



Guidance for Flood Risk Analysis and Mapping

Mapping Information Platform (MIP)

November 2023



FEMA

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Requirements for the FEMA Risk Mapping, Assessment, and Planning (Risk MAP) Program are specified separately by statute, regulation, or FEMA policy (primarily the Standards for Flood Risk Analysis and Mapping). This document provides guidance to support the requirements and recommends approaches for effective and efficient implementation. Alternate approaches that comply with all requirements are acceptable.

For more information, please visit the FEMA Guidelines and Standards for Flood Risk Analysis and Mapping webpage (<https://www.fema.gov/guidelines-and-standards-flood-risk-analysis-and-mapping>). Copies of the Standards for Flood Risk Analysis and Mapping policy, related guidance, technical references, and other information about the guidelines and standards development process are all available here. You can also search directly by document title at <https://www.fema.gov/resource-document-library>.

Table of Revisions

Affected Section or Subsection	Date	Description
Section 1 through Section 11 including Attachment A and C	November 2023	<p>Overall all updates made to the guidance document include incorporating current modifications to the Mapping Information System(MIP) since it was redesigned, clarifying the language throughout the document, or incorporate current processes performed that relate to the MIP.</p> <p>Specifically, Section 1 include update to document the current support team and Section 2 is updated to include the updates to the system access requirements due to the Risk Analysis Management (RAM) Access Portal. Minor language updates and clarifications in Sections 3 & 4. Section 5 updates include documenting the current naming convention for projects, purchases and tasks, documenting current considerations for all purchase types and reorganizing sections so they are consistent. Section 6 had minor language updates along with documenting known considerations related to the SOMA workbench, reflecting changes to data submissions with the deployment of ASPERA and incorporating updates related to Flood Risk Product submittals due to updates to the publication process of these products to the Map Service Center. Section 7 through 10 include minor language updates and providing references to applied approaches documented since the MIP redesign along with updating the FEMA Helpdesk email. The table in Attachment A was updated to shift notes to the footnote to reduce table length and minor updates to Attachment C Diagrams to document the order of the Validation task in relation to the rest of the tasks.</p>

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1. MIP Overview

The Mapping Information Platform (MIP) supports the Risk Mapping Assessment and Planning (Risk MAP) program by facilitating the production, management, sharing, and archiving of flood hazard data and other materials in a digital environment. The MIP is a system of tools that integrates program and project management, data storage and retrieval, standardized quality reviews, and project tracking and reporting, into one web-based application.

The MIP is a system of record for the Risk MAP program and serves as the primary portal for the capture, validation, retrieval, and storage of flood hazard mapping data produced by flood studies, and revisions and amendments (i.e., Letters of Map Change (LOMC)) and is required per FEMA Program Standard SID #1. This document provides guidance on the various functions supported by the Studies, Amendments and Revisions portion within the MIP, including, user access and technical support, tools and functionality, project management and workflow activities, and data capture and dissemination. For guidance on the LOMC process MIP users should see Guidance Document No. 65, [Guidance for Flood Risk Analysis and Mapping: MT-1 Technical Guidance](#).

The bulk of the MIP functionality can be found under the Tools & Links section. The Tools & Links section of the MIP provides users with data management and reporting tools, including: Data Upload, Search Engineering Data, File Explorer, Reports & Form Letters, Digital Flood Insurance Rate Map Database Quality Assurance (DFIRM DB QA), Meta Data Test Submission, and Metaman. This section of the MIP also links users to various flood hazard mapping information, tools, and other geospatial resources.

MIP users should first reach out to the FEMA IT Risk MAP Systems Team (FIRST) for questions or running into issues prior to reaching out to the FEMA Risk MAP IT Help Desk. The purpose of the FIRST team is to act as liaisons and integrators between Risk Management regional Information Technology (IT) users and FEMA Headquarters (HQ). The core of the group is comprised of Champions, Black Belts, and Regional Program Management Leads (RPML). To get in contact with the regional representative of the FIRST team, reach out to the Regional Support Center (RSC).

Title	Position Specific Role	Shared Role
Champions	The regional Champion is a FEMA staff member, provides oversight to Regional Staff, CTP and PTS Project Managers that are responsible for managing the region's portfolio of Risk MAP projects	Risk MAP IT System Integrators
Black Belts	The regional Black Belt is a PTS contractor, who tracks and monitors projects and validates data within the MIP.	
Regional Program Management Lead (RPML)	The RPML assists FEMA in managing the scope, schedule, and budget of the Regional portfolio.	

For general assistance with the MIP, you can reach out to the FEMA Risk MAP ITHelp Desk (FEMA-RiskMAP-ITHelp@fema.dhs.gov). Within this document the FEMA Risk MAP ITHelp Desk will be referred to as the FEMA Help Desk.

2. System Access

Access to the MIP is available at the MIP (<https://hazards.fema.gov>) website. The ability to download engineering data is only available to authenticated users. Registration, or authentication, is required for access to tools such as File Explorer and project workflows. Users with public access may only view project status information and search available engineering data.

The Risk Analysis Management (RAM) Access Portal (referred to as the RAM Access Portal or RAP) provides a secure, single sign-on (SSO) capability for users to create and manage RAM application account access and role permissions in one location along with their own profile information.

Prior to users registering within the RAM Access Portal they must complete the Department of Homeland Security (DHS) Cyber Security Awareness and Privacy trainings. Users will be required to provide proof of completion during the RAM Access Portal registration process. In addition, they must also sign the Rules of Behavior document to ensure the security of systems and the confidentiality, integrity, and availability of sensitive information. Users should also confirm with their organizations who they should list as their “supervisor” in the RAM Access Portal registration because it can be one person appointed per entity and usually not someone’s direct manager. The RAM Access Portal User Guidance (<https://www.fema.gov/flood-maps/tools-resources/risk-map/access-portal>) provides detailed instructions and workflow screenshots to assist users with the registration and system access request process. Once a user has registered and submitted a request for access, their request will be forwarded automatically to their assigned approvers. If needed, an existing user can also request a role addition/change for an assigned system, such as MIP, within the RAM Access Portal.

Users of the RAM Access Portal are required to annually complete the Department of Homeland Security (DHS) Cyber Security Awareness and Privacy trainings and update their training dates in their profile. In addition, users should log in to their RAM Access Portal account every 45 days. Otherwise, after 45 days the account will become inactive, and the account and any application profile permissions will be deactivated. Passwords must be changed after every 90 days, otherwise accounts may be locked out. Reminders from the RAM Access Portal are issued to assist the user in keeping up to date with their account. Access issues should be directed to the FEMA Help Desk(FEMA-RiskMAP-ITHelp@fema.dhs.gov) for assistance.

3. System Structure

3.1. Studies Platform

The MIP Studies workflow is a series of purchases and tasks completed by a Mapping Partner (e.g., Cooperating Technical Partners (CTPs) and Risk MAP contractors) and FEMA to deliver a Flood Risk project.

Table 1: MIP Studies Roles and Responsibilities

Studies Role	User Description
Study Manager	Studies users who enter and update all cost and schedule information, at least monthly; update projected milestone dates (Preliminary, LFD, and Effective); enter leverage information; and provide project oversight. They have Task+EV (Earned Value) access in the MIP.

Studies Role	User Description
Study Producer	Studies users who are usually Cooperating Technical Partners (CTPs), Production and Technical Services (PTS) staff, and Community Engagement and Risk Communication (CERC) staff. Producers submit and upload data; meet all Quality Assurance and Quality Control (QA and QC) requirements; perform independent QA and QC as applicable; enter data analysis information; enter actual milestone dates; and enter all post-prelim information. Also, referred to as a Task Owner. They typically have Task access only in the MIP.
Study Administrator (Champions and RPMLs):	<p>MIP Champion – Studies users at Regional offices who serve as an advocate for increased MIP use and acceptance, workflow process improvements, and overall Earned Value (EV) performance management. MIP responsibilities include overseeing overall MIP Quality Assurance & Quality Control (QA/QC), approving change requests (facilitating revised MIP baseline schedules), FEMA Help Desk requests, validation and escalation resolution, and MIP obligation data reconciliation.</p> <p>Regional Project Management Lead(RPML) – Studies users representing Program Management (PM) staff located at the Regional office responsible for assisting FEMA in managing the scope, schedule, and budget of the Regional portfolio, including change requests. This assistance includes close collaboration with the Task Order leads and Regional Project Monitors to ensure that each individual project is accurately represented in the MIP. MIP responsibilities include: create and obligate projects, purchases, and tasks, update baseline scope and schedule, monitor EV, monthly and quarterly reporting, and support FEMA Help Desk requests. MIP Champions and RPML’s have Project Level access in the MIP.</p>
RSC (MIP Black Belts):	Production and Technical Services (PTS) staff who are responsible for tracking and monitoring projects, MIP Task Validation and may be performing quality reviews. MIP responsibilities include: MIP Validations, assisting the RPMLs with EV monitoring, task assignments, monthly and quarterly reporting, requesting support from FEMA Help Desk, and troubleshooting project workflows for Mapping Partners. They could have Task or Task+EV access in the MIP.

3.2. Revisions Platform

The Revisions platform supports the collective MT-2 workflow processes within the MIP, which involve receiving, processing and issuing Letters of Map Revision (LOMRs) and Conditional Letters of Map Revision (CLOMRs). The Revisions platform is sorted by MIP role. See Table 2 for descriptions. For the Revisions workflow diagram see Attachment D. See the Revisions section under MIP User Care for more details.

Table 2: MIP Revisions Roles and Responsibilities

Revision Role	User Description
Process Administrator	Super-user for revisions who can perform management level activities in the process (i.e., claim an activity regardless of role) and can change the owner of an activity.
Project Administrator	User who is responsible for initiating new cases (i.e., entering all required case information).
Resource Manager	User who can assign a specific engineer to a case.
Fee Administrator	User who can handle the receipt and logging of fees for revision cases.
Project Lead	User who can suspend cases; also, a user who can also be designated to process a revision.
Task Lead	User who can process revisions (i.e., are assigned by the Resource Manager).
Audit Lead	User who reviews revision cases before sending to FEMA.
FEMA Revision Lead	User from FEMA who can review and approve cases.
Document Control	User who completes the post-processing activities associated with revision cases (e.g., Distribute Determinations, Receive Appeal or Protest).

3.3. Amendments Platform

The Amendments platform supports the collective MT-1 workflow processes within the MIP, which involve receiving, processing and issuing Letters of Map Amendment (LOMA), Conditional Letters of Map Amendment (CLOMA), Letters of Map Revision Based on Fill (LOMR-F), and Conditional Letters of Map Revision Based on Fill (CLOMR-F). The Amendments platform is series of MIP activities sorted by MIP role; see Table 3 for descriptions. For the Amendments workflow diagram see Attachment E.

Table 3: MIP Amendments Roles and Responsibilities

Amendment Role	User Description
Process Administrator	User who is able to perform certain administrator functions related to case assignment and project status updates outside of the normal MIP workflow.
Project Administrator	User who is responsible for initiating new cases (i.e., entering all required case information) and receiving additional data submitted by the applicant.
Resource Manager	User who can assign a specific task lead to a case.
Fee Administrator	User who can handle the receipt and logging of fees for amendment cases.
Project Lead	User who can suspend cases and review the draft determination prior to FEMA lead review.
Task Lead	User who can process amendment (i.e., are assigned by the Resource Manager).
FEMA Amendment Lead	User from FEMA who can review and approve cases on the MT-1 docket and concur/not concur with potential violations.

3.4. eLOMA Portal

Hosted within the MIP, the eLOMA platform is a web-based tool specifically for licensed land surveyors and professional engineers (referred to as Licensed Professionals or LPs) and FEMA approved National Flood Association Certified Professionals (CPs) to submit selected Letter of Map Amendment (LOMA) requests, known as an eLOMA. A LOMA is an official amendment to an effective Flood Insurance Rate Map (FIRM), typically issued to remove a Special Flood Hazard Area (SFHA) designation from a property and/or structure. Users of the eLOMA application must be registered and access the tool through the MIP.

The eLOMA tool is designed specifically for LPs and CPs to generate a quick determination from FEMA within minutes of submitting required information and data for the subject of the eLOMA request. The eLOMA tool is designed to replace the traditional standard LOMA process by allowing users to expedite LOMA requests that meet eLOMA Criteria.

The eLOMA tool does not accept the following LOMC requests: Letters of Map Revision (LOMR), Letters of Map Revision Based on Fill (LOMR-F), Conditional Letters of Map Amendment (CLOMA), or Conditional Letters of Map Revision Based on Fill (CLOMR-F).

For tutorials, trainings, and other resources on how to navigate through an eLOMA request see the Learn About eLOMA [link](#) accessible from the MIP homepage.

To request access to the eLOMA application, see Section 2: System Access. If you have questions regarding your registration, contact the FEMA Help Desk via email at FEMA-RiskMAP-ITHelp@fema.dhs.gov.

3.5. Online LOMC Portal

The Online LOMC web application (<https://hazards.fema.gov/femaportal/onlinelomc/signin>) is a convenient tool that allows applicants to initiate a request, check the status of their application in real time, submit required documents, and pay online. There is no difference in the data submittal requirements between Online LOMC and the MT-EZ, MT-1 and MT-2 paper forms.

For tutorials, trainings, and other guides on how to navigate through an Online LOMC request see the Online LOMC section of MIP User Care Training.

(https://hazards.fema.gov/femaportal/wps/portal/usercare_training).

For access to the Online LOMC application, submit an online Registration Form at the following (<https://hazards.fema.gov/femaportal/onlinelomc/ext/Registration/load>) website.

4. MIP Studies Production Overview

4.1. Key Terms Defined

- **Project** – a collection of one or more purchases which together address the needs of a specific study area (e.g., HUC-8 or other defined planning area such as a levee system or coastal area). Each new MIP project is assigned a nine-digit project case number (e.g., XX-XX-XXXX).
- **Purchase** – a collection of study activities or tasks, housed within a project, and aligned to a specific geography (watershed, county, etc.). A Purchase is generally categorized as a riverine, coastal, levee, elevation, or outreach investment and represents a given fiscal year's unique work item(s) tied to a task order or grant.
- **Task** – a study activity within a purchase, assigned to and completed by different MIP studies users, including managers, producers, quality reviewers, data validators, and FEMA personnel. The three most common task types are Data Capture, Validation, and Independent QA/QC.
- **Project Studies Workbench** – the launching point for all Project Level Access Users. This workbench will allow Project Level Access users to create, edit, assign, and track any assigned MIP Studies Projects, Purchases, or Tasks. From this workbench, each Project Level Access user will be shown what projects they have created or what projects they have been assigned to.

- **Task Studies Workbench** – the launching point for all MIP Users who have been assigned to a Task. The Task Studies Workbench allows users to work on, update, assign, and track any assigned MIP Studies Tasks. Only the Tasks that have been assigned to the user will be visible on the Task Studies Workbench. This Task Studies Workbench includes the Track Task view where MIP users are able to view and manage financials.

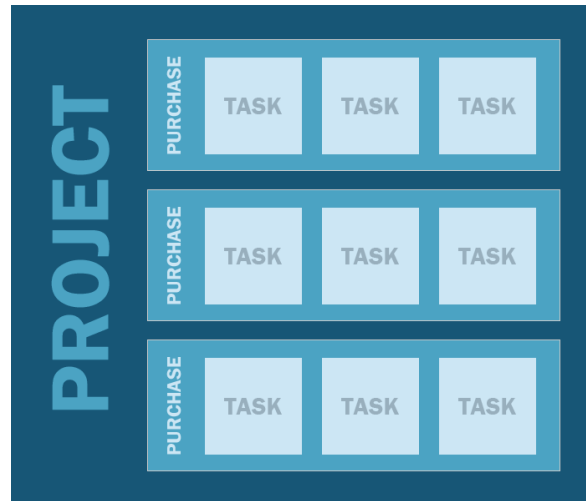


Figure 1: Project-Purchase-Task Relationship

4.2. Studies Access Levels / User Roles

Authenticated MIP studies users are assigned one of three different levels of access in the system. Higher access levels include all capabilities of the lower access levels.

- **Task:** “Producer” role. The majority of MIP users fall into this category. Producers submit tasks that are assigned to them. Task access users are able to assign tasks to other MIP studies users. This access level also includes those users who are responsible for completing validation tasks, typically a Black Belt.
- **Task + EV:** “Manager” role. This role has the same abilities as the task-level user, but can also view and manage financials in the Track Task view of the Task Studies Workbench, and update project status.
- **Project:** “Administrator” role. Project administrators serve as project creators. They create, edit and manage projects and purchases, and do the initial task assignments at task creation. Regional MIP Champions and RPMLs fall into this category.

Table 4: MIP Amendments Roles and Responsibilities

Available Actions	Project (Administrator)	Task + EV (Manager)	Task (Producer)
Create Project	X		
Create Purchase	X		
Create Task	X		
Update Task Progress	X	X	
Assign Task	X	X	X
View Task Status	X	X	X
Submit Task	X	X	X

4.3. MIP Studies Business Flow

As shown in Figure 2 below, the MIP Studies application supports many flood risk information production and outreach activities that occur throughout the Risk MAP flood risk project lifecycle.

