

**AMENDMENT NO. 1 TO
PROFESSIONAL SERVICES AGREEMENT
BETWEEN MONTEREY COUNTY WATER RESOURCES AGENCY AND
MCMILLEN, INC.**

THIS AMENDMENT NO. 1 to the Professional Services Agreement between the Monterey County Water Resources Agency, a political subdivision of the State of California (hereinafter, "Agency") and McMillen, Inc. (hereinafter, "CONTRACTOR") is hereby entered into between the Agency and the CONTRACTOR (collectively, the Agency and CONTRACTOR are referred to as the "Parties").

WHEREAS, CONTRACTOR entered into an Agreement for Services with the Agency on December 5, 2024 (hereinafter, "Agreement");

WHEREAS, the Parties wish to amend the Agreement with a dollar increase of \$35,980 for a total contract amount not to exceed \$1,480,980 to continue providing services identified in the agreement;

NOW, THEREFORE, the Parties agree to amend the Agreement as follows:

1. Amend Section 3, "Payment to CONTRACTOR; maximum liability" to read as follows:

Payments to CONTRACTOR; maximum liability. Subject to the limitations set forth herein, Agency shall pay CONTRACTOR in accordance with the fee schedule set forth in Exhibit B. The maximum amount payable to CONTRACTOR under this contract is **One million four hundred eighty thousand nine hundred and eighty dollars (\$1,480,980).**

Original Agreement	\$ 1,445,000
Amendment No. 1	\$ 35,980
Total	\$ 1,480,980

2. All other terms and conditions of the Agreement remain unchanged and in full force.
3. This Amendment No. 1 shall be attached to the Agreement and incorporated therein as if fully set forth in the Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment No. 1 to the Agreement as of the day and year written below:

**MONTEREY COUNTY WATER
RESOURCES AGENCY**

By: _____

CONTRACTOR: McMillen, Inc.

By: _____

Amendment No. 1 McMillen, Inc.
SA Spillway 2024

Ara Azhderian
General Manager

Executive Vice President

Date: _____

Date: _____

**Approved as to Form and Legality
Office of the County Counsel**

By: _____
Assistant County Counsel

Date: _____

By: _____
Corporate Secretary

Date: _____

Approved as to Fiscal Provisions

By: _____
Auditor-Controller

Date: _____

By: _____
Administrative Analyst

Date: _____

Approved as to Indemnity, Insurance Provisions

By: _____
Risk Management

Date: _____

*INSTRUCTIONS: IF CONTRACTOR is a corporation, including limited liability and non-profit corporations, the full legal name of the corporation shall be set forth above together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth above together with the signature of a partner who has authority to execute this Agreement on behalf of the partnership. IF CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of the business, if any, and shall personally sign the Agreement.

Contract Modification Order

To:	Elise Harden, PE Monterey County Water Resources Agency	Project:	25-001
From:	Jodi Burns	cc:	
Date:	February 24, 2025	Modification No.	001
Subject:	San Antonio Spillway Replacement Project Contract Modification No. 01 - PMF update		

In accordance with Article 11 of the Consultant Agreement Project ID: McMillen San Antonio 2024 dated November 1, 2024 ("Agreement") between McMillen, Inc. ("ENGINEER") and Monterey County Water Resources Agency ("Agency"), this Modification Order modifies the Agreement as follows:

Change in Consulting Services:

The change in consulting services is presented in Attachment A. The changes presented in Attachment A only affect Tasks 3 Hydrologic & Hydraulic Analysis. Task 4 will be closed to billing as the funds from Task 4 will be transferred to cover Task 3 as outlined in Attachment A.

Change in ENGINEER's Compensation:

The initial contract amount was \$1,445,000. For tracking purpose, the original budget was modified as follows:

- Initial Contract executed November 1, 2024: This contract included Tasks 1 through 11. The initial contract amount was \$1,445,000.
- Modification No. 01: The scope of work for Task 3 was updated to revise the PMF per DSOD's comments as outlined in Attachment A. However, this modification includes utilizing and transferring task budgets as outlined below:
 - The initial contract Task 3 budget of \$13,380 will be used to cover the new scope of work under Modification No. 01.

