BLE and Letters of Map Revision (LOMRs)

Once Flood Insurance Rate Maps (FIRMs) are released as effective the flood hazard information (floodplain extents, floodways and Base Flood Elevations) should be maintained by the community and local developers who modify the natural drainage areas with grading and construction activities. The Code of Federal Regulations was updated in the 1980s and 1990s to formalize the submittal requirements and share the maintenance requirements of the FIRM to include the development community and locals. The intent was to move the cost of maintenance from all taxpayers to those that "benefit from the modification".

Flood Insurance Rate Maps (FIRMs) are based upon existing conditions at the time of the analysis.

LOMRs review the as-built (post construction) ground conditions against the current effective FIRM information.

The minimum requirements for communities participating in the National Flood Insurance Program (NFIP) all proposed development activity should be permitted. Additionally, local reviews should be completed to assure that, the project, once completed will be reasonably safe from flooding. This is completed through local permitting and local floodplain management reviews. Local permitting that results in modifications to the flood information on the FIRM should be submitted within six-months after construction has been completed. *44 CFR 65.3*

LOMR

Letter of Map Revision

REQUIRED WHEN: Changes to **physical/climatic information results in a change to the flood hazard information** in the vicinity of flooding sources shown on FIRMs. Man-made changes (grading or moving flood source) and culvert/bridge addition or replacement.

PURPOSE: Change effective flood delineations/extents, floodway and/or Base Flood Elevations (BFEs)

RESULT: FEMA issues a letter/document, as well as revised Flood Insurance Rate Map (FIRM)/Flood Insurance Study (FIS) documents.

Zone AE areas (no floodway). When a floodway has not been designated, communities are responsible for monitoring all proposed development to assure that the cumulative effect of the planned modifications to be made during construction (in combination with all existing and anticipated development) will not increase the base flood elevation (BFE) more than one foot at any point along the study area. *44 CFR 60.3(c)(10)*

In the case where a proposed project increases the BFE more than 1.0 foot, a Conditional Letter of Map Revision (CLOMR) is required.

Zone AE areas (with floodway). When a floodway is shown on the FIRM in the vicinity of a proposed development, the community is required to prohibit encroachments (fill, new construction, or other improvements) unless it has been demonstrated through analysis that the proposed development would not result in any increase in the base flood elevation in the vicinity of the proposed project. *44 CFR 60.3(d)(3)*

In the case where a proposed project increases the BFE more than 0.0 foot, a Conditional Letter of Map Revision (CLOMR) is required.

Conditional LOMRs review projects prior to construction activities taking place.

CLOMRs review the difference between the pre-project and proposed (post-project) conditions. This is done to isolate the flood level changes due to the proposed project.

FEMA

CLOMR

Conditional
Letter of Map Revision

REQUIRED: When a project's effects are found to be larger **than 0.0 ft in Zone AE (with floodway)** or **1.0 foot in Zone AE (no floodway),** the project should be reviewed locally for mitigation measures and should be required to submit a CLOMR to FEMA.

PURPOSE: Review of pre-project versus post-project conditions. Provides an awareness to surrounding property owners and requires contact to alert them of potential effects to their property prior to construction.

RESULT: FEMA issues a letter to indicate the potential changes to the floodplain, floodway and Base Flood Elevations relative to the proposed project.

Zone A areas. When a floodplain has been provided on the FIRMs, but does not show any Base Flood Elevations, it is designated a Zone A (or Zone A1-A30). These areas still require coordination with local development authorities and should provide a pre-project and proposed project analysis to assist local community officials in understanding the project's effects prior to permitting or construction. A CLOMR submission may be requested if the project is found to increase the base flood elevations more than 1.0 foot at any point in the vicinity of the proposed project.

BLE as Best Available Information. Both LOMRs and CLOMRs require engineering modeling to be prepared for comparison. Base Level Engineering (BLE) makes skeleton models available for use and may be used to prepare LOMR and CLOMR submittals. The table below indicates how BLE may be used to prepare required submittals for local permitting reviews in the vicinity of flood prone areas.

