

Guidance for Flood Risk Analysis and Mapping

Quality Review

May 2014



FEMA

This guidance document supports effective and efficient implementation of flood risk analysis and mapping standards codified in the Federal Insurance and Mitigation Administration Policy FP 204-07801.

For more information, please visit the Federal Emergency Management Agency (FEMA) Guidelines and Standards for Flood Risk Analysis and Mapping webpage (<http://www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping>), which explains the policy, related guidance, technical references, and other information about the guidelines and standards process.

Nothing in this guidance document is mandatory other than standards codified separately in the aforementioned policy. Alternate approaches that comply with FEMA standards that effectively and efficiently support program objectives are also acceptable.

Document History

Affected Section or Subsection	Date	Description
First Publication	May 2014	Initial version of new transformed guidance. The content was derived from the <i>Guidelines and Specifications for Flood Hazard Mapping Partners</i> , Procedure Memoranda, and/or Operating Guidance documents. It has been reorganized and is being published separately from the standards.

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1.0 Introduction

This guidance document outlines the expectations for each of the required national quality review (QR) steps for regulatory products created during a Flood Risk Project. The intent of this guidance is to present a workflow for each QR step, and provide some key quality items that should be monitored or reviewed during the develop of any regulatory products. Table 1 provides an overview of the QR steps and associated outputs for each.

Table 1: Expected Outputs of External Quality Reviews

QR	Outputs
QR1	<ul style="list-style-type: none"> Draft Flood Insurance Rate Map (FIRM) Database & Metadata QR1 Passing Report
QR2	<ul style="list-style-type: none"> Preliminary FIRM Database & Metadata QR2 Passing Report
QR3	<ul style="list-style-type: none"> Preliminary Flood Insurance Study (FIS) Preliminary FIRM panel PDFs Preliminary FIRM database & Metadata Preliminary Summary of Map Actions (SOMA) Pre-QR3 Submission Questionnaire and Self-Certification form (to be uploaded to the Technical Support Data Notebook [TSDN] in the Mapping Information Platform [MIP]) Post-QR3 Confirmation and Self-Certification form (to be uploaded to the TSDN in the MIP)
QR4	<ul style="list-style-type: none"> Flood Hazard Determination (FHD) Notice Proposed Federal Register (FR) Notice 90-day Start letter to community Chief Executive Officer (CEO) Standard newspaper publication
QR5	<ul style="list-style-type: none"> Final FIRM Database & Metadata Final FIRM Image Files
QR6	<ul style="list-style-type: none"> Letter of Final Determination (LFD) Summary / Docket LFD Questionnaire LFD Letters Final SOMA Final FR Notice Draft Flood Elevation Determination Docket (FEED) File TSDN
QR7	<ul style="list-style-type: none"> Final FIRM Database & Metadata Final FIRM Image Files Final FIS Report Final Map Service Center (MSC) Paperwork
QR8	<ul style="list-style-type: none"> Final FIS / FIRM Deliverables to Communities

2.0 External Review Protocol Highlights

With the release of FEMA's *Standards for Flood Risk Analysis and Mapping* via Policy Memo FP 204-078-1 in August 2013, new requirements related to external quality reviews were put in place. The following sub-sections detail those requirements.

2.1 Checklists for QR3, QR5, QR7, QR8 and Summary of Map Actions

Standardized checklists that will be used during the QR3, QR5, QR7 and QR8 reviews are provided at this location: <http://www.fema.gov/library/viewRecord.do?id=7577>.

Additionally, a standardized SOMA checklist has been imbedded within the QR3 checklist. These checklists will serve as quality records that demonstrate how each QR3, QR5, QR7, QR8 and SOMA review comment was addressed and resolved. Such records are to become a part of the TSDN.

Note: The "Originator Disposition" and "Originator Comments" columns of the QR3 checklist must be filled out **before** the FIS/FIRM are sent for preliminary distribution. Failure to provide this checklist **before** the FIS/FIRM are sent for preliminary distribution could result in a requirement to repeat the QR3 review and may require that a revised preliminary be issued.

In addition to the use of these checklists by FEMA during the QR3, QR5, QR7, QR8, and SOMA reviews, these checklists may also be used as quality assurance tools, during the production process. This emphasizes building quality into the products, rather than relying on inspection to achieve compliance with standards.

2.2 Pre-QR3 Questionnaire and Self-Certification Form

To enhance coordination and communication, in advance of preliminary issuance of the FIS/FIRM, a *Pre-QR3 Questionnaire and Self-Certification* form is available to facilitate the creation of deliverables compliant with FEMA standards, prior to issuance of preliminary FIS/FIRM products. The form, available at this location <http://www.fema.gov/library/viewRecord.do?id=7577>, must be provided to the QR3 reviewer before the commencement of the QR3 review. This form must also be stored in the TSDN.

2.3 Post-QR3 Corrections Confirmation and Self-Certification Form

To promote an effective QR3 process, a *Post-QR3 Corrections Confirmation and Self-Certification* form is available to provide confirmation that all QR3 review comments have been properly addressed before issuance of the Preliminary FIS/FIRM. This form is to be considered a quality record and must be stored in the TSDN. Failure to provide this form before the FIS/FIRM are sent for Preliminary distribution could result in a requirement to repeat the QR3 review and issue a revised Preliminary. The form is available at <http://www.fema.gov/library/viewRecord.do?id=7577>.

2.4 Quality Review 4 and Quality Review 6 Enhancements

Flow diagrams have been provided to offer clarification on Federal Register and FEDD file processing and submission. Specifically, at Quality Review 4, clarification has been provided on the requirement that the comment period for the Federal Register and the 90-day statutory appeals period must overlap by at least one day. For Quality Review 6 clarification has been added that the FEDD is due 60-days prior to the projected LFD date. In addition, the final LFD

letters, Part 67 Final Notice, and Final SOMA are due at least 45-days prior to the projected LFD date.

