



## Urban Drainage and Flood Control District Cooperating Technical Partners Mapping Activity Statement

### Mapping Activity Statement No. 14 – Hydrologic and Hydraulic Review for Letters of Map Change

In accordance with the Memorandum of Agreement dated May 17, 1999, between the Urban Drainage and Flood Control District (UDFCD) and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement No. 14 is as follows:

#### SECTION 1—OBJECTIVE AND SCOPE

The objective of the Flood Map Project documented in this Mapping Activity Statement is to have UDFCD continue to assume the responsibility of the FEMA National Service Provider (NSP) with regard to the evaluation of conditional and final map revision requests for the 32 communities within the UDFCD that are participating in the National Flood Insurance Program (NFIP). UDFCD shall process these conditional and final map revision requests in accordance with the provisions of Part 65 of the NFIP regulations (44 CFR Part 65).

Based on the results of the UDFCD review, FEMA shall issue determinations regarding the requests. For proposed projects, FEMA shall issue Conditional Letters of Map Revision (CLOMRs) in accordance with Section 65.8 of the NFIP regulations (44 CFR 65.8). For existing or "as-built" projects, FEMA either shall issue Letters of Map Revision (LOMRs) or shall physically revise and reissue the affected map panels following Physical Map Revision processes in accordance with Section 65.9 of the NFIP regulations (44 CFR 65.9), as appropriate.

This project will be completed by FEMA and the following:

- UDFCD;
- Icon Engineering, Inc., a contractor to UDFCD; and
- Michael Baker Jr., Inc., the FEMA National Service Provider (NSP).

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. All activities that are to be accomplished by UDFCD, Icon Engineering, or other contractors to UDFCD that may be added after the project startup are included in the "UDFCD" column.

The sections of this Mapping Activity Statement that follow Table 1-1 describe the specific mapping activities associated with this Flood Map Project. Each activity description identifies the responsible Mapping Partner(s), the scope of the activity, the FEMA standards that must be met, and resultant product(s).

**Table 1-1. Summary of Mapping Activities and Responsible Mapping Partners**

ACTIVITY	UDFCD	NSP	FEMA
Activity 1 – Initiation of Request		X	X
Activity 2 – Fee-Charge System Administration/Coordination		X	X
Activity 3 – Initial Technical Review of Request	X		
Activity 4 – Final Technical Review of Request	X		
Activity 5 – Preparation of Draft Determination Documents	X		
Activity 6 – Independent QA/QC Review of Draft Determination Documents	X		
Activity 7 – Final QA/QC Review of Draft Determination Documents		X	X
Activity 8 – Application of Current Determination Document Specifications	X	X	
Activity 9 – Approval of Determination Documents			X
Activity 10 – Distribution of Determination Documents		X	
Activity 11 – Program Implementation	X	X	X
Activity 12 – Mentoring	X		

### Activity 1—Initiation of Request

Responsible Mapping Partner: FEMA and NSP

Scope: Both FEMA and UDFCD shall receive copies of conditional and final map revision requests (hereinafter referred to as CLOMR and LOMR requests) from requesters within UDFCD. The review and processing fee for these cases shall be received by FEMA under current payment procedures (check or money order in U.S. funds made payable to the National Flood Insurance Program or credit card payment).

Upon receipt of a case or notification from UDFCD of receipt of a case, the NSP shall complete a “Fact Sheet” that outlines the details of each particular case (i.e., communities impacted by revision, flooding sources, project identifier) for its records. The NSP shall enter relevant information into its Management Information System (MIS) and generate a case number for the case within 24 hours. FEMA and the NSP shall use the MIS to track the cases reviewed and processed by UDFCD. Upon generating the case number, the NSP shall forward the Fact Sheet

to UDFCD, via e-mail if possible. UDFCD shall use the unique case number on all correspondence generated by UDFCD regarding that particular case. However when the Multi-Hazard Information Platform (MIP) Release 2.2 becomes available, UDFCD will be responsible for maintaining and tracking all CLOMR and LOMR requests within UDFCD.

**Standards:** The relevant standards for Activity 1 are provided in Section 4 of this Mapping Activity Statement.

**Products:** The NSP shall prepare the following products for this mapping activity:

- A "Fact Sheet" that outlines the details of each particular case;
- Updates to the MIS maintained for FEMA by the NSP; and
- Updates to the FEMA Community Information System (CIS) database.

## **Activity 2—Fee-Charge System Administration/Coordination**

**Responsible Mapping Partners:** FEMA and NSP

**Scope:** FEMA has established a centralized fee-charge system, administered by a Fee-Charge System Administrator (FCSA). The fee-charge system administration responsibilities of the NSP are provided in Subsection 3.17.2 of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*.