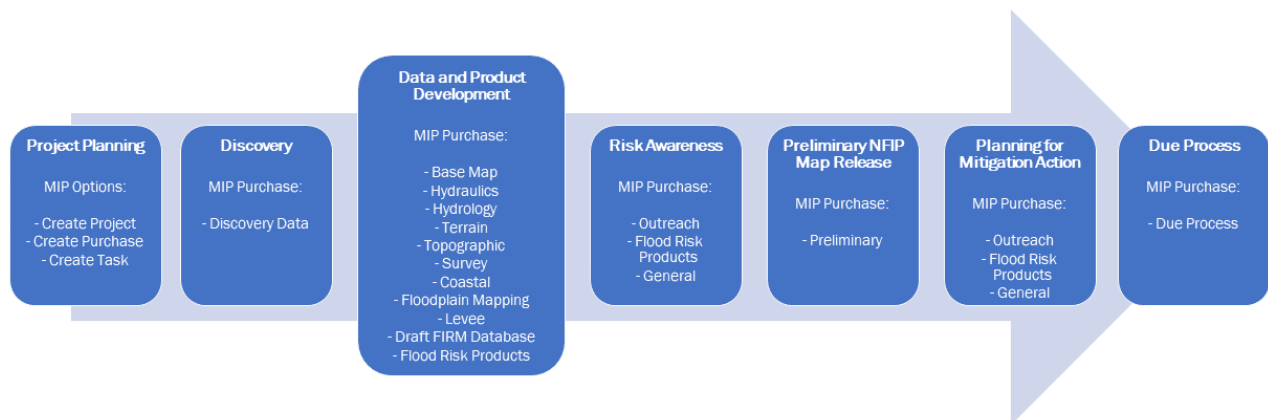


Figure 2: Risk MAP Project Lifecycle Diagram including elements from MIP Studies Workflow

Within the MIP, the Studies process diagrams (see Attachment C) is divided into three major sections, all of which may include elements of data capture, quality, outreach, and project management:

- Discovery and Data Development:
 - The initial collection, development, review, and delivery of applicable study data.
 - Initial community outreach and feedback.

- Preliminary Map Production and Outreach:
 - Preparation, review, and delivery of preliminary map products to the communities.
 - Community outreach and feedback.
- Post Preliminary Processing:
 - Conduct, record, and review appeals and comments.
 - Present final maps to the community.
 - Preparation and review of final map products.
 - Submit final map products to the Map Service Center (MSC) for posting to MSC website and delivery to communities.
 - Manage map adoption.
 - Manage revalidation.

Figure 3 below shows the tasks that are available in each of these three sections.

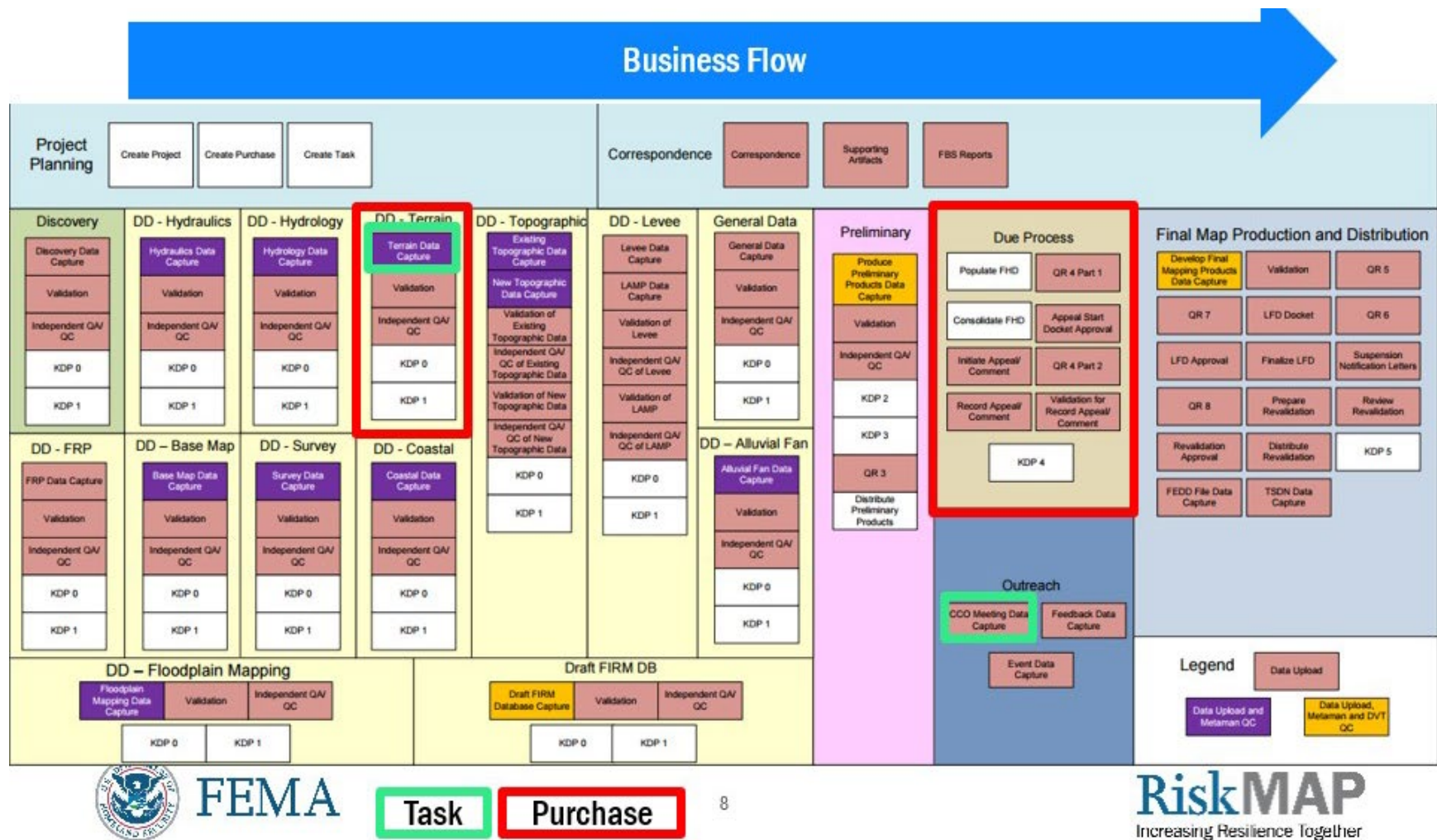


Figure 3: MIP Studies Available Purchases and Tasks

5. Studies Project Management

Per FEMA Program Standard SID #1, all Flood Risk Projects must be tracked in the MIP and SID 635 (effective for all new work funded in Fiscal Year 2020) states that the full annual Risk MAP Regional allocation must be tracked in the MIP. Project creation, overall portfolio health, and earned value monitoring is the responsibility of the Region and RPML. The lifecycle of a project, including progress tracking, task completion, and data upload are managed by the Project Management Team (e.g., CTP, PTS, CERC).

5.1. Earned Value

Project cost and schedule performance is derived from Earned Value (EV) information that is entered at the task level and then consolidated for project level calculations. Earned Value reporting in the MIP provides FEMA with an overview of a project's health and whether a project is adhering to the schedule and cost expectations.

Study Managers are required to update the "Actual Start Date", "Dollars Spent", "As Of Date", and "Percent Complete" fields in the MIP for all of their assigned tasks by the end of each calendar month. These updates are captured through the Track Task Progress tool within the Study Task workbench and should continue until 100% completion is attained for each task. Please note that once a task is set to complete, it will continue show up in the Track Task Progress tool for up to 90 days in order for the study manager to log any final EV information.

Terminologies for EV calculations:

- ACWP (AC) – Actual Cost of Work Performed
- BCWP (EV) – Budgeted Cost of Work Performed
- BCWS (PV) – Budgeted Cost of Work Scheduled (planned)

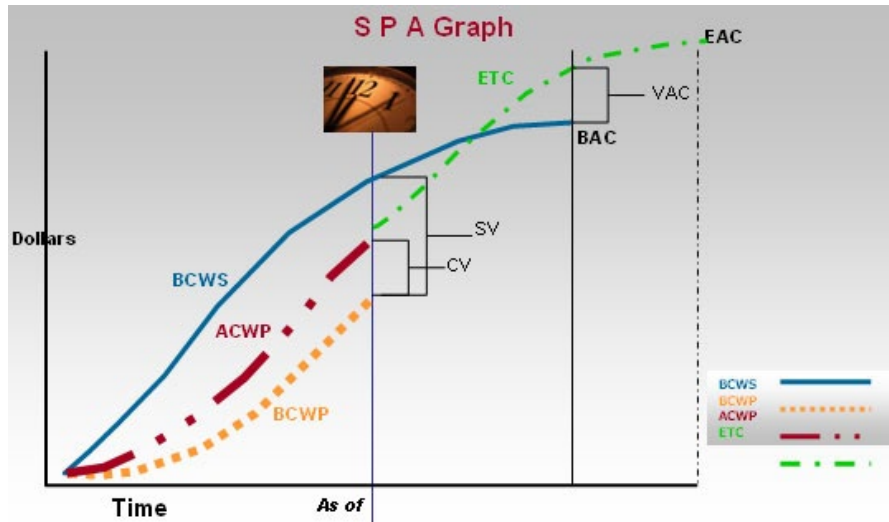


Figure 4: Earned Value Graph

PERFORMANCE INDICES

Sample Tolerances:

- Cost Performance
 - Cost Variance (CV) \$ = BCWP - ACWP
 - Cost Performance Index (CPI) = BCWP/ACWP
- Schedule Performance
 - Schedule Variance (SV) \$ = BCWP - BCWS
 - Schedule Performance Index (SPI) = BCWP/BCWS

Green - On Target: 0.95 - 1.05
Yellow - At Risk: 0.90 - 1.10
Red - Out of Tolerance: < 0.90 or > 1.10

Figure 5: Earned Value Performance Indices

Table 5: Earned Value Example (Cost in Dollars)

Task	Task Baseline Budgeted Cost	Percent of Work Actually Completed	Days since Baseline Task Start/ Total Duration of Task in Days	BCWP	ACWP
Discovery	6,000	100%	14/14	6,000	7,000
Draft FIRM Database	70,000	100%	90/90	70,000	72,000
Floodplain Mapping Data Capture	30,000	50%	180/180	15,000	17,000

Task	Task Baseline Budgeted Cost	Percent of Work Actually Completed	Days since Baseline Task Start/ Total Duration of Task in Days	BCWP	ACWP
Preliminary Map Production	85,000	15%	90/90	12,750	10,000
Post Preliminary Processing	109,000	10%	30/90	10,900	15,700
	300,000		TOTALS:	114,650	121,700

BCWP = Task Baseline Budgeted Cost x Percent of Work Actually Completed (e.g., Prelim Map Production \$85,000 x 0.15 = 12,750).

BCWS = Task Baseline Budgeted Cost x Days since Baseline Start / Total Duration of Task in Days (e.g., Post Prelim Processing \$109,000 x 30/90 = 36,333).

CPI = BCWP / ACWP = 114,650 / 121,700 = 0.94

SPI = BCWP / BCWS = 114,650 / 227,333 = 0.50

A CPI of 0.94 means that the project is providing 94 cents of value for every dollar earned (OVERRUN). An SPI of 0.50 means that the project has completed 50% of the planned-to-date value (BEHIND SCHEDULE).

Table 6: MIP Tasks with Earned Value Tracking

Task Name	Purchase Type	Purchase Group
Alluvial Fan Data Capture	Alluvial Fan	Data Development
Base Map Data Capture	Base Map	Data Development
CCO Meeting Data Capture (EV tracking optional)	Outreach	Outreach
Coastal Data Capture	Coastal	Data Development
Discovery Data Capture	Discovery	Discovery
Draft FIRM Database Data Capture	Draft FIRM DB	Data Development

Task Name	Purchase Type	Purchase Group
Due Process Management	Due Process	Post Preliminary Processing
Event Data Capture (EV tracking optional)	Outreach	Outreach
Existing Topographic Data Capture (EV tracking optional)	Topographic	Data Development
Final Mapping Products Management	Final Map Production and Distribution	Post Preliminary Processing
Flood Risk Products Data Capture	Flood Risk Products	Data Development
Floodplain Mapping Data Capture	Floodplain Mapping	Data Development
General Data Capture (EV tracking optional)	General	Data Development
Hydraulics Data Capture	Hydraulics	Data Development
Hydrologic Data Capture	Hydrology	Data Development
Independent QA/QC	multiple	multiple
LAMP Data Capture	Levee	Data Development
Levee Data Capture	Levee	Data Development
New Topographic Data Capture	Topographic	Data Development
Produce Preliminary Products Data Capture	Preliminary	Preliminary
Survey Data Capture	Survey	Data Development
Terrain Data Capture	Terrain	Data Development

5.2. Creating Studies Projects

A project is defined as a collection of one or more purchases which together address the needs of a specific study area (e.g., HUC-8 or other defined planning area such as a levee system or coastal area).

Studies Projects:

- Aligns with P4, project creator will need to enter P4 Project ID during project creation.
- Includes contract information and modifications, project can span multiple fiscal years.
- Contains a single purchase or group of purchases, including multiple provider organizations:
 - Single purchase project – for some project types such as LiDAR or Levee a single purchase with multiple tasks is sufficient to execute the project scope.
 - Multiple purchase project – watershed project is typical example of a project with multiple purchases (i.e., Discovery to Final Mapping).
- Has no geography associated.

The study project workbench enables project access users to create new study projects in the MIP. Each new MIP project is assigned a nine-digit project number. The first two digits of the project number indicate the fiscal year in which the project was created, the second two digits indicate the Region, the next four digits are a sequentially generated number, and the letter at the end indicates project type (e.g., XX-XX-XXS for study). FEMA’s fiscal year does not align with the calendar year, so in project creation, the first two digits automatically turn over at midnight on September 30th. Projects created on October 1st and later will have the following calendar year assigned as the fiscal year.

Project Creation Guidelines:

- **Roles:** All projects will be created and owned by the Region or designee, such as an RPML. Purchases and tasks that exist within a project should be created and assigned as task orders or grants are approved and funded.
- **Project title:** Project names should contain information about the project and follow standard project naming conventions, see Section 5.2.1.
- **Region identification:** Region should be identified during project creation. If there are multiple Regions to consider then a “Lead Region” should be selected from the drop down.
- **Contracts:** Contract information will need to be entered by the project creator when setting up a project, including fiscal year, task order number, organization, and baseline dates.
- **Contacts:** It is recommended that each project should include contact information for a Regional Project Engineer/Monitor.
 - The project creator should also consider including provider contact information such as TO Manager, CTP Manager, and / or study manager.

- There can be multiple providers working within a project at any given time so contacts can include individuals from different providers, particularly for Discovery, Outreach, and Post-Preliminary purchases.
- Project level contact information is for reporting purposes and will not impact task assignments.
- **New or Existing project considerations:** Project Creators must consider whether to create a new project or add new purchase to an existing project. There are many potential project creation considerations, though below is the most optimized approach to supporting both FEMA Regional and Headquarters reporting requirements and to support the Risk MAP process and other tools within the MIP.
 - **Discovery Projects:** Create a new MIP case number when beginning this phase of the Risk MAP lifecycle and this type of project would include the Discovery Purchase and related tasks. The geography of these projects are likely watershed wide or portions of a watershed. At the beginning of these projects, these will likely not be identified as regulatory projects as only at end of this phase, FEMA will be able to identify priority flooding sources to further fund the development of the regulatory products.
 - **Data Development Projects:** Create a new MIP case number when beginning this phase of the Risk MAP lifecycle and add purchases within this Data Development Project (MIP case number) as they are funded if done in phases. Data Development Projects could include Base Map, Survey, Terrain, Topographic Hydrology, Hydraulics, Coastal, Alluvial Fan, Levee, Flood Risk Products, Floodplain Mapping, Draft DFIRM, and General Purchases. Please note that Base Level Engineering(BLE) funded work would also be included within these project types if FEMA has identified that this data will result in regulatory products. The geography of these purchases will vary and can include the full watershed or portions of a watershed, county wide or portions of a county, or even community based. These projects will be identified as regulatory projects as miles are being initiated and included within the NVUE metric calculations.
 - **Regulatory Projects:** Create a new MIP case number when beginning the Preliminary issuance phase for a county or portions of a county and add purchases within this Regulatory Project(MIP case number) as they are funded if done in phases for that particular county or portions of that county. This new case number should contain the Preliminary, Dues Process, Outreach, and Final Map Production and Distribution purchases for one county or portions of one county. The geography of these purchases will either be the full county wide or portions of a county, or even community based, though the Regulatory Project(MIP case number) should not contain more than one county. These projects will be identified as regulatory projects as miles are being attained and included within the NVUE metric calculations.

For step-by-step instructions on project creation see MIP User Care.

5.2.1. STUDIES PROJECT NAMING CONVENTION

A MIP project name should be practical and intuitive, using common language to help quickly identify projects for MIP users who daily interact with the study MIP case numbers. Standardized elements should be used when creating a MIP project name, recommended elements are shown in Table 7 and Table 8 below.

