



# Federal Emergency Management Agency

Washington, D.C. 20472

March 1, 2017

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DEPT. OF PLANNING  
COMMUNITY DEVELOPMENT

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

The Honorable Kimberley Driscoll  
Mayor, City of Salem  
93 Washington Street  
Salem, MA 01970

IN REPLY REFER TO:

Case No.: 17-01-0584P  
Community Name: City of Salem, MA  
Community No.: 250102  
Effective Date of  
This Revision: **July 14, 2017**

Dear Mayor Driscoll:

The Flood Insurance Study Report and Flood Insurance Rate Map for your community have been revised by this Letter of Map Revision (LOMR). Please use the enclosed annotated map panels revised by this LOMR for floodplain management purposes and for all flood insurance policies and renewals issued in your community.

Additional documents are enclosed that provide information regarding this LOMR. Please see the List of Enclosures below to determine which documents are included. Other attachments specific to this request may be included as referenced in the Determination Document. If you have any questions regarding floodplain management regulations for your community or the National Flood Insurance Program (NFIP) in general, please contact the Consultation Coordination Officer for your community. If you have any technical questions regarding this LOMR, please contact the Director, Mitigation Division of the Department of Homeland Security's Federal Emergency Management Agency (FEMA) in Boston, Massachusetts, at (617) 832-4761, or the FEMA Map Information eXchange toll free at 1-877-336-2627 (1-877-FEMA MAP). Additional information about the NFIP is available on our website at <http://www.fema.gov/national-flood-insurance-program>.

Sincerely,

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

List of Enclosures:

Letter of Map Revision Determination Document  
Annotated Flood Insurance Rate Map  
Annotated Flood Insurance Study Report

cc: Mr. Tom Devine, AICP  
Senior Planner  
City of Salem

Mr. John S. Ramsey, P.E.  
Senior Coastal Engineer and Principal  
Applied Coastal Research and Engineering



# Federal Emergency Management Agency

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## LETTER OF MAP REVISION DETERMINATION DOCUMENT

COMMUNITY AND REVISION INFORMATION		PROJECT DESCRIPTION	BASIS OF REQUEST
COMMUNITY	City of Salem Essex County Massachusetts	NO PROJECT	COASTAL ANALYSIS UPDATED TOPOGRAPHIC DATA
	COMMUNITY NO.: 250102		
IDENTIFIER	Salem-South Salem and Forest River	APPROXIMATE LATITUDE AND LONGITUDE: 42.502, -70.895 SOURCE: Precision Mapping Streets      DATUM: NAD 83	
ANNOTATED MAPPING ENCLOSURES		ANNOTATED STUDY ENCLOSURES	
TYPE: FIRM*      NO.: 25009C0419G      DATE: July 16, 2014 TYPE: FIRM*      NO.: 25009C0532G      DATE: July 16, 2014		DATE OF EFFECTIVE FLOOD INSURANCE STUDY: July 16, 2014 TRANSECT DATA TABLE: 11 TRANSECT DESCRIPTION TABLE: 10	

Enclosures reflect changes to flooding sources affected by this revision.

\* FIRM - Flood Insurance Rate Map

### FLOODING SOURCES AND REVISED REACHES

See Page 2 for Additional Flooding Sources

Atlantic Ocean via Salem Harbor - an area from the confluence of Forest River to just downstream of Mill Street and on both sides of Canal Street

### SUMMARY OF REVISIONS


Flooding Source	Effective Flooding	Revised Flooding	Increases	Decreases
Atlantic Ocean via Salem Harbor	Zone AE	Zone AE	NONE	YES
	Zone AE	Zone X (shaded)	NONE	YES
	BFEs*	BFEs	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, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://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 FLOODING SOURCES AFFECTED BY THIS REVISION**

**FLOODING SOURCES AND REVISED REACHES**

Forest River - an area within the City of Salem only and from approximately 310 feet downstream of Route 114 to approximately 4,540 feet upstream of Loring Avenue and a small area seaward of Belleau Road and Hemenway Road

**SUMMARY OF REVISIONS**

<b>Flooding Source</b>	<b>Effective Flooding</b>	<b>Revised Flooding</b>	<b>Increases</b>	<b>Decreases</b>
Forest River	Zone AE	Zone AE	NONE	YES
	BFEs*	BFEs	NONE	YES
	Zone VE	Zone AE	NONE	YES

\* BFEs - Base Flood Elevations

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, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://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.

**COMMUNITY REMINDERS**

We based this determination on the 1-percent-annual-chance stillwater elevations computed in the FIS for your community. A comprehensive restudy of your community's flood hazards could 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.

