



FEMA

Operating Guidance No. 11-13

For use by FEMA staff and Flood Hazard Mapping Partners

Title: Operating Guidance for Review of Regulatory Products

Effective Date: August 23, 2013

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Operating guidance documents provide recommended and approved processes for the Federal Emergency Management Agency's (FEMA's) Risk MAP program. These guidance documents are intended to support current FEMA standards and facilitate effective and efficient implementation of these standards. However, nothing in Operating Guidance is mandatory, other than program standards that are defined elsewhere and reiterated in the operating guidance document. Alternate approaches that comply with program standards that effectively and efficiently support program objectives are also acceptable.

Background: On June 20, 2007 the Federal Emergency Management Agency (FEMA) issued Procedure Memorandum (PM) 42 in an effort to infuse seven (7) independent Quality Reviews (QRs) of Flood Insurance Studies (FISs) and Flood Insurance Rate Maps (FIRMs) throughout the FIS/FIRM development lifecycle and therefore raise the level of compliance with FEMA's Guidelines and Standards for Flood Risk Analysis and Mapping (G&S). The PM was subsequently revised on December 1, 2008 to realign QRs 5, 6, & 7 to expedite the delivery of final FIS/FIRM products soon after the issuance of Letter of Final Determination (LFD).

Issues: Since the re-issuance of PM 42 in 2008, FEMA's flood hazard assessment and mapping process has evolved significantly. Commensurate with this evolution, changes to the Quality Management infrastructure have been recommended, by FEMA's Quality Working Group (QWG), to address changes associated with the new Expanded Appeals Process (EAP), and changes to the LFD process, and, to continue to raise the level of quality for FIS/FIRM and FIRM database products delivered by FEMA's contractors.

Action Taken: Several significant changes have been implemented through revision and classification of quality review standards for regulatory products arising from Flood Risk

Projects. Those changes are supported by this Operating Guidance document to include detailed descriptions of enhanced review, coordination and communication protocols, as well as enhanced quality management tools (such as checklists and forms) that are intended to promote adherence to FEMA standards *early* in the Flood Risk Project production lifecycle.

Another significant update to FEMA's regulatory product Quality Management infrastructure is the expansion of Quality Reviews from seven (7) to eight (8) to include the FEMA Map Service Center (MSC) review of FIS/FIRM products that occurs shortly after the LFD has been issued.

This Operating Guidance document also addresses a renewed emphasis on building quality into the FIS/FIRM production process as opposed to a dependency on independent inspection. It is FEMA's intent to use inspection activities solely to validate that Mapping Partners are properly emphasizing process control and quality control at the production level, and then to support and monitor progress where deficiencies are noted.

It should also be reiterated that it is FEMA's intent to ensure that all FISs and FIRMs reflect the highest possible quality. In the event that a critical quality issue is detected, necessary actions will be taken to address and resolve the quality issue and, when warranted, revised products will be issued. A critical quality issue includes but is not limited to the following:

- Improper execution of Due Process
- Improper Incorporation of LOMRs
- Erroneous Base Flood Elevations or depths
- Erroneous floodplain or floodway boundaries
- Erroneous application of vertical datum conversion

Lastly, although this Operating Guidance document only addresses the review of regulatory products (FIS, FIRM and FIRM database) at this point in time, it is anticipated that review protocols for non-regulatory products (Flood Risk Map, Flood Risk Report, and Flood Risk Database) will be forthcoming.

Supersedes/Amends: This Operating Guidance document supersedes guidance in Procedure Memo 42 and supplements content in FEMA's Risk MAP Knowledge Sharing Site. An overview of significant changes is provided in Section I of this Operating Guidance document.

Operating Guidance 11-13

Quality Review of Regulatory Products

August 23, 2013



FEMA

I. Overview of Changes to Quality Review Protocols for Regulatory Products

A. Updated Quality Reviews

Table 1 provides an at-a-glance overview of changes to Quality Reviews formerly mandated via FEMA Procedure Memo 42 that have since been incorporated into FEMA’s Risk MAP Knowledge Sharing Site (KSS). More details about each of the Quality Reviews are provided in Section II of this Operating Guidance document, including detailed process flow diagrams for each review.