Table 7: MIP Naming Convention for Regulatory Projects

Recommended Element	Description
Fiscal Year (if applicable)	Only to be used if the scope of work will be entirely confined to ONE fiscal year (very rare). e.g. FY23
County Name	e.g. Flood County
State Name	e.g. ST
Study Type	e.g. PMR, or first-time countywide (represented as “1 ST CW”)

Project name examples:

Shelby County, NM – PMR

Roosevelt County, AK – 1ST CW

Table 8: MIP Naming Convention for Data Development Projects

Recommended Element	Description
Fiscal Year (if applicable)	Only to be used if the scope of work will be entirely confined to ONE fiscal year (very rare). e.g. FY23
Watershed Name	e.g. Big River Watershed
HUC8 Code	e.g. 11050002
State Abbreviation	e.g. AR
Study Name	Used if the study area is smaller than a watershed
Study Type	e.g. BLE, Levee, LAMP, Coastal

Project name examples:

Upper Beaver Watershed, OK (FY22 | 2D BLE)

Survey – Blue River Delta, LA (FY23)

FEMA Regions should coordinate with their MIP Champions and RPMLs to develop appropriate names for projects in the MIP. MIP Champions and RPMLs also have the access rights to change the name of a project already created in the MIP.

5.3. Managing Studies Projects

Project Management Guidelines:

- **Roles:** All project level updates will be the responsibility of the project owner, who is typically the FEMA Regional Project Monitor or its designee, such as an RPML.
- **Contracts:** New contracts or contract modifications (e.g., change request, grant extension, or scope clarification) must be added to the project as necessary.
 - The project owner must update contract change information at the Purchase and / or Task level, once both the Region and Headquarters (if applicable) have signed the modification. This should happen on a rolling basis as the modifications are approved.
 - The project owner should notify the Mapping Partner and Region that the changes to the project information have been entered and work can proceed.
- **Status management:** Project status is managed manually for all project phases. For example, because the studies workflow is no longer system driven the project status will not automatically change to “Completed” once all Post-Preliminary tasks are complete. Status changes should be coordinated with the Region, the RPML, and/or the MIP Champion.
 - 1) Project status (Active/On-hold/Closed/Completed, etc.) should be managed manually for all project phases.
 - 2) Requests to close or complete a project in the MIP should be sent by the mapping partners to the project owner, namely the Region, RPML, or MIP Champion. This should occur once the mapping partner has completed all assigned tasks, processed their final invoice, and marked associated tasks as 100 complete in the Studies Workbench.
 - 3) Status definitions:
 - Active – an in-progress project that is at any point in the workflow.
 - Closed - a project that does not continue processing through the workflow. The case is terminated somewhere in the workflow. This status indicates when scoped activities

within a project were not completed, project activities were de-scoped, or a contract expired before scope could be completed.

- **Completed** – indicates a project was completed as scoped (e.g., completed LiDAR or Discovery), or a project with a final mapping purchase has reached an effective date. Please note a project could have multiple counties in final mapping, and each would have to reach an effective date before changing project status to Completed.
- **On-hold** – only applicable to Studies projects. Placing a project on-hold should be coordinated with the Region on an as-needed basis. This status should only be used as a temporary action since it suspends project work and associated EV calculations for all tasks within the project. Long term (i.e., more than 3 months) on-hold projects should be re-baselined or taken to a final status such as Closed or Completed.
- **Inactive** – only applicable to Revisions and Amendments projects, when a project has yet to be assigned a project resource or the project is awaiting requested data and/or fees.
- **Suspended** – only applicable to Revisions and Amendments projects, a project is suspended due to insufficient data, lack of payment, or a potential violation.
- **Withdrawn** - only applicable to Revisions and Amendments projects. A project that does not continue processing through the workflow. The case is terminated somewhere in the workflow because the requester wishes to withdraw their revision request.
- **Removed** – indicates a project was created in error or is no longer valid. This could be a legacy project that was replaced with a new MIP case number and all the data from the legacy project is now included with the new case number. Projects with this status will not show up in any reports or on anyone's work item list. This is the equivalent to a 'junk' status. A project can be moved to the 'removed' status through the FEMA Help Desk.

5.4. Creating Studies Purchases

Studies Purchases:

- Collections of Studies activities or tasks, housed within a project.
- Represent an investment (e.g., hydraulics, hydrology, coastal, levee, outreach, etc.) for a particular geography (e.g., watershed, county, etc.).
 - Geography clarifications:
 - Discovery and Data Development - watershed level geography, typically, but can vary.
 - Draft, preliminary, and final map production - county level geography.

- Due Process – only communities which need an appeal period; these communities should be identified during preliminary distribution and marked as such in the *Appealable Changes* column of the *Communities* section of the Distribute Preliminary Data Capture MIP task.
- Unlike projects and tasks, do not contain contract information.
- Group tasks which are performed together for a defined geography.
- Have the option to have multiples of the same purchase within a project, representing multiple contracts, providers, or activities.

For a diagram of available purchases see Attachment B: Study Strawman.

Purchase Creation Guidelines:

- **Roles:** All purchases will be created and owned by the Region or designee, such as an RPML. Purchases and associated tasks should be created and assigned as task orders or grants are approved and funded.
- **Purchase name and Description** (required): Please see Section 5.4.1.
- **Purchase Information:**
 - Purchase Group (required): There are five purchase groups based on the project activity type. Purchase group options include Discovery, Data Development, Preliminary, Outreach, and Post-Preliminary. The project creator will select the appropriate purchase group based on contract information.
 - Purchase (required): Allows the project creator to select a purchase type from the purchase group. For example, from the Data Development group the project creator can select from purchase options, such as hydrology, hydraulics, survey, etc.
 - Purchase Type Indicator: This allows the project creator to clarify the purpose of a purchase. It is important to select the appropriate purchase type indicator during purchase creation as it can change how other tools function. For example; the BLE purchase type indicator, when selected for a Draft FIRM purchase, changes the DVT rules used in the Data Capture task. After purchase creation the Purchase Type Indicator cannot be modified by a project-level user. The following indicators are available:
 - Revised Preliminary (required for a Revised Preliminary Date to be utilized in the Due Process MIP Tasks as the Preliminary Date)
 - Large Scale Automated Engineering (LSAE)
 - Base Level Engineering (BLE)

- Physical Map Revision (PMR)
- **Geography:** Geography is defined based on contract scope and is entered during purchase creation by the Region or designee, such as an RPML.
- **Contacts:** At a minimum, each purchase should include contact information for a Regional Project Engineer/Monitor.
 - The project creator should also consider including provider contact information such as TO Manager, CTP Manager, and / or study manager.
 - There can be multiple providers working on a purchase so contacts can include individuals from different providers, particularly for Discovery and Outreach purchases.
 - Purchase level contact information is for reporting purposes and will not impact task assignments.

For step-by-step instructions on purchase creation see the Studies section of MIP User Care.

5.4.1. STUDIES PURCHASE NAMING CONVENTION

HUC Code (typically HUC8) and watershed name should be identified for all watershed-based purchases (Data Development only) and county names should be identified for all county-based purchases (Regulatory). The fiscal year of funding for the purchase should be included in the name, a full list of recommended elements can be found in Table 9 and Table 10 below:

Table 9: MIP Naming Convention for Regulatory Purchases

Recommended Element	Description
Fiscal Year (represented as FYXX)	e.g. FY21 for fiscal year 2021
County Name	e.g. Flood County
State Name (optional)	e.g. ST
Revised Prelim	Used only to indicate a Revised Preliminary Purchase
General Purchase Type	Used only for General Purchases to indicate type (e.g. “ODC Cost Tracking”, or “Project Management Funding”, etc.)

Purchase name examples:

Due Process – Harbor County, ME (FY23)

Preliminary - Camden County, NJ | Revised Prelim (FY21)

General – ODC Cost Tracking| Water County, TN (FY20)

Table 10: MIP Naming Convention for Data Development Purchases

Recommended Element	Description
Fiscal Year (represented as FYXX)	FY21 for fiscal year 2021
Watershed Name	e.g. Big River Watershed
HUC8 Code	e.g. 11050002
State Abbreviation	e.g. AR
Study Name	Used if the study area is smaller than a watershed
Study Type	e.g. BLE, Levee, LAMP, Coastal

Purchase name examples:

Hydraulics – Wet Watershed BLE | HUC 11050002 (FY22)

Survey – Blue River Delta, LA (FY23)

In addition to the purchase name, the purchase description allows the project creator to further describe and clarify the purpose of a purchase. Project creators should consider including details such as, whether the purchase is associated with new, restudied, or leveraged analysis, including a list of stakeholders, the study extent, a description of the associated geography, and Mapping Partner (PTS/CTP) information. This information should come from contract and grant information, such as the scope of work.

5.4.2. ASSIGNING THE GEOGRAPHY OF A PURCHASE

The MIP allows purchases to be tagged with a HUC number, typically a HUC8. Project creators should identify a HUC8 number, when possible, for Data Development purchases, and then edit or refine the associated geography (remove or add counties, communities, etc.) depending on purchase type, scope of work, and/or project area. If selecting a HUC is not feasible for a given purchase, the project creator should define the geography directly related to the purchase type and scope of work, typically the county and communities impacted by a project footprint. The three main types of purchases, in terms of geography, are listed below.

- **Watershed** (Discovery and all Data Development except regulatory Draft FIRM):
 - HUC Code (typically HUC8) and watershed option will pull in all counties and communities from the community layer that intersect the selected HUC. Project creators can add and remove communities as needed, depending on the project area.
- **County** (Regulatory Draft FIRM, Preliminary, Due Process, Final Map):
 - Select state and county, or counties, that represent the project area.
- **Physical Map Revision (PMR)** (Portion of a community's flood hazards need to be revised and updating the full countywide is not necessary - Regulatory Draft FIRM, Preliminary, Due Process, Final Map):
 - Select state, county, and only those communities within PMR footprint.
 - Due Process Purchase – only communities which need an appeal period should be included in the due process purchase geography. The communities impacted by FHD changes should be identified by the mapping partner during Prelim distribution.
 - If comments are received by a community without FHD changes, the purchase geography should be revised to include this community and enable the recording of a comment in the Record Appeals/Comments task.
 - The tasks within a Due Process Purchase can be reopened and adjusted if an appeal period restart is required.
 - If a second appeal period is required, a second Due Process Purchase must be created.

5.4.3. PURCHASE CONSIDERATIONS

Discovery Purchase Considerations

If a Discovery purchase is added to a project, it is recommended that the project creators also add a base map purchase and an existing topographic data purchase to the project. This will allow users to capture any leverage data collected during discovery and have it accurately reported.

- Base Map from Discovery – captured in the Base Map Data Capture task.
- Existing Topo from Discovery – captured in the Existing Topographic Data Capture task.

If no base map or existing topo data is collected during the discovery the project creators can remove or repurpose these purchases after completion of the Discovery purchase. Additionally, it is recommended that the project creator adds an Independent QA/QC task to the Discovery purchase, as well as any additional purchases that contain leverage data.

Draft FIRM Purchase Considerations

The Draft FIRM Data Capture task has the ability to publish data from the MIP to the FEMA Flood Hazard and Risk Data Viewer. In order to do this, the purchase creator must select Yes under the “Publish for Public Sharing & Download” option.

- **Regulatory Draft FIRM Purchases:** The Draft FIRM purchase has an “In Review” option that displays the Draft FIRM data as in review on the FEMA Flood Hazard and Risk Data Viewer. The “In Review” option is used for studies that are displaying data on the viewer in conjunction with an SID 621 compliance review period. In order to do this, the purchase creator must select Yes under the “In Review” option and also provide an end date for the review period.
- **BLE Draft FIRM Purchases:** Draft FIRM purchases can be utilized for publication of BLE data to the FEMA Flood Hazard and Risk Data Viewer. To do this the Purchase Type Indicator must be set to “BLE” and the purchase creator must select Yes under the “Publish for Public Sharing & Download” option. Data published from this type of purchase will appear under the “Available Data” section of the viewer. Through a process called “Sunsetting” BLE data sets submitted to the MIP may have portions removed from publication to the viewer, see MIP user care for additional details. Also note that Draft FIRM purchases with the BLE Purchase Type Indicator allow the purchase creator to set a custom CID to Validation Against. This allows watershed-based datasets to run through the built-in DVT function of the draft FIRM database data capture task. DVT rules are also different for Draft FIRM for BLE tasks, refer to Guidance Document No. 28, [Guidance for Flood Risk Analysis and Mapping: Database Verification Tool \(DVT\)](#) for more details.

Additionally, it is recommended that the project creator adds an Independent QA/QC task to this purchase.

Levee Purchase Considerations

The levee purchase will capture levee accreditation (Levee Data Capture) or LAMP plan information (LAMP Data Capture). This purchase and associated tasks are intended to collect non-engineering data, such as correspondence, letters, and the LAMP Plan. Any hydraulic and hydrology analysis (e.g., interior drainage) should be uploaded in those purchase types separately from the levee purchase. Additionally, it is recommended that the project creator adds an Independent QA/QC task to this purchase.

Project creators and study managers should consider geography, number of levee systems, and type of analysis, when setting up a levee purchase. These considerations will determine whether single or multiple purchases and tasks are needed.

Purchase set up recommendations:

- Single levee system with one approach/analysis:

- One levee purchase with geography specific to levee system.
- One levee or LAMP task for data capture .
- Multiple levee systems with one approach/analysis:
 - One levee purchase to capture all levee systems.
 - Comprehensive geography, not specific to any one system.
 - One levee or LAMP task for data capture.
 - Multiple levee system IDs should be entered.
- Multiple levee systems with multiple approach/analysis:
 - One levee purchase to capture all levee systems.
 - Comprehensive geography, not specific to any one system.
 - Multiple levee or LAMP tasks for data capture
 - Each distinct analysis (e.g., natural valley, accreditation, LAMP, etc.) should be captured in a separate levee and/or LAMP data capture task.

Base Map and Elevation Purchase Considerations

Base map and elevation data collection and processing can occur at various points in the project lifecycle. To support the searchability and use of MIP project information it is important that users collect base map and elevation datasets through the appropriate purchase types. For example, base map and elevation data collected during or for the purposes of carrying out Discovery, Large Scale Automated Engineering, or Base Level Engineering should be submitted through the appropriate Base Map Data Capture, Existing Topographic Data Capture and/or Terrain Data Capture tasks associated with those project activities. Additionally, it is recommended that the project creator adds an Independent QA/QC task to this purchase.

- **Additional elevation considerations:** The finished terrain model/surfaces used for modeling and floodplain mapping must be submitted. If existing or gathered elevation data are used as-is, it is only necessary to submit the data once under an Existing Topographic Data Capture task. A readme file and a metadata file indicating this should also be submitted under the project's Terrain Data Capture task. If the elevation data are processed by a Mapping Partner for use in a Flood Risk Project (e.g., Hydrologic and Hydraulic modeling), the source data should be submitted under the applicable New Topographic Data Capture or Existing Topographic Data Capture task and the processed data should be submitted as final data under a Terrain Data Capture task.

Hydraulics and Hydrology Purchase Considerations

When creating a BLE project in the MIP, at least one Hydraulics purchase must be created for delivery of the engineering data (model(s), supporting data, and output files). Hydrology developed for a BLE project may be delivered to a Hydraulics Data Capture task. Additionally, it is recommended that the project creator adds an Independent QA/QC task to this purchase.

- **Additional LSAE and BLE considerations:** This type of data should be submitted to the MIP under the applicable Hydrology, Hydraulics, Flood Risk Products, and Floodplain Mapping purchases and tagged with the appropriate Large Scale Automated Engineering or Base Level Engineering purchase type indicator. If LSAE or BLE data is subsequently refined as part of another MIP purchase, the refined data should be submitted under the appropriate MIP Data Capture task(s) (e.g., hydrology, hydraulics, or floodplain mapping) of the subsequent MIP purchase. Only the portions of the LSAE or BLE data that are updated and/or used for the regulatory maps need to be submitted.

For additional information on Hydraulics and Hydrology requirements see the Data Capture Technical Reference, Guidance Document No. 51, [Guidance for Flood Risk Analysis and Mapping: Data Capture Workflow Details](#), and Guidance Document No. 46, [Guidance for Flood Risk Analysis and Mapping: Data Capture General](#).

Revised Preliminary Purchase Considerations

Revised preliminary purchases (e.g., Preliminary, Draft DFIRM, etc.) can be tagged with a purchase type indicator of 'Revised Preliminary' and added within an existing Flood Risk Project. Most Preliminary purchases identified with the purchase type indicator of 'Revised Preliminary' are subject to Quality Reviews (QR) 1, 2, and 3. A Draft FIRM purchase, as well as QR1, is required if there are any modifications to the FIRM Database as a result of the Revised Preliminary effort. Other data development tasks can be created and tagged 'Revised Preliminary' depending on the scope of the revision, and the type of data being revised. Should a second statutory 90-day Appeal Period be required, a Due Process purchase will also be required.

See Guidance Document No. 57, [Guidance for Flood Risk Analysis and Mapping: Preliminary Distribution and Revised Preliminary](#) for a detailed description of setting up Revised Preliminary purchases in the MIP.

General Purchase Considerations

General purchases can be used to capture a broad range of Risk MAP related activities. These activities are typically non-technical in nature and not related to a specific mapping project. They could include regional standard operations, program management hours, awareness metric tracking, and CERC related activities, as well as many others.

This purchase does track earned value information, however, in some cases a zero-dollar purchase may be needed. Providers should work with the appropriate FEMA staff to determine how this purchase should be used.

See MIP User Care for more information about General Data purchases.

Outreach Purchase Considerations

The outreach purchase includes three task types: Consultation Coordination Officer (CCO) Meeting, Feedback, and Event. See the following considerations on when and how to use these outreach activities.