Project	Changes	Flood Zone on FIRM	Can BLE be used as BAI?
Man made changes have been completed *For a full list of development activities reference 44 CFR 59.1 – Definitions.*	H&H analysis and floodplain mapping for completed project indicates changes to the floodplain, floodway and/or base flood elevations in the study reach **ACTION:** Submit LOMR to update FIRM	**Post-Project Model** 1. No Effective Flood Data, no flood zone 2. Zone A 3. Zone AE (with or without floodway)	1. **Yes,** use for pre- and post-project conditions 2. **Yes,** use for pre- and post-project conditions 3. **No.** BLE terrain input may be used to update cross-section data in pre-project conditions or provide data upstream and downstream of project area.
Proposed man-made development activity	H&H analysis is to be provided for the following two conditions: • Pre-Project • Proposed Project Review graphic above to identify when CLOMRs are necessary. **ACTION:** Submit Conditional LOMR (CLOMR) to determine project effects.	**Pre-Project Model** 1. No Effective Flood Data, no flood zone 2. Zone A 3. Zone AE (with or without floodway) **Proposed (Post-Project)** 4. Any Zone	1. **Yes**, model may be used as is for existing conditions. 2. **Yes**, model may be used as is for existing conditions. 3. **Yes**, model may be used, however will likely require refinement* 4. **No.** Proposed ground conditions

*Refinement may include updated topography (breaklines, cell density), integrating existing structure information from effective modeling or updates to hydrologic or hydraulic model inputs.

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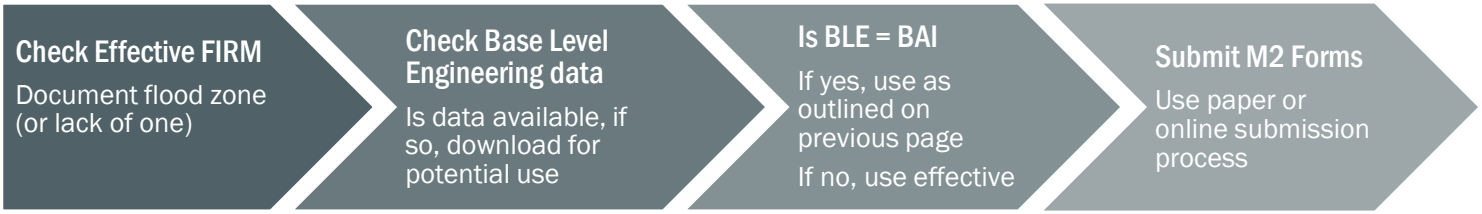
Integrate Base Level Engineering when possible in agreement with the workflow below. Leverage available engineering models to prepare submittal requirements. A high-level workflow is identified below for reference:



QUICK FACTS

- Local community reviews are used to **assure that development meets both minimum federal and higher-local floodplain requirements.**
- The authority to approve/deny development exists at the local level. Permits are issued by communities.
- FEMA's LOMR and CLOMR reviews are intended to assure that FEMA has the required documentation to update the Flood Insurance Rate Maps (FIRMs) with new information.
- FEMA does not approve development for participating NFIP communities.
- A LOMR allows FEMA to revise flood hazard information on an NFIP map via letter without physically revising and reprinting the entire map panel.
- The requester is responsible for providing all the information needed for the review, including (if necessary) elevation information certified by a licensed land surveyor or registered professional engineer.
- According to FEMA's Technical Bulletin 10-01 "to be **reasonably safe from flooding** during the Base Flood condition, the basement must (1) be dry, not have any water in it, and (2) be structurally sound, not have loads that either exceed the structural capacity of walls or floors or cause unacceptable deflections."
- FEMA **does charge a review fee** for LOMRs and CLOMRs. Review the current fee schedule at: https://go.usa.gov/xsGwr.

Additional Resources. The Code of Federal Regulations, NFIP minimum floodplain requirements, and FEMA submittal processes are very complex and initiate a high volume of calls and inquiries to FEMA's Map Information eXchange (FMIX). The following resources can provide additional information for communities, property owners and the development industry.

- **Protecting Floodplain Resources – A Guidebook for Communities** (www.hsdl.org/?abstract&did=456496)
- **Reducing Losses in High Risk Flood Hazard Areas** https://go.usa.gov/xsGwX
- **Managing Floodplain Development Through the NFIP, Unit 5 (NFIP Requirements)** https://go.usa.gov/xsGwU
- **Tutorial Flood Insurance Rate Maps** (https://go.usa.gov/xsGw7)
- **MT-2 Forms and Instructions** (https://go.usa.gov/xsGwM)
- **On-Line Letter of Map Change** (https://go.usa.gov/xsGfa)
- **Tutorial – On-Line LOMC Tools** (https://go.usa.gov/xsGfr)

Contact the FEMA's Map Information eXchange (FMIX) by phone at 1-877-FEMA-MAP (336-2726) between 9:00am and 5:00pm (eastern) or via email at FEMA-FMIX@fema.dhs.gov.

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