



Policy for Flood Risk Analysis and Mapping: Public Review Summary (November 2019)

Summary of Standards Changes – November 2019

The Federal Emergency Management Agency (FEMA) maintains guidelines and standards to support the Risk Mapping, Assessment and Planning (Risk MAP) Program. These guidelines and standards define the specific implementation of the statutory and regulatory requirements for the National Flood Insurance Program (NFIP). They also outline the performance of Flood Risk Projects, processing of Letters of Map Change (LOMCs), and related Risk MAP activities. More information is available at: www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping.

FEMA maintains the Risk MAP guidelines and standards and issues updates on an annual basis each November. 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 more significant changes that include:

- **New strategies for modernizing legacy maps:** It is a priority for the mapping program to fully modernize the map inventory. However, there are unique challenges with many of these remaining areas. FEMA is refining the Discovery process to streamline simpler projects that are modernizing legacy maps.
- **Automate map products:** FEMA has systems in place that can automatically produce high quality Flood Insurance Rate Map (FIRM) images from the National Flood Hazard Layer (NFHL). However, legacy processes result in significant time and money spent on manual cartography to create the FIRM deliverables. This activity will mandate that future FIRM images be produced using an automated tool to reduce cost. This requirement will apply to new projects initiated in Fiscal Year 2020 and MT-2s received after the automated mapping tool is released. The tool and the implementation details will be developed over the next year. The automatically produced FIRM images should not change the public's experience using the products.
- **Addressing floodways during a map update:** FEMA is converting Standard Identification Number (SID) 5 to a program standard. This ensures that HQ and the FEMA Regional office are involved in complicated decisions related to existing floodways during an update.
- **Financial Tracking Improvements:** FEMA is formalizing processes for tracking regional cost allocations and status of funds for flood map projects including studies and other investments.

The standards changes are as follows:

Standard IDs (SIDs)	Standards Change Description
SID 5	Converting to a program standard. This ensures that HQ and the FEMA Regional office are involved in complicated decisions related to existing floodways during an update.
SID 17	Updating to refine Discovery meeting needs for data, and stakeholder engagement. Standard is being updated from a Program Standard to a Working Standard.
SIDs 20, 23, 24, 26	Updating to refine Discovery meeting needs for data, and stakeholder engagement.
SID 71	Updating to clarify this SID applies to revised floodways as well as new floodways up or downstream of existing floodways.
SID 72	Rescinding; combining with SID #73.
SID 73	Updating to clarify and combine information with previous SID 72 as these two standards are closely linked and can be interpreted to contradict each other.
SID 77	Updating to clarify standard and provide better direction for model reaches with similar drainage areas calculated with coincident peaks.
SID 113, 215, 217, 218, 220, 226	Updating to clarify standard, and align to current standard operating procedures.
SID 367	Updating to clarify the application of new suffixes and effective dates on printed and non-printed FIRM panels that are split as part of a Physical Map Revision.
SID 630	New standard to bring innovation, efficiency and consistency to Flood Insurance Rate Map production, without changing the public's experience.
SIDs 631, 632, 633, 635, 636, 637, 638, 639	New standard to support initiatives to improve processes for tracking regional cost allocations and status of funding for Flood Risk Projects.