- **CCO Meeting task** – should only be set up if funded within a mapping project.
 - If a CCO is not funded the decision to forgo the meeting must be documented with the Region, and the community must be notified by letter per Program Standard 384 (SID# 384).
 - The budget for the CCO meeting may be funded within another outreach purchase, in which case a standalone purchase would be created for data capture only.
- **Feedback task** – this task is unique in that it can capture feedback throughout the lifecycle of a project and can be shared with multiple providers. Therefore, it should be created for all projects with regulatory mapping activities. Project teams should use this task to collect any feedback or community comments received from the various 30-day comment periods (e.g., 620 letter, 621 letter, Preliminary Distribution, etc.) or outreach events (e.g., CCO Meeting, FRR Meeting, Resilience, etc.) Please note the feedback task is not intended to capture appeals or comments received during the statutory 90-day appeal period, instead defer to the due process purchase.
- **Event task** – should only be set up if funded within a mapping project. This will capture a variety of Risk MAP outreach activities and their associated deliverables, not related to the CCO meeting, Discovery, or LAMP. Outreach data capture under the event task may include Flood Risk Review, Resilience, and associated deliverables such as reports, meeting materials, and 620, 621, and 622 letters. Any feedback or comments received during an outreach event should be logged in a feedback task. This task may also be used to document events outside of a Flood Risk Project, such as a High Water Mark Event. Such an event should be given its own project number.

It should be noted that Discovery engagement and LAMP meetings are also tracked separately under their own MIP data capture purchases and tasks.

Due Process and Final Map Purchase Considerations

Due process and final mapping purchases will only be created if funded by the Region. The project creator should consider the following purchase requirements when setting up a due process or final map purchase.

- Consolidated FHD: The project creator should create one Consolidated FHD tasks under the Due Process purchase for the Proposed Notice.
- FEDD File Data Capture: If a Due Process Purchase is created the project creator should also create a Final Mapping Purchase with a FEDD file task to capture FEDD File Interim 1.
- Due Process Purchase:
 - Only communities which need an appeal period should be included in the due process purchase geography. The communities impacted by FHD changes should be identified by the mapping partner during Prelim distribution.
 - If a second appeal period is required, a second Due Process Purchase must be created.

For additional information on the Post Preliminary deliverable requirements see Guidance Document No. 55, [Guidance for Flood Risk Analysis and Mapping: Post-Preliminary Deliverables Guidance](#).

5.5. Updating the Geography and Status of a Purchase

All purchase level updates will be the responsibility of the project owner typically the Region or designee, such as an RPML.

Purchases are grouped into the following categories: Discovery, Data Development, Outreach, Preliminary, and Post Preliminary. Please see the following purchase management considerations:

- **Updating the Purchase Geography:** Geography should be clearly defined when planning a project and developing a scope of work to ensure that the correct geography is identified during purchase creation. Purchase geography should not be edited once purchase creation is complete. However, an error at purchase creation, or a contract modification, may require an update to purchase geography. The mapping partner should work with their RPML or MIP Champ to make the necessary geography updates. Please use the Geography Update Form to document the changes needed available on the FEMA SharePoint Applied Approach site (<https://rmd.msc.fema.gov/site/GSSC/SitePages/Applied%20Approaches%20and%20Lessons%20Learned.aspx>). If there are any questions or need to locate this file, users can request it from a FIRST team member. Changes to purchase geography will be reflected in any associated tasks within the purchase.
- **Updating the Status of a Purchase:** Each purchase status can be managed independently of the overall project status. However, management of purchase status still lies with project creator or FEMA Help Desk.
 - Purchase status must be managed manually for all project phases. To do this the mapping partner will need to coordinate with the RPML or MIP Champ.

- Purchase status can differ from the overall project status. For example, the project can be active while the Hydrology purchase can be placed “on-hold”. Placing an individual purchase on-hold does not suspend EV calculations for that purchase. To suspend EV calculations the data capture task status must be placed “on-hold.”
- Updated status definitions:
 - Active – scoped purchase activities are ongoing and contract mechanism is not expired, includes active EV calculations.
 - Completed – indicates a purchase is complete, including all associated tasks within the purchase.
 - On-hold – purchase activities have stopped temporarily, including work on associated tasks. This status at the purchase level does not suspend EV calculations.
 - Closed – indicates that a purchase that will not continue processing through the workflow. This status indicates when scoped activities within a purchase were not completed, were de-scoped, or a contract expired before scope could be completed.

For additional programmatic information pertaining to individual purchases, and purchase set up considerations, see MIP User Care.

5.6. Creating Tasks

Tasks are study activities within a purchase, assigned to and completed by MIP studies users, including managers, producers, quality reviewers, data validators, and FEMA.

Most granular level of MIP study organization characterized as:

- Requiring contract and modifications (i.e., change requests) to be captured to support EV tracking:
 - Seen only by Task + EV access level users.
 - Task set-up includes: baseline start and end dates, negotiated cost, and task order number information.
- Assignment of tasks to MIP user(s) occurs during task creation.
- Allowing for multiples of the same task to exist within a purchase.
- Having a “business driven” process, instead of system driven. Meaning that users are responsible for understating workflow sequence and in which order tasks should be completed.

- System does not trigger users as to what task to complete next, since all tasks within a purchase are assigned at the same time.

5.6.1. STUDIES TASK NAMING CONVENTION

Project creator is required to enter a task name (free text field) to supplement and clarify task purpose and provider roles. In most cases the task name will simply be a duplication of the task type, such as QR3, Validation, Base Map, etc. However, the project creator when creating a MIP task should consider how auto-generated task names work when utilizing that functionality.

In addition to the task name, the task description allows the project creator to further describe and clarify the purpose of a task. Project creators should consider including details such as, whether the task is associated with new, restudied, or leveraged analysis, including a list of stakeholders, the study extent, a description of the associated geography, and Mapping Partner (PTS/CTP) information. This information should come from contract and grant information, such as the scope of work.

5.6.2. CREATE TASKS

Task Creation Guidelines:

- Roles:
 - **Administrator** (project access) – all tasks will be created by the Region or designee, such as an RPML. Purchases and associated tasks should be created and assigned as task orders or grants are approved and funded.
 - *Order of task creation:* Create data capture tasks first, then create the validation task. The task creator needs to associate the validation task with a data capture task.
 - **Manager** (task + EV access) – entering EV related information such as cost and progress is based on the user having task + EV access. Task + EV users update progress per task using the Study Task workbench.
 - **Producer** (task access) – tasks are assigned to and completed by the mapping partner funded to perform the study related activity. Producers access and complete tasks through the Study Task workbench. However, they do not see EV related items such as cost and percent complete.
- Task Information:
 - **Task type** (required): Allows project creator to select a task from a drop-down list of available tasks based on associated purchase type.
 - **Task name and Description** (required): Please see Section 5.6.1.

- **Baseline start / end dates** (required): This contract information, which supports EV calculations, is required to be entered by the project creator during task creation. If the task does not track EV, there will not be any baseline start/end dates entered.
- **Geography:** The associated purchase geography defines the task geography. For geography clarifications please see Section 5.4.2.
- **Contracts and EV:** Contract information such as task order number and organization are stored and maintained at both the project and task level of a MIP project by the project owner. However, cost (in dollars) is only stored at the task level.
 - Task contract information includes: task order number, organization, and current negotiated cost.
 - Task order information is already stored at the project level when creating a task, the project owner must select from a predetermined task order drop down list within the task creation screen.
 - Negotiated costs are stored within each funded task.
 - Baseline date and cost date together will be used for EV calculations at the task level.
- **Assigning tasks:** All tasks associated with a funded purchase are assigned during task creation to the responsible users.
 - Typical task assignments:
 - Production tasks (data capture, QA/QC) – Mapping Partner or provider.
 - Validation tasks – Region, designee, or MIP Black Belt.
 - KDP tasks – Region, designee, or MIP Black Belt.
 - Quality Review tasks – QR Lead, typically within a PTS provider.
 - Initial task assignment process:
 - The project creator (i.e., Region or RPML) creates and assigns all new tasks to the Regional MIP Black Belt. The production tasks may also be assigned to the study manager at task creation.
 - If the tasks are only assigned to the MIP Black Belt, then they re-assign the production tasks to the responsible study manager. Depending on regional preference, either the Region or the MIP Black Belt will be responsible for completing the validation tasks.

- The study manager may re-assign their data capture and Independent QA/QC tasks to the appropriate project team members. Please note that managers, even if they assign tasks to someone else to perform the work, are still responsible for maintaining accurate EV information in the MIP via monthly reporting.

5.6.3. UPDATING / MANAGING TASKS

Task management guidelines:

- Assignment of tasks to MIP user(s) occurs during task creation.
- Once a task is assigned, a task owner can re-assign a task to any other MIP user.
- Multiples of the same task type can exist within a purchase.
- The same task can be assigned to multiple users (e.g., Manager and Producer).
- Task progression is “business driven”, instead of system driven. Users are responsible for understating workflow sequence and the order in which tasks should be completed.
- System does not trigger users as to what task to complete next, since all tasks within a purchase are assigned at the same time.
- Tasks are managed (including EV updates) from the Study Task workbench.
- Only task + EV users can see EV related items, such as cost and percent complete.
- Users can save entries and data uploads as often as needed using the “Save” button within the task. Saving data does not impact reporting. Saved data is stored on the J drive.
- Once work and deliverables are complete the task owner can click “Submit” to submit the task. Submitted tasks will not be shown in the users Study Workbench
- Users should pay special attention to data which, once populated in the task, is pushed to other FEMA systems (e.g. CIS). Correct entry of critical dates and community data is vital, especially in Final Mapping Purchase tasks.
- Independent QA/QC tasks should be submitted and approved prior to validation.
- All validation tasks should be completed by the Region or a MIP Black Belt.
- Tasks are set to Completed after the task has been submitted, the Independent QA/QC has been approved, the validation has been approved, and the manager has claimed 100% complete in the Track Tasks screen. Completed data migrates to the K drive.
- **Roles:**

- Task Owner, “Producer” – Tasks are assigned when created by the task creator. Once assigned to a user, that MIP user is the task owner. Task owners can then re-assign tasks to any other authenticated MIP user.
- Task + EV Owner, “Manager” – Typically a study manager will be responsible for updating cost and progress for each task. The manager is responsible for updating the EV info every month, even if others on the project team are performing the work or uploading the data.
- Task Creator – synonymous with the project and purchase creator. The Region or RPMLs will be responsible for creating all components of a MIP project including all tasks.
- **Geography changes:** Task geography is tied to the purchase’s geography. Once a purchase and its associated tasks have been created only the project level user can make changes to geography, other than the FEMA Help Desk.
- **Re-assigning tasks:** Once a task has been assigned, the user to which the task is assigned is consider the task owner. All task owners have the ability in the system to re-assign tasks to other MIP users. A study manager can re-assign tasks to the appropriate project team member as needed.
- **Task statuses:**
 - New – Created but not yet started
 - In Progress – Once the user clicks save within the task screen.
 - Submitted – Once the user submits the task.
 - Completed – After the task has been submitted, the Independent QA/QC has been approved (if applicable), the validation task has been approved, and the manager has claimed 100% complete in Track Tasks view, the task status is set to Completed.
 - Closed – If the work on the task is abandoned. This status can only be set by a project-level user.
- **Saving tasks:** Task owners can save entries and data uploads as often as needed using the Save button within the task. Saving data does not impact reporting. Saved data is stored on the J drive.
- **Submitting Tasks:** Once the work and all deliverables are ready, the task owner can click “Submit” to submit the task. Submitted tasks are not shown in the task owner’s study workbench.
- **Completing tasks:** After the task has been submitted, the Independent QA/QC has been approved (if applicable), the validation task has been approved, and the manager has claimed

100% complete in Track Tasks, the task status is set to Completed. Completed data is migrated from the J Drive to the K Drive. All completed work should be delivered in accordance with technical reference and guidance documents.

- **Order of task completion:**
 - KDP (Region or PM team) → Data Capture (Mapping Partner) → Independent QA/QC (Mapping Partner, if scoped) → Validation (Region or Black Belt). See Appendix C for more details.
- **Task Coordination:**
 - The study team is responsible for the correct sequence of task completion. When a data capture task is completed, the study team should coordinate with the subsequent task owner, such as the MIP Black Belt for validation or a QR reviewer for QR tasks.
 - If a validation task or an Independent QA/ QC task is rejected by the reviewer, the MIP will re-open the associated data capture task so the mapping partner can address comments and re-upload data if applicable.
- **Actual dates:** These critical project dates are reported as actual dates once certain tasks are completed. This is important for reporting purposes, such as the project’s Preliminary, LFD, and Effective dates.
- **Finalizing Tasks:** Tasks with associated EV cannot be marked as 100% complete until the associated validation and independent QA/QC tasks are also complete.

5.7. Critical Studies Milestone Dates and Reporting Considerations

Project teams should consider the implications on studies reporting when they manage and complete their assigned project MIP tasks. Keeping critical dates (i.e., Preliminary, LFD, Effective, appeal start / end dates, etc.) populated and up to date is crucial for project monitoring and accurate reporting (e.g., monthly Notice to Congress). These critical dates are identified below, including what tasks impact their reporting and when they should be updated. Please see MIP User Care for detailed instructions and screen captures for updating critical dates.

- **Projected Preliminary Date:** Updated through the *Produce Preliminary Products Data Capture* task. This projected date should initially be entered by the Mapping Partner once the Preliminary tasks have been created and assigned. The projected preliminary date can be updated through the Track task screen by a Task + EV or Project level access user while the *Produce Preliminary Products Data Capture* task is active and reviewed at least 90 days before being attained.
- **Actual Preliminary Date:** Updated through the *Distribute Preliminary Products* task. The actual preliminary date should only be entered by the Mapping Partner once QR3 and KDP3 have been approved. The actual preliminary date is the date that is stamped on the preliminary products.

Once an actual preliminary date is entered and “Send to MSC” is selected the actual preliminary date will be reported to the MIP and MSC. Clicking “Submit” will ultimately complete the task, removing it from a user’s workbench.

- **Appeal Start / End Dates:** Updated through the *Initiate Appeal / Comment* task, using the following date entry fields: “Second Newspaper Publication Date” for the appeal start date and “Appeal End Date” for the appeal end date. These dates are reported to the MIP once they are entered and saved within the *Initiate Appeal / Comment* task; because of this reporting impact it is important that the appeal start and end dates not be entered until the Mapping Partner is ready to start the 90-day appeal period. The appeal start and end dates should be entered by the Mapping Partner once these dates have been scheduled, typically after the Proposed Notice has published in the Federal Register and QR4 part 2 has been initiated.
- **Projected LFD / Effective Date:** Updated through the *CCO Meeting Data Capture* task or the *LFD Docket* task. The projected LFD date should be populated at the time the CCO meeting task or the *LFD Docket* task are created and assigned. If the date needs to be re-projected at any time it can be updated in the Track task screen through the *CCO Meeting Data Capture* task or the *LFD Docket* task by a Task + EV or Project level access user and reviewed at least 90 days before being attained. The projected effective date will be system calculated based on the projected LFD date that is entered by the Mapping Partner.
- **Actual LFD / Effective Date:** Updated through the *LFD Approval* task and will be the responsibility of FEMA Headquarters staff or their designee. LFD approval should not be requested until the successful completion of QRs 5, 6, and 7. Population of an actual LFD date and subsequent completion of the *LFD Approval* task will represent FEMA approval of the LFD docket. The actual effective date will be system calculated based on the actual LFD date entered. Clicking “Save” or “Submit” within this task will trigger reporting of the actual LFD and actual effective date to the MIP and CIS.

6. Data Capture, QC, and Upload

Project data is captured through the MIP via Tools & Links Data Upload, MIP File Explorer, and most commonly through the MIP workflow study data capture tasks. Data shall be captured per the current version of the Data Capture Technical Reference, including MIP folder directory structure and file formats.

The MIP data upload limitation varies depending on which tool is used for file upload: 100 gigabytes (GB) for the MIP workflow (Aspera) and 2 GB for Data Upload and File Explorer. See the Data Capture General guidance and Data Capture Workflow Details guidance documents for additional information on data capture requirements.

6.1. Capturing Studies Data

The Workbench Tab provides authenticated MIP users access to the functions in the MIP. For Studies, users will use the Study Project and Study Task Tabs under the Workbench tab to access project information.

6.1.1. STUDY PROJECT WORKBENCH

The study project workbench is the launching point for all project level access users and allows these users to create, edit, assign, and track Studies projects or tasks. All projects created by, or assigned to the project owner will be visible on this workbench. Typically, this tool will be used by Project Administrators, such as Regional personnel and RPMLs.

6.1.2. STUDY TASK WORKBENCH

The study task workbench is the launching point for all MIP Users who have been assigned to tasks. The study task workbench allows task owners, managers, and producers to assign and re-assign tasks. Task + EV users may use this workbench to complete monthly progress updates to manage EV, by clicking on Track Tasks.

Users only see the tasks that have been assigned to them in their study task workbenches. For visual diagrams of workflow activities see Attachment C: Study Process Diagram, Attachment D: Revision Process Diagram, and Attachment E: Amendment Process Diagram. The Process Diagrams identify user roles for each activity, such as Task Lead, Study Administrator, and Manager.

