# Flood Map Amendments & Revisions

Navigating FEMA's Letter of Map Change Processes

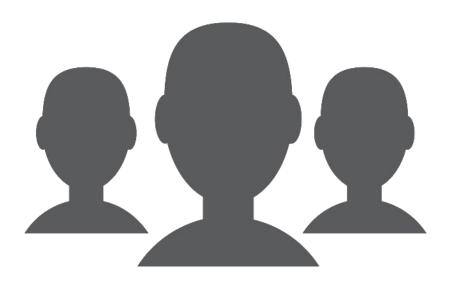
August 29, 2024

FEMA Region 1



## **Poll Question #1**

- Who are we?
- Who are you?
- What is your role?







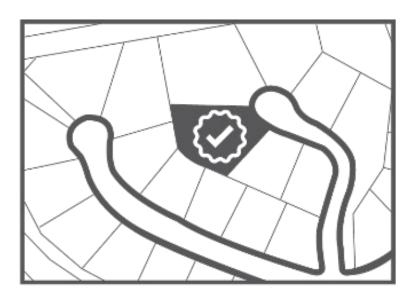
- Gain (or reinforce) a working knowledge of FEMA's Letter of Map Change (LOMC) processes & options.
- Become equipped to answer common questions and to direct others to additional resources.
- Identify when and why you would change a map.







- Discuss various FEMA map amendments and revisions (Overview)
- MT-1s
- Conditional Letters of Map Change
- Using LiDAR
- Submitting MT-1s
- MT-2s
- Submitting MT-2s
- Resources





# Overview

## National Flood Insurance Program (NFIP) Background

- Created by the National Flood Insurance Act of 1968
- Participation is voluntary
  - · Adopt and enforce regulations
  - Eligible for flood insurance
- Benefits of participation
  - Flood insurance
  - · Grants and loans
  - · Disaster assistance
  - Federally backed mortgages
- Goals of the NFIP include:
  - Save lives and protect property
  - Encourage a comprehensive approach to floodplain management



The Base Flood:

The flood having a 1% chance of being equaled or exceeded in any given year. Used by the NFIP as the basis for mapping, mandatory purchase requirement, and regulating development.

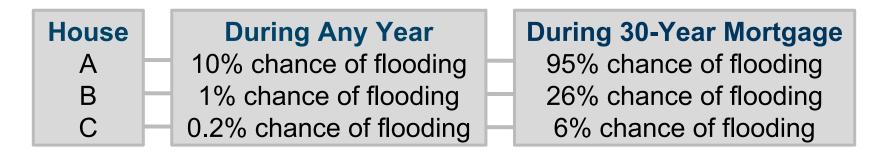


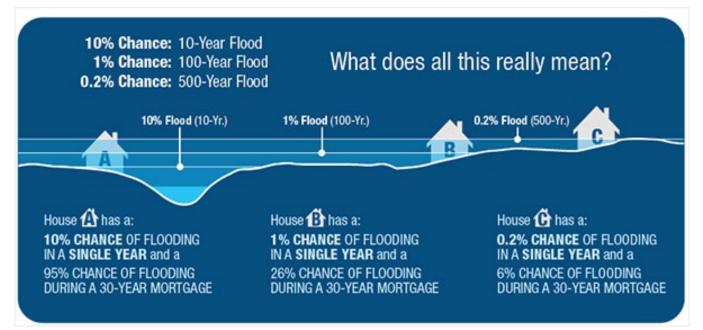
## **Applicable NFIP Regulations**

- > Letter of Map Amendment (LOMA):
  - 44 CFR Part 70 National Flood Insurance Program (NFIP) Regulations
- > Letter of Map Revision Based on Fill (LOMR-F):
  - 44 CFR Part 65.5 National Flood Insurance Program (NFIP) Regulations
  - Fill only
- Procedures and Fees for Processing Map Changes:
  - 44 CFR Part 72 National Flood Insurance Program (NFIP)



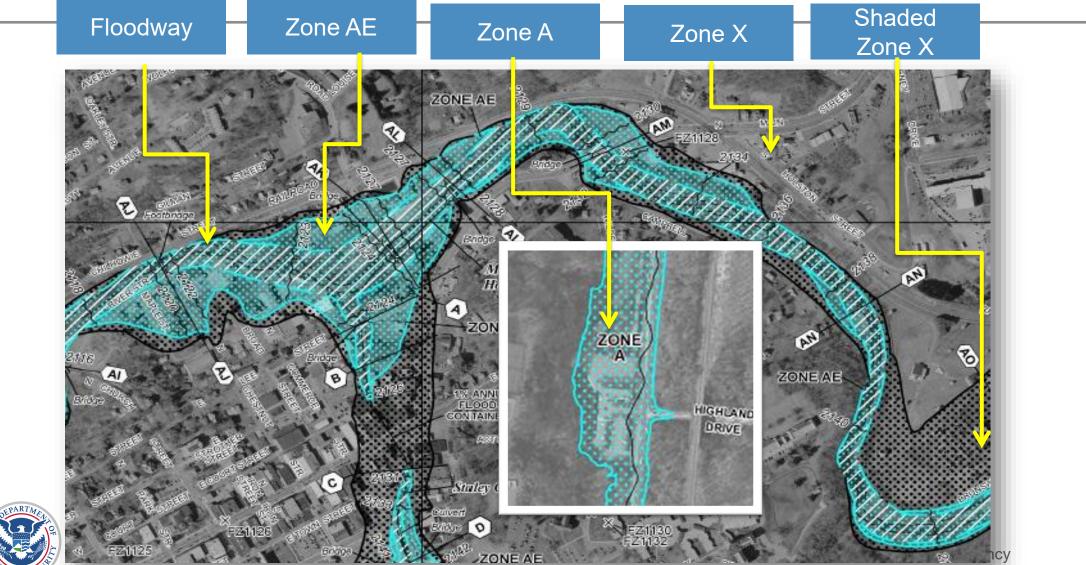
#### Flood Risk







#### **FEMA Flood Zones**



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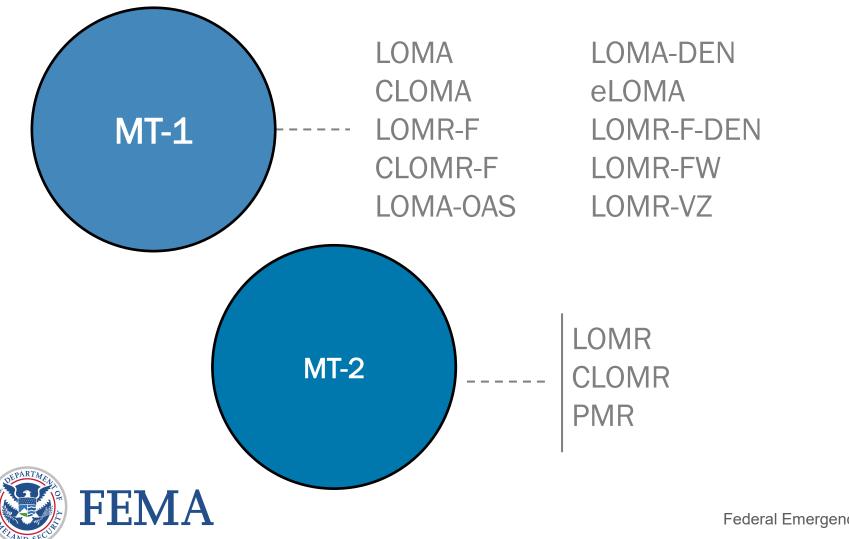
#### **Reasons to Change a Map**

- Updated data
  - Elevation (newer LiDAR or site-specific survey)
  - Flood Study (can cover various geographic sized areas; funded by federal, state, local, or private stakeholders)
- To reflect physical and flood control changes
  - Fill has been placed
  - New developments or to understand the effects of a proposed development
  - Roadway construction
  - Flood Control Projects (dams, levees, culverts)

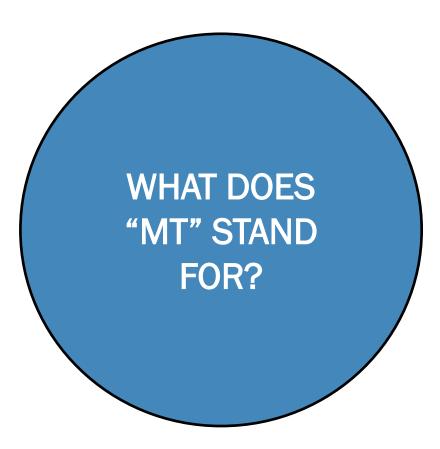




## **LOMC** Types



#### **Poll Question #2**





#### What's the Difference?

- MT-1
  - LOMA, CLOMA, LOMR-F, CLOMR-F
  - Single or multiple structures or parcels are removed from the 1%annual-chance floodplain by a letter
  - Do not result in changes to the physical effective Flood Insurance Rate Map (FIRM)
  - Goal is usually to remove the federal insurance requirement
  - Homeowners who successfully remove their homes from the 1% floodplain should be encouraged to keep their flood insurance

#### • MT-2

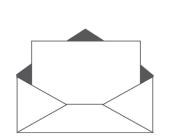
- LOMR, CLOMR, PMR
- Floodplains, floodways, BFEs, Cross
   Sections, etc.. are revised
- Results in an official revision to the physical effective FIRM and/or FIS; therefore, the community must be involved



- More complicated than an MT-1
- Technical engineering changes resulting from a new study, development, or infrastructure projects.



#### What's the Difference?



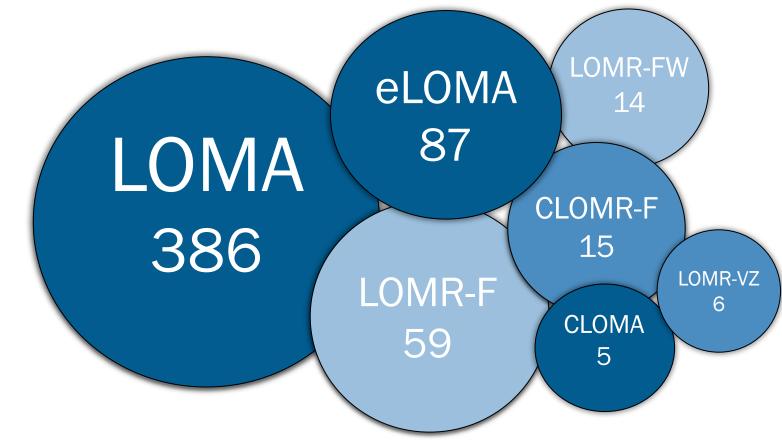
# LOMA/LOMR Based on AS-BUILT conditions BUILT conditions CLOMA/CLOMR Based on PROPOSED conditions





