



FEMA

**Ohio Department of Natural Resources, Division of Water
Cooperating Technical Partners
Mapping Activity Statement**

**Mapping Activity Statement No. 2
Digital Flood Insurance Rate Map Production
and Development of Updated Flood Data for
Adams County, Ohio**

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated May 14, 2004 between the Ohio Department of Natural Resources and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement (MAS) No. 2 is as follows.

SECTION 1—OBJECTIVE AND SCOPE

The objective of the Flood Map Project documented in this MAS is to develop a Digital Flood Insurance Rate Map (DFIRM) and Flood Insurance Study (FIS) report for Adams County. The DFIRM and FIS report will be produced in the FEMA Countywide format. The vertical datum for this product will be in NAVD 88. Existing GIS data and study needs for the community will be researched, obtained, organized and provided in accordance with Activity 1. Scoping will be necessary to determine the final scope of work for this project. In addition the Mapping Partners involved in this project will develop new and/or updated flood hazard data, as summarized in Table 1 below.

Table 1

| Flooding Source | Reach Limits | Detailed Hydrologic Analyses | Detailed Hydraulic Analyses | Limited Detail Study | Refinement or Creation of Zone A | Coastal Analysis | Floodplain Mapping |
|------------------|--|------------------------------|-----------------------------|----------------------|----------------------------------|------------------|--------------------|
| ThreeMile Creek | Portion of reach beginning at the county line and extending 6 miles upstream of the county line | | | | X | | X |
| Lower Twin Creek | Portion of reach beginning at the county line and extending 5.1 miles upstream of the county line. | | | | X | | X |
| Churn Creek | Portion of reach beginning at confluence with South Fork Scioto Brush Creek and extending 4.4 miles upstream | | | | X | | X |
| Cedar Fork | Portion of reach beginning at confluence with Scioto Brush Creek and extending 3.8 miles upstream. | | | | X | | X |
| Little East Fork | Portion of reach beginning at confluence with Ohio Brush Creek and extending 4.4 miles upstream. | | | | X | | X |
| Georges Creek | Portion of reach beginning at confluence with Big Run Creek and extending 5.1 miles upstream | | | | X | | X |

| | | | | | | | | |
|---------------|--|--|--|--|--|--|---|---|
| Middle Branch | Portion of reach beginning at confluence with Mill Creek and extending 3.2 miles upstream. | | | | | | X | X |
| Mill Creek | Portion of reach beginning at confluence of Churn Creek and extending 1.5 miles upstream to the confluence of Middle Branch. | | | | | | X | X |

Within 30 days of this agreement, the CTP, 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. The FEMA Scoping tool documentation can be found at <http://www.hazards.gov/resources/scoping.htm>.

The CTP/IDIQ shall notify FEMA and the NSP by e-mail of all meetings with community officials at least one week prior to the meeting. FEMA and/or the NSP may or may not attend the community meetings.

This Flood Map Project will be completed by the following

- The Ohio Department of Natural Resources, Division of Water;
- FEMA

The activities 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 the table below. The sections of this MAS that follow the table below describe the specific activities, responsible Mapping Partner(s), FEMA standards that must be met, and resultant map components.

| Activities | CTP (ODNR) | FEMA |
|--|---------------|------|
| Activity 1 – Pre-scoping | X | |
| Activity 2 – Scoping | X | |
| Activity 10B – Floodplain Mapping (Refinement and /or creation of Zone A) | X | |
| Activity 11 – Independent QA/QC Review of Floodplain Mapping (Revised Areas) | | X |
| Activity 12 – Base map acquisition | X | |
| Activity 14 – DFIRM production (merge revised and non-revised information) | X | |
| Activity 14B – Independent QA/QC review of DFIRM product meeting FEMA graphic and database specifications. | | X |
| Activity 15 – Preliminary DFIRM and FIS report distribution. | X | |
| Activity 16 – Post-preliminary processing. | X | X |

FEMA has developed tools to assist in the development of the flood hazard data studies and the Digital Flood Insurance Rate Maps (DFIRMs) if the CTP wishes to use them. FEMA will, through the NSP, provide all CTPs 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 Map Modernization and efficiency of all mapping partners.

If the CTP chooses not to use these production tools, then the CTP will be required to submit intermediate project data at major milestones in each Mapping Project in accordance with data capture standards. Submitting data in these standards will aid in more efficient quality control reviews, data storage, archiving, and for future study updates.

The Data Capture Standard submittals will be required at the following study milestones:

- Project Scoping (as specified)
- DFIRM Mapping (draft and preliminary)

QA/QC review activities may be performed by CTPs or the NSP at the discretion of FEMA. Please note the NSP 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 Management Information Portal (MIP). Data submittals uploaded via the MIP will include the same data required prior to the existence of the MIP.

Activity 1 – Pre-Scoping

Responsible Mapping Partner: ODNR, DOW

Scope: Pre-Scoping or Mapping Needs Assessment forms the building block for the Scoping Phase. This task involves collecting data from a variety of sources including community surveys, other Federal and State Agencies, NFIP State Coordinators, Community Assistance Visits (CAVs) and FEMA archives. ODNR, DOW will evaluate the effective FIS report and FIRM maps to see if they need to be updated. Lists of mapping needs will be obtained from the MNUSS database, community surveys and CAVs if available.

Data collection will include obtaining the best available base map materials (e.g., corporate limits, roads, orthophotos) along with stream centerline files. The acquired data will be imported into the scoping tool and used during the Scoping Task. In the Scoping Tool, all streams should have unique names, the limits of the effective FEMA studies should be identified, LOMC areas should be identified, and community requests should be identified. This task also includes populating the streamlines with existing pipeline and scoped studies currently underway.

Standards: All work under Activity 1 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: ODNR, DOW shall make the following products available to FEMA:

- Copies of all digital files obtained and lists of files that may be available at a later date;
- Summary of the Community's needs; and

- Scoping Tool project files.

Information on the Scoping Tool can be downloaded from <http://hazards.fema.gov/wps/portal>

Activity 2 – Scoping

The Scoping Task has been broken down into 22 sub-tasks to approximately correspond with the *Guidelines and Specifications for Flood Hazard Mapping Partners*. Each sub-task will not be necessary for every study, especially for studies that involve mostly digital conversions and few new detailed studies. Please delete sub-tasks that are not being conducted for this study.

