Guidance for Creating Basin-Wide Projects in the MIP

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1. Purpose

The purpose of this document is to provide guidance to users of the Mapping Information Platform (MIP) when they are setting up new mapping projects on a basin-wide (watershed) basis rather than as a county/community-based project.

The MIP Studies Workflow was designed for community based or county-wide projects. However, it does allow for the entry of basin-wide projects. This document provides the steps that users should follow for entering basin-wide projects into the MIP, including a number of workarounds to circumvent current system limitations. These steps will facilitate the proper setup of projects in the MIP to allow accurate storage and retrieval of the project data.

It is possible that other basin-wide scenarios exist that are not fully covered in this document. FEMA is in the process of considering a fully operable technical solution for true basin-wide functionality in the MIP. This evaluation should lead to updates to the MIP to make the entry, tracking and reporting on basin-wide projects more user friendly and efficient.

2. Background

The MIP, which was deployed in 2004 as part of the Federal Emergency Management Agency (FEMA) Flood Map Modernization (Map Mod) program, facilitates the management, production, and sharing of flood hazard data and maps in a digital environment. It integrates program and project management, data storage and retrieval, standardized quality control reviews, and map production status tracking into one Web-based application. Another core component of Map Mod was to combine community-based paper Flood Insurance Rate Maps (FIRMs) into a countywide product, and to deliver the new product in digital (DFIRM) Geographic Information System (GIS) format. Since its deployment in 2004, the MIP has continued to grow and evolve to meet the needs of FEMA and its contractors to manage and monitor the progress of its flood hazard mapping data.

As FEMA transitions to Risk MAP, it will enhance program delivery by providing Flood Insurance Studies (FISs) based on watersheds. Historically, flood hazard analyses were performed for FISs at a community/county level and only addressed reaches within that jurisdiction.

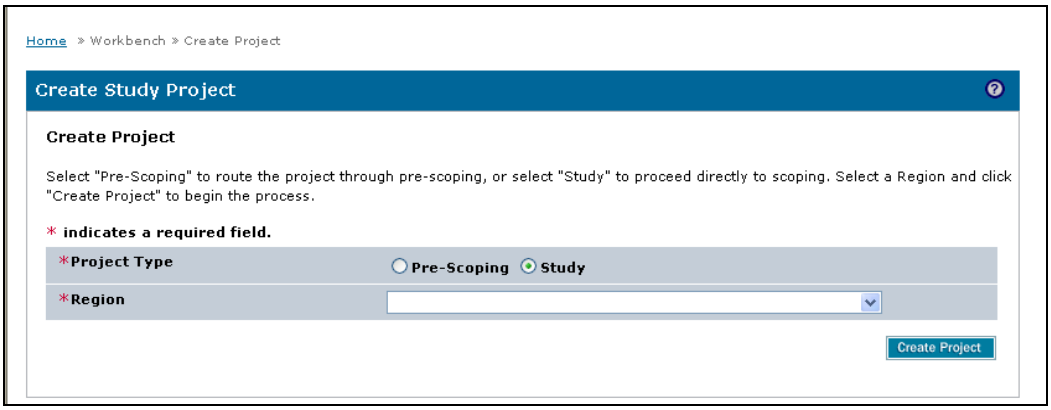
This document provides guidance on how to utilize the MIP study workflow application for a basin-wide study. The document is not intended to provide step-by-step guidance on the MIP workflow process, but it provides guidance and screen shots to highlight specific steps associated with basin-wide studies, from the creation of the project through the obligation of funds.

3. Setting Up a Basin-Wide MIP Project

This section describes the MIP workflow steps and outlines impacts to the process caused by a study being basin-wide instead of countywide. A Basin-wide project is set up similarly to a county-based study project that includes multiple communities. The key differences between a basin-wide study and a multi-community study are in the naming of the basin-wide study and the configuration of files for the data upload tasks.

3.1. Create Study Project: Create Project Screen

The first step in setting up a basin-wide project is for a FEMA Project Officer to create a project record in the MIP database. Scoping baseline information (contracted organization, cost, and schedule) is also entered at this point.



Before creating a study project, the following activities must be performed:

3.1.1. Obtain List of Communities and Counties in Study Area

The FEMA Regional staff should work with their Production and Technical Services (PTS) contractors, if needed, to determine the complete list of communities within the watershed which will be affected by the study. Community names will need to be obtained before project setup, based on where the study area boundary and study extents intersect community boundaries.

NOTE: Information for all States, counties, and communities involved in the project must be collected in advance, but only one Region can be selected at this step. Communities from other Regions will be added at a later step.

3.1.2. Select Primary Region for Multi-Region Studies

Only one Region can be selected for MIP data storage purposes. A multi-Region study will require coordination between Regions and potentially between multiple PTS contractors, if the Region's boundary is also a PTS boundary.