- The initial contract Task 4 budget of \$35,190 will be transferred to Task 3 to cover the new scope of work under Modification No. 01. Task 4 will be closed for charging after the initiation of Modification No. 01.
- Task 3 budget will be increased by \$85,5500 to cover the additional scope of work as outlined in Attachment A.

Additional scope was added to the initial contract as a result of Modification No. 01 and after utilizing the initial Task 3 contract value and the transfer of funds from the initial Task 4 contract value, an additional fee of \$35,980 is requested.

For Modification 001 and upon acceptance of this Modification Order, an additional fee of **\$35,980** will be charged as part of this contract modification. This modifies the total contract amount from **\$1,445,000** to **\$1,480,980**.

All other terms and conditions remain unchanged.

AGENCY

Signature

Name (Printed or Typed)

Date**ENGINEER**

Signature

Name (Printed or Typed)

Date

Attachment A. Proposal - Updated Task 3 Scope of Work

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February 24, 2025

Attn: Elise Harden, P.E.
Monterey County Water Resources Agency
Salinas, CA

Subject: San Antonio Dam Spillway Replacement Project
Re: Contract Modification No. 01 - PMF update

Dear Ms. Harden,

McMillen, Inc. (McMillen) appreciates the opportunity to continue to support to Monterey County Water Resources Agency (MCWRA) at the San Antonio Dam Spillway Replacement Project (Project). The California Division of Safety of Dams (DSOD) indicated in a letter dated December 2024 that “the use of the 1961 Bechtel unit hydrograph is no longer an acceptable method for modeling the San Antonio Hydrologic basin response.” As per our discussions with MCWRA in the virtual meetings January 14, 2025, and February 11, 2025, an update of the probable maximum flood (PMF) analyses based on available precipitation and streamflow data for the site is required to advance the Project. We have developed the following scope of work (SOW) and budget for your review for the PMF update and associated engineering support of the Project.

PROJECT APPROACH

McMillen’s Project approach is identified in the following tasks and activities. The project approach was defined based on FERC’s Engineering Guidelines for the Evaluation of Hydropower Projects – Determination of the Probable Maximum Flood and the latest guidance from the USACE on estimating the PMF using hydrologic modeling. The Tasks will be completed under existing task, Task 3: Hydrologic & Hydraulic Analysis, as subtasks in the order described below.

- Task 3.1 – Project Management
- Task 3.2 – Data Acquisition
- Task 3.3 – Hydrologic Model Setup and Calibration
- Task 3.4 – Determination of the PMF

- Task 3.5 – Documentation

Each task described below provides the anticipated deliverables and the assumptions used for each task.

TASK 3.1: PROJECT MANAGEMENT

Jodi Burns will continue to serve as the Project Manager for the duration of the Project and will provide management and oversight of all in-house team members. Her responsibilities will include contracting, monitoring budgets and schedules, and ensuring the work performed is within the contract scope, schedule, and budget. Jodi will also perform required general project management tasks such as meeting coordination, meeting minutes, quality control, and reporting.

Marcelo Cerucci, Lead Hydrology and Hydraulics Engineer, who has supervised previous hydrologic analyses on the Project and is familiar with the issues associated with the Project will perform the work and stamp the documents. Engineer-in-training Patrick Galaska will provide technical support for the project.

All documents will be reviewed internally, and comments will be incorporated before submitting to MCWRA. Review by the QA/QC team will be required for all technical documents. As part of the overall quality control process, our Project Manager will identify those team members who are qualified and available to complete reviews of each of the identified deliverables.

DELIVERABLES

- No deliverables for this subtask

ASSUMPTIONS

- Active Project work duration is anticipated to be four months.
- All project meetings will be held using virtual meeting platforms.