Table 1 Overview of Changes to Quality Review Protocols

QR	Changes	Outputs
QR1	<ul style="list-style-type: none"> • Emphasis on using the Test Environment in the Mapping Information Platform (MIP) before the official QR1 submission. • Clarification of QR1 process with flow diagram. 	<ul style="list-style-type: none"> • Draft FIRM Database & Metadata • QR1 Passing Report
QR2	<ul style="list-style-type: none"> • Emphasis on using the Test Environment in the MIP before the official QR2 submission. • This QR must be completed before QR3 may begin (no longer concurrent with QR3). • Clarification of QR2 process with flow diagram. 	<ul style="list-style-type: none"> • Preliminary FIRM Database & Metadata • QR2 Passing Report
QR3	<ul style="list-style-type: none"> • Added a requirement that QR2 must pass before the QR3 review may begin. • Preliminary Summary of Map Actions (SOMA) Review. • Alignment of review criteria to standards classified in FEMA’s Risk MAP KSS. • Introduction of a QR3 Checklist aligned to the standards classified in FEMA’s Risk MAP KSS. This checklist is available at this location: http://www.fema.gov/library/viewRecord.do?id=7577 • <i>Pre-QR3 Submission Questionnaire and Self-Certification</i> form is required before the review begins. The form is available at this location: http://www.fema.gov/library/viewRecord.do?id=7577 • <i>Post-QR3 Confirmation and Self-Certification form</i> is now required upon completion of the QR3 review. This form is available at this location: http://www.fema.gov/library/viewRecord.do?id=7577 • Clarification of QR3 process with flow diagram. • Review of LOMRs that revised the previously effective FIS/FIRM. 	<ul style="list-style-type: none"> • Preliminary FIS • Preliminary FIRM panel PDFs • Preliminary FIRM database & Metadata • Preliminary SOMA • Pre-QR3 Submission Questionnaire and Self-Certification form (to be uploaded to the TSDN in the MIP) • Post-QR3 Confirmation and Self-Certification form (to be uploaded to the TSDN in the MIP)

QR	Changes	Outputs
QR4	<ul style="list-style-type: none"> • Clarification of QR4 process with flow diagram. • Clarification of validation and receipt of CEO letters and newspaper affidavit. 	<ul style="list-style-type: none"> • Flood Hazard Determination (FHD) Notice • Proposed Federal Register (FR) Notice • 90-day Start letter to CEO • Standard newspaper publication
QR5	<ul style="list-style-type: none"> • Emphasis on using the Test Environment in the MIP before the official QR5 submission. • Clarification of QR5 process with flow diagram. • Introduction of a QR5 Checklist aligned to the standards classified in FEMA's Risk MAP KSS. This checklist is available on the FEMA website. 	<ul style="list-style-type: none"> • Final FIRM Database & Metadata • Final FIRM Image Files
QR6	<ul style="list-style-type: none"> • Flood Elevation Determination Docket (FEDD) file is now due 60 days prior to LFD. • Clarification of the use of LFD Questionnaire. • Clarification of QR6 process with flow diagram. • Final SOMA Review. • Introduction of SOMA Checklist (imbedded within the QR3 Checklist) aligned with FEMA's standards. 	<ul style="list-style-type: none"> • LFD Summary / Docket • LFD Questionnaire • LFD Letters • Final SOMA • Final FR Notice • Draft FEDD File • TSDN
QR7	<ul style="list-style-type: none"> • Alignment of review criteria to standards classified on FEMA's Risk MAP KSS. • Introduction of a QR7 Checklist aligned to the standards classified in FEMA's Risk MAP KSS. This checklist is available at this location: http://www.fema.gov/library/viewRecord.do?id=7577 • LOMR Incorporation Review. • Clarification of QR7 process with flow diagram. 	<ul style="list-style-type: none"> • Final FIRM Database & Metadata • Final FIRM Image Files • Final FIS Report • Final MSC Paperwork
QR8 (MSC)	<ul style="list-style-type: none"> • Introduction of standardized QR8 checklist aligned with standards classified in FEMA's Risk MAP KSS. This checklist is available at this location: http://www.fema.gov/library/viewRecord.do?id=7577 • No other changes with this review other than the introduction of this new Quality Review step. • Clarification of QR8 process with flow diagram. 	<ul style="list-style-type: none"> • Final FIS / FIRM Deliverables to Communities

B. QR3, QR5, QR7, QR8 and SOMA Checklists

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 Technical Study Data Notebook (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.

