PM 42 Implementation

Procedure Memorandum No. 42:
http://www.fema.gov/library/viewRecord.do?id=2723

Guidelines and Specifications for Flood Hazard Mapping Partners:
www.fema.gov/plan/prevent/fhm/gs_main.shtm

Document Control Procedure Manual:
www.fema.gov/plan/prevent/fhm/gs_dcpm.shtm

Mapping Information Platform:
https://hazards.fema.gov

Flood Hazard Mapping:
http://www.fema.gov/plan/prevent/fhm/index.shtm

must be submitted to Quality Review 7, Validate MSC Deliverable Package, 60-days prior to the projected LFD date. To meet these schedule requirements, mapping partners should begin preparing these materials (such as the final SOMA list, FIS text, SC Print Processing Form, Community Map Action List, and the community letter) along with the LFD prior to or immediately following preliminary distribution. This will ensure that the LFD is submitted on time to Quality Review 6, Check LFD before Distribution, and for Quality Review 7. The LFD date needs to be met since the 6-month compliance period begins with the distribution of the LFD and sets the effective date for the maps.

SELF CERTIFICATION

FEMA may grant mapping partners who consistently satisfy the requirements of the quality review steps in PM 42 the authority by FEMA to self-certify their submittals for certain quality review steps. In such cases, FEMA may conduct audits as necessary to ensure the intent of the quality control steps are maintained.

The following non-automated (visual) quality review steps will be eligible for exemption:

- Quality Review 3: Validate Preliminary Map Panels
- Quality Review 5: Validate Final DFIRM Database and Map Panels (FEMA can grant self certification only for visual review of map panels; the mapping partner still must submit the DFIRM Database to FEMA for automated check and pass before the LFD can be issued)
- Quality Review 7: Validate MSC Deliverable Package (only the submission for FEMA's review would be exempt; the submission of the package to the MSC 14-days after the issuance of an LFD is still required)

FEMA will determine whether to grant a mapping partner the ability to self-certify these quality review steps based on the partner's demonstrated ability to pass the quality review steps consistently. A mapping partner can request this type of MIP exemption for a particular study or eligible study step if not all the partners working on a study are eligible for exemption.

The automated review of the DFIRM database in the following quality review steps will always be performed by FEMA and can not be considered for self certification:

- QR#1: Validate Draft DFIRM Database Within Data Development
- QR#2: Validate Preliminary DFIRM
- QR#5: Validate Final DFIRM Database and Map Panels

All policy and standards in this document have been superseded by the FEMA Policy for Flood Risk Analysis and Mapping. However, the document contains useful guidance to support implementation of the new standards.

FLOOD MAP MODERNIZATION

PM 42 Implementation

WHAT IS PM 42?

On June 20, 2007, FEMA issued Procedure Memorandum No. 42 (PM 42), *Quality Control Requirements in the Digital Flood Insurance Rate Map (DFIRM) Production Process*. FEMA revised and re-issued PM42 on December 1, 2008, to address issues encountered during implementation.

PM 42 realigns the study process's Quality Assurance timeline to support FEMA's goals of transforming the flood hazard mapping process from paper–driven to a DFIRM database–driven process and to deliver the DFIRM data and paper maps to communities sooner. This will allow communities ample time to adopt their maps before they are scheduled to become effective.

WHAT ARE THE OBJECTIVES OF PM 42?

PM 42 establishes the framework for a fully digital map production process. PM 42 will help FEMA achieve the following objectives:

- Make DFIRM databases drive the mapping process
- Ensure that communities receive maps well in advance of their effective date
- Validate that mapping products meet quality standards
- Ensure that DFIRM data are available at the same time, if not before paper maps (Flood Insurance Rate Maps (FIRMs)

WHAT DID PM 42 CHANGE?

The old study production process had six quality review steps. PM 42 added one DFIRM automated quality review, bringing the total number of reviews to seven.

Additionally, before PM 42 there were not specific timeframes for the quality reviews. PM 42 introduced the following changes to the study production process:

- The timing of the quality reviews was revised, with three quality reviews required during the pre-preliminary phase and four during the post-preliminary phase of the production process.
- The DFIRM databases and FIRMs must pass quality control reviews before FEMA or the mapping partner can issue an LFD.

All mapping partners, including Indefinite Delivery/Indefinite Quantity contractors and Cooperating Technical Partners, must follow the revised DFIRM production process. However, mapping partners that consistently satisfy the requirements of the quality review steps following the implementation of this policy may be granted the authority to self-certify submittals for certain quality review steps, as described on page 4.

EFFICIENCIES IN THE QUALITY ASSURANCE PROCESS

- **Develop DFIRM databases from the beginning of the mapping process.**
- **Schedule/plan for Community Coordination Meeting during Preliminary Phase.**
- **Pre-populate the BFEs on the Web Tool**
- **Submit DFIRM and map panels as soon as the appeal period ends or appeals are resolved. Entire submittal must be made 60 days prior to LFD date.**
- **Submit portions of the MSC package 60-days prior to the LFD date.**

PM 42 Implementation

Quality Review 1 (QR#1): Validate draft DFIRM database within data development. This is the only new step introduced by PM 42. The auto-validation takes less than 24 hours to complete, but because of the possibility of corrections, 1 week should be planned for this review.

Quality Review 2 (QR#2): Validate Preliminary DFIRM. This step is also an auto-validation in the MIP. One week should be planned for this review.

Quality Review 3 (QR#3): Validate Preliminary map panels. This step can be performed concurrently with Quality Review 2. As soon as the Preliminary study is ready to be issued, it should be submitted for review. This review takes approximately 30 days to complete.

Quality Review 4 (QR#4): Validate BFE Notice and CEO letters; Publish proposed BFEs in Federal Register. This review should begin as soon as the Preliminary maps are issued and takes 30-45 days to complete.

