



FEMA

ILLINOIS DEPARTMENT OF NATURAL RESOURCES COOPERATING TECHNICAL PARTNERS MAPPING ACTIVITY STATEMENT

Mapping Activity Statement No. IDNR05-2 – Digital Flood Insurance Rate Map Production and Development of Updated Flood Data for Champaign County, Illinois

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated 4-28-04 between the Illinois Department of Natural Resources (hereafter called the IDNR) and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement (MAS) No. IDNR05-2 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 Champaign County, Illinois. The DFIRM and FIS report will be produced in the FEMA Countywide Format. The mapping will use the Universal Transverse Mercator (UTM) coordinate system NAD83 horizontal datum, and the North American Vertical Datum (NAVD) of 1988.

The DFIRM panel layout and map scales shown in the attached graphic were prepared by the Illinois State Water Survey.

IDNR shall use the base map and topographic data acquired from the community through Activity 1 and/or 12 performed under Mapping Activity Statement IDNR04-5 – Digital Flood Insurance Rate Map Production and Development of Updated Flood Data, Champaign County, Illinois, or use available United States Geological Survey Digital Orthophotoes (DOQs) and Digital Line Graphics (DLGs). The floodplain boundaries of studied streams will be visually inspected for agreement with the identified DLGs. .

The National Service Provider (NSP), in coordination with the CTP shall input the scope of work into the FEMA Scoping Tool for this project. This includes information concerning effective map information, local GIS data availability, and the flood reach data for existing conditions.

This Flood Map Project will be completed by the following

- The Project Team for Champaign County;
- Illinois Department of Natural Resources
- FEMA Region V; and
- Baker Corporation, under contract to FEMA's as National Service Provider (NSP).

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

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 Table 1.1. The sections of this MAS that follow the table 1.1 describe the specific activities, responsible Mapping Partner(s), FEMA standards that must be met, and resultant map components.

TABLE 1-1

Activities	CTP	NSP	FEMA
Activity 2 – Outreach	X	X	X
Activity 10A – Floodplain Mapping (Redelineation Using Effective Flood Profiles and Updated Topographic Data)	X		
Activity 10B -- Floodplain Mapping (Refinement or Creation of Zone A)	X		
Activity 11 – Independent QA/QC Review of Floodplain Mapping (Revised Areas)		X	
Activity 13A – Independent QA/QC Review of DFIRM Production (Non-Revised Areas)	X	X	
Activity 14 – DFIRM Production (Merge Revised and Non-Revised Information)	X		
Activity 14A – Application of DFIRM Graphic and Database Specifications	X		
Activity 14 B – Independent QA/QC Review of DFIRM Product Meeting FEMA Graphic and Database Specifications.		X	
Activity 15 – Preliminary DFIRM and FIS Report Distribution	X	X	X
Activity 16 – Post-Preliminary Processing	X	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.

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. If the CTP will be utilizing their staff or contractors to do the QA/QC review, this should be identified during scoping. The CTP will need to submit their QA/QC plan with checklist to the Regional Project Officer for approval. 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 2 – Outreach

Responsible Mapping Partner: IDNR and FEMA (NSP)

Scope: The outreach activities for a Flood Map Project can best be understood as a process that begins during the Project Scoping phase and continues through the Map Production and Post-preliminary phases. A regulatory overview of required activities is followed by a description of tools that can be used in working with stakeholders to keep them informed and to solicit their input.

The overarching goal for conducting outreach is to create a climate of understanding and ownership of the mapping process at the State and local levels. Well-planned outreach activities can reduce political stress, confrontation in the media, and public controversy, which can arise from lack of information, misunderstanding, or misinformation. These outreach activities also can assist FEMA and other members of the Project Team in responding to congressional inquiries.

The IDNR will work with the Regional Office during the initiation of this activity to determine an Outreach Plan for implementation throughout the Mapping Project. The Regional Office will have access to many outreach tools that have been developed for this process that can be utilized or customized for your use.

By proactively reaching out to all key stakeholders as early in the Flood Map Project as possible, the maps can be used to their full potential. The likelihood of appeals may also be reduced or eliminated. Specific activities shall include, but are not limited to the following.

