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 PM 42 on December 1, 2008, to address issues encountered during implementation.

PM 42 realizes the study process's change from paper–driven to a DFIRM database–driven process. 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.

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.

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))

PM 42 Implementation

SELF CERTIFICATION
FEMA may grant mapping partners who consistently satisfy the requirements of the quality review steps in PM 42 the authority 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 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.

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Implementation

PM 42

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 mapped 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 portal 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 FIRMs.

BUILD A SCHEDULE THAT ACCOUNTS FOR EACH QUALITY REVIEW

Mapping partners must begin planning for post-preliminary stages 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 produce DFIRMs while completing the standard mapping process. Mapping partners who produce a DFIRM database from the beginning of a 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 DFIRM database, and the Preliminary map is issued.

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 limiting 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.

Quality Review 1 (QR#1): 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 responsible for ensuring the quality of the DVD and the DVD is made available, and must submit all materials required by FEMA 60 days prior to the LFD date. The Study must meet Quality Reviews 5 and 7.

Study Start | Submit Draft DFIRM | Submit Prelim DFIRM | Study goes Prelim | Publish BFEs | Appeal Period Ends | Publish LFD | Submit to MSC
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*Note: Timeline not to scale.