

# Federal Emergency Management Agency

Washington, D.C. 20472

### Colorado Water Conservation Board

Cooperating Technical Partner



Mike Bramlett Client Manager JR Engineering 5475 Tech Center Drive Colorado Springs, CO 80919 IN REPLY REFER TO: Case No.: 23-08-0701P Community: El Paso County, CO

Community No.: 080059

316-AD

#### Dear Mike Bramlett:

This responds to your request dated August 8, 2023, that the Department of Homeland Security's Federal Emergency Management Agency (FEMA) issue a revision to the Flood Insurance Rate Map (FIRM) for El Paso County, Colorado and Incorporated Areas. The Colorado Water Conservation Board (CWCB) is reviewing your request in accordance with an agreement signed with FEMA on July 13, 2020, under the FEMA Cooperating Technical Partners (CTP) initiative. For more information on this initiative, we encourage you to visit the dedicated portion of the FEMA Flood Hazard Mapping website at https://www.fema.gov/flood-maps/cooperating-technical-partners. Pertinent information about the request is listed below.

Identifier: Solace at Cimarron Hills

Flooding Source: Sand Creek Center Tributary and Sand Creek

Center Tributary Overflow

FIRM Panel Affected: 08041C0752G

The data required to complete our review, which must be submitted within 90 days of the date of this letter, are listed on the enclosed summary.

If we do not receive the required data within 90 days, we will suspend our processing of your request. Any data submitted after 90 days will be treated as an original submittal and will be subject to all submittal/payment procedures, including the flat review and processing fee for requests of this type established by the current fee schedule. A copy of the current fee schedule is available for your information on the FEMA website at https://www.fema.gov/flood-maps/change-your-floodzone/status/flood-map-related-fees.

LOMR Review Partner Program Administrator, 1313 Sherman Street, Room 718, Denver, CO 80203 / PH: 303-866-3441

FEMA receives a very large volume of requests and cannot maintain inactive requests for an indefinite period of time. Therefore, we are unable to grant extensions for the submission of required data/fee for revision requests. If a requester is informed by letter that additional data are required to complete our review of a request, the data/fee **must** be submitted within 90 days of the date of the letter. Any fees already paid will be forfeited for any request for which the requested data are not received within 90 days.

If you have general questions about your request, FEMA policy, or the National Flood Insurance Program, please contact the FEMA Mapping and Insurance eXchange (FMIX), toll free, at 1-877-FEMA MAP (1-877-336-2627). If you have specific questions concerning your request, please contact the LOMR Review Partner Program Administrator, by email at <a href="terri.fead@state.co.us">terri.fead@state.co.us</a> or by telephone at (303) 866-3441x3230, or the Revisions Coordinator for this request, Logan Rice, by email at Logan.Rice@mbakerintl.com or by telephone at (720) 479-3171.

Sincerely,

Terri Fead, PE, CFM Project Manager

Floodplain Mapping Program Colorado Water Conservation Board

#### Enclosure

cc: Keith Curtis

Floodplain Administrator

El Paso County



## Federal Emergency Management Agency

Washington, D.C. 20472

### Summary of Additional Data Required to Support a Letter of Map Revision (LOMR)

Case No.: 23-08-0701P Requester: Mike Bramlett

Community: El Paso County Community No.: 080059

The issues listed below must be addressed before we can continue the review of your request.

- 1. Please correct the following entries on the MT-2, Form 1 (Overview & Concurrence Form):
  - Change community name to only "El Paso County"
  - Change community number to only "080059"
  - Change map and panel numbers to "08041C" and "0752G," respectively
  - Change flooding source to "Sand Creek Center Tributary and Sand Creek Center Tributary Overflow"
  - Change project identifier to "Solace at Cimarron Hills"
  - Change FEMA zones (both effective and revised) to "AE" and "X"
  - Check the box on the last page indicating that MT-2 Form 3 is included as part of the request
- 2. Please correct the following entries on the MT-2, Form 2 (Riverine Hydrology & Hydraulics Form):
  - Section B1 ("Hydraulics Reach to be Revised") FIRM section P effective Water Surface Elevation (WSEL) is 6277.2 feet, not 6277.0 feet
  - Section D1 ("Common Regulatory Requirements") the first check box for increases in Base Flood Elevations (BFEs) is checked as "No" but should be "Yes" considering the BFE increases when comparing the Pre-Project and Post-Project HEC-RAS model results
  - This version of the MT-2 Form 2 is out-of-date (expired February 28, 2014 as noted on the top right of the first page)—on future cases please submit the current MT-2 Form 2 which may be found here:

https://www.fema.gov/flood-maps/change-your-flood-zone/paper-application-forms/mt-2

- 3. Please correct the following entries on the MT-2, Form 3 (Riverine Structures Form):
  - Missing entry for the triple culvert crossing at Galley Road—ensure the appropriate upstream and downstream Cross Sections of 11611 and 11511 (both reach SC-05), respectively, are documented
  - Missing entry for channelization in the Sand Creek Center Tributary channel—based on the provided plans, this channelization runs from approximately Cross Section 12959 (upstream, SC-02) to the Galley Road crossing (downstream, SC-05)
  - Since there is no Levee Documentation as part of this request the final page of MT-2 Form 3 does not necessitate a certification—leave this page blank
- 4. Please provide the following datasets so the reviewer may verify essential background information—such as modeled discharges and split flow conditions—as part of this request:
  - 1990 HEC-2 data
  - 2007 LOMR data
- 5. Please add Post-Project cross section linework, with river stationing labels, to the channel plan and profile sheets so the reviewer may compare cross section as-built ground data between the modeling effort and the plan and profile sheets
- 6. The submitted Post-Project HEC-RAS model utilizes flow optimization to calculate the flow over the four lateral structures to adjacent reaches ((1) Sand Creek-Paonia Spillway→Sand Creek-EX Overflow, (1) Sand Creek-Paonia Spillway→Paonia Street-Overflow, and (2) Paonia Street-Overflow→Sand Creek-SC05). Please submit a Post-Project HEC-RAS model which uses flow optimization to calculate the flows along each reach and provide a copy of the Post-Project HEC-RAS model which has the flows hardwired. The Post-Project HEC-RAS model with hardwired flows will be the one utilized for model comparison and regulatory purposes.
- 7. The Post-Project HEC-RAS model yields an error, stating: "FLOW OPTIMIZATION FAILED TO CONVERGE, PROFILE 3 100-YR." Please fix this HEC-RAS run error—to do so, you may consider adjusting the initial "guess" flow of 15.05 cfs at the Paonia Street-Overflow reach to something higher (perhaps 30 cfs) as this is the location where the lack of convergence on the Paonia Spillway lateral structure is dumping flows. By increasing the initial "guess" flow closer to the end solution of 31.42 cfs, HEC-RAS can reach a solution during the flow optimization.
- 8. Please consider revising the Tailwater Connection types for each of the four lateral structures in the Post-Project HEC-RAS model. Specifying the Tailwater Connection as "Out of System," as currently modeled, removes the discharges from the hydraulic system rather than applying the overtopping discharges to an adjacent river reach/cross section. Applying the overtopping discharges to an adjacent river reach/cross section allows for hydrologic continuity (flows from two upstream, converging reaches match the cumulative flow in the downstream reach) in the HEC-RAS model. Please additionally perform a general review of the Post-Project HEC-RAS model for hydrologic discontinuities. For example, 0.2-percent-annual-chance event discharges in Sand Creek reach SC05 (downstream) are lower than those in Sand Creek reach SC04 (upstream).