Task 2-1 Project Management Team Participation

Responsible Mapping Partner: ODNR, DOW

Scope: In cooperation with the FEMA Region, a Project Management Team will be established consisting of the ODNR, DOW, FEMA's Regional Engineer, Adams County, and other appropriate officials. The Project Management Team will be responsible for coordinating the activities of this project and completing all tasks identified in this Statement of Work.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables:

- A document listing the project management team along with their full contact information.
- Update of the Scoping Tool files to include the project management team and contact information.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-2 Initial Community Contact

Responsible Mapping Partner: ODNR, DOW

Scope: Coordinate with the FEMA Regional Project Lead to contact Adams County and notify them that FEMA and ODNR, DOW have selected them for a map update, and they will be working with the communities to develop the project scope. Topics to be reviewed with the communities include:

- Purpose of the Flood Map Project (i.e., the update needs that have prompted the map update);
- The community's perception of its mapping needs;
- Target schedule for completing the project;
- Possibility of the community participating as a CTP (if it isn't already); and
- The community's engineering, planning, and Geographic Information System (GIS) capabilities.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A digital document reporting the results of the contact.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-3 Preliminary Project Management Plan

Responsible Partner: ODNR, DOW

Scope: The coordination protocol and general management objectives of the entire project will be addressed in the preliminary Project Management Plan. The plan will identify the overall Project, Project Team, the lines and protocols of communication between the communities and the Team members, protocols for internal flow of information among the members of the Team, the project objectives, general milestones of the Flood Map Project, QA/QC review requirements, record keeping, and project completion goals.

The Project Management Plan shall follow the template provided in Appendix I, Subsection I.1.2 of the *Guidelines and Specifications for Flood Hazard Mapping Partners* and will constitute the living document for the operation of the project. Copies of the document will be distributed to all members of the Project Team. As the project advances, revisions deemed necessary for improving the Project Management Plan will be incorporated into the plan and distributed to all Team members as well.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverable: The Project Management Plan in digital format.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-4 Initial Project Team Conference Call

Responsible Partner: ODNR, DOW

Scope: Following the completion of the Project Management Plan, a conference call will be arranged including all of the Project Management Team members and the appropriate representatives of Adams County. The communities will be asked to provide input for its assessment of the flood mapping needs, available data for base maps, any existing studies or ongoing projects that may have an influence on flood mapping, the community's potential as a CTP, and the involvement of other regional or state agencies that may have an input for the map development process.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverable: A digital document documenting discussions during the conference call.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-6 Preliminary Research Activities

Responsible Partner: ODNR, DOW

Scope: Preliminary Research Activities can be separated into two categories—researching effective information and researching available data for the Flood Map Project. The following tasks shall be completed to research effective information: conduct a thorough Mapping Needs Assessment (unless one has already been conducted); inventory the FEMA archives for effective FIRM panels, FIRM panels, FIS reports, and other flood hazard data or existing study data; summarize the information in the MNUSS database; summarize contiguous community agreement checks; review CAV and CAC files; and develop an overview of the results of the research.

The following tasks shall be completed to research available data for Flood Map Project: identify available base map information; identify available topographic data; identify available flood hazard data; and identify other available hydrologic and hydraulic information and data.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS. An Available Data Inventory template is provided in Appendix I, Subsection I.1.6 of the *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Deliverables: An Available Data Inventory in a digital format.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-7 Potential Obstacles

Responsible Partner: ODNR, DOW

Scope: The Project Management Team shall identify potential obstacles in an effort to learn of any issues that could delay or prohibit the Flood Map Project. Some examples of potential obstacles to completing the project in a timely fashion include the following: inability to address mapping needs adequately with available funding; difficulty coordinating community funding with FEMA funding; lack of an available base map meeting FEMA minimum specifications (described in Appendix K of the *Guidelines and Specifications for Flood Hazard Mapping Partners*); hydrologic and/or hydraulic issues; community concerns; reliance on other studies or data (e.g., topographic mapping) that will not be available within the project's scheduling constraints; needs not having as high a priority as originally identified; and other considerations (Federal/State/non-governmental organizations, programmatic, disaster-related, legal).

The Project Management Team shall explore potential issues on an ongoing basis. If potential obstacles are identified that could halt or significantly hinder the completion of the project, the Project Management Team shall evaluate all possible alternatives and develop an appropriate course of action as soon as practicable. This checklist is a "living" document that should be updated as necessary throughout the lifecycle of the project.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS. A Potential Obstacle to Project Completion Checklist template is provided in Appendix I, Subsection I.1.7 of the *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Deliverables: A Potential Obstacle to Project Completion Checklist in digital form.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-8 Draft Project Scope

Responsible Partner: ODNR, DOW

Scope: Based on the collected information, ODNR, DOW will develop a Draft Project Scope of the identified mapping needs of Adams County. Input received from the FEMA Regional Project Lead and other involved community agencies will be used in the development of the Draft Project Scope. The following items will be addressed in the Draft Project Scope: review available information; determine if and how effective FIS data can be used in new project; identify other data needed to complete the Project and its source; and the DFIRM format.

The Draft Project Scope will establish priority levels for flooding sources to be analyzed and mapped, and estimate schedules and associated costs for completion of the components of flood mapping.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A Draft Project Scope document in digital form and an update of the Scoping Tool files to include the draft scope.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-9 Draft Project Scope Conference Call

Responsible Partner: ODNR, DOW

Scope: After submission of the Draft Project Scope to FEMA and the ODNR, DOW, a conference call will be arranged among Project Management Team members and appropriate community representatives to discuss and refine the Draft Project Scope. Results of the conference call will be summarized.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverable: A digital document summarizing the Conference Call.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/fhm_gsai.pdf.

Task 2-10 Revised Draft Project Scope

Responsible Partner: ODNR, DOW

Scope: Based on the input received during the conference call, a “Revised Draft Project Scope” will be prepared. This document will be submitted to the Project Team for further discussion during the project Scoping Meeting.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A Revised Draft Project Scope document and an update of the Scoping Tool files to reflect any changes to the Scope of Project.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/fhm_gsai.pdf.