DFIRM DATABASE-DRIVEN MAPPING TECHNOLOGY

To successfully implement PM 42, all mapping partners should produce map panels using DFIRM database-driven technology (such as Geographic Information Systems). Emphasizing DFIRM database development from the beginning of the mapping process will ensure that both DFIRMs and FIRMs are available throughout the process and that modifications will be accurately reflected on the FIRMs as soon as they are made to the DFIRM database. By using FEMA's Mapping Information Platform (MIP) study workflow, mapping partners will be able to produce DFIRMs while completing the standard mapping process.

To assist with passing automated DFIRM quality control reviews on the first attempt, FEMA allows mapping partners to test DFIRM databases for compliance through the MIP at any time. Mapping partners should use the DFIRM DB QA upload portlet to test for compliance in addition to their internal DFIRM quality control processes.

Mapping partners who produce a DFIRM database from the beginning of a study should easily pass the following quality reviews:

- Quality Review 1, the validation of the draft DFIRM database within data development. *This is the only new step introduced by PM 42.*
- Quality Review 2, the validation of the preliminary DFIRM database.
- Quality Review 5, the auto-validation of the DFIRM database and a visual check of the FIRM.

BUILD A SCHEDULE THAT ACCOUNTS FOR EACH QUALITY REVIEW

Mapping partners must begin planning for post-preliminary processes during the pre-preliminary stage to mitigate impacts on the schedule. Because Quality Reviews 5, 6 and 7 must be passed before an LFD is issued, mapping partners can no longer arrange study schedules around the effective date – schedules should be arranged around the projected LFD date. Additionally, mapping partners can no longer use a portion of the 6-month Conversion and Compliance period to finalize a DFIRM or map products. By placing the emphasis on completing the study before the anticipated LFD date, the study can go effective on the desired date and the final maps will be sent to communities with ample time for adoption.

Mapping partners should plan their remaining schedule based on their LFD date as soon as the study completes Quality Review 3, the validation of preliminary map panels, and the Preliminary map is issued.

PM 42 does not remove any flexibility from the Regions to manage schedules; it only eliminates the ability to issue an LFD without the completion of the final map products.

Pre-populate the BFEs on the Web Tool

FEMA recommends that mapping partners pre-populate the "BFEs on the Web Tool" during the development of the preliminary Summary of Map Actions (SOMA) list. This will simplify the transition from preliminary to post-preliminary by capturing all BFE changes and will allow the mapping partner to more easily finalize the BFE information immediately following the 30-Day community comment period. This will also help avoid delays in publishing the BFEs in the Federal Register, and if an appeal period is necessary (if BFEs have changed from the previous effective map), a mapping partner will avoid delays in publishing the BFE notice in local newspapers.

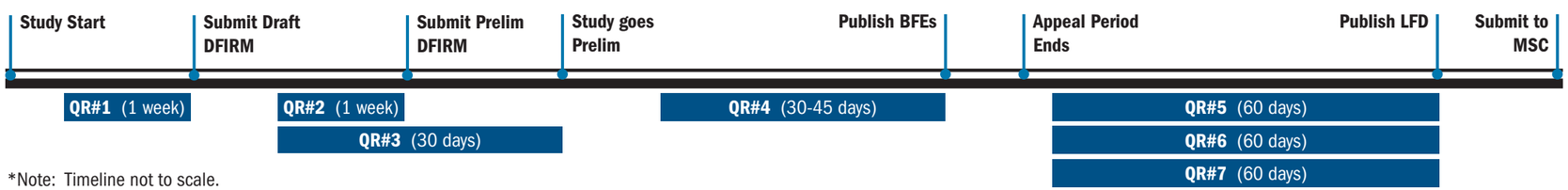
By prepopulating the BFE's on the Web Tool, Quality Review 4, the Federal Register Publication and Visual Validation of the BFE Notice, can occur as soon as the Preliminary map is issued. This will mitigate risks to the post-preliminary schedule associated with publishing the BFEs and beginning the Appeal process.

Schedule the CCO meeting Pre-Preliminary

If a Consultation Coordination Officer (CCO) meeting is necessary, it should be scheduled before distribution of the Preliminary map. Planning the meeting as early as possible will ensure that it takes place within 30-60 days of FEMA issuing the map. By holding the meeting in this timeframe, the Appeal Period begins sooner and risks to the study's schedule are reduced.

Prepare Map Service Center Package Early

The paperwork, FIS text, and FIRM images that make up part of the MSC package



*Note: Timeline not to scale.

Quality Review 5 (QR#5): Validate final DFIRM database and map panels. Because the DFIRM has already been verified twice, changes resulting from community comments or appeals will have minimal impact on this review. This step takes 30-60 days depending on study size.

Quality Review 6 (QR#6): Check LFD before distribution. The LFD Summary sheet must be submitted to FEMA 60-days prior to the LFD date. The final LFDs, final SOMA list, and the final docket must be submitted to FEMA 30 days prior to the scheduled LFD date. The 6-month compliance period begins with LFD distribution, which sets the map effective date.

Quality Review 7 (QR#7): Validate MSC deliverable package. The paperwork, FIS Text, and FIRM images must be submitted to FEMA 60-days prior to the LFD date. Negatives are required within 7 days of passing both Quality Reviews 5 and 7 (submittal of negatives may be eliminated as a requirement in the future). The Mapping Partner is no longer responsible for submitting the DVD as part of the MSC Deliverable Package as FEMA will prepare the DVD with the materials that were submitted for and passed Quality Reviews 5 and 7.

All policy and standards in this document have been superseded by the FEMA Policy for Flood Risk Analysis and Mapping. However, the document contains useful guidance to support implementation of the new standards.