TASK 3.2: DATA ACQUISITION

Data for the PMF update consists of information from previous studies, continuous precipitation records, climatologic data, continuous streamflow gage data, watershed physical properties such as land cover and soil types, data on San Antonio Reservoir levels and operations. McMillen will conduct a search on various databases such as National Oceanic and Atmospheric Administration (NOAA), Natural Resources Conservation Service (NRCS) and U.S. Geological Survey (USGS) to gather the information necessary for the PMF update. McMillen

will request reservoir operation records and levels to MCWRA. The data will be evaluated and processed to create accurate input parameters for hydrologic modeling.

DELIVERABLES

- No deliverables for this subtask

ASSUMPTIONS

- The focus of the weather data search will be the last 30 years (Since 1995).
- USGS will provide hourly or 15-minute streamflow data for gage 11149900 (San Antonio River near Lockwood CA) upon request.
- Hourly or sub-hourly precipitation data is available for the site. Preference will be given to gridded precipitation data if available.
- MCWRA will provide reservoir operation data such as daily outflows, reservoir levels and spills.

TASK 3.3: HYDROLOGIC MODEL SETUP AND CALIBRATION

This task will generally encompass the development and calibration of the hydrologic model (HEC-HMS) as described in the USACE guidance documentation for PMF estimates. The simulation of the hydrologic basin response and development of the unit hydrograph will follow the approach recommended by FERC for gaged basins described in Section 8 of the Engineering Guidelines for the Evaluation of Hydropower Projects. McMillen will use the data gathered in Task 2 to set up and calibrate the HEC-HMS model.

The model will have at least 1 basin with maximum 10 subbasins. The number of subbasins will be selected during the calibration process. Preferably, the Clark Unit hydrograph will be used as the precipitation-runoff transform method. McMillen will calculate initial values of the time of concentration (Tc) and storage coefficient (R). These parameters will be calibrated to provide unit hydrographs for each subbasin (or basin) that yields an optimized fit to at least two recorded flood hydrographs. Alternatively, due to the possible large number of subbasins, other transform methods, such as the SCS dimensionless synthetic unit hydrograph, which require only lag times, may be selected if result in an acceptable representation of watershed hydrologic response. The Muskingum-Cunge method will be used for channel routing. The baseflow will be calculated by the model using recession coefficients or flow separation methods. The model will be calibrated primarily with hourly or sub-hourly streamflow records from USGS gage 11149900 (San Antonio River near Lockwood CA). The calibration events will be selected as a function of rainfall intensity and data quality.

DELIVERABLES

- Virtual meeting with DSOD and presentation about PMF approach, data input and preliminary calibration results.

ASSUMPTIONS

- Model calibration performed for 2 events.
- Calibration events will be selected as a function of storm intensity and data availability.
- McMillen will incorporate potential comments from DSOD about model calibration prior to PMF development and documentation.

TASK 3.4: DETERMINATION OF THE PMF

The PMF will be determined using the calibrated unit hydrograph. The adjusted 72-hour PMP depths and temporal distribution calculated by McMillen and presented to DSOD in the PMF Update Technical Memorandum, submitted in November of 2023, will be used for the analysis. Only the general storm will be evaluated. Sensitivity analysis will be performed on the centering of the PMP and temporal distribution.

DELIVERABLES

- No deliverables for this subtask

ASSUMPTIONS

- The PMF will be developed for the chosen spillway geometry presented in the alternative analysis documentation prepared by McMillen.

TASK 3.5: DOCUMENTATION

This task will encompass PMF Report. The report will contain a detailed description of methods and data used for the analysis. The results of the model calibration and the PMF inflow hydrograph predicted by the model will be shown using tables and figures in the report.

DELIVERABLES

- Draft PMF Report (WORD and PDF format).
- Final PMF Report (PDF format).

ASSUMPTIONS

- McMillen will address one round comments from MCWRA.

- MCWRA review time is two weeks.
- McMillen will address one round comments from DSOD.
- DSOD review time is three months.

SCHEDULE

The work for this project has begun on the previously established contract. Table 1 provides project milestones and deliverable dates for the SOW in this proposal. McMillen assumed notice to proceed is February 03, 2025.