2.5 Quality Review 8

The review of the FIS and FIRM products that occur at the MSC has been officially included in the suite of Quality Reviews as QR8. This review is intended to ensure that all materials submitted for distribution by the MSC and for posting on the FEMA MSC website meet applicable FEMA standards.

2.6 Evolving from an Inspection Focus to a Prevention Focus

It is FEMA's goal to build quality into the production process and thereby minimize the need for independent reviews. In this regard, all Mapping Partners are encouraged to implement a comprehensive Quality Management System (QMS) that includes, at a minimum, the following elements:

- Training
- Process Definition and Documentation
- Document Control and Knowledge Management
- Independent Validation Protocols enabled by qualified reviewers
- Corrective Action Processes
- Continuous Improvement Process (arising from Best Practices and Lessons Learned)

Consistent with these goals, FEMA Regional Offices are encouraged to provide support to Mapping Partners to help enhance or reinforce existing QMSs, or to help develop fundamental QMSs for those that do not have one in place. This assistance may take several forms, from conference calls to site visits at the discretion of the FEMA Regional Office and Mapping Partner.

It is FEMA's intent that the QR processes outlined in this guidance document serve to validate that Mapping Partners have an appropriate prevention emphasis and a functional QMS infrastructure in place that is suited to the delivery of products that meet or exceed FEMA's standards.

3.0 External Quality Reviews

Figure 1 provides an at-a-glance view of the QRs that must be conducted throughout the Flood Risk Project production lifecycle. Each review is described in more detail, following Figure 1. Note that while the workflow diagrams and discussions in this document provide contextual references to the FEMA MIP, this document is not intended to provide comprehensive MIP guidance.

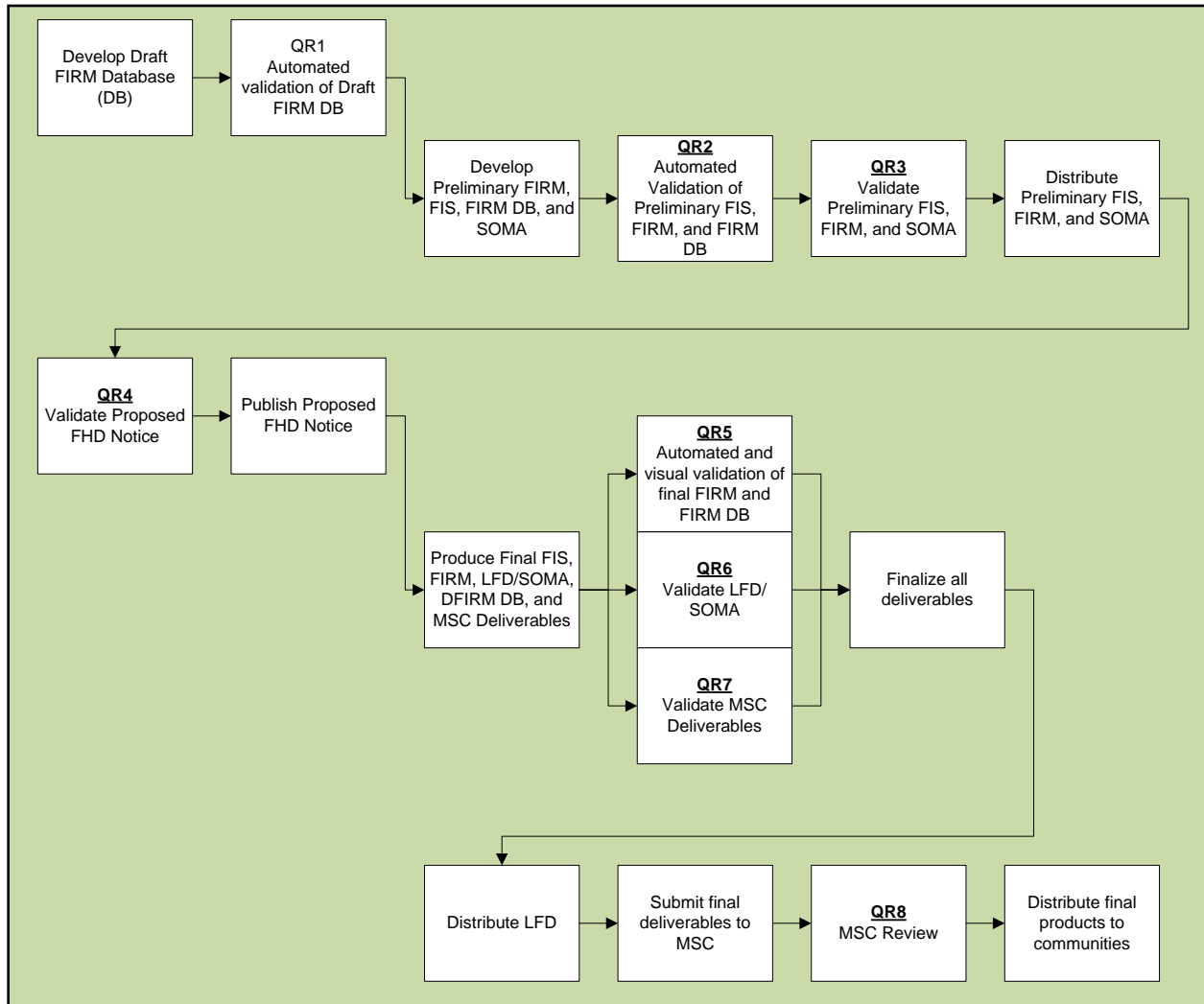


Figure 1: Quality Review Steps within the Flood Risk Project Production Process

Following this section are sub-sections 3.1 through 3.8, which are devoted to describing each of the 8 Quality Reviews in more detail.

3.1 Quality Review 1 (Validate Draft FIRM Database)

Figure 2 shows the process associated with execution of the QR1 review.

