

## Questions and Answers from the Dec. 10, 2019 CTP Webinar: Letter of Map Revisions - MT-2s

**How would we evaluate the BFE increase? Would we require an H&H analysis?**

Yes, H&H analysis is required.

**Does the 0.00 apply upstream and downstream?**

Yes

**What's the appx. turnaround time for approval for a CLOMR/LOMR?**

Once an application is received, FEMA will approve or provide review comments within 90 days. There are almost always review comments, sometime multiple rounds of comments. However, each round typically takes less than 90 days. Once comments are provided to the applicant, they have 90 days to address the comments. The average time from submittal to approval is 6-8 months but can often be more or less.

**Could you please cover Approximate Zone A areas, and any requirements or standard practices for LOMRs?**

The data requirements for LOMRs in Zone A are very similar to Zone AE. Models are available for the newer Zone A floodplains and should be used as the effective model when available.

**Sometimes we want to put in a larger opening but that can cause a rise downstream if the crossing is acting like a dam.**

Yes, a CLOMR is often required in these situations.

**If a LOMR is not approved the first time through review, does it take an additional 6-9 months for the second review?**

LOMRs are rarely denied. They often are suspended if review comments are not adequately addressed. However, the LOMR can be resubmitted with the issues resolved and the review will pick up where it left off (assuming not too much time has passed).

**For a no-rise with encroachment in floodway, if the corrected effective/existing conditions model with better topo has a higher BFE than the effective BFE, do you need to submit a CLOMR/LOMR as part of the no-rise or can you just base the no-rise on the existing conditions BFE and show no increase and submit nothing to FEMA?**

Nothing need be submitted to FEMA in this situation. FEMA would welcome a LOMR based on the new data, but this is not required. The community may decide to submit a LOMR so that the regulatory data can be updated.

**How are LOMR submittals for 2D hydraulic models evaluated given that the analysis results do not create standard 1D hydraulic tables and profiles?**

The profiles and tables are still created. For example, it is required that separate Flood Profiles for significant flow paths must be created.

**Is a partial map revision (PMR) the same as a physical map revision (PMR)?**

I'm not aware of partial map revisions, only physical map revisions.

**When applying for an MT-2, what are the limits/boundary to follow in order to replicate the effective model? Meaning, if a subject project is only 1 acre within an FIS defined 50-acre sub-basin, is it required to model the entire 50-acre sub-basin to replicate the effective model? Or can you model just the 1-acre property using effective model data?**

If the effective model is available in a format that can be run (not just a PDF of input/output), the entire model should be rerun. If this is not available, then it does not need to be replicated.

**How would a community allow an increase in base flood elevations in one area to protect other areas to a 100-year level, while remaining in compliance with CFR?**

This could be done by adhering to the criteria in CFR 65.12. This includes, but not limited to, ensuring there are no structures in the area where the BFE is increasing and notifying all adversely impacted property owners.

**What are the mechanisms a Community may use to object to the issuance of a LOMR?**

A community may appeal a LOMR during the 90-day appeal period. However, usually a community will object prior to issuance. All LOMRs applications should be vetted by the community before being submitted to FEMA. If a community disagrees with the LOMR they should provide their concerns to FEMA in writing and FEMA will consider these concerns while reviewing the LOMR.

**Does the LOMR process allow any applicant to submit a floodway analysis to modify the effective floodway boundary based on new technical hydraulic analysis that demonstrates a narrower floodway would not exceed the community allowed rise standard (such as 1/2 foot) across the floodplain? Basically "optimizing" the floodway boundary without physical changes.**

Yes, but the analysis will be reviewed by FEMA to make sure it is correct. Also, the community must approve of the floodway revision, since it is their tool for floodplain management.

**How does a community confirm floodway letters have been sent to all property owners effected?**

One way is to overlay the effective and revised floodways on a property/parcel map and require certified mailing receipts for all the impacted properties.

**Do CLOMRs require signed plans?**

Proposed project design plans are required, but as of now they do not need to be certified.

**Since the approval of a CLOMR results in comments from FEMA on the comparison of changes to the SFHA and the submittal requirements for the next step (LOMR) do you recommend that the local jurisdiction require approval of the CLOMR prior to issuing the local land use decision for the proposed project, or would it be acceptable to include the approval of the CLOMR as a condition of approval for the land use approval?**

I don't know enough about the land use decisions process to make an informed recommendation.