Table 1. Project Schedule

Milestone	Timeframe
Notice to proceed	03/03/2025
Task 2 – Data Acquisition	03/03/2025 – 03/17/2025
Task 3 – Hydrologic Model Setup and Calibration	03/17/2025 - 04/17/2025
Task 4 - PMF Development	04/17/2025-05/01/2025
Task 5 - Documentation	05/01/2025-05/28/2025*

*Excludes DSOD review time

BUDGET

McMillen proposes using the Task 3 Budget of \$13,380 and transfer of Task 4 Budget of \$35,190, for a total budget available of \$48,570 to help cover the out-of-scope PMF update requested by DSOD. The estimated budget to do the work contained in this SOW on a time and materials basis with a non-to-exceed amount of \$84,550.00. A summary of the proposed budget is presented in Table 2.

Table 2. Project Budget

Task	Description	Budget
Task 3	Task 3 Budget	\$13,380
Task 4	Task 4 Budget transfer to Task 3	\$35,190
	Total	\$48,570
3.1	Project Management	\$1,480.00
3.2	Data Acquisition	\$13,070.00
3.3	Hydrologic Model Setup and Calibration	\$36,090.00
3.4	PMF Development	\$14,130.00
3.5	Documentation	\$19,780.00
	Total	\$84,550.00
	Additional Budget Request to Cover Task 3.0	\$35,980

CONCLUSION

We appreciate the opportunity to provide MCWRA with a detailed SOW, budget, and schedule for our continued support for the San Antonio Spillway Replacement Project. If you have any questions or need additional information, please contact Jodi Burns at burns@mcmullen.com. We look forward to serving Camas and HWPUD on this Project.

Sincerely,



Jodi Burns

Senior Managing Engineer - Civil Discipline Lead

burns@mcmullen.com | (806) 341-4166 (cell)

Appendix A. Budget

Staff	J. Burns (PM/QC)	M. Cerucci (Sr. H&H)	P. Galaska (H&H EIT)	S. Klawiteter (H&H)	Z. Ulhumann (GIS)	(Adm.)	Hours					Total Expenses	TOTAL			
	Rates	\$ 265	\$ 265	\$ 145	\$ 200			\$ 105	Hours	Total Labor	Airfare	Fees	Hotel / Car	Meals		
Task 3 Budget														\$ 13,380		
Task 4 Budget Transfer to Task 3														\$ 35,190		
3.1 Project Management	4	-	-	-	-	4	8	\$ 1,480	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,480		
Project management	4					4	8	\$ 1,480						\$ 1,480		
3.2 Data Aquisition	2	12	56	4	4	-	78	\$ 13,070	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,070		
Data gathering	2	4	16	2	4		28	\$ 4,750						\$ 4,750		
Data analysis and processing		8	40	2			50	\$ 8,320						\$ 8,320		
3.3 Hydrologic Model Setup and Calibration	2	60	108	20	-	-	190	\$ 36,090	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 36,090		
Model setup		16	20	8			44	\$ 8,740						\$ 8,740		
Model calibration		40	80	8			128	\$ 23,800						\$ 23,800		
DSOD meeting	2	4	8	4			18	\$ 3,550						\$ 3,550		
3.4 PMF Development	2	16	48	12	-	-	78	\$ 14,130	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 14,130		
PMF development	2	8	24	8			42	\$ 7,730						\$ 7,730		
Sensitivity analysis		8	24	4												
3.5 Documentation	4	24	48	12	12	16	116	\$ 19,780	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,780		
Draft Report	2	16	40	8	8	16	90	\$ 14,730						\$ 14,730		
Final Report	2	8	8	4	4	26	5,050							\$ 5,050		
Total Hours	14	112	260	48	16	20	470									
Total Budget for Updated Task 3 SOW	\$ 3,710.00	\$ 29,680.00	\$ 37,700.00	\$ 9,600.00	\$ 1,760.00	\$ 2,100.00		\$ 84,550.00						\$ 84,550		