C. 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 has been developed to facilitate the creation of deliverables compliant with FEMA standards, prior to issuance of Preliminary FIS/FIRM products. This form, which is 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.

D. Post-QR3 Corrections Confirmation and Self-Certification Form

To promote an effective QR3 process, a *Post-QR3 Corrections Confirmation and Self-Certification* form has been developed 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. This form is available at this location: <http://www.fema.gov/library/viewRecord.do?id=7577>.

E. MSC Review (QR8)

As indicated earlier, the existing review of the FIS & FIRM 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.

F. Evolving from an Inspection Focus to a Prevention Focus

As mentioned in the “Actions Taken” section of this Operating Guidance document, 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 Region and Mapping Partner.

It is FEMA’s intent that the Quality Review processes outlined in this Operating 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

II. Description of Regulatory Product Quality Reviews

The following section provides details associated with the process flow for Quality Reviews 1 through 8.

Overview of Regulatory Product Quality Review Process

Figure 1 provides an at-a-glance view of the Quality Reviews 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.

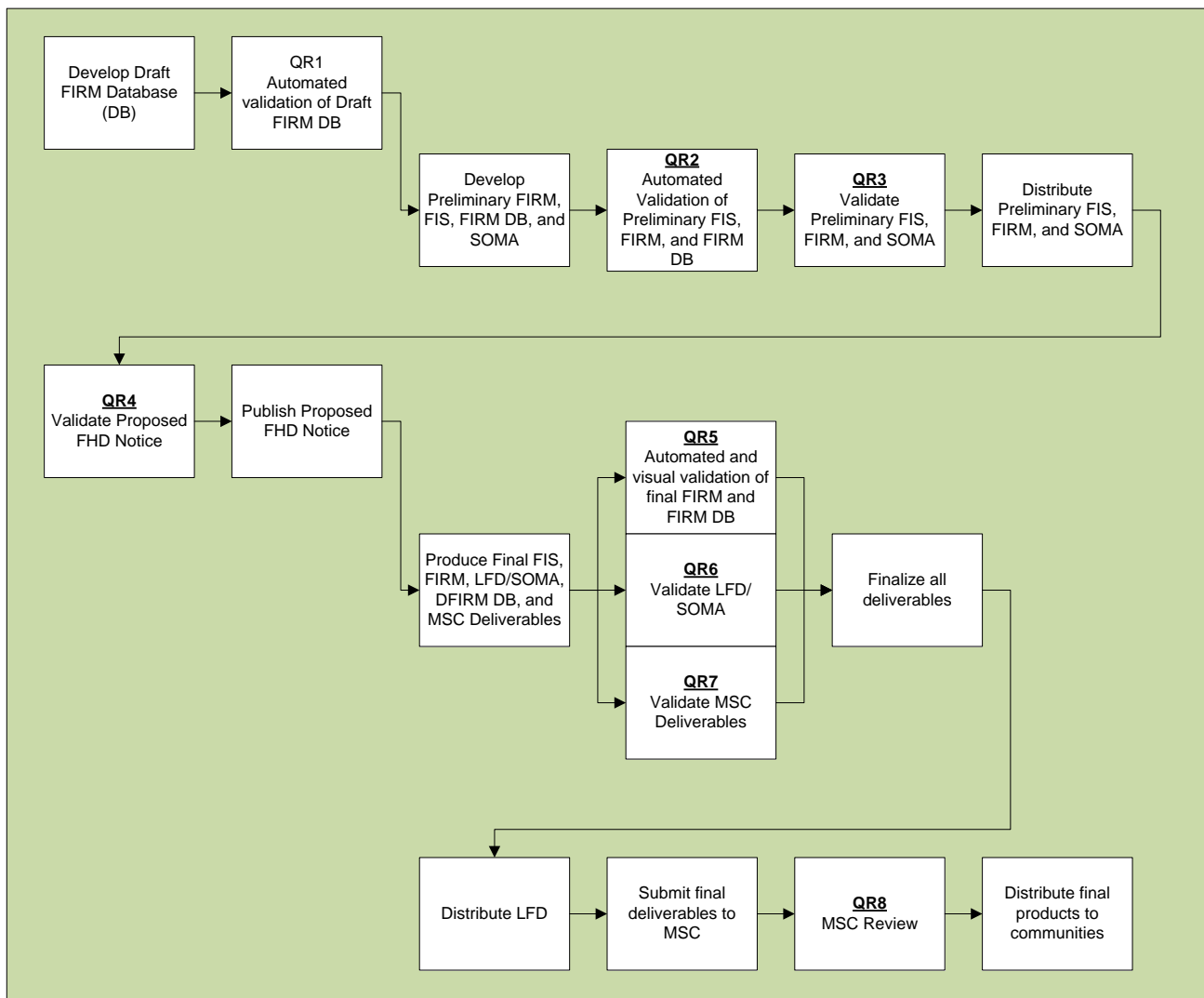


Figure 1: Quality Review Steps within the Flood Risk Project Production Process

QR1: Validate Draft FIRM Database

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

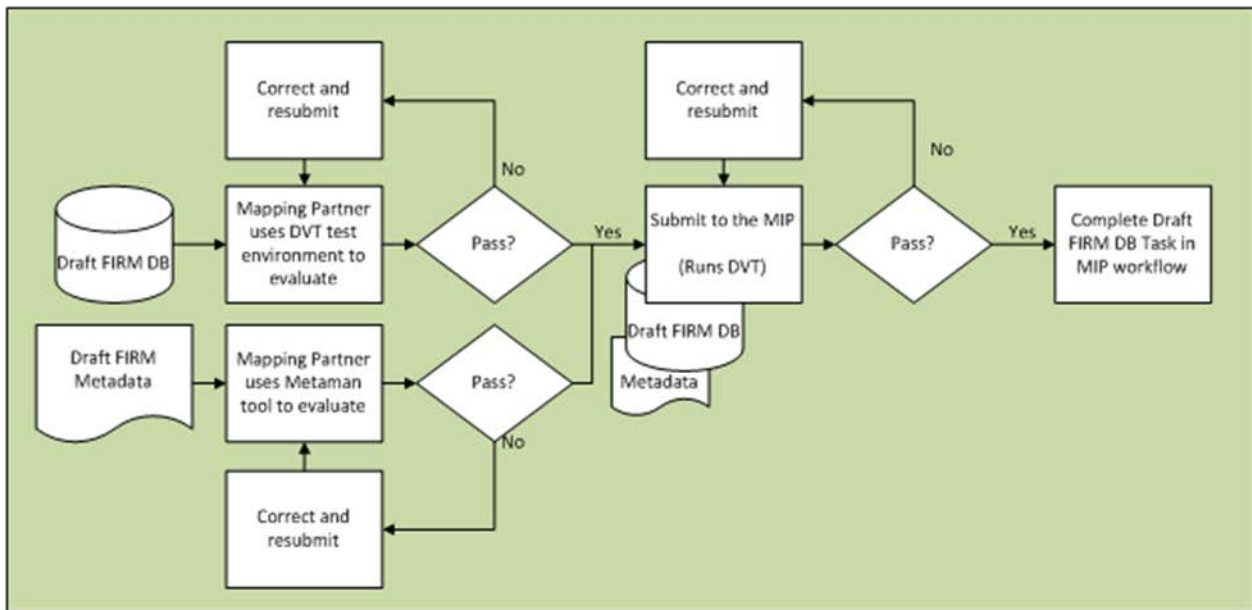


Figure 2: QR1 Process

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 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.