- 9. Please extend Cross Sections 13146, 13129, and 13121 on the Sand Creek-Paonia Spillway reach such that they extend all the way to lateral structure 13149 (spilling to the EX Overflow reach) in the Post-Project HEC-RAS model. Cross sections connected to a lateral structure must be flush with the structure to correctly model overtopping flow conditions.
- 10. Including the Sand Creek EX Overflow, Sand Creek PAONIA Spillway, and EXCH EX CHANNEL as part of the Post-Project modeling effort will require these reaches to have their own (separate from the Sand Creek SCXX reaches and Paonia Street Overflow reach) FIS designations; that is, each of these newly-defined reaches as part of this request will need their own set of FIS profiles and associated spatial data for eventual regulatory purposes and future studies. Please consider this aspect of FIS designations as part of the resubmittal and update the modeling to remove these extraneous reaches or provide new FIS profiles and associated spatial data for these newly-defined reaches. In order to map each of the splits the cross sections will need to extend to the edge of the floodplain delineations and not cross one another. Additionally, please provide information regarding the Post-Project HECRAS model discharges for the EXCH EX CHANNEL reach as there is currently no provided information regarding the modeled discharges for this reach.
- 11. In the provided Duplicate Effective (DE) HEC-RAS model, the SC-M and SC-SF projects exhibit the same geometry files. Please provide the correct geometry files for each DE HEC-RAS model project so the reviewer may have DE results for modeling comparisons. As described in the provided hydraulics report, the SC-M project is supposed to describe geometry for the main channel of Sand Creek Center Tributary while the SC-SF project is supposed to describe geometry for the Sand Creek Center Tributary Overflow.
- 12. Our review revealed defaults to critical depth for the base (1-percent-annual-chance) flood at nearly two-thirds of the Post-Project HEC-RAS model cross sections. Please revise the Post-Project HEC-RAS model to solve the critical depth defaults throughout the Post-Project modeled reaches or provide a response explaining the justification for each critical depth default. As noted in the FEMA guidance document entitled *Hydraulics: One-Dimensional Analysis*, dated November 2016, given concrete-lined channel conditions such as those present for this request, modelers may utilize a mixed flow regime rather than a subcritical flow regime. This change in modeling flow regime allows for more accurate hydraulic representations of supercritical flow conditions for concrete-lined channels and may help alleviate some of the critical depth defaults.
- 13. The submitted Pre-Project and Post-Project HEC-RAS models have numerous cross sections that are spaced at channel lengths less than or equal to 50 feet apart. A general rule of thumb is to space the cross sections between 100 to 300 feet apart, allowing for larger cross section spacing when the topography is not changing dramatically. Near junctions and roadway crossings are exemplary locations where closer cross section spacing is acceptable. Please provide information to support why the smaller cross section spacing is reasonable or revise the Pre-Project and Post-Project HEC-RAS models by removing unnecessary cross sections.
- 14. The alignments of Cross Sections 13061 (reach SC01), 13014 (reach EX Overflow), and 13047 (reach EX Overflow) cross each other in the submitted Post-Project HEC-RAS model. Please modify the alignments of the cross sections so that they are normal to the direction of flow and do not cross.

- 15. The alignment of Cross Section 13042 B crosses multiple modeled reaches in the submitted Post-Project HEC-RAS model. Please modify the alignments of the cross sections so that they are normal to the direction of flow and do not span across more than one modeled reach.
- 16. The alignments of Cross Sections 13065 and 13057 (reach PAONIA spillway) as well as 11511 and 11413 (reach SC05) do not appear to be normal to the direction of flow in the Post-Project HEC-RAS model. Please revise the alignments of these cross sections so that they are normal to the direction of flow or provide an explanation for the current alignments.
- 17. Our detailed review revealed that the WSELs are higher than the end points of the cross sections at the following location in the Post-Project HEC-RAS model. Please extend the cross sections so that the end points of all cross sections are equal to or higher than the corresponding WSEL. If extending a cross section is not possible, another option worth investigating would be to trim the cross section to a high point in the terrain.