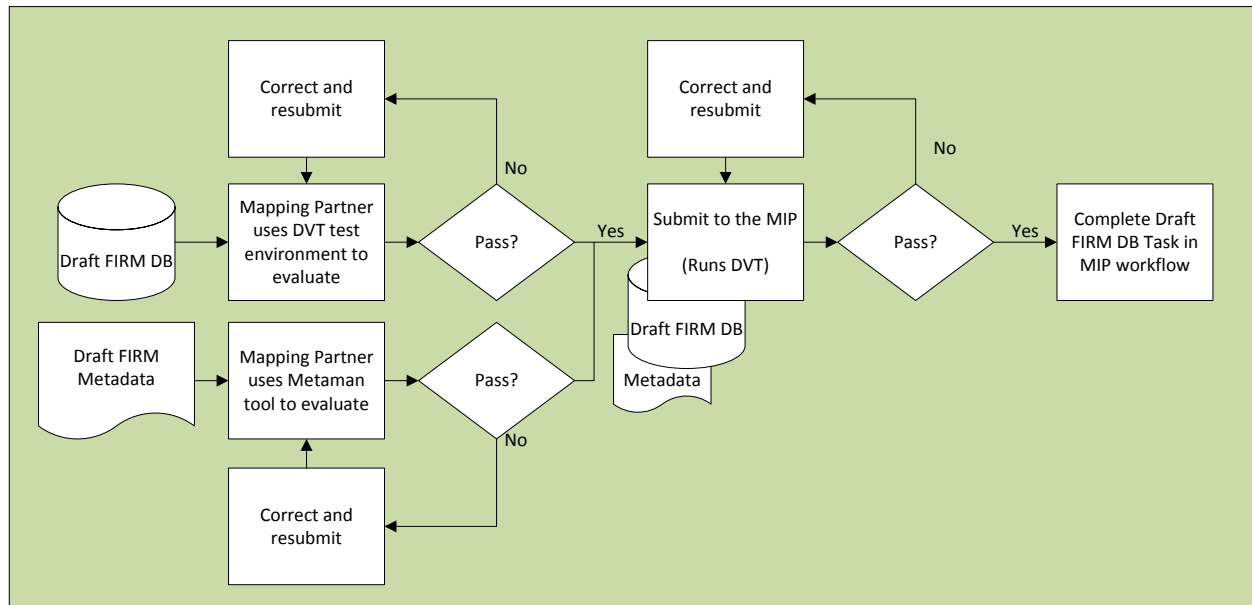


Figure 2: QR1 Process

The Mapping Partner that is assigned the “*Develop DFIRM Database*” task in the MIP Studies Workflow uploads the draft FIRM database and metadata to the MIP. Before this occurs Mapping Partners are encouraged to leverage the Test Environment in the MIP (in the “*Tools and Links*” tab) to ensure that the DFIRM Validation Tool (DVT) check that occurs in QR1 is error free. In addition, Mapping Partners are encouraged to leverage the Metadata Manager tool (through Citrix) to ensure that the draft FIRM metadata is error free before loading to the MIP.

Once the upload is complete, the Mapping Partner will auto-validate the uploaded content using the MIP’s DVT “*Validate Content Submission*” feature. The DVT posts a pass/fail notification and provides a link to an automatically generated and detailed Quality Control (QC) report. If the content fails DVT checks, the content is returned to the Mapping Partner for correction. The detailed logic for the DVT checks can be downloaded from FEMA’s MIP website under the FEMA webpage under the “*MIP User Care/Guides & Documentation*” tabs. The DVT logic is the same for all applicable Quality Review steps.

Note: A Flood Risk Project cannot advance through the MIP Studies Workflow until the Draft FIRM database has passed QR1.

3.2 Quality Review 2 (Validate Preliminary FIRM)

Figure 3 shows the process associated with execution of the QR2 review.