**A new bridge for a public road, funded by a FEMA grant, will cross an Approximate Zone A floodplain. Is a CLOMR required for this process?**

A CLOMR is not required per the minimum NFIP criteria, but the community may have stricter ordinances.

**Are LOMRs \*required\* when an engineer does modeling to delineate a floodway and what is currently AE/ no floodway, but no changes to the BFE are proposed?**

No, but doing so and having that enhanced data on the FIRM would probably be beneficial to the community.

**What is criteria for determining when a proposed project requires a LOMR or PMR?**

The factors that are considered are the size of the revision, which one the community prefers, and if the revision is contentious and at higher risk of appeals.

**I typically won't sign the MT-2 form until FEMA has reviewed the application. Is this okay or do I need to complete review before it is submitted to FEMA by the applicant?**

It's preferred that the community complete their review first so any comments can be addressed before it goes to FEMA and any concerns can be brought to FEMA's attention right away. However, FEMA will at least perform an initial review and then request community concurrence along with other initial review comments that are provided to the applicant.

**If fill was placed but the maps were never changed and now the flood study shows that the floodway has changed due to fill, is that a LOMR? The developer now wants to build in what was the existing floodway, but shouldn't be the floodway due to a recent study.**

If the floodway changed due to fill, that implies that the fill is in the floodway, and LOMR (MT-2) would be the appropriate LOMC for that. Any change in the floodway, regardless of the cause (fill, new study, etc.) would require a LOMR to make the change official.

**There isn't an appeal period for a CLOMR right? Because it's only a comment...not a determination? I thought an appeal period was only for the LOMR determination**

Correct. There is no appeal period for CLOMRs.

**What is the difference between the duplicate effective, corrected effective, pre-project and revised model in the poll question example?**

Example:

- Effective BFE = 102
- Duplicate Effective BFE = 102
- Corrected Effective BFE = 101
- Pre-project BFE = 100
- Post-project BFE = 101

**Does project cause an increase?**

See below for a description of the different model scenarios. Usually not all of these are applicable to the same CLOMR or LOMR. When evaluating the impacts of a project, we compare the results of the post-project model to the results of the pre-project model. The only difference between these two models is the project, thus the difference in results can be directly attributed to the project. Since the post-project BFE (101) is higher than the pre-project BFE (100), the project does cause an increase. Therefore, the correct answer is YES.

Comparing the post-project model to the effective, for example, would not provide an accurate indication of the project impacts because the changes may be due to factors other than the project, such as revised hydrology, new topo, etc.

### **Duplicate Effective Model**

The Duplicate Effective Model is a copy of the hydraulic analysis used in the effective FIS, referred to as the Current Effective Model. The Current Effective Model should be obtained and then reproduced on the requester's equipment to produce the Duplicate Effective Model. This is required to ensure that the Current Effective Model's input data have been transferred correctly to the requester's equipment and to ensure that the revised data will be integrated into the effective data to provide a continuous FIS model upstream and downstream of the revised reach. For information on how to obtain copies of the effective FIS models, please visit the FEMA website at <https://www.fema.gov/engineering-library>.

### **Corrected Effective Model**

The Corrected Effective Model is the model that corrects any errors that occur in the Duplicate Effective Model, adds any additional cross sections to the Duplicate Effective Model, or incorporates more detailed topographic information than that used in the Current Effective Model. The Corrected Effective Model must not reflect any man-made physical changes since the date of the effective model. An error could be a technical error in the modeling procedures, or it could be any construction in the floodplain that occurred prior to the date of the effective model but was not incorporated into the Current Effective model.

### **Existing or Pre-Project Conditions Model**

The Duplicate Effective Model or Corrected Effective Model is modified to produce the Existing or Pre-Project Conditions Model to reflect any modifications that have occurred within the floodplain since the date of the Current Effective Model, but prior to the construction of the project for which the revision is being requested. If no modification has occurred since the date of the Current Effective Model, then this model would be identical to the Corrected Effective Model or Duplicate Effective Model. The Existing or Pre-Project Conditions Model may be required to support conclusions about the actual impacts of the project associated with the Revised or Post-Project Conditions model or to establish more up-to-date models on which to base the Revised or Post-Project Conditions Model.

### **Revised or Post-Project Conditions Model**

The Existing or Pre-Project Conditions Model (or Duplicate Effective Model or Corrected Effective Model, as appropriate) is modified to reflect revised or post-project conditions. This model must incorporate any physical changes to the floodplain since the Current Effective Model was produced, as well as the effects of the project. When the request is for a proposed project (i.e., a CLOMR), this model must reflect proposed conditions.