The appropriate review and processing fee must be received by FEMA and the NSP and submitted to the FCSA before the review of any request requiring a review and processing fee begins. The review and processing fee is based on the type of map change requested. A list of current review and processing fees for map change requests is provided on the FEMA Flood Hazard Mapping website at [http://www.fema.gov/fhm/firm\\_fees.shtm](http://www.fema.gov/fhm/firm_fees.shtm).

Upon receipt of the request, the NSP or FEMA shall review the submittal to determine whether the request is fee exempt. Once the NSP or FEMA determines that the request is not fee-exempt, the Mapping Partner assigns a case number in accordance with Activity 1 above. The NSP then shall perform a quick review of each check or money order to identify obvious errors (e.g., missing date, missing signature, discrepancies between the written and the numerical amount, and check made payable to incorrect entity).

Some checks have a 60- or 90-day *void clause* from the date of the check. If no void clause appears on the check, the check is good for 6 months from its issue date, unless otherwise indicated. If the check is past its expiration date, the NSP shall not forward the check to the FCSA. Instead, the NSP shall return the check to the requester and ask for a new check with a current date. FEMA cannot accept any check over 6 months old, unless stated otherwise on the check. The NSP shall make copies of checks before sending them to the FCSA through interoffice mail.

The assigned NSP also shall ensure that any credit card payment form submitted directly to the NSP contains the required information, including the following: correct amount; credit card number; current expiration date; signature of cardholder; date of signature; name of cardholder as it appears on the credit card; address of cardholder (for the credit card receipt); daytime telephone number; and case number. If any of the required information is missing, the assigned NSP shall call the requester and request a corrected credit card information form. The FCSA cannot process credit card payments unless all correct information is provided. The FCSA and NSP cannot, under any circumstances, accept a credit card authorization over the telephone.

Before forwarding checks, money orders, or credit card information to the FCSA, the NSP shall ensure the check, money order, or credit card information form has been annotated with the correct case number. The NSP shall place a copy of the annotated check or money order in the case file for the map change request. For security reasons, the NSP shall block out the credit card number and expiration date on any copy of the original credit card information form before placing the copy in the case file.

To facilitate the identification of current cases, and to reduce the number of errors and refunds, the NSP shall provide the FCSA with a copy of all letters requesting or acknowledging the receipt of fees. The letters may be sent by facsimile transmission, through the interoffice mail, or delivered in person.

The responsibilities of the FCSA are documented in Volume 3, Subsections 3.17.2.2, 3.17.2.3, and 3.17.2.4 of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*.

**Standards:** The relevant standards for Activity 2 are provided in Section 4 of this Mapping Activity Statement.

**Products:** The NSP shall provide the following to FEMA and the FCSA as appropriate:

- Copies of checks, money orders, and credit card payment sheets annotated to show assigned case number;
- Copies of letters sent to requester to notify requester about refund or incorrect payment; and
- Memorandums to the Office of the Comptroller to request refunds when appropriate.

### **Activity 3— Initial Technical Review of Request**

**Responsible Mapping Partner:** UDFCD

**Scope:** Upon receiving a case, UDFCD shall review the submittal for technical and regulatory adequacy, required information, application forms, H&H modeling, and supporting data and documentation. (Note: After receiving the case, UDFCD is responsible for all activities involved with processing the case.)

UDFCD shall identify previous letter or map actions for the affected map panel(s); determine if any pending request for the same area may affect the submittal; and contact the requester for missing information or additional data required to ensure that the data are scientifically sound and technically accurate. (See Section 7, Technical Assistance and Resources, of this Mapping Activity Statement.) These activities are a part of the “pre-acceptance review” of the case, which shall be completed within 5 working days of receiving the case.

UDFCD shall inform the requester in writing about the additional data necessary to complete the processing of the case or that all data have been received. UDFCD shall mail the acknowledgment letter within 5 days of receiving the case.

If additional data are requested and the required data are not received within 90 days, UDFCD shall suspend processing of the case and notify the requester in writing.

Additional information on the acknowledgment/additional data letters is provided in Section 2 and Appendix B of FEMA’s *Document Control Procedures Manual*.

Standards: The relevant standards for Activity 3 are provided in Section 4 of this Mapping Activity Statement.

Products: UDFCD shall make the following products available to FEMA and the NSP as appropriate:

- Acknowledgment/additional data letters using the appropriate letter template provided by FEMA; and
- Enclosures to the acknowledgment/additional data letters as appropriate.

#### **Activity 4—Final Technical Review of Request**

Responsible Mapping Partner: UDFCD

Scope: Upon receipt of all required data in accordance with Part 65 of the NFIP regulations (44 CFR Part 65), UDFCD shall review the technical, scientific, and other information submitted by the requester to ensure that the data are technically accurate, consistent with standard engineering practice and FEMA standards, and sufficient to warrant a conditional or final determination regarding a revision to the FIRM, FBFM, and/or FIS report. UDFCD generally shall limit the extent of the technical review to a review of the information presented on the MT-2 application forms and the supporting documentation submitted with them.

