



Federal Emergency Management Agency

Washington, D.C. 20472

LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Logan Logan County West Virginia	BRIDGE CHANNELIZATION	FLOODWAY HYDRAULIC ANALYSIS UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 545535		
IDENTIFIER	USACE Huntington District – Island Creek Local Protection Project	APPROXIMATE LATITUDE AND LONGITUDE: 37.847, -82.003 SOURCE: Precision Mapping Streets DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM* NO.: 54045C0201E DATE: February 6, 2008		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: February 6, 2008 PROFILE: 39P FLOODWAY DATA TABLE: 2	

Enclosures reflect changes to flooding sources affected by this revision.

* FIRM - Flood Insurance Rate Map

FLOODING SOURCE AND REVISED REACH

Island Creek - from the confluence with the Guyandotte River to a point approximately 970 feet upstream of the 1st Street/ Access Road bridge

SUMMARY OF REVISIONS

Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Island Creek	Zone AE	Zone AE	NONE	YES
	Zone X (shaded)	Zone X (shaded)	YES	YES
	BFEs*	BFEs	YES	YES
	Floodway	Floodway	NONE	YES

* BFEs - Base Flood Elevations

DETERMINATION

This document provides the determination from the Department of Homeland Security's Federal Emergency Management Agency (FEMA) regarding a request for a Letter of Map Revision (LOMR) for the area described above. Using the information submitted, we have determined that a revision to the flood hazards depicted in the Flood Insurance Study (FIS) report and/or National Flood Insurance Program (NFIP) map is warranted. This document revises the effective NFIP map, as indicated in the attached documentation. Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals in your community.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

Patrick "Rick" F. Sacbbit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration



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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

OTHER COMMUNITIES AFFECTED BY THIS REVISION

CID Number: 545536 **Name:** Logan County, West Virginia

AFFECTED MAP PANELS

TYPE: FIRM	NO.: 54045C0182E	DATE: February 6, 2008
TYPE: FIRM	NO.: 54045C0184E	DATE: February 6, 2008
TYPE: FIRM	NO.: 54045C0201E	DATE: February 6, 2008

AFFECTED PORTIONS OF THE FLOOD INSURANCE STUDY REPORT

DATE OF EFFECTIVE FLOOD INSURANCE STUDY: February 6, 2008
 PROFILES: 23P, 39P, AND 44P
 FLOODWAY DATA TABLE: 2

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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LETTER OF MAP REVISION DETERMINATION DOCUMENT (CONTINUED)

COMMUNITY INFORMATION

APPLICABLE NFIP REGULATIONS/COMMUNITY OBLIGATION

We have made this determination pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234) and in accordance with the National Flood Insurance Act of 1968, as amended (Title XIII of the Housing and Urban Development Act of 1968, P.L. 90-448), 42 U.S.C. 4001-4128, and 44 CFR Part 65. Pursuant to Section 1361 of the National Flood Insurance Act of 1968, as amended, communities participating in the NFIP are required to adopt and enforce floodplain management regulations that meet or exceed NFIP criteria. These criteria, including adoption of the FIS report and FIRM, and the modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State/Commonwealth or local requirements to which the regulations apply.

We provide the floodway designation to your community as a tool to regulate floodplain development. Therefore, the floodway revision we have described in this letter, while acceptable to us, must also be acceptable to your community and adopted by appropriate community action, as specified in Paragraph 60.3(d) of the NFIP regulations.

NFIP regulations Subparagraph 60.3(b)(7) requires communities to ensure that the flood-carrying capacity within the altered or relocated portion of any watercourse is maintained. This provision is incorporated into your community's existing floodplain management ordinances; therefore, responsibility for maintenance of the altered or relocated watercourse, including any related appurtenances such as bridges, culverts, and other drainage structures, rests with your community. We may request that your community submit a description and schedule of maintenance activities necessary to ensure this requirement.

COMMUNITY REMINDERS

We based this determination on the 1-percent-annual-chance flood discharges computed in the FIS for your community without considering subsequent changes in watershed characteristics that could increase flood discharges. Future development of projects upstream could cause increased flood discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on flood discharges subsequent to the publication of the FIS report for your community and could, therefore, establish greater flood hazards in this area.

