City of Stillwater
Federal Emergency Management Agency
Cooperating Technical Community
Mapping Activity Statement

Agreement #003- Redelineation of Floodplain Boundaries Using Updated Topographic Data

In accordance with the Cooperating Technical Community (CTC) Memorandum of Agreement dated 4/17/2000 between the City of Stillwater and the Federal Emergency Management Agency (FEMA), Agreement #003 is as follows:

1. **Objective and Scope:** The objective of this Mapping Activity is to redelineate detailed floodplain boundaries in City of Stillwater. Delineations will be of the 1% and 0.2% annual chance floods and floodway for the following flooding sources: Stillwater Creek, East Boomer Creek, West Boomer Creek, Cow Creek, and Duck Creek. The flood profiles and floodway data tables from the May 4, 1998 Flood Insurance Study (FIS) report will be used, in conjunction with the hydraulic models used to prepare the FIS, to produce these delineations.

2. **Period of Performance:** The period of performance will be in accordance with Agreement Article II.

3. **Funding/Cost-Sharing:**

FEMA :	**$**
City of Stillwater:	**$_____**
Total	**$**

4. **Standards:** The following standards and documents are relevant to this Mapping Activity:
   - Topographic mapping used to delineate the floodplain boundaries will be more recent and/or detailed than that used to prepare the effective FIRM for the City of Stillwater. It will be of adequate scale and topographic definition to provide reasonable accuracy and planimetric features will be compatible with the base map (with respect to horizontal accuracy) to be used by FEMA for Digital FIRM production. Topographic mapping taken from aerial photogrammetry or surveys will comply with the requirements of Appendix 4 of FEMA 37. The selection of the topographic mapping source to be used will be coordinated with the FEMA Project Officer prior to analysis and mapping.
   - Changed hydraulic conditions and/or significant discrepancies in stream distance between the profile and topographic mapping indicate the need for updated hydraulic analyses and may preclude the completion of this Mapping Activity for some flooding sources. Therefore, prior to redelineating floodplain boundaries, the effective FIS flood profiles will be evaluated to determine:

- If the flood elevations remain valid or if hydraulic conditions have changed such that the profile no longer represents existing conditions (i.e., bridge or culvert construction) necessitating updated hydraulic analyses;
- If the flood profile baseline reasonably fits the streamline on the topographic mapping to be used for this activity.

- Work maps will comply with the requirements outlined in Chapter 9 of FEMA 37. The work maps should include the 1% and 0.2% annual chance floodplain boundaries: floodway limits; cross sections; and BFE and Flood Insurance Zone labels.
- Digital mapping submissions will comply with the requirements of Chapter 9 and Appendix 7 of FEMA 37.

5X. **Products:** The City of Stillwater will make the following products available:

- Digitized topographic work maps depicting the revised 1% and 0.2% annual chance floodplain boundaries; floodway limits; cross sections; and BFE and Flood Insurance Zone labels.
- Form number 5 of *Revisions to National Flood Insurance Program Maps, Application/Certification Forms and Instructions* (MT-2).

6X. **Schedule and Milestones:**

Milestone 1: Upon completion, products for the first milestone will be provided to the FEMA Project Officer. These include:

- Documentation of the proposed source of topographic data, including: scale; contour interval; source/methodology; date of survey/data collection; vertical and horizontal datums; and comparison of planimetric features with the Digital FIRM base map planned for use by FEMA.
- A written assessment of the appropriateness of utilizing the FIS flood profiles for this Mapping Activity.
- Annotated copies of effective FIRMs depicting limits of proposed floodplain revisions.

Milestone 2 (Final Product): Upon completion, final products will be provided to the FEMA Project Officer. These include:

- Digital Topographic work maps depicting 1% and 0.2% annual chance floodplain boundaries; floodway limits; and BFE and Flood Insurance Zone labels.
- Completed form number 5 of *Revisions to National Flood Insurance Program Maps, Application/Certification Forms and Instructions* (MT-2).

Final products will be made available to FEMA in accordance with the Period of Performance defined in Section 2 of this Mapping Activity Statement. Upon completion of each milestone listed above a coordination conference call between the City of Stillwater, the City of Stillwater's subcontractor, FEMA, and the MCC shall be held. This call shall be initialized and setup by the

City of Stillwater. Performance Reports documenting the progress of the milestones described in this section shall be submitted in accordance with Article VI of the Agreement Articles.

7. **Certification:** The following certifications apply to this Mapping Activity (as appropriate):
   - Topographic information will be certified by a registered professional engineer or licensed land surveyor in accordance with 44 CFR 65.5(c).
   - If fill is to be considered in the mapping to raise land areas above the 1% annual chance flood elevation. certification of the fill will 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.

8. **Technical Assistance and Resources:** The City of Stillwater may obtain copies of effective FIS hydraulic models, FEMA-issued Letters of Map Change (LOMCs), and archived engineering back-up data from FEMA's Mapping Coordination Contractor (MCC)/Technical Evaluation Contractor (TEC). The MCC/TEC may be contacted at 1-877 FEMA MAP. Specific technical and programmatic support may be provided through FEMA's MCC/TEC; such assistance should be requested through the FEMA Project Officer specified in Section 12 of this Mapping Activity Statement.

9. **Subcontractors:** The firm of Dewberry and Davis, LLC will be contracted by the City of Stillwater to perform the work. Procurement of subcontractors using Federal funds provided as part of this Mapping Activity will comply with the requirements of 44 CFR 13.36.

10. **Quality Assurance/Quality Control (QA/QC) Procedures:** The QA/QC procedures outlined in Chapter 10 of FEMA 37 should be followed during the development of the revised floodplain and floodway boundaries. The mapping should be independently reviewed for compliance with the standards defined in Section 4 of this Mapping Activity Statement. This independent review will be conducted by a firm to be mutually determined by FEMA and The City of Stillwater.

11. **Reporting:** Reporting requirements will be in accordance with Agreement Articles V & VI.

12. **Points of Contact:** The FEMA Project Officer is Mr. James Orwat and the CTC's Project Manager is Mr. Tom Carter, or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities.

Each party has caused this Mapping Activity Statement to be executed by its duly authorized representatives.

CTC Partner's authorized representative	7/28/00 date
FEMA authorized representative	8/16/00 date