Task 2-11 Distribution of Background Information

Responsible Partner: ODNR, DOW

Scope: In preparation for the Scoping Meeting (Task 12), a detailed meeting agenda will be prepared in accordance with the template provided in Appendix I, Subsection I.2.4 of the *Guidelines and Specifications for Flood Hazard Mapping Partners*. The ODNR, DOW will distribute the Scoping Meeting agenda, revised draft Project Scope and the preliminary Project Management Plan to all meeting attendees before the Scoping Meeting.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: Copies of the Scoping Meeting Agenda, Revised Draft Scope of Project, and Preliminary Project Management Plan to be distributed before the Scoping Meeting.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-12 Scoping Meeting Activities

Responsible Partner: ODNR, DOW

Scope: ODNR, DOW will coordinate, set up, and conduct the Scoping Meeting. This includes identifying a time, location, and all participants. The purpose of this meeting is to present the draft Scope of Project to the local officials (state, county and municipal) and coordinate the prioritization of proposed study areas. ODNR, DOW shall be responsible for compiling the necessary information for the meeting as contained on the Scoping Meeting Item Checklist. These items may include: FIS and FIRM for affected communities; USGS quads for the study area(s); best available community base map(s); effective FIRM summary; Available Data Inventory; Draft Scope of Project; Scoping Meeting Agenda/Minutes form; Aerial photos/topographic mapping if available; existing drainage studies or other Hydrology & Hydraulics (H&H) data; Community master plan(s)/Drainage Master Plan(s); Zoning Maps; Street Maps; As-built plans; and Floodplain Ordinance(s).

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A completed Scoping Meeting Package with all necessary forms will be submitted to the ODNR, DOW, the FEMA Regional Project Lead, and the NSP one week after the Scoping Meeting.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-13 Mapping Needs List Prioritization and Finalization

Responsible Partner: ODNR, DOW

Scope: The Project Management Team shall review the mapping needs list, review the research findings, and make selections of proposed methods for obtaining/producing flood data. Any additions or changes to the needs list shall be discussed with all members. All needs shall be prioritized. In general, highest

priority shall be given to the following areas: areas of dense existing or anticipated development, including areas where new road crossings have been constructed over stream(s); areas affected by flood-control structures and/or channelization; areas where natural physical changes in the floodplain have been significant (due to subsidence or extreme erosion, for example); areas that were studied by approximate methods and unmapped areas, especially those subject to development pressure; areas where the community has experienced flooding outside mapped floodplains, with severe damage to buildings and/or infrastructure; areas where mapped flood hazards do not match those shown on contiguous FIRMs (unless those FIRMs are not considered to be accurate); and areas where flood data (BFEs, floodplains, and regulatory floodways) are likely to be changed the most by a restudy.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: The final mapping needs list along with priorities

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-14 Refinement of Draft Scope of Project

Responsible Partner: ODNR, DOW

Scope: Based on the discussion of mapping needs, ODNR, DOW and FEMA Project Lead will finalize the areas to be included in the project (based on recommendations provided by the Project Team). Areas to be studied by detailed and approximate methods shall be identified. The following issues will be discussed and refined:

Review and Refinement of Flood Hazard Identification Methodologies:

The Project Team shall discuss the extent of riverine or coastal modeling required for the project. The research completed during the pre-Scoping Meeting phase shall be reviewed to determine the extent and applicability of previous modeling. Issues to be discussed include the following: models to be used from FEMA's approved models list; requirements for tie-ins to adjacent NFIP maps; areas where complex models might be required; and coordination on Coastal Issues.

Review of Proposed Paneling Scheme:

The scoping map shall be used to review the proposed paneling and scale scheme.

Review and Refinement of Base and Topographic Map Sources:

FEMA's base map specifications will be discussed. The discussion shall include the following topics: Base map source (i.e., locally developed data or DOQs meeting FEMA's minimum specifications) to be used for the project; Topographic and planimetric data sources; Coordination of countywide issues, if necessary; horizontal and vertical datums; and acquisition of the base map, if digital files are not available.

Finalization of Map Production and Database Options:

The proposed DFIRM format and optional features and data for the enhanced DFIRM Database (e.g., GIS data for watershed boundaries, stream reach hydrologic network structure, land use data, soil data, digital

elevation certificates, photographs of structures) from the draft Scope of Project shall be reviewed, refined, and finalized.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A digital Draft Project Scope document and update of the Scoping Tool files.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-15 Assignment of Project Team Member Tasks

Responsible Partner: ODNR, DOW

Scope: The objective is for each Project Team member to have a clear understanding of his or her role and responsibilities for the project. The Task Assignment and Scheduling Worksheet in *Guidelines and Specifications for Flood Hazard Mapping Partners*, Appendix I, Subsection I.2.5 can be used to make assignments and develop a schedule for the project. The Flood Mapping Project Process Flowchart, which is included in Appendix I, Subsection I.2.6 may also be useful.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverable: A report documenting the assignments of the Project Team members in accordance with the delivery dates specified in task orders.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-16 Community Partnership Agreements

Responsible Partner: ODNR, DOW

Scope: Adams County will be contacted and given the opportunity to sign a Memorandum of Agreement (MOA). MOAs will be obtained from as many affected communities as possible, within the Period of Performance of this Task Order. MOAs document the good faith efforts to collaboratively assess the community's needs, develop an appropriate Project Scope, and develop and adopt the resulting maps.