• EX Overflow reach: all cross sections

• SC02 reach: all cross sections

PAONIA spillway reach: 13097, 13085, 13032, 12969, 12914

SC03 reach: 12851, 12844SC04 reach: 11651, 11639

• SC05 reach: 11611

• Overflow reach (Paonia Street): 12587 A, 12436, 12117, 12020, 11923

- 18. The submitted Post-Project HEC-RAS model has multiple bank stations located outside the 100-year floodplain. In general, bank stations should be placed inside the 100-year floodplain at a minimum and should also be placed approximately symmetric to the low flow area and above the channel thalweg. Please revise the bank stations placement in the submitted Post-Project HEC-RAS model accordingly or provide an explanation why the channel bank stations used in the models were chosen. Additionally, please be sure to update floodway encroachments so they are not inside the revised bank stations.
- 19. Our detailed review revealed drawdowns in the WSELs in the following listed locations of the submitted Post-Project HEC-RAS model. Please revise the submitted Post-Project HEC-RAS model so that WSELs decrease continuously downstream or provide a detailed explanation for allowing the WSEL drawdowns.

• PAONIA spillway reach: 13057 to 13075

SC03 reach: 12671 to 12712SC04 reach: 11639 to 11700

• SC05 reach: 11611

20. Our detailed review revealed that all WSEL profiles cross each other between Cross Sections 11666 and 11800 of the Post-Project HEC-RAS model. Please revise the Post-Project HEC-RAS model to properly reflect the WSELs for each flood event.

- 21. In the submitted Post-Project HEC-RAS model, Cross Sections 13051 and 13061 of reaches SC01 and SC02, respectively, do not decrease in stationing while moving downstream. Please adjust these river stations such that the lower stationing value is further downstream than the higher stationing value.
- 22. The submitted Post-Project HEC-RAS model exhibits the same reach lengths for the left overbank, channel, and right overbank for most cross sections within the proposed revision reaches. Please revise the HEC-RAS hydraulic modeling so the overbank reach lengths reflect the appropriate channel distances.
- 23. Our review revealed that the model parameters for the triple culvert under Galley Road differ from the as-built plans entitled "Solace Apartments Filing No. 1 Sand Creek Center Tributary" prepared by JR Engineering, dated August 2022. Please revise the submitted Post-Project HEC-RAS model to reflect the correct as-built parameters shown on the above-mentioned plans, in particular:
  - The as-built plans list the culvert lengths as 110.82 feet, but the modeled length is 90 feet
  - The culverts are arches, not circular—span is 4.83 feet and rise is 3 feet
    - i. Chart # 41 corresponds to corrugated metal arch; scale # 1 describes the mitered to slope condition
  - Check the US and DS barrel stationing to ensure it matches what is displayed on the topographic workmap
- 24. Typically, culvert Cross Section 2 is located a short distance downstream of the culvert outlet based on the recommend cross section locations for modeling culverts as described in the *HEC-RAS Hydraulic Reference Manual*, prepared by the U.S. Army Corps of Engineers, dated May 2021. Please revise Cross Section 2, which corresponds to HEC-RAS Cross Section Station 11511 on reach SC05, so that it is located at an appropriate distance from the culvert outlet as described in the *HEC-RAS Hydraulic Reference Manual* or provide justification for the current modeling approach.
- 25. Our review revealed that the modeled channel geometries of Cross Sections 12914, 12969, and 13032 (all on the PAONIA spillway reach) differ from the typical spillway sections of "B-B" called out on sheet 4/10 of the above-mentioned plans. Please revise the geometry of the specified cross sections in the submitted Post-Project HEC-RAS model to reflect the correct as-built parameters shown on the above-mentioned plans.
- 26. The following cross sections contain ineffective flow areas in the Post-Project HEC-RAS model, but our review revealed that these locations do not warrant the ineffective flow area placement. Please make the following ineffective flow area revisions or provide an explanation defending the current ineffective flow area modeling:
  - Sand Creek SC02: remove ineffective flow area on the right overbank for 12959 and 12951—flow appears to be conveyed in this area
  - Sand Creek SC03: remove ineffective flow area on the right overbank for 12851 and 12844—flow appears to be conveyed in this area
  - Sand Creek SC03: remove ineffective flow areas on the left overbank for 12693 to 12720 and 12801—these ineffective flow areas do not affect any modeled profiles