UDFCD shall use the forms to identify inconsistencies and discrepancies and judge reasonableness. In certain cases, such as review of requests involving alluvial fan flooding, unique hydrologic or hydraulic analyses, or significant changes to the SFHAs shown on the effective FIRM, additional technical reviews beyond the reviews of the application forms may be required, as directed by the PO or his/her designee.

For revisions involving the addition of detailed flood information or changes to flooding sources originally studied by detailed methods, analyses and other supporting data for the 10-, 50-, 100-, and 500-year floods and regulatory floodway may be required. At a minimum, the analyses and other supporting data provided in support of a revision request must meet the original standards employed by FEMA for the preparation of the FIS report, FIRM, and FBFM, which are documented in Volume 1 of *Guidelines and Specifications for Flood Hazard Mapping Partners*. UDFCD shall perform the required coordination and documentation activities necessary for processing each request. During the processing, the UDFCD shall:

- Communicate with the requester and officials of the affected communities, as necessary;
- Coordinate activities with the FEMA Regional Office and Headquarters Office as appropriate;
- Communicate with other FEMA contractors and Federal, State, and local agencies, as needed;
- Prepare letters and other correspondence for FEMA signature; and
- Maintain legal documentation, records of correspondence, and technical data.

In addition, UDFCD shall organize and submit to FEMA records of the correspondence and supporting data associated with each request.

Standards: The relevant standards for Activity 4 are provided in Section 4 of this Mapping Activity Statement.

Products: UDFCD shall maintain all supporting data provided by the requester(s) and community official(s) in support of the request in a case file. UDFCD shall make the contents of the case file, including copies of records of telephone conversations with requesters, community officials, FEMA, and others regarding each request and copies of correspondence sent to requesters, community officials, FEMA, and others regarding each request, to FEMA and the NSP when requested by FEMA.

### **Activity 5—Preparation of Draft Determination Documents**

Responsible Mapping Partner: UDFCD

Scope: UDFCD shall prepare draft determination letters and map attachments for final review by the NSP and FEMA within 60 days of receiving all required data. At the time that UDFCD submits these determination letters and map attachments to FEMA, UDFCD also shall submit a complete file containing the case correspondence, backup material, engineering review notes, a case summary, and any other pertinent information. A detailed list of the required products is provided under "Products" below.

Standards: The relevant standards for Activity 5 are provided in Section 4 of this Mapping Activity Statement. FEMA's standard digital file templates for preparing maps and graphics to meet these standards can be obtained from the FEMA NSP.

Products: UDFCD shall make the following products available to FEMA and the NSP as appropriate:

1. A copy of the appropriate MT-2, or comparable, forms and copies of all supporting data and documentation supporting the revision request;
2. A case summary providing the case background and review and final recommendation;
3. Annotated FIRM(s) showing the effective and revised 1-percent-annual-chance (100-year) and 0.2-percent-annual-chance (500-year) floodplain boundaries and/or regulatory floodway boundaries as appropriate;
4. Topographic maps of the revision area that meet the requirements outlined in MT-2 Form No. 5, "Riverine/Coastal Mapping;"
5. A map of the watershed showing the location of the revision;
6. Digital profiles of the 10-percent-annual-chance (10-year), 2-percent-annual-chance (50-year), 1-percent-annual-chance, and 0.2-percent-annual-chance water-surface elevations representing existing conditions, if applicable;
7. Revised Floodway Data Table(s), if applicable;
8. Revised Summary of Discharges Table(s), if applicable;
9. Digital copies of all H&H modeling (input and output files);
10. Draft determination letter and newspaper notice (105b), when required, based on the template letter and notice types provided by FEMA to UDFCD; and
11. Individual property notification if a request for a revision to the FIRM involves an increase in the BFE, the 1-percent-annual-chance floodplain, and/or the regulatory floodway. An increase is defined by the comparison of the effective Flood Insurance Study (FIS) and FIRM data, including profiles, and the requested revised condition. For the 1-percent-annual-chance floodplain and regulatory floodway, an increase is the addition of the 1-percent-annual-chance floodplain and/or regulatory floodway into an area not so designated on the effective FIRM(s). Only those property owners impacted by the increase need to be notified. The notification should explain the extent and reason for the increase and its impact, if any, on the property owner.
12. For effective DFIRM's a digital attachment will be issued to amend the effective DFIRM.

## **Activity 6—Independent QA/QC Review of Draft Determination Documents**

Responsible Mapping Partner: UDFCD

Scope: UDFCD shall establish procedures for QA/QC reviews. All products produced by the Mapping Partners involved in this project are subject to periodic auditing by FEMA.

Standards: The relevant standards for Activity 6 are provided in Section 4 of this Mapping Activity Statement.