Your community must regulate all proposed floodplain development and ensure that permits required by Federal and/or State/Commonwealth law have been obtained. State/Commonwealth or community officials, based on knowledge of local conditions and in the interest of safety, may set higher standards for construction or may limit development in floodplain areas. If your State/Commonwealth or community has adopted more restrictive or comprehensive floodplain management criteria, those criteria take precedence over the minimum NFIP requirements.

We will not print and distribute this LOMR to primary users, such as local insurance agents or mortgage lenders; instead, the community will serve as a repository for the new data. We encourage you to disseminate the information in this LOMR by preparing a news release for publication in your community's newspaper that describes the revision and explains how your community will provide the data and help interpret the NFIP maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

A handwritten signature in black ink, appearing to read "Rick F. Sacbibit".

Patrick "Rick" F. Sacbibit, P.E., Branch Chief
Engineering Services Branch
Federal Insurance and Mitigation Administration



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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

We have designated a Consultation Coordination Officer (CCO) to assist your community. The CCO will be the primary liaison between your community and FEMA. For information regarding your CCO, please contact:

Mr. Eugene K. Gruber
Director, Mitigation Division
Federal Emergency Management Agency, Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404
(215) 931-5512

STATUS OF THE COMMUNITY NFIP MAPS

We will not physically revise and republish the FIRM and FIS report for your community to reflect the modifications made by this LOMR at this time. When changes to the previously cited FIRM panel and FIS report warrant physical revision and republication in the future, we will incorporate the modifications made by this LOMR at that time.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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**LETTER OF MAP REVISION
DETERMINATION DOCUMENT (CONTINUED)**

PUBLIC NOTIFICATION OF REVISION

A notice of changes will be published in the *Federal Register*. This information also will be published in your local newspaper on or about the dates listed below, and through FEMA's Flood Hazard Mapping website at https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp.

LOCAL NEWSPAPER

Name: *Logan Banner*

Dates: April 13, 2018 and April 20, 2018

Within 90 days of the second publication in the local newspaper, any interested party may request that we reconsider this determination. Any request for reconsideration must be based on scientific or technical data. Therefore, this letter will be effective only after the 90-day appeal period has elapsed and we have resolved any appeals that we receive during this appeal period. Until this LOMR is effective, the revised flood hazard determination presented in this LOMR may be changed.

This determination is based on the flood data presently available. The enclosed documents provide additional information regarding this determination. If you have any questions about this document, please contact the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP) or by letter addressed to the LOMC Clearinghouse, 3601 Eisenhower Avenue, Suite 500, Alexandria, VA 22304-6426. Additional Information about the NFIP is available on our website at <https://www.fema.gov/national-flood-insurance-program>.

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Engineering Services Branch
Federal Insurance and Mitigation Administration

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Island Creek								
A	0.02	107 ²	2,019	13.2	662.4	662.4*	662.4	0.0
B	0.11	128 ²	2,411	11.0	665.9	665.9	666.3	0.4
C	0.25	314 ³	4,617	5.8	669.0	669.0	669.2	0.2
D	0.64	404	5,539	4.8	670.1	670.1	670.6	0.5
E	1.22	175	1,731	9.9	677.6	677.6	677.6	0.0
F	1.43	271	2,840	6.1	681.6	681.6	681.8	0.2
G	1.81	132	2,063	8.4	685.3	685.3	685.9	0.6
H	2.02	292	4,031	4.3	688.4	688.4	689.3	0.9
I	2.38	582	2,411	7.2	690.3	690.3	690.9	0.6
J	2.54	466	1,538	11.2	691.8	691.8	691.8	0.0
K	2.93	530	5,378	3.2	697.3	697.3	697.6	0.3
L	3.36	272	3,024	5.7	701.3	701.3	701.4	0.1
M	3.59	278	1,691	10.2	705.2	705.2	705.2	0.0
N	4.02	237	2,745	6.3	713.8	713.8	714.2	0.4
O	4.45	460	3,148	5.5	719.5	719.5	719.8	0.3
P	4.74	459	4,179	4.1	723.0	723.0	723.5	0.5
Q	5.09	362	3,908	4.4	730.1	730.1	731.0	0.9
R	5.34	192	1,988	8.7	731.5	731.5	732.2	0.7
S	5.69	374	2,916	5.9	737.4	737.4	737.8	0.4
T	5.94	486	2,802	6.2	741.6	741.6	742.1	0.5
U	6.29	343	2,851	6.1	751.5	751.5	751.5	0.0
V	6.58	351	2,031	8.5	755.2	755.2	755.8	0.6
W	6.83	470	4,370	4.0	760.2	760.2	760.5	0.3
X	7.33	230	1,367	10.5	768.6	768.6	768.6	0.0
Y	7.57	217	1,863	7.7	776.3	776.3	777.0	0.7
Z	7.96	126	1,339	10.7	780.3	780.3	780.8	0.5
AA	8.18	162	1,279	10.5	783.4	783.4	783.9	0.5
AB	8.43	294	2,374	5.6	793.8	793.8	794.4	0.6

