

ATTACHMENT 4

AMENDMENT No. 1

to

Agreement for Professional Services
between

Monterey County Water Resources Agency and AECOM Technical Services, Inc.

The undersigned parties hereby agree to amend that certain Agreement for Professional Services between the Monterey County Water Resources Agency (hereinafter "Agency") and AECOM Technical Services, Inc., (hereinafter "CONTRACTOR") executed and effective on May 26, 2015 (hereinafter "Agreement").

Section 3 of the Agreement is hereby amended to read as follows:

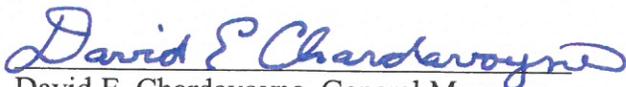
3. Payment to CONTRACTOR; maximum liability. Subject to the limitations set forth herein, Agency shall pay to CONTRACTOR the amounts shown below;

Amount	Description
\$49,450.00	For work completed and/or in progress pursuant Exhibit A - Scope of Work, payable pursuant Exhibit B - Payment Provisions.
\$11,968.16	For work completed pursuant Exhibit J - Scope of Work, payable pursuant Exhibit K - Payment Provisions, of Amendment No. 4 to the Agreement for Professional Services effective July 2, 2010.
\$61,418.16	Total maximum amount payable to CONTRACTOR under this contract.

All other provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, Agency and CONTRACTOR have caused this Amendment No. 1 to be executed as follows:

MONTEREY COUNTY
WATER RESOURCES AGENCY


David E. Chardavoyne, General Manager

DATED: 15 March 2015

AECOM TECHNICAL SERVICES, INC.

By 
(signature)

ERIK E. ZAGOL VICE PRESIDENT
(print name and title)*

DATED: 2/16/16

By 
(signature)

AECOM WORKS / VP
(print name and title)*

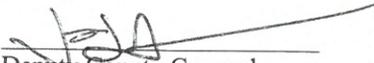
DATED: 2/11/16

* INSTRUCTIONS: If CONTRACTOR is a corporation (including limited liability and nonprofit corporations), the full legal name of the corporation shall be set forth together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth together with the signature of a partner with 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 his or her business, if any, and shall personally sign the Agreement.

**AECOM Technical Services, Inc.
Amendment No. 1**

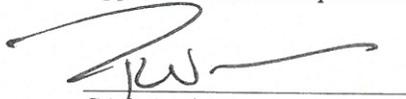
* * * * *

Approved as to form:

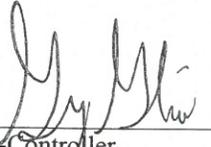

Deputy County Counsel

DATED: 3/8/16

Approved as to fiscal provisions:


CAO Analyst

DATED: 3-13-14


Auditor-Controller

DATED: 3-8-16

AMENDMENT No. 2

to

**Agreement for Professional Services
between**

Monterey County Water Resources Agency and AECOM Technical Services, Inc.

The undersigned parties hereby agree to amend that certain Agreement for Professional Services between the Monterey County Water Resources Agency (hereinafter "Agency") and AECOM Technical Services, Inc., (hereinafter "CONTRACTOR") executed and effective on May 26, 2015 and amended on January 25, 2016 (hereinafter "Agreement").

Section 1 of the Agreement is hereby amended to read as follows:

1. Employment of CONTRACTOR. Agency hereby engages CONTRACTOR and CONTRACTOR hereby agrees to perform the services set forth in Exhibits A and C in conformity with the terms of this Agreement.

(a) The work to be performed is generally described as follows:

Dam safety surveillance and performance evaluation of San Antonio Dam.

- (b) The CONTRACTOR shall perform its services under this agreement in accordance with usual and customary care and with generally accepted practices in effect at the time the services are rendered. The CONTRACTOR and its agents and employees performing work hereunder are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required by this Agreement.
- (c) CONTRACTOR, its agents and employees shall perform all work in a safe and skillful manner and in compliance with all applicable laws and regulations. All work performed under this Agreement that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.
- (d) CONTRACTOR shall furnish, at its own expense, all materials and equipment necessary to carry out the terms of this Agreement, except as otherwise provided herein. CONTRACTOR shall not use Agency premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations hereunder.
- (e) Agency hereby engages CONTRACTOR and CONTRACTOR hereby agrees to perform the services set forth in Exhibits A, B, C and D in conformity with the terms of this Agreement. CONTRACTOR shall manage and pay for the work of all subCONTRACTORS as required to proceed forward with the work set forth in Exhibits A and C.

