



# FEMA

## Nebraska Department of Natural Resources COOPERATING TECHNICAL PARTNER MAPPING ACTIVITY STATEMENT

### Mapping Activity Statement No. 17 – Development of Updated Flood Data

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated August 16, 1999 between the Nebraska Department of Natural Resources and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement (MAS) No. 17 is as follows:

### SECTION 1—OBJECTIVE AND SCOPE

The objective of the Flood Map Project documented in this Mapping Activity Statement is to develop updated flood data for use in a planned Digital Flood Insurance Rate Map (DFIRM) and Flood Insurance Study (FIS) report for the counties shown in Table 1.1. The planned DFIRM will be produced in the FEMA countywide format.

Scoping will be necessary to determine the final scope of work for the planned project. Existing Geographic Information System (GIS) data and study needs for each countywide study will be researched, obtained, organized, and provided in accordance with the Scoping Activity conducted by others. The Mapping Partners involved in this project will develop new flood hazard data by approximate methods as summarized in Table 1.1.

**Table 1-1. Summary of Mapping Effort**

County	Approximate Analysis (see note 1)	Detailed Scoping (see note 2)
Buffalo County	X	X
Butler County	X	X
Dakota County	X	X
Dawson County	X	X
Gage County	X	X
Saline County	X	X
Washington County	X	X

Note 1: All streams with drainage greater than 1 sq. mile not studied by detailed methods; and all streams with drainage less than 1 sq. mile that have effective approximate mapping.

Note 2: Detailed Scoping for the listed counties will be completed concurrently by Black & Veatch or Papio-Missouri River Natural Resource District.

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

- Nebraska Department of Natural Resources; and
- The Omaha District of the U.S. Army Corps of Engineers.

The Mapping Partner will complete the following tasks as part of this MAS / SOW:

- Topographic Data Development;
- Hydrologic Analysis for approximate studies;
- Hydraulic Analysis for approximate studies; and
- Floodplain Mapping for approximate analysis

The Mapping Partner shall notify FEMA and the RMC by e-mail of all meetings with community officials at least two weeks prior to the meeting (with as much notice as possible). FEMA and the RMC may or may not attend the community meetings.

FEMA has developed tools to assist in the development of the flood hazard data studies and DFIRMs if the Mapping Partner 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.

FEMA will be providing download/upload capability for intermediate data submittals through the MIP. 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.

## **Topographic Data Development**

Responsible Mapping Partner: Nebraska Department of Natural Resources

Scope: This task includes obtaining and preparing existing elevation data from other sources for use in later tasks assigned in this Mapping Activity Statement. The Mapping Partner is not expected to provide certification of existing data obtained from other sources.

The NDNR intends to use Tagged Vector Contours (TVCs) for topographic information related to the project. The former Nebraska Natural Resources Commission staff developed the TVCs by digitizing cartographic map contour overlays from the USGS 7.5-minute map series. This series meets national map accuracy standards for 1:24,000 map products. Level-2 Digital Elevation Models (DEMs) throughout Nebraska were produced (and approved by the U.S.G.S.) from this vector contour dataset.

Standards: All Topographic Data Development work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: In accordance with the TSDN format described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Nebraska Department of Natural Resources shall make the following products available to FEMA by uploading the digital data to the MIP.

- An FGDC adopted metadata profile, 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. 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.

Topographic data obtained from a community source and used for approximate studies will include:

- Accuracy documentation if available from the community providing the data;
- Report summarizing methodology and results;
- Mass points and breaklines data if available from original source;
- Digital file with elevation data;
- Documentation of the Datum;
- Format Terrain Database or Data Delivery consistent with the Data Capture Standards—Appendix N of the *Guidelines and Specifications for Flood Hazard Mapping Partners*; and
- A Summary Report that describes and provides the results of all automated or manual Quality Control review steps taken during the preparation of the DFIRM.

The MIP shall be updated for status reporting not less than quarterly and when the task is complete.

### **Quality Control Review of Topographic Data**

Responsible Mapping Partner: Nebraska Department of Natural Resources

Scope: Independent QA/QC of topographic data shall apply specifically to data identified during detailed scoping and meeting the following criteria:

- Data coverage is sufficient for a new approximate study as described under Hydraulic Analyses and Flood Mapping ;
- Data accuracy equals or exceeds that of existing 1/3 Arc Second Digital Elevation Model available from the USGS; and
- Information obtained from the community suggests that data will meet all FEMA requirements.