### **LOMC** Types - Region

Number of all MT-1s submitted in Region I in 2023



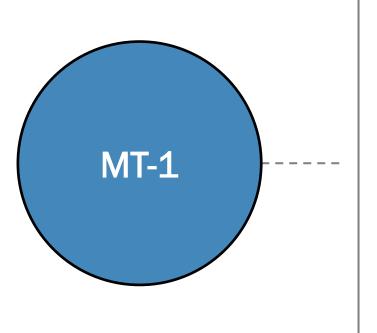


# Questions?



# Module 1: MT-1s

#### LOMC - MT-1s



LOMA LOMA-OAS LOMA-DEN LOMR-F LOMR-F-DEN LOMR-FW LOMR-VZ **CLOMA CLOMR-F** eLOMA



#### **LOMA: Letter of Map Amendment**

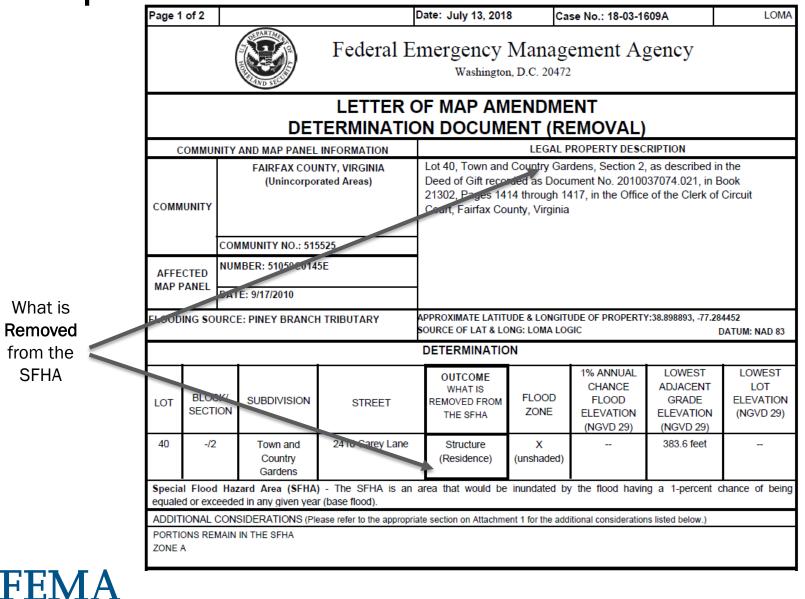
- Removal of an existing structure(s) or parcel(s) of land from the SFHA due to <u>naturally high ground</u> (no fill) that is not shown on the FIRM due to map scale limitations.
- Structures: Lowest Adjacent Grade (LAG) >= BFE
- Empty Lots: Low Lot Elevation (LLE) >= BFE
- Also: Metes and bounds request to remove a portion of property from the SFHA
- Removes federal mandatory flood insurance purchase requirement though the lender can still require purchase of flood insurance



\*Base Flood Elevation (BFE) of the 1%- Annual-Chance Flood Event

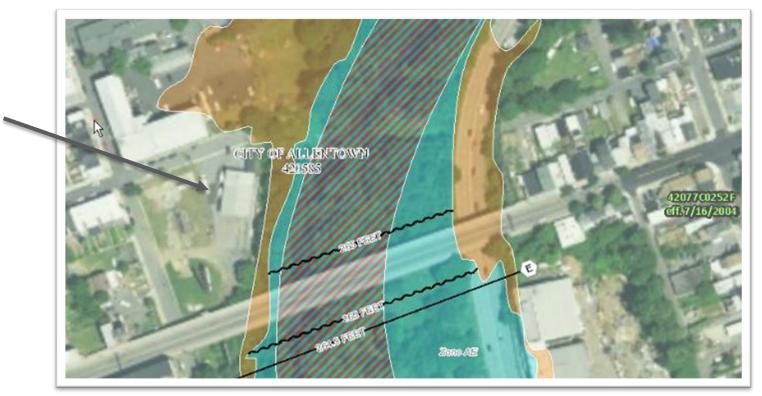


## LOMA: Example



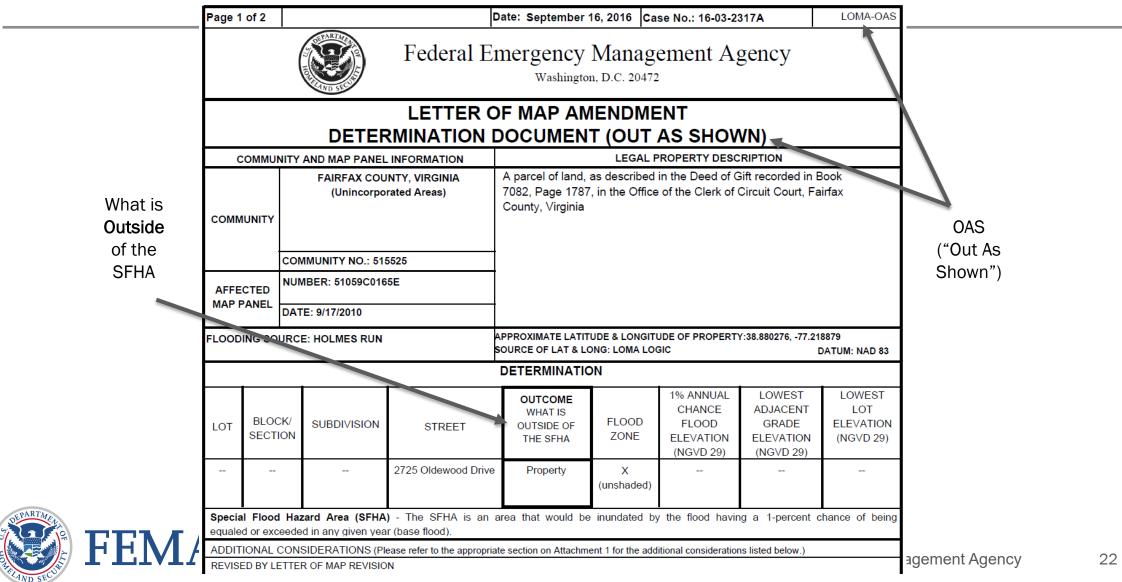
#### LOMA-OAS: Letter of Map Amendment – Out As Shown

FEMA's determination confirming the existing property and/or structure(s) are located outside of the SFHA as visually depicted on the effective FIRM.





## **LOMA-OAS: Example**



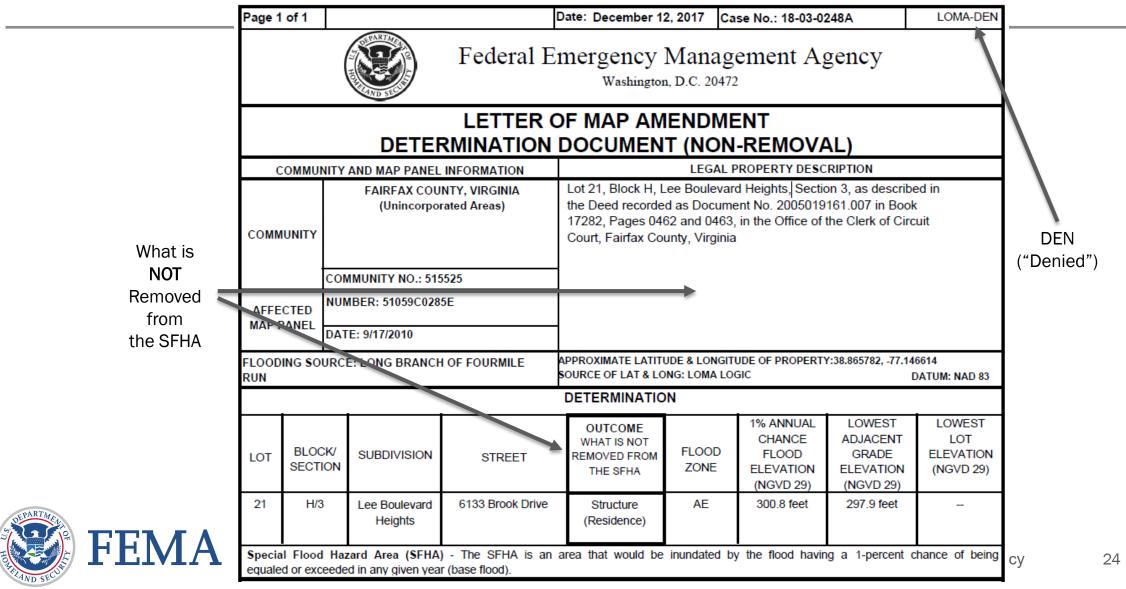
#### **LOMA-DEN: Letter of Map Amendment – Non-Removal**

If, after reviewing a LOMA submittal, FEMA determines the documentation does not support removing the structure or property from the SFHA, it will still issue a letter, but it will be a LOMA-DEN.





## **LOMA-DEN: Example**



- Removal of an existing structure(s) or parcel(s) of land from the SFHA that has been elevated by fill.
- The FIRM will not be revised, there will be a revision by letter.
- Structures:
  - Lowest Adjacent Grade (LAG) >= BFE
- Empty Lots:
  - Low Lot Elevation (LLE) >= BFE
- If basements are placed, they must be above the BFE.
- Removes federal mandatory flood insurance purchase requirement.
- Lender can still require purchase of flood insurance.
- Requires community approval via a signed Community Acknowledgment



Note: Fill placed before the first NFIP map for a community showing the property in question in an SFHA is considered natural grade. (Check Community Map History Table in FIS report and/or Historic Maps on the Map Service Center.)



- Community Acknowledgment Form Required:
  - Community Official Signs acknowledging:
    - Fill will not be placed in floodway
    - Complies with Endangered Species Act (ESA)
    - Have all necessary federal, state, and local permits
    - Existing and proposed structures will be "reasonably safe from flooding"
    - Supporting documentation is available to submit to FEMA upon request
    - Community Officials do not have to sign if they do not concur!



#### Required

#### DEPARTMENT OF HOMELAND SECURITY - FEDERAL EMERGENCY MANAGEMENT AGENCY COMMUNITY ACKNOWLEDGMENT FORM

O.M.B. NO. 1660-0015 Expires February 28, 2014

#### PAPERWORK BURDEN DISCLOSURE NOTICE

Public reporting burden for this data collection is estimated to average 1.38 hours per response. The burden estimate includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the needed data, and completing and submitting the form. This collection is required to obtain or retain benefits. You are not required to respond to this collection of information unless a valid OMB control number is displayed on this form. Send comments regarding the accuracy of the burden estimate and any suggestions for reducing this burden to: Information Collections Management, Department of Homeland Security, Federal Emergency Management Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1660-0015). NOTE: Do not send your completed form to this address.

This form must be completed for requests involving the existing or proposed placement of fill (complete Section A) **OR** to provide acknowledgment of this request to remove a property from the SFHA which was previously located within the regulatory floodway (complete Section B).

This form must be completed and signed by the official responsible for floodplain management in the community. The six digit NFIP community number and the subject property address must appear in the spaces provided below. Incomplete submissions will result in processing delays. Please refer to the MT-1 instructions for additional information about this form.