- ✓ Establishing two-way communication to address the needs of, inform and obtain feedback from, the stakeholders. Communication will take the form of community meetings, informational mailings, email, and a website posting of each county's Preliminary DFIRM panels for public viewing and comments.
- ✓ Ensuring compliance with due process requirements.
- ✓ Interacting with technical representatives to ensure production of accurate and up-to-date maps.
- ✓ Enhancing ownership by communities.
- ✓ Tracking, monitoring, and evaluating outreach activities and adjusting efforts according to ongoing feedback and evolving project needs.

All communication with local governments will be done in accordance with Title 44 Code of Federal Regulations Part 66.

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

Deliverables: Upon determination of an Outreach and Coordination Approach the IDNR shall deliver the following to the FEMA Regional Project Officer in accordance with the schedule outlined in Section 6 for this Activity:

- A report detailing outreach and coordination activities
- Backup or supplemental information used in writing this report

At the completion of the DFIRM process, IDNR will submit a summary of outreach activities and any changes made in the outreach approach based on the actual implementation

Activity 10A - Floodplain Mapping (Redelineation of Detailed Floodplain Boundaries Using Updated Topographic Data)

Responsible Mapping Partner: IDNR

Scope: IDNR shall delineate the 1- and 0.2-percent-annual-chance floodplain boundaries for the flooding sources listed in the Floodway Data Tables of applicable FISs. IDNR shall use the topographic data acquired from the community through Activity 1 and/or 12 performed under Mapping Activity Statement IDNR04-5 – Digital Flood Insurance Rate Map Production and Development of Updated Flood Data, Champaign County, Illinois, or use available United States Geological Survey topographic data displayed on Digital Line Graphs to delineate the floodplain as appropriate on a digital work map. If new topographic data does not reflect the same hydraulic characteristics as in effective study, IDNR shall evaluate the topographic data to determine if changes are significant enough to invalidate the floodplain boundary re-delineations. If significant, IDNR shall contact the FEMA Regional Project Officer identified in Section 12 of this MAS with a recommendation. In addition, IDNR shall address all concerns or questions regarding Activity 10A that are raised during the independent QA/QC review under Activity 11.

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

Responsible Mapping Partner: IDNR

Scope: IDNR shall delineate the 1-percent-annual-chance floodplain boundaries of Zone A floodplains. IDNR shall use scanned images of effective FIRM panels registered to the base map acquired under Activity 12 performed under Mapping Activity Statement IDNR04-5 – Digital Flood Insurance Rate Map Production and Development of Updated Flood Data, Champaign County, Illinois, to digitize the floodplain boundaries. In addition, IDNR shall address all concerns or questions regarding Activity 10B that are raised during the independent QA/QC review under Activity 11.

Standards: All work under Activity 10, 10A, and 10B shall be performed in accordance with the standards specified in Section 5.

Deliverables for Activities 10 / 10A / 10B: In accordance with the TSDN format described in described in Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, IDNR shall make the following products available by submitting it to the FEMA Regional Office via the digital media identified in the paragraph above, if the MIP is unavailable. This submittal may occur simultaneously with Activity 11, 13, 13A, 14, 14A and 14B as shown in the schedule outlined in Section 6.

- 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;
- Any backup or supplemental information, including supporting calculations, assumptions and analysis methodologies for any computed 1-percent-annual chance water-surface elevations (if applicable) used in the mapping required for the independent QA/QC review under Activity 11;
- 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 floodplain mapping tasks;
- An explanation for the use of existing topography for the studied reaches, if appropriate.
- If automated GIS-based models are applied, all input data, output data, intermediate data processing products, and GIS data layers shall be submitted upon request unless the data used is proprietary.
- FEMA Format DFIRM Database or Data Delivery consistent with the FEMA Data Capture Standards –Appendix N of the *Guidelines and Specifications for Flood Mapping Partners*.

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

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

Responsible Mapping Partner: IDNR

Scope: IDNR shall establish a review procedure for the floodplain mapping performed under Activities 10, 10A, and 10B to ensure that the results of the analyses performed are accurately represented. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. This work shall include, at a minimum, the activities listed below.

