



**BOARD OF SUPERVISORS AGENDA ITEM REPORT  
AWARDS / CONTRACTS / GRANTS**

☐ Award ☒ Contract ☐ Grant

**Requested Board Meeting Date:** 07/02/24

*\* = Mandatory, information must be provided*

**or Procurement Director Award:** ☐

**\*Contractor/Vendor Name/Grantor (DBA):**

JE Fuller/Hydrology And Geomorphology, Inc.

**\*Project Title/Description:**

Brawley And Black Wash Detailed Risk Analysis And Mapping

**\*Purpose:**

Amendment: Contract No. CT-FC-21-117, Amendment No. Five (5). This amendment increases the contract amount by \$97,260.65 for a cumulative not-to-exceed amount of \$690,172.49 for additional Project Management time due to contract extensions related to Hydrology and Hydraulics for Zero Depth Floodplain delineation which required an extra full simulation set for all 7-Avra Valley domains and additional simulations and delineations for Floodplain Mapping. Administering Department: Regional Flood Control District.

**\*Procurement Method:**

Pursuant to Solicitation for Qualifications No. SFQ-PO-2000015, on 09/01/2020 the Board of Supervisors awarded a contract for this project in the amount of \$599,885.00 for a contract term of 09/01/20 to 08/31/22.

Amendment No. One (1) was approved by the Procurement Director on 10/06/20, to replace the original Consultant Fee Schedule with a revised schedule due to billing rate errors and to decrease the contract amount by \$6,973.16 for a cumulative not-to-exceed amount of \$592,911.84.

Amendment No. Two (2) was approved by the Procurement Director on 06/22/22, to extend the contract termination date to 03/01/23 due to Covid related delays and the unanticipated complexity of required computer modeling.

Amendment No. Three (3) was approved by the Procurement Director on 12/22/22, to extend the contract termination date to 08/31/23 due to the complexity of the modeling, the lengthy runtimes of computer programs and the time required for FEMA reviews, and to add the Ethnic Uyghur forced labor language to the contract.

Amendment No. Four (4) was approved by the Procurement Director on 08/17/23, to extend the contract termination date to 09/30/24 to allow FEMA additional time for document review.

Attachment: Amendment No. Five (5)

**\*Program Goals/Predicted Outcomes:**

Multiple FEMA mapped floodplains in Altar and Avra Valleys are not accurately reflected on the current Flood Insurance Rate Maps (FIRMs). That basis for most of the current flood hazard mapped was developed in the 1960s and 1970s. Better data and floodplain modeling programs will produce more accurate flood risk and flood hazard maps. The goal of this project is to provide FEMA with flood risk map and floodplain work map products to republish the FIRMs to indicate current flood hazards.

**\*Public Benefit:**

More accurate flood risk map and flood hazard mapping data will lower future flood damages by regulating development to current flood hazards. The new data will be beneficial when esigning public infrastructure.

**\*Metrics Available to Measure Performance:**

The project must meet FEMA Risk Map and floodplain work map requirements as outlined in the Mapping Activity Statement (MAS), associated with the grant, and incorporated into the contract. The MAS requires quarterly reporting and an independent review process to insure mapping accuracy and conformance to FEMA requirements.

**\*Retroactive:**

No.

THE APPLICABLE SECTION(S) BELOW MUST BE COMPLETED

Click or tap the boxes to enter text. If not applicable, indicate "N/A". Make sure to complete mandatory (\*) fields

**Contract / Award Information**

Document Type: \_\_\_\_\_ Department Code: \_\_\_\_\_ Contract Number (i.e., 15-123): \_\_\_\_\_  
Commencement Date: \_\_\_\_\_ Termination Date: \_\_\_\_\_ Prior Contract Number (Synergen/CMS): \_\_\_\_\_  
☐ Expense Amount \$ \_\_\_\_\_ \* ☐ Revenue Amount: \$ \_\_\_\_\_

\*Funding Source(s) required: \_\_\_\_\_

Funding from General Fund? ☐ Yes ☐ No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

Contract is fully or partially funded with Federal Funds? ☐ Yes ☐ No

If Yes, is the Contract to a vendor or subrecipient? \_\_\_\_\_

Were insurance or indemnity clauses modified? ☐ Yes ☐ No  
If Yes, attach Risk's approval.