If a basin-wide project falls within multiple FEMA Regions, select the Region funding the study. If multiple Regions are contributing to the funding, select the Region that will claim the project. All Regions involved in the basin-wide study should decide in advance under which Region's MIP

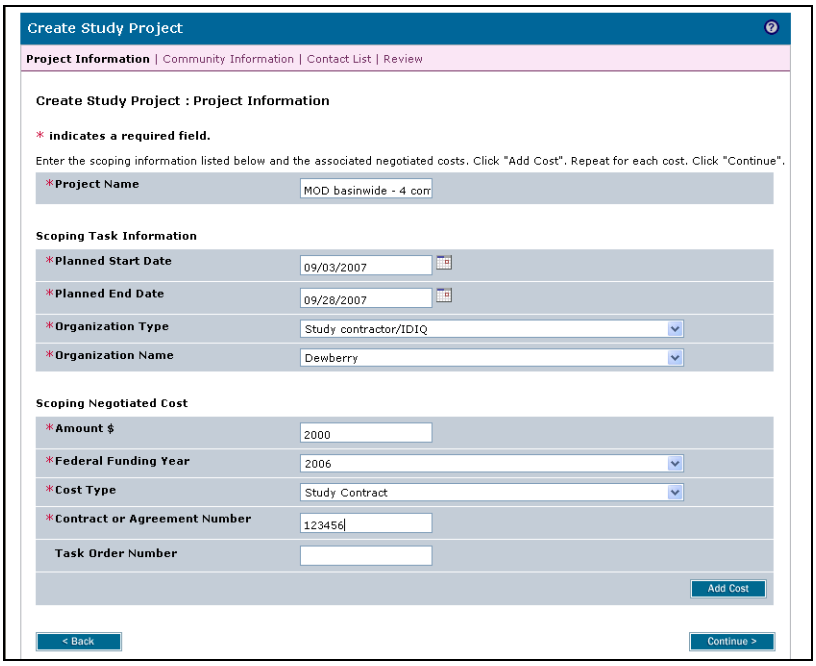
folder structure the data will be stored. FEMA has decided that study data will only be stored in one location to avoid confusion, versioning issues, storage redundancy, and gaps in data deliveries.

NOTE: Contractors must be set up as valid contractors in the selected Region in order to be able to continue in the MIP studies workflow. Workflow tasks can only be assigned to users with MIP access rights to the Region selected on the initial screen. Tasks performed by other Regions will have to be transferred to those Regions' contractors. This task is performed manually in the Process Administration section of the MIP by contacting MIPhelp at miphelp@riskmapcds.com.

Step-by-step work instructions are available under the Create Project link on the MIP at: https://hazards.fema.gov/femaportal/wps/portal/usercare_training.

3.1.3. Create Study Project: Project Information Screen

One of the more important aspects of a basin-wide study is the need to name a project differently than a countywide study. On the Project Information Screen, complete the required fields, as indicated by the red asterisk. When naming the project, use the naming convention of '*Name of Basin - # of Communities*', for example "*Conestoga basin-wide – 72 communities*".



3.1.4. Create Study Project: Community Information Screen

Selecting only County-wides

For Basins that include a large number of Counties and/or Communities the preferred method for creating the project is to select the county-wide area for all of the counties included. This should be followed even if all communities within a county are not part of the basin-wide study. A MIPhelp ticket should be submitted for those communities that are not part of the basin to be removed from the study project immediately after it is created. Setting up the project with the county-wide selection will limit the number of DFIRM database tasks later, however if all communities are

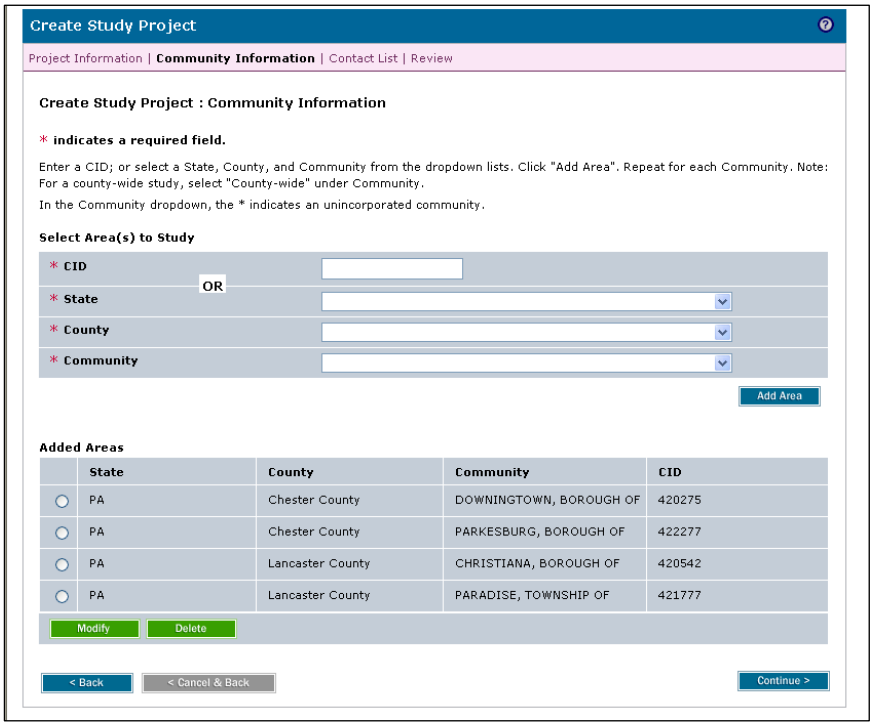
chosen MIPhelp can assist with the DFIRM database task at that point. This solution will be discussed later.

Selecting only Communities

When there are only a few communities included in the basin from each affected county, it is best to select only communities for the study project. On the Community Information Screen, make sure to include all affected communities within the basin. After entering information for each community, click the "Add Area" button to add an additional community. Even if only a part of the community is included in the study, the community should be included in this step. Map panels can be specified in a later workflow step. If the basin-wide study includes communities from multiple Regions, they can all be added in this step. Once this task is completed, MIPhelp must be contacted to add additional communities, so be sure to include any community that may be part of the project.

It is important to enter complete information at this step in the workflow, since later steps, from preliminary to effective release, rely on a complete listing of the project geography.