Section 2 of the Agreement is hereby amended to read as follows:

2. Term of Agreement. The term of this Agreement shall begin upon execution of this Agreement by CONTRACTOR and Agency, and will terminate on **June 30, 2017** unless earlier terminated as provided herein.

Section 3 of the Agreement is hereby amended to read as follows:

3. Payment to CONTRACTOR; maximum liability. Subject to the limitations set forth herein, Agency shall pay to CONTRACTOR the amounts provided in Exhibits B and D for work completed and/or in progress pursuant this Agreement, summarized below:

Original Agreement	\$49,450 for FY 2015-2016
Amendment No. 1	----- No cost associated with Amendment No. 1.
<u>Amendment No. 2</u>	<u>\$50,164 for FY 2016-2017</u>
Not to exceed total:	<u>\$99,614</u>

The maximum amount payable to CONTRACTOR under this Agreement as amended by Amendment Nos. 1 and 2, is \$99,614.

Section 27 of the Agreement is hereby amended to read as follows:

27. Notices. Notices required under this Agreement shall be delivered personally or by electronic facsimile, or by first class or certified mail with postage prepaid. Notice shall be deemed effective upon personal delivery or facsimile transmission, or on the third day after deposit with the U.S. Postal Service. CONTRACTOR shall give Agency prompt notice of any change of address. Unless otherwise changed according to these notice provisions, notices shall be addressed as follows:

TO AGENCY

Name: Manuel Saavedra
Address: P.O. Box 930
Salinas, CA 93902
Telephone: (831) 755-4860
Fax: (831) 424-7935
E-Mail: saavedram@co.monterey.ca.us

TO CONTRACTOR

Name: **Stanley H. Kline**
Address: **1333 Broadway, Suite 800**
Oakland, CA 94612
Telephone: **(510) 893-3600**
Fax: **(510) 874-3268**
E-Mail: **stan.kline@aecom.com**

Section 31 of the Agreement is hereby amended to read as follows:

31. Exhibits. The following Exhibits are attached hereto and incorporated by reference:

- Exhibit A** - Scope of Work and Work Schedule (original Agreement)
- Exhibit B** - Payment Provisions (original Agreement)
- Exhibit C** - Scope of Work and Work Schedule (Amendment No. 2)
- Exhibit D** - Payment Provisions (Amendment No. 2)

All other provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, Agency and CONTRACTOR have caused this Amendment No. 2 to be executed as follows:

MONTEREY COUNTY
WATER RESOURCES AGENCY

AECOM TECHNICAL SERVICES, INC.

David E. Chardavoyne
David E. Chardavoyne, General Manager

By [Signature]
(signature)

DATED: 11 July 2016

ERIC E. ZAGOL VICE PRESIDENT
(print name and title)*

DATED: JUNE 27, 2016

By [Signature]
(signature)

NOEL WONGER VICE PRESIDENT
(print name and title)*

DATED: 6/28/16

* INSTRUCTIONS: If CONTRACTOR is a corporation (including limited liability and nonprofit corporations), the full legal name of the corporation shall be set forth together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth together with the signature of a partner with 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 his or her business, if any, and shall personally sign the Agreement.

AECOM Technical Services, Inc.
Amendment No. 2

* * * * *

Approved as to form:

[Signature]
Deputy County Counsel

DATED: 7/5/16

Approved as to fiscal provisions:

[Signature]
CAO Analyst

DATED: 7-13-16

[Signature]
Auditor-Controller

DATED: 7-6-16

EXHIBIT C AMENDMENT No. 2

Scope of Work and Work Schedule San Antonio Dam Surveillance and Performance Evaluation

Introduction:

AECOM Technical Services, Inc., (Contractor) shall provide the following Scope of Work related to dam surveillance and performance evaluation of San Antonio Dam, for the period of July 1, 2015 through June 30, 2020. The Agency intends to renew this Agreement annually for up to five years, beginning July 1, 2015, dependent upon satisfactory completion of each year's Scope of Work, and the continuation of Mr. Stanley Kline as the project engineer/manager.