Vendor is using a Social Security Number? ☐ Yes ☐ No  
If Yes, attach the required form per Administrative Procedure 22-10.

**Amendment / Revised Award Information**

Document Type: CT Department Code: FC Contract Number (i.e., 15-123): 21-117  
Amendment No.: 05 AMS Version No.: 19  
Commencement Date: 07/02/24 New Termination Date: \_\_\_\_\_  
Prior Contract No. (Synergen/CMS): \_\_\_\_\_

☒ Expense ☐ Revenue ☒ Increase ☐ Decrease Amount This Amendment: \$ 97,260.65

Is there revenue included? ☐ Yes ☒ No If Yes \$ \_\_\_\_\_

\*Funding Source(s) required: FEMA GRANT

Funding from General Fund? ☐ Yes ☐ No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

**Grant/Amendment Information** (for grants acceptance and awards)

☐ Award ☐ Amendment

Document Type: \_\_\_\_\_ Department Code: \_\_\_\_\_ Grant Number (i.e., 15-123): \_\_\_\_\_  
Commencement Date: \_\_\_\_\_ Termination Date: \_\_\_\_\_ Amendment Number: \_\_\_\_\_  
☐ Match Amount: \$ \_\_\_\_\_ ☐ Revenue Amount: \$ \_\_\_\_\_

\*All Funding Source(s) required: \_\_\_\_\_

\*Match funding from General Fund? ☐ Yes ☐ No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

\*Match funding from other sources? ☐ Yes ☐ No If Yes \$ \_\_\_\_\_ % \_\_\_\_\_

\*Funding Source: \_\_\_\_\_

\*If Federal funds are received, is funding coming directly from the Federal government or passed through other organization(s)?

Contact: Procurement Officer: Linda Harper Digitally signed by Linda Harper  
Date: 2024.06.13 13:17:24 -07'00' Acting Division Manager: Judy Cooper Digitally signed by Judy Cooper  
Date: 2024.06.13 13:24:27 -07'00'

Department: Acting Procurement Director: Scott Loomis Digitally signed by Scott Loomis  
Date: 2024.06.13 13:45:24 -07'00' Telephone: 520-724-3542

Department Director Signature: Brian Jones Digitally signed by Brian Jones  
Date: 2024.06.13 14:19:02-07'00' Date: 6/13/2024

Deputy County Administrator Signature: [Signature] Date: 6/14/2024

County Administrator Signature: [Signature] Date: 6/14/2024

**PIMA COUNTY REGIONAL FLOOD CONTROL DISTRICT**

**PROJECT:** Brawley And Black Wash Detailed Risk Analysis And Mapping

**CONSULTANT:** JE Fuller / Hydrology And Geomorphology, Inc.  
40 E Helen St.  
Tucson, Arizona 85705

**CONTRACT NO.:** CT-FC-21-117

**AMENDMENT NO.:** Five (5)

**FUNDING:** FEMA Grant

<b>CONTRACT TERM:</b> 09/01/20 to 08/31/22	<b>ORIGINAL CONTRACT AMOUNT:</b>	\$	599,885.00
<b>TERMINATION PRIOR AMENDMENT:</b> 09/30/24	<b>PRIOR AMENDMENT(S):</b>	\$	(6,973.16)
<b>TERMINATION THIS AMENDMENT:</b> 09/30/24	<b>AMOUNT THIS AMENDMENT:</b>	\$	97,260.65
	<b>REVISED CONTRACT AMOUNT:</b>	\$	690,172.49

