



Washington County, Utah COOPERATING TECHNICAL PARTNERS MAPPING ACTIVITY STATEMENT

Mapping Activity Statement No. 1 – Washington County Erosion Hazard Boundary Mapping

In accordance with the Cooperating Technical Partners (CTP) Partnership Agreement dated March 10, 2006 between Washington County, Utah and the Federal Emergency Management Agency (FEMA), Mapping Activity Statement (MAS) No. 1 is as follows.

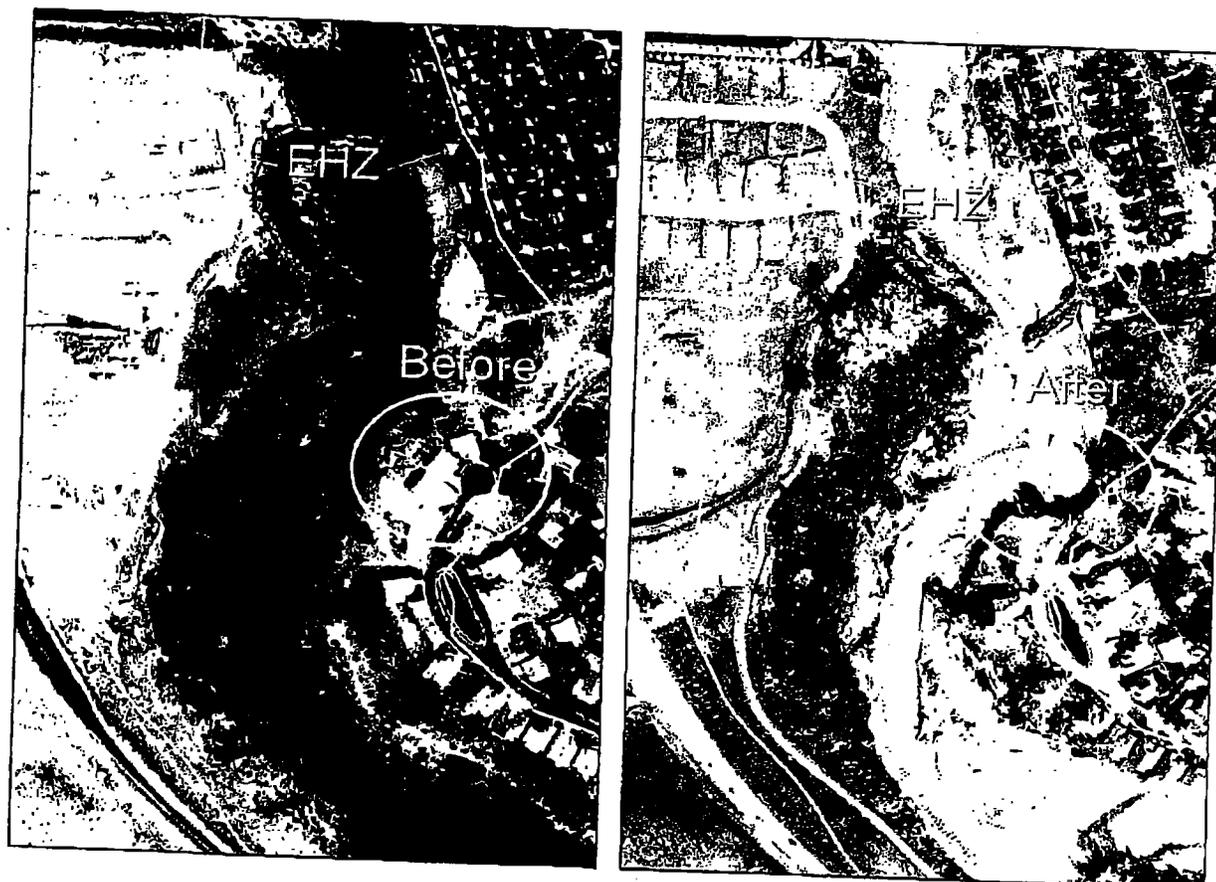
Section 1: Objective

To expand the post-disaster soil erosion hazard zone delineation currently underway through local initiatives in the cities of Santa Clara and St. George.

Since beginning work on the original scope for flood recovery mapping and HAZUS validation following the Santa Clara River flooding event in January 2005, it has become apparent that the most cost-effective method to reduce future losses in the affected areas is through mapping and enforcement of soil erosion hazard zones (EHZ) (see before and after photo below). Only two of the 28 destroyed homes in the January flood event were within the existing FEMA 100-year flood zone, while only two homes were not within the pre-existing EHZ in St. George.

In January 1997, J.E. Fuller completed an EHZ for the City of St. George and the City began enforcing the EHZ through ordinance in 1999. Because of the EHZ in St. George, significant losses (>\$2M) were avoided for developments built during the relatively short time frame after 1999, and if the EHZ was in place about 15 years earlier, their housing losses could have been as few as two. The EHZ mapping techniques employed by J.E. Fuller are based primarily on cost effective aerial imagery and reconnaissance mapping methods and will benefit significantly from the high resolution post-flood aerial imagery obtained by Washington County and provided to FEMA at no cost. Since the January event, the cities of Santa Clara and St. George have contracted with J.E. Fuller to update the EHZ within their jurisdictions.

