



New Jersey Department of Environmental Protection Cooperating Technical Partners Mapping Activity Statement

Mapping Activity Statement No. 2006-NJDEP-001

Digital Flood Insurance Rate Map Production and Development of Updated Flood Data

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated May 16, 2006 between the New Jersey Department of Environmental Protection (NJDEP) and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement (MAS) No. 2006-NJDEP-001 is as follows:

SECTION 1—OBJECTIVE AND SCOPE

The objective of the Flood Map Project documented in this MAS is to revise or redelineate the Special Flood Hazard Areas of the Delaware River as it flows through Mercer, Hunterdon, Warren and Sussex Counties. This data will be developed for inclusion in Digital Flood Insurance Rate Maps (DFIRMs) and Flood Insurance Study (FIS) reports for the above mentioned counties. The DFIRM and FIS report will be produced in the FEMA Countywide format. Per Procedure Memorandum 41, these mapping products will be developed in NAVD 88.

The New Jersey Department of Environmental Protection is providing additional funding to FEMA so that FEMA can use the funds to map those sections of the Delaware River contiguous to each of the four counties identified above. **In FY 2006, FEMA will use a portion of these funds to map the Delaware River as part of the mapping contracts for Mercer and Hunterdon Counties. The additional fund will be used to map Sussex and Warren Counties in FY 2007.**

The Mapping Partners involved in this project will develop new and/or updated flood hazard data, as summarized in Table 1.1, Flooding Sources to be studied. Existing Geographic Information System (GIS) data and study needs for the community will be researched, obtained, organized, and provided in accordance with the Scoping Activity. Mapping will include state mapping of multiple profiles, including the New Jersey flood hazard design area.

In addition, the Mapping Partners involved in this project will develop new and/or updated flood hazard data, as summarized in Table 1.2, Flooding Sources to be studied.

Within 14 days of this agreement, FEMA, with its IDIQ contractor, in coordination with the National Service Provider (NSP), shall input the scope of work into the FEMA Scoping tool. This includes information concerning community ordinance data, local GIS data availability, and the flood reach data for existing and proposed conditions. FEMA Scoping tool information can be found at: <http://www.hazards.gov/resources/scoping.htm>.

This Flood Map Project will be completed by the following Mapping Partners:

- the New Jersey Department of Environmental Protection (NJDEP), a Cooperating Technical Partner;
- The Federal Emergency Management Agency (FEMA), Region II and its IDIQ contractor.

This project will be supported by FEMA's National Service Provider (NSP). A Mapping Partner shall notify FEMA and/or its contractor or NJDEP by e-mail of all meetings with community officials at least one week prior to the meeting (with as much notice as possible). FEMA and/or its contractor may or may not attend the community meetings based on joint decision by NJDEP and FEMA.

The NJDEP shall establish a Map Steering Committee comprised of NJDEP, FEMA, FEMA contractor and such other Federal, State or local agencies or organizations that NJDEP identifies as being important to completing the mapping project. This committee may be convened as needed, to review project status or products or for other mapping related needs. The committee shall meet on a quarterly basis to review the status of the project.

The activities and schedule for this Flood Map Project, including required Quality Assurance/Quality Control (QA/QC) reviews, and the Mapping Partners that will complete them are summarized in Table 1-1. All activities that are to be accomplished by NJDEP or contractors to NJDEP, including contractors that may be selected after the project startup, are included in the "NJDEP" column. The sections of this MAS that follow Table 1-1 describe the specific activities, responsible Mapping Partner(s), FEMA standards that must be met, resulting map components, and a delivery schedule.

The activities documented in this MAS shall be completed in accordance with the project schedule shown in Table 1-1. If changes to this schedule are required, the responsible Mapping Partner shall coordinate with FEMA and the other Mapping Partners in a timely manner.