**CONTRACT AMENDMENT**

**WHEREAS,** DISTRICT and CONSULTANT have entered into the Contract referenced above; and

**WHEREAS,** additional Scope of Work is being added to the contract for preparation of the revised documents; and

**WHEREAS,** DISTRICT and CONSULTANT agree to increase the contract for the additional services; and

**WHEREAS,** DISTRICT and CONSULTANT have agreed to the above modifications.

**NOW, THEREFORE,** it is agreed as follows:

**CHANGE:** **ARTICLE 2–SCOPE OF SERVICES**

**FROM:** “CONSULTANT agrees to provide Detailed Risk Analysis and Mapping for the Project for the DISTRICT as described in EXHIBIT “B” - SCOPE OF SERVICES (8 pages) and in EXHIBIT “D” – MAPPING ACTIVITY STATEMENT (42 pages), attached to this Contract.”

**TO:** “CONSULTANT agrees to provide Detailed Risk Analysis and Mapping for the Project for the DISTRICT as described in EXHIBIT “B” – SCOPE OF SERVICES (8 pages), **EXHIBIT “B-1”: SCOPE OF SERVICES (4 Pages)** and in EXHIBIT “D” – MAPPING ACTIVITY STATEMENT (42 pages), attached to this Contract.”

**CHANGE:** **ARTICLE 3 – COMPENSATION AND PAYMENT**

**FROM:** “In consideration of the services specified in this Contract, DISTRICT agrees to pay CONSULTANT Not to Exceed Five Hundred Ninety-Two Thousand Nine Hundred Eleven Dollars and Eight-Four Cents (\$592,911.84). CONSULTANT’S fees will be as stated in EXHIBIT “C” – CONSULTANT FEE PROPOSAL (Revised 9/21/2020”), attached to this Contract.”

**TO:** “In consideration of the services specified in this Contract, DISTRICT agrees to pay CONSULTANT Not to Exceed **Six Hundred Ninety Thousand, One Hundred Seventy-Two Dollars and Forty-Nine Cents (\$690,172.49)**. CONSULTANT’S fees will be as stated in EXHIBIT “C” – CONSULTANT FEE PROPOSAL (Revised 05/23/2024) (**7 pages**), attached to this Contract.”

All other provisions of the Contract, not specifically changed by this Amendment, shall remain in effect and be binding upon the Parties.


IN WITNESS THEREOF, the Parties have affixed their signatures to this Amendment on the dates written below.

APPROVED:

\_\_\_\_\_  
Chair, Board of Directors

\_\_\_\_\_  
Date

CONSULTANT:

  
\_\_\_\_\_  
Signature

Jonathan Elslager, Vice President  
\_\_\_\_\_  
Name and Title (Please Print)

6/14/2024  
\_\_\_\_\_  
Date

ATTEST

\_\_\_\_\_  
Clerk of the Board

\_\_\_\_\_  
Date

This contract template has been approved as to form by the Pima County Attorney's Office.



May 13, 2024

Eleonora Demaria, Ph.D., CFM  
Chief Hydrologist  
Pima County Regional Flood Control District  
Em. [Eleonora.Demaria@pima.gov](mailto:Eleonora.Demaria@pima.gov)  
Ph. 520-724-4600

**RE: SCOPE AND FEE MODIFICATION FOR Brawley and Black Wash Detailed Risk Analysis and Mapping – Pima County Contract CT-FC-21-117 Amendment 4, Modification Request #1 (MOD#1 & Pending Amendment #5)**

Dear Ms. Demaria:

Please find included herein is JE Fuller's scope and fee modification request to continue providing Engineering services to develop Flood Risk Data and redefine the Special Flood Hazard Areas for the Altar, Black, Blanco, Brawley, East Branch Brawley, Los Robles and West Robles Washes.

Thank you for giving JE Fuller the opportunity to continue providing Pima County Regional Flood Control District Professional services for this project.

Should you have any questions or require any additional information regarding this matter, please feel free to contact JE Fuller at your earliest convenience.

Respectfully,  
JE Fuller Hydrology & Geomorphology, Inc.

A handwritten signature in blue ink, appearing to read 'J. Elslager', is placed above the printed name of Jonathan Elslager.

