



# Federal Emergency Management Agency

Washington, D.C. 20472

SEP 29 2000

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Mr. Michael Gieb  
Village Administrator  
P.O. Box 246  
New Knoxville, Ohio 45871

IN REPLY REFER TO:

Case Number: 99-05-275P  
Community Name: Village of New  
Knoxville, Auglaize  
County, Ohio  
Community Number: 390848  
Map Panel Number: 39011C0095  
Effective Date of  
this Revision: JAN 10 2001

102-I-A (c)

Dear Mr. Gieb:

The Flood Insurance Study (FIS) and Flood Insurance Rate Map (FIRM) for Auglaize County, Ohio, and Incorporated Areas, which includes the Village of New Knoxville, have been revised by this Letter of Map Revision (LOMR) to reflect more up-to-date hydrologic and hydraulic analyses and more detailed and up-to-date topographic information for Center Branch and Elshoff Ditch than that used to prepare the FIS and FIRM dated September 6, 1989. The subject areas are located in the vicinity of the State Routes 29 and 219 intersection. This LOMR also affects flood hazard information for the unincorporated areas of Auglaize County. This revision was initiated by Mr. Jerry L. McClannan, P.E., P.S., of Mote and Associates, Inc., in a letter dated July 1, 1999.

We received the following technical data, prepared by Mote & Associates, Inc., in support of this revision:

- a technical report, dated July 1, 1999, containing all completed forms, technical details of the hydrologic and hydraulic analyses, and an annotated portion of the aforementioned FIRM;
- An engineering report titled Flood Plain Study for the Village of New Knoxville, dated March 1999, and revised April 2000, containing:
  - a section titled Study Overview, describing the project area and detailing the methods and data used to model Center Branch and Elshoff Ditch;
  - a section titled Water Surface Profile Tables, containing tables of computed water surface elevations (CWSEs) along Center Branch and Elshoff Ditch;
  - a section titled Water Surface Profiles, containing graphical representations of the aforementioned CWSEs;

- a section titled Cross Section Plots, containing graphical representations of each cross section, illustrating the 1% (100-year) and 0.2% (500-year) annual chance water-surface elevations;
  - a section titled Encroachment Tables, detailing various hydraulic characteristics of Center Branch and Elshoff Ditch; and
  - an appendix titled Stream Flow Calculations, detailing the hydrologic analysis by U.S. Geological Survey (USGS) rural regression equations.
- a certified topographic map, titled FloodPlain Map for New Knoxville, Ohio, dated April 17, 2000, at a scale of 1"=200', with a contour interval of 5 feet, reflecting the 1% annual chance and 0.2% annual chance floodplains and floodway; and
  - a HEC-RAS hydraulic model, dated April 22, 2000, of the 10% (10-year), 2% (50-year), 1% and 0.2% annual chance floods and floodways of Center Branch and Elshoff Ditch, reflecting existing conditions.

In addition to the aforementioned technical data, we received the following correspondence in support of this request:

- a copy of a letter, dated November 1999, informing property owners of the increasing flood hazards along Center Branch and Elshoff Ditch and copies of the return receipts from each property notification; and
- a notarized copy of the public notice that was published in The St. Mary's Evening Leader, on November 30, 1999, certifying that the aforementioned public notice was published in the said newspaper in its issue of November 19, 1999.

We received all data necessary to process this revision by June 20, 2000.

