



FEMA

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MEMORANDUM FOR: Kevin Houck
Colorado Water Conservation Board - Watershed and Flood Protection
Section Chief

FROM: Matthew Buddie
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SUBJECT: Post 2013 Flood “No-Rise” Guidance

As communities along Colorado’s Front Range impacted by the 2013 Flood continue through their recovery projects, as well as move forward with other development, FEMA Region VIII understands the need to provide additional guidance on the use of Best Available Information (previously known as Best Available Data) for project analysis. This specifically includes clarification on the use of updated hydrology developed by the Colorado Water Conservation Board (CWCB) and the Colorado Department of Transportation (CDOT) following the 2013 Flood. The new hydrology has been reviewed, accepted, and is being used in the Colorado Hazard Mapping Program (CHAMP) to update flood risk information in the impacted watersheds. This information will then be the basis for updating Flood Insurance Rate Maps produced by FEMA. Communities should therefore require the approved hydrology as Best Available Information, where available, for project analysis.

For individual projects on flood-affected streams, the following approaches must be used in the order listed. It is assumed the project involves impacts to the regulatory floodway. Projects on the same stream reach must utilize the same approach in order to maintain existing conditions model continuity.

- Approach 1: Utilize best available information, including most recent LiDAR and/or survey data, to create a model that best represents existing conditions. Compare the post-project/proposed conditions model to this pre-project/existing conditions model to determine if rises occur in the water surface elevations of the 1% annual chance flood or Base Flood Elevations (BFEs). Both pre-project/existing conditions and post-project/proposed conditions models must use updated hydrology where available. If the modeling shows “No-Rise” in BFEs the community may issue a floodplain development permit and proceed accordingly. If the modeling shows a rise proceed to Approach 2.
- Approach 2: Utilize best available information using pre-flood survey data if available to create a pre-flood model based on the updated hydrology where available. Compare to the post-project/proposed conditions model as described in Approach 1. If there are still rises

proceed to Approach 3. Only use approach 3 if a pre-flood model is not possible because adequate pre-flood information is not available. If there is adequate pre-flood information to make the comparison to post-project/proposed, and rises are still found in approach 2 after performing approach 1, a Conditional Letter of Map Revision (CLOMR) will be required before the project may begin.

- Approach 3: In areas with existing detailed studies with published profiles and BFEs, compare the post-project/proposed model’s profile (same as above) to the current effective profile (as depicted in the effective Flood Insurance Study) to determine if there are any rises. This approach offers another option to get to a “No-Rise” without creating an additional model. If the analysis still shows a rise or there is not an existing detailed study, a CLOMR will be required before the project may begin.

If the project or scenario does not fall into one of the above approaches it should be discussed with staff from the Mitigation Division of the FEMA Region VIII Office or the CWCB. This memo is intended to augment the Guidance for Hydrologic and Hydraulic Analyses written by CWCB dated September 21, 2014.