Table 1.1 Flood Mapping Project Activities

Activities	CTP or IDIQ	FEMA (or its Contractor)	Due Date
Activity 1. Pre-Scoping	NJDEP	FEMA	Complete
Activity 2. Scoping	NJDEP	FEMA	Complete
Activity 3. Contractor Selection	NJDEP	FEMA	Complete
Activity 4. Transfer of Funds	NJDEP	FEMA	10/02/06
Activity 5. Contractor Negotiations	NJDEP	FEMA	10/02/06
Activity 6. Issue Task Order		FEMA	10/02/06
Activity 6a. Kick-off Meeting	NJDEP	FEMA	10/16/06
Activity 7. Outreach	NJDEP		Ongoing
Activity 8. Field Survey		FEMA contractor	3/31/07
Activity 9a. Independent QA/QC Review of Field Survey 9b. Review of Field Survey	NJDEP	FEMA contractor	4/30/07
Activity 10. Topographic Data Development		FEMA contractor	5/31/07
Activity 11a. Independent QA/QC Review of Topographic Data 11b. Review of Topographic Date	NJDEP	FEMA contractor	6/30/07
Activity 12. Base Map Acquisition and Preparation	NJOIT for NJDEP		12/31/06
Activity 13. Hydrologic Analyses		FEMA contractor	12/31/06
Activity 14a. Independent QA/QC Review of Hydrologic Analyses 14b. Review of Hydrologic Analysis	NJDEP	FEMA	4/30/07
Activity 15. Hydraulic Analyses		FEMA contractor	9/30/07
Activity 16a. Independent QA/QC Review of Hydraulic Analyses 16b. Review of Hydraulic Analysis	NJDEP	FEMA	10/31/07

Activities	CTP or IDIQ	FEMA (or its Contractor)	Due Date
Activity 17. Floodplain Mapping (Detailed Riverine analysis, Redelineation Using Effective Flood Profiles and Updated Topographic Data ¹ , Refinement or Creation of Zone A, Redelineation (digitization) of Non-Revised Areas ¹ , Merge Revised and Non-Revised Information); NJ State profiles and NJ flood hazard area design.		FEMA contractor	9/30/07
Activity 18a. Independent QA/QC Review of Floodplain Mapping 18b. Review of Floodplain Mapping	NJDEP	FEMA	10/31/07
Activity 19. Redelineation (Redelineation Using Effective Flood Profiles and Updated Topographic Data ¹ , Refinement and Redelineation (digitization) of Non-Revised Areas ¹)		FEMA contractor	9/30/07
Activity 20a. Independent QA/QC Review of Redelineation 20b. Review of Redelineation	NJDEP	FEMA	10/31/07
¹ These sub-tasks can be performed and reported in the Mapping Information Platform (MIP) Work Flow as part of Floodplain Mapping activity or Redelineation activity.			
Other tasks, i.e., development of DFIRM data base, independent QA/QC review of DFIRM database and graphics, production of preliminary map products and post-preliminary processing are not included in this MAS. These activities are included in FEMA contracts for Mercer, Hunterdon, Warren and Sussex Counties and are a FEMA responsibility.			

*** Due dates may be amended by agreement of the involved parties**

FEMA has developed tools to assist in the development of the flood hazard data studies and DFIRMs if the CTP wishes to use them. FEMA will provide all Mapping Partners access to and training in these tools. The tools available at this time include WISE software and the DFIRM production tools. The use of these tools will improve the Flood Map Modernization and efficiency of all mapping partners.

QA/QC review activities will be performed by FEMA or its contractor. The CTP will have an opportunity to review the same data and provide the results of its review to FEMA. FEMA will also be performing periodic audits and overall study/project management to ensure study quality.

FEMA will be providing download/upload capability for intermediate data submittals through the MIP. Data submittals uploaded via the MIP will include the same data required prior to the existence of the MIP, with the addition of Metadata profiles required for search and retrieve capabilities. A Federal Geographic Data Committee (FGDC) adopted metadata profile, Content Standard for Digital Geospatial Metadata (CSDGM), must accompany the uploaded digital data in order to facilitate proper cataloging of the data for search and retrieve capabilities within the MIP. The metadata profile should be obtained from FEMA or its contractor to assure compliance.

Metadata profiles are to be included with each of the following four activities that must satisfy Data Capture Standards; Base Map Data, Topographic Data, Hydrologic Data, and Hydraulic Data. The metadata profiles are available from FEMA.

Scoping-related data completed will be reviewed and amended as need to be in accordance with the Data Capture Standards. Submitting data in these standards will aid in more efficient quality control reviews, data storage, archiving, and for future study updates.

Table 1.2 Flooding Source(s) to be Studied

The activities for this Flood Map Project, including any required Quality Assurance/Quality Control (QA/QC) reviews, and the Mapping Partners that will complete them are summarized in Table 1.1, Flood Mapping Project Activities. The sections of this MAS that follow the table below describe the specific mapping activities, responsible Mapping Partner(s), FEMA standards that must be met, and resulting map components.