Community Number:

Property Name or Address: \_\_\_\_\_



#### Required

#### A. REQUESTS INVOLVING THE PLACEMENT OF FILL

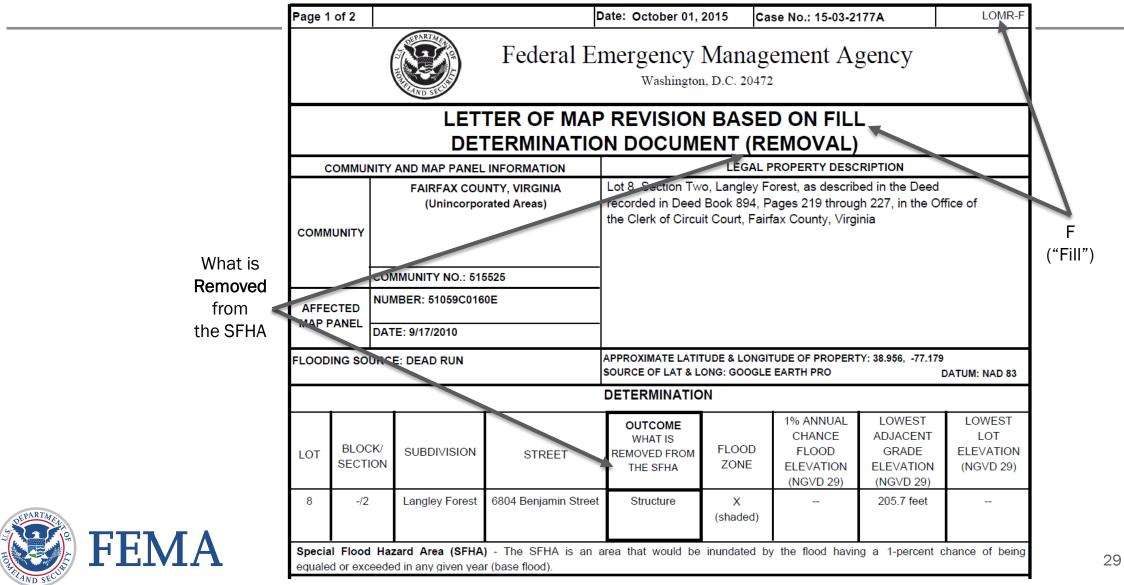
As the community official responsible for floodplain management, I hereby acknowledge that we have received and reviewed this Letter of Map Revision Based on Fill (LOMR-F) or Conditional LOMR-F request. Based upon the community's review, we find the completed or proposed project meets or is designed to meet all of the community floodplain management requirements, including the requirement that no fill be placed in the regulatory floodway, and that all necessary Federal, State, and local permits have been, or in the case of a Conditional LOMR-F, will be obtained. For Conditional LOMR-F requests, the applicant has or will document Endangered Species Act (ESA) compliance to FEMA prior to issuance of the Conditional LOMR-F determination. For LOMR-F requests, I acknowledge that compliance with Sections 9 and 10 of the ESA has been achieved independently of FEMA's process. Section 9 of the ESA prohibits anyone from "taking" or harming an endangered species. If an action might harm an endangered species, a permit is required from U.S. Fish and Wildlife Service or National Marine Fisheries Service under Section 10 of the ESA. For actions authorized, funded, or being carried out by Federal or State agencies, documentation from the agency showing its compliance with Section 7(a)(2) of the ESA will be submitted. In addition, we have determined that the land and any existing or proposed structures to be removed from the SFHA are or will be reasonably safe from flooding as defined in 44CFR 65.2(c), and that we have available upon request by DHS-FEMA, all analyses and documentation used to make this determination. For LOMR-F requests, we understand that this request is being forwarded to DHS-FEMA for a possible map revision.

Community Comments:

Community Official's Name and Title: (Please Print or Type)		Telephone No.:
Community Name:	Community Official's Signature: (required)	Date:



### **LOMR-F: Example**

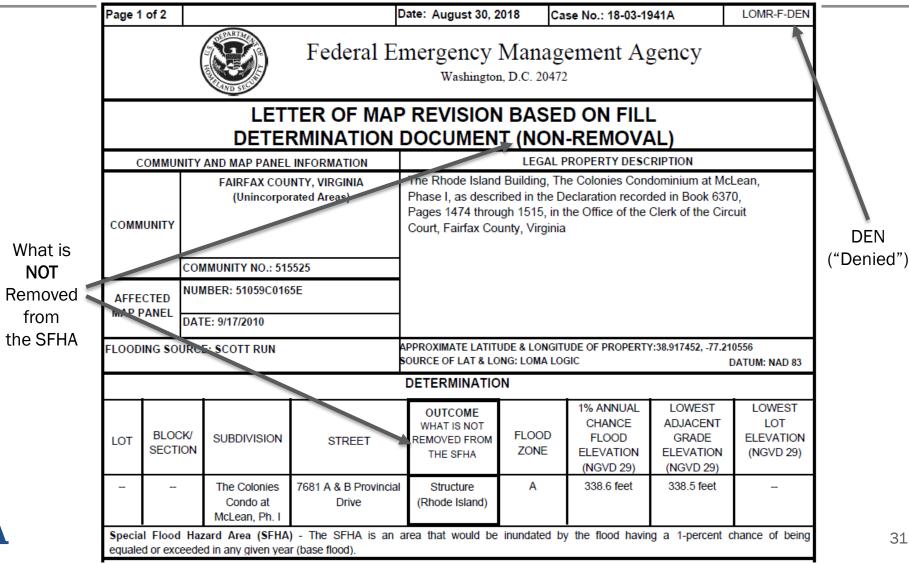


#### LOMR-F-DEN: Letter of Map Revision (Based on Fill) – Non-Removal

If, after reviewing a LOMR-F submittal, FEMA determines the documentation does not support removing the structure or property from the SFHA, it will still issue a letter, but it will be a LOMR-F-DEN.



#### **LOMR-F-DEN: Example**



FEMA

#### LOMR-FW: Letter of Map Revision (Floodway)

- When a LOMA is submitted for a structure inadvertently shown in the floodway a different form identifier is used, called a LOMR-FW
- All other requirements and characteristics of a LOMA apply
- Community Acknowledgment Form is Required (Section B):
  - Community Official Signs acknowledging:
    - Fill has not nor will not be placed in floodway
    - Community Officials do not have to sign if they do not concur!

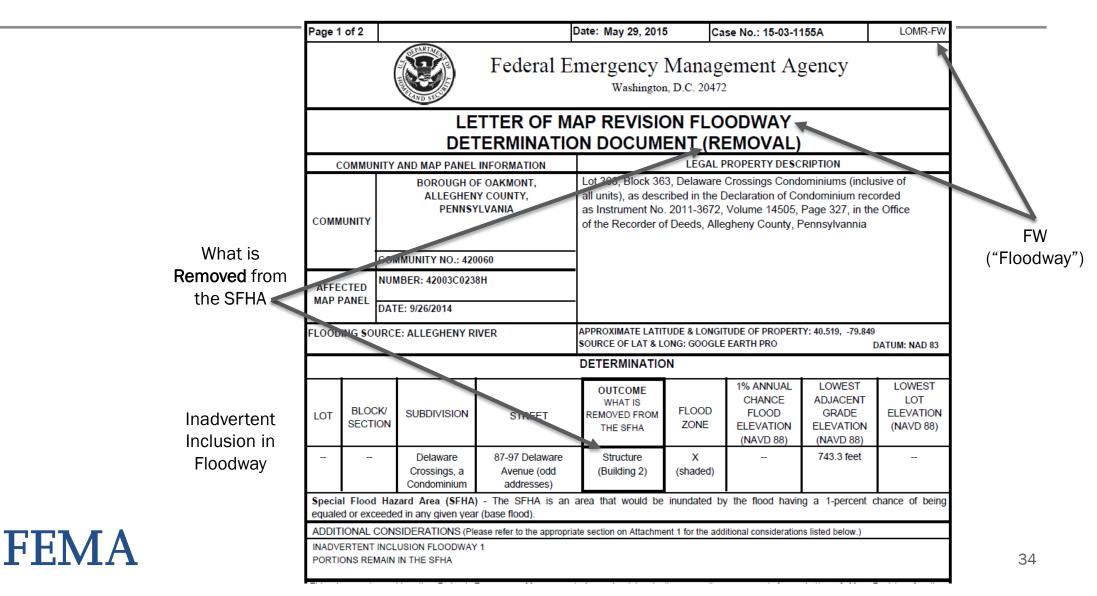


## LOMR-FW: Letter of Map Revision (Floodway)

searching existing data sources, g benefits. You are not required to the accuracy of the burden estim-	PAPERWORK BURDEN DISCLOSURE NOTICE ata collection is estimated to average 1.38 hours per response. The burden estimate include athering and maintaining the needed data, and completing and submitting the form. This respond to this collection of information unless a valid OMB control number is displayed o ite and any suggestions for reducing this burden to: Information Collections Management, Agency, 1800 South Bell Street, Arlington, VA 20598-3005, Paperwork Reduction Project (1	collection is required to obtain or retain on this form. Send comments regarding Department of Homeland Security,	Required
remove a property from the SFHA This form must be completed and		ligit NFIP community number and the ays. Please refer to the MT-1 instructions	
	LOMA. We understand that this request is being regulatory floodway. We acknowledge that not that the completed or proposed project meets Community Comments:	ing forwarded to DHS-FEMA to determine i o fill on this property has been or will be pla s or is designed to meet all of the communi	
	Community Official's Name and Title: (Please	Print or Type)	Telephone No.:



## **LOMR-FW: Example**



#### LOMR-VZ: Letter of Map Revision (V Zone)

- When a LOMA is submitted for a structure inadvertently shown in the coastal high hazard area (V Zone) a different form identifier is used, called a LOMR-VZ.
- All other requirements and characteristics of a LOMA apply.





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#### **Special Consideration Cases – Zone A (no BFE)**

- For structures in Zone A (no BFE), a best available BFE should be provided in the MT-1 application.
- Possible sources of BFE data:
  - Local engineering studies or local agency/community/neighboring community
    - (e.g., Developments greater than 5 acres or 50 lots must establish a BFE)
  - State agencies (Department of Natural Resources, Environmental Protection, Department of Transportation, etc..)
  - Federal agencies (USACE, USGS, etc..)
  - Preliminary or Draft FIRM data
  - Model-backed Zone A Water Surface Elevations (WSEs)
  - Nearby LOMCs
- If no BFE is available, request that FEMA develop one with the application (however this BFE may be high and/or conservative)



## **Special Consideration Cases – Zone AO**

- The review of requests for properties in Zone AO is case-specific and must consider several characteristics of the Zone AO flooding:
  - The extent of the Zone AO flooding that would inundate the property.
  - The direction of the sheet flow in relation to the subject of determination.
  - The nature of the Zone AO area, including whether supporting data suggests that the Zone AO flooding will be conveyed by the surrounding streets.
  - The depth of the ZONE AO, which is normally 1, 2 or 3 feet.
  - Whether the Zone AO has a defined velocity. (MT-2 Review)



## **Special Consideration Cases – Primary Frontal Dune Areas**

#### • Primary Frontal Dune (PFD) Definition

- Continuous or nearly continuous mound or ridge of sand with steep slopes immediately landward and adjacent to the beach. It is subject to erosion and overtopping from high tides and coastal storms. These areas are mapped within V Zones.
- Rule: NO MT-1 applications for structures located seaward of the inland limit of the PFD will be processed.



As the first line of defense against flooding, primary frontal dunes are typically mapped as a VE Zone.

This designation ensures that dunes are not subject to manmade alterations in a way that could increase potential flood damage.