¹Miles above confluence with Guyandotte River

²Width extends beyond corporate limits

³Width includes high ground not included in floodway conveyance calculation

⁴Elevation computed without consideration of backwater effects from Guyandotte River

REVISED DATA

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOGAN COUNTY, WV
AND INCORPORATED AREAS

FLOODWAY DATA

REVISED TO REFLECT LOMR
EFFECTIVE: August 20, 2018

ISLAND CREEK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Crawley Creek (continued)								
X	2.858 ¹	169	1,057	4.4	658.1	658.1	659.0	0.9
Y	2.998 ¹	60	602	7.8	659.9	659.9	660.3	0.4
Z	3.203 ¹	111	748	6.3	664.8	664.8	665.2	0.4
AA	3.383 ¹	103	878	5.4	670.0	670.0	670.9	0.9
AB	3.503 ¹	94	743	6.3	671.4	671.4	672.3	0.9
AC	3.685 ¹	108	1,021	4.6	679.8	679.8	680.8	0.2
AD	3.779 ¹	155	1,645	2.9	680.3	680.3	680.7	0.4
AE	3.944 ¹	120	894	5.3	681.2	681.2	681.6	0.4
AF	4.094 ¹	113	944	5.0	682.8	682.8	683.7	0.9
AG	4.233 ¹	105	1,130	4.2	690.7	690.7	690.7	0.0
AH	4.417 ¹	132	1,133	4.1	691.5	691.5	691.7	0.2
AI	4.503 ¹	122	670	7.0	691.9	691.9	692.1	0.2
Mud Fork								
A	85 ²	120	693	7.0	674.4	666.1 ³	666.1	0.0
B	321 ²	92	618	7.9	674.4	666.3 ³	667.3	1.0
C	427 ²	88	658	7.4	674.4	667.0 ³	667.9	0.9
D	485 ²	99	700	6.9	674.4	667.4 ³	668.2	0.8
E	638 ²	139	996	4.9	674.4	668.3 ³	669.1	0.8
F	842 ²	90	641	7.6	674.4	668.6 ³	669.3	0.7
G	1,098 ²	115	806	6.0	674.4	669.9 ³	670.7	0.8

674.4
674.4
674.4
674.4
674.4
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674.4

↑
REVISED DATA

¹ Miles above confluence with Guyandotte River
² Feet above confluence with Copperas Mine Fork
³ Elevations computed without consideration of backwater effects from Copperas Mine Fork

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOGAN COUNTY, WV
AND INCORPORATED AREAS

FLOODWAY DATA **REVISED TO REFLECT LOMR EFFECTIVE: August 20, 2018**

CRAWLEY CREEK AND MUD FORK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE ¹	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Mud Fork (continued)								
H	1,365	126	879	5.5	674.4	670.8 ²	671.5	0.7
I	1,573	148	897	5.4	674.4	671.3 ²	672.0	0.7
J	1,776	60	486	10.0	674.4	671.3 ²	672.1	0.8
K	1,940	78	504	9.6	674.4	673.2 ²	673.2	0.0
L	2,177	39	355	13.7	674.4	674.4 ²	674.9	0.5
M	2,935	161	743	6.5	680.6	680.6	681.2	0.6
N	3,580	50	317	12.8	683.1	683.1	683.4	0.3
O	4,150	84	421	9.6	687.2	687.2	687.8	0.6
P	4,444	222	1,220	3.3	689.5	689.5	690.1	0.6
Q	4,734	80	647	6.3	689.7	689.7	690.2	0.5
R	5,151	80	675	6.0	692.4	692.4	693.2	0.8
S	5,666	94	773	5.3	696.8	696.8	697.0	0.2
T	5,903	86	793	5.1	697.1	697.1	697.5	0.4
U	6,130	75	575	7.1	697.2	697.2	697.7	0.5
V	6,447	88	655	6.2	700.8	700.8	701.3	0.5
W	6,684	82	658	6.2	701.4	701.4	702.4	1.0
X	7,064	154	1,137	3.6	705.8	705.8	706.2	0.4
Y	7,461	94	491	8.3	709.3	709.3	709.3	0.0
Z	7,735	75	624	6.5	710.8	710.8	711.0	0.2
AA	8,053	175	758	4.7	712.6	712.6	712.8	0.2
AB	8,269	125	671	5.3	714.3	714.3	714.4	0.1
AC	8,554	59	373	9.5	714.9	714.9	715.1	0.2