Jonathan Elslager, PE, CFM  
Project Manager/ Sr. Engineer  
Vice-President



**Scope of Professional Engineering Services and Fee Proposal**  
**(Request Modification #1, Contract CT-FC-21-117,**  
**Pending Amendment #5 -**  
**Period of Services Ending 9/30/2024)**

**Background:**

The Brawley and Black Wash Detailed Risk Analysis and Mapping Project is part of a Cooperative Technical Partnership (CTP) grant between the Federal Emergency Managing Agency (FEMA) and the Pima County Regional Flood Control District (District). This Scope of Services is in addition to the Scope of Services found in the attached Mapping Activity Statement (MAS, Exhibit B) specific to this project found in sections 1.1.2 through 1.1.2.8 (MAS pages 5-10).

The purpose of this project is to develop Flood Risk Data and redefine the Special Flood Hazard Areas for the Altar, Black, Blanco, Brawley, East Branch Brawley, Los Robles and West Robles Washes as show on Flood Insurance Rate Maps (FIRMs) panels 04019C 1005, 1010, 1015, 1020, 1040, 1605, 1610, 1615, 1620, 1650, 2225, 2240, 2245, 2250, 2805, and 2810.

The Floodplains to be re-mapped are Altar, Black, Blanco, Brawley, East Branch Brawley, Los Robles and West Robles Washes.

**Prior Requests:**

In October of 2020, near the beginning of the project, PCRFCFCD issued a contract amendment deducting roughly 11.6% (-\$6,973.16) of the contract and locked the contract rates for the duration of the contract.

In December 2022, JE Fuller notified PCRFCFCD that the original fee estimates per task needed to be reallocated to account for some tasks requiring more effort than originally anticipated and some tasks requiring less. The resulting recommendations were as follows and performance on those recommendations are provided below. Notably, the Project Management time has exceeded the anticipated budget and the project as a whole is down to less than 10% of the original contract value. Due to the length of contract remaining, sequencing of information being requested from FEMA and the potential for additional efforts during the comment resolution phase of this project necessitated the need for a re-evaluation of the total contract value.

Contract CT-FC-21-117		12/20/2022 – Email to Terry Hedricks	As of JE Fuller Invoice 36 & CMG Invoice #15 - 11/28/2023		
Task Name	Original Budget Amount (\$)	2022 Recommended Budget Amount	Budget Invoiced (\$)	CV Remaining per original allocation	CV Remaining per 2022 allocations
Project Management - 03	\$43,868.96	\$43,868.96	\$46,064.97	<b>-\$2,196.01</b>	<b>-\$2,196.01</b>
Base Map Data Capture - 01	\$23,509.30	\$23,191.10	\$23,191.10	\$318.20	\$0.00
Hydraulic Data Capture - 01	\$265,231.58	\$265,231.58	\$264,711.70	\$519.88	\$519.88
Floodplain Mapping Data Capture - 01	\$83,920.16	\$105,657.36	\$93,221.62	<b>-\$9,301.46</b>	\$12,435.74
Flood Risk Products Data Capture - 01	\$116,897.44	\$116,897.44	\$109,733.83	\$7,163.61	\$7,163.61
DFIRM Data Capture - 01	\$24,196.16	\$24,196.16	\$7,380.44	\$16,815.72	\$16,815.72
Acquisition of Topo Data - 01	\$35,288.24	\$13,869.24	\$13,868.83	\$21,419.41	\$0.41
<b>TOTALS</b>	<b>\$592,911.84</b>	<b>\$592,911.84</b>	<b>\$558,172.49</b>	<b>\$34,739.35</b>	<b>\$34,739.35</b>

### **Purpose of Modification:**

The original fee and scope of work which is being completed on a Time and Materials Basis has seen four contract amendments extending contract time without commensurate increases in contract limits or rates. To this date JE Fuller and our subconsultants have been efficiently able to complete additional services that were not originally envisioned during the scoping process. However, at this point, the additional contract period and various unanticipated requests have necessitated modification to the contract at this time. The following tasks were affected:

1. Project Management time due to contract extensions.
2. Hydrology and Hydraulics for Zero Depth Floodplain delineation (extracting hydrograph at interfaces and removing rain-on-grid) required an extra full simulation set for all 7-Avra Valley domains.
3. Floodplain Mapping for Zero Depth Floodplain delineations required additional simulations and delineations for the zero-depth lines and required those delineations be rectified by the traditional delineations completed for the project of the rain-on-grid modeling.