6.1.3. SUMMARY OF MAP ACTIONS WORKBENCH

This tool is applicable to studies and allows users to categorize effective LOMCs within the project geography for purposes of issuing the Preliminary Summary of Map Action (SOMA), the Final SOMA, and Revalidations documents as well as producing these documents. See Guidance Document No. 85, [Guidance for Flood Risk Analysis and Mapping: Summary of Map Action \(SOMA\) and Revalidation Letters](#) for additional information on SOMA categorization process, description of the categorizations as well overall process specific guidance. The MIP User Care will provide detailed instructions on navigating through the screens when processing LOMCs and producing these documents.

There are a few key considerations to be mindful of when working in the SOMA workbench along with Figure 6 below:

- If a LOMC has an incorrect CID on the determination document, the FEMA Helpdesk cannot move the LOMC from being listed under the incorrect community to the appropriate one within the SOMA workbench, but instead this LOMC needs to be reissued with the correct CID, please see the Categorizing LOMCs with CID Number Discrepancies for SOMAs and Revalidation document on the FEMA RMD Applied Approach site ([Guidelines and Standards - Applied Approaches and Lessons Learned \(fema.gov\)](#)).

- If LOMCs exist on two MIP case numbers that is issuing a Letter of Final Determination at the same time, it is critical to categorize the same LOMCs so that they do not conflict in these two SOMA workbenches and match.
- When issuing revised Preliminaries, the SOMA workbench will show any new LOMCs determined since the original Preliminary date to be categorized, though will not export on the Preliminary SOMA report and will require it to be manually updated to include any new LOMCs.
- The listing of communities within the SOMA workbench is driven by the communities listed in the geography of the Produce Preliminary Products Data Capture and Develop Final Mapping Products Data Capture purchases. Therefore, if communities needs to be added or removed, the purchase geographies need to be modified depending on where the project is in the Risk MAP lifecycle.
- When all LOMCs are categorized or excluded on the SOMA Workbench, the SOMA will be considered 'Complete' and reflected on the QR6 and the Review Revalidation Docket tasks. Some communities will not have any LOMCs; in those instances, no action on the SOMA workbench is needed. The Community LOMC list will include all LOMCs issued within the community and can be used to confirm the MIP SOMA workbench reflects all LOMCs. If LOMCs are not included on the SOMA workbench, MIP users can submit a request to the FEMA Helpdesk to get these LOMCs added by providing the Determination Document with their request.
- Through the SOMA workbench users are able to download the Community LOMC list, the Preliminary SOMA, Final SOMA, and the Revalidation Letter which are only accessible through the SOMA workbench.
- The SOMA workbench can be customized to include additional information that may not appear through the default view such as Vertical Datum, Revised by LOMR, Lot Type, Supersedes, Reissuance, etc.

The screenshot displays the SOMA Workbench interface. At the top, there is a navigation bar with links for Home, Studies Post Launch TIPS, Tools & Links, Workbench, MIP User Care, Process Admin, and MARS. Below this is a secondary navigation bar with links for Workbench Home, Work Items, Project Dashboard, Reports & Form Letters, Search Engineering Data, Create Project, SOMA (highlighted in a red box), Study Task, and Studies Dashboard. The main heading is 'SOMA' with a sub-heading 'Welcome to Summary of Map Actions'. A search area includes a text input for 'Study', a 'Go' button, a dropdown for 'Community', and a 'Filter' button. Below this is a section for 'Categorize LOMCs for Study 20-06-01115'. A 'SOMA Progress Indicator' shows '149/149 LOMC's have been categorized.' A 'SOMA Reports' box lists links for Revalidation Letter, Community LOMC List, Preliminary SOMA, and Final SOMA. A 'Customize Table' button is also visible. At the bottom, a table header is shown with columns: Case Number, LOMC Type, New Categorization, New LOMC Map Panel Number(s), Community Name / CID, County, Current Categorization, Current LOMC Map Panel Number(s) / Effective Date(s), Determination Type, Determination Date, Flood Source(s), Supersedes, and Resultant Flood Zone.

Figure 6: SOMA Workbench

6.1.4. LEVERAGE CAPTURE

Leverage entries represent the value of all non-National Flood Insurance Program (NFIP) resources contributed by any university, federal, state, regional, multijurisdictional, tribal, or local entity which supports the development, revision, or maintenance of Risk MAP-related products. Leverage can include in-kind services (e.g., topographic data, field surveys, engineering analyses, and GIS efforts). Users can make a leverage entry through the project lifecycle within most purchases, including Discovery, all data development types, preliminary, due process, outreach, and final mapping.

Leverage entries should follow Estimating the Value of Partner Contributions to Flood Mapping Projects “Blue Book” available in the FEMA document library. Leverage contributions are reported as the quantities of data and services contributed to the project, not reported as actual costs enumerated in dollars. The Blue Book includes tables listing the units and types for most forms of leverage contributions. To create a leverage entry, find the appropriate row(s) in the blue book tables, enter the quantity of data or services provided consistent with the blue book entry, specify the appropriate units, then complete the “Type” field by combining the value under “Project Element” with the appropriate sub-heading under “Sb-element” indicating which blue book value is most appropriate to the situation. Note that the quantity must be adjusted for federal funding that partially funded the leverage data or activity. See the Blue Book for details on estimating Leverage, refer to MIP User Care for details concerning how to enter Leverage data into the MIP.

The one exception to this approach is for reporting contributions from federal partners to new topographic data production. When purchasing new elevation data in partnership with other federal agencies and where a CTP is not involved, report the other agency contributions in dollars based on each partners’ contribution. See the MIP User Care for New Topographic Data Capture for details.

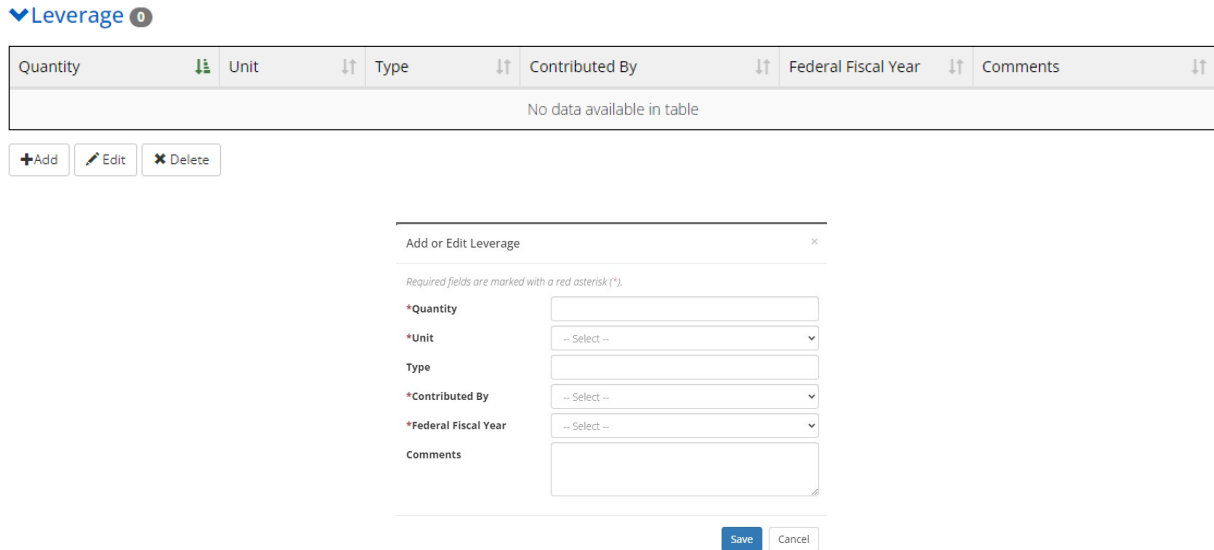


Figure 7: Example Leverage MIP Entry

6.2. Metaman and Metadata Test Submission

Registered MIP users can access the web-based Metadata Test Submission portal to validate XML files, except for Discovery and Flood Risk Products. The test environment is provided so that users may validate and see results from their metadata submission prior to submitting it through the project workflow. Note that a test submission should be made prior to a DVT submission through the MIP workflow. The following map production and data development metadata schemas can be tested via this portal: Base Map, Draft FIRM Database, Hydraulics, Hydrologic, Terrain, Orthoimagery, Alluvial Fan, Coastal, Field Survey, Floodplain Mapping, Preliminary, and Final FIRM.

The Metaman Desktop Application is used to convert text files to XML files, correct XML files, edit XML files, and export XML files. The Metaman Desktop Application is downloadable via the MIP, however users should use the web-based Metadata Test Submission portal to validate XML files since the Metaman Desktop Application does not automatically receive updates or connect with the MIP.

6.3. DFIRM DB QA

The DFIRM DB QA homepage provides access to the Data Validation Tool (DVT) validation functions available to the MIP user, including submitting a test DFIRM DB QA and searching for the submission status of a submitted DFIRM artifact.

- **Perform DFIRM DB QA Test Submission:** This function enables the user to submit a test DFIRM DB QA submission for validation by DVT. Enter the FEMA Study Case Number, Community ID, and FIRM DB Schema and click "Continue" to choose a file to be uploaded for test submission. Users can choose from 2003, 2011, 2013 FIRM Database Schemas.

- **Review DFIRM DB QA Submission:** The review submission page allows users to find and review DFIRM QA reports for artifacts that have been submitted to DVT for validation, including Test, Draft, Preliminary, and Final DFIRM artifact submissions. MIP users may use the search filter to view a report containing the status of FIRM DB QA Submission. To do so, enter the search criteria, and click on "Search". Test submission results originate from the test submission environment. Draft, Preliminary, and Final results originate from project workflow QA activities (e.g., Draft FIRM Data Capture task). Submission statuses are returned as Passed or Failed. Users can click on the Project Name listed in returned search results to view the FIRM DB QA submission level status and to review each submission report.

6.4. MIP Data Upload Guidance

There are several methods available for uploading data to the MIP: the studies workflow, Tools and Links - Data Upload, and File Explorer. The primary method for data upload should be through the studies workflow, however, this may depend on the type of data being submitted and the size of the dataset(s). These data upload methods are described in the following sections.

6.4.1. UPLOADING STUDIES DATA THROUGH THE WORKFLOW

Task owners should upload data to the MIP during execution of any project task with the built-in upload functionality. The folders that you can view in File Explorer, associated with each MIP task, are automatically generated when data is uploaded through a workflow task. Folders below the task level folder will need to be created by Mapping Partners as specified in the Data Capture Technical Reference and as applicable to the data being submitted. The automatically generated name or the folders below should not contain any special characters as it will not allow users to update tasks to 100% complete. These folders should be created and populated with the data applicable to the task, zipped, and uploaded to the MIP. The uploaded data will subsequently be unzipped in the submitted folder structure on the MIP and viewable on the MIP File Explorer J: Drive.

With regards to geography, in general, the spatial extents of a task will be defined by the purchase. If subfolders that represent subdivisions of the purchase geography would facilitate the Mapping Partner's workflow and/or future use of the data (e.g., HUC8 basins broken out within a larger HUC4 watershed-based project), the Mapping Partner should include logically named sub-folders within the uploaded folder structure.

Though the primary method of submitting data should occur through the MIP studies workflow, data can also be uploaded through MIP File Explorer J: Drive, as long as the associated MIP task is active. Data uploads through File Explorer are limited to 2 GB and should only be used as alternative upload method, such as when a MIP user wants to replace a single file or subfolder within a larger data package before submitting the data capture task.

Data deliverables associated with tasks in the MIP studies workflow must be successfully uploaded and validated before a task can be considered complete. The guidance for uploading through the

studies workflow, for all data types, is outlined below including file size limitations and can be accomplished in one of two ways:

All data of this file size should be loaded to the MIP directly, including Flood Risk Products and LiDAR when file size permits. This can be accomplished in one of two ways:

- **Managed Upload option** – use this option for large datasets (greater than 2GB) and for selecting multiple zip files. Users must download the Aspera plug in tool first to use this option. The Aspera plug in tool can be located on the “Data Upload” tab of the “Tools and Links” tab of the MIP. If you experience difficulty with Aspera installation please first check with your system administrations to confirm your firewall will allow for Aspera connection. Users can upload zip files as large as manageable, but because some users may not have a system capable of creating very large zip files the dataset should be pared down into multiple zip files no larger than 20 GB each. Do not include zip files within the zip files that are uploaded.
- **Direct Upload option** – Small file uploads can be completed through this option which requires the selection of one zip file which cannot be larger than 2 GB.

6.4.2. DATA UPLOAD REQUIREMENTS THROUGH TOOLS AND LINKS

The Data Upload tool allows users to load data artifacts, outside of the MIP workflow, for studies, amendments, and revisions. The “Load Studies Data Artifacts” and “Load Amendments/Revisions Data Artifacts” tabs are both located under the Data Upload tool see figure below.

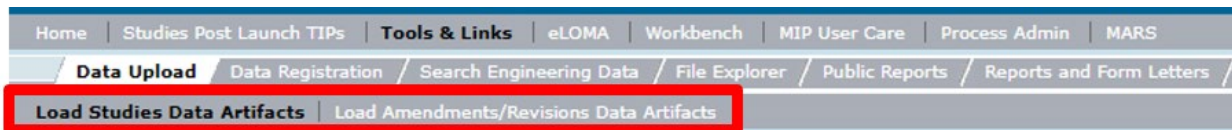


Figure 8: “Tools & Links”: Data Upload for Studies, Amendments and Revisions

Data can be uploaded through the Direct Upload if less than 2 GBs or using the Aspera plug in tool if greater than 2 GBs. Users can upload zip files as large as manageable, but because some users may not have a system capable of creating very large zip files the dataset should be pared down into multiple zip files no larger than 20 GB each. Do not include zip files within the zip files that are uploaded and if the package contains multiple files, these files should be zipped together, and uploaded as a single file.

Typically for studies, this option is used to upload project related data for which there is not an associated MIP data capture task with upload functionality enabled. For Amendments and Revisions this option is used if data needs to be uploaded greater than 2 GBs.

Files submitted through Data Upload are stored in the MIP K: drive within the Submission Repository folder as well as searchable and retrievable via the Flood Risk Study Engineering Library.

Submission Details for Studies, Amendments and Revisions

All uploads require the following submission details: FEMA Case Number, Product Type, Effective Date, and Abstract. For Studies the abstract should clearly describe the deliverable as well as the geographic area it covers and should include the county or communities covered by the data being delivered as well as the corresponding Federal Information Processing Standard (FIPS) code or community identification number (CID).

Product Types for studies, amendments, and revisions are listed below that are available for upload outside of the project workflow.

- **Studies:**
 - Floodplain Boundary Standard (FBS) Report supporting documentation or artifacts.
 - Correspondence for studies and appeals not previously uploaded during a MIP Data Capture task.
 - Study Artifacts not uploaded during a MIP Data Capture task.
- **Revisions:**
 - Modeling Hydraulics and Modeling Hydrology
 - Best available Data
 - 316-PMR
 - Work Maps
 - Review Notes
 - Annotations
 - Final Determination
 - Correspondence
 - Cover Letter, Special Response Letter, Violation Letter, 116 Letter, and 316 Letter
 - FEDD File
 - Supporting Artifacts
 - ESA Documentation
- **Amendments:**

- Correspondence/Data
- Final Letter, Cover Letter, 216 Letter, and Violation Letter
- Final Determination
- Other Response
- Supporting Artifacts
- ESA Documentation

Access Restrictions for Studies, Amendments, and Revisions Materials

When submitting data through Data Upload the user must select the appropriate “Access Restriction” for the material. These options are available on the second screen of the data upload process. The user must select “Yes” or “No” for the three “Access Restriction” questions:

- Allow for Public Discovery? – Will the public see the upload dataset returned in the Flood Risk Study Engineering Library search results?
- Allow File Names Displayed? – After selecting an upload dataset in the Flood Risk Study Engineering Library, can the public view the file names within the upload?
- Allow for Public Download? – In the Flood Risk Study Engineering Library can the public download the files associated with the upload?

Selecting “No” for all three questions will result in the Flood Risk Study Engineering Library not displaying the uploaded materials to the public at any time. By default, the Access Restrictions will be set as defined in the Public Access Rules. You cannot remove restrictions that are placed by default, so some or all of answers to the three questions will not be editable. For example, Discovery materials are publicly discoverable, and their file names are publicly viewable; however, Discovery materials cannot be downloaded by the public. Public access guidelines for searching and downloading the materials uploaded through the Data Upload portal are available below in Attachment A: Public Access Rules for Study data uploaded via MIP Workflow.

6.5. Delivering Flood Risk Products to the Map Service Center

Flood Risk Products (FRP) packages include the Flood Risk Database (FRD), Flood Risk Report (FRR), and/or the Flood Risk Map (FRM). The deliverables (FRD, FRR, and/or FRM) should be uploaded to the MIP through a Flood Risk Product purchase. A Flood Risk Products Index is also required when submitting flood risk items. Supporting files such as metadata should also be uploaded to the MIP. All files, including the Index, must be in the digital format and use the proper folder structure naming conventions found in Data Capture Technical Reference.

Finalized flood risk products, FRD metadata files, and the associated index should be uploaded directly to the MIP no later than 30 days following the LFD for the regulatory map update. These products will be made available to the public for download (<https://msc.fema.gov>).

Due to data upload restrictions within the MIP, the process for uploading data depends upon the data size. Please refer to the data upload limitations, instructions, and delivery locations listed above in the previous section.