Tasks to Be Performed:

Task 1 - Annual Inspection

Provide on-site inspection of San Antonio Dam at a time to be scheduled by the Agency. The inspection will include, at a minimum, examination of the instrumentation, relief wells, drains, embankment slopes, dam crest, and spillway for visible signs of failure, distress, erosion, or maintenance needs, and observation of operating mechanisms, including but not limited to valves, gates, drains, and safety devices for signs of malfunction or wear.

Deliverables: Contractor will provide field notes to the Agency after inspection is completed and any appropriate recommendations. One inspection per year.

Task 2 - Piezometer / Drain Data Review

Review and evaluate bi-monthly data from approximately 85 piezometers, 34 drains, and 10 relief wells. Data will be collected and provided to the Contractor by the Agency supplied in electronic spreadsheet format. This review includes comparison of current monitoring data with past data during periods of similar reservoir conditions and against original design assumptions and criteria, as appropriate, to check for development of significant trends or changes in the data. Contractor is to make recommendations for corrective action if required. Up to six (6) data sets will be provided to Contractor per year.

Deliverables: Contractor will provide the Agency a brief summary of data review conclusions and any appropriate recommendations, promptly upon each periodic review, and prior to development of the surveillance and performance evaluation report.

Task 3 - Survey Data Review

Review and evaluate annual dam, spillway, and outlet tunnel survey displacement data supplied by the Agency. Include a comparison of current monitoring data with past data during periods of similar reservoir conditions and against original design assumptions and criteria, as appropriate, to check for development of significant trends or changes in the data. Contractor is to make recommendations for corrective action if required.

Deliverables: Contractor will provide an executive summary of data review conclusions and any appropriate recommendations upon review, and incorporate review and conclusions into the surveillance and performance evaluation report.

Task 4 - Instrumentation Data Plots

Generate piezometer and drain flow data plots, and survey displacement data plots from data provided by the Agency. The Contractor shall organize and format the plots for ease of interpretation. The plots will include data for the past ten (10) years. The plots will be generated annually.

Deliverables: Included in Task 5 deliverables.

Task 5 - Reporting

Prepare an annual dam surveillance and performance evaluation report (report) for Agency submittal to DSOD. The report will include evaluation of the current annual piezometer, drain, and survey monitoring data with comparison to historic data and trends; documentation of the field inspection; conclusions regarding the current condition of the dam, appurtenant facilities, and instrumentation; and applicable recommendations for repair, maintenance, or adjustments to the instrumentation and surveillance program. The report will be submitted initially as a draft; after receiving and incorporating Agency comments, the report will be presented in final form.

Deliverables:

- Upon Agency request, send via e-mail copies of all draft reports to Agency Project Manager and Agency Chief of Operations and Maintenance to be followed by four (4)-draft hard copy of all reports.
- Five (5) bound copies of the final report and one (1) bound final report with wet signature and engineer's stamp totaling six (6) bound final reports.

- One (1) unbound master copy of the final report with original signature and engineer's stamp.
- Copies of final reports in Adobe® Portable Document Format (.PDF) on Compact Disc (CD).
- Electronic data shall be readable using Microsoft® Word, Excel, Project, and plan sets in AutoCAD by Autodesk®. ESRI ArcGIS® and AutoCAD, images to be imported in a document are to be provided at 300 dpi.
- Digital photos shall be 2048 x 1536 pixels at 72 pixels per inch or better, and delivered in .PDF, .TIFF or .JPEG formats.

Task 6 - Meetings

The Contractor will allow for additional meetings as required, in addition to the site inspection, with the Agency and/or DSOD. Such meetings are in addition to Task 1.

Deliverables: Allow for two (2) meetings per year.

Task 7 - On-Call Response

The Contractor shall be available on a time and expense basis in the event of a natural disaster or other threat to San Antonio Dam, or other unexpected urgent situation or unusual operating condition regarding the safety or integrity of the dam. The Contractor, in the event of such situation, would be expected to inspect the dam within 24 hours, or provide detailed monitoring data review and evaluation as applicable, consult with the Agency as needed, and prepare written recommendations for the continued safe operation of the structure. This task would be funded on an as-needed basis.