- Sand Creek SC04: remove ineffective flow areas on the left overbank for 11750 to 12250—these ineffective flow areas do not affect any modeled profiles
- Sand Creek SC04: remove ineffective flow areas on the left overbank for 11639 to 11666—flow appears to be conveyed for 11651 and 11666, and the ineffective flow area for 11639 does not affect any modeled profiles
- Sand Creek SC05: remove ineffective flow area on the left overbank for 11611—flow appears to be conveyed in this area
- Sand Creek SC05: remove inner (close to channel) ineffective flow areas for 11611—these ineffective flow areas do not affect any modeled profiles
- Sand Creek SC05: remove all ineffective flow areas for 11413 and 11511—flow appears to be conveyed in these areas
- Paonia Street Overflow: remove ineffective flow area on the right overbank for 13065—this ineffective flow area does not affect any modeled profiles
- 27. Our review revealed that the contraction and expansion loss coefficients for the cross sections downstream and upstream of the Galley Road culvert crossing do not accurately reflect the losses through this structure. Typically, higher coefficients (0.3 for contraction, 0.5 for expansion) are applied at Cross Sections 4, 3, and 2 of the traditional cross section layout for bridges as described in the *HEC-RAS Hydraulic Reference Manual*, prepared by the U.S. Army Corps of Engineers, dated May 2021. Please revise the submitted Post-Project HEC-RAS model to reflect the contraction and expansion coefficients as described in the *HEC-RAS Hydraulic Reference Manual* or provide justification for the current modeling approach.
- 28. The submitted HEC-RAS modeling package uses different geometry files for the Post-Project and Floodway plans. The regulatory modeling should produce identical results for the base flood for the multiple profile plan and floodway plan but maintaining separate geometry files for these model runs introduces the opportunity for future errors/issues within the regulatory modeling once approved. Please update the submitted HEC-RAS modeling package so that the Post-Project and Floodway plans reference the same geometry file that encompasses the same model extents to ensure identical results are produced when analyzing the base flood event. Additionally, these two separate plans exhibit different upstream boundary condition WSELs as well as exhibit different cross section stationing upstream of Cross Section 12951—please correct these geometrical discrepancies while addressing this comment.
- 29. Our detailed review indicated that no regulatory floodways were defined in the split-flow reaches. Please ensure that the conveyance in the split-flow reaches is maintained by determining a separate regulatory floodway in each of the reaches. As an alternative, it is acceptable to define the floodway entirely in the main channel of Sand Creek Center Tributary (SC01-SC05 reaches) if it is demonstrated that doing so would not exceed the allowable surcharge. The encroached flood profile containing total flow (including the flow lost as overflow) must not exceed the allowable surcharge when compared to the natural/not encroached flood profile (which has been reduced because of flow lost to overflow).
- 30. The Floodway HEC-RAS model output shows negative surcharges between the natural (not encroached) and encroached profiles at Cross Sections 11377, 12300, 12663, 12844, 12851, 12951, 13074, 13140, and 13361 P. Please revise the floodway analysis to eliminate all negative surcharges.

