

Fall 2020 Guidance and Standards Maintenance Cycle Summary

FEMA maintains guidelines and standards to support the Risk Mapping, Assessment and Planning (Risk MAP) program. These specifically define how to apply the statutory and regulatory requirements for the National Flood Insurance Program (NFIP). These standards also outline how to use Flood Risk Projects, how to process Letters of Map Change (LOMCs), and related Risk MAP activities. More information is available on FEMA.gov.

November 2020 Routine Maintenance

FEMA has a maintenance plan for these guidelines and standards and it is updated annually. This summary relates to the 2020 update, which FEMA released in November 2020. As part of this policy update cycle, FEMA performed routine maintenance and smaller updates driven by specific requests or issues identified. In addition to these smaller updates, there are several significant changes that include:

Significant Changes

| Topic | Description |
|---|---|
| 2D Floodways | Revise the standards and guidance on modeling and mapping the regulatory floodway using a two-dimensional (2D) model. Update standards (Standard Identification Number of SID#) associated with floodway analyses and technical approaches and outputs. Also update multiple technical references, guidance documents, and templates. |
| Coastal Zone Management Act (CZMA) Compliance | Create SIDs and guidance to clarify how to issue consistency determinations for the CZMA. |
| Automated Map Production (AMP) | Revise associated SIDs, technical references, guidance documents, and templates to allow flexibility in Flood Insurance Rate Map (FIRM) panel layout as the AMP tool is introduced into the Risk MAP workflow per SID 630. |
| Changes Since Last FIRM (CSLF) | Revise associated SIDs and the CSLF guidance document to integrate FEMA's automated CSLF utility. |
| Key Decision Point (KDP) | Revise the KDP guidance and associated SIDs to allow more ownership by the FEMA Regional Offices. |



| Topic | Description |
|--------------------------|--|
| FEMA IT Security/Privacy | Create SID to increase the Risk MAP program's safe handling and security of Personally Identifiable Information (PII). |
| MT-2 Guidance | Create guidance document with more direction and clarity on developing and submitting Letters of Map Revisions and other MT-2 documents. |

FEMA regularly updates these standards, guidance and technical references to ensure ongoing improvements in its flood mapping and risk analysis efforts. The primary location to access these Risk MAP documents is at [FEMA.gov](https://www.fema.gov).

The standards changes are as follows:

| Standard IDs (SIDs) | Standards Change Description |
|--|---|
| SIDs 66, 69, 73, 75, 77, 78, 79, 128, 248, 335 | Updating to include edits and refinements associated with the 2D Floodway Significant Update. |
| SIDs 89, 96 | Updating to clarify the use of regulatory products and the applicability of this standard. |
| SID 99 | Rescinding standard in association with edits and refinements associated with the 2D Floodway Significant Update. |
| SIDs 101, 103, 229, 232, 256, 265, 274, 507 | Updating to clarify standard, and align to current standard operating procedures. |
| SID 230 | Rescinding standard because this is covered by other standards and guidance. |
| SID 235 | Updating to comply with current style guide specifications. |
| SIDs 264, 272, 279, 280 | Updating to incorporate clarifications or corrections in the wording of the standard. |
| SID 415 | Updated to removed confusing language and emphasize the focus on quality. |
| SID 417 | Align the Standard to current standard operating procedures regarding automated creation of CSLF. |
| SID 424 | Rescinding standard because the tiling structure is no longer applicable. |

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|-----------------------|--|
| <p>SID 443</p> | <p>Updating to direct information on NFIP policy and claims information to OpenFEMA.</p> |
| <p>SID 628</p> | <p>Updating to reflect the automated creation of CSLF through Customer and Data Services (CDS) tools and removes it from the list of products required to align with model information.</p> |
| <p>SID 630</p> | <p>Updating to establish understanding that AMP output products will look different than current requirements, but that is ok. Quality control (QC) will still be required for the engineering and flood hazard information.</p> |
| <p>SID 640</p> | <p>To keep Risk MAP IT systems secure and appropriately protect the privacy of individuals who are referenced in Risk MAP data, a User Account Management Plan is being established so that all Risk MAP Providers understand the protocols that must be followed and managed.</p> |
| <p>SID 641</p> | <p>Updating as expired Provisionally Accredited Levee (PALs) are emerging issues and HQs is requiring more oversight on the use of an expired PAL on an updated regulatory product.</p> |
| <p>SID 642</p> | <p>Updating because seclusion should no longer be used for a Risk MAP study unless a specific case or set of circumstances dictates its use.</p> |
| <p>SID 643</p> | <p>New standard developed to address CZMA consistency determination requirements.</p> |

Standards

The table below lists proposed new standards and updates to existing standards. FEMA published these standards in November 2020 during the annual update to the Policy for Flood Risk Analysis and Mapping. The reasons for the changes are summarized above.