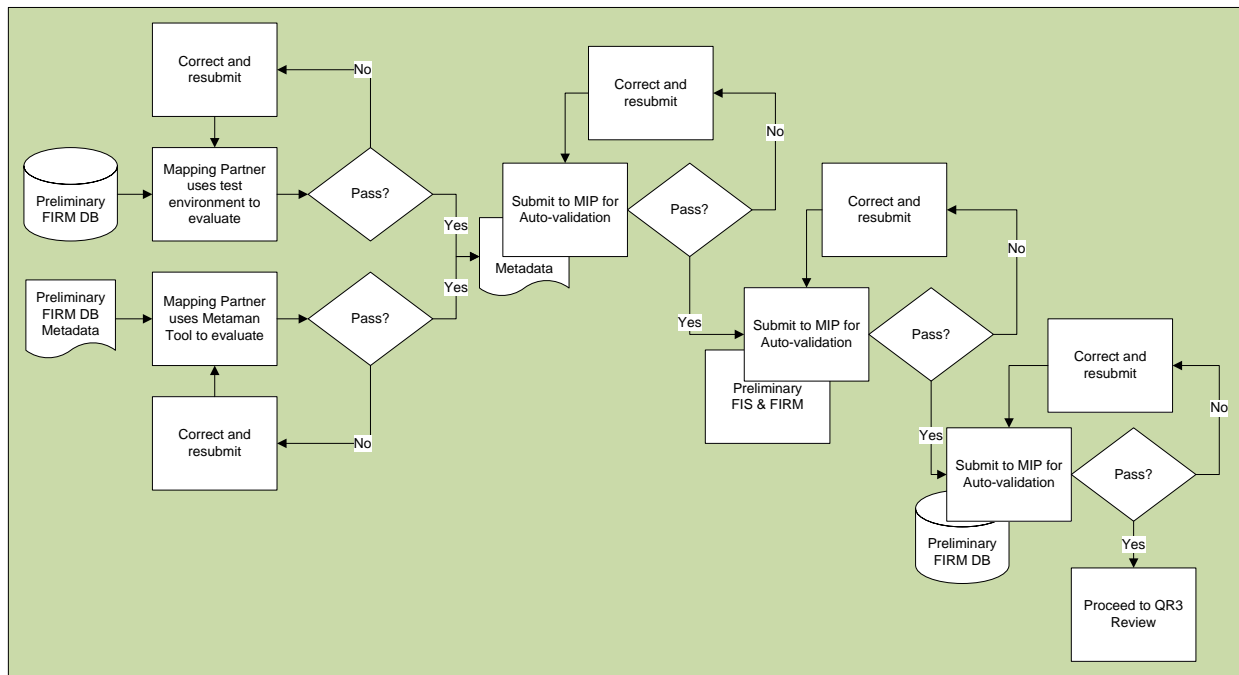


Figure 3: QR2 Process

The Mapping Partner that is assigned the “*Produce Preliminary Map Products*” activity in the MIP Studies Workflow uploads the Preliminary FIRM database and metadata, FIRM image files, FIS report, Preliminary SOMA, and all Letter of Map Revisions (LOMRs) revising the current effective FIRM to the MIP. Before this occurs, the Mapping Partners are encouraged to leverage the Test Environment in the MIP (in the “*Tools and Links*” tab) to ensure that the DVT check of the FIRM Database that occurs in QR2 is error free. In addition, Mapping Partners are encouraged to leverage the Metadata Manager tool (through Citrix) to ensure that the preliminary FIRM metadata is error free before loading to the MIP.

Once the upload is complete, the Mapping Partner will validate the FIRM Database, FIS report, FIRM panels, and the metadata using the auto-validation tasks in the “*Produce Preliminary Map Products*” activity in the MIP. All three auto-validation tasks will post a pass/fail notification and will provide a link to an automatically generated QC report. If the content fails any of the auto-validation tasks the Mapping Partner will make corrections, refresh the MIP task, and rerun the auto-validations. The detailed logic for the DVT checks can be downloaded from FEMA’s MIP website under the MIP “*User Care/Guides & Documentation*” tabs. The DVT logic is the same for all applicable QR steps.

Note: A Flood Risk Project cannot advance through the MIP Studies Workflow until the Preliminary FIRM database has passed QR2.

3.3 Quality Review 3 (Validate Preliminary FIS, FIRM, and SOMA)

Figure 4 shows the process associated with execution of the QR3 review.

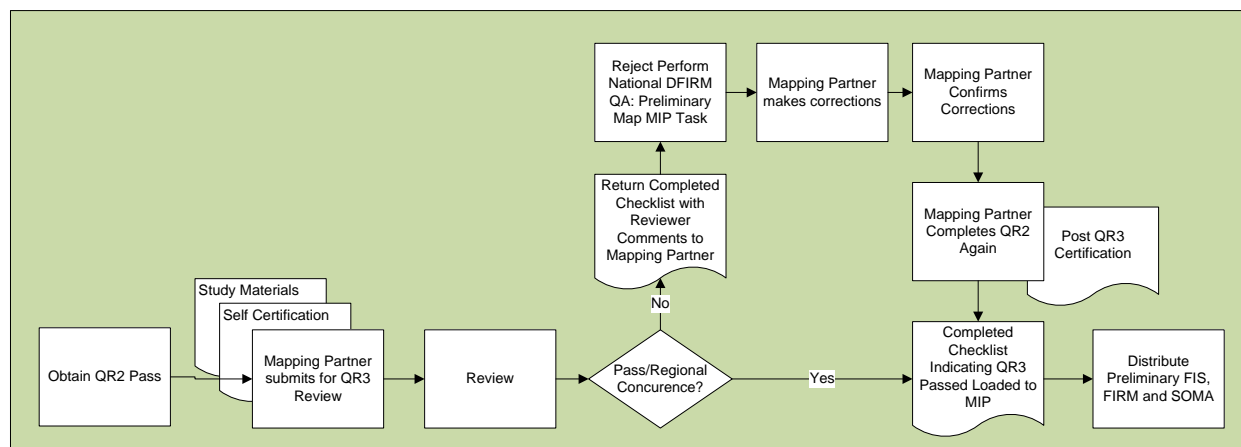


Figure 4: QR3 Process

This review involves a 10% review of the preliminary FIRM panels, FIS report, preliminary SOMA, and copies of LOMRs that revise the effective FIRM. These items will be visually reviewed to validate compliance with FEMA’s standards. FEMA expects that all products ready for QR3 have been through each Mapping Partner’s internal quality control reviews and that adequate quality records (checklists, etc.) demonstrating the reviews have been kept.

Each Mapping Partner must complete and submit a signed copy of the *Pre-QR3 Submission Questionnaire and Self-Certification* form to FEMA (or their designee) 2 weeks prior to QR3 commencement. The completed form (after the QR3 review is finished) is then submitted via the MIP. FEMA (or their designee) is notified at least 60 days prior to the anticipated preliminary mailing date that all items have been uploaded.

The *Pre-QR3 Submission Questionnaire and Self Certification* form is intended to facilitate the QR3 review by providing insight into Flood Risk Project complexity as well as potential challenges and quality issues that arose during the production process. This form also builds in Mapping Partner accountability by requiring self-certification of compliance with all FEMA standards.

Once all materials have been submitted for review at the “*Produce Preliminary Products*” MIP task and have completed all auto-validation tasks, FEMA, or their designee, will typically complete the QR3 review within 30 days using the QR3 Checklist and will reject the “*Perform National DFIRM QA: Preliminary Map*” MIP task back to the Mapping Partner. Mapping Partners are expected to correct any errors noted during the review or provide a reason why the correction was not made. Each review comment on the QR3 Checklist is then noted in the Originator Disposition column as either “will comply and make changes” or “disagree – see originator comments”. If the originator disagrees, they should provide a reason why in the Originator Comments column. Any disagreements must be coordinated with the QR3 review team **before** the Flood Risk Project is released for preliminary distribution. Upon correction of the QR3 review comments and, prior to issuance of the preliminary FIS and FIRM, the Mapping Partner must return the QR3 Checklist (with a response noted for each item) to the QR3

reviewer. Once all issues have been resolved, the Mapping Partner must provide a signed copy of the *Post-QR3 Review Corrections Confirmation and Self-Certification* form to the QR3 reviewer. These forms (which must be stored in the TSDN in the MIP) will serve as records that all noted issues have been resolved **before** preliminary issuance of the FIS and FIRM.

