Federal Emergency Management Agency

Region III
One Independence Mall, Sixth Floor
615 Chestnut Street
Philadelphia, PA 19106-4404

NOV 19 2001

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. Gregory J. Ricci, President
Township of Swatara Board of
Commissioners
599 Eisenhower Boulevard
Swatara, Pennsylvania 17111-2397

IN REPLY REFER TO:

Case Number:	01-03-145P
Community Name:	Township of Swatara, Dauphin County, Pennsylvania
Community Number:	420398
Map Panel Numbers:	4203980005 4203980010
Effective Date of this Revision:	MAR 15 2002

102-I-A (c)

Dear Mr. Ricci:

The Flood Insurance Study (FIS), Flood Insurance Rate Map (FIRM), and Flood Boundary and Floodway Map (FBFM) for the Township of Swatara have been revised by this Letter of Map Revision (LOMR) to reflect updated hydrologic and hydraulic analyses along Lawnton Branch Spring Creek. The subject area is located from the confluence with Spring Creek to a point approximately 300 feet upstream of Lawnford Way. This revision was initiated by [redacted] of Dawood Engineering, Inc., in a letter dated April 11, 2000.

We received the following technical data, prepared by Dawood Engineering, Inc., in support of this revision:

- a hydrologic analysis, dated April 17, 2001, prepared using PSU-IV methodology, of the 10% (10-year), 2% (50-year): 1% (100-year), and 0.2% (500-year) annual chance discharges for Lawnton Branch Spring Creek, reflecting existing conditions;

- two HEC-2 hydraulic backwater models, both dated April 17, 2001, one of the 10%, 2%, 1%, and 0.2% annual chance floods and one of the 1% annual chance flood and floodway for Lawnton Branch Spring Creek, duplicating the models used to prepare the Township of Swatara FIS, dated August 3, 1981;

- two HEC-2 hydraulic backwater models, both dated April 17, 2001, one of the 10%, 2%, 1%, and 0.2% annual chance floods and one of the 1% annual chance flood and floodway for Lawnton Branch Spring Creek, reflecting revised discharges;

- a certified topographic map, titled Revised Floodway / Floodplain Boundary for the Lawnton Branch of Spring Creek, at a scale of 1"=800', with a contour interval of 20 feet, reflecting the existing conditions 1% and 0.2% annual chance floodplains and floodway;

- a copy of a public notice, published December 23,2000, in The Patriot News, notifying residents of the increases in the 1% annual chance water-surface elevations, and changes to the 1% annual chance floodplain and floodway; and

- completed application/certification forms, including community concurrence with this request.

We received all data necessary to process this revision by August 24,2001.

Based on our review of the submitted data, we are issuing this LOMR to reflect decreases in 1% annual chance water-surface elevations, and narrowing and widening of the 1% and 0.2% annual chance floodplains and floodway along Lawnton Branch Spring Creek from its confluence with Spring Creek to a point approximately 150 feet upstream of Hebron Street. The maximum decrease in 1% annual chance water-surface elevations is 4.5 feet. In addition, this LOMR will reflect narrowing and widening of the 1% annual chance floodplain and the addition of Base (1% annual chance) Flood Elevations (BFEs) and a floodway along Lawnton Branch Spring Creek from a point approximately 150 feet upstream of Hebron Street to a point approximately 1,400 feet upstream of Hebron Street. This LOMR will also reflect the addition of a shallow flooding area (Zone AO), average depth 2 feet, in the vicinity of the Lawnford Way and Derry Street intersection. This LOMR revises the Township of Swatara FIS report, dated August 3, 1981, as shown on the enclosed annotated portions of Table 1 *(Summary* of Discharges), Table 2 (Floodway Data) and Flood Profiles 09P-11P. In addition, this LOMR revises Township of Swatara FIRM number 420398, panels *0005* B and 0010 B, and FBFM number 420398, panels 0005 and 0010, all dated February 3, 1982, as shown on the enclosed digitally reproduced portions of the FIRMs and FBFMs.