The updates and revisions are listed in the table below, with their Standard Identification Number (SID #), implementation, primary key words, and current version of the standard (if applicable). The approach for updating these standards has been chosen to avoid any cost impacts on work underway.

The current standards and a list of acronyms are on the [FEMA website](#).

| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|-----------------------|-----------------|---|--|
| 66 | Effective Immediately | Flood Profiles | Each modeled split or diverted flow path must be plotted with individual Flood Profiles. | Each significant split or diverted flow path modeled in 1D and mapped as Zone AE or AH must be plotted with individual Flood Profiles. |
| 69 | Effective Immediately | Floodway | Floodway surcharge values must be between zero and 1.0 ft. If the state (or other jurisdiction) has established more stringent regulations, these regulations take precedence over the NFIP regulatory standard. Further reduction of maximum allowable surcharge limits can be used if required or requested and approved by the communities impacted. | Floodway surcharge values must be less than or equal to 1.0 ft. If the State (or other jurisdiction) has established more stringent regulations, these regulations take precedence over the NFIP regulatory standard. Further reduction of maximum allowable surcharge limits can be used if required or requested and approved by the communities impacted. |
| 73 | Effective immediately | Floodway | An equal conveyance reduction method must be used to establish the minimal regulatory floodway, except where an initial equal conveyance floodway is adjusted in coordination with FEMA and the impacted communities. | A methodology based on equitable consideration of both overbanks must be used to establish the minimal regulatory floodway. Variations to this approach must be made in coordination with FEMA and the impacted communities. |

| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|-----------------------|-----------------|---|---|
| 75 | Effective immediately | FIS Tables | <ul style="list-style-type: none"> ▪ For each stream with cross sections where a floodway was determined under the scope of work, a Floodway Data Table compliant with the FIS Report Technical Reference must be prepared as part of the hydraulic analysis. The Floodway Data Table must contain an entry for each lettered, mapped cross section that includes the following information: Cross-section identification shown in a georeferenced spatial file; ▪ Stream or profile baseline station of the cross section; ▪ Width of the floodway at the cross section; ▪ Wetted area of the cross section under encroached conditions; ▪ Average velocity of the floodwaters at the cross section under encroached conditions; ▪ The greater of BFEs from all flooding sources, including from backwater, affecting the cross section (regulatory elevation); ▪ The BFE from the existing conditions model (without-floodway elevation); ▪ The BFE from the encroached existing conditions model (with-floodway elevation); and ▪ Difference between with- and without-floodway elevations (surcharge). | <p>For each stream where a floodway was determined under the scope of work, a Floodway Data Table (FDT) compliant with the FIS Report Technical Reference must be prepared as part of the hydraulic analysis. The FDT must contain an entry for each lettered, mapped cross section or evaluation line and must include the information outlined in the FIS Report Technical Reference.</p> |