- Review the cross sections for proper location and orientation on the work map and agreement with the Floodway Data Table.
- Review the BFEs shown on the work map for proper location and agreement with the results of the hydraulic modeling.
- Review the regulatory floodway widths for agreement with the widths shown in the Floodway Data Table and the results of the hydraulic modeling.
- Review the floodplain boundaries for agreement with the flood elevations shown in the Floodway Data Table and the contour lines and other topographic information shown on the work maps.
- Review the floodplain widths at cross sections as shown on the work maps to ensure they match the Floodway Data Table.
- Review the floodplain boundaries as shown on the work maps to ensure they match the Flood Profiles.
- Review the flood insurance risk zones as shown on the work maps to ensure they are labeled properly.
- Review the DFIRM 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 Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, IDNR shall make the following products available to FEMA by uploading the digital data to MIP or submitting it to the FEMA Regional Office if the MIP is unavailable. This submittal may occur simultaneously with Activity 10, 10A, 10B, 13, 13A, 14, 14A and 14B as shown in the schedule outlined in Section 6.

- A Summary Report that describes the QA/QC review,
- Descriptions of resolutions of any problems that are identified during the QA/QC review; and
- An annotated work map with all questions and/or concerns indicated if necessary.

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

Activity 13A – Independent QA/QC Review of DFIRM Production (Non-Revised Areas)

Responsible Mapping Partner: IDNR

Scope: IDNR shall review the DFIRM panels submitted through an internal QA/QC process under Activity 13 to ensure that the new DFIRM panels accurately represent the information shown on the effective FIRMs and FBFMs for the area mapped. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. This work shall include, at a minimum, checking the following:

- Cross sections were properly located and oriented as shown on the FIRM or FBFM.
- BFE's are properly located and agree with the BFE's shown on the FIRM.
- Regulatory floodway widths agree with the widths shown on the FIRM or FBFM.
- The 1 and 0.2-percent-annual-chance floodplain boundaries agree with the floodplain boundaries shown on the FIRM and the contour lines, other topographic information, and planimetric information shown on the DFIRM base.
- For coastal studies, setup and run-up height elevations shown on the work map agree with those shown on the data table(s), and stillwater elevations are shown where coastal and riverine flooding studied in detail join.
- Flood insurance risk zone designations are indicated properly.
- Road and floodplain relationships are maintained for all unrevised areas.
- DFIRM mapping files meet the GIS file and database format requirements specified in FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* and conform to those requirements for content and attribution.

- Metadata files describing the DFIRM data include the required information.

Standards: All work under Activity 13A 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 Partner*. , This submittal may occur simultaneously with Activity 10, 10A, 10B, 13, 14, 14A and 14B as shown in the schedule outlined in Section 6. :

- A Summary Report that describes the findings of the QA/QC review noting any deficiencies and how those were resolved.
- An annotated copy of the DFIRM with all questions and/or concerns indicated if necessary.

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

Activity 14 –DFIRM Production (Merging Revised and Non-Revised Information)

Responsible Mapping Partner: IDNR

Scope: Upon completion of the floodplain mapping activities for the revised areas (Activities 10, 10A, and/or 10B) and the DFIRM production for non-revised areas (Activity 13), IDNR shall merge the digital floodplain data into a single, updated DFIRM. 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. IDNR also shall tie in the revised and non-revised Flood Profiles, floodplain boundaries, and regulatory floodway boundaries with contiguous communities that have DFIRMs produced under Map Mod but were not studied as part of the Flood Map Project documented in this MAS. IDNR shall coordinate with FEMA and those Mapping Partners responsible for Activities 10, 10A, 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*. This submittal may occur simultaneously with Activity 10, 10A, 10B, 11, 13, 13A, 14A and 14B as shown in the schedule outlined in Section 6.

- 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*;
- 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.

- Profiles and floodway data tables for streams identified in Activity 10 and updated profiles and floodway data tables as needed for preparation of a countywide FIS; format as documented in Appendix J of *Guidelines and Specifications for Flood Hazard Mapping Partners*.

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

Activity 14A – DFIRM Production (Application of DFIRM Graphics and Database Specifications)

Responsible Mapping Partner: IDNR

Scope: IDNR shall apply the final FEMA DFIRM graphic and database specifications to the DFIRM files produced under Activity 14. This work shall include adding all required annotation, line pattern, area shading, and map collar information (e.g., map borders, title blocks, legends, notes to user). IDNR will be preparing the database for this project in the Standard format. The database shall be produced in accordance with Appendix L of the Guides and Specifications for Flood Hazard Mapping Partners. IDNR shall coordinate with those Mapping Partners responsible for Activities 10, 10A, 10B, 13, and 14, as necessary, to resolve any problems that are identified during Activity 14A.