Based on our review of the submitted data, we are issuing this LOMR to reflect a narrowing and widening of the 1% annual chance floodplain and the addition of the 0.2% annual chance floodplain, Base (1% annual chance) Flood Elevations (BFEs), and floodway along Center Branch from a point approximately 1,200 feet downstream of the confluence of Elshoff Ditch to a point approximately 2,000 feet upstream of South Street and along Elshoff Ditch from the confluence with Center Branch to a point approximately 1,800 feet upstream of Spring Street. This LOMR also reflects updated locations of the stream channels of Center Branch and Elshoff Ditch, based on the aforementioned topographic data. This LOMR revises and supplements the Auglaize County and incorporated areas FIS report, dated September 6, 1989, Table 1 (Summary of Discharges), as shown on the following page, and Table 3 (Floodway Data), as shown on the enclosed portion of the FIS report. In addition, this LOMR creates Flood Profiles 07P and 08P, as shown on the enclosed Flood Profiles. This LOMR also revises the Auglaize County and incorporated areas FIRM number 39011C0095 C, dated September 6, 1989, as shown on the enclosed digitally reproduced portion of the FIRM.

TABLE 1 – SUMMARY OF DISCHARGES

<u>FLOODING SOURCE AND LOCATION</u>	<u>DRAINAGE AREA (SQ. MILES)</u>	<u>10-YEAR</u>	<u>50-YEAR</u>	<u>100-YEAR</u>	<u>500-YEAR</u>
<b>CENTER BRANCH</b>					
Approximately 1,200 feet downstream of the confluence of Elshoff Ditch	11.36	969	1,207	1,537	1,998
Immediately upstream of the confluence of Elshoff Ditch	6.36	493	613	776	1,009
<b>ELSHOFF DITCH</b>					
Immediately upstream of the confluence with Center Branch	5.00	476	594	761	989

Peak discharges along Center Branch and Elshoff Ditch were computed using "Techniques for Estimating Flood-Peak Discharges of Rural, Unregulated Streams in Ohio" (WRIR 89-4126) dated March 1990 by the USGS.

Water-surface profiles were developed for Center Branch and Elshoff Ditch using the U.S. Army Corps of Engineers HEC-RAS step-backwater computer program (version 2.2, dated September 1998). The starting water-surface elevations for the Center Branch and Elshoff Ditch were obtained using normal depth calculations.

For Center Branch, the Manning's "n" roughness value in the main channel ranged from 0.013 to 0.1 and from 0.013 to 0.1 in the overbank areas. For Elshoff Ditch, the roughness value for the main channel ranged from 0.033 to 0.1 and 0.03 to 0.1 in the overbank areas. These values were chosen using engineering judgement and were based on field inspection.

We have enclosed a copy of the public notification of the BFEs, which will be published in The Evening Leader on or about October 4, 2000, and October 11, 2000. In addition, we will publish a notice of changes in the Federal Register. However, we will not print and distribute this LOMR to users, such as insurance agents or lenders. Your community will serve as a repository for the new data. Therefore, we encourage you to supplement the notification to appear in The Evening Leader by preparing a news release for publication in your community newspaper that describes the revision and explains how your community will provide data and help interpret the National Flood Insurance Program (NFIP) maps. In that way, interested persons, such as property owners, insurance agents, and mortgage lenders, can benefit from the information.

Within 90 days of the second publication in The Evening Leader, 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 elapses and we resolve any appeals that we receive during this appeal period. Until this LOMR is effective, the revised BFEs presented in this LOMR may be changed.

We based this determination on the 1% annual chance discharges computed in the aforementioned hydrologic model. Future development of projects upstream could cause increased discharges, which could cause increased flood hazards. A comprehensive restudy of your community's flood hazards would consider the cumulative effects of development on discharges and could, therefore, indicate that greater flood hazards exist in this area.

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

Because of funding constraints, we must limit the number of republications. Consequently, we will not republish the FIS and FIRM for Auglaize County to reflect this determination. However, we will incorporate this determination when we next republish the FIS and FIRM number 39011C0095 for Auglaize County and incorporated areas.

We have enclosed a document titled "List of Current Flood Insurance Study Data," which includes this letter, to help your community maintain all information for floodplain management and flood insurance. If any of the items in that document are not filed in your community's map repository, please contact the Federal Emergency Management Agency (FEMA) Map Assistance Center at the number listed below for information on how to obtain those items.

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.

Use the map panel listed above and revised by this letter for flood insurance policies and renewals issued for property located on this panel after the effective date of this LOMR.