**Where does one get that list of 600 program and working standards?**

<https://www.fema.gov/media-library/assets/documents/35313>

**After a Letter of Map Revision is issued, how long does it take for the results to be "stitched" into the National Flood Hazard Layer (NFHL), either the NFHL viewer or the NFHL database available through the Map Service Center (MSC)?**

LOMRs appear in the NFHL once they are effective. This is usually about 4.5 months after they are issued (including the 90-day appeal period). Occasionally, LOMR are effective the same day they are issued. These LOMRs are incorporated into the NFHL about a week or so after issuance.

**Mention purpose and use of Technical References?**

Technical References are specifications of a technical nature that are too granular to be considered standards. These are database, product and documentation requirements where consistency is needed. There are a number of standards that mandate compliance with the Technical References.

**Is a CLOMR required if you change models?**

Changing models does not affect when a CLOMR is required.

**A CLOMR is required for changes to a floodway that result in a BFE increase greater than 0.00'. Could you please clarify if lesser increases that round to 0.00' are acceptable without a CLOMR? (e.g. 0.004' rise)**

We don't typically look at results to more than two decimal places. But if a rise is shown, then yes, a CLOMR would be required.

**Given: Engineer for a proposed project finds discrepancies in the effective HEC-RAS model. The proposed changes include coefficients, encroachment stations, ineffective flow areas, existing bridge deck elevations. Encroachment stations proposed to be moved out in the corrected effective model. Further the "corrections result in increase above 1.00 foot in the surcharge height. To address the engineer's concern is it appropriate to correct the data mentioned above in the corrected model, and will this require a CLOMR?**

Yes, it is appropriate to make these corrections in the corrected effective model as long as they are not reflecting man-made modifications within the floodplain. For example, the changes in bridge deck elevation are from new survey, but the bridge itself has not been modified. A CLOMR is not required.

**When there is some best available latest data for hydrology which is different than effective flows. Which data would you use? Best current or effective?**

The best data should be used, assuming it meets FEMA criteria.

**Are 2D models accepted by FEMA?**

Yes, those that are on FEMA's accepted model list are accepted. However, it should be noted that it is required to use the FEMA effective model as the starting point for a revision unless it can be demonstrated that the effective model is not appropriate. Usually it should be shown that a 1D model is not capable of accurately modeling the area in question. Switching to a 2D model should be done with careful consideration of how it will tie into the effective modeling and mapping at the limits of revision. Also, the model will become regulatory, so the community should be comfortable using the model to evaluate the impact of future development and for future LOMRs. Finally, there are challenges with modeling floodways in 2D and FEMA guidance on this topic is currently limited. Prior approval from FEMA is required for modeling floodways in 2D.

**What options does a developer have when the model that was used to determine the original regulatory floodway and SFHA boundaries are not available from FEMA? How would they duplicate the Corrected Effective Model to demonstrate how their project is affecting the floodplain? The original study is also not available through the community.**

In this situation a duplicate or corrected effective model is not required. The developer could start by creating an existing conditions model. It is still expected that the revision would tie into the effective BFEs within 0.5 foot if possible.

**Where do you find effective FEMA models to match the published FIS? Also, is the model that communities have the same as the one from FEMA?**

Start by requesting the models from the FEMA Engineering Library. If not available there, then check with the community or state. The model the community has may or may not be the same as the FEMA effective model. Compare the model results with the FIS to make sure you have the correct model. Try to use the same model version as the effective and be aware that the vertical datum of the model may not be the same datum as the FIS/FIRM.

**What modeling is required for modifications to an Unnumbered A-Zone?**

It's basically the same as Zone AE. Newly studies Zone A floodplains are model-backed, so there is an effective model that should be used for those areas. If there is no model than it would just be an existing conditions model and post-project model (if applicable).

**In which model is it appropriate to reflect more detailed (but not necessarily changed) topography without any man-made changes - the Corrected Effective or Existing Conditions?**

More detailed topo would be included in the corrected effective model. If there are physical modifications, such as fill or hydraulic structures, the existing condition model would include these modifications.

**What would you do when duplicate effective model with floodway is revised to existing conditions and then floodway surcharges are greater than 1 for existing conditions model. Is there need to update FW encroachment stations? or just continue with Prop conditions to show no impacts?**

The encroachment stations should be adjusted in the existing conditions model to achieve allowable surcharge values.

