 3000 6000 12000 18000 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84





## MAP LEGEND

<b>Area of Interest (AOI)</b>			US Routes
	Area of Interest (AOI)		Major Roads
			Local Roads
<b>Soils</b>		<b>Background</b>	
<b>Soil Rating Polygons</b>			Aerial Photography
	Very severe		
	Severe		
	Moderate		
	Slight		
	Not rated or not available		
<b>Soil Rating Lines</b>			
	Very severe		
	Severe		
	Moderate		
	Slight		
	Not rated or not available		
<b>Soil Rating Points</b>			
	Very severe		
	Severe		
	Moderate		
	Slight		
	Not rated or not available		
<b>Water Features</b>			
	Streams and Canals		
<b>Transportation</b>			
	Rails		
	Interstate Highways		

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

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

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

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

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

Soil Survey Area: Montgomery County, New York  
Survey Area Data: Version 18, Jun 11, 2020

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

Date(s) aerial images were photographed: Oct 7, 2013—Nov 9, 2016

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

## Erosion Hazard (Off-Road, Off-Trail)

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
AnB	Angola silt loam, 3 to 8 percent slopes	Moderate	Angola (75%)	Surface kw times slope times R index (0.14)	40.6	0.4%
ApA	Appleton silt loam, 0 to 3 percent slopes	Slight	Appleton (85%)		30.5	0.3%
			Lima (5%)			
			Lyons (4%)			
			Churchville (3%)			
ApB	Appleton silt loam, 3 to 8 percent slopes	Moderate	Appleton (80%)	Surface kw times slope times R index (0.14)	1,392.2	15.0%
			Conesus (7%)	Surface kw times slope times R index (0.14)		
			Darien (4%)	Surface kw times slope times R index (0.04)		
			Churchville (4%)	Surface kw times slope times R index (0.54)		
AtC	Arnot channery silt loam, 8 to 15 percent slopes, rocky	Moderate	Arnot (75%)	Surface kw times slope times R index (0.67)	39.0	0.4%
AtD	Arnot channery silt loam, 15 to 25 percent slopes, rocky	Severe	Arnot (75%)	Surface kw times slope times R index (0.84)	14.9	0.2%
AZF	Arnot-Rock outcrop association, very steep	Severe	Arnot (50%)	Surface kw times slope times R index (1.00)	10.5	0.1%
Br	Brockport silt loam	Slight	Brockport (75%)		3.9	0.0%
CFL	Cut and fill land	Slight	Udorthents (70%)		106.7	1.2%
ChA	Churchville silty clay loam, 0 to 3 percent slopes	Slight	Churchville (80%)		386.6	4.2%
ChB	Churchville silty clay loam, 3 to 8 percent slopes	Moderate	Churchville (80%)	Surface kw times slope times R index (0.32)	921.8	9.9%



Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
DaB	Darien silt loam, 3 to 8 percent slopes	Moderate	Darien (75%)	Surface kw times slope times R index (0.04)	659.3	7.1%
DaC	Darien silt loam, 8 to 15 percent slopes	Moderate	Darien (75%)	Surface kw times slope times R index (0.75)	5.0	0.1%
FL	Fluvaquents, loamy	Slight	Fluvaquents (75%)		285.7	3.1%
Fo	Fonda mucky silty clay loam	Slight	Fonda (75%)		171.4	1.8%
Fr	Fredon silt loam	Slight	Fredon, poorly drained (50%)		63.6	0.7%
			Fredon, somewhat poorly drained (25%)			
Ha	Hamlin silt loam	Slight	Hamlin (75%)		44.7	0.5%
HoB	Hornell silt loam, 3 to 8 percent slopes	Moderate	Hornell (75%)	Surface kw times slope times R index (0.44)	28.2	0.3%
HrB	Howard gravelly silt loam, 3 to 8 percent slopes	Slight	Howard (75%)		76.4	0.8%
HrC	Howard gravelly silt loam, 8 to 15 percent slopes	Moderate	Howard (80%)	Surface kw times slope times R index (0.25)	11.1	0.1%
HrD	Howard gravelly silt loam, 15 to 25 percent slopes	Moderate	Howard (75%)	Surface kw times slope times R index (0.69)	10.2	0.1%
HTF	Howard soils, very steep	Severe	Howard (75%)	Surface kw times slope times R index (0.93)	12.4	0.1%
HuB	Hudson silty clay loam, 3 to 8 percent slopes	Moderate	Hudson (75%)	Surface kw times slope times R index (0.32)	14.8	0.2%
HuC	Hudson silty clay loam, 8 to 15 percent slopes	Severe	Hudson (75%)	Surface kw times slope times R index (0.88)	7.7	0.1%
IIA	Ilion silt loam, 0 to 3 percent slopes	Slight	Ilion (75%)		199.1	2.1%
IIB	Ilion silt loam, 3 to 8 percent slopes	Moderate	Ilion (75%)	Surface kw times slope times R index (0.44)	110.2	1.2%
LaB	Lansing silt loam, 3 to 8 percent slopes	Moderate	Lansing (85%)	Surface kw times slope times R index (0.14)	539.4	5.8%