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| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|-----------------------|--------------------|--|---|
| 77 | Effective Immediately | Floodway | Unless the coincident peak situation is assumed floodway computations for tributaries must be developed without consideration of backwater from confluences. | Floodway computations for tributaries must be developed without consideration of backwater from confluences unless a coincident frequency analysis or detailed historical observations prove otherwise. If either of these exceptions is used, it must be done in coordination with FEMA. |
| 78 | Effective immediately | Flood Profiles | The water-surface profiles of different flood frequencies must not cross one another. | The water-surface profiles of different flood frequencies modeled in 1D must not cross one another, unless technical justification is provided in coordination with FEMA. |
| 79 | Effective immediately | Flood Profiles | Water-surface elevations shown on the Flood Profiles shall not rise from an upstream to downstream direction. | Water-surface elevations shown on the Flood Profiles for 1D models shall not rise from an upstream to downstream direction, unless technical justification is provided in coordination with FEMA. |
| 89 | Effective Immediately | Coastal - Analysis | For coastal Flood Risk Projects, non-levee coastal structures must be evaluated and the profile adjusted as necessary to reflect expected storm impacts on the structure for the purpose of establishing appropriate risk zone determinations for NFIP maps. | For coastal Flood Risk Projects, non-levee coastal structures must be evaluated and the profile adjusted as necessary to reflect expected storm impacts on the structure for the purpose of establishing appropriate risk zones for regulatory products. |
| 96 | Effective immediately | Coastal - Analysis | Coastal analyses shall not account for future impacts due to long term erosion. Episodic, storm-induced erosion must be included in the flood hazard analysis. | Coastal analyses shall not account for future impacts due to long term erosion. Episodic, storm-induced erosion must be included in the flood hazard analysis in establishing appropriate flood hazard zones for regulatory products. |
| 99 | Effective immediately | Shallow Flooding | Areas of shallow flooding shall not have modeled/computed floodways due to the inherent uncertainties associated with their flow patterns. However, communities can choose to have administrative floodways for such areas. | Proposed to rescind |
| 101 | Effective immediately | Shallow Flooding | Sheet runoff areas shall be delineated as Zone AO with average flooding depths above the ground surface, rounded to the nearest whole foot, indicated on the work map or digital GIS data. | Sheet runoff areas shall be delineated as Zone AO with average flooding depths above the ground surface, rounded to the nearest whole foot. |

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| 103 | Effective immediately | PMR | For areas where new regulatory maps are being issued, flood hazard information on the effective NFIP map (i.e., FIRM, FBFM, FHBM) that is not being updated through a separate flood hazard analysis or floodplain boundary redelineation shall be “carried over” to the new or updated FIRM. | For areas where new or updated regulatory maps are being developed, effective flood hazard information on NFIP maps (i.e., FIRM, FBFM, FHBM) not being updated through a separate flood hazard analysis or floodplain boundary redelineation shall be maintained, either by digitally transforming information from existing NFIP paper maps and / or transferring existing digital data, on the new or updated FIRM. |
| 128 | Effective immediately | 2D Models | For floodplains mapped from 2-D models, separate Flood Profiles for significant flow paths must be created. | For floodplains mapped from 2D models, BFE lines on the FIRM must match modeled water surface elevations and must be plotted at intervals sufficient to interpolate accurate BFEs in between BFE lines. If this is not possible, separate Flood Profiles for significant flow paths and/or FIS Report inserts must also be created. |

| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|-----------------------|-----------------|--|---|
| 229 | Effective immediately | Flood Profiles | <p>Profiles shall be plotted as the projection of the stream invert and the flood surface(s) onto the flow path. The plots should show the locations of and clearly label:</p> <ul style="list-style-type: none"> ▪ Each lettered mapped cross section; ▪ Splits and diversions; ▪ Confluences with tributaries, splits, and diversions; ▪ Each stream crossing with symbology depicting the top of road and low chord elevations of modeled bridges and culverts along with the name of the bridge/culvert (e.g., Pine Street); ▪ Extents of modeled hydraulic structures adjacent to the flooding source; ▪ Upstream and downstream study limits of the flooding source; ▪ Extent of backwater or flooding controlling the receiving stream and depiction of the backwater elevation along the Profile. | <p>Flood Profiles shall be plotted as the projection of the stream invert and the flood surface(s) onto the flow path. The plots should show the locations of and clearly label:</p> <ul style="list-style-type: none"> ▪ Each lettered mapped cross section; ▪ Separately modeled splits and diversions; ▪ Confluences of modeled tributaries, splits, and diversions; ▪ Each stream crossing with symbology depicting the top of road and low chord elevations of modeled bridges and culverts along with the name of the bridge/culvert (e.g., Pine Street); ▪ Extents of modeled hydraulic structures adjacent to the flooding source; ▪ Upstream and downstream study limits of the flooding source; ▪ Extent of backwater or flooding controlling the receiving stream and depiction of the backwater elevation along the Profile. |
| 230 | Effective immediately | FIS/FIRM | The FIRM panels must be derived directly from the FIRM database and must be in agreement with the information shown in the FIS Report. | Proposed to rescind |
| 232 | Effective immediately | Flood Profiles | Unless it can be demonstrated that the vertical and horizontal scale of the effective Flood Profiles are inadequate, re-analyzed streams must be produced using the same horizontal and vertical scales that were used in the effective Flood Profiles. | Unless it can be demonstrated that the vertical and horizontal scale of the effective Flood Profiles are inadequate, re-analyzed or redelineated streams must be produced using the same horizontal and vertical scales that were used in the effective Flood Profiles. |