NOTE: Users cannot choose a combination of county-wide and community-based studies. The areas to be studied must either be set up as county-wide OR community-based. In the following example, two communities in Chester County and two in Lancaster County will make up the basin-wide study. In a real scenario, many more communities may need to be entered.

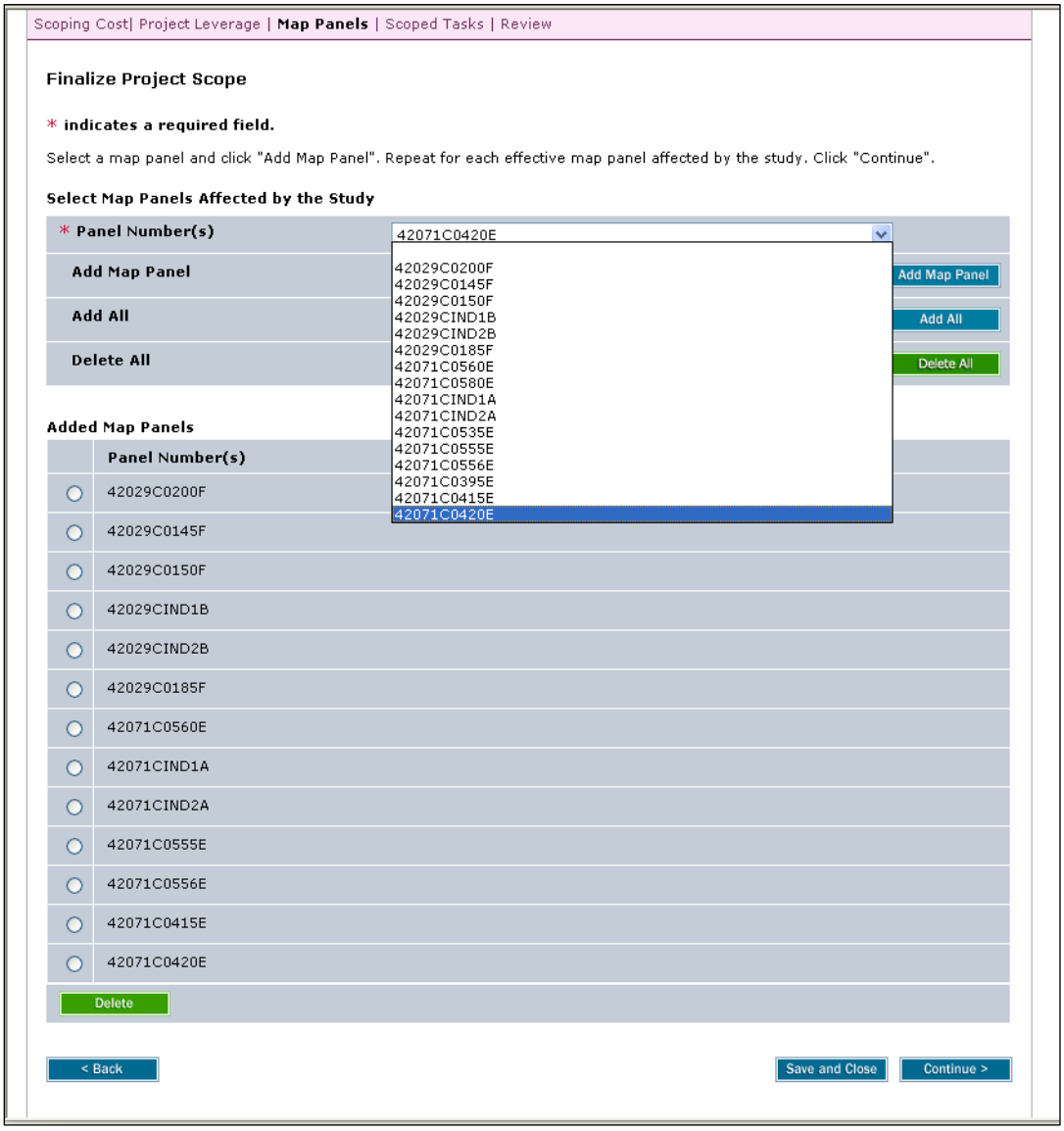


Complete the fields on the remaining screens and complete the task. The project is now created.