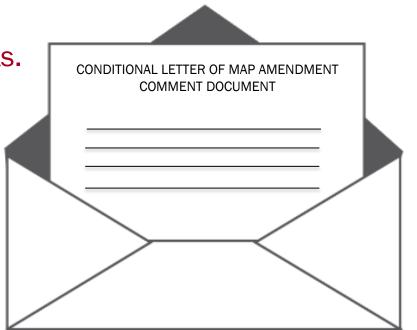
## Module 2: Conditionals



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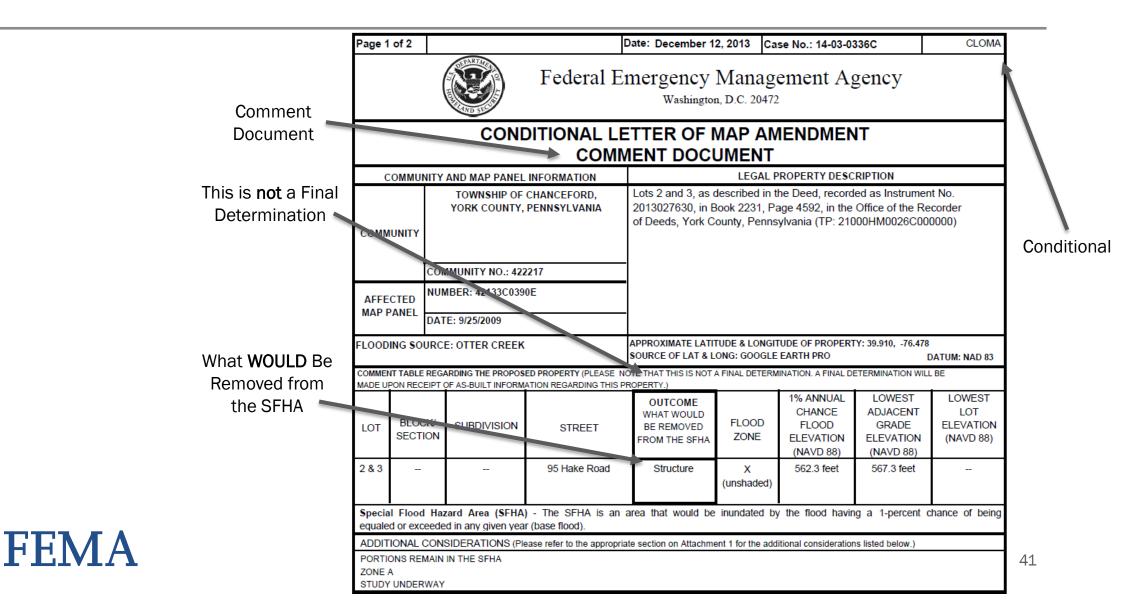
## **CLOMA: Conditional Letter of Map Amendment**

- A letter from FEMA stating that a proposed structure built on naturally high ground would not be inundated by the 1%-annual-chance flood if built as proposed.
- All other requirements and characteristics of a LOMA apply.
- This is NOT a building permit.
- This does NOT waive floodplain development requirements.





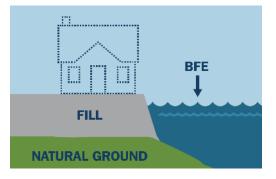
## **CLOMA: Example**



## **CLOMR-F: Conditional Letter of Map Revision**

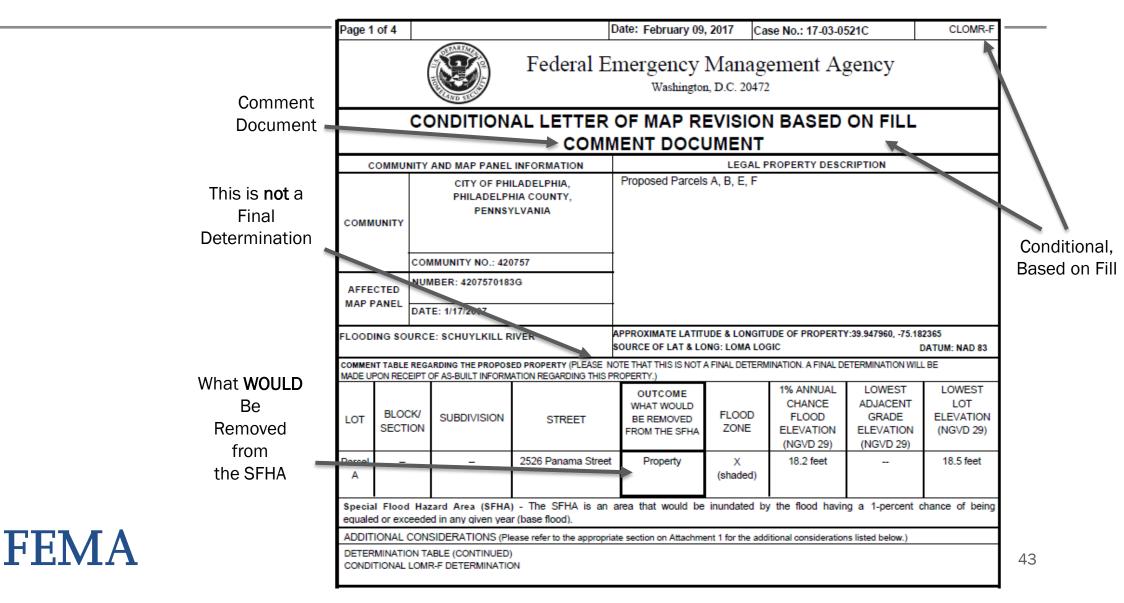
- A letter from FEMA stating that a parcel of land or proposed structure that will be elevated by fill would not be inundated by the 1%-annual-chance flood if fill is placed on the parcel as proposed or the structure is built as proposed.
- All other requirements and characteristics of a LOMR-F apply including the Community Acknowledgement Form and compliance with the ESA.
- This is NOT a building permit.
- This does NOT waive floodplain development requirements.

Once constructed, the property owner will need to resubmit the documentation to FEMA as part of a LOMR-F application to officially remove the structure (or parcel) from the SFHA and remove the federal flood insurance purchase requirement.





## **CLOMR-F: Example**



# Conditional Letters of Map Amendment are based on as-built conditions?

a) True

## b) False





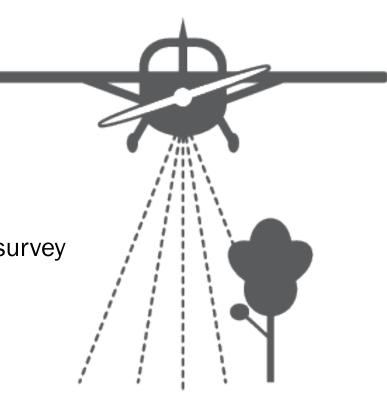
## Module 3: Use of LiDAR



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## LOMAs Using LiDAR

- Light Detection and Ranging (LiDAR)
  - Remote sensing technology on aircrafts
  - Efficiently creates accurate topographic data (cm level)
  - Large-scale collection
- New February 2018 FEMA Program Standard
  - Allows LOMA submittals to use LiDAR elevations instead of a survey
  - Applicants submit a LiDAR exhibit showing the elevation
  - Must be Quality Level 3 or better
  - Reduces financial burden of a survey for a homeowner





## **LiDAR LOMA Exclusions**

- Requests involving fill
- Conditional requests / structures that are still under construction
- Subjects mapped in the regulatory floodway
- Coastal High Hazard Areas (V Zones)
- Zones AO, AR, or A99 Zones
- Potential violations as identified through LOMC process
- eLOMA requests
- Requests to supersede LOMCs based on certified elevation data



## **LiDAR LOMA Exhibit Requirements**

The applicant requesting that a LOMA determination be evaluated based on LiDAR data must submit an exhibit that displays either: (1) an overlay of the LiDAR contours or (2) an overlay of the LiDAR points both of which must be with an accurate aerial image of the structure/property in question.

- Exhibit must also contain:
  - Vertical Datum
  - Address or Parcel Number for Property In Question (PIQ), and PIQ clearly identified
  - Name & Organization of map creator (with contact info)
  - Date LiDAR was collected
  - Source of the LiDAR data
  - LiDAR accuracy information (Accuracy Report)
  - Location of the data archive or metadata file (must be available for independent verification through a publicly available website or metadata)
  - LiDAR must be publicly available & accessed free of charge on web

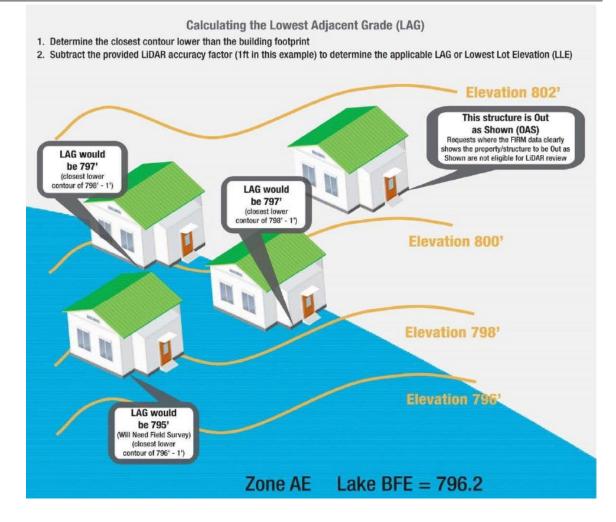


Data owner must be a Federal, State, Local or Tribal Government entity  $\mathbf{FFN}/\mathbf{\Delta}$ 



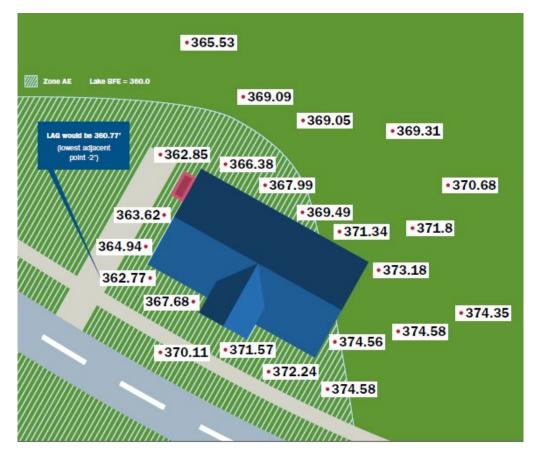
## **LiDAR Contour Exhibits**

- Identify the lowest contour immediately adjacent to the subject but not going through it
- Subtract ½ the contour interval or 1 foot (whichever is greater) from this identified contour to get LAG / LLE
- Compare to BFE
- Non-removal = request elevations





## **LiDAR Point Cloud Exhibits**



FEMA

- Identify the lowest point immediately adjacent to the structure or on the property.
- Subtract 2 feet to determine the LAG or the LLE.
- Compare to BFE.
- Non-removal = request elevations.
- LAG in this example is 360.77 feet.

## Module 4: Submitting MT-1s

## **MT-1** Fees

- FEMA does not have a processing/review fee for LOMAs
- Online fees are less

Requests for Single- Lot, Single- Structure Map Change	Paper Form Fee	Online LOMC Fee
Single- Lot or Single- Structure LOMA	Free	Free
Single- Lot/ Single- Structure CLOMA and CLOMR-F	\$600	\$500
Single- Lot/ Single- Structure LOMR-F	\$525	\$425
Single-Lot/ Single- Structure LOMR- F Based on As- Built information (CLOMR-F previously issued by FEMA)	\$425	\$325
Requests for Single- Lot, Single- Structure Map Change	Paper Form Fee	Online LOMC Fee
Requests for Single- Lot, Single- Structure Map Change Multiple-Lot/ Multiple- Structure LOMA	Paper Form Fee Free	
		Fee
Multiple-Lot/ Multiple- Structure LOMA	Free	Fee Free



## How are MT-1 applications submitted?

### 1. By Mail

- □ LOMC Clearinghouse
- 3601 Eisenhower Avenue, Suite 500 Alexandria, VA 22304

### 2. Online LOMC

Anyone can submit any type of MT-1 via the Online LOMC portal

### 3. eLOMA

 Only Licensed Professionals (LPs) and Certified Professionals (CPs) (e.g. Land Surveyors and Professional Engineers) with access to the MIP can submit



## **Online LOMC Portal Benefits**

- Applicants bypass the step of mailing paper data to the LOMC Clearinghouse.
- Applicants are assigned a Case Number as soon as they submit.
- Applicants may save information online and finish applying later.
- Clear and intuitive interface makes applying user-friendly.
- □ Frequent applicants can manage multiple LOMC request online.
- Applicants can check their application status in real-time.
- Convenient online payment of fees (if required).
- □ More efficient communications with LOMC processing staff.
- Encouraged over mailing paper applications!