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 ordinances that meet or exceed minimum NFIP criteria. These criteria, including adoption of the FIS and FIRM, and modifications made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent State or local requirements to which the regulations apply.

If you have any questions, please do not hesitate to contact the Director, Mitigation Division of FEMA in Chicago, Illinois, at (312) 408-5548, or the FEMA Map Assistance Center toll free at 1-877-FEMA MAP (336-2627).

Sincerely,



Philip M. Myers  
Project Engineer  
Hazards Study Branch  
Mitigation Directorate

For: Matthew B. Miller, P.E., Chief  
Hazards Study Branch  
Mitigation Directorate

Enclosures

cc: Mr. Hugh Core, President Auglaize County Commission  
Mr. Douglas Reinhart, County Engineer  
Mr. Jerry L. McClannan, P.E., P.S.  
State Coordinator

FLOODING SOURCE		FLOODWAY			BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE <sup>1</sup>	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY (NAVD)	WITHOUT FLOODWAY (NAVD)	WITH FLOODWAY (NAVD)	INCREASE
Center Branch	21,500	51	322	4.7	891.0	891.0	891.0	0.0
	22,631	86	452	3.4	893.6	893.6	893.9	0.3
	23,889	52	260	3.0	896.9	896.9	897.0	0.1
	25,461	76	441	1.8	900.8	900.8	901.2	0.4
	26,947	56	321	2.4	902.2	902.2	903.0	0.8
Elshoff Ditch	647	55	236	3.2	895.0	895.0	895.3	0.3
	1,805	99	428	1.8	898.2	898.2	898.6	0.4

<sup>1</sup>Feet above mouth

Note: Revised to Reflect LOMR  
Effective: JAN 10 2001

FEDERAL EMERGENCY MANAGEMENT AGENCY

AUGLAIZE COUNTY, OH  
AND INCORPORATED AREAS

## FLOODWAY DATA

CENTER BRANCH - ELSHOFF DITCH

TABLE 3

## **LIST OF CURRENT FLOOD INSURANCE STUDY DATA**

This list is provided to document all information currently effective for your community for insurance and floodplain management.

Date: **SEP 29 2000**

Community: Village of New Knoxville, Auglaize County, Ohio

Community Number: 390848

Page Number: 1 of 1

**CURRENT EFFECTIVE FLOOD INSURANCE STUDY DATE:** September 6, 1989

### **FLOOD INSURANCE RATE MAP**

Map Index  
39011C0000

Effective Date  
September 6, 1989

Map Numbers  
39011C0095 C

Effective Date  
September 6, 1989

### **LETTERS OF MAP REVISION**

Map Numbers  
39011C0095 C

Effective Date  
**JAN 10 2001**

### **LETTERS OF MAP AMENDMENT AND MAP REVISION BASED ON FILL**

Map Numbers  
39011C0095 C

Effective Date  
October 20, 1999

### **BEST AVAILABLE DATA LETTERS**

None

PROPOSED BASE FLOOD ELEVATION DETERMINATIONS FOR THE VILLAGE OF  
NEW KNOXVILLE, AUGLAIZE COUNTY, OHIO, BASE (1% ANNUAL CHANCE) FLOOD  
ELEVATIONS (BFEs) AND ZONE DESIGNATIONS UNDER THE NATIONAL FLOOD  
INSURANCE PROGRAM (NFIP)

On September 6, 1989, the Federal Emergency Management Agency (FEMA) identified Special Flood Hazard Areas in the Village of New Knoxville, Ohio, through issuance of a Flood Insurance Rate Map (FIRM).

The Associate Director for Mitigation, has proposed elevations and zone designation changes in the flood having a one-percent chance of occurrence in any given year (base flood) for locations in the Village of New Knoxville. The BFEs and zone designations amend the FEMA FIRM for the community.