The purpose of this Modification to the Scope of Services will be to ensure the continued high level of support that JE Fuller and its subconsultants have provided to help ensure successful completion of the mapping project by compensating for additionally provided services not originally scoped within the study task and to account for the additional contract periods of services:



### **Modification Request:**

**FEES** for the aforementioned Additional Professional Services, shall be completed and invoiced on a time-and-materials basis. The total not-to-exceed **Contract CT-FC-21-117** value is requested as **\$690,172.49** (\$592,911.84 Original CV through Amendment 1, plus \$97,260.65 Requested MOD#1). A detailed breakdown of JE Fuller’s fee estimate is below:

<b>Task</b>	<b>Item Description</b>	<b>Estimated fee *</b>
<b>JE Fuller</b>		
Project Management - 03	Project Management	\$8,000.00
Hydraulic Data Capture - 01	Avra Valley FLO-2D Revisions	\$5,000.00
Floodplain Mapping Data Capture - 01	Floodplain Mapping Revisions	\$34,000.00
Flood Risk Products Data Capture - 01	Depth and Velocity Grid Data from updated simulations	\$10,000.00
DFIRM Data Capture - 01	DFIRM Data from updated simulations	\$18,000.00
<b>JE Fuller MOD#1 Total</b>		<b>\$75,000.00</b>
<b>CMG Drainage</b>		
Project Management - 03	Project Management	\$2,000.00
Hydraulic Data Capture - 01	Altar Wash HEC-RAS 1D Model Revisions	\$43,000.00
	Sierra Black FLO-2D	\$6,000.00
Floodplain Mapping Data Capture - 01	Altar Wash Floodplain Mapping Revisions	\$6,000.00
<b>CMG MOD#1 Total</b>		<b>\$57,000.00</b>
<b>SUBTOTAL – ESTIMATE TO COMPLETE</b>		<b>\$132,000.00</b>
<b>CONTRACT REMAINING (Currently Under Contract)</b>		<b>\$34,739.35</b>
<b>GRAND TOTAL CHANGE REQUEST MOD #1</b>		<b>\$97,260.65</b>
<b>Total CV Change (Contract CT-FC-21-117):</b>		
\$592,911.84 (Original, Amendment 1) →		<b>\$690,172.49 (MOD#1)</b>

**\*Assumptions:**

1. The estimated fee is for efforts from Nov. 21, 2023 moving forward (does not include efforts before Nov. 21, 2023).
2. The estimated fee assumes that there are no changes to the HMS hydrology modeling based on the updates to the 2019 Stantec Modeling. If the hydrology changes, additional fee might be needed.
3. The estimated fee assumes two round submittals: (1) address the FEMA comments dated Oct 4, 2023; and (2) address another round of FEMA comments (i.e. comments dated 3/19/2024).

*NOTE: Additional or follow-up services not covered herein will require an additional fee, which would be negotiated separately. All exclusions as presented in the original scope of services still apply.*





**EXHIBIT "C"" - CONSULTANT FEE PROPOSAL (Revised  
5/23/2024) (7 PAGES)**

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Brawley and Black Wash  
Detailed Risk Analysis and Mapping

Fee Estimate

Prepared by JE Fuller/Hydrology & Geomorphology

05/23/2024

PROJ: Pima County Regional Flood Control District/Brawley and Black Wash Detailed Risk Analysis and Mapping