If Nebraska Department of Natural Resources utilizes a contractor to perform the Quality Control, the contractor must be a different contractor than who contracted for or developed the topographic data. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer.

Standards: All Topographic Data Development work shall be performed in accordance with the standards specified in Section 5 - Standards.

Deliverables: In accordance with the TSDN format described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Nebraska Department of Natural Resources shall make the following products available to FEMA by uploading the digital data to the MIP.

- An FGDC adopted metadata profile, 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. 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.
- A Summary Report that describes the findings of the Quality Control review; and
- Recommendations to resolve any problems that are identified during the Quality Control review.

The MIP shall be updated for status reporting not less than quarterly and when the task is complete.

### **Hydrologic Analyses**

Responsible Mapping Partner: Nebraska Department of Natural Resources

Scope: Nebraska Department of Natural Resources shall perform hydrologic analyses for approximately 4,675 square miles of drainage area for the flooding source(s) listed earlier in Table 1.1. The hydrologic methods used for this analysis will be regression equations. Peak flood discharges will be calculated for the 1% annual chance storm event.

If GIS-based modeling is used, Nebraska Department of Natural Resources shall document automated data processing and modeling algorithms, and provide the data to FEMA to ensure these are consistent with the standards outlined above. Digital datasets (such as elevation, basin, or land use data) are to be documented and provided to FEMA for approval before performing the hydrologic analyses to ensure the datasets meet minimum requirements. If non-commercial (i.e., custom-developed) software is used for the analysis, then Nebraska Department of Natural Resources shall provide full user documentation, technical algorithm documentation, and the software to FEMA for review before performing the hydrologic analyses.

County Name	Square Miles of Approximate Study
Buffalo County	975
Butler County	584
Dakota County	267
Dawson County	1019
Gage County	860
Saline County	576
Washington County	394

The Mapping Partner will compare the calculated, or computed, discharge with discharge determined from reliable gage data, if any. This comparison will only be done at locations where the two discharge

values are considered representative of the same flooding source. Results of this comparison will be used in making a professional judgment for determining the discharge to be used for the hydraulic analysis.

Prior to the initiation of work under Hydrologic Analyses, Nebraska Department of Natural Resources will provide the FEMA Regional Project Officer a brief description of internal Quality Control efforts.

The hydrologic analysis shall not include the Mississippi or Missouri Rivers.

**Standards:** All Hydrologic Analyses work shall be performed in accordance with the standards specified in Section 5 - Standards.

**Deliverables:** In accordance with the TSDN format described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Nebraska Department of Natural Resources shall make the following products available to FEMA by uploading the digital data to the MIP.

- An FGDC adopted metadata profile, 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. 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.
- A brief description of your internal Quality Control efforts;
- Digital copies of all hydrologic modeling (input and output) files for the 1-percent-annual-chance storm event;
- Digital versions of all backup data used in the analysis, including work maps and basin delineation;
- For GIS-based modeling, deliverables shall include all input and output data, intermediate data processing products, and GIS data layers;
- Digital versions of draft text for inclusion in the FIS report (only for counties that require a FIS report);
- FEMA Format Hydrology Database or Intermediate Data Delivery consistent with the FEMA Data Capture Standards; and
- Brief summary report documenting the study area, methodologies, assumptions, and any other pertinent information related to the engineering analysis performed.

The MIP shall be updated for status reporting not less than quarterly and when the task is complete.

## Hydraulic Analyses

**Responsible Mapping Partner:** Nebraska Department of Natural Resources

**Scope:** For the streams identified in Table 1.1 of this MAS that will be studied by approximate methods, Nebraska Department of Natural Resources shall perform hydraulic analyses for all flooding sources within each county that have a drainage area greater than or equal to 1 mi<sup>2</sup> and not studied by detailed methods. For all flood sources that have drainage areas less than 1 mi<sup>2</sup> and have effective approximate mapping, the Nebraska Department of Natural Resources shall also perform hydraulic analyses extending to the upstream limits of the effective study. The estimated length of approximate-studied streams is 4,500 – 4,850 miles for the flooding source(s). The modeling will include the 1% annual chance storm

event based on peak discharges computed under the Hydrology Analysis task. The hydraulic methods used for this analysis will include the normal depth method. The hydraulic analyses will be used to approximate flood elevations for the subject flooding sources.