Deliverables: Allow for one on-site inspection and inspection report per year, or equivalent data review and evaluation effort.

Task 7.1 - Earthquake Event Data Review

When requested by Agency in the event of a significant earthquake, piezometer, drain, and other data will be collected on a more frequent basis, perhaps daily or weekly. These additional data will need to be evaluated and incorporated in the surveillance and performance evaluation report. The evaluation may be requested at the time immediately after data collection for such event.

Deliverables: Allow for up to 12 datasets to be evaluated and presented in the surveillance and performance evaluation report.

EXHIBIT D AMENDMENT No. 2

Payment Provisions

San Antonio Dam Surveillance and Performance Evaluation

PAYMENT:

For the Scope of Work defined in Exhibit C, Agency shall pay Contractor on a time and expense basis an amount not to exceed \$50,164. Payable costs shall be the sum of direct labor costs, other direct costs and sub-consultant mark-up as defined below. If Contractor time and expense costs necessary to complete the Scope of Work defined in Exhibit C are less than \$50,164, the Agency enjoys the savings. If Contractor requires time and expense to complete the Scope of Work defined in Exhibit C are over and above \$50,164, the maximum amount payable to Contractor remains \$50,164. Budget detail is shown on page 3.

Direct Labor Costs: Are the hourly billing rate, per the Direct Labor Rate Schedule herein, times the number of hours worked by the personnel.

Other Direct Costs: are identifiable costs necessarily incurred by Contractor to complete the Scope of Work defined in Exhibit C. Other Direct Costs include, but are not limited to, travel and subsistence expenses, document reproduction costs, and postal costs. Other Direct Costs shall be accounted for in each invoice by submittal of receipts for such costs and description of their necessity. Contractor is entitled to mark-up their Other Direct Costs by a multiplier of 1.10 (10%). Automobile mileage will be reimbursable at the IRS approved rate.

Sub-Contractor Mark-up: is the percentage multiplier designated for each sub-Contractor times the sum of sub-Contractor direct labor and other direct charges. All sub-Contractor mark-up multipliers shall not exceed 1.10 (10% mark-up).

DIRECT LABOR RATE SCHEDULE:

The Direct Labor Rate Schedule herein shall be valid for a twelve-month period, beginning July 1, 2016. The hourly billing rate schedule and other direct costs chargeable to the project may be modified as agreed by Agency and Contractor after said period of time. The parties shall agree to such modifications in writing as an Amendment to the Agreement.

Professional and Technical Staff	Rate/Hour
----------------------------------	-----------

Doug Yadon, Principal.....	\$200.00
Stanley Kline, PM/PE	\$198.00
John Paxton, Dam Engineer	\$180.00
John Roadifer, Dam Engineer	\$210.00
Rick Dulin, Dam Engineer	\$195.00
Dave Simpson, Geologist.....	\$195.00
Lloyd Pound, Engineering/CADD	\$148.00
Kevin Lee, CADD.....	\$113.00
Production Support	\$100.00
Administration Support.....	\$85.00

Project-related expenses are charged as follows:

1. Travel-related expenses (hotels, rental vehicles, parking, etc.): cost plus 10 percent.
2. Subcontractors (drilling, trenching, surveying, laboratory testing, etc.): cost plus 10 percent.
3. Project direct expenses for reprographics, aerial photos, publications, overnight shipping, project-expendable materials and supplies, and rental equipment and instrumentation: cost plus 10 percent.
4. Mileage: Per U.S. government rates.

INVOICES:

Invoices may be submitted monthly. Invoices shall include the direct labor costs by individual and task, showing the individual’s hours charged, hourly rate and total amount charged to each task. Other direct charges shall be added to the sum of the direct labor costs by task. Other Direct Charges shall be accounted for in each invoice by submittal of receipts for such costs and description of their necessity. Percent of task completion shall be included on each invoice.

NOTIFICATION:

When, during performance of the work, Contractor incurs 75 percent of the total Task cost allotted to a Task, Contractor shall so notify the Agency to that effect. If Consultant has reason to believe that the costs which it expects to incur to finish the Task, when added to the costs previously incurred, will exceed the total Task cost Contractor shall so notify the Agency to that effect. The notice shall state: (1) the estimated amount of additional funds required to complete the Task; (2) justification for the need for additional funds; and (3) the estimated date Contractor expects its total costs incurred to meet the total Task cost.