After QR3 comment resolution is complete, all preliminary data that is ready for distribution will be loaded into the MIP at a subsequent iteration of the “*Produce Preliminary Map Products*” MIP task and once again pass all auto-validation tasks. This data will be stored in the MIP submission repository and will be published to the MSC website at the completion of the “*Distribute Preliminary Map Products*” MIP task. Accurate entry of the Preliminary Issue date at this MIP task, and the timely completion of the activity, is important for the accurate publishing of the data to the public-facing MSC site.

As it pertains to the QR3 Preliminary SOMA review, Mapping Partners should exhaust all reasonable measures to obtain the necessary information to review effective Letters of Map Change (LOMCs) and to determine if the outcome has changed due to new or revised mapping. The QR3 review team then reviews content on the MIP SOMA Tool and the Preliminary SOMA document to verify that the Mapping Partner has complied with associated FEMA standards.

- **Important Notes For QR3:**

- FEMA Regional concurrence must be documented before issuance of the preliminary FIS and FIRM.
- Mapping Partners who do not submit Preliminary products to FEMA for QR3 review (e.g. Production and Technical Service [PTS] Providers) are expected to upload a similar self-certification document to the TSDN folder in the MIP before performing internal reviews.
- The auto-validation (QR2) and FEMA’s visual check (QR3) cannot be performed concurrently. The QR2 review must be completed before the QR3 review may begin.

After the preliminary products have been validated the Mapping Partner responsible for “*Distribute Preliminary Map Products*” will send the preliminary transmittal letters, SOMA, FIS Report, FIRM database and FIRM panels to the affected community.

3.4 Quality Review 4 (Validate Proposed Flood Hazard Determination Notice)

Figure 5 shows the process associated with execution of the QR4 review.

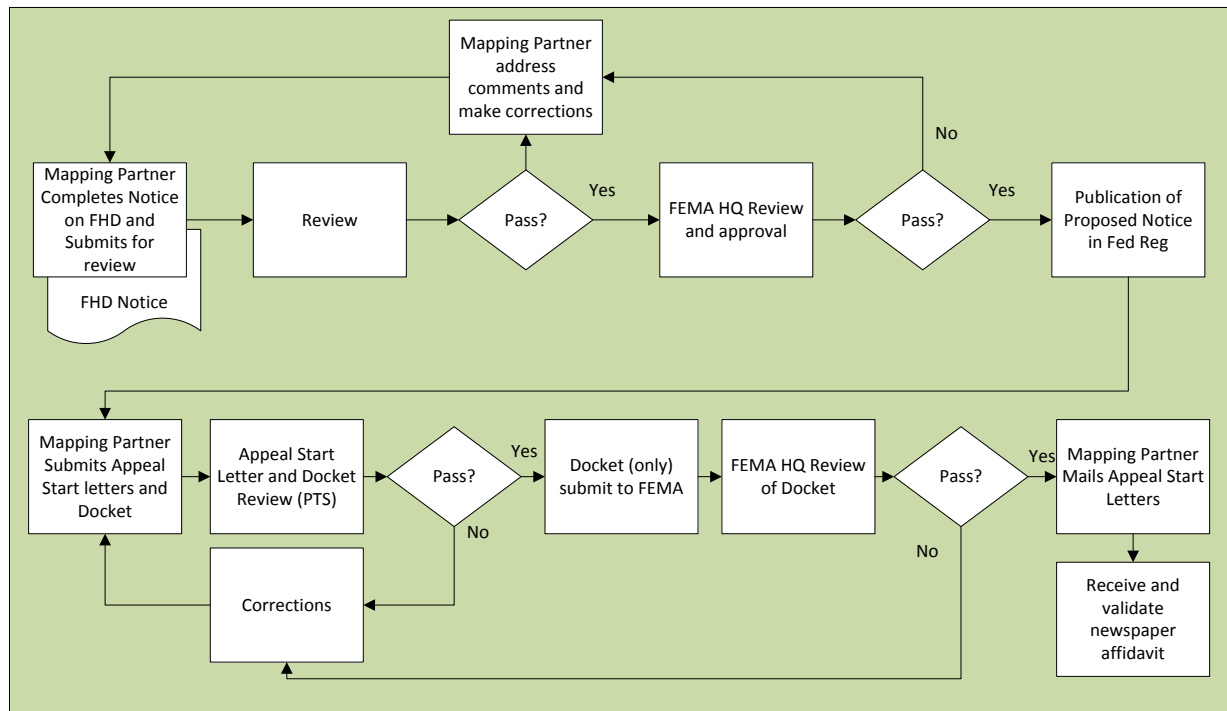


Figure 5: QR4 Process

The QR4 Review validates the Proposed FHD Notice, Appeal Period Docket, and Appeal Start Letters. If a statutory 90-day administrative appeal period is required, the Mapping Partner assigned the appropriate MIP task must enter the proposed flood hazard determination notice information into the FHDs on the Web tool. The Mapping Partner should then submit the notice to FEMA (or their designee) in the FHDs on the Web tool any time after the issuance of preliminary FIRMs, but no later than 60 calendar days prior to the anticipated mailing date of the Appeal Start letters to the CEO. This will allow FEMA time to prepare and publish the proposed notice in the Federal Register.

The Mapping Partner must correct any errors identified by FEMA (or their designee) prior to the FHD Notice publication in the Federal Register. The proposed notice publication in the Federal Register will occur prior to mailing the Appeal Start letter to the CEO. The Federal Register publication process should not begin until the FEMA Regional Office has affirmed that they are ready to move forward with the appeal period.