We have enclosed a copy of the public notification of the revised BFEs, which will be published in the Patriot News on or about December 7,2001, and December 14,2001. 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 Patriot News 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 Patriot News, 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 PSU-IV hydrologic analysis. 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 Commonwealth law have been obtained. Commonwealth 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 Commonwealth of Pennsylvania or the Township of Swatara 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, FIRM, and FBFM for the Township of Swatara to reflect this determination. However, we will incorporate this determination when we next republish the FIS and FIRM panels *0005* and 0010.

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 panels listed above and revised by this letter for flood insurance policies and renewals issued for property located on these panels after the effective date of this LOMK.

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, FIRM, and FBFM, and revisions made by this LOMR, are the minimum requirements for continued NFIP participation and do not supersede more stringent Commonwealth or local requirements to which the regulations apply.

If you have any questions, please do not hesitate to contact Erik Rourke at (215) 931-5665, or the FEMA Map Assistance Center toll free at 1-877-FEMA MAP (1-877-336-2627).

Sincerely,

Robert J. Gunter
Director, Federal Insurance and
Mitigation Administration

Enclosures

cc: [redacted]
Commonwealth NFIP Coordinator

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: NOV 19 2001

community: Township of Swatara, Dauphin County, Pennsylvania

Community Number: 420398

Page Number: 1 of 1

CURRENT EFFECTIVE FLOOD INSURANCE STUDY DATE: August 3,1981

FLOOD INSURANCE RATE MAP

Index Date: February 3, 1982

Panel Numbers	Effective Date
0005 B, 0010 B	February 3,1982

FLOOD BOUNDARY AND FLOODWAY MAP

Index Date: February 3, 1982

Panel Numbers	Effective Date
0005,0010	February 3,1982

LETTERS OF *MAP* REVISION

Panel Numbers	Effective Date
0005	MAR 15 2002
0010	MAR 15 2002

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

None

BEST AVAILABLE DATA LETTERS

None

REVALIDATION LETTERS

None

TABLE 1 - SUMMARY OF DISCHARGES - continued

FLOODING SOURCE AND LOCATION	DRAINAGE AREA (sq. miles)	PEAK DISCHARGES (cfs) 10-YEAR	50-YEAR	100-YEAR	500-YEAR
SPRING CREEK (continued)					
Above the confluence of West Branch Spring Creek	2.07	1,495	2,174	2,416	4,621
PARKWAY CREEK					
At the confluence with Spring Creek	1.12	437	910	1,191	2,010
LAWNTON BRANCH SPRING CREEK					
At the confluence with Spring Creek	1.85	397	775	1,008	1,748
At Interstate 83	1.62	380	735	953	1,618
At South Street	0.47	203	362	457	760
WEST BRANCH SPRING CREEK					
At the confluence with Spring Creek	2.53	762	1,526	1,967	3,265
SWATARA CREEK					
At downstream corporate limits with Lower Swatara	337.0	23,000	41,500	52,500	86,000
BEAVER CREEK					
At the confluence with Swatara Creels	27.20	2,825	5,508	7,079	12,022
At the upstream corporate limits	25.83	2,729	5,175	6,870	11,668

AREA OF REVISION

REVISED TO REFLECT LOMR EFFECTIVE: MAR 15 2002

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of the flooding sources studied in detail in the community were carried out to provide estimates of the elevations of floods of the selected recurrence intervals along each of these flooding sources.

