

MODIFICATION NUMBER 1 TO CONTRACT AE20-049

Contract Title: Investigation of Detention Dams and Debris Basins Update

This modification ("MODIFICATION NO. 1") is made and entered into by and between the Watershed Protection District, hereinafter referred to as AGENCY, and GEI Consultants, Inc., hereinafter referred to as CONSULTANT.

WHEREAS, there now exists a binding contract between AGENCY and CONSULTANT originally dated 8/31/2020 for the CONSULTANT to provide condition assessment of the AGENCY's dams by performing initial review of existing information, initial site visits to the facilities and an initial evaluation of which facilities should be classified as dams for a total contract amount of \$198,620.00 and a contract completion date of 3/31/2021 ("CONTRACT"); and

WHEREAS it has become necessary to complete the review of available information and perform a risk assessment of the facilities and a prioritization of the mitigation and retrofit measures necessary to bring the facilities into compliance with the AGENCY's criteria and industry standards; and

WHEREAS, AGENCY and CONSULTANT desire to modify the terms of said existing CONTRACT;

NOW THEREFORE, the parties hereto agree as follows:

1. All provisions of the original contract dated 8/31/2020 shall remain in full force and effect unless expressly modified by this modification.
2. Exhibit A (Scope of Work and Services) shall be modified as follows:
Revise Exhibit A, Modification No. 1; Attached.
3. Exhibit B (Time Schedule) shall be modified as follows:
Revise Exhibit B, Modification No. 1; Attached.
4. Exhibit C (Fees and Payment) shall be modified as follows:
Revise Exhibit C, Modification No. 1; Attached.
5. The total contract amount is hereby increased by \$427,850.00 for a new contract total amount of \$626,470.00. The contract completion date is changed from 3/31/2021 to 6/15/2022.

IN WITNESS WHEREOF, THE PARTIES HERETO HAVE EXECUTED THIS MODIFICATION.

FOR CONSULTANT

Name: _____ Date _____

Title: _____

FOR AGENCY:

Name: _____ Date _____
Director of Public Works Agency

EXHIBIT A - SCOPE OF WORK AND SERVICES
(Changes in Bold/Italic)

1. Overview of Services and Project

AGENCY has engaged CONSULTANT to provide the following services, which are more specifically described in the Basic Services section below, to assist AGENCY with the following project:

AGENCY intends to investigate the condition of its detention and debris basin dams and repair, retrofit or decommission facilities as necessary to improve their safety, improve their functionality, and/or reduce their maintenance costs while bringing them into compliance with Agency design and operations criteria.

CONSULTANT shall review and analyze available studies and data pertaining to AGENCY's operated detention dams and debris basins; evaluate their condition and compliance with the AGENCY's design criteria; perform site visits and safety analysis; identify the facilities that need to be repaired, retrofitted or decommissioned; and complete conceptual (10%) designs of the preferred alternatives.

2. Basic Services

The following Basic Services shall be performed by CONSULTANT:

Phase 1

Task 1 – Project Management and Meetings

1.1 Project Management

CONSULTANT shall manage contract scope, schedule and budget. CONSULTANT shall coordinate with the AGENCY throughout the duration of the work.

1.2 Meetings

CONSULTANT shall participate in the following meetings with the AGENCY:

1. Kick-off Meeting – discuss project scope, schedule, and key objectives.
2. Presentation Meeting – CONSULTANT shall attend one remote “on-line” meeting with AGENCY to present the Draft Technical Memorandum.

Task 1 Deliverables

1. Monthly progress report via electronic mail to the AGENCY's Project Manager of progress on the project with schedule updates and anticipated future activity dates as necessary.
2. Meeting agenda prior to each meeting and meeting notes after each meeting.

Task 2 – Initial Review of Existing Information and Initial Site Visits

2.1 Initial Review of Existing Information

CONSULTANT shall perform an initial review of all existing information provided to the CONSULTANT by the AGENCY. CONSULTANT shall provide a listing of categories of information relevant to the project and the AGENCY will provide a bibliography of available information under each category. CONSULTANT shall also provide a table for the AGENCY to populate with key data and information associated with each facility.

2.2 Perform Initial Site Visits

CONSULTANT shall visit 53 debris and detention basin dams in the company of AGENCY staff. These basins are listed in Table 1. The visits will be scheduled in coordination with the AGENCY. CONSULTANT shall develop a Health & Safety Plan for protection of CONSULTANT staff during performance of the site visits and adhere to AGENCY health and safety requirements for the site visits. CONSULTANT shall discuss the historical performance of the facility with AGENCY design and operations staff during the site visit, and document key concerns pointed out by AGENCY staff. CONSULTANT shall document each inspection using digital photographs.