Products: Once the independent QA/QC review discussed above has been completed and all concerns raised during the QA/QC review have been addressed, UDFCD shall package completed cases in accordance with Appendix M of *Guidelines and Specifications for Flood Hazard Mapping Partners*, and deliver them to the FEMA NSP. Appendix M is available from the FEMA Flood Hazard Mapping Web site at [http://www.fema.gov/fhm/frm\\_gsam.pdf](http://www.fema.gov/fhm/frm_gsam.pdf). UDFCD shall retain a complete case file for each case in an archive, and a complete case file shall be transmitted to FEMA for archiving in the FEMA Project Library, which is maintained for FEMA by the NSP. The case file also shall include the following:

- A Summary Report that describes the findings of the independent QA/QC review noting any deficiencies and providing recommendations to resolve them or noting agreement with the results, including the monitoring checklist; and
- Annotated copies of draft determination documents and enclosures with all questions and/or concerns indicated if necessary.

## **Activity 7—Final QA/QC Review of Draft Determination Documents**

Responsible Mapping Partner: FEMA and NSP

Scope: All determination documents and enclosures will be subjected to a final QA/QC review by the NSP before they are submitted to FEMA for approval. All products produced by the Mapping Partners involved in this project are subject to periodic auditing by FEMA.

Standards: The relevant standards for Activity 7 are provided in Section 4 of this Mapping Activity Statement.

Products: The NSP shall make the following products available to UDFCD and FEMA as appropriate:

- A Summary Report that describes the findings of the independent QA/QC review noting any deficiencies and providing recommendations to resolve them or noting agreement with the results; and
- Annotated copies of draft determination documents and enclosures with all questions and/or concerns indicated if necessary.

## **Activity 8—Application of Current Determination Document Specifications**

Responsible Mapping Partners: UDFCD and NSP

Scope: The NSP and UDFCD shall coordinate to ensure the current FEMA specifications are met for the CLOMR and LOMR determination documents and enclosures.

Standards: The relevant standards for Activity 8 are provided in Section 4 of this Mapping Activity Statement.

Products: UDFCD or the NSP shall make the following products available for CLOMR and LOMR requests:

- CLOMR determination documents, prepared in accordance with current FEMA specifications;
- LOMR determination documents, prepared in accordance with current FEMA specifications; and
- Enclosures to CLOMR and LOMR determination documents, prepared in accordance with current FEMA specifications.

## **Activity 9— Approval of Determination Documents**

Responsible Mapping Partner: FEMA

Scope: The FEMA Project Engineer or Project Officer or the Chief of the Hazards Study Branch shall review and sign all determination letters for the CLOMR and LOMR cases reviewed and processed by UDFCD.

Standards: The relevant standards for Activity 9 are provided in Section 4 of this Mapping Activity Statement.

Products: The FEMA Project Engineer or Project Officer for Region VIII shall provide the signed CLOMR or LOMR determination letters to the NSP for distribution.

## **Activity 10—Distribution of Determination Documents**

Responsible Mapping Partner: NSP

Scope: Upon receipt of the signed determination letter for a CLOMR or LOMR, the NSP shall distribute copies of the determination letter and enclosures to the requester, Chief Executive Officers (CEOs) and floodplain administrators of the affected communities, FEMA Regional Office, Colorado Water Conservation Board (CWCB), UDFCD, and others identified in Appendix B of FEMA's *Document Control Procedures Manual*. The affected communities shall receive a 30-day period to review and comment on the determination letter and enclosures.

If the map revision request is handled as a PMR, the NSP shall distribute Preliminary copies of the revised FIRM panels, FBFM panels, and/or FIS report with a standard transmittal (100 or 100-A) letter. The NSP shall distribute copies to the requester, CEOs and floodplain administrators of the affected communities, FEMA Regional Office, CWCB, UDFCD, and others identified in Appendix A of FEMA's *Document Control Procedures Manual*. When appropriate, the NSP also shall prepare a Preliminary Summary of Map Actions (SOMA). The SOMA shall list pertinent information regarding Letters of Map Change (LOMCs) that will be affected by the issuance of the revised FIRM panels (i.e., superseded, incorporated, revalidated). As with CLOMR and LOMR determination letters, the recipients of the Preliminary copies of the revised FIRM panels, FBFM panels, and/or FIS report shall receive a 30-day period to review and comment on the revised materials.

When BFEs are changed, a 90-day appeal period is required. In such cases, the NSP shall distribute the appropriate transmittal letter to the local newspaper(s) and provide the appropriate notice regarding the proposed modified BFEs to be published twice in that paper.