## Submitting an MT-1

Sections:

- 1. Property Information Form (Section 1 of MT-1 application)
- 2. Elevation Form (Section 2 of MT-1 application) OR Elevation Certificate
- 3. Community Acknowledgment Form (Section 3 of MT-1 application) (if applicable)
- 4. Payment Information Form (Section 4 of MT-1 application) (if applicable)

NOTE: Current forms are still valid even if the expiration date has passed!

#### Expected Timeline:

- \* FEMA responds within 60 days after notification that ALL information has been received.
- If additional data is needed, the applicant has 90 days to submit before the case is suspended (extensions may be granted).



## Submitting an MT-1: Property Information Form (Section 1)

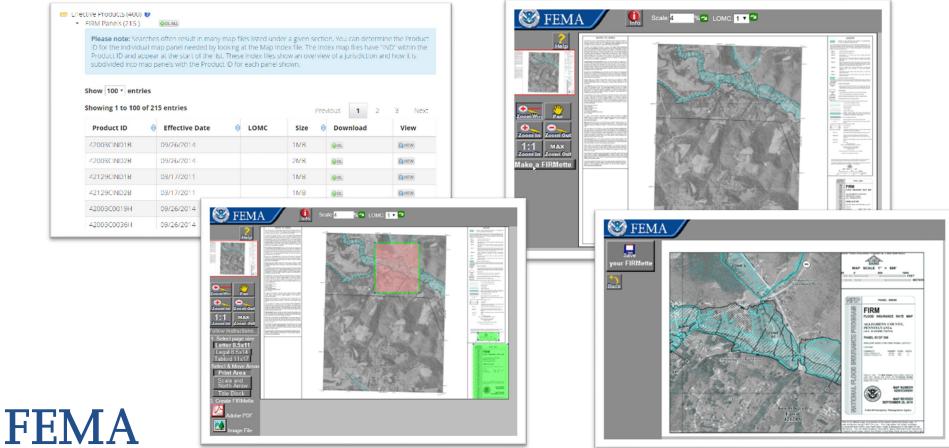
- Indicate:
  - Type of request
  - Fill and date placed/to be placed
  - Street Address, Legal Description of Property, Structure/Portion of Property, Multi-structure/Multi-Lot
- Required documents:
  - Copy of effective FIRM panel showing property accurately plotted OR a preliminary FIRM that will be effective within 60 days of the submittal
  - Copy of subdivision Plat Map for the property

Copy of Property Deed with Tax Assessors map



## Submitting an MT-1: Creating a FIRMette from MSC

A FIRMette from the FEMA Map Service Center can satisfy the requirement for the effective FIRM.



## Submitting an MT-1: Elevation Form (Section 2)

Indicate:

- Existing or Proposed Elevations
- Type of construction (crawl space, slab on grade, basement, etc..)
- Whether the location identified as an area of land subsidence or uplift
- Elevation Datum
- Latitude/Longitude of upstream edge of structure/property
- LLE, LAG, BFE, BFE Source for each structure/property
- Certified or licensed professional must complete and sign
- An Elevation Certificate can be submitted instead of this form for each subject structure (Sections A, B and C)

#### **Exceptions:**

- 1. As of February 2018, a LiDAR exhibit can be used for LOMAs (see earlier section)
- 2. For properties clearly shown outside of the SFHA, this form is not required



## Submitting an MT-1: Community Acknowledgment Form (Section 3) (if applicable – for floodways and fill only)

Indicate for Section A:

- That placement of fill does not violate any floodplain regulations.
- That all federal, state, and local permits have been/will be obtained.
- That placement of fill meets regulations set forth in the ESA.
- That the structures involved in the application will be reasonably safe from flooding.
- Community Official Signature
  - If you, as the community official do not concur, do not sign the form!

Required Section A documents:

• Documentation that the submittal complies with the ESA.

Indicate for Section B:

- That no placement of fill in the floodway has/will occur.
- That the project does not violate any floodplain regulations.
- Community Official Signature.



If you, as the community official do not concur, do not sign the form!

## Submitting an MT-1: Payment Information Form (Section 4

### Indicate:

- Application Type
- Payment Type
- No need to fill out for a LOMA (LOMAs are no-cost)

Community Name: Project Identifier:		
THIS FORM MUST BE	MAILED, ALONG WITH THE APPROPRIATE FEE, TO THE	ADDRESS BELOW OR FAXED TO THE FAX NUMBER
BELOW.		
Please make check or	money order payable to the National Flood Insurance	Program.
Type of Request:	MT-1 application MT-2 application MT-2 application Alexandria, VA Attn.: LOMC M	22304-4605
	EDR application EDR application FAX (703) 212-	xett Street 22304-4605
Request No. (if known):	Check No.:	Amount:
INITIAL FEE*	FINAL FEE 🔄 FEE BALANCE** 📃 MASTER CARD 🗌	VISA CHECK MONEY ORDER
*Note: Check only for	EDR and/or Alluvial Fan requests (as appropriate).	
**Note: Check only if s	submitting a corrected fee for an ongoing request.	
COMPLETE THIS SECTION	ON ONLY IF PAYING BY CREDIT CARD	
	CARD NUMBER	EXP. DATE
1 2 3 4	5 6 7 8 - 9 10 11 12 - 13	14 15 16 Month Year
Date	Cignottur	
Date	Signatur	e
Date NAME (AS IT APPEARS (please print or type)		ę
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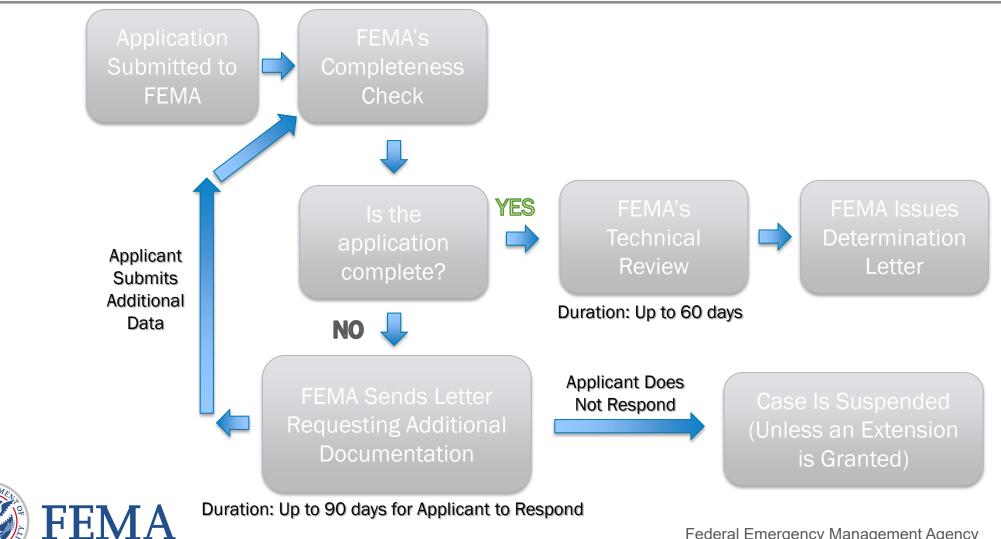
## Submitting an MT-1: Summary of Forms

Table 1: Required Forms and Mini	mum Data Required by Letter Type
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Forms	CLOMA	CLOMR-F	LOMA	LOMR-F	LOMR-FW	LOMR-VZ
Property Information Form	Required	Required	Required	Required	Required	Required
Elevation Data	Required	Required	Required	Required	Required	Required
Elevation Form (continuation)	Some requests	Some requests	Some requests	Some requests	Some requests	Some requests
Community Acknowledgement Form Part A – Fill	Not Required	Required	Not Required	Required	Not Required	Not Required
Community Acknowledgement Form Part B - Floodway	Not Required	Not Required	Some requests	Some requests	Required	Not Required
Payment Information Form and Fee	Required	Required	Not Required	Required	Not Required	Not Required
Additional Data	CLOMA	CLOMR-F	LOMA	LOMR-F	LOMR-FW	LOMR-VZ
Recorded Deed OR Recorded Plat	Not Required	Not Required	Required	Required	Required	Required
Тах Мар	Required	Required	Required	Required	Required	Required
Annotated FIRM	Required	Required	Required	Required	Required	Required
ESA Compliance	Not Required	Required	Not Required	Not Required	Not Required	Not Required



## **Submitting an MT-1: Timeline Process**



## Submitting an eLOMA: Electronic Letter of Map Amendment

- Not allowed in coastal areas (V zones), alluvial fans, for fill, floodways, conditional cases, or cases already submitted.
- Everything is submitted online.
- No fee.
- Only Licensed Professionals (LPs) and Certified Professionals (CPs) (e.g., Land Surveyors and Professional Engineers) can access and submit through the MIP.
- Though not guaranteed, it is possible to receive same-day LOMA determinations.
- Subject to Audits.



## **Common MT-1 Submittal Issues**

#### Incomplete Forms

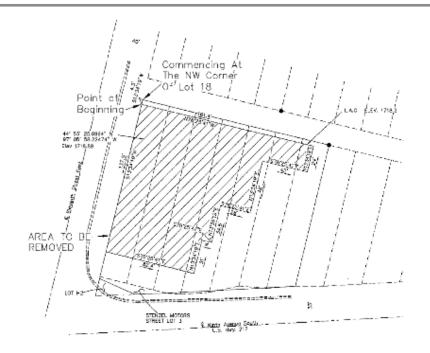
- All questions not answered.
- Vertical datum issues / confusion.
- Forms not signed.

#### **Missing Forms**

- Elevation Form.
- Community Acknowledgement Form.
- Confusion about NFIP terms:
  - LAG, LLE, BFE, etc..
- Missing certification.
- Missing payment.
- Deed/plat missing recordation or not submitted at all.
- Certified metes and bounds maps and matching descriptions.
- Submittal issues and incomplete submittals increase processing time.







**Poll Question #4** 

Who can submit an eLOMA?