**Why does FEMA ask us to truncate models?**

FEMA doesn't ask that models be truncated. There is no official rule about this, but we encourage not truncating models. Truncating models results in multiple effective models for the same area, which is confusing and difficult to maintain.

**To clarify a CLOMR/LOMR can be used for individual properties but using the MT-1 form? For example, over 100,000 cubic yards of fill to be placed on property within a floodplain that has a mapped floodway.**

A CLOMR/LOMR is a revision and can be used for individual properties, but using the MT-2 Forms. However, a CLOMR-F/LOMR-F is more common for individual properties and is the quicker and less expensive option. CLOMR-Fs/LOMR-Fs use the MT-1 Form. MT-1s cannot be processed for fill in the floodway. If the fill is being placed in the flood fringe, then MT-1 is probably okay. If any fill or other encroachment is occurring in the floodway, then only an MT-2 would be possible.

**If all you have is an old HEC-2 printout, are you required to re-recreate the entire study or can you truncate it to your area of interest?**

At this point we are not requiring model printouts be recreated. Although BFE tie-ins are still required so recreating the model can help with tie-ins. If you do decide to recreate it, it only need to be done for the area of interest.

**How long does it take to obtain the effective model from FEMA? And what is the cost?**

It usually takes at least a few weeks, sometimes more. The base fee is \$300, and there can be additional costs if a large amount of data is requested. <https://www.fema.gov/engineering-library>



**What is the standard certifications required for sources such as publicly available LiDAR/DEM?**

Most publicly available LiDAR is from federal agency, such as USGS, FEMA, USACE, NOAA. This can be used without any additional certification. Other sources of LiDAR, if different than used for the FEMA effective study, should be certified. There should be certified documentation that confirms the accuracy of the LiDAR.

**Have to be careful that if using a newer version with full model, may get changes outside your revision reach that are not recognized or that for which you have not provided adequate notification. This is especially of concern when updating some versions of HEC-RAS.**

Agreed. Using the same version as the effective is recommended.

**Can a LOMR revise an area to show it being protected by a levee from the 500-year flood, not just the 100-year flood? Thank you!**

Yes, if the levee meets the criteria in 44 CFR 65.10 with respect to the 500yr flood, then the 500yr floodplain can be removed from the area behind the levee.

**Who is responsible to notify property owner, community or project developer?**

The LOMR requester is responsible, but the community should at least be involved. If the floodway is being revised, then the notification must be done by, or on behalf of, the community. For example, if notification of the floodway revision is done via individual letters, they must either be on community letterhead or the community must confirm in writing that all impacted property owners have been notified of the floodway revision.

**Do you need property notification for CLOMR if there is no increase in SFHA?**

Yes, you usually do. If there is any increase in BFE, SFHA, or change in floodway compared to the effective, then notification is required. Also, if 65.12 requirements are triggered, then notifications are also required.

**How is ESA compliance handled for projects wo a Federal Nexus where NOAA Fisheries will not comment?**

The requester should provide FEMA with a determination as to whether the project will result in a "Take" of any federally listed threatened or endangered species, per Section 9 of the Endangered Species Act. This determination is the responsibility of the project proponent. If it is determined that the project has no potential to result in a Take, then coordination with the Service (FWS or NMFS) is not required and this determination alone is acceptable for FEMA. If it is determined that there is potential for Take, then coordination with the Service is required.

**Is ESA not required for a LOMR?**

Correct, ESA documentation is currently not required for a LOMR.

**What does Federal Action Agency mean?**

Projects that are funded, permitted, or carried out by a Federal agency.

**Is a determination outside of NOAA Fisheries of US Fish & Wildlife to satisfy the Community Acknowledgement Form requirements?**

The community acknowledgement form includes language to confirm that the project is in compliance with the ESA. However, a formal determination is still required in addition to the form being signed.

**Please elaborate a little on the "take"**

Take as defined under the ESA means "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

**Is an O&M plan required for structural embankments which will change the SFHA but is not in a levee condition?**

No, but such embankment should also not be used to remove area from the floodplain.

**If we have a project that significantly affects a floodplain, is it federally required to submit a LOMR/CLOMR to FEMA?**

No, but a community can and probably should require it.

**Is a LOMR fee required for submission of detailed data for an Approximate Zone A area?**

No, unless there are any man-made modifications in the floodplain since the date of the effective model/study.

**Is there an assumption that if a community is submitting a CLOMA for a levee, there is also an exemption to that community's flood management ordinance that will be necessary?**

No.