The Mapping Partner shall perform the required coordination and documentation activities necessary for processing each LOMR. During the processing, the Mapping Partner shall:

- Communicate with the requester and community, as necessary.
- Coordinate activities with the FEMA RO as directed by the PO or his/her designee.
- Communicate with other FEMA contractors and Federal, State, and local agencies, as needed.
- Prepare letters and other correspondence for FEMA signature.
- Maintain legal documentation, records of correspondence, and technical data.

In addition, the Mapping Partner shall organize, and may be required to submit to FEMA, records of the correspondence and supporting data associated with LOMRs.

**Standards:** The relevant standards for Activity 10 are provided in Section 4 of this Mapping Activity Statement.

**Products:** The NSP shall make the following products available for CLOMR and LOMR requests:

- Copies of CLOMR determination letter, for the community CEO(s) and floodplain administrator(s), CWCB, FEMA Regional Office, and others as directed by FEMA;
- Copies of LOMR determination letter and FIRM, FBFM, and/or FIS report enclosures, for the community CEO(s) and floodplain administrator(s), CWCB, FEMA Regional Office, and others as directed by FEMA; and
- Newspaper letter(s) and BFE notice(s), when BFEs are revised as result of LOMR.

- The NSP shall make the following products available for CLOMR and LOMR requests:
- Preliminary transmittal letters and any additional letters requested by FEMA, prepared in accordance with the current version of the *FEMA Document Control Procedures Manual*;
- Preliminary copies of the revised FIRM, FBFM, and/or FIS report, including all updated data tables and Flood Profiles, for the community CEO(s) and floodplain administrator(s), CWCB, FEMA Regional Office, and others as directed by FEMA; and
- A Preliminary SOMA if required, prepared in accordance with FEMA requirements.

### Activity 11—Program Implementation

Responsible Mapping Partners: UDFCD, NSP, and FEMA

Scope: The responsibilities of the Mapping Partners are summarized below.

- UDFCD, FEMA, and NSP shall review all comments submitted by the affected communities during the 30-day comment period. FEMA shall provide final instructions to UDFCD and NSP about action to be taken on comments received during the 30-day review period.
- If requested to do so by FEMA, the NSP shall prepare and distribute Revised Preliminary copies of revised FIRM panels, FBFM panels, and/or FIS reports to the community CEO(s) and floodplain administrator(s), CWCB, FEMA Regional Office, and others as directed by FEMA for PMR requests.
- The NSP shall prepare the final newspaper and *Federal Register* notices regarding changes in BFEs associated with LOMR and PMR requests for FEMA review and approval. The NSP shall prepare the notices for PMRs at the end of the 30-day comment period.
- The NSP shall coordinate with the newspaper and with appropriate FEMA staff to ensure timely and accurate publication of the newspaper and *Federal Register* notices for LOMRs and PMRs and shall issue correction letters and notices when required in accordance with FEMA's *Document Control Procedures Manual*.
- UDFCD shall review all appeals and protests in reference to these cases in accordance with Part 67 of the NFIP regulations (44 CFR Part 67). UDFCD shall provide FEMA with a recommendation for resolving each appeal or protest. UDFCD shall coordinate with the FEMA Project Officer cited in Section 11 of this Mapping Activity Statement to resolve the appeal or protest. For each appeal or protest, the following activities shall be conducted as appropriate:
  - Initial processing and acknowledgment of the submittal;
  - Technical review of the submittal;

- Preparation of letters requesting additional supporting data;
- Performance of revised analyses; and
- Preparation of the draft resolution letter and revised FIRM panels, FBFM panels, and FIS report materials for FEMA review.

The NSP shall distribute copies of resolution letters and enclosures as appropriate.

- UDFCD shall coordinate with the FEMA Project Officer regarding potential violations of the NFIP regulations.
- UDFCD and the NSP shall provide FEMA with support in the processing of congressional responses and other special responses related to CLOMR, LOMR, and PMR requests reviewed by UDFCD under this Mapping Activity Statement.
- For PMRs, the NSP shall prepare a Final SOMA for each affected community as appropriate.
- For PMRs, the NSP shall work with FEMA to establish the effective date for the FIRM, FBFM, and/or FIS report, and shall prepare a Letter of Final Determination for FEMA review in accordance with FEMA's *Document Control Procedures Manual*. The NSP also shall mail the final signed correspondence and distribute appropriate copies and enclosures upon receipt of authorization from FEMA.
- For PMRs, the NSP shall prepare the appropriate *Federal Register* notice (Final Rule) to finalize BFEs in accordance with FEMA's *Document Control Procedures Manual*.
- For PMRs, the NSP shall prepare final reproduction materials for the FIRM, FBFM, and/or FIS report and provide these materials to the FEMA Map Service Center for printing by the U.S. Government Printing Office. The NSP also shall prepare the appropriate paperwork to accompany the map(s) and report, including the transmittal letter to the community CEO, the Print Processing Worksheet, the Printing Requisition Forms, and the Community Map Actions Form.
- The NSP shall prepare and distribute LOMC Revalidation Letters to the CEOs and floodplain administrators of the affected communities, as appropriate, to notify the communities about LOMCs for which determinations will remain in effect after the FIRM, FBFM, and/or FIS report become effective.
- The NSP shall ensure the engineering backup data and related correspondence are packaged and stored properly in the library archives until they are transmitted to the FEMA Engineering Study Data Package Facility.