- a) Property owners
- b) Community officials
- c) Licensed Professionals (engineers, surveyors)
- d) Insurance agents
- e) The President of the United States



## **Questions?**

## Module 5: MT-2s

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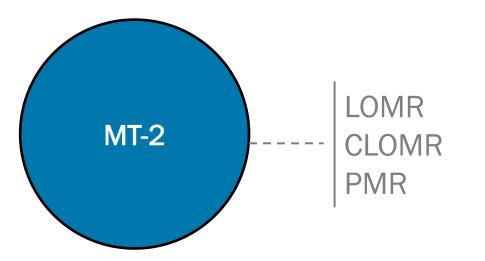
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### LOMC – MT-2s



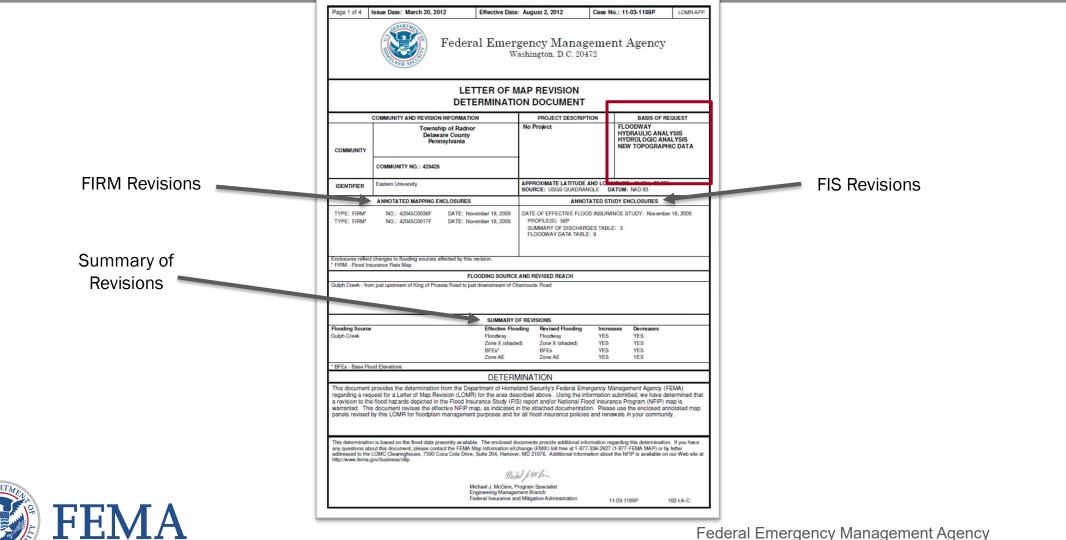


## **LOMR: Letter of Map Revision**

- A letter from FEMA revising the effective FIRM to show changes to floodplains, floodways, and/or flood elevations. Can also include revisions to the flood profiles and floodway data tables.
- Reasons for a LOMR:
  - Modified hydrology (flood discharges)
  - Modified hydraulics (elevations)
  - Better topography (e.g., LiDAR, site-specific survey)
  - Modified floodway
  - New bridges/culverts
  - Channel improvements/flood control projects (levees, dams, culverts)
  - Large developments or roadway projects



## **LOMR: Example**



## **LOMR: Example**

FLOODING SC	DURCE				BASE FLOOD WATER SURFACE ELEVATION (FEET NAVD)			
CROSS SECTION	DISTANCE1	WIDTH (FEET)	SECTION AREA (SQUARE FEET)	MEAN VELOCITY (FEET PER SECOND)	REGULATORY	WITHOUT FLOODWAY	WITH FLOODWAY	INCREASE
Gulph Creek	792 <sup>1</sup>	46	191	9.9	243.3	243.3	243.7	0.4
B C D E F G H I I REVISED DATA	5,476 <sup>1</sup> 6,177 <sup>1</sup> 6,758 <sup>1</sup> 6,988 <sup>1</sup> 7,540 <sup>1</sup> 7,767 <sup>1</sup> 8,968 <sup>1</sup> 9,530 <sup>1</sup>	80 100 149 26 31 450 52 95	392 302 254 111 133 1,701 290 225	3.6 4.5 5.7 11.7 9.1 1.2 3.7 4.8	297.0 299.6 303.5 306.1 319.4 324.0 330.0 330.8	297.0 299.6 303.5 306.1 319.4 324.0 330.0 330.8	297.7 300.4 303.5 306.1 319.4 324.0 330.7 331.6	0,7 0,8 0,0 0,0 0,0 0,0 0,7 0,8
Feet above county bound	ary							
			CREATED TO FLOODWAY DATA REFLECT LOMR EFFECTIVE: August 2, 2012					
DELAWARE COUNTY,PA (ALL JURISDICTIONS)		GULPH CREEK						

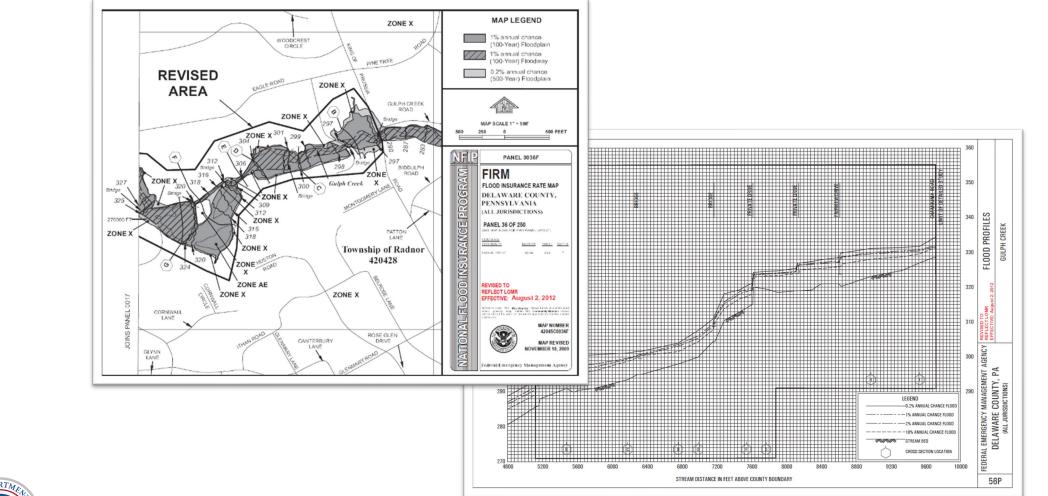


#### PEAK DISCHARGES (cubic feet per second) DRAINAGE 10-Percent- 2-Percent- 1-Percent- 0.2-Percent-FLOODING SOURCE AREA Annual-Annual-Annual-Annual-AND LOCATION Chance Chance (sq. miles) Chance Chance GREEN CREEK At confluence with 4.1 1,100 1,900 2,300 3,500 Chester Creek 1,400 1,700 2,600 Approximately 1.9 miles 2.1 800 upstream of confluence with Chester Creek REVISED DATA GULPH CREEK At stream mile 2.85 2.8 860 1,500 1.925 3,300 Л 2.0 709 1,274 1,566 2,383 At stream mile 3.85 875 1,079 1,637 At stream mile 4.72 1.2 488 HARVEY RUN At confluence with 3.9 1,390 2,180 2,500 3.340 Brandywine Creek HARVEY RUN BRANCH At confluence with 1.1 750 1,160 1,330 1,770 Harvey Run HERMESPROTA CREEK (LOWER REACH) Downstream corporate 1.0 290 500 640 1,190 limits of the Borough of Sharon Hill HERMESPROTA CREEK (MACDADE BOULEVARD REACH) At MacDade Boulevard 0.4 \* \* 857 \* HERMESPROTA CREEK (UPPER REACH) At Chester Pike 32.8 275 460 590 960 LEWIS RUN At confluence with Crum 1.4 740 1,170 1,370 1,890 Creek \* Data not available REVISED TO REFLECT LOMR EFFECTIVE: August 2, 2012

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TABLE 5 - SUMMARY OF DISCHARGES - continued

#### **LOMR: Example**





#### **PMR: Physical Map Revision**

- Where larger physical map and FIS changes are occurring that warrant revising the full FIS and going through the full due process.
- Essentially a "larger LOMR."
- Reasons for a PMR:
  - Large area restudied (usually 3+ panels)
  - Large number of flooding sources restudied
  - New coastal study
  - Large number of LOMRs to be incorporated
  - Remapping entire county with better topography (e.g., LiDAR)
  - Updates base map on FIRMs (roads, streams, orthoimagery)



#### **CLOMR: Conditional Letter of Map Revision**

- A letter from FEMA commenting on whether a proposed project, if built as proposed, or proposed hydrology changes would justify a map revision (LOMR or PMR).
- Reasons for a CLOMR:
  - Proposed developments that will change flood hazards.
  - Proposed developments greater than 50 lots or 5 acres. Local ordinances can require smaller sizes.
  - Development occurring in Zones A1-30 and AE without a designated floodway with proposed BFE increases of more than 1.0 foot. (Required)
  - Floodway encroachment that will increase the BFE. (Required)
    - FEMA does not allow any BFE increase due to floodway development without a CLOMR review.
  - Alteration or relocation of a stream (including but not limited to installing culverts and bridges).



**Questions?** 

# Module 6: Submitting MT-2s

#### **MT-2 Fees: PMRs**

Requests for Mapping of Physical Map Revisions (PMRs)	Paper Form Fee	Online LOMC Fee		
PMR Based Solely on Submission of More Detailed Data	Free	Free		
PMR Based on a Bridge, Culvert, Channel,	\$8,250 (plus \$2,500	\$8,000 (plus \$2,500		
Hydrology, or Combination Thereof	per FIRM panel)	per FIRM panel)		
PMR Based on As- Built information	\$8,250 (plus \$2,500	\$8,000 (plus \$2,500		
Submitted as a Follow-Up to a CLOMR	per FIRM panel)	per FIRM panel)		
PMR Based on a Levee, Berm, or Other Structural Measure	\$9,250 (plus \$60/hr and \$2,500 per FIRM panel)	\$9,000 (plus \$60/hr and \$2,500 per FIRM panel)		
PMR Based on Structural Measures on	\$7,250 (plus \$2,500	\$7,000 (plus \$2,500		
Alluvial Fans	per FIRM panel)	per FIRM panel)		





#### **MT-2 Fees: LOMRs and CLOMRs**

Requests for Map Changes Requiring Special Technical Review	Paper Form Fee	Online LOMC Fee
CLOMR Based on New Hydrology, Bridge, Culvert, Channel or Combination Thereof	\$6,750	\$6,500
CLOMR Based on Levee, Berm, or Other Structural Measures	\$7,250 (plus \$60/hr)	\$7,000 (plus \$60/hr)
LOMR Based on Bridge, Culvert, Channel, Hydrology, or Combination Thereof	\$8,250	\$8,000
LOMR Based on Levee, Berm, or Other Structural Measures	\$9,250 (plus \$60/hr)	\$9,000 (plus \$60/hr)
LOMR Based on As- Built Information Submitted as a Follow-up to a CLOMR	\$8,250	\$8,000
LOMR Based Solely on Submission of More Detailed Data	Free	Free
LOMR/ CLOMR Based on Structural Measures on Alluvial Fans	\$7,250 (plus \$60/hr)	\$7,000 (plus \$60/hr)





## Submitting an MT-2

#### Sections:

- 1. Overview and Concurrence Form (MT-2 Form 1)
- 2. Riverine Hydrology & Hydraulics Form (MT-2 Form 2)
- 3. Riverine Structures Form (MT-2 Form 3)
- 4. Coastal Analysis Form (MT-2 Form 4)
- 5. Coastal Structures Form (MT-2 Form 5)
- 6. Alluvial Fan Flooding Form (MT-2 Form 6)
- 7. Endangered Species Act (ESA) Compliance Documentation
- 8. Payment Information Form

\*Only Form 1 is required. Others are only required if applicable to the request.



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## How are MT-2 applications submitted?

#### 1. By Mail

LOMC Clearinghouse 3601 Eisenhower Ave, Suite 500 Alexandria, VA 22304

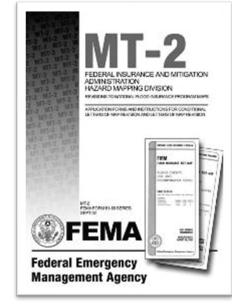
2. Online LOMC Portal (Login.gov now)

#### **Expected Timeline:**

\*FEMA responds within 90 days – after notification that ALL information has been received.