Following publication of the proposed notice in the Federal Register, the assigned Mapping Partner coordinates publication dates with the newspaper(s), completes the “Create BFE Notice” task in the MIP, and updates the appeal period start and end dates in the FHDs on the Web tool. FEMA expects that the assigned Mapping Partner will submit the Appeal Period Docket and final draft Appeal Start letters with all attachments to FEMA (or their designee) for review immediately following Federal Register publication. However, the 90-day comment period for the Federal Register Proposed FHD Notice and the statutory 90-day administrative appeal period must overlap by at least one day. If the statutory 90-day administrative appeal

period does not begin prior to the end of the Federal Register 90-day comment period, in coordination with FEMA, the Federal Register publication must be withdrawn and the FHD notice must be republished. An approved docket must be received from FEMA prior to the issuance of the Appeal Start Letters.

Following the QR4 review, the Mapping Partner must correct any errors identified by FEMA (or their designee) prior to the Appeal Start letter distribution. The Mapping Partner should also ensure that newspaper publication dates as well as appeal period start and end dates in FHDs on the Web are accurate. FEMA's review typically will take two weeks to complete.

The Mapping Partner should ensure that the CEO receives the Appeal Start letter (or a digital copy of the letter, such as a fax or PDF copy sent via email) prior to the first publication of the notice in the newspaper(s), but no more than seven days prior to publication. The Mapping Partner should document in the FEDD File that the CEO received the letter prior to the first newspaper publication date. A copy of the published proposed Federal Register notice (available on the web at <http://www.gpoaccess.gov/fr/index.html>) must be enclosed with the Appeal Start letter to the CEO.

If any errors are identified in the Federal Register Proposed FHD Notice or the local newspaper news release, the Mapping Partner should notify FEMA immediately so a correction notice can be prepared. The community and other affected stakeholders should be notified when corrections to the news release or Federal Register are required including timelines for publishing corrections.

There are two sub-steps to QR4 identified below:

- **Publish FHD Notice on FEMA's website and in the local newspaper**

The Mapping Partner should ensure that the standard FHD Notice is posted with the correct newspaper publication dates and appeal period start and end dates on FEMA's website at www.fema.gov/plan/prevent/fhm/bfe prior to issuing the Appeal start letters. The Mapping Partner is expected to ensure that the notice remains available for viewing during the duration of the statutory 90-day administrative appeal period. Additionally, the Mapping Partner publishes the standard FHD notice in the local newspaper

- **Validate and Receive Affidavit from Newspaper**

The Mapping Partner should ensure that the newspaper publication occurred on the dates listed in FHDs on the Web and the Appeal Start letter. In addition, the Mapping Partner must update the FHDs on the Web with the Affidavit dates.

3.5 Quality Review 5 (Validate Final FIRM Database and FIRM Panels)

Figure 6 shows the process associated with execution of the QR5 review.

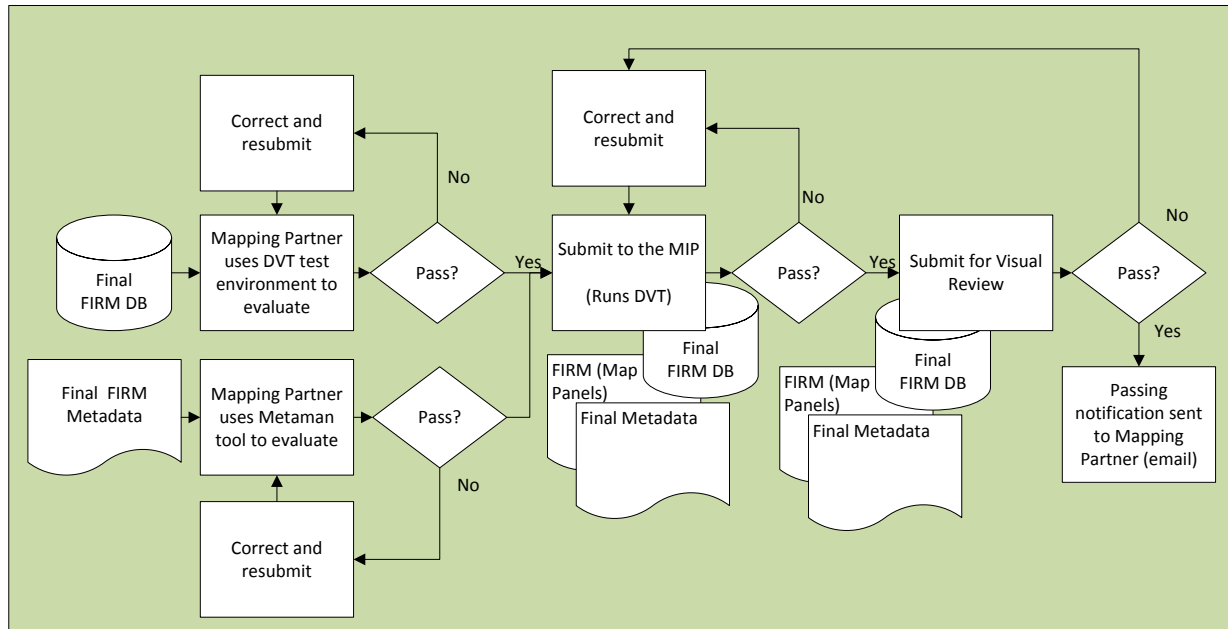


Figure 6: QR5 Process

The QR5 process validates that the FIRM panels are in agreement with the final FIRM database. The Mapping Partner that is assigned the “*Produce Final Map Products*” task submits the final FIRM database and georeferenced FIRM panels to FEMA, via the MIP Studies Workflow at the “*Produce Final Map Products*” MIP stage. Before this occurs, the Mapping Partner are encouraged to use the Test Environment in the MIP (in the “*Tools and Links*” tab) to ensure an error-free submission. Mapping Partners are encouraged to also leverage the Metadata Manager tool (through Citrix) to ensure that the final FIRM metadata is error free. Once the upload is complete, and the submission passes the auto-validation check, the visual QR5 review will commence. Detailed logic for the auto-validation and visual-validation is available on FEMA’s MIP website under the “*MIP User Care / Guides & Documentation*” tabs.