QR2: Validate Preliminary FIRM

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

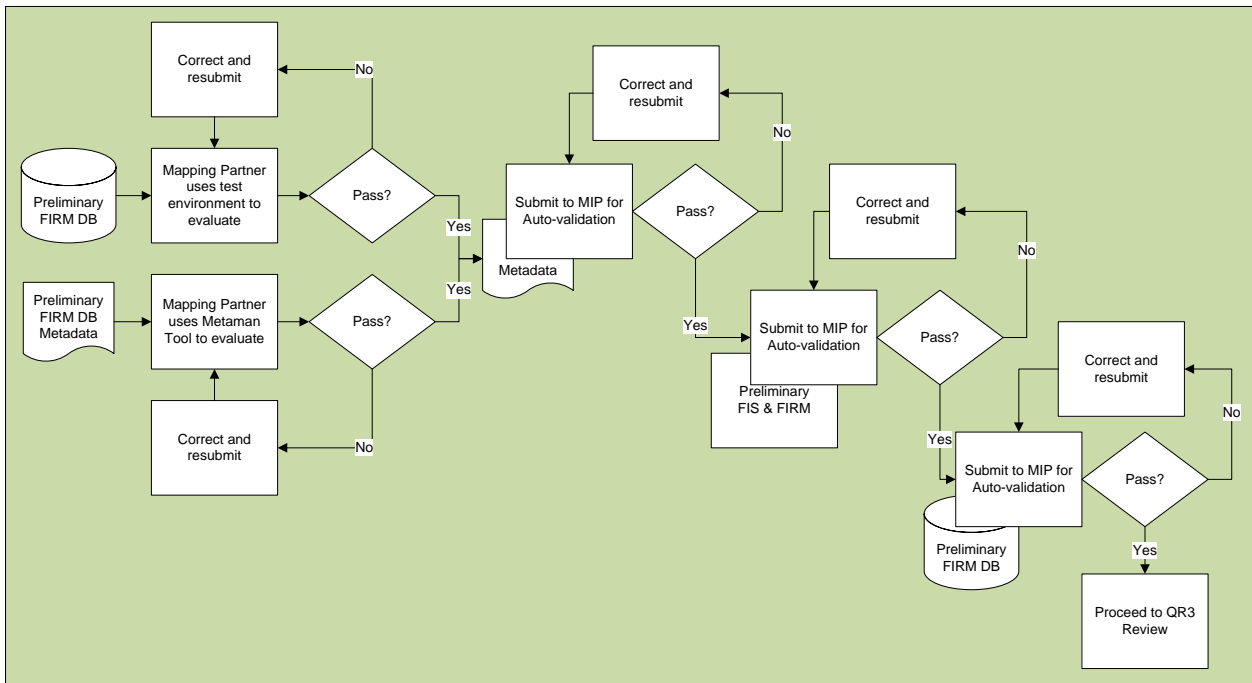


Figure 3: QR2 Process

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 LOMR revising the current effective FIRM to the MIP. Before this occurs, the Mapping Partner 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 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 3 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 Quality Review steps.

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

QR3: Validate Preliminary FIS, FIRM, and SOMA

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

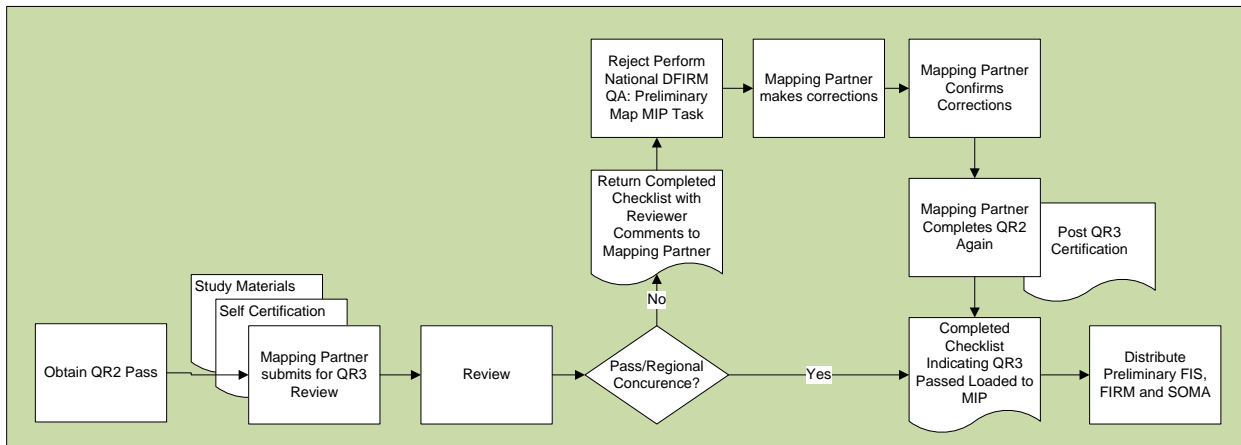


Figure 4: QR3 Process

This review involves a 10% review of the Preliminary FIRM panels, Flood Insurance Study (FIS) report, Preliminary SOMA, and copies of LOMR 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 Partner 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. 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.