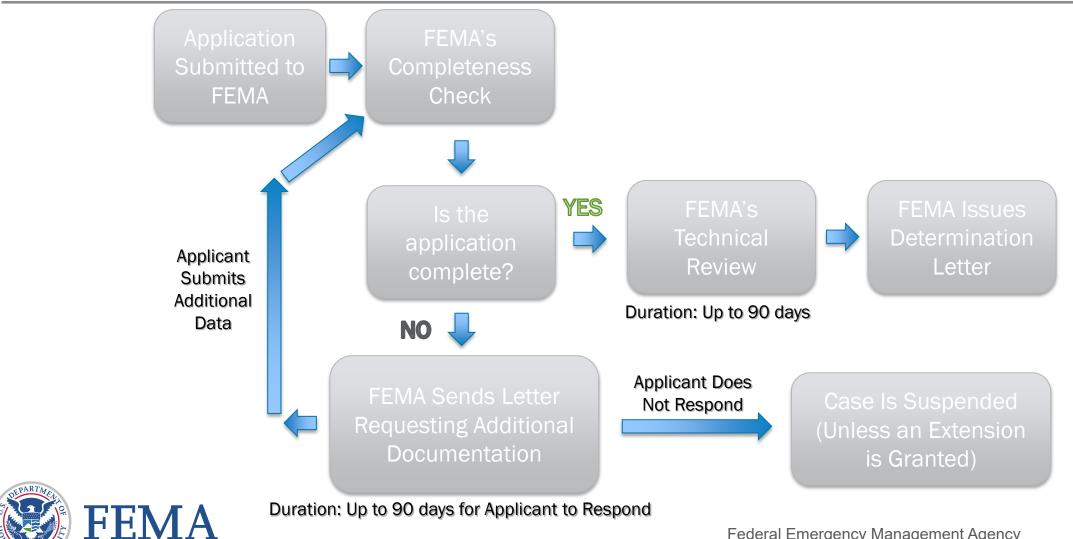
\*If additional data are needed, the applicant has 90 days to submit before the case is suspended (extensions may be granted).

\*Most Issued LOMRs have a 90-day appeal period before becoming effective.





#### **Submitting an MT-2: Timeline Process**



## Submitting an MT-2: Overview and Concurrence Form (Form 1)

Basic information and requires signatures from the requestor, community official (FPA), and engineer. Required.

•Section A: Type of Request

•CLOMR or LOMR

•A LOMR will be processed as a PMR if FEMA deems it appropriate.

•Section B: Overview

•NFIP Map Information

•Flooding Source, Types of Flooding, and FEMA Flood Zones

•Reason for Revision (hydrologic, hydraulic, coastal, levee, topo, etc..)

•Documentation of ESA compliance (CLOMR only)

•Section C: Review Fee

•Has the fee been included and how much?

•Section D: Signature

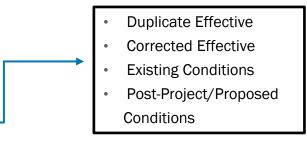
•Requestor, Community Official (FPA), and Certified and Licensed Professionals are all required.



## Submitting an MT-2: Riverine Hydrology & Hydraulics Form (Form 2)

- Information on the scope and methodology of new or revised H&H for rivers, streams, ponds, or small lakes.
- Flooding Source (fill out a separate form for each one)
- Section A: Hydrology
  - Methodology, Sediment Impacts, etc..
- Section B: Hydraulics
  - Revised Reach, Methodology, Models
  - BFE tie-ins must be within 0.5 foot at the downstream and upstream revision limits
- Section C: Mapping Requirements
  - Certified Topographic Work Map
  - Annotated FIRM
  - Section D: Common Regulatory Requirements (next slide)





## Submitting an MT-2: Riverine Hydrology & Hydraulics Form (Form 2)

#### • Section D: Common Regulatory Requirements

- 1. Do BFEs increase?
  - For CLOMRs, if either of the following are true, provide evidence listed under Section 65.12
    - Floodway encroachment increasing the BFE > 0.0 foot
    - SFHA encroachment increasing the BFE > 1.0 foot
    - 65.12 Evidence required:
      - Demonstrate why alternatives that would not increase the BFE are not feasible.
      - Legal notice to property owners that would be impacted.
      - Concurrence from CEO of all affected communities.
      - Certify that no structures are in areas where the BFE would increase.
  - For LOMRs that increase the BFE or SFHA
    - Evidence required that property owners were notified



### Submitting an MT-2: Riverine Hydrology & Hydraulics Form (Form 2)

- Section D: Common Regulatory Requirements Continued
  - 2. Has filled been placed or proposed?
    - If so, provide documentation for floodplain ordinance compliance and that structures are "reasonably safe from flooding".
  - 3. For LOMRs, is the regulatory floodway being revised?
    - If so, provide documentation that property owners were notified.
  - 4. For CLOMRs, provide documentation showing compliance with the ESA.



#### Submitting an MT-2: Riverine Structures Form (Form 3)

- Information on the new or proposed structures in the channel or floodplain (bridges, culverts, dams, basins, levee, floodwall, etc..)
- Flooding Source (fill out a separate form for each one)
- Section A: General
  - Description of Modeled Structure (type, location, downstream and upstream limits)
- Sections B-F
  - Detailed sections for different structure types
  - Channelization, Bridge/Culvert, Dam, Levee/Floodwall, Sediment Transport



### Submitting an MT-2: Coastal Analysis Form (Form 4)

- Information on the scope and methodology of new or revised coastal analyses.
- Flooding Source (fill out a separate form for each one)
- Section A: Coastline to be Revised
  - Description of limits of study area
- Section B: Effective FIS
  - Check off components included in the effective study
  - Storm Surge, Wave Height, Overtopping, Dune Erosion computations, etc..
- Section C: Revised Analysis
  - Transects, methods, stillwater elevations, wave analyses, etc..
- Section D: Results
  - New elevations, new SFHA increase/decrease, V Zone locations
- Section E: Mapping Requirements
  - Certified topographic work map



#### Submitting an MT-2: Coastal Structures Form (Form 5)

- Information on the new or proposed structures along the coast (levees, dikes, bulkheads, seawalls, revetments, etc..)
- Flooding Source (fill out a separate form for each one)
- Section A: Background
  - Description of Modeled Structure (type, location, material, design plans)
  - Has a federal agency designed or certified the structures(s) to the 1% flood?
  - Operation and Maintenance Plan
- Section B: Design Criteria
  - Parameters, Settlement, Freeboard, Toe Protection, Backfill Protection, Stability, Material Adequacy, Ice and Impact Alignment, Structure Plan Alignment
- Section C: Adverse Impact Evaluation
  - Will the structure impact flooding and erosion for areas adjacent to it?
- Section D: Community and/or State Review
  - Yes/No and explain/provide documentation
- Section E: Certification
  - PE signature



### Submitting an MT-2: Endangered Species Act (ESA) Compliance

- Information on the required documentation that must be submitted.
  - CLOMR: Required as part of FEMA's review.
  - LOMR: Required as an independent task by the community (not needed for FEMA's review).

This page provides guidance on complying with the Endangered Species Act (ESA) for Letters of Map Change (LOMC) requests. The purpose of the ESA is to conserve threatened and endangered species and the ecosystems upon which they depend.

The table below describes FEMA's ESA requirements for conditional and regular LOMC requests:

how 10 • entries		Search:			
Request	ESA- related Action	ESA Requirement Related to FEMA Process			
	No dat	a available in table			
	Conditio	anal LOMC Requests			
CLOMA	No physical modification to floodplain is proposed.	ESA compliance is required independently of FEMA's process. Th community needs to ensure that permits are obtained per requirement under Section 60.3(a)(2) of FEMA's regulations.			
CLOMR-F	Proposed placement of fill in the floodplain.	ESA compliance must be documented to FEMA prior to issuance of CLOMR-F. FEMA must receive confirmation of ESA compliance form the Services.			
CLOMR	Proposed modifications of floodplains, floodways or flood elevations based on physical and/or structural changes.	ESA compliance must be documented to FEMA prior to issuance of CLOMR. FEMA must receive confirmation of ESA compliance from the Services.			
	LC	DMC Requests			
LOMA	No physical modification to floodplain has occurred.	ESA compliance is required independently of FEMA's process. The community needs to ensure that permits are obtained per requirement under Section 60.3(a)(2) of FEMA's regulations.			
LOMR-F	Placement of fill in floodplain has occurred.	ESA compliance is required independently of FEMA's process. The community needs to ensure that permits are obtained per requirement under Section 60.3(a)(2) of FEMA's regulations.			
LOMR	Modification of floodplains, floodways or flood elevations have occurred based on physical and/or structural changes.	ESA compliance is required independently of FEMA's process. Th community needs to ensure that permits are obtained per requirement under Section 60.3(a)(2) of FEMA's regulations.			

Showing 0 to 0 of 0 entries

Federal Emergency Management Agency

### **Submitting an MT-2: Payment Information Form**

#### Indicate:

- Application Type
- Payment Type

Community Name:			
Project Identifier:			
THIS FORM MUST BE MAILED, ALONG WITH THE APPROPRIATE FEE, TO THE ADDRESS BELOW OR FAXED TO THE FAX NUMBER BELOW.			
Please make check or money order payable to the National Flood Insurance Program.			
Type of Request: MT-1 application MT-2 application MT-2 application LOMC Clearinghouse 847 South Pickett Street Alexandria, VA 22304-4605 Attn.: LOMC Manager			
EDR application FEMA Project Library 847 South Pickett Street Alexandria, VA 22304-4605 FAX (703) 212-4090			
Request No. (if known): Check No.: Amount:			
INITIAL FEE* I FINAL FEE FEE BALANCE** MASTER CARD VISA CHECK MC	ONEY ORDER		
*Note: Check only for EDR and/or Alluvial Fan requests (as appropriate). **Note: Check only if submitting a corrected fee for an ongoing request.			
COMPLETE THIS SECTION ONLY IF PAYING BY CREDIT CARD			
CARD NUMBER	EXP. DATE		
1 2 3 4 - 5 6 7 8 - 9 10 11 12 - 13 14 15 16 Me	onth Year		
Date Signature	_		
NAME (AS IT APPEARS ON CARD):			
ADDRESS: (for your credit card receipt-please print or type)			



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## Submitting an MT-2: Summary of What to Submit

- Completed application forms
- Narrative on project and submittal
- Hydrologic computations and digital files
- Hydraulic computations and digital files
- Certified topographic map with floodplain and floodway delineations
- Annotated FIRM
- As-built plans or survey (LOMRs) or design plans (CLOMRs)
- Items required to satisfy NFIP regulatory requirements
  - Operation and Maintenance Plans, Floodway Public Notice, Property Owner Notifications, etc..
- Fee payment
- ESA compliance documentation (CLOMRs only)



#### Submitting an MT-2: FPA Role

- Review CLOMR and LOMR applications.
  - Appropriate revision and in line with ordinance/bylaw?
  - Make use of local resources, such as an engineer or legal counsel.
  - Pass the cost along to the applicant.
- Make use of conditional process to ensure compliance.
- Clearly communicate to developers their responsibility in the revision process.
- Follow-up: ensure a LOMR is completed for final projects before issuance of certificate of occupancy/compliance.