This modification to the effective FIRM reflects more up-to-date hydrologic and hydraulic analyses and more detailed and up-to-date topographic information for Center Branch and Elshoff Ditch than that used to prepare the September 6, 1989, FIRM. As a result, there is narrowing and widening of the 1% annual chance (100-year) floodplain and the addition of the 0.2% annual chance (500-year) floodplain, BFEs, and floodway along Center Branch and Elshoff Ditch. In addition, the locations of stream channels for Center Branch and Elshoff Ditch have been updated. This modification also affects flood hazard information for the unincorporated areas of Auglaize County. The BFEs are as follows:

<u>Location</u>	Base Flood Elevations (NGVD)*	
	<u>Effective</u>	<u>Revised</u>
Center Branch:		
Approximately 1,200 feet downstream of Elshoff Ditch	None	*891
Approximately 2,000 feet upstream of South Street	None	*902
Elshoff Ditch:		
At confluence with Center Branch	None	*894
Approximately 1,800 feet upstream of Spring Street	None	*899

\*Elevation in feet National Geodetic Vertical Datum

The changes are made pursuant to Section 206 of the Flood Disaster Protection Act of 1973 (P.L. 93-234), and are 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.

Under the above-mentioned Acts of 1968 and 1973, the Associate Director for Mitigation, must develop criteria for floodplain management. In order for the community to participate in the NFIP, the community will be using the new BFEs and zone designations to administer the floodplain management measures of the NFIP. These BFEs and zone designations will also be used to calculate the appropriate flood insurance premium rates for new buildings and their contents.

Upon the second publication of notice of these changes in this paper, any person has 90 days in which he can request through the Chief Executive Officer of the community that the

Associate Director for Mitigation reconsider the determination. Any request for reconsideration must be based on knowledge of changed conditions or new scientific or technical data. All interested parties are on notice that until the 90-day period elapses, the Associate Director's determination to modify the BFEs and zone designations may itself be changed.

Any person having knowledge or wishing to comment on these changes should immediately notify:

Mr. Michael Gieb  
New Knoxville Village Administrator  
P.O. Box 246  
New Knoxville, Ohio 45871