3.1.5. Finalize Project Scope

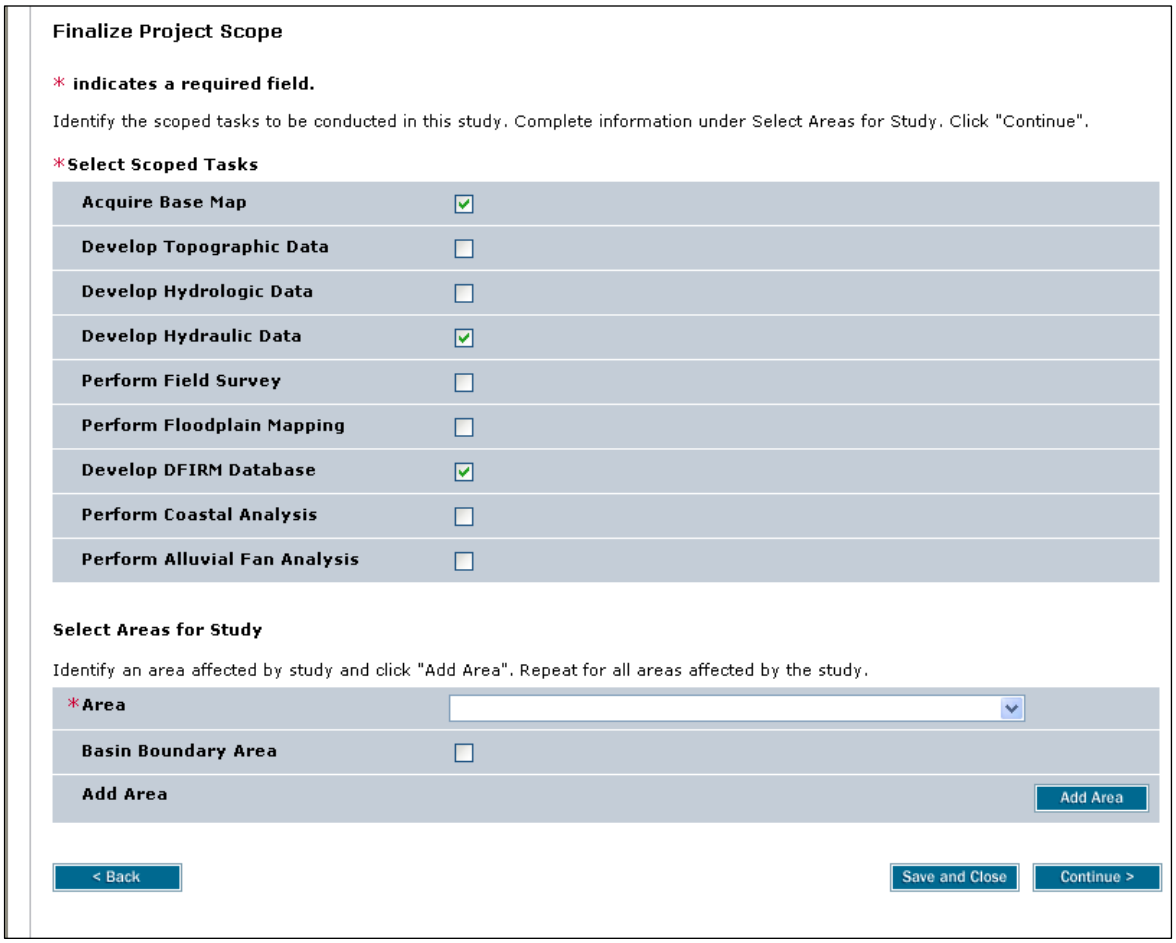
The next step is to Finalize Project Scope. Complete the first two screens, as for a countywide project. The third screen on this task, Map Panels, is where to choose all of the panels affected by the basin-wide study. Choose panels individually from the dropdown box, and click "Add Map Panel." If all the panels from the communities in the basin-wide study should be included, click the "Add All" button.

TIME SAVING TIP: If, for example, all but three panels are included in the basin-wide study, click "Add All" and then delete the panels that are not to be included in the study.



In the Select Scoped Tasks section on the next screen, check only the Scoped Task boxes that are under contract to be completed for this study. In the Select Areas for Study section, select a

community from the Area dropdown box and click “Add Area.” Repeat “Add Area” for each community in the dropdown to ensure all areas are included in this project. It is not required to check the Basin Boundary Area box or to enter the percent affected.



3.2. Obligate Project Funds

An important step in creating the basin-wide project is the next task: Obligate Project Funds. At this step, data development tasks are chosen and funds are obligated for those tasks. In the Task Information section of the Obligate Project Funds screen, select the appropriate tasks to include in the project and select the same Task Area (community) for those tasks (Acquire Base Map, Develop Topographic Data, Perform Field Survey, Develop Hydrologic Data, Develop Hydraulic data, Perform Coastal Analysis, Perform Alluvial Fan analysis, Perform Floodplain Mapping). All data will be stored under this community and will reduce the total number of tasks in the Data Development section of the project. For ease of use and consistency, it is highly recommended that the first community (in alphabetical order) be selected. In addition, to reduce confusion in other workflow steps, add the names of the actual communities for that task in the Task Description field.

The goal of adding all data to one community is to have the data easily available, being stored in only one folder. In the following example of the MOD Basin-wide study, all of the data are stored in the folder of one community (Christiana), instead of in multiple locations.

Every community that is selected for a project needs to have a data development task associated with it. Since it has been decided for that all data for tasks mentioned above will be stored in the first community alphabetically, a Develop DFIRM Task will be associated with each community in the project.