BUDGET DETAIL:

		Rate:	\$200.00	\$198.00	\$148.00	\$100.00	\$85.00			
Task No.	Task Description	Principal (Doug Yadon)	PM/PE (Stanley Kline)	Eng. CADD (Lloyd Pound)	Prod. Support	Admin. Support	Subtotal Manhours	Expenses	Task Cost Estimate	
1	Annual Inspection	0	10	0	0	0	10	\$200	\$2,180	
2	Piezometer / Drain Data Review	0	40	0	0	0	40	\$0	\$7,920	
3	Survey Data Review	0	16	0	0	0	16	\$0	\$3,168	
4	Instrumentation Data Plots	0	32	16	0	0	48	\$0	\$8,704	
5	Reporting	4	50	16	16	10	96	\$500	\$16,018	
6	Meetings	0	12	0	0	0	12	\$150	\$2,526	
7	On-Call Response	0	22	0	0	4	26	\$200	\$4,896	
7.1	Earthquake Event Data Review	0	24	0	0	0	24	\$0	\$4,752	
Total:		4	206	32	16	14	272	\$1,050	\$50,164	

AMENDMENT No. 3
to
Agreement for Professional Services
between
Monterey County Water Resources Agency and AECOM Technical Services, Inc.

The undersigned parties hereby agree to amend that certain Agreement for Professional Services between the Monterey County Water Resources Agency (hereinafter "Agency") and AECOM Technical Services, Inc., (hereinafter "CONTRACTOR") executed and effective on May 26, 2015 and amended on January 25, 2016 and on June 27, 2016 (hereinafter "Agreement").

Section 1 of the Agreement is hereby amended to read as follows:

1. Employment of CONTRACTOR. Agency hereby engages CONTRACTOR and CONTRACTOR hereby agrees to perform the services set forth in Exhibits A, C and E in conformity with the terms of this Agreement.

- (a) The work to be performed is generally described as follows:

Dam safety surveillance and performance evaluation of San Antonio Dam.

- (b) The CONTRACTOR shall perform its services under this agreement in accordance with usual and customary care and with generally accepted practices in effect at the time the services are rendered. The CONTRACTOR and its agents and employees performing work hereunder are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required by this Agreement.
 - (c) CONTRACTOR, its agents and employees shall perform all work in a safe and skillful manner and in compliance with all applicable laws and regulations. All work performed under this Agreement that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.
 - (d) CONTRACTOR shall furnish, at its own expense, all materials and equipment necessary to carry out the terms of this Agreement, except as otherwise provided herein. CONTRACTOR shall not use Agency premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations hereunder.
 - (e) Agency hereby engages CONTRACTOR and CONTRACTOR hereby agrees to perform the services set forth in Exhibits A, B, C, D, E and F in conformity with the terms of this Agreement. CONTRACTOR shall manage and pay for the work of all subCONTRACTORS as required to proceed forward with the work set forth in Exhibits A, C and E.

Section 2 of the Agreement is hereby amended to read as follows:

2. Term of Agreement. The term of this Agreement shall begin upon execution of this Agreement by CONTRACTOR and Agency, and will terminate on **June 30, 2018** unless earlier terminated as provided herein.

Section 3 of the Agreement is hereby amended to read as follows:

3. Payment to CONTRACTOR; maximum liability. Subject to the limitations set forth herein, Agency shall pay to CONTRACTOR the amounts provided in Exhibits B, D and F for work completed and/or in progress pursuant this Agreement, summarized below:

Original Agreement	\$49,450 for FY 2015-2016
Amendment No. 1	----- No cost associated with Amendment No.1.
Amendment No. 2	\$50,164 for FY 2016-2017
<u>Amendment No. 3</u>	<u>\$50,150 for FY 2017-2018</u>
Not to exceed total:	<u>\$149,764</u>

The maximum amount payable to CONTRACTOR under this Agreement as amended by Amendment Nos. 1, 2 and 3 is \$149,764.