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Table 1 – Detention Dams and Debris Basins

	Basin Name	Number	Year Constructed	State Jurisdictional (Y/N)
Zone 1				
1	Dent Debris Basin	DB1-01	1981	N
2	Live Oak Diversion Dam	DD1-05	2002	N
3	McDonald Canyon Detention Basin	DD1-04	1998	N
4	Stewart Canyon Creek Debris Basin	DB1-02	1963	Y
Zone 2				
5	Adams Barranca Debris Basin	DB2-07	1994	N
6	Arundell Barranca Detention Basin	DD2-06M	1995	Y
7	Cavin Road Debris Basin	DB2-03	1933	N
8	Fagan Canyon Debris Basin	DB2-08	1994	N
9	Jepson Wash Debris Basin	DB2-02	1961	N
10	Pole Creek Debris Basin	DB2-09	2009	N
11	Real Wash Debris Basin	DB2-04	1964	N
12	Warring Canyon Debris Basin	DB2-05	1952	N
Zone 3				
13	Arielle NPDES and Detention Basin	DD3-26	2002	N
14	Canyon No. 2 Debris Basin	DB3-39	2004	N
15	Castro Williams Debris Basin	DB3-06	2004	N
16	Conejo Mtn Creek Detention Basin No. 1	DD3-33	2001	N
17	Conejo Mtn Creek Detention Basin No. 2	DD3-34	2004	N
18	Conejo Mtn Creek Detention Basin No. 3	DD3-35	2004	N
19	Conejo Mtn Creek Detention Basin No. 4	DD3-36	2004	N
20	Conejo Mtn Creek Debris Basin No. 5	DB3-37	2004	N
21	Coyote Canyon Debris Basin	DB3-15	1955	N
22	Covington Detention Basin	DD3-27	1997	N
23	Crestview Debris Basin	DB3-10	1934	N
24	Crosby (Rudolph) Detention Basin	DD3-28	1997	N
25	Edgemore Debris Basin	DB3-11	1955	N
26	Erringer Road Debris Basin	DB3-12	1957	N
27	Erringer Road Detention Basin	DB3-12	1997	N
28	Ferro Debris Basin	DB3-13	1985	Y
29	Fox Barranca Debris Basin	DB3-14	1956	N

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	Basin Name	Number	Year Constructed	State Jurisdictional (Y/N)
30	Gabbert Canyon Debris Basin	DB3-09	1963	N
31	Honda West Debris Basin	DB3-07	1955	N
32	Lang Creek Debris Basin	DB3-31	2004	N
33	Lang Creek Detention Basin	DD3-31	2004	Y
34	Las Lajas Canyon Detention Dam	DD3-20	1980	Y
35	Las Posas Estates Detention Basin	DD3-08M	1992	N
36	Line "C" Arroyo Simi Detention Basin	DD3-30	1997	N
37	Muirfield Detention Basin	DD3-25	2002	N
38	N. Simi Drain Debris Basin	DB3-32	2003	N
39	N. Simi Drain Detention Basin	DD3-32	2004	N
40	Peach Hill Wash Retention Basin	DD3-23	1988	N
41	Ramona Detention Dam	DD3-16M	1992	N
42	Runkle Canyon Detention Basin	DD3-17	1950	Y
43	South Branch Arroyo Conejo Debris Basin	DB3-22	2003	N
44	South Potrero (Dos Vientos) Debris Basin	DB3-24	1995	N
45	South Potrero (Dos Vientos) Detention Basin	DD3-24	1995	N
46	Sycamore Canyon Dam	DD3-21	1981	Y
47	Sycamore Park Detention Basin	DD3-29	1997	N
48	Tapo Hills No. 1 Detention Basin (West)	DD3-18	1971	N
49	Tapo Hills No. 2 Detention Basin (East)	DB3-19	1977	N
50	Walnut Canyon (Basin 0) Detention Basin	DD3-37	2005	N
51	West Camarillo Hills West Branch Debris Basin	DB3-01	1986	N
Zone 4				
52	Bridgegate Debris Basin	DB4-02	2004	N
53	Potrero Creek Sediment Control Basin	DB4-01	2002	N

Task 2 Deliverables

1. Categories of relevant information to be provided by AGENCY
2. Table for the AGENCY to populate with key data.
3. Health & Safety Plan for site visits.
4. Captioned photographs for each site visit, and summary table to document key observations made by CONSULTANT during the initial site visits and AGENCY comments on historical performance of facilities.

Task 3 – Evaluations

3.1 Identify Data Needs

CONSULTANT shall review the key data table populated by the AGENCY and supplement the table as appropriate based on the CONSULTANT's initial review of existing information and observations made during the initial site visits. CONSULTANT shall identify gaps in key data for each facility with a focus on dam safety.

3.2 Evaluation of Dam versus Non-Dam

CONSULTANT shall perform an evaluation to develop an opinion on whether the water retaining structure at each facility should be considered a "dam" or whether it could be considered to be a "non-dam." The definition of what constitutes a "dam" versus a "non-dam" will be determined in coordination with the AGENCY. CONSULTANT shall perform the evaluation based on initial review of existing information, observations made during initial site visits, and engineering judgement. CONSULTANT shall identify additional data needs, if necessary, for completion of the evaluation. CONSULTANT shall classify AGENCY facilities into state-size dams (jurisdictional dams), small dams (non-jurisdictional dams), and "non-dams."