To accommodate the QR5 review, the Mapping Partner must submit the FIRM Database (including metadata) and the georeferenced FIRM image files to the MIP and notify FEMA (or their designee) at least 60 days prior to the anticipated LFD date. After these items are loaded to the MIP the auto-validation will be conducted and the visual agreement checks will be completed within 30 to 40 days depending on the size of the Flood Risk Project. The remaining 20 to 30 days allow for corrections to be coordinated with the Mapping Partner.

A Flood Risk Project must pass QR5 before the LFD may be distributed. If the QR5 review indicates significant quality concerns, the LFD date may be delayed after coordination with FEMA. A passing QR5 report and confirmation from FEMA or FEMA’s QR5 designee must be documented before completing the “*Produce Final Map Products*” MIP task.

3.6 Quality Review 6 (Check LFD Before Distribution)

Figure 7 shows the process associated with execution of the QR6 review.

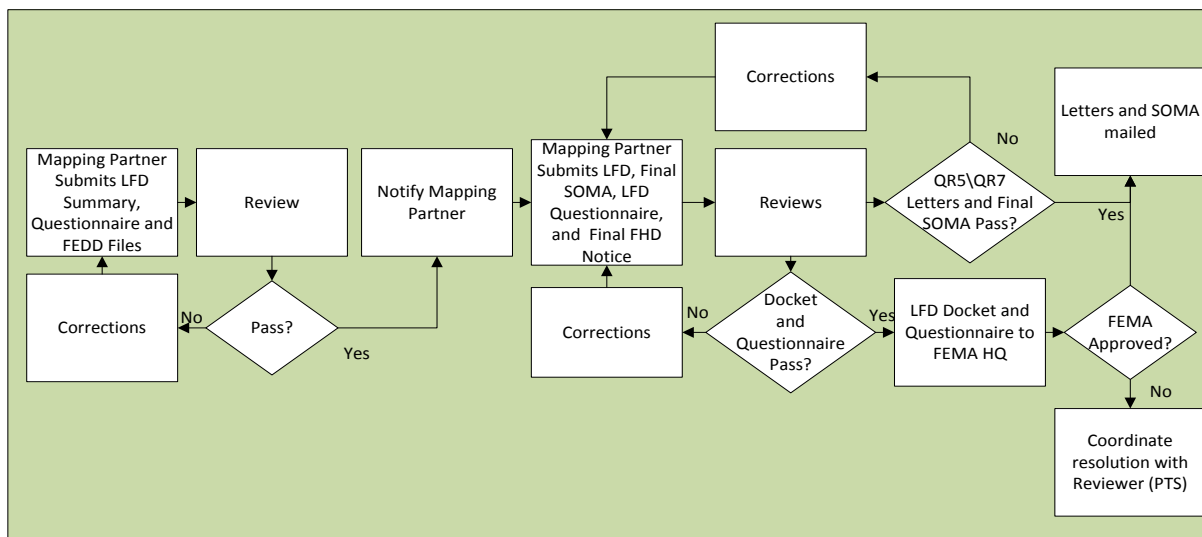


Figure 7: QR6 Process

The QR6 process validates the LFD prior to the distribution of the final products. The LFD date must be no sooner than 60-days after the end of the statutory 90-day administrative appeal period or following resolution of all appeals, whichever is later. The Mapping Partner that is assigned the “*Prepare LFD Docket*” MIP task is responsible for preparing and submitting the LFD Summary Sheet/Docket and FEDD Files and LFD Questionnaire, concurrent with QR5 and QR7. FEMA (or their designee) will review the LFD Summary Sheet, LFD Questionnaire, and the FEDD Files Checklist and return them to the Mapping Partner within 14 days. Any deficiencies found in the due process steps discovered through the FEDD file review may result in a cancellation of the LFD.

At least 45-days before the projected LFD date the Mapping Partner must submit the final LFD letters, Part 67 Final Notice, and Final SOMAs to FEMA (or their designee) who will then review the submittal and respond to the Mapping Partner within 10 days. Any errors that are identified must be promptly resolved prior to issuance of the LFD. If quality issues are documented in the SOMA Checklist the Mapping Partner is expected to resolve these issues and resubmit the deliverable for review. **No less than 4-weeks before the LFD** the final LFD Summary Sheet/Dockets and LFD Questionnaires must be consolidated and sent to FEMA HQ for approval.

The Final SOMA should be completed in the MIP using the SOMA application. FEMA expects the Mapping Partner to maintain awareness of LOMCs, especially LOMRs, issued during the mapping project by reviewing the MIP and coordinating with the LOMC production team. Mapping Partners must incorporate (into the final map products) all LOMRs issued at least 2 months prior to the projected LFD date. Only FEMA HQ can authorize not incorporating a LOMR in favor of reissuing the LOMR after the new maps are effective. Therefore, the Mapping Partner should provide documentation of coordination with FEMA HQ (as well as the Region) if a LOMR will be reissued rather than incorporated. If all Letters of Map Change are not updated in the SOMA Tool, the user will not be able to advance to the next step in the MIP Studies Workflow.

3.7 Quality Review 7 (Validate MSC Deliverables)

Figure 8 shows the process associated with execution of the QR7 review.