## HEC-RAS Plan: SUBCRITICAL

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev
				(cfs)	(ft)	(ft)
CENTER BRANCH	UPPER	8918	100 YR.	776.00	885.20	892.85
CENTER BRANCH	UPPER	8551	100 YR.	776.00	884.70	892.58
CENTER BRANCH	UPPER	8185	100 YR.	776.00	884.20	892.16
CENTER BRANCH	UPPER	7885	100 YR.	776.00	882.50	891.42
CENTER BRANCH	UPPER	7185	100 YR.	776.00	889.50	891.05
CENTER BRANCH	UPPER	6885	100 YR.	776.00	889.80	890.75
CENTER BRANCH	UPPER	6185	100 YR.	776.00	889.10	890.42
CENTER BRANCH	UPPER	6165	100 YR.	776.00	889.10	890.23
CENTER BRANCH	UPPER	6159	Pedestrian Bridge			
CENTER BRANCH	UPPER	6152	100 YR.	776.00	889.10	890.12
CENTER BRANCH	UPPER	6131	100 YR.	776.00	889.10	890.10
CENTER BRANCH	UPPER	5841	100 YR.	776.00	889.50	889.35
CENTER BRANCH	UPPER	5814	100 YR.	776.00	889.50	889.28
CENTER BRANCH	UPPER	5789	German St. Bridge			
CENTER BRANCH	UPPER	5763	100 YR.	776.00	889.80	889.10
CENTER BRANCH	UPPER	5738	100 YR.	776.00	889.50	889.08
CENTER BRANCH	UPPER	5512	100 YR.	776.00	889.70	889.20
CENTER BRANCH	UPPER	5472	100 YR.	776.00	889.60	889.13
CENTER BRANCH	UPPER	5442	Bremen St. Bridge			
CENTER BRANCH	UPPER	5412	100 YR.	776.00	889.40	889.06
CENTER BRANCH	UPPER	5378	100 YR.	776.00	889.40	889.83
CENTER BRANCH	UPPER	5105	100 YR.	776.00	889.30	889.85
CENTER BRANCH	UPPER	5049	100 YR.	776.00	889.30	889.80
CENTER BRANCH	UPPER	5023	W. Spring St. Bridge			
CENTER BRANCH	UPPER	4887	100 YR.	776.00	889.30	889.57
CENTER BRANCH	UPPER	4841	100 YR.	776.00	889.30	889.09
CENTER BRANCH	UPPER	4428	100 YR.	776.00	889.60	889.09
CENTER BRANCH	UPPER	4382	100 YR.	776.00	887.70	889.13
CENTER BRANCH	UPPER	4381	Inline Weir			
CENTER BRANCH	UPPER	4360	100 YR.	776.00	887.70	889.12
CENTER BRANCH	UPPER	4343	Main St. Bridge			
CENTER BRANCH	UPPER	4303	100 YR.	776.00	887.10	884.23
CENTER BRANCH	UPPER	4247	100 YR.	776.00	886.70	883.86
CENTER BRANCH	UPPER	3919	100 YR.	776.00	884.30	883.74
CENTER BRANCH	LOWER	3840	100 YR.	1537.00	884.10	883.62
CENTER BRANCH	LOWER	3419	100 YR.	1537.00	883.00	882.88
CENTER BRANCH	LOWER	3062	100 YR.	1537.00	882.00	881.91
CENTER BRANCH	LOWER	2891	100 YR.	1537.00	881.00	880.99
ELSHOFF DITCH	TRIBUTARY	13823	100 YR.	761.00	881.00	888.98
ELSHOFF DITCH	TRIBUTARY	13484	100 YR.	761.00	880.50	888.73
ELSHOFF DITCH	TRIBUTARY	13104	100 YR.	761.00	880.00	888.19
ELSHOFF DITCH	TRIBUTARY	12804	100 YR.	761.00	889.30	888.24
ELSHOFF DITCH	TRIBUTARY	12104	100 YR.	761.00	888.10	884.98
ELSHOFF DITCH	TRIBUTARY	12048	100 YR.	761.00	887.90	884.93
ELSHOFF DITCH	TRIBUTARY	12022	E. Spring St. Bridge			
ELSHOFF DITCH	TRIBUTARY	11996	100 YR.	761.00	887.80	884.77
ELSHOFF DITCH	TRIBUTARY	11840	100 YR.	761.00	886.90	884.63
ELSHOFF DITCH	TRIBUTARY	11805	100 YR.	761.00	886.60	884.43
ELSHOFF DITCH	TRIBUTARY	11759	100 YR.	761.00	886.20	884.40
ELSHOFF DITCH	TRIBUTARY	11757	Pedestrian Bridge			
ELSHOFF DITCH	TRIBUTARY	11754	100 YR.	761.00	886.20	884.30

219 West

29 North

219 East

## HEC-RAS Plan: SUBCRITICAL (Continued)

River	Reach	River Sta	Profile	Q Total	Min Ch El	W.S. Elev
				(cfs)	(ft)	(ft)
ELSHOFF DITCH	TRIBUTARY	11708	100 YR.	781.00	886.00	894.35
ELSHOFF DITCH	TRIBUTARY	11681	100 YR.	781.00	885.90	894.35
ELSHOFF DITCH	TRIBUTARY	11632	100 YR.	781.00	885.70	894.24
ELSHOFF DITCH	TRIBUTARY	11630	<i>Pedestrian</i> Bridge			
ELSHOFF DITCH	TRIBUTARY	11627	100 YR.	781.00	885.70	893.84
ELSHOFF DITCH	TRIBUTARY	11581	100 YR.	781.00	885.50	893.79
ELSHOFF DITCH	TRIBUTARY	11372	100 YR.	781.00	884.70	893.79