County Name	Length of Stream studied by Approximate Methods (Min.-Max. Range *)
Buffalo County	950 – 1130
Butler County	560 – 610
Dakota County	240 - 290
Dawson County	990 – 1060
Gage County	840 – 1,120
Saline County	550 – 600
Washington County	370 – 420

\* The length of stream miles is an estimate only and does not take into account existing miles studied by detailed methods

The hydraulic analysis shall not include the Mississippi or Missouri Rivers.

Nebraska Department of Natural Resources shall document automated data processing and modeling algorithms for GIS-based modeling and provide the data to FEMA for review to ensure these are consistent with the standards outlined above. Digital datasets are to be documented and provided to FEMA for approval before performing the hydraulic analyses to ensure the datasets meet minimum requirements. If non-commercial (i.e., custom-developed) software is used for the analyses, then Nebraska Department of Natural Resources shall provide full user documentation, technical algorithm documentation, and software to FEMA for review before performing the hydraulic analyses.

Prior to the initiation of work under Hydraulic Analyses, Nebraska Department of Natural Resources will provide the FEMA Regional Project Officer a brief description of internal Quality Control efforts.

**Standards:** All Hydraulic Analyses work shall be performed in accordance with the standards specified in Section 5 - Standards.

**Deliverables:** In accordance with the TSDN format described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Nebraska Department of Natural Resources shall make the following products available to FEMA by uploading the digital data to the MIP.

- An FGDC adopted metadata profile, 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. 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.
- A brief description of your internal Quality Control efforts;
- Digital versions of all hydraulic modeling (input and output) files;

- Digital versions of a table showing ranges of Manning’s “n” values;
- Digital versions of all backup data used in the analyses;
- For GIS-based modeling, deliverables include all input and output data, intermediate data processing products, GIS data layers, FEMA Format Hydraulic Database or Intermediate Data Delivery consistent with the FEMA Data Capture Standards;
- Digital versions of draft text for inclusion in the FIS report (only for counties that require a FIS report); and
- Brief summary report documenting the study area, methodologies, assumptions, and any other pertinent information related to the engineering analysis performed.

The MIP shall be updated for status reporting not less than quarterly and when the task is complete.

### **Floodplain Mapping**

Responsible Mapping Partner: Nebraska Department of Natural Resources

Scope for Refinement or Creation of Zone A: Nebraska Department of Natural Resources shall delineate the 1-percent-annual-chance floodplain boundaries for the flooding sources listed in Table 1.1. Nebraska Department of Natural Resources shall use existing topographic data or the topographic data acquired under Topographic Data Development to delineate the floodplain boundaries on a digital work map. Nebraska Department of Natural Resources shall ensure that all flood sources are contained within the boundaries of the Floodway (if identified) and the Special Flood Hazard Area.

Nebraska Department of Natural Resources 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 and approved by the FEMA Regional Project Officer identified in Section 12 – Points of Contact, before analysis and mapping begin.

Nebraska Department of Natural Resources shall incorporate the results of all effective (at the time of funds award) Letters of Map Change (LOMCs) within the revised areas as appropriate. Only those LOMCs visible at the published map scale shall be included.

The floodplain mapping shall not include the Mississippi or Missouri Rivers.

Prior to the initiation of work under this task, Nebraska Department of Natural Resources will provide the FEMA Regional Project Officer a brief description of internal Quality Control efforts.

Standards: All Floodplain Mapping shall be performed in accordance with the standards specified in Section 4 of this SOW.

Deliverables: In accordance with the TSDN format described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, Nebraska Department of Natural Resources shall make the following products available to FEMA by uploading the digital data to the MIP.

- An FGDC adopted metadata profile, 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. 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 map showing the 1-percent-annual-chance floodplain boundary delineations, flood insurance zone identifiers, and a suitable base map to facilitate the Quality Control;
- DFIRM mapping files prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*;
- DFIRM mapping files in a format that will allow use by another Mapping Partner to prepare the DFIRM at a later date;
- A Summary Report that describes and provides the results of all automated or manual Quality Control review steps taken during the preparation of the DFIRM as outlined in the approved Quality Control Plan;
- Format Mapping Database or Data Delivery consistent with the Data Capture Standards– Appendix N of the *Guidelines and Specifications for Flood Hazard Mapping Partners*;

The MIP shall be updated for status reporting not less than quarterly and when the task is complete.