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. Dean Savramis  
Director, Mitigation Division  
Federal Emergency Management Agency, Region I  
99 High Street, Sixth Floor  
Boston, MA 02110  
(617) 832-4761

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, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/national-flood-insurance-program>.

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

**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 panels 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, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional information about the NFIP is available on our website at <http://www.fema.gov/national-flood-insurance-program>.

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

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)**

**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](https://www.floodmaps.fema.gov/fhm/bfe_status/bfe_main.asp)

LOCAL NEWSPAPER

Name: *Salem News*

Dates: March 9, 2017 and March 16, 2017

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, 847 South Pickett Street, Alexandria, VA 22304-4605. Additional Information about the NFIP is available on our website at <http://www.fema.gov/national-flood-insurance-program>.

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Engineering Services Branch  
Federal Insurance and Mitigation Administration

TABLE 11 - TRANSECT DATA-continued

**STILLWATER ELEVATION**

<u>TRANSECT</u>	<u>FLOODING SOURCE</u>	<u>10- PERCENT- ANNUAL- CHANCE</u>	<u>2- PERCENT- ANNUAL- CHANCE</u>	<u>1- PERCENT- ANNUAL- CHANCE</u>	<u>0.2- PERCENT- ANNUAL- CHANCE</u>	<u>ZONE</u>	<u>BASE FLOOD ELEVATION (feet NAVD88*)<sup>1</sup></u>
26	Salem Harbor	8.4	9.4	10.0	11.4	VE	17
27	Salem Harbor	8.4	9.4	9.4	11.4	VE	16
						AE	10-16
28	Salem Harbor	8.4	9.4	10.0	11.4	VE	13
						AE	10
29	Atlantic Ocean	8.4	9.4	10.0	11.4	VE	19-21
						AE	19
30	Atlantic Ocean	8.4	9.4	10.0	11.4	VE	21
						AE	14
31	Beverly Harbor	8.4	9.4	10.0	11.4	VE	14
						AE	10
32	Atlantic Ocean	8.4	9.4	10.0	11.4	VE	30
33	Atlantic Ocean	8.4	9.4	10.0	11.4	VE	25
34	Atlantic Ocean	8.4	9.4	10.0	11.4	VE	21
35	Atlantic Ocean	8.4	9.4	10.0	11.4	VE	21
						AE	14

REVISE  
DATA

<sup>1</sup>Because of map scale limitations, base flood elevations shown on the FIRM represent average elevations for the zones depicted.

\*North American Vertical Datum of 1988

**REVISED TO  
REFLECT LOMR  
EFFECTIVE: July 14, 2017**

TABLE 10 - TRANSECTS DESCRIPTIONS-continued

<u>Transect</u>	<u>Location</u>	ELEVATION (feet NAVD88 <sup>1</sup> )	
		1-PERCENT- ANNUAL- CHANCE STILLWATER <sup>2</sup>	MAXIMUM 1- PERCENT- ANNUAL- CHANCE WAVE CREST <sup>3</sup>
27	The transect is located along Forest River at a point approximately 100 feet northeast of the intersection of Loring Avenue and Leggs Hill Road, extending northeast towards Salem Harbor.	10.0	13.3
28	The transect is located at a point approximately 250 feet west of the intersection of Essex Street and Forrester Street, extending southeast towards Salem Harbor.	10.3	13.2
29	The transect is located at a point approximately 1,200 feet southeast of the intersection of Fort Avenue and Winter Island Road, extending east towards the Atlantic Ocean.	13.9	21.3
30	The transect is located at a point approximately 700 feet northwest of the intersection of Fort Avenue and Memorial Drive, extending northeast towards the Atlantic Ocean.	13.7	21.0
31	The transect is located at a point approximately 300 feet south of the intersection of Hawthorne Street and Endicott Street, extending northeast towards Beverly Harbor.	10.3	14.0
32	The transect is located in Beverly Harbor at a point approximately 100 feet southeast of the intersection of Lovett Street and Abbott Street, extending southeast towards the Atlantic Ocean..	13.7	*
33	The transect is located at a point approximately 800 feet southeast of Neptune Street and Bay View Road, extending south towards the Atlantic Ocean.	13.6	*

← REVISED DATA

<sup>1</sup>North American Vertical Datum of 1988

<sup>2</sup>Including stillwater elevation and effects of wave setup.

<sup>3</sup>Because of map scale limitations, maximum wave elevations may not be shown on the FIRM.

\*1% annual chance water level governed by wave runup