Water-surface profiles for the Susquehanna River, Laurel Run, Spring Creek, Parkway Creek, Lawnton Branch Spring Creek, West Branch Spring Creek, Swatara Creek, and Beaver Creek were computed through the use of the USACE HEC-2 step-backwater computer program (Reference 6). In order to perform the backwater analysis and compute critical backwater effects. it was necessary to obtain floodplain cross

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
Spring Creek (continued)								
S	21,006[1]	161	1,246	4.2	376.2	376.2	377.0	0.8
T	21,486[1]	198	2,250	2.3	385.5	385.5	385.5	0.0
U	21,756[1]	196	1,878	2.8	385.6	385.6	385.6	0.0
V	22,236[1]	166	1,309	4.0	386.2	386.2	386.3	0.1
W	23,037[1]	82	576	4.2	387.4	387.4	387.8	0.4
Parkway Creek								
A	90[2]	23	108	11.0	359.1	352.8[3]	352.8	0.0
B	750[2]	100	413	2.9	359.1	357.1[3]	357.8	0.7
C	1,372[2]	142	1,690	0.7	372.2	372.2	372.2	0.0
Lawnton Branch Spring Creek								
A	292[2]	92	318	3.2	372.2	372.1[3]	372.6	0.5
B	791[2]	91	412	2.4	374.6	374.6	375.3	0.7
C	1,607[2]	430	1,975	0.5	383.4	383.4	383.6	0.2
D	2,243[2]	332	1,096	0.9	383.4	383.4	383.6	0.2
E	2,666[2]	161	343	2.8	383.6	383.6	383.8	0.2
F	3,231[2]	232	363	2.6	386.1	386.1	386.4	0.3
G	3,861[2]	187	318	3.0	388.6	388.6	388.8	0.2
H	5,026[2]	110	219	2.1	395.7	395.7	396.1	0.4
I	5,852[2]	85	127	3.6	405.5	405.5	405.6	0.1
J	7,137[2]	40	49	6.4	412.0	412.0	412.1	0.1

[1]Feet above confluence with Susquehanna River
[2]Feet above confluence with Spring Creek
[3]Elevation computed without consideration of backwater effects from Spring Creek

AREA OF REVISION

REVISED TO REFLECT LOMR EFFECTIVE: MAR 15 2002

TABLE 2

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SWATARA, PA
(DAUPHIN CO.)

FLOODWAY DATA

SPRING CREEK - PARKWAY CREEK - LAWNTON BRANCH SPRING CREEK

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SWATARA, PA

(DAUPHIN CO.)

FLOOD PROFILES

LAWNTON BRANCH SPRING CREEK

09P

FEDERALEMERGENCYMANAGEMENTAGENCY

TOWNSHIP OF SWATARA, PA
(DAUPHIN CO.)

FLOOD PROFILES

LAWNTON BRANCH SPRING CREEK

10P

REVISED TO REFLECT LOMR EFFECTIVE: MAR 15 2002

FEDERAL EMERGENCY MANAGEMENT AGENCY

TOWNSHIP OF SWATARA, PA

(DAUPHIN CO.)

11P

FLOOD PROFILES

LAWNTON BRANCH SPRING CREEK

MAP LEGEND

REVISED 100-YEAR FLOODPLAIN

REVISED 500-YEAR FLOODPLAIN

BOUNDARY DIVIDING SPECIAL FLOOD HAZARD ZONES

APPROXIMATE SCALE

800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

TOWNSHIP OF
SWATARA,
PENNSYLVANIA
DAUPHIN COUNTY

PANEL 10 OF 10

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY - PANEL NUMBER
420398 0010 B

EFFECTIVE DATE:
FEBRUARY 3, 1982

REVISED TO REFLECT LOMR EFFECTIVE:

MAR 15 2002

Federal Emergency Management Agency

MAP LEGEND

REVISED FLOODWAY

REVISED 100-YEAR FLOODPLAIN

REVISED 500-YEAR FLOODPLAIN

APPROXIMATE SCALE

800 0 800 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FLOODWAY

FLOOD BOUNDARY AND FLOODWAY MAP

TOWNSHIP OF

SWATARA,

PENNSYLVANIA

DAUPHIN COUNTY

PANEL 10 OF 10

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY - PANEL NUMBER
420398 0010

EFFECTIVE DATE:
FEBRUARY 3, 1982

REVISED TO REFLECT LOMR EFFECTIVE:

MAR 15 2002

Federal Emergency Management Agency

JOINS PANEL 0010

JOINS PANEL 0010