Standards: The relevant standards for Activity 11 are provided in Section 4 of this Mapping Activity Statement.

Products: In accordance with the requirements provided in the current version of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners* and *Document Control*

*Procedures Manual*, UDFCD and/or the NSP shall make the following products available to FEMA as appropriate:

- Documentation that the news releases for LOMRs and PMRs were published in accordance with FEMA requirements;
- Documentation that the appropriate *Federal Register* notices (Proposed and Final Rules) for LOMRs and PMRs were published in accordance with FEMA requirements;
- Draft and final Letters of Final Determination and associated backup data and information for FEMA review and signature;
- Draft and final Special Correspondence and backup data and information for FEMA review and signature if appropriate;
- Draft and final Appeal and/or Protest resolution letters, and all backup data and information for FEMA review and signature if appropriate;
- Final SOMAs, as appropriate;
- Final reproduction materials for PMRs, including FIRM panels, FBFM panels, and/or FIS reports;
- Paperwork to accompany the final reproduction materials;
- LOMC Revalidation Letters, if appropriate; and
- Complete, organized Engineering Study Data Packages.

### **Activity 12—Mentoring**

UDFCD shall provide mentoring to other community and regional agency partners that may undertake the hydrologic and hydraulic review responsibilities documented in this Mapping Activity Statement. The UDFCD responsibility for mentoring shall include only minimal advice and guidance to these partners.

## **SECTION 2—PERIOD OF PERFORMANCE**

The hydrologic and hydraulic (H&H) reviews under this Mapping Activity Statement will begin on May 20, 2005 and continue through September 30, 2006. This pilot project may be terminated at the option of FEMA or UDFCD in accordance with the provisions of the Memorandum of Agreement dated May 17, 1999. FEMA and UDFCD will review the activities under this Mapping Activity Statement at the end of the performance period.

## **SECTION 3—FUNDING/COST-SHARING**

FEMA will provide funding to UDFCD based on estimates of the past 2 years of receipts of CLOMR and LOMR requests for the 32 communities within UDFCD. Based on FEMA's records, the review and processing cost for CLOMR and LOMR requests processed during the

performance period is incrementally.

This amount will be provided to UDFCD

## SECTION 4—STANDARDS

The standards relevant to this Mapping Activity Statement are provided in the following documents:

- Volumes 2 and 3 and Appendices B, C, E, F, G, H, J, K, and M of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*, dated February 2002;
- Sections 2 and 5 and Appendices A and B of FEMA's *Document Control Procedures Manual*, dated December 2000;
- NFIP Regulations (44 CFR Parts 59-77); and
- Current version of *Revisions To National Flood Insurance Program Maps: Application/Certification Forms and Instructions For Conditional Letters of Map Revision, Letters of Map Revision, and Physical Map Revisions*, MT-2 form 81-89 Series), available from the FEMA Flood Hazard Mapping Web site at [http://www/fema.gov/fhm/dl\\_mt-2.shtm](http://www/fema.gov/fhm/dl_mt-2.shtm).

Detailed H&H analyses shall follow the standards set forth in Part 65 of the NFIP regulations, in particular the following sections:

- Section 65.2, Definitions;
- Section 65.5, Revision to special hazard area boundaries with no change to base flood elevation determinations;
- Section 65.6, Revision of base flood elevation determinations;
- Section 65.7, Floodway revisions;
- Section 65.8, Review of proposed projects;
- Section 65.10, Mapping of areas protected by levee systems;
- Section 65.12 Revision to flood insurance rate maps to reflect base flood elevation changes caused by proposed encroachments;
- Section 65.13 Mapping and map revisions for areas subject to alluvial fan flooding; and
- Section 65.14 Remapping of areas for which local flood protection systems no longer provide base flood protection.

The following additional requirements also must be followed by the responsible Mapping Partners:

- All projects, "as-built" or proposed, shall comply with all applicable criteria set forth in 44 CFR 60, which outlines floodplain management regulations for NFIP participation.