Section 27 of the Agreement is hereby amended to read as follows:

27. Notices. Notices required under this Agreement shall be delivered personally or by electronic facsimile, or by first class or certified mail with postage prepaid. Notice shall be deemed effective upon personal delivery or facsimile transmission, or on the third day after deposit with the U.S. Postal Service. CONTRACTOR shall give Agency prompt notice of any change of address. Unless otherwise changed according to these notice provisions, notices shall be addressed as follows:

TO AGENCY

Name: Manuel Saavedra
Address: 1441 Schilling Place -North
Building Salinas, CA 93901
Telephone: (831) 755-4860
Fax: (831) 424-7935
E-Mail: saavedram@co.monterey.ca.us

TO CONTRACTOR

Name: Stanley H. Kline
Address: 300 Lakeside Dr., Suite 400
Oakland, CA 94612
Telephone: (510) 893-3600
Fax: (510) 874-3268
E-Mail: stan.kline@aecom.com

Section 31 of the Agreement is hereby amended to read as follows:

31. Exhibits. The following Exhibits are attached hereto and incorporated by reference:

- Exhibit A** - Scope of Work and Work Schedule (original Agreement)
- Exhibit B** - Payment Provisions (original Agreement)
- Exhibit C** - Scope of Work and Work Schedule (Amendment No. 2)
- Exhibit D** - Payment Provisions (Amendment No. 2)
- Exhibit E** - Scope of Work and Work Schedule (Amendment No. 3)
- Exhibit F** - Payment Provisions (Amendment No. 3)

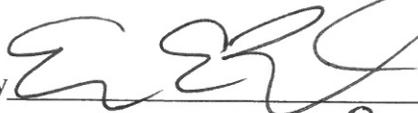
All other provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, Agency and CONTRACTOR have caused this Amendment No. 3 to be executed as follows:

**MONTEREY COUNTY
WATER RESOURCES AGENCY**

AECOM TECHNICAL SERVICES, INC.

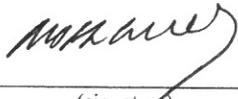
David E. Chardavoyne, General Manager

By 
(signature)

DATED: _____

ERIC E ZANOL VICE PRESIDENT
(print name and title)*

DATED: 8/7/17

By 
(signature)

NOEL WONG, VICE PRESIDENT
(print name and title)*

DATED: 8/7/17

* INSTRUCTIONS: If CONTRACTOR is a corporation (including limited liability and nonprofit corporations), the full legal name of the corporation shall be set forth together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth together with the signature of a partner with 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 his or her business, if any, and shall personally sign the Agreement.

**AECOM Technical Services, Inc.
Amendment No. 3**

* * * * *

Approved as to form:

Approved as to fiscal provisions:

Deputy County Counsel

CAO Analyst

DATED: _____

DATED: _____

Auditor-Controller

DATED: _____

EXHIBIT E AMENDMENT No. 3

Scope of Work and Work Schedule San Antonio Dam Surveillance and Performance Evaluation

Introduction:

AECOM Technical Services, Inc., (Contractor) shall provide the following Scope of Work related to dam surveillance and performance evaluation of San Antonio Dam, for the period of July 1, 2015 through June 30, 2020. The Agency intends to renew this Agreement annually for up to five years, beginning July 1, 2015, dependent upon satisfactory completion of each year's Scope of Work, and the continuation of Mr. Stanley Kline as the project engineer/manager.

Tasks to Be Performed:

Task 1 - Annual Inspection

Provide on-site inspection of San Antonio Dam at a time to be scheduled by the Agency. The inspection will include, at a minimum, examination of the instrumentation, relief wells, drains, embankment slopes, dam crest, and spillway for visible signs of failure, distress, erosion, or maintenance needs, and observation of operating mechanisms, including but not limited to valves, gates, drains, and safety devices for signs of malfunction or wear.

Deliverables: Contractor will provide field notes to the Agency after inspection is completed and any appropriate recommendations. One inspection per year.

Task 2 - Piezometer / Drain Data Review

Review and evaluate bi-monthly data from approximately 85 piezometers, 34 drains, and 10 relief wells. Data will be collected and provided to the Contractor by the Agency supplied in electronic spreadsheet format. This review includes comparison of current monitoring data with past data during periods of similar reservoir conditions and against original design assumptions and criteria, as appropriate, to check for development of significant trends or changes in the data. Contractor is to make recommendations for corrective action if required. Up to six (6) data sets will be provided to Contractor per year.