## **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 Mapping Activity Statement 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](http://www.fema.gov/pdf/fhm/frm_gsam.pdf). Table 2-1 indicates the sections of the TSDN that apply to each task.

If any issues arise that could affect the completion of an activity within the proposed scope, schedule 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	Topo-graphic Data	QA/QC of Topo	Hydrology	Hydraulic Analysis	Floodplain Mapping
<i>General Documentation</i>						
Special Problem Reports	X	X	X	X	X	X
Telephone Conversation Reports	X	X	X	X	X	X
Meeting Minutes/ Reports	X	X	X	X	X	X
General Correspondence	X	X	X	X	X	X
<i>Engineering Analyses</i>						
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
<b>Draft FIS Report</b>				X	X	
<b>Mapping Information</b>	X	X	X			X
<b>Miscellaneous Reference Information</b>	X	X	X	X	X	X

**SECTION 3—PERIOD OF PERFORMANCE**

The mapping activities assigned to Nebraska Department of Natural Resources in this MAS will be completed within the period of performance as specified in the Agreement Articles of the Cooperative Agreement. The Mapping Activities may be terminated at the option of FEMA or Nebraska Department of Natural Resources in accordance with the provisions of the August 19, 1999 CTP Partnership Agreement.

## SECTION 4—FUNDING/LEVERAGE

Funds will be provided to Nebraska Department of Natural Resources by FEMA through Cooperative Agreement \_\_\_\_\_ for the completion for this Flood Map Project. The Cooperative Agreement budget identifies the amount to be provided by each party. Nebraska Department of Natural Resources shall provide any additional resources required to complete the assigned activities for this Flood Map Project.

## SECTION 5—STANDARDS

The standards relevant to this MAS 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 task is summarized in Table 5-2.

These guidelines may be downloaded from the FEMA Flood Hazard Mapping website at [http://www.fema.gov/fhm/dl\\_cgs.shtm](http://www.fema.gov/fhm/dl_cgs.shtm).

**Table 5-1. Applicable Standards for Project Activities**

Applicable Standards	Activities					
	Scoping	Topo Data	QA/QC Topo Data	Hydrology	Hydraulic Analysis	Floodplain Mapping
<i>Guidelines and Specifications for Flood Hazard Mapping Partners</i> , April 2003	X	X	X	X	X	X
American Congress on Surveying and Mapping Procedures	X	X	X			
Global Positioning System (GPS) Surveys: National Geodetic Survey (NGS-510), “Guidelines for Establishing GPS-Derived Ellipsoid Heights,” November 1997	X	X	X			
Engineer Manual 1110-1-1000, <i>Photogrammetric Mapping</i> (USACE), July 1, 2002	X	X	X			
Engineer Manual 1110-2-1003, <i>Hydrographic Surveys</i> (USACE), January 1, 2002	X					
“Numerical Models Accepted by FEMA for NFIP Usage,” Updated April 2003	X			X	X	
<i>Content Standard for Digital Geospatial Metadata</i> (Federal Geographic Data Committee), 1998	X	X	X	X	X	X
<i>Document Control Procedures Manual</i> , December 2000	X					
<i>44 Code of Federal Regulations Part 66 and 67</i>	X					

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

Activity Description	Applicable Volume, Section/Subsection, and Appendix
Scoping	Appendix I and 44 Code of Federal Regulations Part 66 and 67
Topographic Data Development	Volume 1, Section 1.4 (specifically Subsection 1.4.2.1) Appendix A, Sections A.2 , A.3, A.7, and A.8 Appendix M
Independent QA/QC Review of Topographic Data	Volume 1, Section 1.4 (specifically Subsections 1.4.1 and 1.4.2.1) Appendix A, Sections A.2, A.3, A.7 (specifically Subsection A.7.5), and A.8 (specifically Subsection A.8.6) Appendix M
Hydrologic Analyses	Volume 1, Section 1.4 (specifically Subsections 1.4.2.2 and 1.4.2.4) Appendix A, Section A.4 Appendix C, Sections C.1 and C.7 Appendices E, F, G, H, and M
Hydraulic Analyses	Volume 1, Section 1.4 (specifically Subsections 1.4.2.2 and 1.4.2.4) Appendix A, Section A.4 (specifically Subsection A.4.7) Appendix C, Sections C.3 and C.7
Floodplain Mapping	Volume 1, Section 1.4 (specifically Subsections 1.4.2.2, 1.4.2.3, and 1.4.3.2) Appendix C, Sections C. 4 and C.6 (specifically Subsection C.6.1.3) 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