Task 3 Deliverables

1. Updated table of key data for each facility.
2. Table summarizing the status of each facility categorized as state-size dams (jurisdictional dams), small dams (non-jurisdictional dams), and "non-dams."

Task 4 – Draft and Final Technical Memorandum

CONSULTANT shall prepare a Draft Technical Memorandum (TM) to document the initial review of existing information, initial site visits, and evaluations. CONSULTANT shall provide justification for classification of some facilities as being a "non-dam," and include recommendations for further evaluation of each facility. CONSULTANT shall prepare a Draft Final TM to address AGENCY comments on the Draft TM. CONSULTANT shall prepare a Final TM to address one round of AGENCY comments on the Draft Final TM.

Task 4 Deliverables

1. A single searchable PDF electronic file of the Draft TM and Draft Final TM.
2. Five hard copies and a single searchable PDF electronic file of the Final TM.
3. A copy of all TMs, notes, forms, tables, graphics, computations and spreadsheets produced per this contract, in their native file format.

Phase 2

~~Task 5—Detailed Review of Existing Information~~

~~Task 6—Detailed Site Visits~~

~~Task 7—Dam Safety Evaluations~~

~~Task 8—Prioritized List of Dams Requiring Mitigation and Retrofit~~

~~Task 9—Draft and Final Technical Memorandum Phase 2~~

Phase 3

~~Task 10—Additional Evaluations, Investigations, and Analyses~~

~~Task 11—Retrofit Alternatives for Mitigating Deficiencies~~

~~Task 12—Conceptual Designs (10% Designs) of the Preferred Alternatives~~

~~Task 13—Draft and Final Report~~

Phase 2

Task 5 – Project Management and Meetings

5.1 Project Management

CONSULTANT shall manage contract scope, schedule and budget. CONSULTANT shall coordinate with the AGENCY throughout the duration of the work.

5.2 Meetings

CONSULTANT shall participate in the following meetings with the AGENCY:

- 1. Workshop Meeting – One remote “on-line” meeting with AGENCY to present the proposed Prioritization Methodology and solicit input from AGENCY.**
- 2. Presentation Meeting – One remote “on-line” meeting with AGENCY to present the Phase 2 Draft Report.**

Task 5 Deliverables

- 1. Monthly project progress report via electronic mail with schedule updates and anticipated future activity dates as necessary.**
- 2. Meeting agenda prior to each meeting and meeting notes after each meeting.**

Task 6 – Perform Detailed Review of Existing Information and Perform Detailed Site Visits

6.1 Detailed Review of Existing Information

CONSULTANT shall complete review of existing information relevant to the project obtained in Phase 1 and other supplemental existing information that may be collected and provided by the AGENCY in Phase 2. This existing information includes AGENCY standards and criteria, and information on each facility provided by the AGENCY. Develop a categorized bibliography of information reviewed for each debris and detention dam facility. The compilation of the categorized bibliography shall be aimed at providing a handy and efficient reference tool to facilitate all subsequent work on the project and shall allow the AGENCY to see clearly the information that has been received and reviewed by the CONSULTANT and to identify any gaps that may potentially remain in the document review.

6.2 Perform Detailed Site Visits

CONSULTANT shall visit 12 debris and detention basin dams to collect information supplemental to that collected in Phase 1. The facilities to be visited will be determined on the basis of the results of the detailed review of existing information performed in Task 6.1. CONSULTANT shall submit the list for AGENCY review and approval prior to site visits. CONSULTANT shall develop a Health & Safety Plan for protection of CONSULTANT staff during performance of the site visits, and also adhere to AGENCY health and safety requirements for the site visits. CONSULTANT shall document the condition of the visited dam and basin based on visual observations performed on foot, with a focus on dam safety, structural integrity, and functional issues. Each inspection shall be documented using checklists and digital photographs. Observed changes to the facility compared to that shown on original construction documents and subsequent modification/retrofit documents shall also be documented.

CONSULTANT shall observe conditions and collect information on these facilities as indicated below:

- Observe Embankment Conditions. Collect information on embankment related to animal burrows, erosion, depressions or bulges, slides, cracks with displacement, settlement, seepage or wet areas, and excessive vegetation or trees.**
- Observe Outlet/Spillway Conditions. Collect information related to type and condition of outlet structures and spillways; include observations of holes, cracks, displacements, abrasion, and undermining of outlet or spillway.**

- **Observe Basin Conditions.** Collect information on basin conditions that directly relate to and impact dam safety. These may include observations on side slopes of basin and potential for landslides; condition of basin base porosity and potential for connection to pervious foundation zones; and condition of vegetation in basin and resulting potential for blockages of outlet and spillway openings leading to consequent overtopping.
- **Observe Downstream Channel.** Collect information on type of downstream channel, such as whether it is a defined natural channel, undefined channel, concrete lined channel, a secondary detention basin, or a pipe.
- **Observe Downstream Conditions.** Collect qualitative information on type of downstream conditions visually from the dam crest or high vantage point. such as whether there are habitable residential or commercial structures, non-habitable structures such as barns, garages; or parks and public spaces.
- **Verify Key Data Table Information.** Perform a visual, qualitative verification of information in key data table, such as downstream embankment height, upstream embankment height, and dam crest width.