- All requests shall include a completed copy of the MT-2 application forms package, or comparable, forms.
- Base (1-percent-annual-chance) flood discharges cannot be revised as a result of the use of alternative methodology or data for computing discharges, unless the change is shown to be statistically significant as per 44 CFR 65.6(a)(5).
- The hydraulic models shall be completed in the various “layers” described in MT-2 Form No. 4, “Riverine Hydraulic Analysis.” This “layering” approach allows impacts of projects on water-surface elevations (WSELs) to be isolated from impacts resulting from using more detailed data (e.g., additional cross sections).
- The following shall apply for determining compliance with Paragraph 60.3(c)(10) or Paragraph 60.3(d)(3) of the NFIP regulations:
  - Proposed projects - The “post-project conditions” model shall be compared to the “existing conditions” or “pre-project conditions” model.
  - “As-built” projects – The “revised conditions” or “post-project conditions” model shall be compared to the “pre-project conditions” model.
  - Existing-conditions requests - The “existing conditions” model shall be compared to the “corrected effective” model.
- For flooding sources studied by approximate methods and designated as Zone A, the provisions of Paragraph 60.3(b) of the NFIP regulations shall apply. If the community proposes to allow development in an area designated Zone A, the requirements of Paragraph 60.3(b)(4) shall be followed.
- Computer models used for H&H analyses must meet the requirements of Paragraph 65.6(a)(6) of the NFIP regulations and be on FEMA’s *Numerical Models Accepted by FEMA for NFIP Usage*, which is available at [http://www.fema.gov/fhm/en\\_modl.shtml](http://www.fema.gov/fhm/en_modl.shtml).
- Hydraulic analyses must be performed using the same computer model used to develop the BFEs shown on the effective FIRM. An alternative model shall be used only if the basis of the request is the use of an alternative hydraulic methodology or it can be demonstrated that the data of the original hydraulic computer model is unavailable or its use is inappropriate, as set forth in 44 CFR 65.6(a)(8).
- Flood elevations and floodplain and floodway boundaries must tie in to effective information in accordance with 44 CFR 65.6(a)(2).
- Approximate Zone A area analyses must follow the standards set forth in FEMA 265, *Managing Floodplain Development in Approximate Zone A Areas* (January 1995), which is available from the FEMA Web site at [http://www.fema.gov/fhm/dl\\_zones.shtml](http://www.fema.gov/fhm/dl_zones.shtml).
- Public notification of intended revisions to the regulatory floodway shall be completed in accordance with Paragraph 65.7(b) of the NFIP regulations.

## **SECTION 5—SCHEDULE**

The statutory timeframe for a determination on a conditional or final map revision request under Part 65 of the NFIP regulations is 90 days; however, UDFCD shall adhere to the same 60-day schedule for processing cases as the NSP does. If additional time is required, due to complexities of the particular case, UDFCD shall prepare an interim letter to explain that more time is needed. UDFCD shall transmit this letter to the requester and community officials before the 90-day processing period expires.

## **SECTION 6—CERTIFICATION**

The definitions of certification in Paragraph 65.2(b) of the NFIP regulations (44 CFR 65.2(b)) for certification of analyses, “as-built” plans, and structural works apply to this Mapping Activity Statement. Specifically:

- If fill is to be considered in the mapping to raise land areas to or above the 1-percent-annual-chance flood elevation, certification of the fill shall be provided in accordance with 44 CFR 65.5(a)(6) by the community’s NFIP permit official, a Registered Professional Engineer, or a Licensed Land Surveyor.
- Topographic information shall be certified by a Registered Professional Engineer or Licensed Land Surveyor in accordance with 44 CFR 65.5(c).
- All analyses and data submitted in support of a revision to BFEs shall be certified by a Registered Professional Engineer or Licensed Land Surveyor as appropriate in accordance with 44 CFR 65.6(f).
- All analyses submitted in support a revision to the regulatory floodway shall be certified by a Registered Professional Engineer in accordance with 44 CFR 65.7(d).
- Any levee systems to be credited with flood protection as discussed in Section 4 of this Mapping Activity Statement shall be certified in accordance with 44 CFR 65.10(e).
- Data submitted to support flood-control measures that provide protection from the 1-percent-annual-chance flood in an area subject to alluvial fan flooding shall be certified by a Registered Professional Engineer in accordance with 44 CFR 65.13(f).

## **SECTION 7—TECHNICAL ASSISTANCE AND RESOURCES**

UDFCD may obtain copies of FEMA-issued CLOMRs, LOMRs, Letters of Map Amendment, and Letters of Map Revision Based on Fill; archived engineering backup data; and data collected as part of the FEMA Mapping Needs Assessment Process. UDFCD may contact the NSP by telephone at (703) 317-6531 or by facsimile at (703) 329-3023.

General technical and programmatic information not cited in this Mapping Activity Statement also can be downloaded from the FEMA Flood Hazard Mapping Web site ([www.fema.gov/fhm](http://www.fema.gov/fhm)).

Additional guidance for H&H analyses and floodplain mapping can be found in FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*. Additional guidance for preparing correspondence can be found in FEMA's *Document Control Procedures Manual*.