Standards: All work under Activity 14A 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*, IDNR shall make the following products available to FEMA by uploading the digital data to the MIP or submitting it to the FEMA Regional Office if the MIP is unavailable. This submittal may occur simultaneously with Activity 10, 10A, 10B, 13, 13A, 14, and 14B as shown in the schedule outlined in Section 6. 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*;
- One complete set of plots of DFIRM panels showing all detailed flood hazard information at a suitable scale; 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.
- FEMA Format DFIRM Database or Data Delivery consistent with the FEMA Data Capture Standards –Appendix N of the Guidelines and Specifications for Flood Mapping Partners.

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

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

Responsible Mapping Partner: IDNR

Scope: Upon completion of the floodplain mapping activities (Activities 10, 10A, and/or 10B) and DFIRM production activities (Activities 13, 14, and 14A), IDNR shall conduct an internal review the DFIRM to ensure it meets current FEMA graphic specifications. In addition, IDNR shall review the DFIRM spatial database to determine if it meets current FEMA database specifications. IDNR shall coordinate with other Mapping Partners, as necessary, to resolve any problems identified during this QA/QC review. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. 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*, IDNR 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 if 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; and a statement as to how problems were resolved.
- An annotated copy of the DFIRM with all questions and/or concerns indicated if necessary.
- If the data changed during the QA/QC process, then the updated deliverables from Activities 10, 10A, 10B and Activities 13, 14, and 14A may be resubmitted at this time.

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

Activity 15 - Preliminary DFIRM and FIS Report Distribution

Responsible Mapping Partners: FEMA (NSP) and IDNR

Scope: Activity 15 consists of the final preparation, review, and distribution of the Preliminary copies of the DFIRM and FIS report for community officials and general public review and comment. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. The activities to be performed are summarized below.

Preliminary FIS Compilation: The IDNR will be responsible for merging new and effective FIS text, tables, and profiles and producing one countywide FIS report.

Preliminary Transmittal Letter Preparation: The IDNR shall prepare letters to accompany the Preliminary copies of the DFIRM and FIS report and related enclosures. This letter may be prepared for FEMA only.

Final QA/QC Review of Preliminary DFIRM and FIS Report: The NSP 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 IDNR shall work to resolve discrepancies identified during the final QA/QC review.

Distribution of Preliminary DFIRM and FIS Report: The IDNR shall distribute by mail or package delivery service the Preliminary copies of the DFIRM and FIS report to all affected communities choosing to receive hardcopy documents and others as directed by FEMA. Additionally, IDNR shall post to a web site the Preliminary DFIRMs and FIS report for viewing by the public, the State NFIP Coordinator, and the FEMA Regional Office, and as an alternate means of collecting public comments

News Release Preparation: The NSP 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 NSP shall file the notifications for later submittal to FEMA for review.

Preliminary Summary of Map Actions (SOMA) Preparation: The IDNR in coordination with the NSP 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 IDNR 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 and transmitted. These letters 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 updated data tables and Flood Profiles shall be mailed to the Chief Executive Officer (CEO) and /or floodplain administrator of each affected community choosing to receive hardcopy documents and others, as directed by FEMA. The State NFIP Coordinator and the FEMA Regional Office will be accorded access to the preliminary DFIRM and FIS report via a website posting.
- 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 by uploading the digital data to the MIP or submitting it by using other digital media.
- Revised DFIRM database files, prepared in accordance with the requirements in *Guidelines and Specifications for Flood Hazard Mapping Partners*, shall be provided by uploading the digital data to the MIP or submitting it by using other digital media.
- Revised metadata files describing the DFIRM data, including all required information shown in *Guidelines and Specifications for Flood Hazard Mapping Partners*, shall be provided by uploading the digital data to the MIP or submitting it by using other digital. 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 by the NSP.

Activity 16 - Post-Preliminary Processing

Responsible Mapping Partners: IDNR and FEMA (NSP)

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. FEMA may audit or assist in these activities if deemed to be necessary by the Regional Project Officer. The activities to be performed are summarized below.

Initiation of Statutory 90-Day Appeal Period: When required, upon completion of a final coordination meeting with all communities in the project area, FEMA (NSP) and IDNR 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 in accordance with 44 CFR.
- The NSP shall prepare the appropriate notices (Proposed Rules) are to be published in the *Federal Register*. The NSP shall then deliver those notices to FEMA for publication.
- When FEMA holds public meetings to present and discuss the results of this Flood Map Project, IDNR will attend the meetings and assist in the presentation of the maps.