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| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|-----------------------|-----------------|--|--|
| 235 | Effective immediately | FIS Report | If an FIS Report is published in 2 or more volumes, no volume shall exceed 100 pages. | If an FIS Report is published in two or more volumes, no volume shall exceed 100 pages. |
| 248 | Effective immediately | FIS Tables | All lettered or numbered cross sections must be shown on the Flood Profiles and, if a floodway was computed, must also be shown in the FDT. Unlettered cross sections shown on the FIRM are not to be included on the Floodway Data Table or Flood Profiles. | All lettered or numbered cross sections or evaluation lines must be shown on the Flood Profiles and, if a floodway was computed, must also be shown in the Floodway Data Table. Unlettered cross sections shown on the FIRM are not to be included on the Floodway Data Table or Flood Profiles. |
| 256 | Effective immediately | Flood Profiles | Flood Profiles for Zone AE must show data for each of the 5 standard (10-, 4-, 2-, 1-, and 0.2-percent-annual-chance) flood events if they were calculated as part of the Flood Risk Project. | Flood Profiles for Zone AE must show data for each of the six standard (10-, 4-, 2-, 1-, 1-percent-plus-, and 0.2-percent-annual-chance) flood events if they were calculated as part of the Flood Risk Project. |
| 264 | Effective immediately | FIS Tables | For cross-sections shown in areas of backwater flooding, elevations in the "Without Floodway" column of the Floodway Data Table shall not include backwater effects. The "Without Floodway" values must include a footnote stating, "Elevation Computed Without Consideration of Backwater Effects From (Source of Flooding)". The words "Backwater Effects" are to be replaced with "Tidal Effects," "Overflow Effects," "Ice Jam Effects," or "Storm Surge Effects," as needed, to reference the appropriate flooding situation. | For cross-sections shown in areas of backwater flooding, elevations in the "Without Floodway" column of the Floodway Data Table shall not include backwater effects. The "Without Floodway" values must include a footnote stating, "Elevation Computed Without Consideration of Backwater Effects From (Source of Flooding)." The words "Backwater Effects" are to be replaced with "Tidal Effects," "Overflow Effects," "Ice Jam Effects," or "Storm Surge Effects," as needed, to reference the appropriate flooding situation. |
| 265 | Effective immediately | FIS Tables | When a part of a regulatory floodway lies outside the jurisdiction, both the total floodway width, and the width within the jurisdiction, shall be listed in the FIRM database and Floodway Data Table. | When a part of a regulatory floodway lies outside the jurisdiction, both the total floodway width, and the width within the jurisdiction, shall be listed in the FIRM database and Floodway Data Table unless the stream forms the boundary between two states with differing surcharge requirements. |