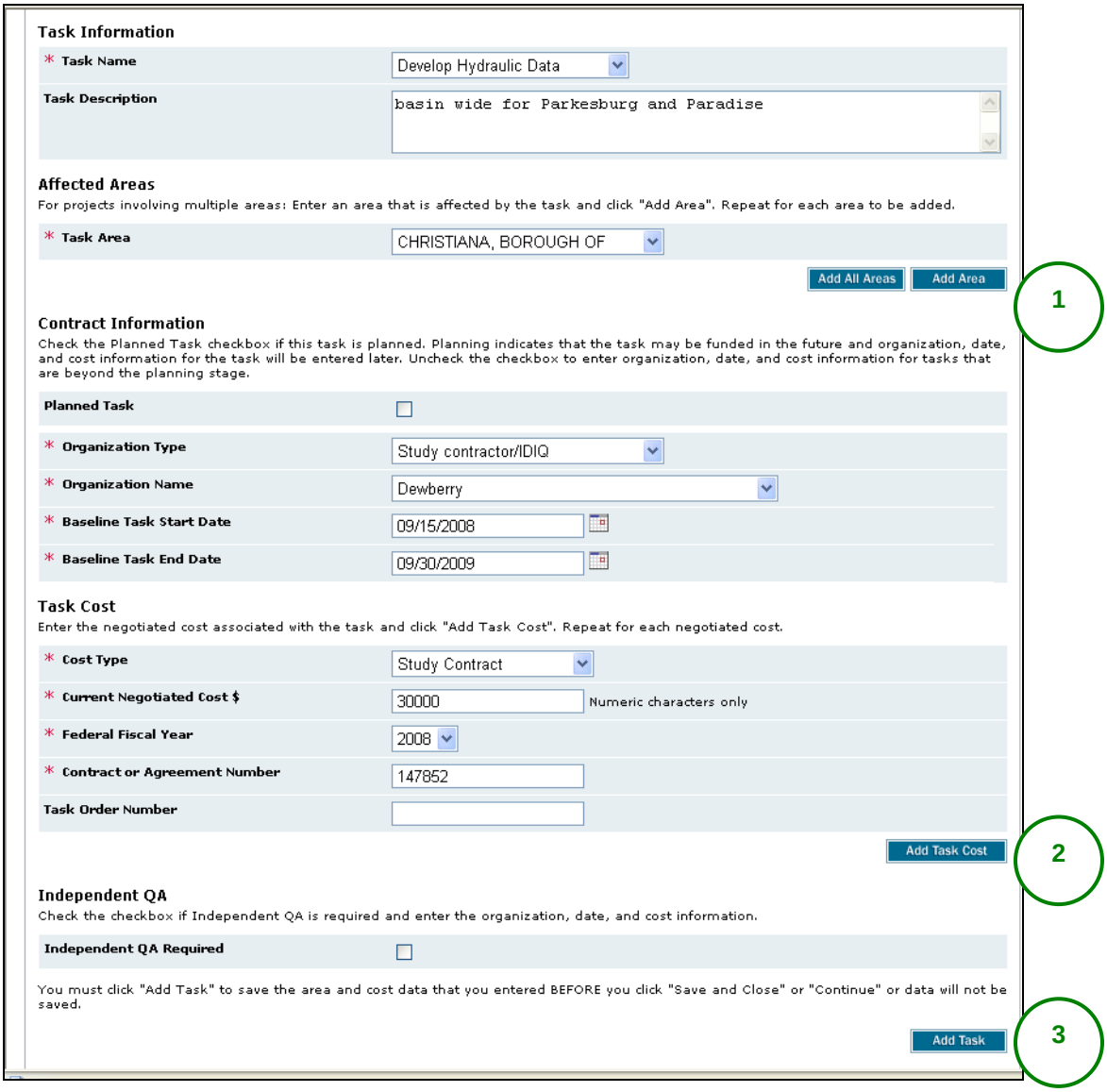
Because DFIRMs are generally created at the county level (unless the map is community based), an individual Develop DFIRM Database task must be created for each county (or community, if the map is community based). If the project was created using the county-wide option, each county would get a separate DFIRM task.

If the project was created using communities, select the Develop DFIRM Database task from the Task Name dropdown and click the “Add All” Areas box. This will add that task for each of those areas. Also add the Contract Information and click “Add Cost” and click “Add Task “to include the Develop DFIRM Database task on the project. It is likely one DFIRM database will be prepared per county, although not all communities are included in the study, multiple uploads are therefore not necessary. Since data is stored in the first community alphabetically for the other data development tasks, MIPhelp should be contacted to provide DFIRM upload and validation bypasses for all of the additional communities in the project. The bypass will allow you to move through the workflow without having to get validation for the same DFIRM database for each community.

In the example below, Parkesburg and Paradise are required to perform the Develop Hydraulic Data task, but the Borough of Christiana is chosen as the Task Area where all data will be stored (as it is first in alphabetic order). For each additional task except Develop DFIRM Database, the Borough of Christiana will be assigned as the Task Area. Don’t forget to click “Add Area” in order for the changes to be accepted.

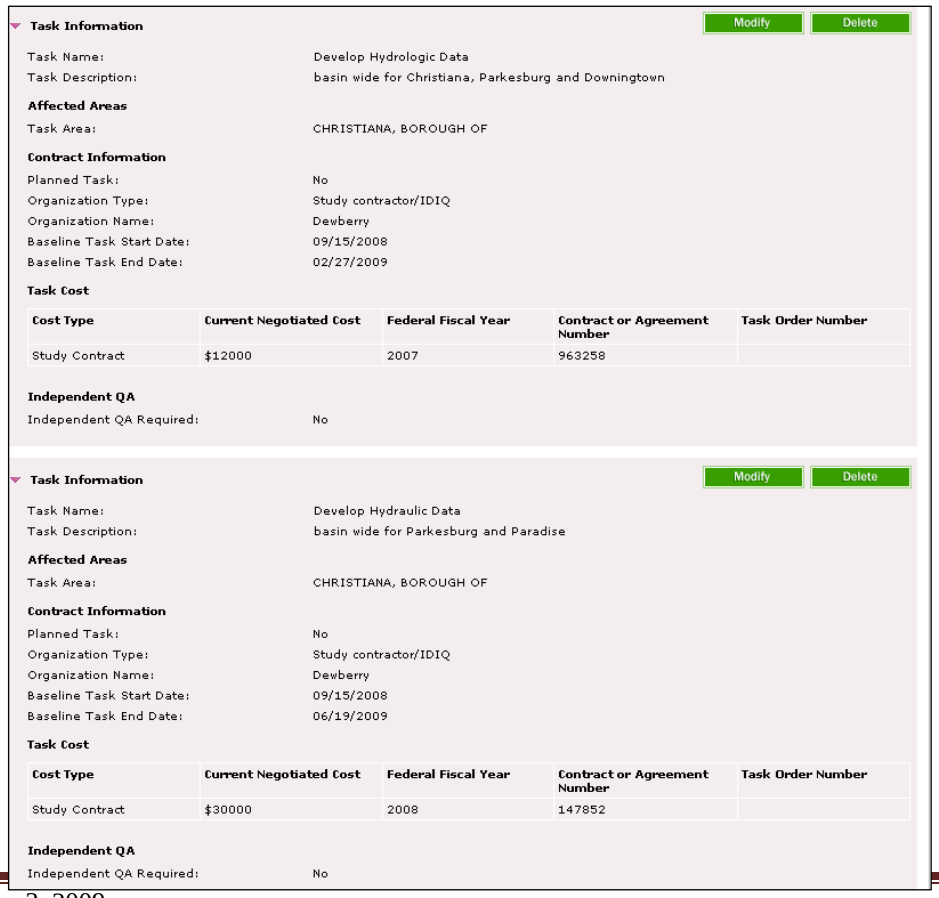
Continue entering information on this screen, including Contract Information, and click “Add Cost.” Independent Quality Assurance is optional on all tasks. Once the Task Information and Contract Information are entered, click “Add Task” to save this task information. Follow steps 1, 2, and 3 on the screenshot below to ensure the task has successfully been added. Repeat for each data development task that has been scoped.