Flooding Source	Reach Limits	Reach Length
Delaware River	Mercer County: From the down-stream corporate boundary of the City of Trenton to the Mercer/Hunterdon County border	19 miles
Delaware River	Hunterdon County: From the Mercer/Hunterdon County boundary to the Hunterdon/Warren County boundary	28 miles
Delaware River	Warren County: From the Hunterdon/Warren County boundary to the Warren/Sussex County boundary	51 miles
Delaware River	Sussex County: From the Warren/Sussex County boundary to the New Jersey/New York State border	29 miles

SECTION 2—TECHNICAL AND ADMINISTRATIVE SUPPORT DATA SUBMITTAL

The Project Team members for this Flood Map Project that have responsibilities for activities included in this MAS shall comply with the data submittal requirements summarized below.

All supporting documentation for the activities in this MAS shall be submitted in the TSDN format in accordance with Appendix M of the FEMA *Guidelines and Specifications for Flood Hazard Mapping Partners*, dated April 2003. Appendix M may be downloaded from the FEMA Flood Hazard Mapping website at http://www.fema.gov/pdf/fhm/frm_gsam.pdf. Table 2-1 indicates the sections of the TSDN that apply to each mapping activity.

If any issues arise that could affect the completion of an activity within the proposed scope or budget, the responsible Mapping Partner shall complete a Special Problem Report (SPR) as soon as possible after the issue is identified and submitted to FEMA. The SPR is to describe the issue and propose possible resolutions. (For additional information on SPRs, refer to Appendix M, Subsection M.2.1.1 of *Guidelines and Specifications for Flood Hazard Mapping Partners*.)

Table 2-1. Mapping Activities and Applicable TSDN Sections

TSDN Section	Mapping Activities				
	Scoping	QA/QC of Topo	QA/QC of Hydrology	QA/QC of Hydraulics	QA/QC of FP Mapping
General Documentation					
Special Problem Reports	X	X	X	X	X
Telephone Conversation Reports	X	X	X	X	X
Meeting Minutes/ Reports	X	X	X	X	X
General Correspondence	X	X	X	X	X
Engineering Analyses	X	X	X	X	X
Hydrologic Analyses			X	X	X
Hydraulic Analyses			X	X	X
Key to Cross-Section Labeling			X	X	X

Key to Transect Labeling			X	X	X
Draft FIS Report			X	X	
Mapping Information	X	X			X
Miscellan- eous Reference Information	X	X	X	X	X

SECTION 3—PERIOD OF PERFORMANCE

The mapping activities outlined in this MAS will begin on September 30, 2006, and will be completed no later than September 30, 2007. The mapping activities may be terminated at the option of FEMA or NJDEP in accordance with the provisions of the Partnership Agreement dated May 16, 2006. If these mapping activities are terminated, all products produced to date and the remaining funds from uncompleted activities, provided by FEMA for this MAS, will be returned to FEMA.

SECTION 4—FUNDING/COST SHARING

New Jersey DEP is providing funding to FEMA in the total amount for the completion of the overall Flood Map Project. During the contracting process, additional needs may be identified. If additional funding is needed, FEMA and New Jersey Department of Environmental Protection together shall determine how to provide any additional resources required to complete the assigned activities for this Flood Map Project. Activities associated with any additional needs would be performed based on availability of additional funds.

Table 4.1- Funding/Leverage

Funding for Project/Partner Name	FEMA Contribution	Partner Contribution	% Leverage	Total Project Cost
TOTAL FUNDING AMOUNTS				
Mercer County			%	
Hunterdon County			%	
Warren County			%	
Sussex County			%	

The NJDEP funds identified above are available to be used for the NJDEP activities related to the study of the Delaware River included in Table 1.1.

SECTION 5—STANDARDS

The standards relevant to this MAS may be downloaded from the FEMA Flood Hazard Mapping website at http://www.fema.gov/fhm/dl_cgs.shtm. Standards for NJ Hazard Area Mapping will be provided by NJDEP.

SECTION 6—TECHNICAL ASSISTANCE AND RESOURCES

Project Team members may obtain copies of FEMA-issued LOMCs, archived engineering backup data, and data collected as part of the Mapping Needs Assessment Process from FEMA and/or your Regional Project Officer. They may also obtain archived engineering and data from NJDEP for NJ state profiles and flood hazard area mapping.