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|-------|-----------------------|---------------------|---|--|
| 272 | Effective immediately | Flood Profiles | A vertical elevation scale of 1 inch equals 1, 2, 5, 10, or 20 feet is to be used for the Flood Profiles. Elevations shall be shown on the left side of the grid at 1-inch intervals within the profile elevation range. | A vertical elevation scale of 1 inch equals 1, 2, 5, 10, or 20 feet is to be used for the Flood Profiles. Elevations shall be labeled on the left side of the grid at 1-inch intervals within the profile elevation range. |
| 274 | Effective immediately | Flood Profiles | The horizontal and vertical scales of the Flood Profiles shall be chosen so that that Flood Profile slopes are reasonable and can be easily interpreted by the user. | The horizontal and vertical scales of the Flood Profiles for newly studied streams shall be chosen so that that Flood Profile slopes are reasonable and can be easily interpreted by the user. |
| 279 | Effective immediately | Flood Profiles | Downstream flood elevations are to begin on the left edge of the Flood Profile. | Downstream flood elevations are to be oriented towards the left edge of the Flood Profile. |
| 280 | Effective immediately | Flood Profiles | Stream distances reported in the FDTs, Profiles, and FIRM database must be measured along the profile baseline. | Stream distances reported in the FDTs, Flood Profiles, and FIRM database must be measured along the profile baseline. |
| 335 | Effective immediately | Floodway | Regulatory floodways shall be shown on the FIRM panel within the SFHA and, at lettered or numbered cross-section locations, floodway widths must agree with the values shown on the FDT in the FIS Report and the FIRM Database tables, within a maximum tolerance of 5 percent of the map scale or 5 percent of the distance, whichever is greater. | Regulatory floodways shall be shown on the FIRM panel within the SFHA and, at lettered or numbered cross-section and evaluation line locations, floodway widths must agree with the values shown on the FDT in the FIS Report and the FIRM Database tables, within a maximum tolerance of 5 percent of the map scale or 5 percent of the distance, whichever is greater. |
| 415 | Effective immediately | Flood Risk Datasets | Water-surface elevation (WSEL) grids produced as part of a Flood Risk Project must be of such a quality that they could be used for regulatory and other official purposes as the digital source from which to retrieve flood elevations. Additionally, for each mapped flood frequency (e.g. 1-percent, 0.2-percent, etc.), there must be agreement in extent and coverage between the WSEL grid and its associated flood hazard area polygon. | Water-surface elevation (WSEL) grids produced as part of a Flood Risk Project must be of such a quality that they can be used for regulatory and other official purposes, and blended into a seamless dataset. For each mapped flood frequency (e.g. 1-percent, 0.2-percent, etc.), there must be agreement in extent and coverage between the WSEL grid and its associated flood hazard area polygon. |