Deliverables: Contractor will provide the Agency a brief summary of data review conclusions and any appropriate recommendations, promptly upon each periodic review, and prior to development of the surveillance and performance evaluation report.

Task 3 - Survey Data Review

Review and evaluate annual dam, spillway, and outlet tunnel survey displacement data supplied by the Agency. Include a comparison of current monitoring data with past data during periods of similar reservoir conditions and against original design assumptions and criteria, as appropriate, to check for development of significant trends or changes in the data. Contractor is to make recommendations for corrective action if required.

Deliverables: Contractor will provide an executive summary of data review conclusions and any appropriate recommendations upon review, and incorporate review and conclusions into the surveillance and performance evaluation report.

Task 4 - Instrumentation Data Plots

Generate piezometer and drain flow data plots, and survey displacement data plots from data provided by the Agency. The Contractor shall organize and format the plots for ease of interpretation. The plots will include data for the past ten (10) years. The plots will be generated annually.

Deliverables: Included in Task 5 deliverables.

Task 5 - Reporting

Prepare an annual dam surveillance and performance evaluation report (report) for Agency submittal to DSOD. The report will include evaluation of the current annual piezometer, drain, and survey monitoring data with comparison to historic data and trends; documentation of the field inspection; conclusions regarding the current condition of the dam, appurtenant facilities, and instrumentation; and applicable recommendations for repair, maintenance, or adjustments to the instrumentation and surveillance program. The report will be submitted initially as a draft; after receiving and incorporating Agency comments, the report will be presented in final form.

Deliverables:

- Upon Agency request, send via e-mail copies of draft reports to Agency's Project Manager and Deputy General Manager of Operations and Maintenance, to be followed by three (3) hard copy draft reports.
- Five (5) bound copies of the final report and one (1) bound final report with wet signature and engineer's stamp, totaling six (6) bound final reports.

- One (1) unbound master copy of the final report with original signature and engineer's stamp.
- Copies of final reports in Adobe® Portable Document Format (.PDF) on Compact Disc (CD).
- Electronic data shall be readable using Microsoft® Word, Excel, Project, and plan sets in AutoCAD by Autodesk®, ESRI ArcGIS® and AutoCAD, images to be imported in a document are to be provided at 300 dpi.
- Digital photos shall be 2048 x 1536 pixels at 72 pixels per inch or better, and delivered in .PDF, .TIFF or .JPEG formats.

Task 6 - Meetings

The Contractor will allow for additional meetings as required, in addition to the site inspection, with the Agency and/or DSOD. Such meetings are in addition to Task 1.

Deliverables: Allow for two (2) meetings per year.

Task 7 - On-Call Response

The Contractor shall be available on a time and expense basis in the event of a natural disaster or other threat to San Antonio Dam, or other unexpected urgent situation or unusual operating condition regarding the safety or integrity of the dam. The Contractor, in the event of such situation, would be expected to inspect the dam within 24 hours, or provide detailed monitoring data review and evaluation as applicable, consult with the Agency as needed, and prepare written recommendations for the continued safe operation of the structure. This task would be funded on an as-needed basis.

Deliverables: Allow for one on-site inspection and inspection report per year, or equivalent data review and evaluation effort.

Task 7.1 - Earthquake Event Data Review

When requested by Agency in the event of a significant earthquake, piezometer, drain, and other data will be collected on a more frequent basis, perhaps daily or weekly. These additional data will need to be evaluated and incorporated in the surveillance and performance evaluation report. The evaluation may be requested at the time immediately after data collection for such event.

Deliverables: Allow for up to 12 datasets to be evaluated and presented in the surveillance and performance evaluation report.

EXHIBIT F AMENDMENT No. 3

Payment Provisions

San Antonio Dam Surveillance and Performance Evaluation

PAYMENT:

For the Scope of Work defined in Exhibit E, Agency shall pay Contractor on a time and expense basis an amount not to exceed \$50,150. Payable costs shall be the sum of direct labor costs, other direct costs and sub-consultant mark-up as defined below. If Contractor time and expense costs necessary to complete the Scope of Work defined in Exhibit E are less than \$50,150, the Agency enjoys the savings. If Contractor requires time and expense to complete the Scope of Work defined in Exhibit E are over and above \$50,150, the maximum amount payable to Contractor remains \$50,150. Budget detail is shown on page 3.