CONSULTANT shall synthesize the information collected from the site visits to arrive at a condition assessment that will be used to catalog dam safety deficiencies and to develop Potential Failure Mode mechanisms to be used in the Risk Categorization process of Task 7 - Dam Safety Evaluations.

Task 6 Deliverables

1. **Categorized bibliography of information reviewed for each debris and detention basin dam facility.**
2. **Health and Safety Plan for site visits.**
3. **Inspection checklists and photographs for each site visit.**
4. **12 summary tables to document key observations made by DSOD during their past inspections of jurisdictional dams, key observations made by CONSULTANT during the detailed site visits, and AGENCY comments on historical performance of facilities. The summary tables shall contain the information necessary to complete the dam safety evaluations in Task 7.**

Task 7 – Dam Safety Evaluations

7.1 Evaluate Compliance with AGENCY Criteria

CONSULTANT shall prepare a table to summarize the status of each facility with respect to compliance with AGENCY current design and operations criteria, DSOD's specific requirements for the AGENCY's jurisdictional dams, and other generally accepted dam safety criteria as appropriate. Applicable requirements from the following documents shall be used as AGENCY criteria:

- **Design Manual, July 1968 (WPD-VCFCDDesign-Manual)**
- **Design Manual, Chapter 1, Facility Design, April 9, 2010 (419_CHAPTER 1 Facilities Design v2)**
- **Hydraulic Design Manual, January 2019 (VCWPD Hydraulic Design Manual-V1)**
- **Design Manual, Chapter 3, Structural Design, April 9, 2010 (419_CHAPTER 3 Structural Design)**
- **Design Hydrology Manual, Updated July 2017 (Hydrology_Manual_2017 Final)**

DSOD requirements shall be based on information contained in DSOD correspondence with the AGENCY, as well as general dam safety guidelines established by DSOD.

CONSULTANT shall classify the various criteria into two to three categories based on relative importance from high to low, such as 1) critical dam safety, 2) operational functionality, and 3) facility maintenance. Compliance of each facility with respect to items under each of the categories selected shall be summarized. The main source of information for evaluating compliance shall be the AGENCY Debris and Detention Basin Manual, as supplemented by other information obtained as part of Phase 1 and Task 6 as appropriate. The source of key data and gaps in existing data with respect to AGENCY design and operations criteria, and other dam safety criteria shall be identified.

7.2 Evaluate Existing Dam Failure Inundation Maps and Studies

CONSULTANT shall perform a quality evaluation of the existing dam failure inundation maps and studies in the AGENCY records. The evaluation will be based primarily on a review of the information contained in the Inundation Analysis Report dated March 2015 and other studies provided by the AGENCY to be supplemented by additional information that may be requested by CONSULTANT to conduct the evaluation. CONSULTANT shall provide a description of the evaluation methodology and the results of the evaluation from the Inundation Analysis Report.

7.3 Perform Risk Categorization Analyses

It is noted that DSOD has notified dam owners that it will in future implement the use of Risk Informed Decision Making (RIDM) methodology in the evaluation of dams across California. CONSULTANT shall develop a simplified risk-informed decision-making tool for use in prioritizing mitigation of dam safety deficiencies. The decision-making tool will result in a screening-level type risk categorization based on likelihood of dam failure and consequences should a failure occur. The objective is to evaluate issues that could lead to dam failure and not issues that could result in component failure without dam failure. CONSULTANT shall obtain input from the AGENCY in development of the decision-making tool by conducting a workshop meeting with AGENCY.

CONSULTANT shall perform a screening-level type failure mode analysis for each dam based on review of existing information and observations made during site visits. The CONSULTANT shall use the observations collected and documents reviewed in Phases 1 and 2 to develop applicable Potential Failure Modes to be used in the risk prioritization process. The evaluation shall be based on the following categories of loading:

- **Static Loadings**
- **Hydrologic Loadings, and**
- **Seismic Loadings**

The evaluations shall generally include the following typical Potential Failure Mode categories for the dams:

- **Stability failure of the dam under various loading conditions**
- **Overtopping causing embankment and/or foundation erosion**
- **Internal erosion of embankment or foundation**
- **Spillway failure under various loading conditions**
- **Outlet failure under various loading conditions**

The Potential Failure Modes will be modified as appropriate based on the specific characteristics of the facilities. Assumptions will be made as needed if the required information is not available or cannot be obtained on site. Qualitative evaluation of the likelihood of occurrence of each failure mode for each dam shall be made based on engineering judgement. The likelihood of failure will be scored in terms of a simplified scale, such as from 1 to 5. Gaps will be identified in information with respect to the ability to evaluate the safety of each dam. Analyses shall be summarized in tabular format.