If these agreements cannot be signed at the Scoping meeting (for example, if they require city council approval), they are to be processed as soon as possible after the Scoping Meeting. MOA templates are provided in Appendix I, Subsections I.2.7 and I.2.8.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: Signed Community Partner MOAs.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-17 Scoping Meeting Documentation

Responsible Partner: ODNR, DOW

Scope: ODNR, DOW shall prepare and distribute the meeting minutes, which shall include a list of all the participants and their respective assignments for the project, as well as the overall schedule for the project as discussed at the Scoping Meeting. The overall project schedule shall establish the basis for each Project Team member's assignment(s). Project Team members shall review their task assignments and provide feedback or comments. All changes to the proposed scope, schedule, and task assignments shall be coordinated with ODNR, DOW and the other team members.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A report documenting the Scoping Meeting including attendees sign-in list, scoping meeting minutes, and the project schedule summarizing prioritized needs within the community. Priorities are established in accordance with the criteria listed in Task 2-13 so that areas of greatest need can be addressed with the available funding. Backup or supplemental information used in writing this report should also be included.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-18 Statement of Work (SOW) or Mapping Activity Statement Revision

Responsible Partner: ODNR, DOW

Scope: ODNR, DOW shall develop or revise the Mapping Activity Statement (MAS) based on task assignments made during the Scoping Meeting and any subsequent changes. FEMA Regional Project Lead, FEMA Regional Contracting Officer, and FEMA HQ Program Manager shall review and approve the SOW or MAS before it is distributed to the Project Team members. The MAS shall follow the template provided in Appendix I, Subsection I.3.1 of the *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: The deliverable shall be the revised MAS or SOW.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-20 Finalization of Project Management Plan

Responsible Partner: ODNR, DOW

Scope: ODNR, DOW, in consultation with the FEMA Regional Project Lead and FEMA Regional Contract Officer, shall incorporate the final SOW or MAS into the Project Management Plan and establish intermediate project reporting and project close-out requirements. The Plan shall then be ready for finalization.

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: A Final Project Management Plan report and the backup or supplemental information used in writing this plan.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Task 2-21 Updates to Mapping Needs Update Support System (MNUSS) Database or its successor

Responsible Partner: ODNR, DOW

Scope: Once the SOW or MAS is finalized, ODNR, DOW shall update the MNUSS database to indicate that the needs included in the SOW or MAS are being addressed in an ongoing Flood Map Project. They shall also update the MNUSS database to add any new needs or revise existing needs identified during the scoping activities that will not be addressed by the current project. Additionally, they shall flag the needs that could not be verified during the research and community coordination activities as “not verified.”

Standards: All work under Activity 2 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: Email from the MNUSS administrator stating that the MNUSS update was successful.

Appendix I may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsai.pdf.

Activity 10B - Floodplain Mapping (Refinement or Creation of Zone A)

Responsible Mapping Partner: ODNR, DOW

Scope: ODNR, DOW shall delineate the 1-percent-annual-chance floodplain boundaries for the flooding sources listed earlier in this MAS. ODNR, DOW shall use USGS contour data to delineate the floodplain boundaries on a digital work map. In addition, ODNR, DOW shall address all concerns or questions regarding Activity 10B that are raised by FEMA during the independent QA/QC review under Activity 11.

ODNR, DOW may expand on the approaches for analyzing Zone A areas outlined in *Guidelines and Specifications for Flood Hazard Mapping Partners* and in FEMA 265, *Managing Floodplain Development in Approximate Zone A Areas* (April 1995), and/or develop new approaches. Such approaches must be coordinated with the FEMA Regional Project Lead identified in Section 12 of this MAS before analysis and mapping begin.

The methodology for Approximate Zone A creation will be conducted in accordance with “Guidelines and Specifications for Flood Hazard Mapping Partners, Appendix C. Appendix C may be downloaded from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/pdf/fhm/frm_gsac.pdf

Standards: All work under Activity 10B shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: Upon completion of floodplain mapping for Threemile Creek, Lower Twin Creek, Churn Creek, Middle Branch, Mill Creek, Cedar Fork, Little East Fork, and Georges Creek, ODNR, DOW shall submit the results to FEMA for an independent QA/QC review under Activity 11. ODNR, DOW shall submit the mapping for the remaining flooding sources for a final QA/QC review at the completion of this activity. All submissions shall be uploaded to the MIP or submitted by using other digital media if the necessary version of the MIP is unavailable.

In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, ODNR, OWR shall make the following products available to by submitting it to the FEMA Regional Office, or RMC as directed, via the digital media identified in the paragraph above, if the necessary version of the MIP is unavailable. This submittal will occur in accordance with the schedule outlined in Section 6 for this Activity. Where paper documentation is required by State Law for Professional certifications, you may submit the paper in addition to a scanned version of the paper for the digital record.:

- Digital work maps showing the 1-percent-annual-chance floodplain boundary delineations, flood insurance risk zone labels, and all applicable base map features;
- Written summary of the analysis methodologies;
- Any backup or supplemental information, including supporting calculations and assumptions for any computed 1-percent-annual-chance water-surface elevations used in the mapping required for the independent QA/QC review under Activity 11;
- Hardcopy and digital versions of input and output for any computer programs that were used;
- DFIRM mapping files, prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- Metadata files describing the DFIRM data, including all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- A Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the DFIRM.
- NSP Format Mapping Database or Data Delivery consistent with the NSP Data Capture Standards –Appendix N of the Guidelines and Specifications for Flood Mapping Partners
- If automated GIS-based models are applied, all input data, output data, intermediate data processing products, and GIS data layers shall be submitted.

Activity 11 - Independent QA/QC Review of Floodplain Mapping (Revised Areas)

Responsible Mapping Partner: FEMA's NSP

Mapping Activity Statement No. 2 16

Ohio Department of Natural Resources, Division of Water

Scope: FEMA's NSP shall review the floodplain mapping submitted by ODNR, DOW under Activity 10B to ensure that the results of the analyses performed are accurately represented. This work shall include, at a minimum, the activities listed below.

- Review the flood insurance risk zones as shown on the work maps to ensure they are labeled properly.
- Review the draft DFIRM format mapping files to ensure they were prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*.
- Review the metadata files to ensure they include all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Standards: All work under Activity 11 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, FEMA's NSP shall make the following products available to FEMA:

- A Summary Report that describes the findings of the QA/QC review, noting any deficiencies in or agreeing with the mapping results;
- Recommendations to resolve any problems that are identified during the independent QA/QC review; and
- An annotated work map with all questions and/or concerns indicated, if necessary.

Activity 12 - Base Map Acquisition

Responsible Mapping Partner: ODNR, DOW

Scope: Activity 10 consists of obtaining the digital base map, USGS Digital Ortho Quadrangles or best available imagery as determined by Activity 1 of this MAS , for the project.

ODNR, DOW shall provide the digital base map. The required items for this activity are as follows:

- Obtain digital raster files of the base map.
- Secure necessary permissions from the map source to allow FEMA's use and distribution of hardcopy and digital map products using the digital base map, free of charge.
- Certify that the digital data meets the minimum standards and specifications that FEMA requires for DFIRM production.
- Populate the DFIRM database with the information required by FEMA.