Direct Labor Costs: Are the hourly billing rate, per the Direct Labor Rate Schedule herein, times the number of hours worked by the personnel.

Other Direct Costs: are identifiable costs necessarily incurred by Contractor to complete the Scope of Work defined in Exhibit E. Other Direct Costs include, but are not limited to, travel and subsistence expenses, document reproduction costs, and postal costs. Other Direct Costs shall be accounted for in each invoice by submittal of receipts for such costs and description of their necessity. Contractor is entitled to mark-up their Other Direct Costs by a multiplier of 1.10 (10%). Automobile mileage will be reimbursable at the IRS approved rate.

Sub-Contractor Mark-up: is the percentage multiplier designated for each sub-Contractor times the sum of sub-Contractor direct labor and other direct charges. All sub-Contractor mark-up multipliers shall not exceed 1.10 (10% mark-up).

DIRECT LABOR RATE SCHEDULE:

The Direct Labor Rate Schedule herein shall be valid for a twelve-month period, beginning July 1, 2017. The hourly billing rate schedule and other direct costs chargeable to the project may be modified as agreed by Agency and Contractor after said period of time. The parties shall agree to such modifications in writing as an Amendment to the Agreement.

Professional and Technical Staff Rate/Hour

Doug Yadon, Principal.....	\$210.00
Stanley Kline, PM/PE	\$200.00
John Paxton, Dam Engineer	\$185.00
John Roadifer, Dam Engineer.....	\$215.00
Rick Dulin, Dam Engineer	\$200.00
Dave Simpson, Geologist.....	\$200.00
Lloyd Pound, Engineering/CADD	\$150.00
Kevin Lee, CADD.....	\$115.00
Production Support	\$105.00
Administration Support.....	\$90.00

Project-related expenses are charged as follows:

1. Travel-related expenses (hotels, rental vehicles, parking, etc.): cost plus 10 percent.
2. Subcontractors (drilling, trenching, surveying, laboratory testing, etc.): cost plus 10 percent.
3. Project direct expenses for reprographics, aerial photos, publications, overnight shipping, project-expendable materials and supplies, and rental equipment and instrumentation: cost plus 10 percent.
4. Mileage: Per U.S. government rates.

INVOICES:

Invoices may be submitted monthly. Invoices shall include the direct labor costs by individual and task, showing the individual's hours charged, hourly rate and total amount charged to each task. Other direct charges shall be added to the sum of the direct labor costs by task. Other Direct Charges shall be accounted for in each invoice by submittal of receipts for such costs and description of their necessity. Percent of task completion shall be included on each invoice.

NOTIFICATION:

When, during performance of the work, Contractor incurs 75 percent of the total Task cost allotted to a Task, Contractor shall so notify the Agency to that effect. If Consultant has reason to believe that the costs which it expects to incur to finish the Task, when added to the costs previously incurred, will exceed the total Task cost Contractor shall so notify the Agency to that effect. The notice shall state: (1) the estimated amount of additional funds required to complete the Task; (2) justification for the need for additional funds; and (3) the estimated date Contractor expects its total costs incurred to meet the total Task cost.

BUDGET DETAIL:

		Rate:	\$210.00	\$200.00	\$150.00	\$105.00	\$90.00			
Task No.	Task Description	Principal (Doug Yadon)	PM/PE (Stanley Kline)	Eng. CADD (Lloyd Pound)	Prod. Support	Admin. Support	Subtotal Manhours	Expenses	Task Cost Estimate	
1	Annual Inspection	0	10	0	0	0	10	\$200	\$2,200	
2	Piezometer / Drain Data Review	0	40	0	0	0	40	\$0	\$8,000	
3	Survey Data Review	0	16	0	0	0	16	\$0	\$3,200	
4	Instrumentation Data Plots	0	32	16	0	0	48	\$0	\$8,800	
5	Reporting	4	50	16	16	8	94	\$400	\$16,040	
6	Meetings	0	10	0	0	0	10	\$150	\$2,150	
7	On-Call Response	0	22	0	0	4	26	\$200	\$4,960	
7.1	Earthquake Event Data Review	0	24	0	0	0	24	\$0	\$4,800	
Total:		4	204	32	16	12	268	\$950	\$50,150	