¹ Feet above confluence with Copperas Mine Fork

² Elevations computed without consideration of backwater effects from Copperas Mine Fork

← REVISED DATA

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

LOGAN COUNTY, WV
AND INCORPORATED AREAS

FLOODWAY DATA

REVISED TO
REFLECT LOMR
EFFECTIVE: August 20, 2018

MUD FORK

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NGVD)			
CROSS SECTION	DISTANCE	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Mud Fork (continued)								
BV	26,582 ¹	73	301	5.9	849.5	849.5	849.9	0.4
BW	27,247 ¹	60	261	6.8	853.2	853.2	853.7	0.5
BX	27,712 ¹	68	373	4.8	861.6	861.6	861.9	0.3
BY	28,446 ¹	45	199	9.0	864.8	864.8	865.4	0.6
BZ	29,048 ¹	42	187	9.5	871.0	871.0	871.7	0.7
CA	29,718 ¹	70	384	4.6	879.6	879.6	879.9	0.3
CB	30,420 ¹	40	157	11.3	886.9	886.9	886.9	0.0
CC	31,255 ¹	56	390	4.6	894.6	894.6	895.6	1.0
CD	31,624 ¹	44	197	9.0	895.5	895.5	896.1	0.6
CE	32,068 ¹	26	881	0.3	829.5	829.5	829.5	0.0
CF	32,738 ¹	37	265	4.7	910.4	910.4	910.5	0.1
Copperas Mine Fork								
A	0.071 ²	385	1,733	8.9	673.0	669.2 ³	670.2	1.0
B	0.105 ²	270	1,427	10.9	673.0	669.6 ³	670.6	1.0
C	0.155 ²	155	2,462	6.3	673.0	671.8 ³	672.8	1.0
D	0.295 ²	234	3,219	4.8	673.7	673.7 ³	674.5	0.8
E	0.382 ²	234	3,379	4.6	674.4	674.4 ³	675.1	0.7
F	0.591 ²	129	1,690	6.4	675.4	675.4 ³	676.4	1.0
G	0.643 ²	185	1,225	8.8	675.8	675.8 ³	676.8	1.0

↑
REVISED DATA

¹ Feet above confluence with Copperas Mine Fork

² Miles above confluence with Island Creek

³ Elevation computed without consideration of backwater effects from Island Creek