Standards: All work under Activity 12 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, ODNR, DOW shall make the following products

available to FEMA in accordance with the schedule outlined in Section 6 for this Activity:

- Written certification that the digital data meet the minimum standards and specifications
- Documentation that FEMA can use the digital base map.

Activity 14 –DFIRM Production (Merging Revised and Non-Revised Information and Applying DFIRM Graphics and Database Specifications

Responsible Mapping Partner: ODNR, DOW

Scope: Upon completion of the floodplain mapping activities for the revised areas (Activity 10B), ODNR, DOW shall convert the effective digital county-wide datasets from CAD format to a digital format in conformance with FEMA DFIRM specifications and then merge the Approximate Zone-A floodplain data into a single, updated DFIRM. The original CAD data consists of August 2002 digital microstation files obtained from Dewberry & Davis LLC. This data was acquired by FEMA's MCC as part of the previous Ohio River Flood study conducted by the U.S. Army Corp of Engineers, Huntington District. This work is to include tie-in of flood hazard information for areas that were not studied as part of the Flood Map Project documented in this MAS. ODNR, DOW also shall tie in the revised and non-revised Flood Profiles, floodplain boundaries, and regulatory floodway boundaries with contiguous communities that were not studied as part of the Flood Map Project documented in this MAS. ODNR, DOW shall coordinate with FEMA and those Mapping Partners responsible for Activity 10B, and 13, as necessary, to resolve any potential tie-in issues.

Standards: All work under Activity 14 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, ODNR, OWR shall make the following products available to FEMA by uploading the digital data to the MIP or submitting it to the FEMA Regional Office, or RMC as directed, if the necessary version of the MIP is unavailable. This submittal will occur in accordance with the schedule outlined in Section 6 for this Activity. Where paper documentation is required by State Law for Professional certifications, you may submit the paper in addition to a scanned version of the paper for the digital record.

- Digital work maps showing the 1- and 0.2-percent-annual-chance floodplain boundary delineations, regulatory floodway boundary delineations, cross sections, BFEs, flood insurance risk zone labels, and all applicable base map features;
- DFIRM mapping files, prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- Metadata files describing the DFIRM data, including all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- Complete set of plots of DFIRM panels showing all detailed flood hazard information at a

suitable scale and shall include all required annotation, line pattern, area shading, and map collar information; and

- A Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the DFIRM.

Activity 14B – Independent QA/QC Review of DFIRM Product Meeting FEMA Graphics and Database Specifications

Responsible Mapping Partner: FEMA's NSP.

Scope: Upon completion of the floodplain mapping activities (Activity 10B) and DFIRM production activities (Activities 13, 14, and 14A), FEMA Regional Project Lead shall review the DFIRM to ensure it meets current FEMA graphic specifications. In addition, ODNR, DOW shall review the DFIRM spatial database to determine if it meets current FEMA database specifications. ODNR, DOW shall coordinate with other Mapping Partners, as necessary, to resolve any problems identified during this QA/QC review. This work shall ensure that the requirements below are met.

- All required DFIRM features are accurately and legibly labeled and follow the examples shown in the FEMA DFIRM specifications. This includes all flood insurance risk zones, BFEs, cross sections, studied streams, mapped political entities, and all roads within and adjacent to the 1-percent-annual-chance floodplains.
- All DFIRM features are correctly symbolized with the appropriate symbol, line pattern, or area shading and follow the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*.
- All map collar information is complete, correct, and follows the requirements specified in *Guidelines and Specifications for Flood Hazard Mapping Partners*.
- DFIRM mapping files are in one of the GIS file and database formats specified in FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* and conform to those specifications for content and attribution.
- DFIRM database files are in one of the database formats specified in FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* and conform to those specifications for content and attribution.
- Metadata files describing the DFIRM data include all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Standards: All work under Activity 14B shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, ODNR-DOW shall make the following products available to FEMA by uploading the digital data to the Multi-Hazard Information Platform (MIP) or submitting it to the FEMA Regional Office, or RMC as directed, if the necessary version of the MIP is

unavailable. This submittal will occur in accordance with the schedule outlined in Section 6 for this Activity.

- A Summary Report that describes the findings of the QA/QC review noting any deficiencies in or agreeing with the mapping results and the results of all automated or manual QA/QC steps taken during the independent QA/QC review;
- Recommendations to resolve any problems that are identified during the independent QA/QC review; and
- An annotated copy of the DFIRM with all questions and/or concerns indicated, if necessary.

Activity 15 - Preliminary DFIRM and FIS Report Distribution

Responsible Mapping Partners: ODNR, DOW

Scope: Activity 15 consists of the final preparation, review, and distribution of the Preliminary copies of the DFIRM and FIS report for community official and general public review and comment. The activities to be performed are summarized below.

Preliminary Transmittal Letter Preparation. The ODNR, DOW shall prepare letters to transmit the Preliminary copies of the DFIRM and FIS report and related enclosures to all affected communities, all other Project Team members, the State NFIP Coordinator, the FEMA Regional Office, and others as directed by FEMA.

Preliminary FIS Report Preparation: The ODNR, DOW shall prepare the FIS report in the FEMA Countywide Format following the FEMA requirements specified in Appendix J of *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Final QA/QC Review of Preliminary DFIRM and FIS Report: The ODNR, DOW shall perform a final QA/QC review of the Preliminary DFIRM and FIS report, including all data tables, Flood Profiles, and other components of the FIS report. The QA/QC review procedures shall be consistent with the *Guidelines and Specifications for Flood Hazard Mapping Partners*.

Discrepancy Resolution: The ODNR, DOW shall work with FEMA as appropriate to resolve discrepancies identified during the final QA/QC review.

Distribution of Preliminary DFIRM and FIS Report: The ODNR, DOW shall distribute the Preliminary copies of the DFIRM and FIS report to all affected communities, all other Project Team members, the State NFIP Coordinator, the FEMA Regional Office, and others as directed by FEMA.

News Release Preparation: The ODNR, DOW shall prepare news release notifications of BFE changes for all affected communities if appropriate and perform QA/QC reviews of the notices for accuracy and compliance with FEMA format requirements. The {Insert name of responsible Mapping Partner} shall file the notifications for later submittal to FEMA for review.