SID	Original Standard	Revised/New Standard	Implementation Description
5	No flooding source will receive a lower level of regulatory flood map product than what currently exists on effective maps.	No flooding source will receive a lower level of regulatory flood map product than what currently exists on effective maps.	Existing standard. Already implemented.
17	Discovery is a mandatory element of all Flood Risk Projects, and must be conducted on the same scale at which the Flood Risk Project is initiated. All watershed-based Discovery must be initiated at a geographic footprint that encompasses the hydrologic characteristics of the area of interest.	Discovery is a mandatory element of all Flood Risk Projects. All watershed-based Discovery must be initiated at a geographic footprint that encompasses the hydrologic characteristics of the area of interest. At the start of discovery, the delivery may be scaled to engage the appropriate level of project stakeholders based on community need and risk.	Effective immediately
20	Discovery must engage all communities and stakeholder organizations within the project area and must engage practitioners across relevant disciplines.	Discovery must engage all communities and the appropriate level of project stakeholders identified within the project area and must engage practitioners across relevant disciplines.	Effective immediately
23	A pre-meeting Discovery Map and Report that incorporates appropriate background research must be provided to the communities and Tribes prior to the Discovery Meeting and presented at the Discovery Meeting to facilitate discussions.	Discovery-related data that incorporates appropriate background research must be provided to the communities and Tribes prior to the Discovery Meeting and presented at the Discovery Meeting to facilitate discussions.	Effective immediately
24	A post-meeting Discovery Map and Report will be provided to the communities and Tribes after the Discovery Meeting.	A Discovery Report and associated data will be provided to the communities and Tribes after the Discovery Meeting.	Effective immediately

SID	Original Standard	Revised/New Standard	Implementation Description
26	A Discovery Report must include a section listing the data and information collected, when they were received, data sources, and an analysis of the data and information. The Post-Meeting Report must include the outcomes and decisions made at the Discovery Meeting.	A Discovery Report must include a section listing the data and information collected, when they were received, data sources, and an analysis of the data and information. It must also include the outcomes and decisions made at the Discovery Meeting.	Effective immediately
71	Revised floodway data must match any effective floodways at the limits of the Flood Risk Project.	New or revised floodway data must match any effective floodways at the limits of the Flood Risk Project.	For all projects where the engineering work has not yet begun.
72	An equal conveyance reduction method must be used to establish the minimal regulatory floodway.	Rescinding	Effective immediately
73	To calculate floodways using methodologies other than steady-state, one-dimensional models, pre-approval must be received from the FEMA Project Officer and impacted communities and states with floodway authorities.	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.	For all projects where the engineering work has not yet begun.
77	Floodway computations for tributaries must be developed without consideration of backwater from confluences.	Unless the coincident peak situation is assumed, floodway computations for tributaries must be developed without consideration of backwater from confluences.	For all projects where the engineering work has not yet begun.

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113	<p>The flood risk class must be determined for each flooding source to identify what Floodplain Boundary Standard must be met and what level of analysis is required.</p>	<p>The flood risk class must be determined for each flooding source to identify what Floodplain Boundary Standard flood risk class must be met and what level of analysis is required.</p>	<p>Existing standard. Already implemented.</p>																																																				
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215	<p>Conditional LOMCs are subject to the same standards of a LOMA, LOMR-F, or LOMR except:</p> <ul style="list-style-type: none"> • Because Conditional LOMCs are based on proposed construction, as-built information is not required. • The Conditional Comment Documents that are issued by FEMA do not amend the effective FHBM or FIRM. • Conditional LOMRs and CLOMR-Fs must demonstrate compliance with the Endangered Species Act. 	<p>Conditional LOMCs are subject to the same standards of a LOMA, LOMR-F, or LOMR except:</p> <ul style="list-style-type: none"> • Because Conditional LOMCs are based on proposed construction, as-built information is not required. • The Conditional Comment Documents that are issued by FEMA do not amend or revise the effective FHBM or FIRM. • Conditional LOMRs and CLOMR-Fs must demonstrate compliance with the Endangered Species Act. 	Effective immediately
217	If all information is not received within 90-days from the date of the request for additional data, the processing of the LOMC shall be suspended.	If all information is not received within 90 days from the date of the request for additional data, the processing of the LOMC shall be suspended.	Effective immediately
218	A LOMA, CLOMA, LOMR-F, or CLOMR-F may not be issued or based on preliminary data for a FEMA-contracted Flood Risk Project or community-initiated map revision; however, BFE data may be used from these sources if the effective SFHA does not have BFEs established and the preliminary data is the best available.	LOMA, CLOMA, LOMR-F, CLOMR-F, LOMR and CLOMR determinations must be issued based on the effective FIRM and FIS for a community and may not be issued based on preliminary data for a FEMA-contracted Flood Risk Project or community-initiated map revision. However, if the effective SFHA does not have BFEs or flood depths established and the preliminary data is the best available, a one-percent-annual chance flood hazard water surface elevation may be calculated during LOMA, CLOMA, LOMR-F, or CLOMR-F reviews using data from these sources.	Effective immediately