In certain circumstances, multiple contractors will be performing different tasks for the same basin-wide study. The only difference in the setup of the project is in the Obligate Project Funds task. As in projects with only one contractor, add the required tasks and select the same Task Area where the data will be stored. However, at the Contract Information section, add the different organizations and costs. This will ensure that the correct mapping partner receives the appropriate tasks on its Work Items list.



The screenshot below displays all of the data development tasks, excluding Develop DFIRM Database, that were added for this project.

Expanding each Task Information section shows that all tasks have been assigned to Borough of Christiana as the Task Area, even if Christiana does not need all of the specific tasks.



Setting up the project in this manner will reduce the total number of tasks to appear on the Producer's workbench. It will also reduce the quantity of data on the MIP file servers, since the data artifacts will only be uploaded to one location. In addition, it will allow anyone searching for the basin-wide project to find data in only one folder – in our example, Christiana.

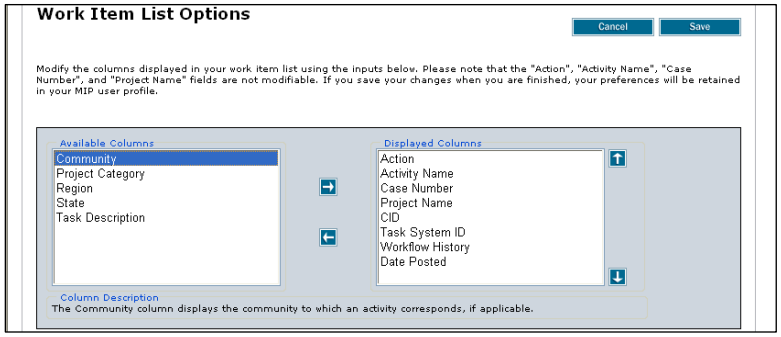
In the previous screenshot, only one task will appear on the user's workbench for the Develop Hydrologic Data task, instead of three (one for each community).

The screenshot below shows all of the tasks added for our sample basin-wide project. The project setup is complete, and now these tasks are assigned to the Producer workbench for completion.

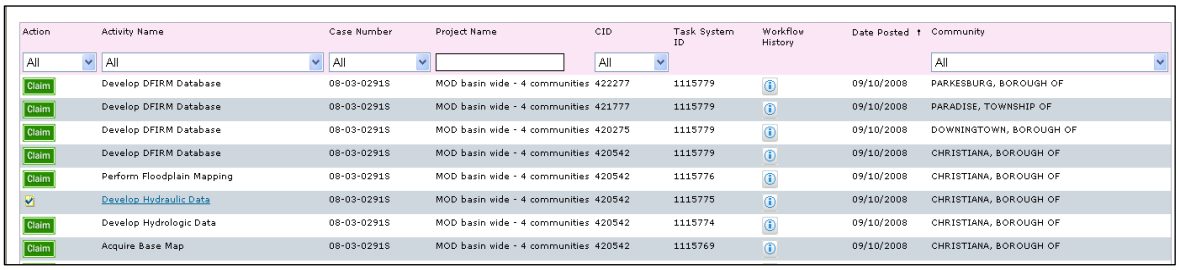
3.3. Data Development Activities

In this example, because only one contractor is assigned for all tasks, all tasks appear on the Work Items list of the assigned contractor. The default Work Items display lists all of the tasks; however, it is difficult to know which task is for which community for Develop DFIRM Database, since the community name is not shown on the Work Items list.