CONSULTANT shall identify the potential consequences of dam failure in terms of loss of life and property damage using the existing dam failure inundation maps, and by judgement if these maps

are not available. The evaluation of consequences will include the potential for repair or full replacement of the dam. If the available information is not sufficient for this study, CONSULTANT shall provide recommendations for obtaining the required data. CONSULTANT shall score the consequences of failure in terms of a simplified scale, such as from 1 to 5 and summarize the consequences in tabular format. CONSULTANT's simplified screening-level risk assessment shall prioritize the dam portfolio on the basis of relative risk.

CONSULTANT shall optimize its overall effort for this task by limiting the analyses for about 8 of the 48 facilities. These facilities will be those that have no (or very limited) consequences of failure and will be decided by an initial screening of the potential consequences and selecting the eight with the lowest anticipated consequences. CONSULTANT shall perform less rigorous Potential Failure Mode analyses for these 8 facilities since they would likely have a relatively low priority for mitigation.

The results of the risk categorization analysis shall be summarized for the AGENCY's portfolio of dams listed in Tables 1, 2 and 3 of this Contract in tables and charts.

7.4 Identify Priorities for Mitigation

CONSULTANT shall identify dams that require significant retrofitting to mitigate dam safety deficiencies, as well as significant retrofitting to meet AGENCY criteria for functionality of the facility. This identification shall be based on the results of the risk categorization analyses, in conjunction with sound engineering judgement. Dams that could potentially be decommissioned shall be identified. CONSULTANT shall recommend additional site investigations and analyses for development of mitigation alternatives.

7.5 Finalize Dam vs Non-Dam Categorization

CONSULTANT shall finalize the dam vs non-dam categorization performed in Phase 1 by completing the categorization of facilities that were left to be determined. Definitions of nomenclature to be used by AGENCY as criteria for including facilities in its dam portfolio shall be developed. Definitions of dam height and other criteria will be included. The list of facilities characterized as Non-Dams in Phase 1 are listed in Table 2 below and are not included in the Phase 2 work.

Table 2 – Non-Dams Not Included in Phase 2 Study

	Non-Dam Basin Name	Number	Year Constructed	State Jurisdictional (Y/N)
10	Pole Creek Debris Basin	DB2-09	2009	N
23	Crestview Debris Basin	DB3-10	1934	N
14	Canyon No. 2 Debris Basin	DB3-39	2004	N
52	Bridgegate Debris Basin	DB4-02	2004	N
53	Potrero Creek Sediment Control Basin	DB4-01	2002	N

7.6 Dam vs Non-Dam To-Be-Decided Facilities

Once the CONSULTANT finalizes the dam vs non-dam categorization in Task 7.5 for the To-Be-Decided (TBD) facilities that are listed in Table 3 below, the CONSULTANT shall treat the TBD facilities as follows:

- *Remove them from Table 1 and remove them from further study in Phase 2 if they are characterized as Non-Dams.*

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- *Include them in Table 1 and complete Phase 2 Study for these facilities if they are characterized as Small Dams.*

Table 3 – To-Be-Decided (TBD) Facilities in Table 1

	TBD Basin Name	Number	Year Constructed	State Jurisdictional (Y/N)
11	Real Wash Debris Basin	DB2-04	1964	N
30	Gabbert Canyon Debris Basin	DB3-09	1963	N

Task 7 Deliverables

1. *Updated table summarizing the key data collected for the purposes of and used in this study for each facility.*
2. *A table summarizing the status of each facility in Table 1 minus those categorized as non-dams and listed in Table 2 with respect to compliance with AGENCY current design and operations criteria, DSOD requirements, and other generally accepted dam safety criteria.*
3. *Description of risk-based decision-making tool for use in prioritizing mitigation of dam safety deficiencies.*
4. *Tables and charts to summarize the risk categorization analysis.*
5. *Summary of the recommended priorities for mitigation of dam safety deficiencies in tabular format, and a brief narrative to describe the rationale for the recommendations.*
6. *Results of the CONSULTANT's evaluation of the existing dam failure inundation maps and studies including a description of the evaluation methodology used*
7. *Updated Dam vs Non-Dam Categorization Table developed in Phase 1.*

Task 8 – Draft and Final Report

CONSULTANT shall prepare a Draft Report to document the review of existing information, site visits, analyses, and evaluations. The report shall also include a description of the risk-based prioritization tool developed and will contain recommendations for which dams should be retrofitted and which dams could possibly be decommissioned. The report shall contain recommendations for future work required to develop conceptual designs of the retrofits. The report shall contain tables and graphics to portray information in an easy-to-read format. CONSULTANT shall prepare a Draft Final report to address one round of AGENCY comments on the Draft Report. CONSULTANT shall prepare a Final report to address one round of AGENCY comments on the Draft Final Report.