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
			Conesus (8%)	Surface kw times slope times R index (0.14)		
			Appleton (2%)	Surface kw times slope times R index (0.04)		
			Palatine (1%)	Surface kw times slope times R index (0.14)		
			Danley (1%)	Surface kw times slope times R index (0.04)		
LaC	Lansing silt loam, 8 to 15 percent slopes	Severe	Lansing (85%)	Surface kw times slope times R index (0.77)	920.7	9.9%
			Conesus (8%)	Surface kw times slope times R index (0.77)		
LaD	Lansing silt loam, 15 to 25 percent slopes	Severe	Lansing (85%)	Surface kw times slope times R index (0.90)	250.0	2.7%
			Conesus (9%)	Surface kw times slope times R index (0.90)		
			Wassaic (3%)	Surface kw times slope times R index (0.87)		
LMF	Lansing and Mohawk soils, 25 to 60 percent slopes	Very Severe	Lansing (40%)	Surface kw times slope times R index (1.00)	426.5	4.6%
			Cazenovia (10%)	Surface kw times slope times R index (1.00)		
			Nellis (10%)	Surface kw times slope times R index (1.00)		
			Wassaic (5%)	Surface kw times slope times R index (1.00)		
Ma	Madalin silty clay loam, 0 to 3 percent slopes	Slight	Madalin (85%)		783.3	8.4%
			Rhinebeck (5%)			
			Fonda (4%)			
			Canandaigua (4%)			
			Barre (2%)			
Md	Madalin silty clay loam, moderately shallow variant	Slight	Madalin, moderately shallow (75%)		31.8	0.3%



Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
MmB	Manheim silt loam, 3 to 8 percent slopes	Moderate	Manheim (80%)	Surface kw times slope times R index (0.04)	120.0	1.3%
MsB	Mohawk silt loam, 3 to 8 percent slopes	Moderate	Mohawk (75%)	Surface kw times slope times R index (0.31)	216.6	2.3%
MsC	Mohawk silt loam, 8 to 15 percent slopes	Severe	Mohawk (75%)	Surface kw times slope times R index (0.79)	470.2	5.1%
MsD	Mohawk silt loam, 15 to 25 percent slopes	Severe	Mohawk (80%)	Surface kw times slope times R index (0.90)	135.3	1.5%
PaB	Palatine silt loam, 3 to 8 percent slopes	Moderate	Palatine (75%)	Surface kw times slope times R index (0.31)	113.0	1.2%
PaC	Palatine silt loam, 8 to 15 percent slopes	Severe	Palatine (75%)	Surface kw times slope times R index (0.79)	86.1	0.9%
PaD	Palatine silt loam, 15 to 25 percent slopes	Severe	Palatine (75%)	Surface kw times slope times R index (0.90)	81.7	0.9%
PmB	Palmyra gravelly silt loam, 3 to 8 percent slopes	Slight	Palmyra (75%)		32.0	0.3%
PmC	Palmyra gravelly silt loam, 8 to 15 percent slopes	Moderate	Palmyra (75%)	Surface kw times slope times R index (0.25)	23.4	0.3%
PpB	Phelps gravelly loam, 3 to 8 percent slopes	Slight	Phelps (75%)		27.8	0.3%
Pr	Phelps gravelly loam, fan	Slight	Phelps, fan (75%)		14.2	0.2%
RhA	Rhinebeck silty clay loam, 0 to 3 percent slopes	Slight	Rhinebeck (75%)		139.7	1.5%
RhB	Rhinebeck silty clay loam, 3 to 8 percent slopes	Moderate	Rhinebeck (75%)	Surface kw times slope times R index (0.32)	156.3	1.7%
Te	Teel silt loam	Slight	Teel (75%)		19.0	0.2%
W	Water	Not rated	Water (100%)		23.3	0.3%
Wy	Wayland soils complex, 0 to 3 percent slopes, frequently flooded	Slight	Wayland (60%)		14.6	0.2%
			Wayland, very poorly drained (30%)			
			Wakeville (10%)			