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|--------------------------------|--|---|---|---|--|---|---------------------|----------|----------|--------------------|--------------------------------|-----------------------|-----|-------------------------------|-----------------------|-----------------------|-------------------|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------------------|----------|----------|----------------|----------|----------|-------------------|----------|----------|--|----------------------------|--|---|---------------------|----------|----------|--------------------------------|------------------------|-----|--------------------|-------------------------------|-----------------------|-----------------------|-------------------|-----------------------|-----------------------|--|-----------------------|-----------------------|-----------------------|-------------------------|-------------------------|-------------------------------------|----------|----------|----------------|----------|----------|-------------------|----------|----------|
| 417 | Effective immediately | Flood Risk Datasets | <p>The minimum datasets associated with the Flood Risk Project are defined as follows:</p> <table border="1"> <thead> <tr> <th>Flood Risk Product/Dataset</th> <th>New Flood Hazard Analysis¹ Conducted</th> <th>No New Flood Hazard Analysis¹ Conducted</th> </tr> </thead> <tbody> <tr> <td>Flood Risk Database</td> <td>Required</td> <td>Required</td> </tr> <tr> <td rowspan="6">Flood Risk Dataset</td> <td>Changes Since Last FIRM (CSLF)</td> <td>Required²</td> <td>N/A</td> </tr> <tr> <td>Water Surface Elevation Grids</td> <td>Required²</td> <td>Optional⁴</td> </tr> <tr> <td>Flood Depth Grids</td> <td>Required³</td> <td>Optional⁴</td> </tr> <tr> <td>Percent Annual Chance & Percent 30-year Chance Grids</td> <td>Required³</td> <td>Optional⁴</td> </tr> <tr> <td>Flood Risk Assessment</td> <td>Required^{4,5}</td> <td>Required^{4,5}</td> </tr> <tr> <td>Areas of Mitigation Interest (AoMI)</td> <td>Required</td> <td>Required</td> </tr> <tr> <td>Flood Risk Map</td> <td>Optional</td> <td>Optional</td> </tr> <tr> <td>Flood Risk Report</td> <td>Optional</td> <td>Optional</td> </tr> </tbody> </table> <p>¹ New Flood Hazard Analysis¹ – flooding sources receiving regulatory-level analysis ² CSLF is optional in areas where digital modernized floodplain boundaries are not available for the effective, and its creation would be performed by the mapping partner, not automated tool. ³ Riverine studies: 10%, 4%, 2%, 1%, “1%”, and 0.2% annual-chance floods Coastal studies: Riverward/Seaward side – same as Riverine or Coastal Levee studies: Riverward/Seaward side – same as Riverine or Coastal Landward side – only the scenario(s) used to delineate the SFHA boundary ⁴ Can be produced for flooding sources not receiving new analyses if based on effective data ⁵ Riverine only ⁶ Riverine studies: 10%, 4%, 2%, 1%, and 0.2% annual-chance floods, and Annualized Coastal studies: only the 1% annual chance flood Levee studies: Riverward/Seaward side – same as Riverine or Coastal Landward side – only based on the landward depth grid ⁷ Assessments are performed for the flood events with available depth grids. See Flood Risk Database Technical Reference for more information. ⁸ Analysis can be conducted at census block or user-defined facility level.</p> | Flood Risk Product/Dataset | New Flood Hazard Analysis ¹ Conducted | No New Flood Hazard Analysis ¹ Conducted | Flood Risk Database | Required | Required | Flood Risk Dataset | Changes Since Last FIRM (CSLF) | Required ² | N/A | Water Surface Elevation Grids | Required ² | Optional ⁴ | Flood Depth Grids | Required ³ | Optional ⁴ | Percent Annual Chance & Percent 30-year Chance Grids | Required ³ | Optional ⁴ | Flood Risk Assessment | Required ^{4,5} | Required ^{4,5} | Areas of Mitigation Interest (AoMI) | Required | Required | Flood Risk Map | Optional | Optional | Flood Risk Report | Optional | Optional | <p>The minimum datasets associated with the Flood Risk Project are defined as follows:</p> <table border="1"> <thead> <tr> <th>Flood Risk Product/Dataset</th> <th>New Flood Hazard Analysis¹ Conducted</th> <th>No New Flood Hazard Analysis¹ Conducted</th> </tr> </thead> <tbody> <tr> <td>Flood Risk Database</td> <td>Required</td> <td>Required</td> </tr> <tr> <td>Changes Since Last FIRM (CSLF)</td> <td>Automated²</td> <td>N/A</td> </tr> <tr> <td rowspan="6">Flood Risk Dataset</td> <td>Water Surface Elevation Grids</td> <td>Required³</td> <td>Optional⁴</td> </tr> <tr> <td>Flood Depth Grids</td> <td>Required³</td> <td>Optional⁴</td> </tr> <tr> <td>Percent Annual Chance & Percent 30-year Chance Grids</td> <td>Required³</td> <td>Optional⁴</td> </tr> <tr> <td>Flood Risk Assessment</td> <td>Required^{4,5}</td> <td>Required^{4,5}</td> </tr> <tr> <td>Areas of Mitigation Interest (AoMI)</td> <td>Required</td> <td>Required</td> </tr> <tr> <td>Flood Risk Map</td> <td>Optional</td> <td>Optional</td> </tr> <tr> <td>Flood Risk Report</td> <td>Optional</td> <td>Optional</td> </tr> </tbody> </table> <p>¹ New Flood Hazard Analysis¹ – flooding sources receiving regulatory-level analysis ² CSLF is optional in areas where digital modernized floodplain boundaries are not available for the effective, and its creation would be performed by the mapping partner, not automated tool. ³ Riverine studies: 10%, 4%, 2%, 1%, “1%”, and 0.2% annual-chance floods Coastal studies: Riverward/Seaward side – same as Riverine or Coastal Levee studies: Riverward/Seaward side – same as Riverine or Coastal Landward side – only the scenario(s) used to delineate the SFHA boundary ⁴ Can be produced for flooding sources not receiving new analyses if based on effective data ⁵ Riverine only ⁶ Riverine studies: 10%, 4%, 2%, 1%, and 0.2% annual-chance floods, and Annualized Coastal studies: only the 1% annual chance flood Levee studies: Riverward/Seaward side – same as Riverine or Coastal Landward side – only based on the landward depth grid ⁷ Assessments are performed for the flood events with available depth grids. See Flood Risk Database Technical Reference for more information. ⁸ Analysis can be conducted at census block or user-defined facility level.</p> | Flood Risk Product/Dataset | New Flood Hazard Analysis ¹ Conducted | No New Flood Hazard Analysis ¹ Conducted | Flood Risk Database | Required | Required | Changes Since Last FIRM (CSLF) | Automated ² | N/A | Flood Risk Dataset | Water Surface Elevation Grids | Required ³ | Optional ⁴ | Flood Depth Grids | Required ³ | Optional ⁴ | Percent Annual Chance & Percent 30-year Chance Grids | Required ³ | Optional ⁴ | Flood Risk Assessment | Required ^{4,5} | Required ^{4,5} | Areas of Mitigation Interest (AoMI) | Required | Required | Flood Risk Map | Optional | Optional | Flood Risk Report | Optional | Optional |
| Flood Risk Product/Dataset | New Flood Hazard Analysis ¹ Conducted | No New Flood Hazard Analysis ¹ Conducted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Database | Required | Required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Dataset | Changes Since Last FIRM (CSLF) | Required ² | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Water Surface Elevation Grids | Required ² | Optional ⁴ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flood Depth Grids | Required ³ | Optional ⁴ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Percent Annual Chance & Percent 30-year Chance Grids | Required ³ | Optional ⁴ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flood Risk Assessment | Required ^{4,5} | Required ^{4,5} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Areas of Mitigation Interest (AoMI) | Required | Required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Map | Optional | Optional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Report | Optional | Optional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Product/Dataset | New Flood Hazard Analysis ¹ Conducted | No New Flood Hazard Analysis ¹ Conducted | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Database | Required | Required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Changes Since Last FIRM (CSLF) | Automated ² | N/A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Dataset | Water Surface Elevation Grids | Required ³ | Optional ⁴ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flood Depth Grids | Required ³ | Optional ⁴ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Percent Annual Chance & Percent 30-year Chance Grids | Required ³ | Optional ⁴ | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flood Risk Assessment | Required ^{4,5} | Required ^{4,5} | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Areas of Mitigation Interest (AoMI) | Required | Required | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Flood Risk Map | Optional | Optional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Flood Risk Report | Optional | Optional | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 424 | Effective immediately | Flood Risk Database | As an outcome of Discovery, a tiling structure must be defined for products. | Proposed to rescind | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 443 | Effective immediately | Flood Risk Database | In order to maintain privacy, the L_Claims table, if there are less than five claims, five repetitive loss claims, or five severe repetitive loss claims in a community, then the relevant value field shall be set to null. | Do not populate the L_Claims table. Please refer to OpenFEMA for all National Flood Insurance Program policy and claims information. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 507 | Effective Immediately | FIS/FIRM | The FIRM, FIRM database, NFHL, Flood Profiles and Floodway Data Tables must all be in agreement with each other, including decimal point precision, as it relates to the depiction of flood hazards and hydraulic structures. | The FIRM, FIRM database, NFHL, Flood Profiles and Floodway Data Tables must all be in agreement with each other, including decimal point precision, as it relates to the depiction of flood hazards and hydraulic structures. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