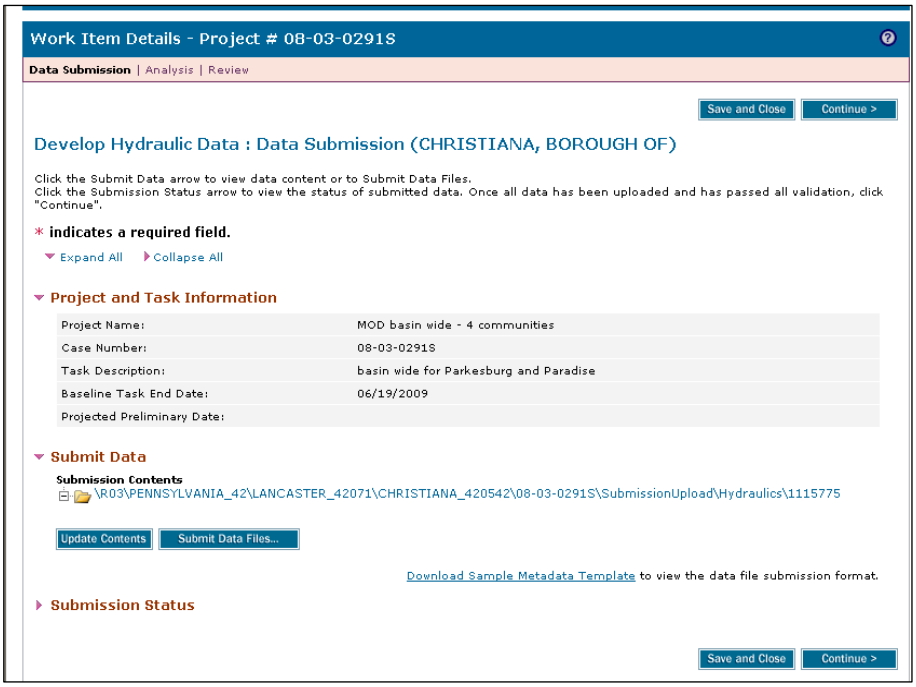
For more information about those specific tasks, click the Options link, highlight the Community field and click the arrow to the right to add it to the list of displayed columns, and click Save.



The Work Items list now displays the community for each Develop DFIRM Database task.



Action	Activity Name	Case Number	Project Name	CID	Task System ID	Workflow History	Date Posted	Community
All	All	All		All				All
Claim	Develop DFIRM Database	08-03-0291S	MOD basin wide - 4 communities	422277	1115779		09/10/2008	PARKESBURG, BOROUGH OF
Claim	Develop DFIRM Database	08-03-0291S	MOD basin wide - 4 communities	421777	1115779		09/10/2008	PARADISE, TOWNSHIP OF
Claim	Develop DFIRM Database	08-03-0291S	MOD basin wide - 4 communities	420275	1115779		09/10/2008	DOWNINGTOWN, BOROUGH OF
Claim	Develop DFIRM Database	08-03-0291S	MOD basin wide - 4 communities	420542	1115779		09/10/2008	CHRISTIANA, BOROUGH OF
Claim	Perform Floodplain Mapping	08-03-0291S	MOD basin wide - 4 communities	420542	1115776		09/10/2008	CHRISTIANA, BOROUGH OF
	Develop Hydraulic Data	08-03-0291S	MOD basin wide - 4 communities	420542	1115775		09/10/2008	CHRISTIANA, BOROUGH OF
Claim	Develop Hydrologic Data	08-03-0291S	MOD basin wide - 4 communities	420542	1115774		09/10/2008	CHRISTIANA, BOROUGH OF
Claim	Acquire Base Map	08-03-0291S	MOD basin wide - 4 communities	420542	1115769		09/10/2008	CHRISTIANA, BOROUGH OF



In the example shown above, the header of the task and the file path in the Submit Data section identify the Borough of Christiana. However, the Task Description field in the Project and Task Information for Develop Hydraulic Data: Data Submission, indicates that Parkesburg and Paradise are the only contracted communities for this task.

3.3.1. Uploading Data for a Data Development Task

When uploading data for this task, the user must include data in the metadata file for all communities contracted for this task. This includes naming the metadata file correctly and ensuring the correct data are included. Without the exact information shown below, the MIP Search and Retrieve application will not find the study data. Avoid using a template from another county or community, since it is easy to forget to update all the references to that other project.

Naming the Metadata File

The file name must include the Community Identification Number (CID) for the community where the data is to be stored. Note that the community used to name the metadata may have not been funded for that task but is being used for consistency. Make sure that metadata for all funded communities are included within the file. In the Christiana example, the file name would be *420542_Hydraulics_metadata.xml*

Update the FEMA Case Number

In the metadata file, update the FEMA Case tag to equal the case number of the project. In the Christiana example, the case number would be *08-03-0291S*. The accuracy and completeness of the information is critical.

Add Placekey Elements for ALL Communities in the Study

In the metadata file, update and add placekey elements for all communities in this task. In the Christiana example, placekey elements are added for Parkesburg and Paradise, as follows:

<placekey>**REGION 03**</placekey>
<placekey>**STATE PA**</placekey>
<placekey>**COUNTY Chester**</placekey>
<placekey>**COUNTY FIPS 42029**</placekey>
<placekey>**COMMUNITY Parkesburg, Borough of**</placekey>
<placekey>**FEMA-CID 422277**</placekey>

<placekey>**REGION 03**</placekey>
<placekey>**STATE PA**</placekey>
<placekey>**COUNTY Lancaster**</placekey>
<placekey>**COUNTY FIPS 42071**</placekey>
<placekey>**COMMUNITY Paradise, Township of**</placekey>
<placekey>**FEMA-CID 421777**</placekey>