Task 8 Deliverables

4. *A single searchable PDF electronic file of the Draft Report and Draft Final Report.*
5. *Five hard copies and a single searchable PDF electronic file of the Final Report.*
6. *A copy of all photos, reports, notes, forms, tables, graphics, computations, and spreadsheets produced per this contract, in their native file format.*

Phase 3

Task 9 – Project Management and Meetings

Task 10 – Additional Evaluations, Investigations, and Analyses

Task 11 – Retrofit Alternatives for Mitigating Deficiencies

Task 12 – Conceptual Designs (10% Designs) of the Preferred Alternatives

Task 13– Draft and Final Report

3. Extra Services

Extra Services are separate from but related to the Basic Services described above. Extra Services shall be performed by CONSULTANT only after being authorized in writing by the Project Manager for AGENCY. AGENCY's written authorization will include a statement of the Extra Services required and time schedule for completion. CONSULTANT's billing and AGENCY's payment for Extra Services shall occur pursuant to Exhibit C.

4. County Services

AGENCY will provide or accomplish the following:

1. Provide full information as to the requirements of the services to be provided by CONSULTANT under the contract.
2. Provide relevant information on debris and detention basins contained in AGENCY files. Provide a bibliography of information (author, title, date) for each facility categorized by topic area. The existing information in AGENCY files consists of, but is not limited to, the following:
 - AGENCY design standards and performance criteria
 - Site topography and air photos
 - Design reports, drawings, and specifications for original construction
 - Design reports, drawings, and specifications for modifications and retrofits
 - Geotechnical reports for design and construction
 - Deficiency studies
 - Alternatives analyses and conceptual designs of retrofits
 - Flood mitigation and inundation mapping reports
 - Emergency Action Plans (EAPs)
 - Dam safety evaluation reports and safety analyses
 - California Division of Safety of Dams correspondence and inspection reports
 - Operation and Maintenance Manuals
 - Inspection reports and photos
 - Pre and post cleanout surveys
3. Provide electronic copies of California Division of Safety of Dams (DSOD) correspondence files and key technical reports for seven dams under DSOD jurisdiction.
4. Provide key data in tabular format for each facility using a table format provided by the CONSULTANT, and identify the sources of the key data included in the table.
5. Provide AGENCY health and safety plan about performing visits to debris and detention basin sites.
6. Accompany CONSULTANT personnel on visits to each debris and detention basin site to provide access and to convey any site-specific concerns on the facility to CONSULTANT.
7. Review documents submitted by CONSULTANT and provide comments, direction, or approval as needed in a timely manner.

End of Exhibit A

EXHIBIT B - TIME SCHEDULE
(Changes in Bold/Italic)

1. Schedule

All Work on this contract shall be completed by **09/30/2022**.

CONSULTANT shall complete intermediate tasks as follows:

Task Table

Task	Description	Due Date
Phase 1		
1	Project Management and Meetings	2/15/2021
2	Initial Review of Existing Information and Initial Site Visits	11/22/2020
3	Evaluations	12/02/2020
4	Draft and Final Technical Memorandum	2/09/2021
Phase 2		
5	<i>Detailed Review of Existing Information</i>	<i>TBD</i>
6	<i>Detailed Site Visits</i>	<i>TBD</i>
7	<i>Dam Safety Evaluations</i>	<i>TBD</i>
8	<i>Prioritized List of Dams Requiring Mitigation and Retrofit</i>	<i>TBD</i>
9	<i>Draft and Final Technical Memorandum Phase 2</i>	<i>TBD</i>
Phase 3		
10	<i>Additional Evaluations, Investigations, and Analyses</i>	<i>TBD</i>
11	<i>Retrofit Alternatives for Mitigating Deficiencies</i>	<i>TBD</i>
12	<i>Conceptual Designs (10% Designs) of the Preferred Alternatives</i>	<i>TBD</i>
13	<i>Draft and Final Report</i>	<i>TBD</i>
Phase 2		
5	<i>Project Management and Meetings</i>	<i>7/15/2022</i>
6	<i>Perform Detailed Review of Existing Information and Perform Detailed Site Visits</i>	<i>1/14/2022</i>
7	<i>Dam Safety Evaluations</i>	<i>5/13/2022</i>
8	<i>Draft and Final Report</i>	<i>7/15/2022</i>
Phase 3		
9	<i>Project Management and Meetings</i>	<i>TBD</i>
10	<i>Additional Evaluations, Investigations, and Analyses</i>	<i>TBD</i>
11	<i>Retrofit Alternatives for Mitigating Deficiencies</i>	<i>TBD</i>
12	<i>Conceptual Designs (10% Designs) of the Preferred Alternatives</i>	<i>TBD</i>
13	<i>Draft and Final Report</i>	<i>TBD</i>

2. Delays

If Work cannot be completed by the dates specified in Exhibit B through no fault of CONSULTANT, the fee for the Work not then completed may be adjusted to reflect increases in cost which occur, due to delay, from the date that the Work was required to be complete as specified in Exhibit B until the time the Work can actually be completed. Any payment of an additional fee as described in this paragraph must be authorized by AGENCY with a modification to this contract.