QR4: Validate Proposed Flood Hazard Determination (FHD) Notice

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

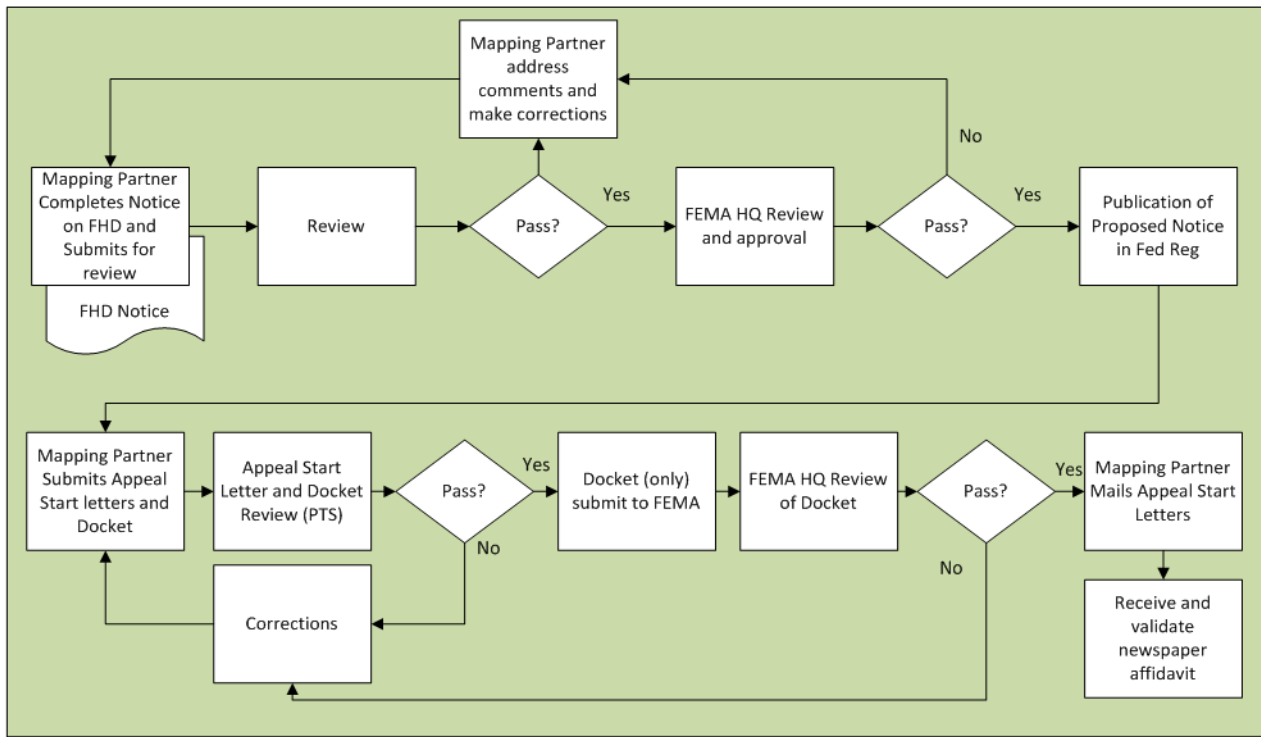


Figure 5: QR4 Process

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 FHD's 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 Region 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 FHDs 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.