Mapping partners should submit flood risk products to the MSC as they are finalized. In the case of a Risk MAP project that does not result in a regulatory map update, the project team should coordinate with the FEMA Regional Office to determine if the draft FRP projects should be uploaded or when flood risk products are considered final. For Risk MAP projects that produce multiple regulatory updates, the flood risk products for a project should be submitted to the MSC no later than 30 days following each LFD. For any given submittal, Changes Since Last Firm (CSLF) will only include portions of the project where the LFD has been issued.

Deployment of the Repository Redundancy Reduction (R3) ITDM Project (implemented March 12, 2021) introduced changes to the MIP and MSC that automated the publishing of Flood Risk Products. A user will upload data to Flood Risk Products Data Capture task and an automated process will occur when a user changes the data capture task's status to "Completed" for these products to be posted on the MSC. The FEMA Helpdesk must still handle the removal of any Flood Risk Products so users will need to notify and request their removal.

Flood Risk Products MSC Publishing Requirements

It is critical that the correct naming convention is used for the subfolder for publication on the MSC. If the file or subfolder has the incorrect naming convention, file type, or folder structure, the products will not be hosted on the MSC. Additionally, if a file name is more than 50 characters in the Flood Risk Datasets (FRD), Flood Risk Reports (FRR), Flood Risk Maps (FRM) folder, the products will not be hosted on the MSC.

- FRDs should be located under the <Root_Task>/<Project_ID>/Final/Flood_Risk_Products/FRD/ folder path in a .zip folder with the zipped folder name including "GeoDatabase," "ShapeFile," or "GeoTIFF" depending on the format of the FRD. S
 - Special care is needed for the successful delivery of the FRD .zip files (which are published as-is to the MSC). Individual uploads of FRD .zips will trigger the MIP's standard unzipping function. To mitigate against this, it is recommended that all FRD .zips (typically 3 separate .zip files) are packaged within a single larger or master .zip file, so the automatic unzip MIP system setting will unzip the master .zip leaving the three .zip individual Flood Risk Dataset.

- Also, special care is needed to remove “.gdb.” from a file name. For example, the “.gdb.” needs to be removed in this file name (bolded strikethrough text):
FRD_53061C_GeoDatabase_2016524.~~gdb~~.zip
- FRRs should be located under the
<Root_Task>/<Project_ID>/Final/Flood_Risk_Products/FRR/ folder path with the FRR in Word or PDF format.
- FRMs should be located under the
<Root_Task>/<Project_ID>/Final/Flood_Risk_Products/FRM/ folder path with the FRM in PDF or MXD format.
- Index File (Excel Spreadsheet) Requirements for MSC publication
 - For the automated process to complete successfully, you must ensure that the Index file is located at the root of the task folder. The Index file should be placed under the FRP root folder <Root_Task>/, such as: K:/FY20XX/<Case Number>/<Purchase Name>/< Task Type – Task Name> - “Root_Task” location/. This is the same location as the .XML metadata file.
 - Please use the FEMA Sample Index FRP Best Practice excel file template available on the FEMA SharePoint Applied Approach site (<https://rmd.msc.fema.gov/site/GSSC/SitePages/Applied%20Approaches%20and%20Lessons%20Learned.aspx>). If there are any questions or need to locate this file, users can request it from a FIRST team member.
 - The Index file must be an Excel file with “Index” in the title. “Index” in the file name is not case-sensitive.
 - The Index file must contain the FRP project specific information in the second tab of the spreadsheet. The order of the tabs in the Index excel file should **NOT** be modified. The project specific information tab cannot be the first tab, the third tab, or any other tab other than the second tab. There must be no blank rows in the second tab of the Index file.
 - In Column A of second tab the term “FIPS” must not be present. Please, pay attention that the term “County” is used. There must be a gray cell shading collar around Column B2. Cell B1 must be shaded gray. No shading must be applied in Column B starting in Cell B2. Additionally, there should not be any blank rows within the index file, see Figure 8.

A	B
	Flood Risk Products Index
Project ID	Mill_Creek
Case Number	12-09-6666S
Region	09
State	04
	06
FRR	FRR_Mill_Creek_20140504.pdf
FRM	FRM_Mill_Creek_20140504.pdf
FRD	FRD_Mill_Creek_geotiffs_20140504.zip
	FRD_Mill_Creek_shapefiles_20140504.zip
	FRD_Mill_Creek_1_geodatabase_20140504.zip
	FRD_Mill_Creek_2_geodatabase_20140504.zip
County	04019
	06001
FEMA CID	06001C
	04019C
	040118
	040075
	060012
	060013

Figure 9: Flood Risk Products Index Formatting

- Flood Risk Products MIP Task Screen Tips
 - Users will be able to verify that publishable products have been identified in the upload by either clicking the Check if Publishable button on the FRP Capture task page or refreshing the capture task page after an upload has been completed. If publishable products are identified, a message on the FRP Capture task page will list the files identified for publishing. Make sure that you verify all the products you intended to publish are listed, see Figure 9 for message noted in the task. If there are uploaded products with errors or incorrect formatting, then the products will not be listed and must be corrected to successfully publish. If the index file is not identified or the formatting within the index file is incorrect, the user will need to correct the index file to successfully publish, see Figure 10 for message noted in the task.



Figure 10: FRP Datasets requirements are met based on “Check if publishable” function

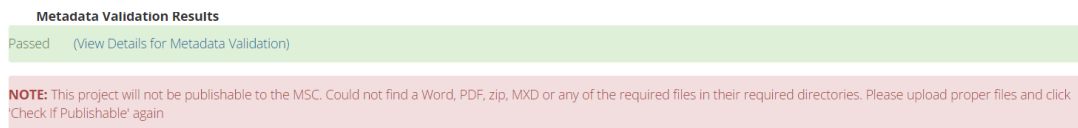


Figure 11: FRP Datasets requirements are met NOT based on “Check if publishable” function

6.6. Data Registration

Data is registered once all tasks (Validation, Independent QA/QC and / or QR) within a purchase, with an approve / reject option, have been approved and completed. If a purchase only includes a validation task, then approval of the validation task will alone trigger data registration to FRiSEL.

7. Data Validation

All project data uploaded to the MIP through a project workflow must be reviewed and validated for completeness against the current Data Capture standards by the Region or designee, typically a MIP Black Belt.

All discovery and data development purchases which include a funded data capture component must also include a validation task. These tasks will be set up by a project administrator when the purchase is obligated. The system will not trigger the validation requirements so users must be aware of the order in which they are completing workflow tasks. Once a user has uploaded data and completed the associated data capture task, they are responsible for coordinating directly with the person in their Region responsible for data validation, such as Regional staff or the MIP Black Belt. The national Validation Checklists are available on RMD SharePoint for use within each Region. These validation checklists are available on the FEMA SharePoint Applied Approach site (<https://rmd.msc.fema.gov/site/GSSC/SitePages/Applied%20Approaches%20and%20Lessons%20Learned.aspx>). If there are any questions or need to locate this file, users can request it from a FIRST team member.

These Validation Checklists is an applied approach and as such are strongly recommended for use in the Regional validation workflows. See the basic representation of the validation process below. If a validation is rejected the workflow will move back to data capture to allow the Mapping Partner to address reviewer comments and re-upload data if needed.

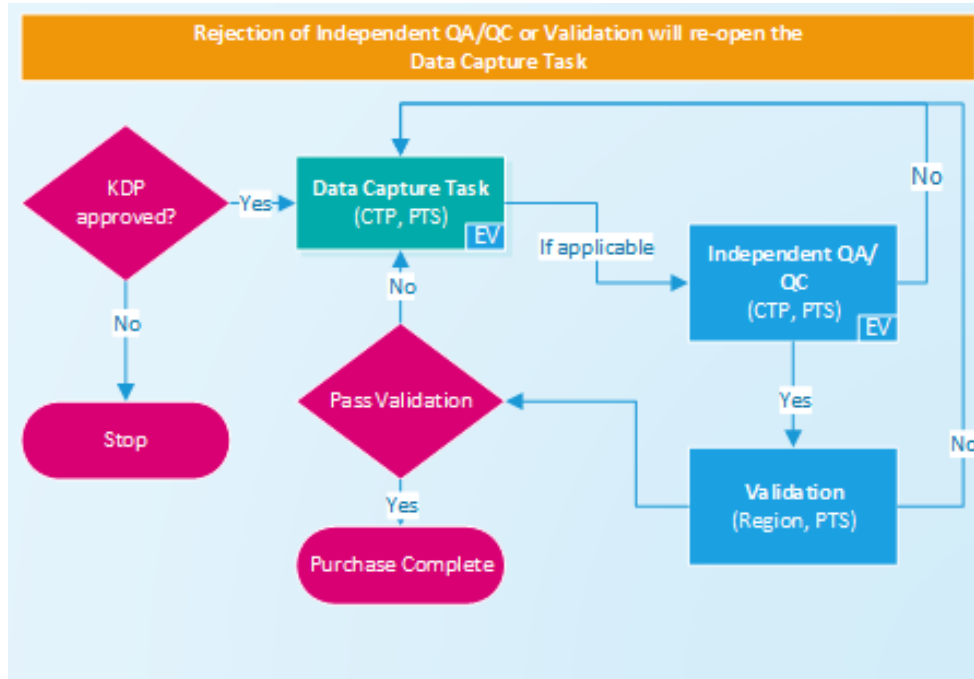


Figure 12: Basic Validation Process

For more information on data capture requirements, please refer to the Data Capture Technical Reference.

7.1. Quality Reviews and DVT

Three Quality Reviews (QRs) include DVT checks which are processed on the submitted FIRM Database and its corresponding metadata file. DVT performs several checks on the submitted metadata file as well as several checks for consistency between the metadata file and the FIRM Database submittal.

QRs and MIP task with DVT checks:

- QR1 (Draft submission) – Draft FIRM Database Capture.
- QR2 (Prelim submission) – Produce Preliminary Products Data Capture.
- QR5 (Final submission) – Develop Final Mapping Products Data Capture.

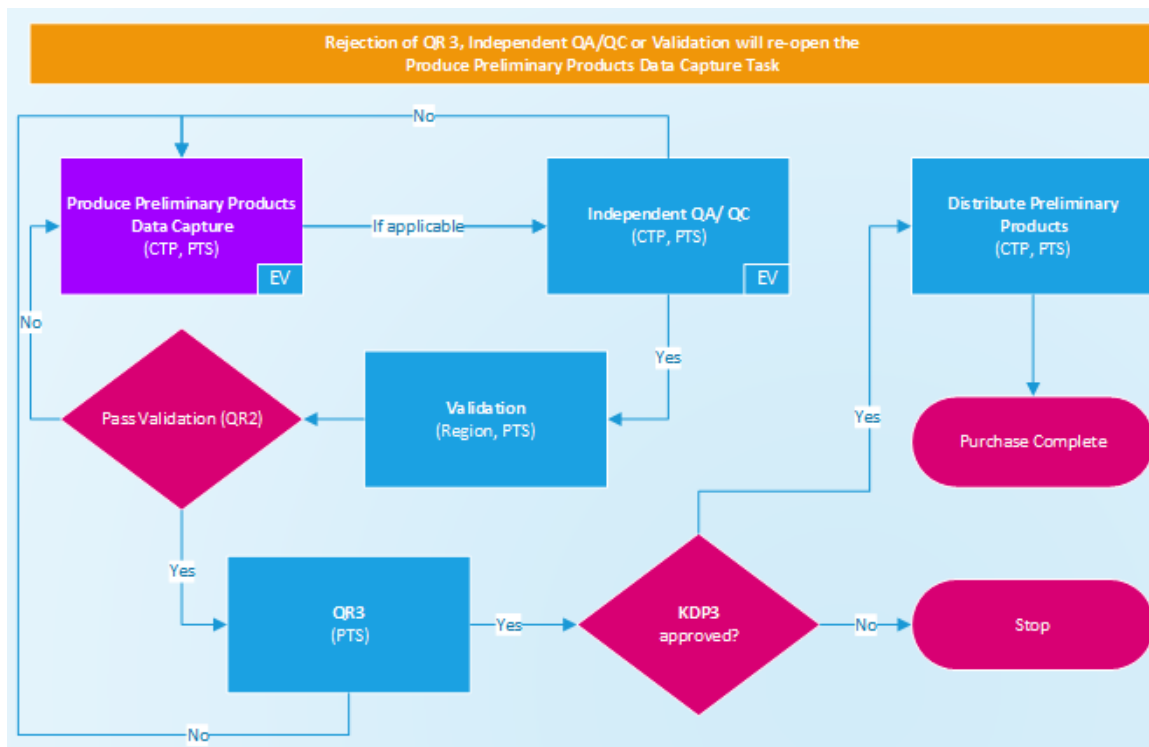


Figure 13: Basic Preliminary Process

For more information on DVT requirements, please refer to the [Database Verification Tool \(DVT\) Guidance](#). There are additional QRs that occur during the study process but do not require validation through the MIP. For more information on all QR requirements, refer to the Guidance Document No. 19, [Guidance for Flood Risk Analysis and Mapping: Quality Management for Flood Risk Projects](#).

7.2. Preliminary Data

Once QR3, KPD3, and the Preliminary Validation are approved, the Mapping Partner should complete the Distribute Preliminary Products task. This distributes the preliminary data (FIS, FIRMs, and database files) to the [public facing sites](#) and the [MSC](#). Preliminary data is removed automatically from the public-facing site when the ‘QR8’ task is completed (at or near the LFD date) or will require a ticket to be submitted to the FEMA Helpdesk if the product names do not match those of the Inventory Worksheet.

Any changes to the Preliminary data once posted for public review should be coordinated with the Post Preliminary Lead, MIP Black Belt, and Regional Project Monitor.

For additional preliminary guidance see the [Preliminary Distribution and Revised Preliminary Guidance](#).

8. Locating Studies Data

Various tools allow a MIP user to discover and access engineering, mapping, and FIRM database artifacts stored in MIP. The MIP File Explorer application may be used to navigate and access directories and files located on the MIP J: and K: drives. Users may only modify a folder if they have been assigned tasks related that folder, and folders can only be modified for active projects and purchases.

For more information on how the Search Engineering Data and File Explorer tools work see Section 6 of this guidance document.

8.1. File Explorer

The MIP File Explorer is a JavaScript-based web application that is accessible to authenticated MIP account holders upon login. The File Explorer allows users to navigate through the contents of the MIP working (J:) and archival (K:) Drives.

The J: drive is the drive onto which data (e.g., data with FGDC-compliant metadata) is initially uploaded through the individual data capture tasks on the MIP. This data is automatically copied to the K: drive after the completion of each data capture task. Data is registered when the validation and / or QA/QC task is completed. Data uploaded to the MIP through the Tools & Links Data Upload feature is automatically placed on the K: drive.

The K: drive is read-only for all users – no files or folders on it can be modified through the File Explorer. All authenticated MIP users can read and download all files on the entirety of the J: and K: Drives. The ability to modify contents of J: Drive folder is dependent on whether a MIP user has assigned the task.

All MIP authenticated users can view the entirety of the J: and K: Drives, which includes the ability to view file attributes and download individual files or sets of files. Questions about folder permissions should be directed to the FEMA Help Desk.

8.1.1. J: DRIVE MAINTENANCE

The MIP J: Drive, as the working drive, is only intended to be a temporary repository for files uploaded through the MIP project workflows. The final repository for MIP data is the K: Drive. To reduce the large amounts of duplicative, redundant, and extraneous data that have accumulated on the file server, Customer Data Services(CDS) has a process to cleanup files on the MIP J: drive. Files that are on the J: drive, but not the K: drive are transferred over to the K: drive. The redundant files are then removed from the J: drive. For some projects, there are files on both J: and K: drives, but with known differences or discrepancies. These projects go through a reconciliation process, requiring coordination between the Mapping Partner and MIP Regional contacts (Champions, Black Belts, and RPMLs). MIP users are notified by email that reconciliation is needed. Through the reconciliation process it is determined whether J: drive files should be deleted or copied over to the K: drive. File

maintenance requests should be coordinated between MIP Regional contacts (Champions, Black Belts, and RPMLs) and MIP Help.

8.1.2. DISCOVERY DATA REPOSITORY

The MIP serves as a repository for data resources suitable for Discovery from national data maintained by FEMA and Other Federal Agencies (OFAs). The FEMA Discovery Data Repository, which is to be used only for official FEMA purposes, such as Discovery, can be found on the MIP File Explorer at J:/DISCOVERY_DATA_REPOSITORY. FEMA maintains the Discovery Data Repository. Geospatial data available from FEMA and OFAs are often preferred sources for performing Discovery activities and are referenced in the National Discovery Data Coordination Procedure. Note that data used for Discovery may not be at a suitable scale for Flood Insurance Rate Map (FIRM) production.

8.2. Flood Risk Study Engineering Library

The Flood Risk Study Engineering Library (FRiSEL) is an online search portal that can be used to access data associated with FEMA flood risk mapping projects that have been uploaded through the MIP. The FRiSEL provides users with a fast, intuitive search and navigation interface for locating, examining, and downloading engineering and support data.

This MIP tool is accessible to all MIP users, including the public. However, the public are limited in what they can view and download. Please see the Attachment A below for a complete list of public access rules. Credentialed users such as FEMA staff, contractors, and affiliated mapping partners with active logins will have complete access to FRiSEL. Questions about account permissions should be directed to the FEMA Help Desk.