Preliminary Summary of Map Actions (SOMA) Preparation: The ODNR, DOW shall prepare Preliminary SOMAs for all affected communities if appropriate. The SOMA shall list pertinent information regarding LOMCs that will be affected by the issuance of the DFIRM (i.e., superseded, incorporated, revalidated).

Standards: All work under Activity 15 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners* and the requirements documented in Section 1 and Appendix A of the *FEMA Document Control Procedures Manual*. The ODNR, OWR shall make the products listed below available to FEMA in accordance with the schedule outlined in Section 6 for this Activity.

- Preliminary transmittal letters shall be prepared. These letters and any additional letters requested by FEMA shall be prepared in accordance with the current version of the *FEMA Document Control Procedures Manual*.
- Preliminary copies of the DFIRM and FIS report, including all new or updated data tables and Flood Profiles, shall be prepared.
- Preliminary copies of the DFIRM and FIS report, including all updated data tables and Flood Profiles shall be mailed to the Chief Executive Officer (CEO) and floodplain administrator of each affected community, all other Project Team members, the State NFIP Coordinator, the FEMA Regional Office, and others as directed by FEMA.
- Preliminary SOMAs, prepared in accordance with FEMA requirements, shall be provided as appropriate.
- Revised DFIRM mapping files, prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*, shall be provided on CD-ROM.
- Revised DFIRM database files, prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*, shall be provided on CD-ROM.
- Revised metadata files describing the DFIRM data, including all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*, shall be provided on CDROM.
- A Summary Report that describes and provides the results of all automated or manual QA/QC review steps taken during the preparation of the DFIRM shall be provided.

Activity 16 - Post-Preliminary Processing

Responsible Mapping Partners: ODNR, DOW and FEMA

Scope: Activity 16 consists of finalizing the DFIRM and FIS report after the Preliminary copies of the DFIRM and FIS report have been issued to community officials and the public for review and comment.

The activities to be performed are summarized below.

Initiation of Statutory 90-Day Appeal Period: When required, upon completion of a 30-day community comment period and/or final coordination meeting with the affected communities, FEMA shall arrange for and verify that the following activities are completed in accordance with the current version of the *FEMA Guidelines and Specifications for Flood Hazard Mapping Partners* and *Document Control*

Procedures Manual:

- Proposed BFE determination letters are sent to the community CEOs and floodplain administrators.
- News release notifications of BFE changes are published in prominent newspapers with local circulation.
- The appropriate notices (Proposed Rules) are published in the *Federal Register*.

Resolution of Appeals and Protests: The ODNR, DOW shall support FEMA in reviewing and resolving appeals and protests received during the 90-day appeal period. For each appeal and protest, the following activities shall be conducted as appropriate:

- Initial processing and acknowledgment of submittal;
- Technical review of submittal;
- Preparation of letter(s) requesting additional supporting data;
- Performance of revised analyses; and
- Preparation of a draft resolution letter and revised DFIRM and FIS report materials for FEMA review

The ODNR, DOW shall mail all associated correspondence upon authorization by FEMA.

Preparation of Special Correspondence: The ODNR, DOW shall support FEMA in responding to comments not received within the 90-day appeal period (referred to as “special correspondence”), including drafting responses for FEMA review when appropriate and finalizing responses when requested by FEMA. The ODNR, DOW also shall mail the final correspondence (and enclosures if appropriate) and distribute appropriate copies of the correspondence and enclosures upon receipt of authorization from FEMA.

Revision of FIRM and FIS Report: If necessary, ODNR, DOW shall work together with FEMA to revise the DFIRM and FIS report at the direction of the FEMA Regional Project Lead and distribute Revised Preliminary copies of the DFIRM and FIS report to the CEO and floodplain administrator of each affected community, all other Project Team members, the State NFIP Coordinator, the FEMA Regional Office, and others as directed by FEMA.

Final SOMA Preparation: The ODNR, DOW shall prepare Final SOMAs for the affected communities as appropriate.

Processing of Letter of Final Determination: ODNR, DOW shall work with FEMA and their contractor to establish the effective date for the DFIRM and FIS report, and shall prepare a Letter of Final Determination (LFDs) for each affected community for FEMA review in accordance with the FEMA *Document Control Procedures Manual*. They also shall mail the final signed LFDs and enclosures and distribute appropriate copies of the signed LFDs and enclosures upon receipt of authorization from FEMA.

Processing of Final DFIRM and FIS Report for Printing: The ODNR-DOW shall prepare final reproduction materials for the DFIRM and FIS report and provide these materials to the FEMA Map Service Center for printing by the U.S. Government Printing Office. The ODNR-DOW also shall prepare the appropriate paperwork to accompany the DFIRM and FIS report (including Print Processing Worksheet, Printing Requisition Forms, and Community Map Actions Form) and transmittal letters to the community CEOs.

Revalidation Letter Processing. FEMA's Contractor shall prepare and distribute letters to the community CEOs and floodplain administrators to notify the affected communities about LOMCs for which determinations will remain in effect after the DFIRM and FIS report become effective.

Archiving Data: ODNR-DOW shall ensure that technical and administrative support data are packaged in the FEMA required format and stored properly in the library archives until they are transmitted to the FEMA Engineering Study Data Package Facility.

Standards: All work under Activity 16 shall be performed in accordance with the standards specified in Section 5 of this MAS.