#### **Common MT-2 Submittal Issues**

- Missing or Incomplete Forms / Data
- Missing Overview and Concurrence Form
- Revision does not meet FEMA Standards
- Vertical and horizontal tie-in issues
- Missing annotated FIRM and FIS pages
- Inconsistencies between mapping and modeling
- Missing certification on topographic maps
- Missing individual property owner notifications and public notice
- Misunderstanding of fee exemptions
- Missing payment

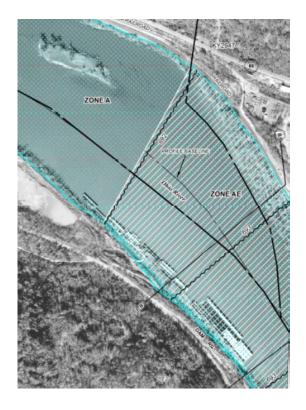






#### **Submitting an MT-2: Effective Dates**

- An appeal period is required for LOMRs that result in new or modified:
  - BFEs and/or base flood depths.
  - SFHA boundaries/SFHA zone designations.
  - Regulatory floodway boundaries.
- An appeal period is not required for LOMRs based on the following request type:
  - Reissuance of effective LOMRs not incorporated into a new study.
  - Updates that do not impact BFEs, base flood depths, SFHA boundaries, zone designations, or regulatory floodway boundaries.





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#### **Submitting an MT-2: Effective Dates**

- LOMRs in communities already compliant with 44 CFR 60.3\*
  - Will become effective 120 days from the second newspaper publication date, or after all appeals received have been resolved, whichever comes later.
- LOMRs in communities that:
  - are not currently compliant with 44 CFR 60.3\* or
  - that require adoption of the LOMR
    - Will become effective following a 6-month compliance period from the second newspaper publication date or after all appeals received have been resolved, whichever comes later.

\*44 CFR 60.3 – is the Code of Federal Regulations relating to floodplain management criteria for flood-prone areas



# Resources

#### **FEMA Flood Map Service Center**

#### FEMA Flood Map Service Center: Welcome!

#### Looking for a Flood Map? @

Enter an address, a place, or longitude/latitude coordinates:

Enter an address, a place, or longitude/latitude coordinates Search

Looking for more than just a current flood map?

Visit **Search All Products** to access the full range of flood risk products for your community.

#### About Flood Map Service Center

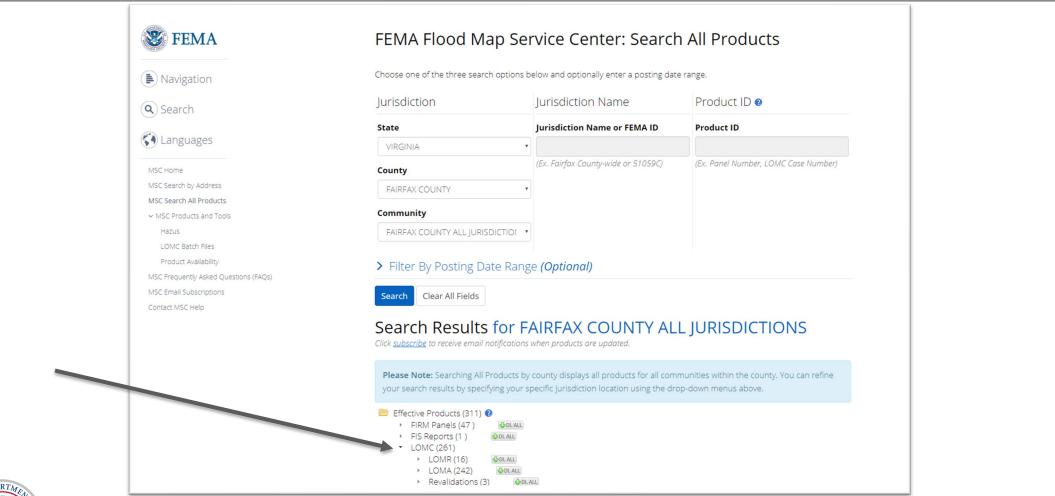
The FEMA Flood Map Service Center (MSC) is the official public source for flood hazard information produced in support of the National Flood Insurance Program (NFIP). Use the MSC to find your official flood map, access a range of other flood hazard products, and take advantage of tools for better understanding flood risk.





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#### **FEMA Flood Map Service Center**





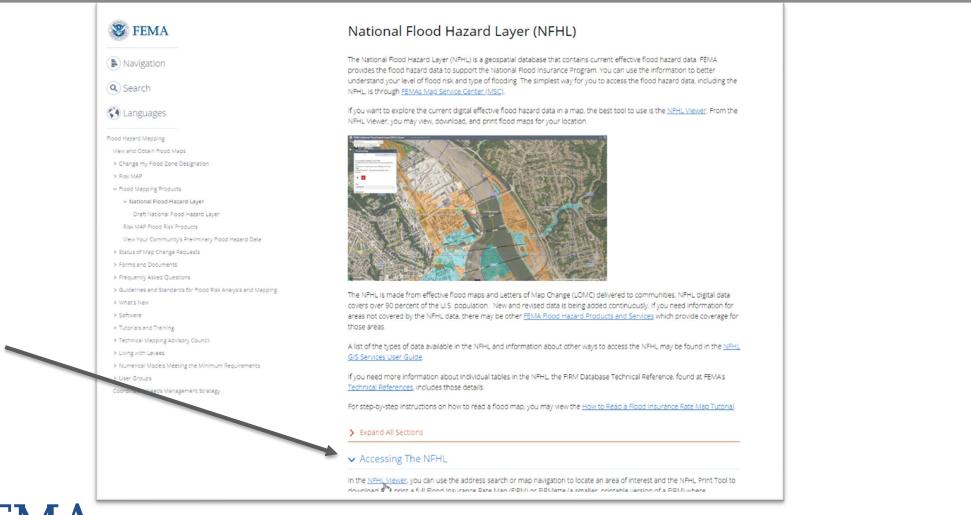
#### LOMAs and the Map Service Center

Note: Just because a LOMA is posted on the Map Service Center does not mean it's a removal. Be sure to download the PDF and read the fine print!

<ul> <li>Effective Products (311) </li> <li>FIRM Panels (47)</li> <li>FIS Reports (1)</li> <li>LOMC (261)</li> <li>LOMR (16)</li> <li>LOMA (242)</li> <li>COLALL</li> <li>Show 100 - entries</li> </ul>							
Showing 1 to 100	) of 242 entries		Previous	1	2	3	Next
Product ID	¢	Effective Date	<b></b>	Dow	nload		
10-03-1890A-51	5525	09/21/2010		<b>₽</b> DL			
10-03-1989A-51	5525	09/21/2010		(DL)			
10-03-1845A-51	0053	09/23/2010		<b>₽</b> DL			

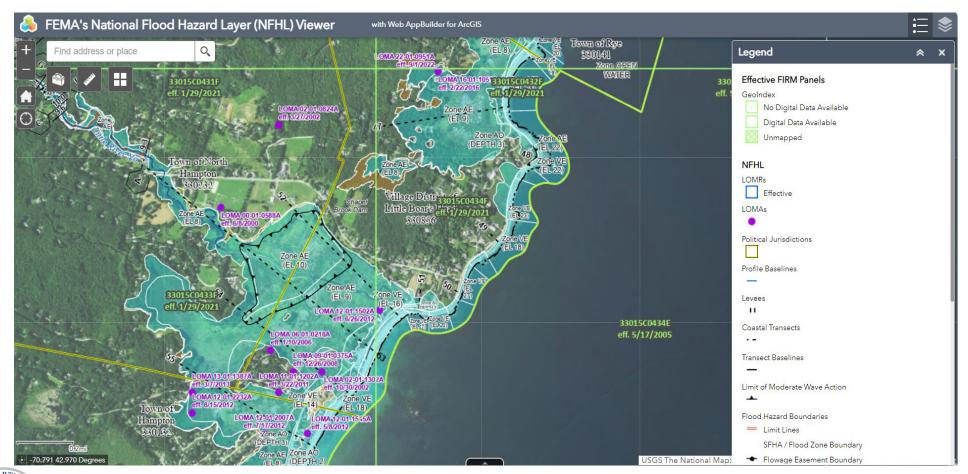


#### FEMA National Flood Hazard Layer (NFHL)



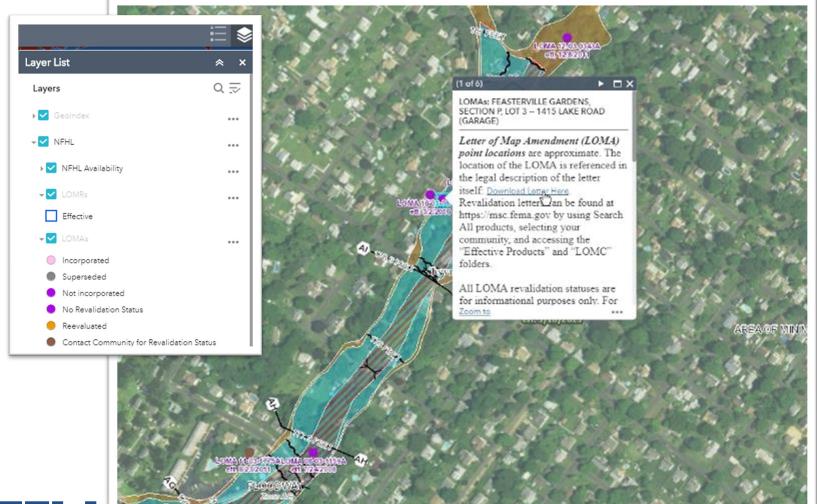


## FEMA National Flood Hazard Layer (NFHL)





#### **FEMA National Flood Hazard Layer (NFHL**





#### **FEMA Resources**

- FEMA website: <u>www.fema.gov</u>
- MT-1 Application and instructions: <u>https://www.fema.gov/mt-1-application-forms-instructions</u>
- MT-2 Application and instructions: <u>https://www.fema.gov/mt-2-application-forms-and-instructions</u>
- FEMA online submissions: <a href="http://www.fema.gov/online-lomc">www.fema.gov/online-lomc</a> (now Login.gov, but this link will take you there and has FAQs)
- FEMA Flood Map Service Center: <u>http://msc.fema.gov</u>
- FEMA Mapping and Insurance eXchange (FMIX): 877-FEMA MAP (877-336-2627)





- FEMA Flood Hazard Mapping Frequently Asked Questions: <u>https://www.fema.gov/flood-hazard-mapping-frequently-asked-questions</u>
- Flood Map Revision Processes: <u>https://www.fema.gov/flood-map-revision-processes#1</u>
- LOMA and LOMR-F Processes: <u>https://www.fema.gov/letter-map-amendment-letter-map-revision-based-fill-process</u>
- Establishing Effective Dates for LOMRs: <u>https://www.fema.gov/guidelines-establishing-</u> <u>effective-dates-fema-letters-map-revision-lomr</u>
- Fee Schedule: <u>https://www.fema.gov/flood-map-related-fees</u>
- eLOMA information: <u>https://hazards.fema.gov/femaportal/wps/portal</u> (Look for "Learn about eLOMA" under "Tools for Professionals")



### **Poll Question #5**

Where should I refer property owners to if they have questions about the LOMC process?

a) The FEMA Mapping and Insurance eXchange (FMIX)

- b) The Map Service Center
- c) Online LOMC tool (login.gov)
- d) FEMA.gov
- e) All of the above are good resources!



#### We Appreciate Your Feedback

**Purpose:** Gather feedback on the overall experience and effectiveness of today's training.

Timing: Approximately five minutes.

#### FAQ:

- Survey responses will remain anonymous.
- If you do not understand a question, please let me know and I can help you.
- Please feel free to provide any other feedback.
- To access the survey link, use the camera on your smartphone to scan the QR code.





# Questions? For any LOMC questions: <u>fema-fmix@fema.dhs.gov</u>

General R1 Questions: Colleen.Bailey@fema.dhs.gov