QR5: Validate Final FIRM Database and FIRM Panels

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

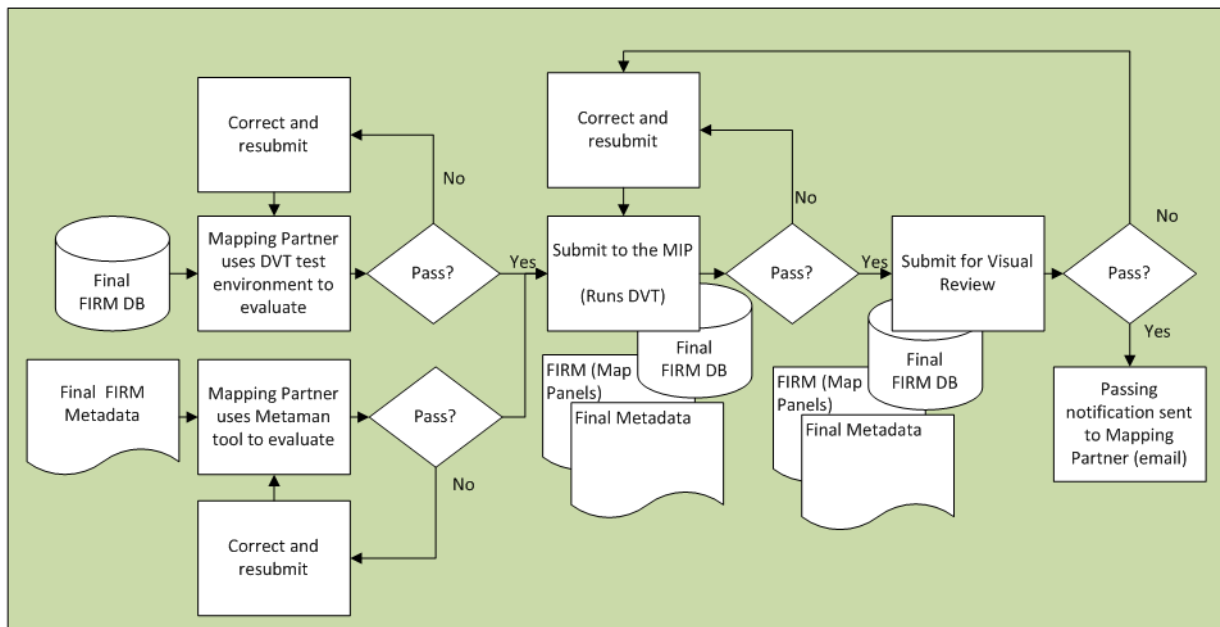


Figure 6: QR5 Process

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.

The Flood Risk Project must pass QR5 before the LFD will 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 by the Mapping Partner, before completing the “*Produce Final Map Products*” MIP task.

QR6: Check LFD Before Distribution

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

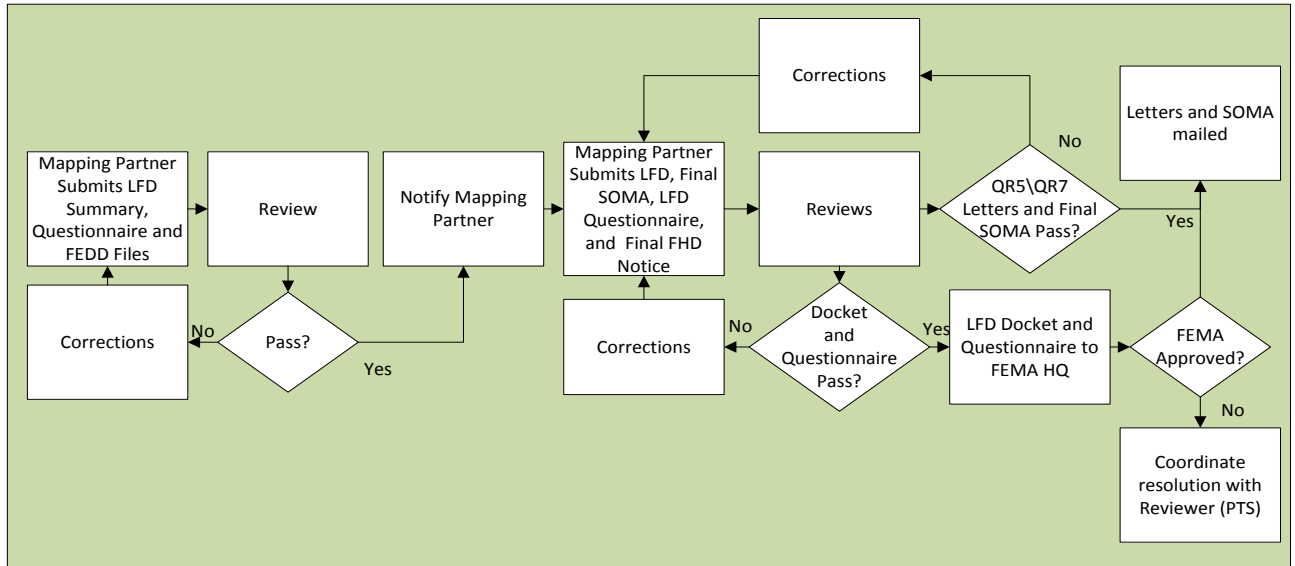


Figure 7: QR6 Process

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 ten 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.