Deliverables: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners* and the requirements documented in Section 1 and Appendix A of the *FEMA Document Control Procedures Manual*, The NSP shall make the following products available to FEMA in accordance with the schedule outlined in Section 6 for this Activity:

- Documentation that the news releases were published in accordance with FEMA requirements;
- Documentation that the appropriate *Federal Register* notices (Proposed and Final Rules) were published in accordance with FEMA requirements;
- Draft and final Special Correspondence (and all associated enclosures, backup data, and other related information) for FEMA review and signature as appropriate;
- Draft and final Appeal and Protest acknowledgment, additional data, and resolution letters (and all associated enclosures, backup data, and other related information) for FEMA review and signature as appropriate;
- Draft and final LFDs (and all associated enclosures, backup data, and other related information) for FEMA review and signature;
- Paperwork for the final DFIRM and FIS report materials;
- LOMC Revalidation Letters if appropriate; and
- Complete, organized archived technical and administrative support data
- DFIRM negatives and final FIS report materials, including all updated data tables and Flood Profiles;
- Transmittal letters for the printed DFIRM and FIS report

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 Mapping Activity Statement 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 is available for viewing or download on the FEMA Web site 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 | | | | | | | |
|-------------------------------------|--------------------|---|-----|----|----|------------|----|----|
| | 1 | 2 | 10B | 11 | 12 | 14, 14B | 15 | 16 |
| General Documentation | | | | | | | | |
| Special Problem Reports | X | X | X | X | X | X | X | X |
| Telephone Conversation Reports | X | X | X | X | X | X | X | X |
| Meeting Minutes/Reports | X | X | X | X | X | X | X | X |
| General Correspondence | X | X | X | X | X | X | X | X |
| Draft FIS Report | | | | X | X | | | |
| Mapping Information | X | X | X | | | X | X | |
| Miscellaneous Reference Information | X | X | X | X | X | X | X | X |

SECTION 3—PERIOD OF PERFORMANCE

The mapping activities outlined in this MAS will begin on August 15, 2005 and will be completed no later than August 15, 2007. The mapping activities may be terminated at the option of FEMA or the Ohio Department of Natural Resources, Division of Water in accordance with the provisions of the Partnership Agreement dated May 14, 2004. If these Mapping Activities are terminated; the remaining funds from uncompleted activities, provided by FEMA for this Mapping Activity Statement, will be returned to FEMA.

SECTION 4—FUNDING/LEVERAGE

FEMA is providing funding, in the amount of _____, to the Ohio Department of Natural Resources, Division of Water for the completion of this Flood Map Project. The Ohio Department of Natural

Resources, Division of Water shall provide any additional resources required to complete the assigned activities for this Flood Map Project. During the scoping process, additional needs may be identified. Activities associated with any additional needs would be performed based on availability of additional funds. The CTP Leverage listed below includes in-kind services and blue book values for acquired information (i.e. base map data, hydrologic and hydraulic analyses, etc.). More detailed leverage information will be determined during the detailed scoping process and reported back to FEMA at that time.

FEMA funds identified above are available to be used for the following activities:

| Additional work needed to complete project | | % of Project | Managed by | FEMA Contribution | CTP Contribution | % Leverage | Total Project Cost |
|--|--|--------------|-------------|-------------------|------------------|------------|--------------------|
| Activity 1 | Pre-Scoping | 8.6 | DOW | \$ | 0.00 | 0% | |
| Activity 2 | Scoping | 7.9% | DOW | | \$0.00 | 0% | |
| Activity 10B | Floodplain Mapping (Refinement or Creation of Zone A) | 41% | DOW | \$ | | 23% | |
| Activity 12 | Base Map Acquisition | 2.2% | DOW | | \$0.00 | 0% | |
| Activity 14 | DFIRM Production (Merge Revised and Non-revised Information) | 23.7% | DOW | | \$0.00 | 0% | |
| Activity 15 | Preliminary DFIRM and FIS Report Distribution | 8.7% | DOW | | | 0% | |
| Activity 16 | Post-Preliminary Processing | 7.9% | FEMA DOW | | | 0.00% | |
| TOTALS | | | | | | 9.67% | |

SECTION 5—STANDARDS

The standards relevant to this Mapping Activity Statement are provided in Tables 5-1 and 5-2. Information on the correct volume, appendix, section, or subsection of the FEMA *Guidelines and Specifications for Flood Hazard Mapping Partners* to be referenced for each mapping activity are summarized in Table 5-2.

These Guidelines are available for viewing or download from the FEMA Flood Hazard Mapping Web site at http://www.fema.gov/fhm/dl_cgs.shtm.

| Applicable Standards | Activities | | | | | | | |
|--|------------|---|-----|----|----|----|----|----|
| | 1 | 2 | 10B | 11 | 12 | 14 | 15 | 16 |
| <i>Guidelines and Specifications for Flood Hazard Mapping Partners</i> , February 2002 | X | X | X | X | X | X | X | |
| American Congress on Surveying and Mapping (ACSM) procedures | X | X | | | | | | |
| Global Positioning System (GPS) Surveys: National Geodetic Survey (NGS-58), "Guidelines for Establishing GPS-Derived Ellipsoid Heights," November 1997 | X | X | | | | | | |
| EM 1000-1-1000, <i>Photogrammetric Mapping</i> , March 31, 1993 | X | X | | | | | | |
| EM 1110-2-1003, <i>Hydrographic Surveys</i> , October 31, 1994 | X | X | | | | | | |
| Numerical Models Accepted by FEMA for NFIP Usage, January 11, 2002 | X | X | | | | | | |
| <i>Content Standards for Digital Geospatial Metadata</i> (Federal Geographic Data Committee, 1998) | X | X | X | X | X | X | X | |
| <i>Document Control Procedures Manual</i> , December 2000 | X | X | | | | | X | X |

Table 5-1. Applicable Standards for Project Activities

Table 5-2. Project Activities and Applicable Portions of FEMA Guidelines and Specifications

| Activity Number | Activity Description | Applicable Volume, Section/Subsection, and Appendix |
|-----------------|--|---|
| 1 | Pre-Scoping | Volume 1 and Appendix I |
| 2 | Scoping | Volume 1 and Appendix I |
| 10B | Floodplain Mapping (Refinement or Creation of Zone A) | Volume 1, Section 1.4 (specifically Subsection 1.4.2.3) ----- Appendix C, Sections C.4 and C.6 ----- Appendices K, L, M and N |
| 11 | Independent QA/QC Review of Floodplain Mapping (Revised Areas) | Volume 1, Section 1.4 (specifically Subsections 1.4.1 and 1.4.2.3) ----- Appendix C, Sections C.4 and C.6 ----- Appendix D, Sections D.2 (specifically Subsection D.2.7) and D.3 (specifically Subsection D.3.7) ----- Appendices E, F, G, H, K, L, and M |
| 12 | Base Map Acquisition and Preparation | Volume 1, Section 1.3 (specifically Subsection 1.3.1.8) and 1.4 specifically Subsections 1.4.3.1 and 1.4.3.2) ----- Appendix A, Section A.1 (specifically Subsection A.1.1) |
| 14 | DFIRM Production (Merging Revised and Non- Revised Areas) | Volume 1, Section 1.4 (specifically Subsections 1.4.2.3 and 1.4.3.3) ----- Appendices K, L, M and N |
| 15 | Preliminary DFIRM and FIS Report Distribution | Volume 1, Sections 1.4 (specifically Subsections 1.4.2 and 1.4.3) and 1.5 (specifically Subsection 1.5.1) ----- Appendices J, K, L, and M |
| 16 | Post-Preliminary Processing | Volume 1, Section 1.5 (specifically Subsection 1.5.2) ----- Appendices J, K, L, and M |