Resolution of Appeals and Protests: FEMA or its designated contractor and IDNR shall review and resolve 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 for co-signature with FEMA and IDNR and revised DFIRM and FIS report materials for FEMA review.

FEMA's Contractor and/or IDNR shall mail all associated correspondence upon authorization by FEMA.

Preparation of Special Correspondence: IDNR 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 for co-signature. IDNR 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, IDNR shall work together with FEMA to revise the DFIRM and FIS report and shall 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: IDNR shall prepare Final SOMAs for the affected communities as appropriate.

Processing of Letter of Final Determination: the IDNR shall work with FEMA 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: IDNR 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 NSP 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. The NSP shall prepare and distribute letters for FEMA signature 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: The NSP 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. In addition, the NSP will maintain copies of all data for a period of no less than 3 years.

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*, FEMA's Contractor and/or IDNR 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;
- DFIRM negatives and final FIS report materials, including all updated data tables and Flood Profiles;
- Paperwork for the final DFIRM and FIS report materials;
- Transmittal letters for the printed DFIRM and FIS report;
- LOMC Revalidation Letters if appropriate; and
- Complete, organized archived technical and administrative support data
- Complete, organized and archived case file and flood elevation docket

SECTION 2—TECHNICAL AND ADMINISTRATIVE SUPPORT DATA SUBMITTAL

The CTP 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 highlights those 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														
	2							10A, 10B	1 1		13A	14, 14A 14B	15	16	
General Documentation															
Special Problem Reports	X							X	X		X	X	X	X	
Telephone Conversation Reports	X							X	X		X	X	X	X	
Meeting Minutes/Reports	X							X	X		X	X	X	X	
General Correspondence	X							X	X		X	X	X	X	
Engineering Analyses															
Hydrologic Analyses								X	X						
Hydraulic Analyses								X	X						
Key to Cross-Section Labeling								X	X						
Key to Transect Labeling								X	X						
Draft FIS Report															
Mapping Information	X							X	X		X	X	X	X	
Miscellaneous Reference Information	X							X	X		X	X	X	X	

SECTION 3—PERIOD OF PERFORMANCE

The mapping activities outlined in this MAS will begin on September 1, 2005 and will be completed no later than December 31, 2006. The mapping activities may be terminated at the option of FEMA or the IDNR in accordance with the provisions of the Partnership Agreement dated 4-28-04. 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

for the completion of this Flood Map Project. IDNR 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. More detailed leverage information will be determined during the detailed scoping process and reported back to FEMA at that time.

Additional work needed to complete project		% of Project	Managed by	FEMA Contribution	CTP Contribution	% Leverage	Total Project Cost
Activity 1	Scoping	0.0%	IDNR, FEMA, NSP				
Activity 2	Outreach	5.7%	IDNR				
Activity 10	Floodplain Mapping (Detailed Riverine or Coastal Analysis)	0.0%	IDNR				
Activity 10A	Floodplain Mapping (Redelineation Using Effective Flood Profiles and Updated Topographic Data)	2.2%	IDNR				
Activity 10B	Floodplain Mapping (Refinement or Creation of Zone A)	0%	IDNR				
Activity 11	Independent QA/QC Review of Floodplain Mapping (Revised Areas)	0.4%	IDNR				
Activity 12	Base Map Acquisition	0.0%	IDNR				
Activity 13	DFIRM Production (Non-Revised Areas)	0.0%	IDNR				

Activity 13A	Independent QA/QC Review of DFIRM Production (Non-Revised Areas)	1.3%	IDNR				
Activity 14	DFIRM Production (Merge Revised and Non-Revised Information)	0.6%	IDNR				
Activity 14A	Application of DFIRM Graphic and Database Specifications	45.0%	IDNR				
Activity 14B	Independent QA/QC Review of DFIRM Product Meeting FEMA Graphic and Database Specifications	19.3%	IDNR				
Activity 15	Preliminary DFIRM and FIS Report Distribution	16.9%	IDNR, FEMA, NSP				
Activity 16	Post-Preliminary Processing	8.5%	IDNR, FEMA, NSP				
		100.0%	TOTALS				