SID	Original Standard	Revised/New Standard	Implementation Description
220	The reviews of LOMC requests shall be processed in accordance with Parts 65, 67, 70, and 72 of the NFIP regulations.	The reviews of LOMC requests shall be processed in accordance with 44 C.F.R. § 65, 67, 70, and 72.	Effective immediately
226	LOMC requests involving below-grade crawlspaces constructed within the SFHA shall follow guidance provided in FEMA Technical Bulletin 11-01.	LOMC requests involving below-grade crawlspaces constructed within the SFHA shall follow guidance provided in FEMA Technical Bulletin 11.	Effective immediately
367	In the FIRM Database, all final revised FIRM panels shall get new FIRM panel Map Number suffixes and effective dates in the S_FIRM_Pan feature class.	All final revised FIRM panels in the FIRM database, both printed and non-printed, shall get new FIRM panel Map Number suffixes and effective dates in the S_FIRM_Pan feature class.	Effective for all projects that have not started QR5.
630	New Standard	All preliminary and final FIRM panels, including FIRM attachments delivered with MT-2s, must be developed using the FEMA FIRM panel creation tool.	Implemented with all new flood risk projects initiated in FY20 and MT-2s received after the automated mapping tool is implemented
631	New Standard	The Budget Matrix Tool will act as the financial management internal control for the oversight of the Risk MAP Program as a whole.	Effective for all new work funded in FY20
632	New Standard	Program Offices will prepare their spend plans and confirm they do not exceed budget targets, contravene Congressional intent, and are in accordance with applicable laws, policies, and regulations.	Effective for all new work funded in FY20

SID	Original Standard	Revised/New Standard	Implementation Description
633	New Standard	FEMA Regional Offices must annually update the P4 tool based on Risk Map projected planning guidance, the financial targets list in the Budget Matrix Tool, and the fiscal year Risk MAP Regional Allocations and Performance Metrics Memo.	Effective for all new work funded in FY20
635	New Standard	The full annual regional allocation must be tracked in the Mapping Information Platform (MIP) and the total value must match the Budget Matrix Tool when baselined.	Effective for all new work funded in FY20
636	New Standard	Integrated Financial Management Information System (IFMIS) must be the system of record for obligation expenditures and balances.	Effective for all new work funded in FY20
637	New Standard	The Budget Matrix Tool must comprise the Risk MAP master spend plan report.	Effective for all new work funded in FY20
638	New Standard	Earned Value reporting in the MIP must be updated monthly. Monthly Earned Value reports shall account for active and on-hold projects.	Effective for all new work funded in FY20
639	New Standard	Provider invoices for Regional task orders must match information in the MIP.	Effective for all new work funded in FY20

Several comments were received during the comment period. The comments and FEMA's response are listed by their SIDs below:

The following are comments from the University of Illinois (U of I) on the draft updates to the Risk MAP Standards:

Revised SID 630:

- **U of I comment:**
- Will there be a beta testing period for the FEMA FIRM panel creation tool, so that we can test the outputs for FIRM panels and LOMR maps? We will need to know before we submit bids for FY20 mapping projects if the tool is truly automated, or if we need to allot time for human intervention and manual corrections.
- **Response:**
- Yes, there will a beta testing period; however, the exact timeframe has yet to be established. There will be a rollout and engagement program as part of the Fall 2020 G&S Update cycle that will address guidance and technical reference updates with the development of this tool.