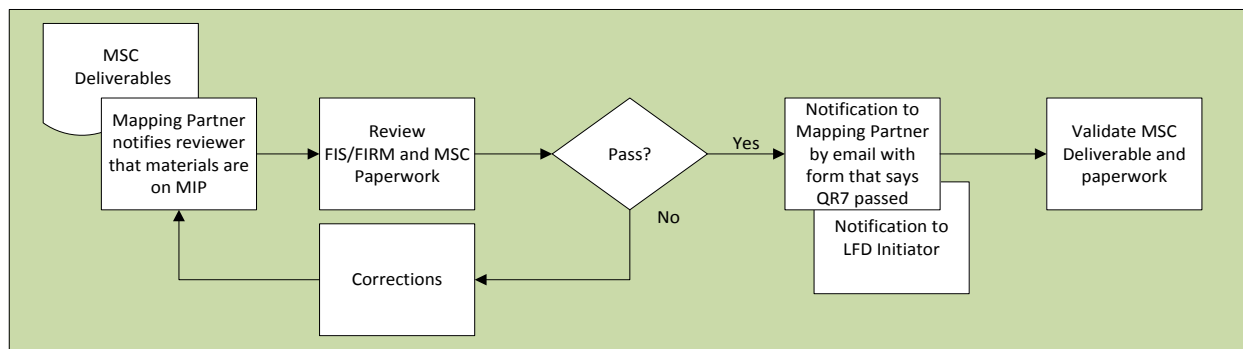


Figure 8: QR7 Process

The QR7 process validates that the FIS, FIRM and associated paperwork are in compliance with FEMA standards before delivery to the MSC. **At least 60-days prior to the projected LFD date** (coincident with QR5 and QR6) after receiving a passing auto-validation report for the FIRM database, the Mapping Partner will submit for QR7 at the “*Produce Final Map Products*” MIP task. The MSC Paperwork and FIS Report should be loaded into the MIP in the Mapping Final Submission Upload folder, the same directory used for the FIRM database. Once FEMA receives the MSC deliverable from the Mapping Partner, FEMA (or their designee) will review the MSC package within 30 days. If quality issues are documented in the QR7 Checklist the Mapping Partner is expected to resolve these issues and resubmit the deliverable for review. The QR7 Checklist includes a “Reviewer Verification” column that should include the reviewer’s initials for each failed review item. This process will continue until the deliverable is determined to be in full compliance with FEMA’s standards.

The Flood Risk Project must pass QR7 before the LFD will be distributed. The completed QR7 checklist must be uploaded to the TSDN in the MIP, by the Mapping Partner, before completing the “*Produce Final Map Products*” MIP task.

After the FIRM database, metadata, FIRM image files, MSC Paperwork, and FIS Report have passed QR5 and QR7; the Mapping Partner will submit the passing files to FEMA by completing the “*Produce Final Map Products*” MIP task and “*Submit MSC Deliverables*” MIP tasks. The FEMA PTS provider will download all files for MSC submission and will reject the “*Validate Content Submission: Final Map*” MIP workflow task if any issues are discovered during content validation. The Mapping Partner will load any necessary corrections to the “*Submit MSC Deliverables*” MIP task and complete the task. When it is determined that the submittal is ready for MSC delivery, the FEMA PTS provider will deliver it to the MSC with the MSC paperwork and a delivery manifest. The FEMA PTS provider will complete the “*Validate Content Submission: Final Map*” MIP task when the deliverable is provided to the MSC.

3.8 Quality Review 8 (MSC Review of Final Deliverables)

Figure 9 shows the process associated with execution of the QR8 review.

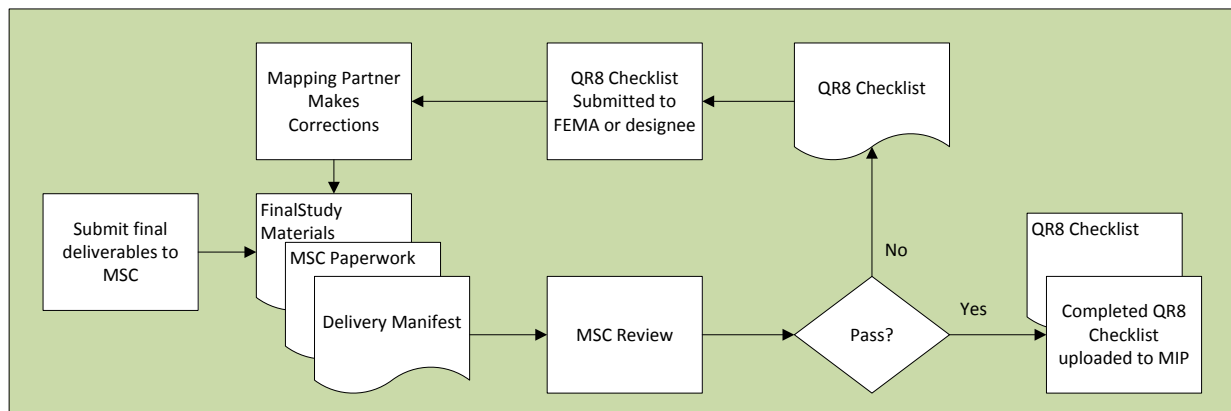


Figure 9: QR8 Process

The QR8 process validates compliance of the final products before delivery to the end users. Upon receiving the deliverable, the MSC paperwork and the delivery manifest, the MSC will conduct the QR8 review of the FIRM panels, FIS Report and the MSC paperwork using a standardized checklist. The review will focus on the political area identifiers, NFIP program dates, product distribution information, and linkages to the MSC store.

The QR8 review will be completed within 14 days, and any errors will be communicated by email delivery of a completed QR8 Checklist to the FEMA PTS provider. The QR8 Checklist includes a “Reviewer Verification” column that should include the reviewer’s initials, for each failed review item. If any issues are cited during the QR8 review, FEMA’s PTS Provider will work with the Mapping Partner and MSC to resolve all open issues, and will reject the “*Perform National DFIRM QA: Final Map*” MIP workflow task. Corrected materials will be uploaded to the MIP, via the “*Submit MSC Deliverables*” workflow task, by the Mapping Partner and the task will be completed within 7 calendar days.

After the corrections have been validated by FEMA’s PTS provider, the “*Validate Content Submission: Final Map*” MIP task will be finalized and FEMA’s PTS provider will deliver the final materials to the MSC. This cycle will continue until all items have passed the MSC review. Upon receiving notification of a passing QR8 review, FEMA’s PTS provider will upload the passing MSC review checklist to the MIP and complete the “*Perform National DFIRM QA: Final Map*” MIP task.