FEMA Fall 2020 G&S Maintenance Cycle Summary

| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|--|-----------------------|--|--|
| 628 | Effective immediately | Flood Risk Datasets | <p>All Flood Risk Products will be deemed of acceptable quality if they meet the following conditions:</p> <ul style="list-style-type: none"> All Flood Risk Products pass the MIP Validation step All raster datasets and the Changes Since Last FIRM dataset align with the underlying model information used to develop the associated regulatory products All other database elements align with regulatory products as of the time they are contracted, if they are developed from regulatory products | <p>All Flood Risk Products will be deemed of acceptable quality if they meet the following conditions:</p> <ul style="list-style-type: none"> All Flood Risk Products pass the MIP Validation step All raster datasets align with the underlying model information used to develop the associated regulatory products All other database elements align with regulatory products as of the time they are contracted, if they are developed from regulatory products |
| 630 | Implemented with all new flood risk projects initiated in FY20 and MT-2s received after the automated mapping tool is implemented. | Map Format and Layout | All preliminary and final FIRM panels, including FIRM attachments delivered with MT-2s, must be developed using the FEMA FIRM panel creation tool. | All preliminary and final FIRM panels, including FIRM attachments delivered with MT-2s, must be developed using the FEMA FIRM panel creation tool. The output panel layout and cartographic design from the FEMA FIRM panel creation tool are considered FEMA compliant with no edits, however the output products, including the FIRM database, must be quality controlled by the producer to confirm the engineering and flood hazard data align with the related regulatory products. Quality control must be performed, documented and completed prior to the issuance of preliminary and final regulatory products. |
| 640 | Effective immediately | Project Management | New | All organizations and users that access FEMA RAM applications must comply with applicable RAM policies and SOPs. |
| 641 | Implemented with all new Flood Risk Projects initiated in FY21 | Levee | New | Justification to use an expired PAL agreement date on the FIRM panel must be approved by the FEMA Region and FEMA Headquarters. |
| 642 | Implemented with all new Flood Risk Projects initiated in FY21 | Levee | New | Justification to use Seclusion mapping on the FIRM panel must be approved by the FEMA Region and FEMA Headquarters. |