## **SECTION 6—SCHEDULE**

The tasks documented in this Mapping Activity Statement shall be completed in accordance with the project schedule. The Multi-Hazard Information Platform (MIP) shall be used to report progress. The Mapping Partner will enter the initial schedule into MIP within three weeks of funds award. The data reported in the MIP will include estimated and actual completion dates, budget and amount spent, and the percent complete of each task identified in the Mapping Activity Statement. Each county identified in Table 1-1 will have separate schedule established.

## **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.

### **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.

### **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—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.

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 9—CONTRACTORS**

Nebraska Department of Natural Resources intends to use the services of the Omaha District of the U.S. Army Corps of Engineers as a contractor for this Flood Map Project. Nebraska Department of Natural Resources shall ensure that the procurement for all contractors used for this Flood Map Project complies with the requirements of 44 CFR 13.36.

Part 13 may be downloaded in PDF or text format from the United States Government Printing Office website at [http://www.access.gpo.gov/nara/cfr/waisidx\\_04/44cfr13\\_04.html](http://www.access.gpo.gov/nara/cfr/waisidx_04/44cfr13_04.html).

## **SECTION 10—REPORTING**

Nebraska Department of Natural Resources shall provide progress and financial reports to the FEMA Regional Project Officer and Assistance Officer in accordance with Cooperative Agreement Articles V & VI, and 44 CFR 13.40 and 13.41.

Progress reporting shall utilize the MIP. Other progress reports are not anticipated. When the Nebraska Department of Natural Resources provides deliverables through the MIP, the Nebraska Department of Natural Resources shall ensure the MIP reflects the current status of the related task. The Nebraska Department of Natural Resources will submit copies of the MIP Flood Engineering Report to the FEMA Assistance Officer for quarterly progress reporting.

The Project Officer, as needed, may request additional information on status on an ad hoc basis.

## **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:

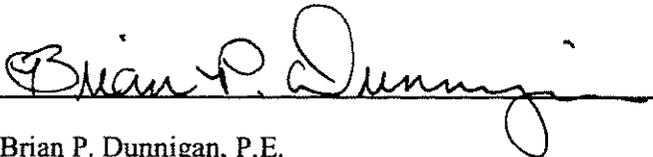
- Meetings, teleconferences, and video conferences with FEMA and other Project Team members on an ad hoc basis;
- Telephone conversations with FEMA and other Project Team members on an ad hoc basis;
- Updates to the MIP and other FEMA status information systems in accordance with requirements in Volumes 1 and 3 of *Guidelines and Specifications for Flood Hazard Mapping Partners*; and
- E-mail, facsimile transmissions, and letters, as required.
- Project Team members shall meet with the Regional Management Center and/or FEMA quarterly to review the progress of the project. These meetings will be held via a conference call at a

mutually agreeable time to be determined. Typically the call will occur following the submittal of the quarterly progress report.

**SECTION 12—POINTS OF CONTACT**

The points of contact for this Flood Map Project are Bob Franke, the FEMA Regional Project Officer; Jim Williams, the Project Manager for Nebraska Department of Natural Resources; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities. When necessary, any additional FEMA assistance should be requested through the FEMA Regional Project Officer.

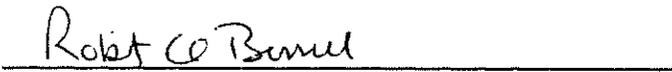
Each party has caused this MAS to be executed by its duly authorized representative.



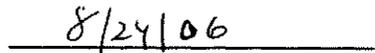
Brian P. Dunnigan, P.E.  
Interim Deputy Director  
Nebraska Department of Natural Resources



Date



Robert G. Bissell, Director  
Federal Insurance and Mitigation Division  
Federal Emergency Management Agency, Region VII



Date