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
<b>Totals for Area of Interest</b>					<b>9,271.5</b>	<b>100.0%</b>

Rating	Acres in AOI	Percent of AOI
Moderate	4,401.1	47.5%
Slight	2,430.9	26.2%
Severe	1,989.5	21.5%
Very Severe	426.5	4.6%
Null or Not Rated	23.3	0.3%
<b>Totals for Area of Interest</b>	<b>9,271.5</b>	<b>100.0%</b>

## Description

The ratings in this interpretation indicate the hazard of soil loss from off-road and off-trail areas after disturbance activities that expose the soil surface. The ratings are based on slope, soil erosion factor K, and an index of rainfall erosivity (R). The soil loss is caused by sheet or rill erosion in off-road or off-trail areas where 50 to 75 percent of the surface has been exposed by logging, grazing, mining, or other kinds of disturbance.

The ratings are both verbal and numerical. The hazard is described as "slight," "moderate," "severe," or "very severe." A rating of "slight" indicates that erosion is unlikely under ordinary climatic conditions; "moderate" indicates that some erosion is likely and that erosion-control measures may be needed; "severe" indicates that erosion is very likely and that erosion-control measures, including revegetation of bare areas, are advised; and "very severe" indicates that significant erosion is expected, loss of soil productivity and off-site damage are likely, and erosion-control measures are costly and generally impractical.

Numerical ratings indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.01 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the specified aspect of forestland management (1.00) and the point at which the soil feature is not a limitation (0.00).

The map unit components listed for each map unit in the accompanying Summary by Map Unit table in Web Soil Survey or the Aggregation Report in Soil Data Viewer are determined by the aggregation method chosen. An aggregated rating class is shown for each map unit. The components listed for each map unit are only those that have the same rating class as listed for the map unit. The percent composition of each component in a particular map unit is presented to help the user better understand the percentage of each map unit that has the rating presented.

Other components with different ratings may be present in each map unit. The ratings for all components, regardless of the map unit aggregated rating, can be viewed by generating the equivalent report from the Soil Reports tab in Web Soil Survey or from the Soil Data Mart site. Onsite investigation may be needed to validate these interpretations and to confirm the identity of the soil on a given site.