End of Exhibit B

EXHIBIT C – Fees and Payments
(Changes in Bold/Italic)

1. Compensation Summary

The following summarizes the maximum amount of compensation available to CONSULTANT under this contract. The actual amount of compensation shall be established and paid in accordance with the applicable provisions of the contract including this Exhibit C.

Maximum Fees for Basic Services:	\$621,470.00
Maximum Fees for Extra Services:	<u>\$5,000.00</u>
Maximum Reimbursement for Expenses:	<u>\$0.00</u>
Total Amount Not to Exceed:	<u>\$626,470.00</u>

2. Fees for Basic Services

AGENCY agrees to pay CONSULTANT the following fees for Basic Services:

☐ an **hourly rate** compensation, for actual hours of Basic Services performed that is based upon the hourly rates set forth in the following Rate Table, which rates shall remain fixed for the duration of the contract, not to exceed the **maximum fee amount of \$_____**. The maximum fees for the respective tasks identified in Exhibit A as well as the total maximum fee amount are shown in the below Task Table. In no case shall a fee for a specific task exceed that listed below without prior written approval by AGENCY. Rates to be charged are identified in the Rate Table listed below.

☒ a **fixed fee** compensation, in the lump sum amount of **\$621,470.00**, for completion of all Basic Services.

Task Table

Task	Description	Lump Sum
Phase 1		
1	Project Management and Meetings	\$18,862.00
2	Initial Review of Existing Information and Initial Site Visits	\$112,346.00
3	Evaluations	\$34,464.00
4	Draft and Final Technical Memorandum	\$27,948.00
<i>Phase 2</i>		
5	<i>Detailed Review of Existing Information</i>	<i>\$0.00</i>
6	<i>Detailed Site Visits</i>	<i>\$0.00</i>
7	<i>Dam Safety Evaluations</i>	<i>\$0.00</i>
8	<i>Prioritized List of Dams Requiring Mitigation and Retrofit</i>	<i>\$0.00</i>
9	<i>Draft and Final Technical Memorandum Phase 2</i>	<i>\$0.00</i>
<i>Phase 3</i>		
10	<i>Additional Evaluations, Investigations, and Analyses</i>	<i>\$0.00</i>
11	<i>Retrofit Alternatives for Mitigating Deficiencies</i>	<i>\$0.00</i>

MODIFICATION NUMBER 1 TO AE20-049

Task	Description	Lump Sum
12	Conceptual Designs (10% Designs) of the Preferred Alternatives	\$0.00
13	Draft and Final Report	\$0.00
Phase 2		
5	Project Management and Meetings	\$25,364
6	Perform Detailed Review of Existing Information and Perform Detailed Site Visits	\$114,496
7	Dam Safety Evaluations	\$191,264
8	Draft and Final Report	\$96,726
Phase 3		
9	Project Management and Meetings	\$0.00
10	Additional Evaluations, Investigations, and Analyses	\$0.00
11	Retrofit Alternatives for Mitigating Deficiencies	\$0.00
12	Conceptual Designs (10% Designs) of the Preferred Alternatives	\$0.00
13	Draft and Final Report	\$0.00
	Total	\$621,470 .00

3. Fees for Extra Services

For Extra Services authorized in writing in advance by AGENCY in accordance with Exhibit A, AGENCY agrees to pay CONSULTANT an **hourly rate** compensation for actual hours of Extra Services performed that is based upon the hourly rates set forth in the Rate Table for Basic Services above or, if none, then based upon the hourly rates set forth in the following Rate Table for Extra Services, which rates shall remain fixed for the duration of the contract, not to exceed the **maximum fee amount of \$5,000.00.**

Rate Table

MODIFICATION NUMBER 1 TO AE20-049

Item	Position	Unit	Regular ¹	Prevailing ²	Travel ³
1	Staff Professional - Grade 1	hour	\$127	n/a	Yes
2	Staff Professional - Grade 2	hour	\$140	n/a	Yes
3	Project Professional - Grade 3	hour	\$153	n/a	Yes
4	Project Professional - Grade 4	hour	\$172	n/a	Yes
5	Senior Professional - Grade 5	hour	\$203	n/a	Yes
6	Senior Professional - Grade 6	hour	\$231	n/a	Yes
7	Senior Professional - Grade 7	hour	\$274	n/a	Yes
8	Senior Consultant - Grade 8	hour	\$307	n/a	Yes
9	Senior Consultant - Grade 9	hour	\$375	n/a	Yes
10	Senior Principal - Grade 10	hour	\$375	n/a	Yes
11	Senior Drafter and Designer	hour	\$153	n/a	Yes
12	Drafter / Designer and Senior Technician	hour	\$140	n/a	Yes
13	Field Professional	hour	\$115	n/a	Yes
14	Technician, Word Processor, Administrative Staff	hour	\$114	n/a	Yes
15	Office Aide	hour	\$89	n/a	Yes

Notes: 1) The Regular rates shown include all routine general and administrative expenses including but not limited to: phone calls, travel within Ventura County (see note 3), incidental photocopying, and office equipment unless otherwise expressly listed in the Rate Table above.