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

Activities	FUNDABLE?
Activity 1 – Scoping	Yes, up to 10% of total cost
Activity 2 - Outreach	Yes, up to 10% of total cost
Activity 3 – Field Surveys and Reconnaissance	Yes
Activity 4 – Topographic Data Development	No, unless approval given during scoping phase by Regional PO
Activity 5 – Independent QA/QC Review of Topographic Data	No, unless approval given during scoping phase by Regional PO
Activity 6 –Hydrologic Analyses	Yes

Activities	FUNDABLE?
Activity 6A –Coastal Flood Hazard Analyses	Yes
Activity 7–Independent QA/QC Review of Hydrologic Analyses	Yes
Activity 7A–Independent QA/QC Review of Coastal Hazard Analyses	Yes
Activity 8 – Hydraulic Analyses	Yes
Activity 9 – Independent QA/QC Review of Hydraulic Analyses	Yes
Activity 10 – Floodplain Mapping (Detailed Riverine or Coastal Analysis)	Yes
Activity 10A – Floodplain Mapping (Redelineation Using Effective Flood Profiles and Updated Topographic Data)	Yes
Activity 10B – Floodplain Mapping (Refinement or Creation of Zone A)	Yes
Activity 11 – Independent QA/QC Review of Floodplain Mapping (Revised Areas)	Yes
Activity 12 – Base Map Acquisition	No
Activity 13 – DFIRM Production (Non-Revised Areas)	Yes
Activity 13A – Independent QA/QC Review of DFIRM Production (Non-Revised Areas)	Yes
Activity 14 – DFIRM Production (Merge Revised and Non-Revised Information)	Yes
Activity 14A – Application of DFIRM Graphic and Database Specifications	Yes
Activity 14B – Independent QA/QC Review of DFIRM Product Meeting FEMA Graphic and Database Specifications	Yes
Activity 15 – Preliminary DFIRM and FIS Report Distribution	Yes
Activity 16 – Post-Preliminary Processing	Yes

*This table is for information purposes only

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.

<Include only those activities that apply to this Flood Map Project in Tables 5-1 and 5-2.>

Table 5-1. Applicable Standards for Project Activities

Applicable Standards	Activities													
	2								10 A, 10 B	11	13A	14, 14A 14B	15	16
<i>Guidelines and Specifications for Flood Hazard Mapping Partners</i> , April 2003	X								X	X	X	X	X	X
American Congress on Surveying and Mapping Procedures														
Global Positioning System (GPS) Surveys: National Geodetic Survey (NGS-510), "Guidelines for Establishing GPS-Derived Ellipsoid Heights," November 1997														
Engineer Manual 1110-1-1000, <i>Photogrammetric Mapping</i> (USACE), July 1, 2002														
Engineer Manual 1110-2-1003, <i>Hydrographic Surveys</i> (USACE), January 1, 2002														
"Numerical Models Accepted by FEMA for NFIP Usage," Updated April 2003														
<i>Content Standard for Digital Geospatial Metadata</i> (Federal	X								X	X	X	X	X	X

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

Activity Number	Activity Description	Applicable Volume, Section/Subsection, and Appendix
2	Outreach	44 Code of Federal Regulations Part 66 and 67
10A	Floodplain Mapping (Redelineation Using Effective Flood Profiles and Updated Topographic Data)	Volume 1, Section 1.4 (specifically Subsections 1.4.2.2 and 1.4.2.3) Appendix C, Section C.6 (specifically Subsection C.6.1.3) Appendices K, L, M, and N
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 Appendix A, Section A.1 (specifically Subsection A.1.1) Appendices K, L, M, and N

Activity Number	Activity Description	Applicable Volume, Section/Subsection, and Appendix
13A	Independent QA/QC Review of DFIRM Production (Non-Revised Areas)	Volume 1, Section 1.4 (specifically Subsections 1.4.2.2, 1.4.2.3, and 1.4.3.2) Appendices K, L, and M
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
14A	DFIRM Production (Application of FEMA Graphics and Database Specifications)	Volume 1, Section 1.4 (specifically Subsections 1.4.2.3, 1.4.3.3, 1.4.3.9, and 1.4.3.10) Appendices K, L, M, and N
14B	Independent QA/QC Review of DFIRM Product Meeting FEMA Graphics and Database Specifications	Volume 1, Section 1.4 (specifically Subsections 1.4.2.3, 1.4.3.3, 1.4.3.9, and 1.4.3.10) Appendices K, L, and M
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.