SECTION 6—SCHEDULE

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

| | | Group A |
|---|------------------------|----------|
| ACTIVITIES | RESPONSIBLE PARTNER(S) | DATE DUE |
| Activity 1 – Pre-Scoping | ODNR, DOW | 11-1-05 |
| Activity 2 – Scoping | ODNR, DOW | 1-15-06 |
| Activity 10B – Floodplain Mapping (Refinement or Creation of Zone A) | ODNR, DOW | 7-1-06 |
| Activity 11 – Independent QA/QC Review of Floodplain Mapping (Revised Areas) | FEMA, NSP | 9-1-06 |
| Activity 12 – Base Map Acquisition | ODNR, DOW | 1-15-06 |
| Activity 14 – DFIRM Production (Merge Revised and Non-Revised Information and application of DFIRM Graphic and Database Specifications) | ODNR, DOW | 11-1-06 |
| Activity 14B – Independent QA/QC Review of DFIRM Product Meeting FEMA Graphic and Database Specification | FEMA, NSP | 8-1-06 |
| Activity 15 – Preliminary DFIRM and FIS Report Distribution | ODNR, DOW | 9-1-06 |
| Activity 16 – Post-Preliminary Processing | FEMA, NSP ODNR, DOW | 9-1-07 |

SECTION 7—CERTIFICATIONS

The following certifications apply to this MAS:

Activity 10 (Floodplain Mapping– Detailed Riverine Analysis), Activity 11 (Independent QA/QC Review of Floodplain Mapping {Revised Areas})

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

Activity 12 (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.

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.

SECTION 8—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 the NSP (Baker Engineering, Inc.).

General technical and programmatic information, such as FEMA 265 and the Quick-2 computer program, can be downloaded from the FEMA Web site (<http://www.fema.gov/fhm/>). Specific technical and programmatic support may be provided through the MCC or NSP; such assistance should be requested through the FEMA Project Lead specified in Section 11 of this MAS.

Project Team members also may consult with the FEMA Regional Project Lead 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.

The DOW will need access to all tools available on the MIP by September 1, 2005. The DOW will be granted access to the MIP Workflow management system upon its rollout and substitutions to the Workflow will be used as described in this MAS.

SECTION 9—CONTRACTORS

No contractors will be used for completion of the tasks outlined in this Mapping Activity Statement.

SECTION 10—REPORTING

FINANCIAL REPORTING:

Because funding has been provided to Ohio Department of Natural Resources, Division of Water by FEMA, financial reporting requirements for Ohio Department of Natural Resources, Division of Water will be in accordance with Cooperative Agreement Articles V and VI.

STATUS REPORTING:

Status reports will be submitted on a quarterly basis in accordance with the financial reporting submittals. At a minimum these reports will include a summary of the work as outlined in the Cooperative Technical Partner (CTP)/Map Modernization Project Quarterly Report provided to the partner. The FEMA Project Lead, as needed, may request additional information on status.

Ohio Department of Natural Resources, Division of Water may meet with the NSP and/or FEMA more frequently (up to bi-weekly if needed) to review the progress of the project in addition to the quarterly

financial and status submittals. These meetings will alternate between FEMA's Regional Office, the Ohio Department of Natural Resources, Division of Water office and conference calls as necessary.

Where specific actions are funded by FEMA, the reporting requirements will be in accordance with the FEMA Cooperative Agreement. Ohio Department of Natural Resources, Division of Water shall work with the FEMA Project Officer to establish an acceptable protocol for reporting of project information at the beginning of each project. Ohio Department of Natural Resources, Division of Water will update the Multi-Hazard Information Platform (MIP) on a monthly basis. If the MIP is not available, the information shall be submitted to the Regional Management Center (RMC) through the tracking spreadsheets sent out for update monthly. If this report proves to be sufficient, the Assistance Officer may waive the written monthly reports thereafter (reference 44 CFR Part 13.40, *Monitoring and Reporting Program Performance*), if this is the case the Assistance Officer will notify the Ohio Department of Natural Resources, Division of Water. However, this shall not affect the financial reporting requirements (reference 44 CFR Part 13.41, *Financial Reporting*). The FEMA Project Lead shall ensure that key Ohio Department of Natural Resources, Division of Water staff have been provided access and passwords to the MIP. The FEMA Project Lead will also provide project-naming conventions for the MIP.

SECTION 11—PROJECT COORDINATION

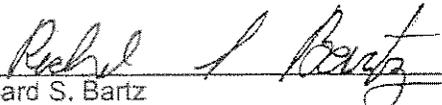
Throughout the project, all members of the Project Team will coordinate, as necessary, to ensure the products meet the technical and format specifications required and contain accurate, up-to-date information. Coordination activities shall include:

- Meetings, teleconferences, and videoconferences with FEMA and other Project Team members as required;
- Telephone conversations with FEMA and other Project Team members on a scheduled basis and an ad hoc basis, as required;
- Updates to the MIP, Mapping Needs Update Support System database, 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 required.

SECTION 12—POINTS OF CONTACT

The points of contact for this Flood Map Project are Mary Jo Mullen, the FEMA Regional Project Lead; and Rick Archer, the Project Manager for Ohio Department of Natural Resources, Division of Water; 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 Lead, Mary Jo Mullen.

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



Richard S. Bartz
Chief Designee for Samuel W. Speck, Director
Ohio Department of Natural Resources, Division of Water

7-12-2005
Date



for Terry Reuss Fell
Chief, Hazard Identification and Risk Assessment Branch
Federal Emergency Management Agency, Region V

9/30/2005
Date