## Rating Options

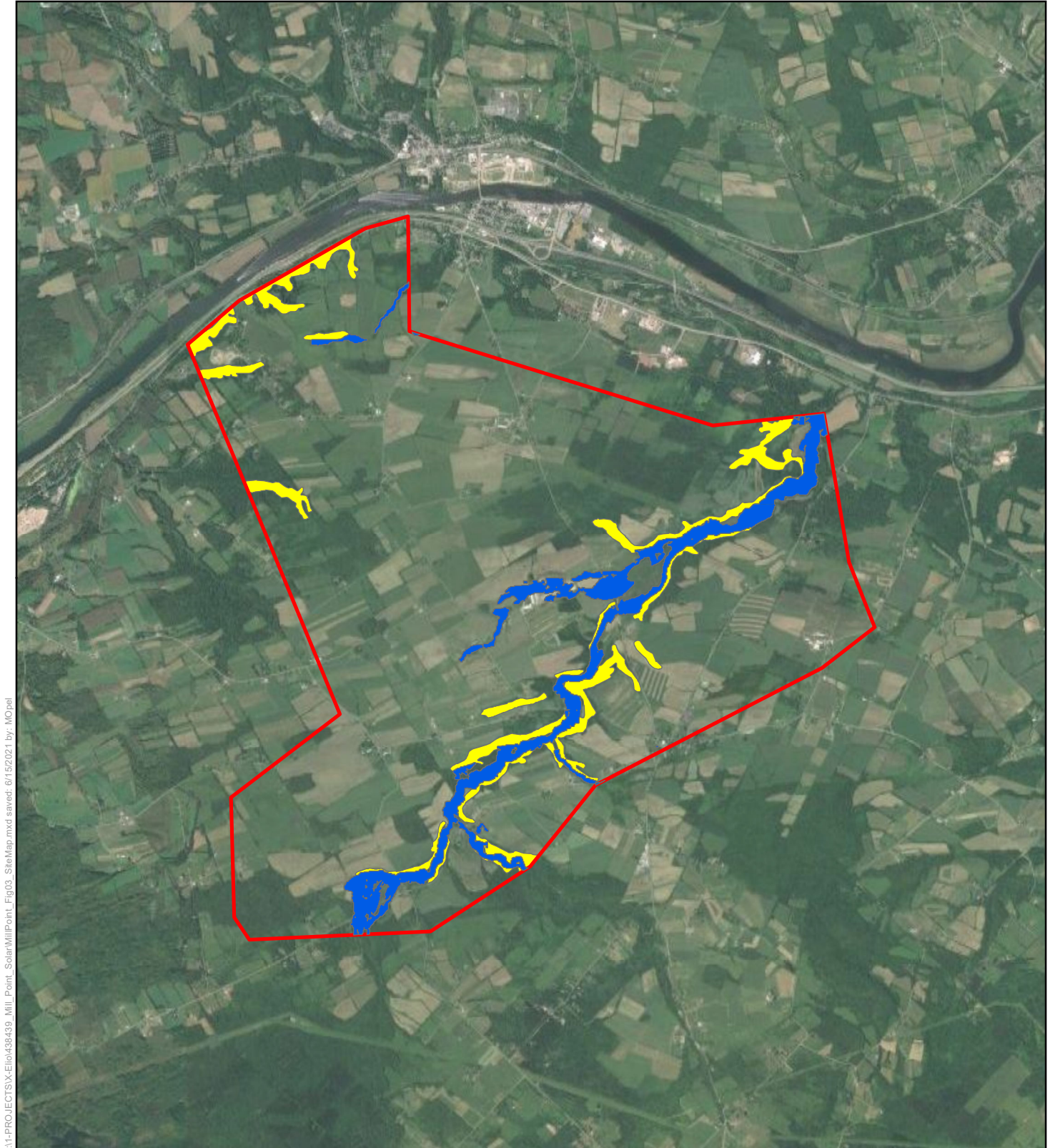
*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher



## **ATTACHMENT E: Site Map of High Erosion Potential Areas**



S:\1-PROJECTS\X-Eliot\438439\_Mill\_Point\_Solar\MillPoint\_Fig03\_SiteMap.mxd saved: 6/15/2021 by: MOpel

Basemap from: Google Data Source: FEMA, <https://hazards.fema.gov/gis/nfhl/services>, TRC GIS 2020. NO OTHER FEMA FLOOD TYPE IN CURRENT MAP EXTENT 6/15/2021




**Project Location**

- Project Boundary
- Areas of Potential Very Severe Erosion Hazard (25' Buffer Included)
- Areas of Potential Flood Hazard (25' Buffer Included)

N

1:60,000  
1 inch = 5,000 feet  
(when printed 8.5x11)

0 2,500  
Feet



**TRC**  
Mill Point Solar Site  
Montgomery County, New York

100-Year Flood  
and Soil Erosion Map

Figure 3