- 31. Our review revealed that the Floodway HEC-RAS model was not based on a Method 1 encroachment analysis. The submitted encroachment analysis utilizes Method 4 (defined surcharge) inputs, but ought to only be used to guide the fine-tuning aspects of a Method 1 encroachment analysis. There is an "Import to Method 1 ..." button in HEC-RAS to import the Method 4 output values to Method 1 for a more fine-tuned analysis. This fine-tuned analysis allows the modeler to focus on important floodway modeling aspects, such as equal encroachments (relatively equidistant stationing from thalweg) and keeping encroachments outside of bank stations. Please revise the Floodway HEC-RAS model to use Method 1 encroachment analysis stationing. Please be sure that the surcharges do not exceed the 1-foot maximum allowed and there are no negative surcharges.
- 32. The submitted topographic work map entitled, "HECRAS WORK MAP SOLACE TOWNHOMES" prepared by JR Engineering, dated July 2023, does not provide essential information required to complete our detailed review of this request. Please provide the following information, which was omitted from the submitted topographic work map:
  - Boundary delineations of the Pre-Project base floodplain
  - Topographic contour information used for the boundary delineation of the Pre-Project/Post-Project base flood—it is not possible for the reviewer to assess if the base, 0.2-percent-annual-chance, and/or floodway boundaries have been mapped to the appropriate contour if this information has been omitted from the submitted topographic work map
  - Streamline stationing labels
  - Cross section BFE labels adjacent to HEC-RAS river stationing
  - Lateral structure labels
  - Adjacent property boundaries
  - Registered Professional Engineer certification
  - Missing Cross Section 11413 and 11377 (reach SC05) of the Post-Project HEC-RAS model
  - Missing Cross Section 11416 of the Pre-Project HEC-RAS model
  - Pre-Project Cross Section 11685 does not exist in the Pre-Project HEC-RAS model
  - Lettered Cross Sections "N" and "O" appear differently than shown on the FEMA NFHL viewer—please explain the discrepancy between cross sections shown on the workmap and how they are shown on the FEMA NFHL viewer
  - Lettered Cross Sections "B" and "P" have different Post-Project WSELs than what is shown in the Post-Project HEC-RAS model results; the BFE labels near these lettered cross sections additionally appear to be incorrect considering the Post-Project HEC-RAS model results
  - Please provide GIS data for the above-referenced topographic work map. Please ensure the digital data is spatially referenced as well as includes what projection (coordinate system, example: UTM/State Plane) was used so that it may be used for accurate mapping purposes or explain why this is not necessary. In addition, please ensure the cross section shapefile includes the HEC-RAS Stations and BFEs as attributes for each individual cross section within the proposed revision reach.

- 33. The base and 0.2-percent-annual-chance floodplain top widths shown in the Post-Project HEC-RAS model at Cross Sections 12959 and 12951 (reach SC02), 11651 and 11639 (reach SC04), 11611 and 11511 (reach SC05), and 11832 (reach Overflow on Paonia Street) do not match the approximate base or 0.2-percent-annual-chance floodplain top widths shown on the above-referenced topographic work map. Please provide an explanation for these discrepancies or make the appropriate changes to the mapped boundaries so they align with the modeled top widths.
- 34. The submitted Post-Project base and 0.2-percent-annual-chance floodplain delineations appears to be jagged on the above referenced topographic work map and do not reflect the natural path of the floodplain. In particular, both floodplain delineations are jagged around the culvert crossing under Galley Road. The base floodplain delineation is also jagged immediately downstream of the Paonia Spillway as well. Please revise the floodplain delineations to show smooth transitions between cross sections to reflect the natural delineation of the floodplain or explain why this is not necessary.
- 35. The submitted Post-Project floodway delineation includes an abrupt reduction in floodway width between Cross Sections 11377 and 11639 on the above-referenced topographic workmap. The designated floodway should provide for smooth transitions between obstacles and restrictions of the floodplain such as bridges, natural changes in the width of the stream valley, man-made fill, and other types of floodplain encroachments to ensure a hydraulically efficient floodway is established. Please revise the floodway delineation in this location to eliminate the abrupt transition in floodway width or provide justification for the current modeling and mapping approach.
- 36. From our technical review, it appears that the delineation of the regulatory floodway extends outside of the base floodplain delineation between Cross Sections 12761 and 12744 (reach SC03) as well as between Cross Sections 11666 and 12488 (reaches SC03 and SC04) as shown on the above-referenced topographic work map. Please make the necessary changes to the above-referenced topographic workmap to ensure that the floodway widths are less than or equal to the floodplain widths at the previously mentioned locations or explain why this is not necessary. Additionally, there are locations throughout the revised concrete channelization (Sand Creek Center Tributary reaches) where the Post-Project floodway boundary is narrower than the current effective floodway boundary—please provide an explanation for these occurrences.
- 37. The submitted Post-Project floodway delineation appears to be jagged on the above referenced topographic work map at Cross Sections 11611 and 13061 and does do not reflect the natural path of the floodway. Please revise the floodway delineation to show smooth transitions between cross sections to reflect the natural path of the floodway.
- 38. Our review revealed Cross Section 11666 (reach SC04) shown on the above-referenced topographic work map does not extend across the entire base floodplain. Please revise this cross section so that the end point of the mapped cross section extends past the base floodplain boundary and accurately reflects the extents of the full cross section geometry as modeled in the submitted HEC-RAS hydraulic analysis.