General technical and programmatic information, such as FEMA 265 and the Quick-2 computer program, can be downloaded from the FEMA website at <http://www.fema.gov/fhm/>. Specific technical and programmatic support may be provided through FEMA and/or its contractor; such assistance should be requested through the FEMA Project Officer specified in Section 12 – Points of Contact.

Project Team members also may consult with the FEMA Regional Project Officer to request support in the areas of selection of data sources, digital data accuracy standards, assessment of vertical data accuracy, data collection methods or subcontractors, and GIS-based engineering and modeling training.

SECTION 7—CERTIFICATIONS

Field Surveys and Topographic Data Development

A Registered Professional Engineer or Licensed Land Surveyor shall certify topographic data in accordance with 44 CFR 65.5(c). Certification of topographic data by the American Society for Photogrammetry and Remote Sensing is also acceptable.

Certifications must be made at the time the intermediate data is submitted. For example, if hydrologic data is submitted, certification will be required at the time it is submitted.

Base Map Acquisition and Preparation

- A community official or responsible party shall provide written certification that the digital data meet FEMA minimum standards and specifications.
- The responsible Mapping Partner shall provide documentation that the digital base map can be used by FEMA. Please note that uploading base map data to the MIP does not constitute agreement that the digital base map can be used by FEMA. Documentation that the digital base map can be used by FEMA will still be required.

Hydrologic Analyses, Hydraulic Analyses, and Floodplain Mapping

- A Registered Professional Engineer shall certify hydrologic and hydraulic analyses and data in accordance with 44 CFR 65.6(f).
- A Registered Professional Engineer or Licensed Land Surveyor shall certify topographic information in accordance with 44 CFR 65.5(c).
- Any levee systems to be accredited will be certified in accordance with 44 CFR 65.10(e).

Floodplain Mapping, Independent QA/QC Review of Floodplain Mapping and DFIRM Database

- The DFIRM metadata files shall include a description of the horizontal and vertical accuracy of the DFIRM base map and floodplain information.

SECTION 8—CONTRACTORS (CTP)

The New Jersey Department of Environmental Protection intends to use the services of a FEMA IDIQ contractor. Medina Consultants has been selected by FEMA and NJDEP as the contractor for these Flood Map Projects.

SECTION 9—REPORTING

FEMA and/or its contractor will provide all required reporting data. NJDEP will meet with the NSP and/or FEMA semi-annually to review the progress of the project.

The FEMA contractor shall provide reports for each of the mapping activity statements. The requirements for this report are established by FEMA and may include a spreadsheet template to be completed or the Mapping Information Platform (MIP) system may be used. It shall include dollars spent, hours spent, and percent complete of each major Flood Map Project activity (e.g., field survey, terrain, hydrology) on a county basis. These reports will be shared with and reviewed by NJDEP.

SECTION 10—PROJECT COORDINATION

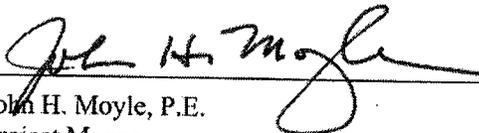
Throughout the project, all members of the Project Team will coordinate, as necessary, to ensure the products meet the technical and format specifications required and contain accurate, up-to-date information. Coordination activities shall include:

- Meetings, teleconferences, and video conferences with FEMA and other Project Team members semi-annually;
- Telephone conversations with FEMA and other Project Team members on a scheduled basis and an ad hoc basis, as required;
- Updates to the MIP and other FEMA status information systems in accordance with requirements in Volumes 1 and 3 of *Guidelines and Specifications for Flood Hazard Mapping Partners*; and
- E-mail, facsimile transmissions, and letters, as require

SECTION 11—POINTS OF CONTACT (CTP)

The points of contact for this Flood Map Project are Paul Weberg, PE, Project Officer for FEMA Region II; John H. Moyle, PE, the Project Manager for NJDEP; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities. When necessary, the assistance of the NSP should be requested through the FEMA Project Officer, Paul Weberg, PE. In addition, the NSP is required to coordinate project issues with the responsible Mapping Partner that created the MAS deliverable or portions of the MAS deliverable product and will document all such coordination activities with the CTP and FEMA.

Each party has caused this MAS to be executed by its duly authorized representative.



 John H. Moyle, P.E.
 Project Manager
 New Jersey Department of Environmental Protection

8/17/06

 Date



 Paul Weberg, PE
 Project Officer
 Federal Emergency Management Agency, Region II

8/21/06

 Date