Activities	RESPONSIBLE PARTNER(S)	DATE DUE
Activity 2 – Outreach	IDNR	
Activity 10A – Floodplain Mapping (Redelineation Using Effective Flood Profiles and Updated Topographic Data).	IDNR	3/31/06
Activity 10B – Floodplain Mapping (Refinement or Creation of Zone A)	IDNR	3/31/06
Activity 11 Independent QA/QC Review of Floodplain Mapping (Revised Areas)	IDNR	7/31/06
Activity 13A – Independent QA/QC Review of DFIRM Production (Non-Revised Areas)	IDNR	6/30/06
Activity 14 – DFIRM Production (Merge Revised and Non-Revised Information)	IDNR	8/31/06
Activity 14A – Application of DFIRM Graphic and Database Specifications	IDNR	9/30/06
Activity 14B – Independent QA/QC Review of DFIRM Product Meeting FEMA Graphic and Database Specifications	IDNR	10/31/06
Activity 15 – Preliminary DFIRM and FIS Report Distribution	IDNR, FEMA, NSP	11/31/06
Activity 16 – Post-Preliminary Processing	IDNR, FEMA, NSP	12/31/06

SECTION 7—CERTIFICATIONS

Floodplain Mapping, DFIRM Production and Application of FEMA and Database Specifications (Activities 10, 10A, 10B, 11, 13, 14 and 14A).

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

Base Map Acquisition and Preparation (activity 12)

- A community official or responsible party shall provide written certification that the digital data meet FEMA minimum standards and specifications.
- IDNR 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 is still required.

Section 8—Technical Assistance and Resources

The IDNR may consult with the FEMA Regional Project Officer to request support in the area of post-preliminary processing from the National Service Provider. Certain subtasks in Activity 15 and Activity 16 described earlier in this MAS have been designated as the responsibility of the NSP. If it is determined that these tasks fall outside of the scope of the NSP work agreement with FEMA, then further discussion and negotiation will be necessary between the CTP and FEMA to determine how certain post-preliminary processing tasks are to be accomplished.

SECTION 9 --Contractors

The IDNR does not intend to use the services of a contractor for the Flood Map Project documented in this Mapping Activity Statement. The IDNR shall ensure that the procurement for all contractors, if any are 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 U.S. Government Printing Office Web site at http://www.access.gpo.gov/nara/cfr/waisidx_04/44cfr13_04.html.

SECTION 10—REPORTING

FINANCIAL REPORTING:

Because funding has been provided to the IDNR by FEMA, financial reporting requirements will be in accordance with Cooperative Agreement Articles V and VI.

IDNR shall provide financial reports to the FEMA Regional Project Officer and Assistance Officer in accordance with the terms of the signed Cooperative Agreement for this Mapping Activity Statement.

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 located in Appendix B of this Mapping Activity Statement. The Project Officer, as needed, may request additional information on status.

IDNR 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 IDNR 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. IDNR shall work with the FEMA Project Officer to establish an acceptable protocol for reporting of project information at the beginning of each project. IDNR 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). 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*). However, this shall not affect the financial reporting requirements (reference 44 CFR Part 13.41, *Financial Reporting*). The PO shall ensure that key IDNR staff have been provided access and passwords to the MIP. The PO 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 video conferences with FEMA and other Project Team members monthly basis;
- Telephone conversations with FEMA and other Project Team members on a scheduled basis monthly and an ad hoc basis, as required;
- Updates to the MIP, and other FEMA status information systems in accordance with requirements in Volumes 1 and 3 of *Guidelines and Specifications for Flood Hazard Mapping Partners*; and Section 10; and
- E-mail, facsimile transmissions, and letters, as required.

SECTION 12—POINTS OF CONTACT

The points of contact for this Flood Map Project are Lee Traeger, the FEMA Regional Project Officer; John Bishop, the Project Manager for the CTP; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities. When necessary, the any additional assistance of FEMA should be requested through the FEMA Regional Project Officer.