**Is local community concurrence (acceptance) always required, such as in cases the community opposes a type of land use instead of adverse floodplain impacts? Or is community acknowledgment acceptable for FEMA review?**

Community acknowledgement is acceptable. If the community has and concerns with the accuracy/quality of the data used to support the LOMR they should notify FEMA in writing.

**If no as-builts exist for antiquated structures, is it sufficient to indicate source of structure information (i.e. field measurements or survey)?**

Yes, but this data (survey, etc.) must be certified and provided along with the LOMR/CLOMR.

**How detailed does the backup data/calcs need to be for hydrology? Composite CNs calcs?**

All backup data should be submitted. If composite CNs were calculated, then documentation to show how they were calculated should be submitted.

**The Community Acknowledgement Form (CAF) appears to require documentation from NOAA Fisheries and/or US Fish & Wildlife to satisfy ESA compliance. We understand that NOAA Fisheries cannot comment on projects that do not have a federal nexus, as such, these projects do not appear to have a path for demonstrating ESA compliance per the MT-2 instructions.**

Documentation from FWS/NMFS is not usually required. It is the project owner's responsibility to determine if the project has a potential to result in a "Take" of threatened or endangered species. FWS/NMFS are not obligated to comment on projects that have no potential for Take.

**If an effective model is not geo referenced, but the CLOMR model is/can be, is it still suggested that the CLOMR model not be truncated to the revised area?**

If it is feasible to not truncate the model and still have it georeferenced, then yes, it is still suggested.

**Contacting the FEMA Engineering Library for models has, quite frankly, left a lot to be desired. Are there any best practices when requesting these models, to ensure that a thorough search was actually conducted? It seems quite often the answer is simply "we don't have anything" which is concerning when many of the modeled areas were modeled after the year 2000.**

Unfortunately, I don't have any helpful advice for you on this.

## **What does PTS means?**

Production and Technical Service contractors for FEMA.

## **I thought it was the State's responsibility to manage NFIP and stay close to all participating NFIP communities.**

State responsibility under the NFIP includes:

- Ensuring that communities have the legal authorities necessary to adopt and enforce floodplain management regulations.
- Establishing minimum state regulatory requirements consistent with the NFIP.
- Providing technical and specialized assistance to local government
- Coordinating the activities of various state agencies that affect the NFIP

## **When completing an H&H Analysis for a project in a Zone AE with Floodway, is a CLOMR/LOMR needed when the Proposed/Post Project conditions results show a 0.00 ft. or less change in the BFE when compared to the Existing conditions results, but the Proposed/Post Project conditions show an increase in BFE when compared to the Effective Model?**

A CLOMR is not required, but a LOMR should be submitted after the project is completed so the increased BFEs can be reflected on the regulatory data.

## **How do we handle a case where you have a floodway that FEMA has adopted that is based on HEC-2 analysis done in the 1970's and the topography has significantly changed in the past 40 years and now you proposed model shows a rise of more than 1' in a floodway not because of any encroachment but just because of the fact that the proposed topography has more detailed and the topography has changed in the last 40 years. Also any attempt to model duplicate effective has also failed because of the change in topography.**

The corrected effective model would incorporate the new topography. The floodway surcharge should be referenced to the water surface elevation of the corrected effective model. The duplicate effective model would not include new topography. If the effective model is not available, there is no need to try duplicating it using new topo.

## **Are there standards or guidance on what criteria should be looked at to show that an effective model is not appropriate for use?**

No, but this is generally applied to situations where the effective 1D model is not capable of accurately modeling the area and a 2D model is used. 1D is still sufficient for most situations.

**For complex models, reviewers frequently ignore cautions in the narrative. How can we emphasize the need to address this?**

Reviewers should not be ignoring the narrative.

**Most of effective models in our area are HEC-2. Is it necessary to recreate HEC-2 when we want to use HEC-RAS?**

No.

**I understand there is an MT2 contact at FEMA HQ - this is a necessity for complex LOMRs**

LOMR applicants are provided with contact information for the case reviewer and usually one other person with the reviewing agency. All inquiries should be addressed to them. If they are not able to answer your questions you can request to speak with someone at FEMA.

**Does FEMA have guidance for dealing with incomplete files when assessing duplicate effective model to create corrected effective - e.g. missing culvert data in the old files?**

Duplicate effective should match the effective exactly (if possible). If the culvert was not in the effective model it should not be in the duplicate effective, but could be added to the corrected effective.