TABLE 2

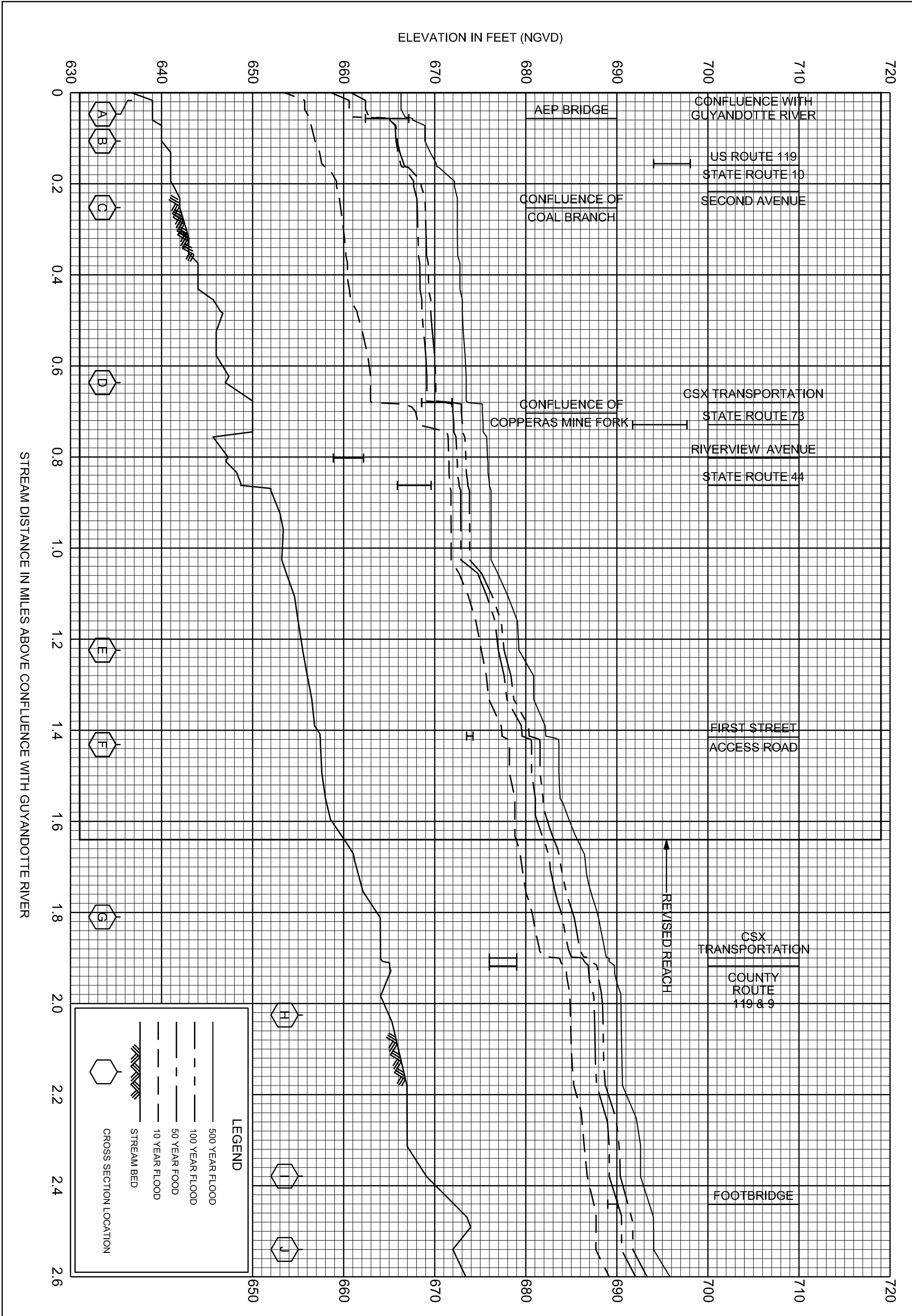
FEDERAL EMERGENCY MANAGEMENT AGENCY

LOGAN COUNTY, WV
AND INCORPORATED AREAS

FLOODWAY DATA

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EFFECTIVE: August 20, 2018

MUD FORK – COPPERAS MINE FORK



Coal Branch

ZONE AE

Island Creek

310000 FT

JOINS PANEL 0182

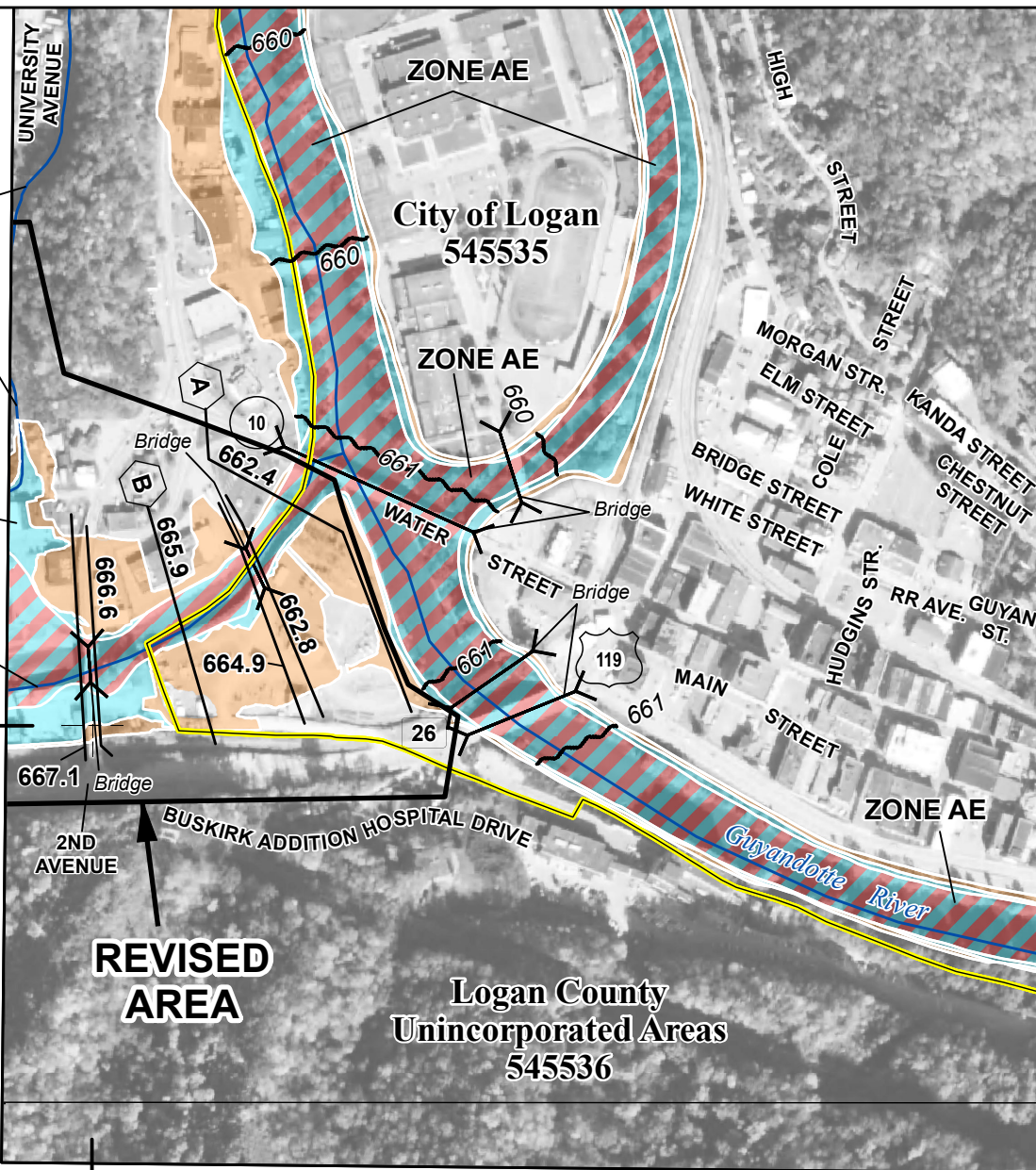
REVISED AREA

37° 50' 37.50"

82° 00' 00.00"

Logan County
Unincorporated Areas
545536

JOINS PANEL 0203

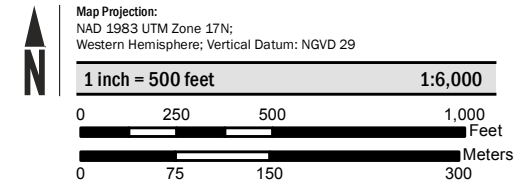


SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		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

SCALE

NOTE: BASEMAP IMAGERY DATED 2014 WAS OBTAINED FROM NAIP.



FEMA
National Flood Insurance Program

NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP

LOGAN COUNTY, WEST VIRGINIA
and Incorporated Areas
PANEL 201 OF 400

Panel Contains:

COMMUNITY	NUMBER	PANEL	SUFFIX
LOGAN COUNTY	545536	0201	E
LOGAN, CITY OF	545535	0201	E
WEST LOGAN, TOWN OF	545539	0201	E

REVISED TO REFLECT LOMR EFFECTIVE: August 20, 2018

FEDERAL DEPARTMENT OF DEFENSE
U.S. DEPARTMENT OF HOMELAND SECURITY
FEMA

VERSION NUMBER
2.1.3.0

MAP NUMBER
54045C0201E

EFFECTIVE DATE
FEBRUARY 6, 2008