UDFCD may obtain the map revision production tools, software, automated Quality Assurance/Quality Control (QA/QC) tools, etc., that FEMA has developed for its own use. For example, copies of FEMA's rule-based engineering software packages, such as CHECK-RAS for evaluating HEC-2/HEC-RAS models and RASLOT for automatically plotting flood profiles, may be obtained through the NSP.

Specific technical and programmatic support may be provided by the NSP; such assistance must be requested through the FEMA Project Officer specified in Section 11 of this Mapping Activity Statement and may include:

1. Technical assistance in the form of training and/or technical guidance regarding the review and processing of revision cases;
2. Training on using the MIS and the MIP; and
3. Training on resolving protests and appeals.

## **SECTION 8—CONTRACTORS**

UDFCD intends to use Icon Engineering, Inc., a consulting engineering firm located in the Denver, Colorado, area that has demonstrated the ability to perform the activities that are the subject of this Agreement. For any requests for which the consulting firm was involved in the development of analyses, site or project plans, surveys, or otherwise constitute an organizational conflict for the firm, the UDFCD staff or the NSP shall perform the necessary review.

Procurement of the consultant shall comply with the requirements of 44 CFR 13.36. Part 13 may be acquired from the U.S. Government Printing Office Web site at [http://www.access.gpo.gov/nara/cfr/waisidx\\_02/44cfr13\\_02.html](http://www.access.gpo.gov/nara/cfr/waisidx_02/44cfr13_02.html).

## **SECTION 9—REPORTING**

UDFCD shall report to FEMA upon receipt of a conditional or final map revision request. UDFCD shall send copies of all correspondence between UDFCD and the requester and/or community officials to the NSP and FEMA, including acknowledgment letters, additional data letters, processing delay letters, phone call reports, e-mail correspondence, and any other documents. The NSP shall use these copies to enter the appropriate status information into the MIS. UDFCD shall use these copies to enter the appropriate status information into the MIP once release 2.2 is available. The NSP shall then use the MIS or the MIP to provide FEMA with updates to the LOMC module of FEMA's CIS database. Additional information on the CIS database is provided in Volume 3 of FEMA's *Guidelines and Specifications for Flood Hazard Mapping Partners*, which is available from the FEMA Flood Hazard Mapping Web site at [http://www.fema.gov/fhm/frn\\_gsv.pdf](http://www.fema.gov/fhm/frn_gsv.pdf).

## **SECTION 10—FINANCIAL REPORTING**

Financial reporting requirements will be in accordance with Cooperative Agreement Articles V and VI.

## **SECTION 11—POINTS OF CONTACT**

The FEMA Project Officer will be Kevin Long of FEMA Headquarters, the Regional Office contact will be Dan Carlson, and the UDFCD Project Manager will be Bill DeGroot, or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities.

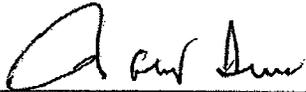
Each party has caused this Task Agreement to be executed by its duly authorized representatives on the date mentioned above.



Bill DeGroot  
Chief, Floodplain Management Program & Information Technology  
Urban Drainage and Flood Control District

5/23/05

Date



Robert Ives, Branch Chief  
Federal Emergency Management Agency, Region VIII

5/23/05

Date



Kevin Long *for*  
Project Officer  
Federal Emergency Management Agency

5/23/05

Date



## URBAN DRAINAGE AND FLOOD CONTROL DISTRICT

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David W. Lloyd, Executive Director  
2480 W. 26th Avenue, Suite 156B  
Denver, CO 80211-5304

Telephone 303-455-6277  
Fax 303-455-7880  
www.udfcd.org

July 15, 2004

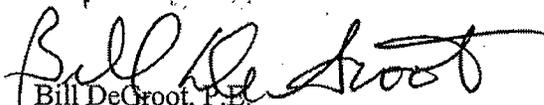
Robert Ives, Branch Chief  
Hazard Identification and Risk Assessment  
Federal Emergency Management Agency  
Denver Federal Center, Building 710  
Region 8, Box No. 25267  
Denver, CO 80225-0267

Dear Mr. Ives:

Enclosed please find fully-executed copies of Standard Form 424, Application for Federal Assistance; FEMA Form 20-20, Budget Information – Non Construction Programs; and FEMA Form 20-16, Summary Sheet for Assurances and Certifications. These forms are submitted in response to your invitation to apply for financial assistance for the Cooperating Technical Partners (CTP) Program. We are requesting \_\_\_\_\_ in accordance with Mapping Activity Statement No. 14 – "Hydrologic and Hydraulic (H&H) Review for Letters of Map Change", also enclosed.

We are looking forward to continuing our CTP activities and appreciate your support.

Sincerely,

  
Bill DeGroot, P.E.  
Manager, Floodplain Management Program

WGD/mc  
Enclosures  
cc: Dan Carlson, FEMA Region VIII