DETAIL: Fee Estimate DATE: 5/23/2024

			Labor Hours by Task # and Title							
			1	2	3	4	5	6	7	8
Firm	Staff	Rate	Project Management	Acquisition and Development of Topographic Data	Prepare Base Map	Develop Hydrologic Data	Develop Hydraulic Data	Development of Non-Regulatory Products	Perform Floodplain Mapping	Develop DFIRM Database
JE Fuller	PP	\$161.99	80			30	90	48	40	
	PM	\$152.19	80	30		33	40	24	24	
	ME	\$142.35								
	SE	\$132.56	96	59	70	120	180	240	240	80
	PE	\$127.65			74	200	180	240	120	
	MS	\$127.65		30						
	JE/EIT	\$112.89				160	132	120	40	
	CADD/GIS	\$98.18						120		120
	MTR	\$98.18				0				
	Env Plnr	\$98.18	0							
	Admin	\$103.10				8				
CMG Drainage	PP	\$150	40			30	48		48	
	PM	\$135	80			30	48		48	
	SPE/H	\$120				259	240		240	
	PE/H	\$104		40		260	240		240	4
	DSN	\$91		32	16			140	80	
	CADD	\$78			32			140	80	20
	Admin	\$57				3		12		
Putt Land Survey				\$12,000						
Total CMG Labor by Task			\$16,800.00	\$7,072.00	\$3,952.00	\$66,841.00	\$67,440.00	\$24,344.00	\$80,960.00	\$1,976.00
Total JEF Labor by Task			\$37,860.16	\$16,216.24	\$18,725.30	\$70,206.37	\$82,405.98	\$99,206.88	\$61,780.16	\$22,386.40
Total Labor by Task			\$54,660.16	\$35,288.24	\$22,677.30	\$137,047.37	\$149,845.98	\$123,550.88	\$142,740.16	\$24,362.40
check zero -			0	0	0	0	0	0	0	0
<b>PROJECT TOTAL</b>			<b>\$690,172.49</b>							

Overlapping/Concurrent Tasks

Pima County SFQ-PO-2000015  
Brawley and Black Wash  
Detailed Risk Analysis and Mapping

**JE Fuller Labor Rates**

Prepared by JE Fuller/Hydrology & Geomorphology  
September 21, 2020



Pima County Regional Flood Control District					9/21/2020
Brawley and Black Wash Detailed Risk Analysis and Mapping					
JE Fuller Billing Rates					

Pima County SFQ-PO-2000015  
Brawley and Black Wash  
Detailed Risk Analysis and Mapping

## **CMG Drainage Engineering Labor Rates**

Prepared by JE Fuller/Hydrology & Geomorphology  
August 6, 2020



3555 N. Mountain Ave. • Tucson, AZ 85719 • phone: (520) 882-4244 • fax: (520) 888-1421

**CMG DRAINAGE ENGINEERING, INC.**  
**Hourly Billing Rates**  
**July 22, 2020**

**Project: Brawley/Black Wash Detailed Risk Analysis & Mapping**

Item No.	Discipline	A	B	C	D
		Direct Labor Rate	Overhead	Profit	Billing Rate
1	Project Principal	\$61.19	\$77.70	\$11.11	\$150.00
2	Project Manager	\$55.07	\$69.93	\$10.00	\$135.00
3	Sr. Project Engineer / Hydrologist	\$48.95	\$62.16	\$8.89	\$120.00
4	Project Engineer / Hydrologist	\$42.42	\$53.87	\$7.70	\$104.00
5	Designer	\$37.12	\$47.14	\$6.74	\$91.00
6	CADD Technician	\$31.82	\$40.41	\$5.78	\$78.00
7	Clerical / Administration	\$23.25	\$29.53	\$4.22	\$57.00

**Formulas:**

- (A) Direct Labor Rate
- (B) Overhead @ 127% x (A)
- (C) Profit @ 8% x (A + B)
- (D) Billing Rate (A + B + C)

**Direct Costs**

Document/Plan Reproduction	Rate
Outside Vendor Printing & Reproduction Services	At Cost
In-House Printing & Photo Copies 8-1/2" x 11"	\$0.15/Sheet
In-House Printing & Photo Copies 11" x 17"	\$0.30/Sheet

End of Exhibit "C"