The data accessed through the FRiSEL resides on the MIP K: drive, which is the designated archival drive for storage of MIP flood risk mapping project data. MIP data found on the working J: drive or other servers (e.g., the eLOMA and Online LOMC submittal drives or the CFAS-CH drive used by the LOMC Clearinghouse) is not accessible through the FRiSEL.

When first accessing this application, the initial screen contains only the Keyword Search input field. This field may be used to conduct keyword-based searches on the data. Data uploads contain several searchable fields, including associated metadata, and the Keyword Search compares the entered search terms against these fields. There are several types of searches that can be performed using logical operators, see on-screen help text for explanations.

9. Reports and Dashboards

9.1. Studies Reporting

The MIP Ad-Hoc Reporting System (MARS) reporting application is available to all MIP users. It allows all MIP users to access studies data and create ad-hoc reports on demand. Data elements available for the ad-hoc reporting studies universe also includes amendments and revisions data elements

and project status information. Please note that studies information is no longer available through Crystal Reports under the Report and Form Letters section of the MIP.

- **Pre-defined report or “canned” reports** have already been customized for the user by the reporting tool administrator. These reports should not be modified, however they can be scheduled for recurring delivery to a user’s email address.
- **Ad-hoc reporting** allows users to create new reports from the MARS universe which includes Studies, Amendments, and Revisions. There are numerous data elements a user can pull into their customized query. Queries can be saved, exported, or scheduled for delivery to the user’s email address. Please note that to successfully generate a customized report that is both functional and useful, users should limit reports to only a few columns, or data elements, and always apply a filter or query.

The Studies reporting tool features:

- The ability to create individualized ad-hoc reports.
- Over 140 data elements for Studies reports.
- A daily data refresh that includes updates made the previous business day.
- The ability to create individualized reports and email them at scheduled intervals to non-MIP users (e.g., mapping partners, National Flood Determination Association, etc.).
- Status information for Revisions and Amendments.
- Access to additional Studies, Amendments, and Revisions canned reports.

MARS will be unavailable daily from approximately 5:00 a.m. to 7:30 a.m. Eastern Standard Time for maintenance and data refresh.

9.2. Studies Dashboards

These applications are separate from the Studies workbench tools. Unlike the workbenches, which allow users to manage projects and assigned tasks, the Dashboard tools provide users with the ability to retrieve basic project, purchase, and task status information for all Regions and mapping partners. A user does not need to be assigned to task, purchase, or project to view the information shown in the Studies Dashboard.

9.3. Reports & Form Letters (Revisions and Amendments Only)

This functionality enables registered users to create pre-defined or “canned” Amendment, and Revision reports that provide status and other case specific information for a project within MIP. This activity also provides the ability to generate Amendment and Revision Form Letters supporting a project within the MIP workflow. Registered users can access 'Reports and Form Letters' from Tools

& Links or Workbench areas. The MIP user will need to choose which report they would like to retrieve from a drop-down menu. The MIP user will need to enter information into the required fields indicated by asterisks. Once appropriate fields are entered the user will click “Get Report” to launch Crystal Reports Viewer to see the selected report. The report can be exported or printed from the Crystal Reports Viewer. Non-registered users can only access Public Reports.

10. MIP User Care Guidance

MIP User Care can be accessed even without having an authenticated login and is located on the home page of the MIP: <https://hazards.fema.gov/femaportal/wps/myportal>.

MIP User Care is repository of frequently asked questions and support materials with four distinct sections: Studies, Amendments, Revisions, and Engineering Data Search. The studies section Provides technical, step-by-step information on how to use the studies system, including some programmatic details dealing with project creation and purchase clarifications.

11. MIP Technical Support

11.1. CMIP Support

FEMA Help Desk of operation are 8:00 a.m. until 5:00 p.m. Eastern Time, Monday through Friday, except for federal holidays. Support requests may be submitted outside of these hours of operation but will be processed on the next business day. Support services may be requested by either emailing FEMA-RiskMAP-ITHelp@fema.dhs.gov or by placing a telephone call to (877) FEMA-MAP (877-336-2627).

Either method results in the creation of a support ticket, which will be used to track your request until completion. Upon ticket creation, you will be sent a confirmation email from the FEMA Help Desk containing a ID number for the corresponding support ticket. If you do not receive an auto-generated ticket from the FEMA Help Desk, please contact them again.

11.1.1. EMAIL SUPPORT

MIP Users can submit support requests to the FEMA Help Desk team by sending an email to FEMA-RiskMAP-ITHelp@fema.dhs.gov. Emailing the FEMA Help Desk team is the preferred method of communication. Please see the Help Desk Ticket Templates available on the FEMA SharePoint Applied Approach site (<https://rmd.msc.fema.gov/site/GSSC/SitePages/Applied%20Approaches%20and%20Lessons%20Learned.aspx>). If there are any questions or need to locate this file, users can request it from a FIRST team member.

11.1.2. TELEPHONE SUPPORT

MIP users can call (877) FEMA-MAP (877-336-2627) for telephone support. If users choose to call for support, they will be prompted by an automated call distribution system. The Technical Support Specialist will gather the information needed to satisfy the request and generate a support ticket on their behalf.

11.1.3. HELP ESCALATION PLAN PRIORITIZING URGENT HELP DESK TICKETS

If MIP users are not receiving timely or satisfactory responses through the email and/or telephone support directions provided above, they should consult the MIP Help escalation plan located on the MIP or the Help Desk Ticket Template containing the Urgent Ticket Request process located on the FEMA SharePoint Applied Approach site (<https://rmd.msc.fema.gov/site/GSSC/SitePages/Applied%20Approaches%20and%20Lessons%20Learned.aspx>). If there are any questions or need to locate this file, users can request it from a FIRST team member. Before following this procedure and submitting a FEMA Help Desk ticket, contact your FIRST team members to see if they are aware of the issue and can help.

12. Attachment A: Public Access Rules for Study Data Upload via MIP Workflow

Table 11: Public Access Rules for Study Data Uploaded via MIP Workflow

Purchase Types/Data Type	FRiSEL - Type of Data Product	Discoverable to Public?	File Names Displayed to Public?	Public Download?
All Independent QA/QC	Independent QA/QC	Yes	Yes	No
All QR	QR (Studies)	Yes	Yes	No
All Validation	Validation (Studies)	Yes	Yes	No
Alluvial Fan	Alluvial Fan Analysis (Studies)	Yes	Yes	Yes - See Note 1 Below
Base Map	Base Map (Studies)	Yes	Yes	Yes - See Note 1 Below
Coastal	Coastal Analysis (Studies)	Yes	Yes	Yes - See Note 1 Below
Correspondence (from Tools and Links Upload)	Correspondence (Studies)	No	No	No
Correspondence (from Tools and Links Upload)	Supporting Artifacts (Studies)	No	No	No
Correspondence (from Tools and Links Upload)	FBS Reports (Studies)	No	No	No
Discovery	Discovery (Studies)	Yes	Yes	No
Distribute Revalidation	Revalidation Letters	Yes	Yes	No
Draft FIRM DB	DFIRM DB 'Draft' (Studies)	Yes	Yes	No

Purchase Types/Data Type	FRiSEL - Type of Data Product	Discoverable to Public?	File Names Displayed to Public?	Public Download?
Due Process	Dues Process (Studies)	Yes	Yes	No
Existing Topographic	Existing Topographic Data (Studies)	Yes	Yes	Yes - See Note 1 Below
Final Map Production and Distribution	Final Mapping Products (Studies)	Yes	Yes	No
Floodplain Mapping	Floodplain Mapping (Studies)	Yes	Yes	No
FRP	FRP (Studies)	Yes	Yes	No
General	General (Studies)	Yes	Yes	No
Hydraulics	Hydraulic (Studies)	Yes	Yes	Yes - See Note 1 Below
Hydrology	Hydrologic (Studies)	Yes	Yes	Yes - See Note 1 Below
Legacy Data Type	FEDD File (Studies)	Yes	Yes	No
Legacy Data Type	Prepare for Scoping (Studies)	Yes	Yes	No
Legacy Data Type	Conduct Scoping Meeting (Studies)	Yes	Yes	No
Legacy Data Type	Finalize Project Scope (Studies)	Yes	Yes	No
Legacy Data Type	Letter of Final Determination – Prepare LFD Docket (Studies)	Yes	Yes	Yes - See Note 1 Below
Legacy Data Type	Perform IQA – Develop Topographic Data (Studies)	Yes	Yes	No
Legacy Data Type	QR3 National DFIRM – Final (Studies)	Yes	Yes	No

Purchase Types/Data Type	FRiSEL - Type of Data Product	Discoverable to Public?	File Names Displayed to Public?	Public Download?
Legacy Data Type	Scoping (Studies)	Yes	Yes	No
Legacy Data Type	TSDN (Studies)	Yes	Yes	No
Legacy Data Type	Appeals (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Base Map (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Develop DFIRM Database (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Develop Hydraulic Data (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Develop Hydrologic Data (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Develop Alluvial Fan Data (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Develop Coastal Analysis Data (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Perform Field Survey (Studies)	Yes	Yes	No
Legacy Data Type	Perform IQA – Perform Floodplain Mapping (Studies)	Yes	Yes	No
Legacy Data Type	Preliminary FIS (Studies)	No	No	No
Legacy Data Type	Preliminary DFIRM (Studies)	No	No	No
Legacy Data Type	Redelineation (Studies)	Yes	Yes	No
Legacy Data Type	Final DFIRM (Studies)	Yes	Yes	Yes - See Note 1 Below

Purchase Types/Data Type	FRiSEL - Type of Data Product	Discoverable to Public?	File Names Displayed to Public?	Public Download?
Levee	Levee (Studies)	Yes	Yes	Yes - See Note 2 Below
New Topographic	New FEMA Purchased Topographic Data (Studies)	Yes	Yes	Yes - See Note 1 Below
Outreach	Outreach (Studies)	Yes	Yes	No
Preliminary	Preliminary (Studies)	No	No	No
Preliminary (Revised)	Revised Preliminary (Studies)	No	No	No
Survey	Field Survey (Studies)	Yes	Yes	Yes - See Note 1 Below
Terrain	Terrain (Studies)	Yes	Yes	Yes - See Note 1 Below
<i>Note 1: MIP will allow discovery anytime and only allow download after the 'Distribute LFD' activity is complete with no restrictions except when appropriate flag (ACCCONST value of Restricted or View Only) is set in metadata.</i>				
<i>Note 2: Yes, after Validation and Independent QA/QC has been approved and completed.</i>				

Table 12: Public Access Rules for Revisions via Data Upload (Tools & Links)

Type Data Product	Discoverable?	File Names Displayed?	Public Download?
FEDD File	YES	YES	NO
Cover Letter (Revisions)	YES	YES	NO
Final Determination (Revisions)	YES	YES	NO
Supporting Artifacts (Revisions)	YES	YES	NO
Modeling Hydraulics (Revisions)	YES	YES	YES

Type Data Product	Discoverable?	File Names Displayed?	Public Download?
Modeling Hydrology (Revisions)	YES	YES	YES
Review Notes (Revisions)	YES	YES	NO
Special Response Letter (Revisions)	YES	YES	NO
Violation Letter (Revisions)	YES	YES	NO
116 Letter (Revisions)	YES	YES	NO
Correspondence (Revisions)	NO	NO	NO
Annotations (Revisions)	YES	YES	NO
Best Available Data Letters (Revisions)	YES	YES	NO
316-PMR (Revisions)	YES	YES	NO
Work Maps	YES	YES	NO
Invoice Letter (Revisions)	YES	YES	NO
316 Letter (Revisions)	YES	YES	NO
ESA Documentation	YES	YES	NO
216 Letter (Amendments)	YES	YES	NO
Violation Letter (Amendments)	YES	YES	NO
Other Response Letter (Amendments)	YES	YES	NO
Cover Letter (Amendments)	YES	YES	NO
Final Determination (Amendments)	YES	YES	NO
Supporting Artifacts (Amendments)	YES	YES	NO

Type Data Product	Discoverable?	File Names Displayed?	Public Download?
Final Letter (Amendments)	YES	YES	NO
Correspondence/Data (Amendments)	NO	NO	NO
ESA Documentation	YES	YES	NO