2) The Prevailing rates shown include all routine general and administrative expenses including but not limited to phone calls, travel within Ventura County (see note 3), incidental photocopying, and office equipment unless otherwise expressly listed in the Rate Table above.

3) The word "Yes" in the Travel column above indicates that reimbursement for travel within Ventura County is authorized for the position described by that item.

4. Delays

If Work cannot be completed by the dates specified in Exhibit B through no fault of CONSULTANT, the fees for the Work not then completed may be adjusted to reflect increases in cost which occur, due to delay, from the date that the Work was required to be complete as specified in Exhibit B until the time the Work can actually be completed. Any payment of an additional fee as described in this paragraph must be authorized by AGENCY with a written modification to this contract.

5. Reimbursable Expenses

CONSULTANT shall be reimbursed a sum for the following reasonable out-of-pocket expenses that are incurred and paid for by CONSULTANT in furtherance of performance of its obligations under this contract, but only to the extent that such expenses are directly related to CONSULTANT's services hereunder and do not exceed the **maximum reimbursable amount of \$0.00**:

(i) Outside printing directly related to deliverables but not for internal uses of CONSULTANT or its Subconsultants;

(ii) Reproduction or reprographic costs directly related to deliverables but not for internal uses of CONSULTANT or its Subconsultants. If CONSULTANT provides allowable reprographic services using its own equipment rather than using an outside service, the unit billing rates for such charges must be approved in advance by AGENCY;

(iii) Shipping, overnight mail, postage, messenger, courier and/or delivery services (but not for CONSULTANT's internal communications);

(iv) Only if authorized in writing in advance by AGENCY, reimbursement for business travel for the specific position descriptions so identified in the Rate Tables for Basic Services or Extra Services set forth above. AGENCY shall reimburse CONSULTANT for transportation, lodging, and meal expenses consistent with the policies and amounts approved for County employees as defined by policy number Chapter VII(C)-1, *Reimbursement of Employees County Business Expenses*, in the County's Administrative Policy Manual (latest edition);

(v) Only if authorized in writing in advance by AGENCY, fees and costs for Subconsultant services that are not included in the Rate Tables for Basic Services or Extra Services set forth above.

Exclusive List. The list of reimbursable expenses set forth above is the sole and exclusive list of reimbursable expenses that CONSULTANT is entitled to receive.

Approval Limits. Any reimbursable expense wherein a single item exceeds \$500 in value, whether purchased or leased, must be approved in writing in advance by AGENCY.

No Administrative Charge or Mark-Ups. The reimbursement provided for herein shall not include an administrative charge, multiplier or other mark-up by CONSULTANT unless authorized in writing, in advance, by AGENCY.

No Reimbursement for Specified Basic Services Paid for by a Fixed Fee. Notwithstanding the above, expenses related to Basic Services specified in Exhibit B are not reimbursable if CONSULTANT is compensated for Basic Services by a fixed fee.

6. Payment

AGENCY shall make payments to CONSULTANT under the contract as follows:

Requests for Payment

To request payment, CONSULTANT shall complete and submit to AGENCY a Consultant Services Invoice Form that shall include, at a minimum, (i) personnel time records for Basic Services and Extra Services actually performed at the rates specified in this Exhibit C if applicable and (ii) receipts for all authorized reimbursable expense, along with the written AGENCY authorization for any specific reimbursable expenses requested for payment, if required above.

When invoicing for Extra Services, CONSULTANT shall clearly mark on the Invoice Form which services are Extra Services and keep those services separate from or Basic Services and shall include a copy of the written AGENCY authorization for the Extra Services for which payment is requested. CONSULTANT shall submit all invoices to:

Public Works Agency
County of Ventura L#1670
800 South Victoria Avenue
Ventura, CA 93009-1670

Payment Schedule

Payments shall be made monthly by AGENCY upon presentation of a properly completed AGENCY Invoice Form as described above. Upon approval of the invoice, AGENCY shall pay CONSULTANT 95% of the maximum fee for the specific task/milestone. Upon completion and acceptance by AGENCY of the task/milestone, AGENCY shall pay CONSULTANT the balance of the fee.

Timely Invoicing

Timely invoicing by CONSULTANT is required. Delays in invoicing for services performed increases the management effort required by AGENCY to ensure accurate payments to CONSULTANT and manage project budgets. Accordingly, CONSULTANT shall submit a properly completed invoice no later than 60 calendar days after the services which are the subject of the invoice were performed. An invoice received by AGENCY more than 60 calendar days after the services were performed shall be reduced by 5% to compensate AGENCY for the additional management costs. Additionally, since increases in administrative costs and budgetary problems caused by late invoicing correlate to the length of delay in invoicing, there will be an additional 5% reduction in compensation for each additional 30-calendar-day period beyond 60 days between the date the services were performed and the submission of the invoice for those services.

CONSULTANT shall submit a final invoice form within 60 days of the earliest of the following events: 1) completion and acceptance by AGENCY of all Work required by the contract; or 2) termination of the contract.

End of Exhibit C