FEMA Fall 2020 G&S Maintenance Cycle Summary

| SID # | Implementation | Primary Keyword | Original Standard | Revised Standard |
|-------|-----------------------|-----------------|-------------------|--|
| 643 | Effective Immediately | CZMA | New | Prior to preliminary issuance of FIRMS affecting tidally influenced floodplains within the coastal zone, as defined by the Coastal Zone Management Act of 1972 (16 U.S.C. § 1451-1464), the FEMA region shall submit to the coastal management program for the state or territory in which the project takes place a federal consistency determination that the project is consistent to the maximum extent practicable with the enforceable policies of the coastal management program. |

A summary of the changes to guidance and technical references is below:

| Guidance Document Title | Update Description |
|---|--|
| Areas of Mitigation Interest, General Hydraulics Considerations, MT-1 Technical, Shallow Flooding Analyses and Mapping, MIP Guidance, Physical Map Revision (PMR) | Clarify standards and guidance information, and align them to current standard operating procedures. |
| Changes Since Last FIRM, Flood Risk Database, Flood Depth and Analysis Grids Guidance, Flood Risk Assessments | Integrate the automated creation of CSLF with current standard operating procedures and updates to terminology. |
| Combined Coastal and Riverine Floodplains, Contiguous Community Matching, Data Capture - Workflow Details, FIRM Database, FIRM Graphics, Floodway Analysis and Mapping, Levee, LOMR Incorporation, Mapping Base Flood Elevations on Flood Insurance Rate Maps, Profile Baseline, Riverine and Floodplain Boundaries, Flood Insurance Study (FIS) Report, Hydraulics: Two-Dimensional Analysis, Flood Profiles | Edit and refine parts associated with proposed 2D floodway changes, and incorporate changes resulting from the revised flood profile SIDs. |
| Quality Management of Flood Risk Projects, FIRM Database, FIRM Graphics, FIRM Index, Mapping Base Flood Elevations on FIRMs, Physical Map Revision (PMR) | Updates to add general reference for AMP. |
| MT-2 | Create a new guidance document with more direction and clarity on developing and submitting LOMRs and other MT-2 documents. |

| Guidance Document Title | Update Description |
|---|---|
| Coastal Zone Management Act (CZMA) Guidance | New guidance to provide guidance on roles, responsibilities, and procedures for project compliance with consistency determinations. |
| Key Decision Point (KDP) | Allow more ownership by the FEMA Regional Offices. |
| Accepting Numerical Models for Use in the NFIP | Add new models to the guidance. |

| Technical Reference Title | Update Description |
|---|--|
| Flood Insurance Study (FIS) Report | Updates include changes associated with the 2D floodway update; updates to information regarding Levee Systems; incorporate changes from revising the flood profile SIDs; align with standard operating procedures; and incorporate routine maintenance revisions and corrections. |
| Flood Insurance Rate Map (FIRM) Panel, Flood Insurance Rate Map (FIRM) Database, Domain Tables | Updates to add reference to Automated Map Production (AMP); and updates to information regarding Levee Systems. |

Templates Updated This Cycle:

- Flood Insurance Study (FIS) Report
- Flood Risk Products Quality Checklist
- Flood County USA Vector
- Flood County USA Ortho
- Flood Insurance Rate Map (FIRM) Database
- Flood Insurance Rate Map (FIRM) Panel Vector MXD
- Flood Insurance Rate Map (FIRM) Index MXD
- Flood Insurance Rate Map (FIRM) Index