It is the intent of this MAS to extend this work to cover rapidly developing unincorporated areas of Washington County in accordance with the County's Request for FEMA Assistance letter dated January 19, 2006 that includes the development of EHZ regulations within their Flood Damage Prevention Ordinance. The EHZ, if made available, will also be incorporated in the Master Plan work ongoing in Washington County.



Section 2: Stream Stability Study

Scope:

The study will identify areas that have a high probability of being eroded by future flow events. Several critical areas that would benefit from EHZ mapping have been identified outside of the current funded studies by the cities of St. George and Santa Clara. These include:

- Sand Hollow Wash from the confluence with the Santa Clara River upstream to the Snow Canyon State Park boundary (approximately 5.5 miles through existing developed areas of St. George, Santa Clara & Ivins).
- Santa Clara River from Gunlock Reservoir upstream to the Magotsu Wash/County Road Bridge (approximately 4.5 miles through the Community of Gunlock and adjacent farmlands).
- Shoal Creek from the Enterprise sewer lagoons upstream to the county road bridge (approximately 7 miles through the community of Enterprise and adjacent farmlands).

- o Santa Clara River through the Pine Valley community from the canyon to the Forest Service Boundary (approximately 2 miles through existing residential and farmland areas).
- o Beaver Dam Wash through the Motoqua Community in western Washington County (approximately 2 miles through the residential and farmland areas).

Deliverables:

The end product of the stability study will be the delineation of the meander lines (erosion hazard zone boundaries) as an electronic GIS coverage merged with the existing study data and delivered in hardcopy on the Washington County base map. A draft map will be provided within 90 days of the commencement of the contract and a Final product prior to the completion of the performance period. A brief letter report will be provided with the products that include the findings in respect to identifying areas of the County subject to soil erosion hazards.

A copy of the adopted Washington County Flood Damage Prevention Ordinance incorporating the EHZ regulations will be delivered to FEMA Region VIII office by the end of the grant performance period.

Section 3—Period of Performance

The activities documented in this MAS will begin on April 28, 2006, and will be completed no later than April 30, 2007. The activities may be terminated at the option of FEMA or in accordance with the provisions of the Partnership Agreement with Washington County.

Section 4—Funding/Cost-Sharing

FEMA is providing funding, in the amount of _____ to Washington County, Utah for the completion of the Flood Map Project documented in this MAS. Washington County shall provide any additional resources required to complete the assigned activities for this Flood Map Project.

Section 6—Schedule

The activities documented in this MAS shall be completed in accordance with the project schedule shown in Table 2. If changes to this schedule are required, the responsible Cooperative Technical Partner shall coordinate with FEMA.

Table 2. Project Schedule

ACTIVITIES	RESPONSIBLE PARTNER(S)	DATE DUE
Preliminary EHZ Mapping	CTP	7/31/06
Final EHZ Mapping and Letter Report	CTP	9/31/06
Adopted Flood Damage Prevention Ordinance	CTP	4/30/07

Section 7—Certifications

The following certifications apply to this MAS:

- A Registered Professional Engineer shall certify the soil erosion hazard zones analyses.

Section 8—Technical Assistance and Resources

Project Team members may consult with the FEMA Regional Project Officer to request support in the areas of selection of data sources, digital data accuracy standards, assessment of vertical data accuracy, data collection methods or subcontractors, and GIS-based engineering and modeling training.

Section 9—Contractors

Washington County intends to use the services of its own contractor for the Flood Map Project documented in this MAS. Washington County shall ensure that the procurement for all contractors used for this Flood Map Project complies with the requirements of 44 CFR 13.36

Part 13 may be downloaded in PDF or text format from the U.S. Government Printing Office Web site at http://www.access.gpo.gov/nara/cfr/waisidx_02/44cfr13_02.html.

Section 10—Financial Reporting

Because funding has been provided to Washington County by FEMA for the Flood Map Project documented in this MAS, financial reporting requirements for Washington County will be in accordance with Cooperative Agreement Articles V and VI.

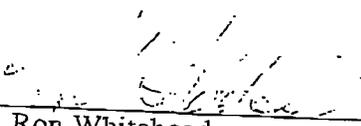
Section 11—Points of Contact

The points of contact for this Flood Map Project are the FEMA Regional Project Officer, Doug Bausch; and Ron Whitehead, the Project Manager for Washington County; or subsequent personnel of comparable experience who are appointed to fulfill these responsibilities.

Section 12—Project Coordination

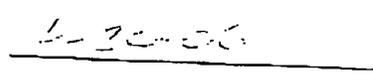
At least two coordination meetings (face-to-face or via teleconference) will be held between the Project Manager and the FEMA Project Manager, updating the current status and anticipated status of all tasks. More frequent meetings or teleconferences may be necessary as circumstances dictate.

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

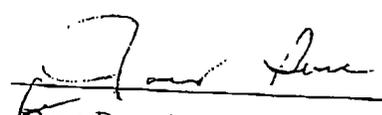


Ron Whitehead

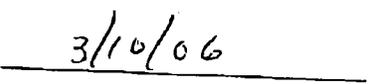
Project Manager
Washington County Public Works



Date



Doug Bausch
Regional Project Officer
Federal Emergency Management Agency, Region VIII



Date