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



Gary Clark
Director
Office of Water Resources
Illinois Department of Natural Resources

7/19/2005

Date



Terry Reuss-Fell, Branch Chief
Hazard and Risk Assessment, Region 5
Federal Emergency Management Agency

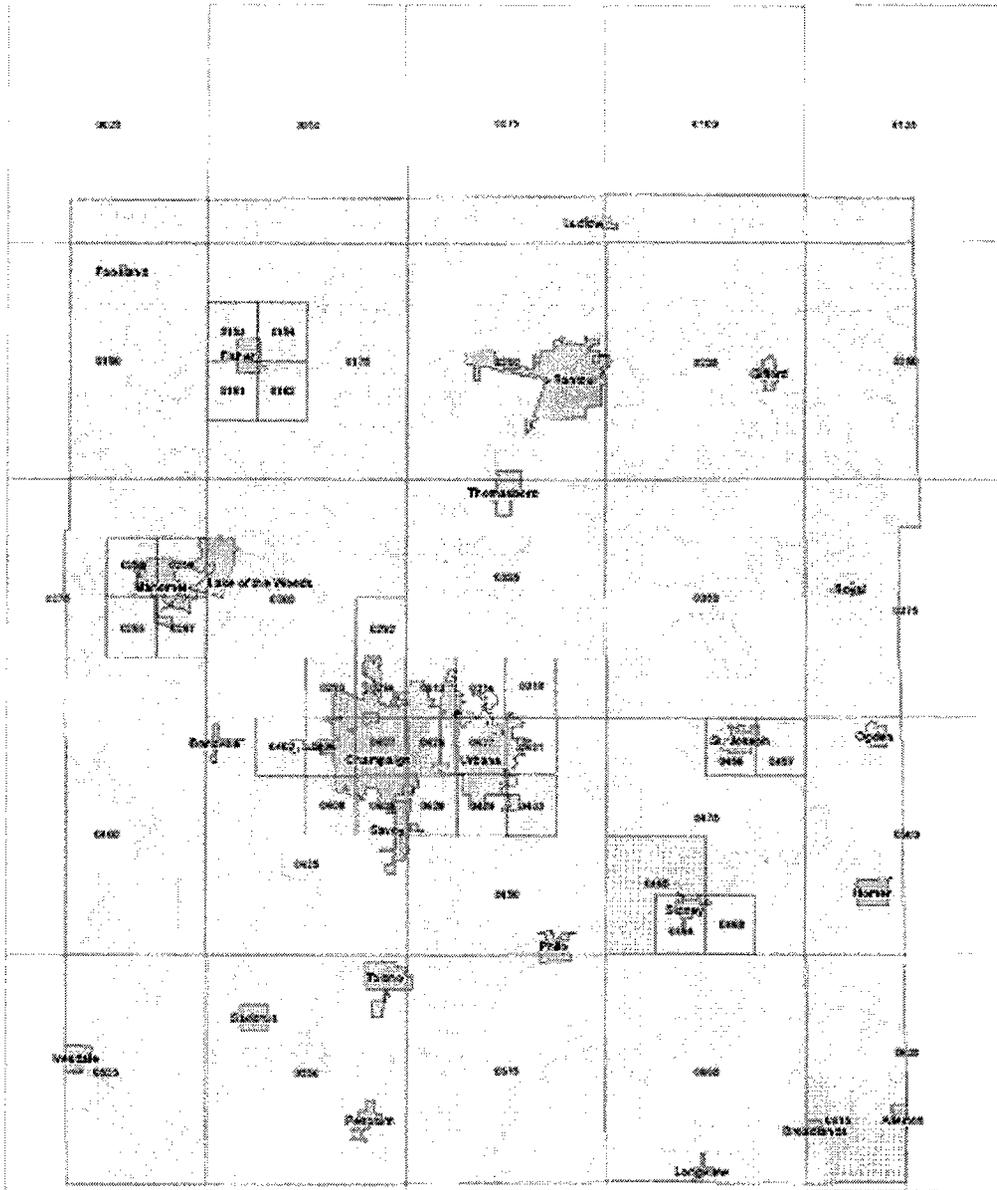
July 6, 2005

Date

**Champaign County, Illinois
Preliminary DFIRM Panel Layout
4/6/2005**

Illinois State Water Survey
2204 Griffith Drive
Champaign, IL 61821

Lisa Verheist
(217)255-9430
verheist@uiuc.edu



Panel Scale

	1:5000 or 1 in = 500 ft
	1:10000 or 1 in = 1000 ft
	1:24000 or 1 in = 2000 ft