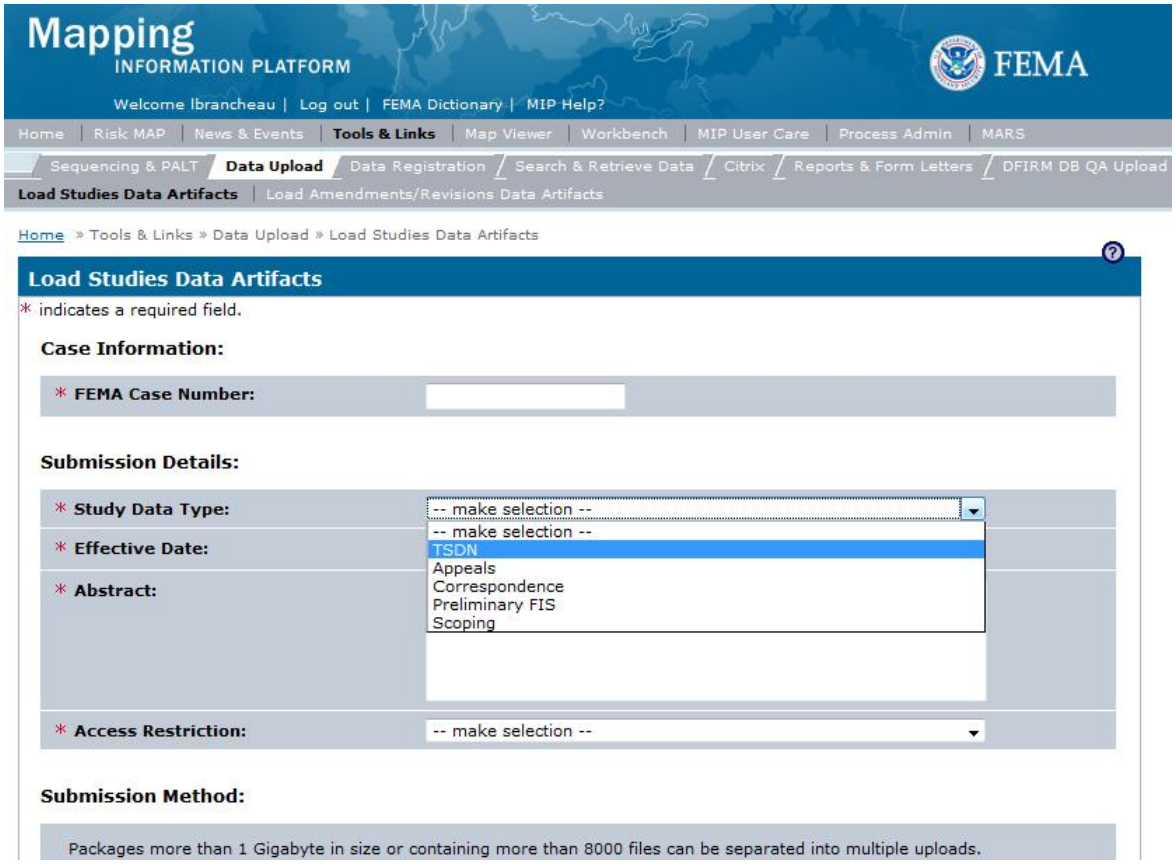
Additional assistance in editing metadata files, and specifically the placekey elements, can be found on the MIP under the Tools and Links tab.

3.4. Preliminary and Post-Preliminary Processes

Once a basin-wide study reaches this point in the MIP workflow, the standard preliminary and post-preliminary procedures apply. The basin-wide studies will have been completed and broken out into the appropriate political jurisdictions for inclusion in the county-wide or community DFIRMs. The separate Develop DFIRM Database tasks will determine separate paths for the subsequent DFIRM quality reviews and preliminary and post-preliminary due processes.

3.5. Uploading Study Data with No Associated MIP Task

The MIP Workflow currently has no task for uploading certain types of study data, including Technical Support Data Notebooks (TSDN), appeals correspondence, studies correspondence, Preliminary FIS reports, and scoping data. These types of study data deliverables (artifacts) are loaded through the Tools and Links, Data Upload, Load Studies Data Artifacts portlet.



As shown in the screenshot above, select the FEMA Case Number and the type of artifact to be stored. Since there are no metadata files for these types of data, it is important to make sure that the Abstract section describes the geographic area covered by the study. At a minimum, all counties affected by the study should be listed in the Abstract section. Using the example shown in previous sections, a user would enter "TSDN for Chester County PA and Lancaster County PA".

If the project was set up properly, as defined in the Create Project Task, Finalize Project Scope, and Obligate Project Funds sections, the study data artifacts will be loaded to the community folder where the other study data were filed.

When using the Search & Retrieve tool for counties or communities associated with a multi-county or multi-community project, the MIP is capable of returning results for the project even though the artifacts are loaded into the first community and/or county alphabetically. The search is not limited to the county or community that the data was uploaded to.

4. Summary

The MIP can be used for basin-wide studies, but specific business rules and methods must be applied at key steps in the MIP Project workflow. These key steps are: Create Project Task, Finalize Project Scope, Obligate Project Funds, and Data Development Activities.

The following table summarizes the highlights of MIP project requirements at each key step for basin-wide studies.

Task	Critical Information
Create Project Task	Required Naming convention – 'Name of Basin - # of communities', for example "Conestoga Basin-Wide Study – 72 communities".
	Community information screen – add all affected communities, even those that are only partially affected by the study.
	Community information screen – choose either all communities or all counties, no mixed community/county combinations are possible
	Call or email the MIP help team if a project is created using multiple county-wides to remove the communities from those counties that are not included in the basin.
Finalize Project Scope	Choose all affected map panels
	The Basin Boundary Area check box is not necessary
Obligate Project Funds	Select the same Task Area for each task assigned (except Develop DFIRM Database), even if that community is not contracted for that task.
	Enter the actual communities for that task in the Task Description section
	For Develop DFIRM Database, click the Add All Areas button
Data Development Activities	Make sure to upload the correct data for the contracted task, not just what is displayed in the title of the task; confirm the Task Description is for the communities contracted for that task. For example, load the Hydraulics data for the entire study, not just the one community selected to store the data.
Data Development Activities with No MIP Tasks	For TSDNs, appeals correspondence, studies correspondence, preliminary FIS reports, and scoping data, be sure to list all the affected counties or communities in the Abstract field of the MIP Load Studies Data Artifacts portlet.