QR7: Validate MSC Deliverables

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

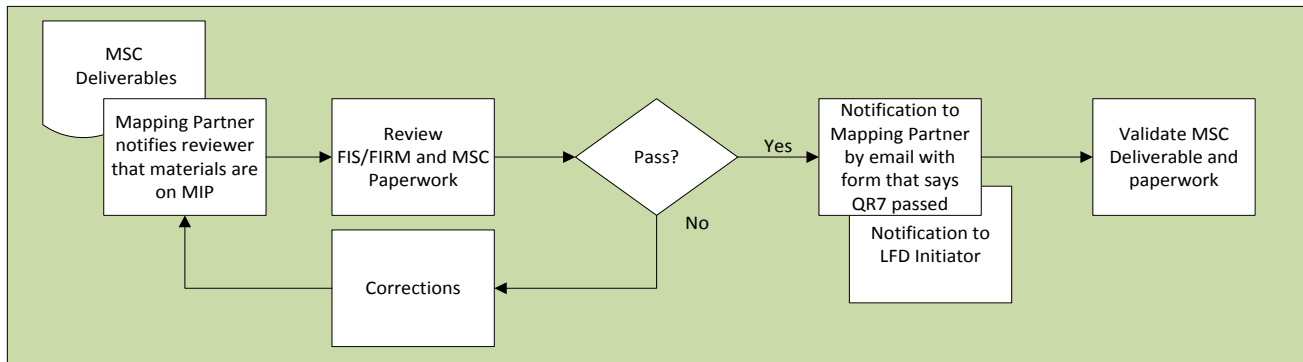


Figure 8: QR7 Process

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.

QR8: MSC Review of Final Deliverables

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

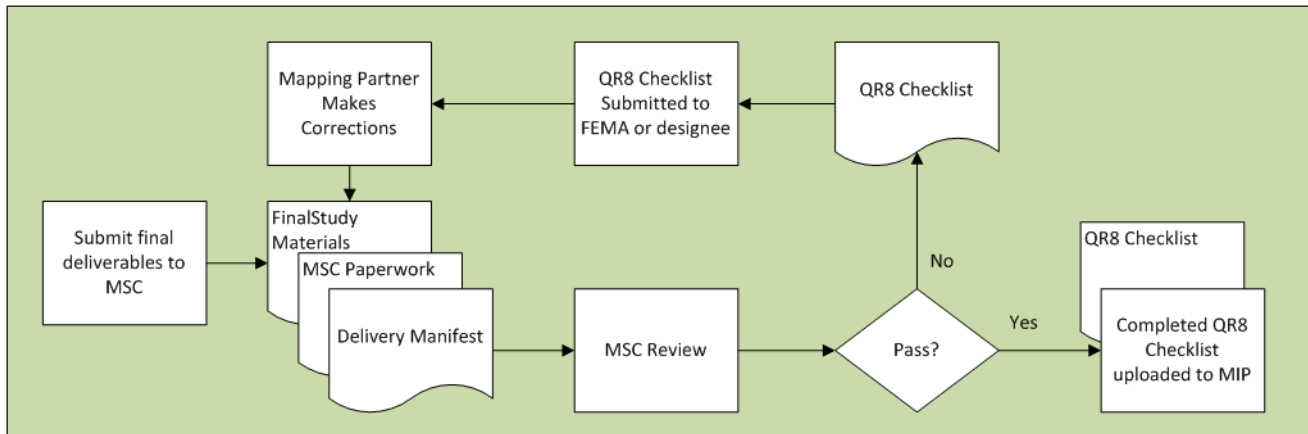


Figure 9: QR8 Process

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.