- 39. Our review indicates that the boundary of the base flood and floodway shown on the above-referenced work map does not logically tie into the effective base floodplain and floodway boundaries at the upstream and downstream ends of the revision reach. Please extend the delineations of the base floodplain and floodway at the upstream and downstream ends of the revision reach to provide a logical transition between the revised and effective base floodplain and floodway boundaries. Please ensure that the topographic data supports the graphical transition back to the effective base floodplain and floodway boundaries.
- 40. Our detailed review revealed increases in BFE in excess of those permitted under Paragraph (d)(3) of Section 60.3 of the National Flood Insurance Program (NFIP) regulations that result when comparing the submitted Pre-Project and Post-Project hydraulic analyses. Please provide a copy of the approved floodplain development permit and copies of all supporting documentation and analyses that were submitted to support the floodplain development permit application.
- 41. Please adhere to the exact verbiage and document structure of the sample notification letter for LOMRs found in Figure 4 of the *Instructions for Completing the Application Forms for Conditional Letters of Map Revision and Letters of Map Revision* FEMA document provided in the following link. Please submit a draft copy of the notification for verification of content prior to publication or distribution.
  - https://www.fema.gov/sites/default/files/documents/fema mt-2-instructions-2022.pdf
- 42. The reviewer noticed that the proposed location for lettered Cross Section "N" does not align with a Post-Project HEC-RAS model cross section. Please adjust the location of proposed lettered Cross Section "N" to be a cross section upstream of Galley Road as to not crowd the downstream lettered Cross Section "M" location.
- 43. If the items requested above result in changes to the results of the submitted hydraulic analysis, please submit updated copies of the topographic work map, annotated FIRM, annotated Flood Insurance Study (FIS) attachments, and DLOMC tables to incorporate the appropriate changes. The Agreement Table (Digital LOMC Agreement Tables) is available for download from the CWCB Colorado Hazard Mapping & Risk MAP Portal website. This Agreement Table must display comparisons for all modeled cross sections, not just lettered cross sections. If any of the items listed above produce changes in BFEs as a results of hydraulic model revisions, please additionally update the BFE Comparison Table to show the appropriate changes.

Please either upload the required data using the Online LOMC tool (if applicable), or send the required data, in digital format to us electronically. *To ensure the additional data is processed efficiently, please email us if the information is uploaded using the Online LOMC tool.* For identification purposes, please include the case number referenced above on all correspondence.

Effective February 20, 2015, FEMA revised the fee schedule for reviewing and processing requests for conditional and final modifications to published flood information and maps. A copy of the current fee schedule is available for your information on the FEMA website at https://www.fema.gov/flood-maps/change-your-flood-zone/status/flood-map-related-fees. In accordance with this schedule, the fee for your request is \$8,250 and must be submitted before we can continue processing your request. The amount you submitted, \$8,000, is not sufficient. The balance, \$250, must be submitted before we can continue processing your request. Payment of this fee must be made in the form of a check or money

order, payable in U.S. funds to the <u>National Flood Insurance Program</u>, or a credit card payment (Visa or MasterCard only). For identification purposes, the case number referenced above must be included on the check or money order. We will not perform a detailed technical review of your request until we receive this payment.

Please send the required fee to:

Colorado Water Conservation Board Attention: Floodplain Mapping Program Manager 1313 Sherman Street, Rm 718 Denver, CO 80203