Revised SID 634:

- **U of I comment:**
- There seems to be an extra word in the sentence, "FEMA Regional Offices must align the MIP to reflect the all Risk MAP projects and services reported in the P4 tool." Consider removing the word "the" or "all" right before "Risk MAP projects".
- **Response:**
- Proposed SID #634 was removed from the Fall 2019 updates as the intent of this is covered by other proposed standards.

The following are comments from the Association of State Floodplain Managers (ASFPM) on the draft updates to the Risk MAP Standards:**Revised SID 73:**

- **ASFPM comment:**
- 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.
 - ASFPM M&E committee comments: This is likely accommodation for 2D floodways where the "equal conveyance" concept is antiquated and doesn't work well in the model. ASFPM M&E concerns include the possible contradiction of state floodway regulations that differ from FEMA's. For
 - For example, some states have various requirements for establishing floodways (e.g. 0.0', 0.1', 0.5'). Alterations in standards may require some municipalities and states to change and/or update regulatory requirements.

- **Response:**

- Equal conveyance reduction has always been suggested as the first choice per Risk MAP guidance under Floodway coordination; however, if that does not work or with input from the community and FEMA, you can go a different way. This update does allow for adjustments due to local ordinances.

Revised SID 630:

- **ASFPM comment:**

- All preliminary and final FIRM panels, including FIRM attachments submitted with MT-2s, must be developed using the FEMA FIRM panel creation tool.
 - o ASFPM M&E committee comments: Mapping partners generally support the Standards update since it somewhat eliminates costly cartographics and antiquated practices such as creating negatives of each FIRM panel. FEMA should provide additional clarification on the status of the FEMA FIRM panel creation tool and engage CTPs and other mapping partners on its testing and development. There is a concern from floodplain managers that rural communities may not have the ability to utilize solely digital tools. This may be attributed to poor internet quality and antiquated municipal and/or personal IT systems.

- **Response:**

- There will be a beta testing period and engagement with Cooperative Technical Partners (CTPs) and mapping partners; however, the exact timeframe has yet to be established. There will be a rollout and engagement program as part of the Fall 2020 G&S Update cycle that will address guidance and technical reference updates with the development of this tool.

Revised SID 639:

- **ASFPM comment:**

- Monthly provider and partner invoices must match information in the MIP and Integrated Financial Management Information System (IFMIS).
 - o ASFPM M&E committee comments: Many CTP partners provided feedback on this new proposed standard. FEMA mapping partners are concerned that the update to SPI and CPI indices will frequently generate out-of-tolerance EV results for many tasks without providing a true indication of the project/task health.

The EV performance indices (SPI, CPI) are calculated on a linear format (see attached EV power point) between the task Start and End Dates, which does not provide flexibility to complete work by mapping partners. The baseline timeframes in the MIP also includes quality review periods (performed by PTS contractor), during which there are often pauses in production by the mapping partner while the PTS is conducting the review. There may be two or three iterations in some instances; in fact, this is quite common in Engineering (Hydrology & Hydraulics) and Floodplain Mapping submittals.

Mapping partners often deal with inaccurate dates and budgets in the MIP, and duplicate and inappropriate tasks (i.e. tasks that should be assigned to a different partner) that only the RSC/PTS or FEMA can address. Additionally, there will likely be reporting issues arise since most mapping partners internal payment systems take several weeks to receive, process, and issue payments. This would also require mapping

partners to require their contractors to submit invoices based on MIP timeframes. This standard seems more applicable to PTS contractors than mapping partners such as CTPs and doesn't seem to align with FEMA's strategic goal of simplifying efforts.

- **Response:**

- The intent of the new standards is to improve processes for tracking regional cost allocations and status of funds for all Risk MAP studies. While it is recognized there may be some reporting issues, the goal is to report as accurately as possible for any study impacting the program. The invoicing standard was updated to apply only to FEMA Contractors and not CTPs.