13. Attachment B: Study Strawman Demonstrating Business Flow

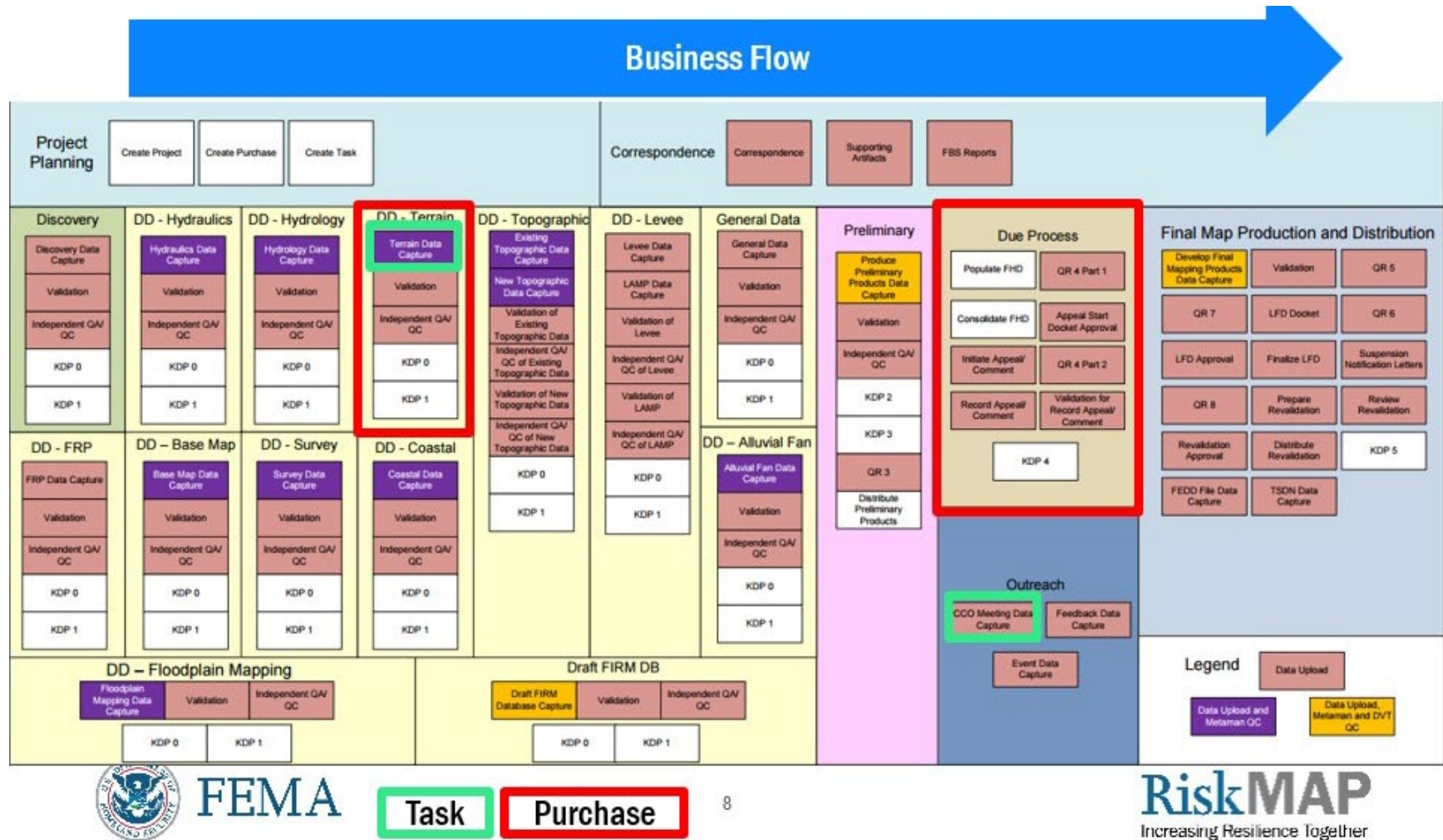


Figure 14: MIP Studies Available Purchases and Tasks

14. Attachment C: Study Process Diagrams

14.1. Discovery and Data Development Purchases for Study Projects

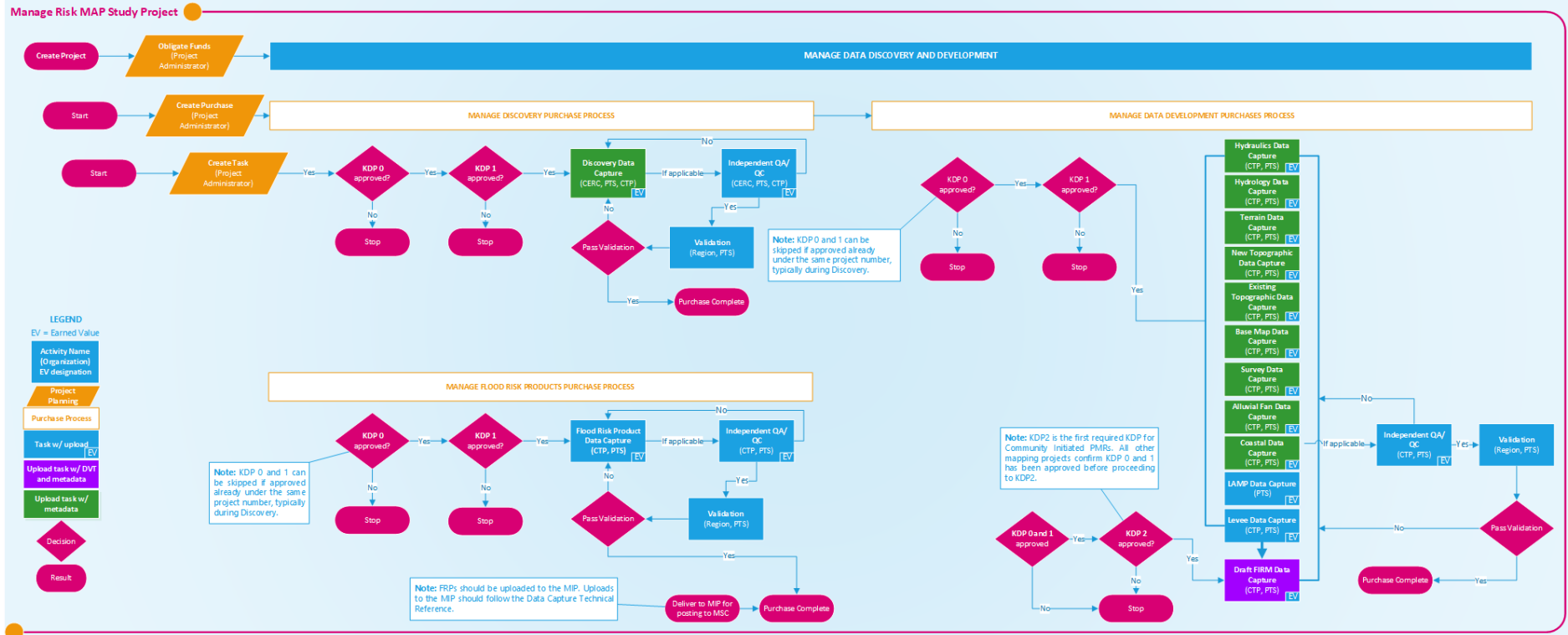


Figure 15: Discovery and Data Development Process

14.2. Preliminary and Outreach Purchases for Study Projects

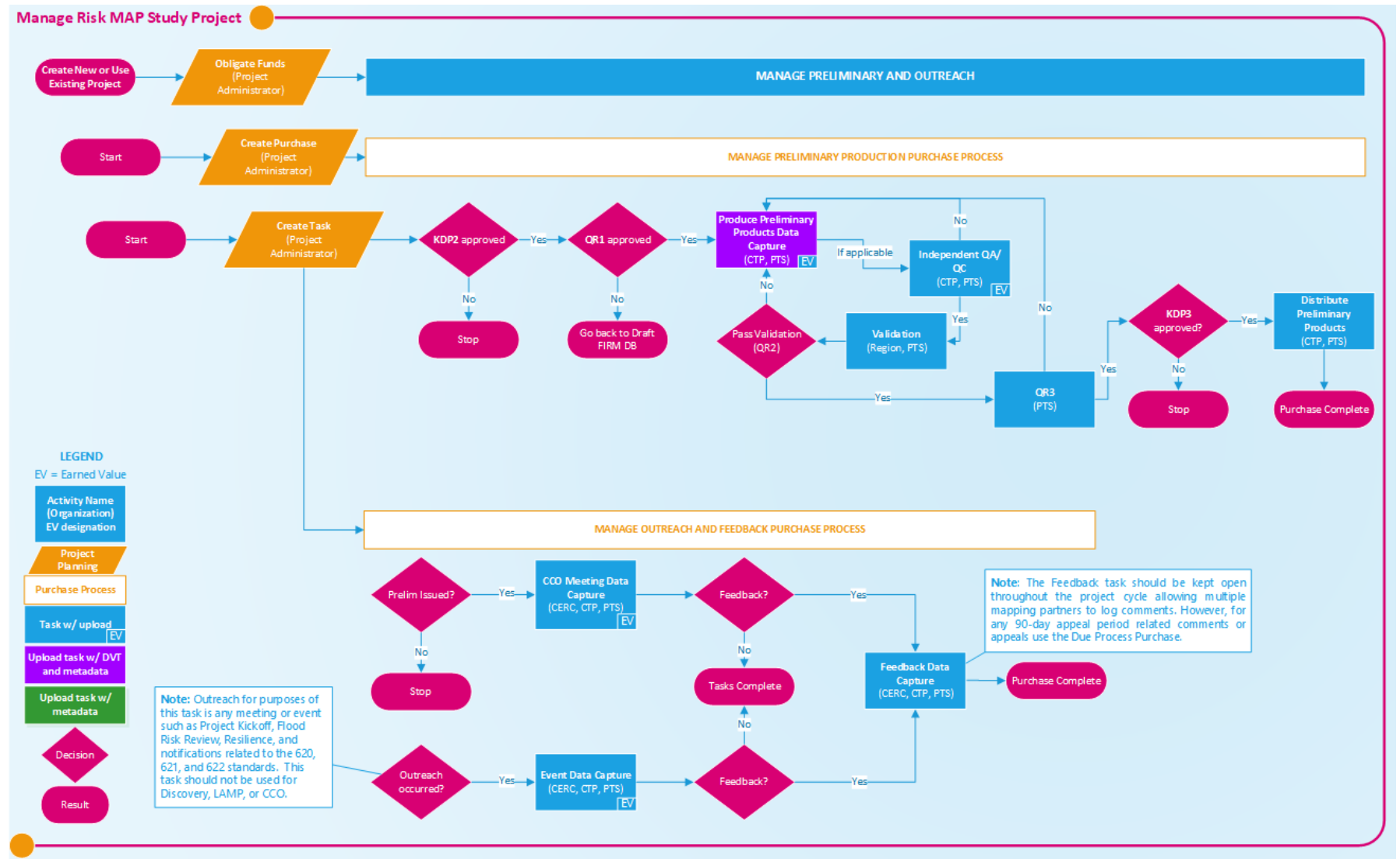


Figure 16: Preliminary and Outreach Process Diagram

14.3. Due Process and Final Mapping Purchases for Study Projects

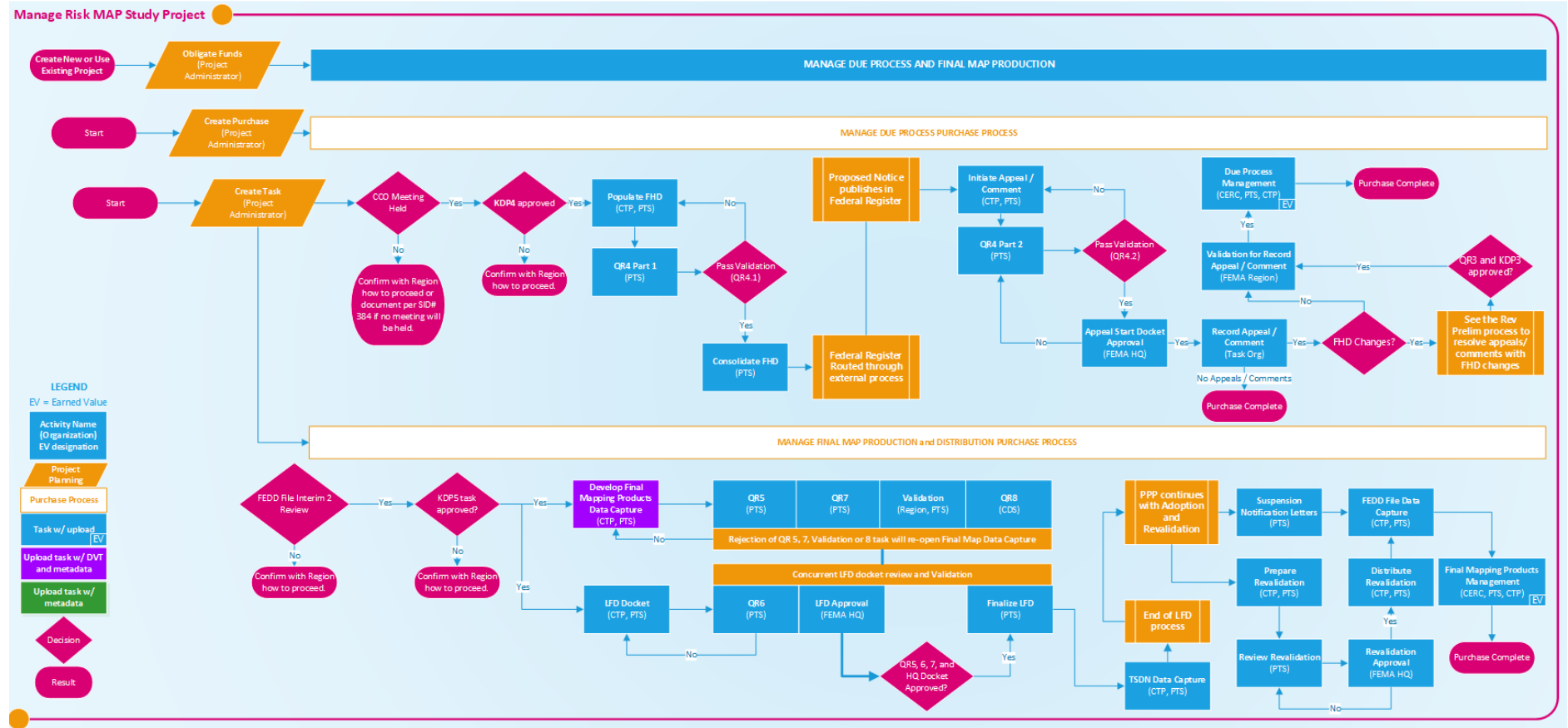


Figure 17: Due Process and Final Map Production Process Diagram

15. Attachment D: Revision Process Diagram

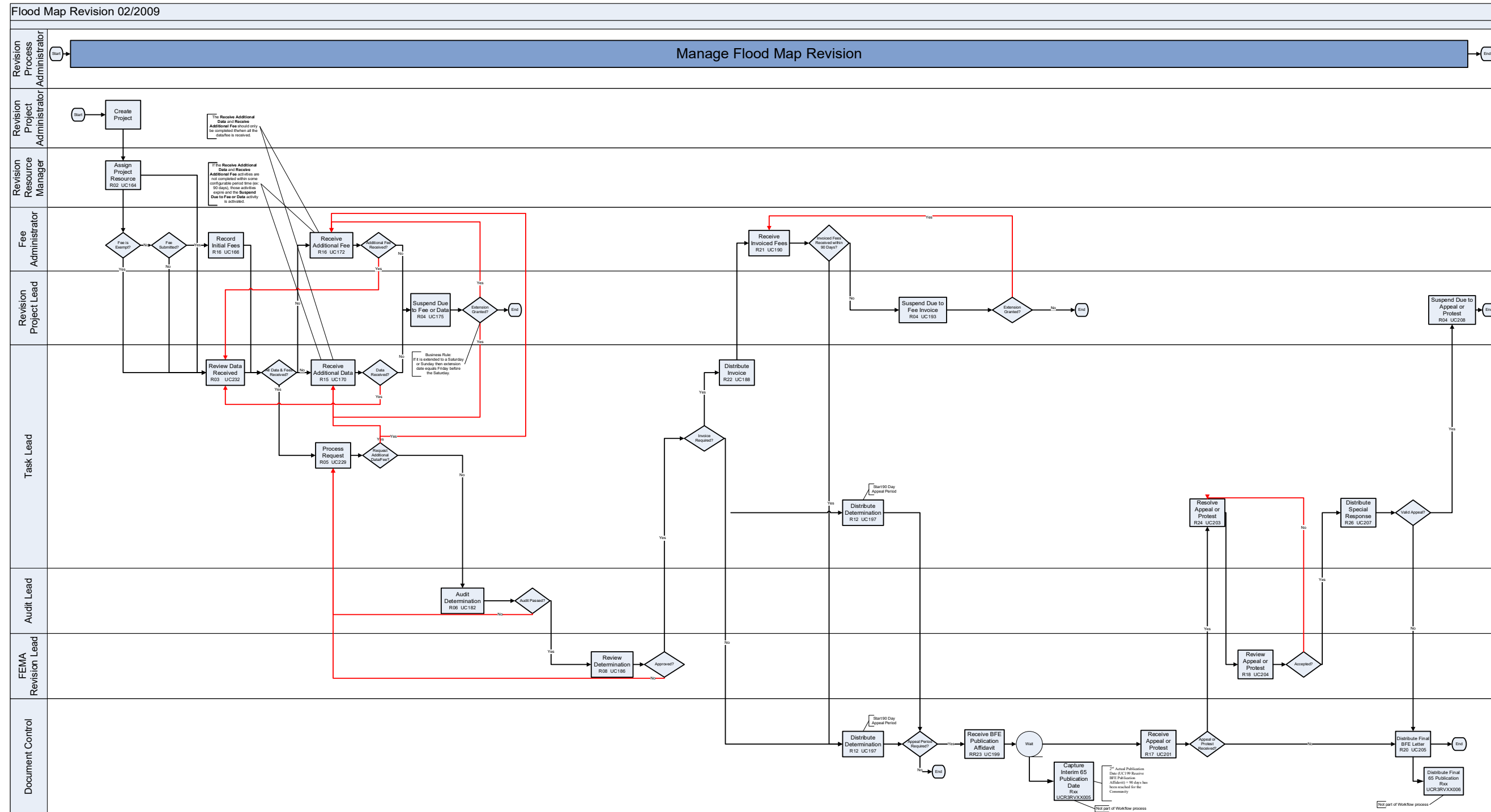


Figure 18: Revision Process Diagram

16. Attachment E: Amendment Process Diagram

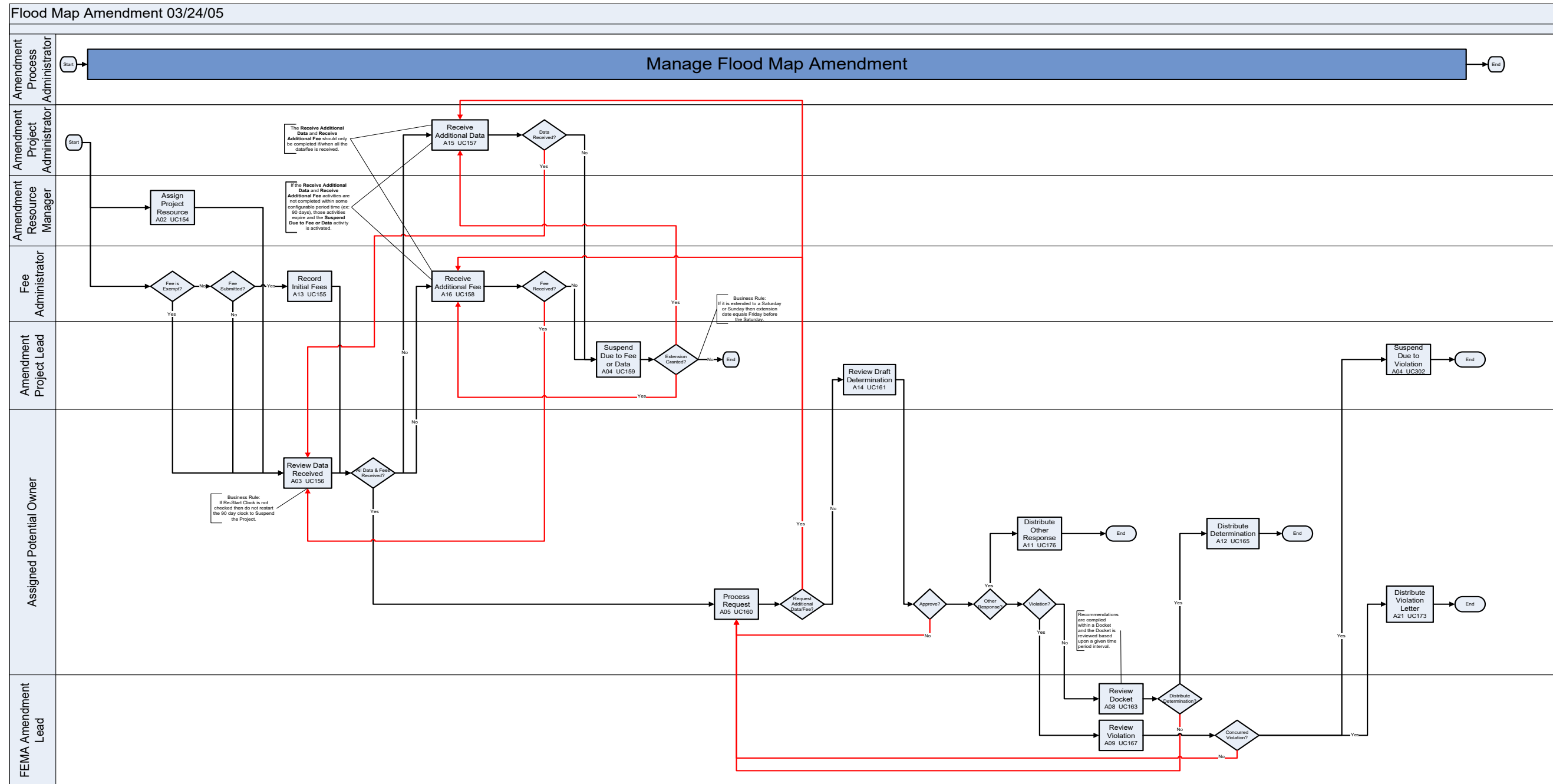


Figure 19: Amendment Process Diagram