



**San Bernardino County Flood Control District El Dorado Fire Area Flood Mitigation Assistance (PWG123-FLOOD-4921)**

Professional Service Fee

Prepared by CWE on 04/19/2023

Task	Total	Principal	Sr. Project Manager	Technical Manager	Senior Engineer	Project Engineer	Staff Engineer	Assistant Engineer	Project Coordinator	Graphic Designer	Mileage
		\$296	\$290	\$241	\$182	\$176	\$142	\$116	\$114	\$130	\$0.655
<b>A Literature Review and Field Investigation</b>											
Literature Review	\$12,640		8				40	40			
Draft Literature Review Technical Memorandum	\$5,222	2	4				12	12	1	2	
Field Investigation	\$18,190		16		40		40				900
Draft Field Investigation Technical Memorandum	\$5,854	2	4		8		16		1	2	
<b>B Hydrologic and Hydraulic Report</b>											
Hydrologic Analyses											
Hydrology Study	\$25,680		8			80		80			
Debris Yield Analysis	\$10,952		4			24		48			
Bulking Factor Analysis	\$580		2								
Draft Hydrologic Technical Memorandum	\$8,550	4	8			16		16	1	2	
Hazard Identification, Risk Assessment, & Mitigation Options/Strategies											
Hazard Identification											
Existing Conditions HEC-RAS Flooding Analysis	\$25,794		8			80		80	1		
Existing Conditions HEC-RAS Debris Flow Analysis	\$25,794		8			80		80	1		
Draft Hazard Identification Memorandum	\$9,920	2	8			24		24			
Risk Assessment											
Evaluate sites for potential alternatives	\$6,992		8			16		16			
Risk level reduction assessment with HEC-RAS	\$26,954		12			80		80	1		
Draft Risk Assessment Technical Memorandum	\$6,424	2	4			16		16			
Mitigation Options/Strategies Feasibility Analysis											
Feasibility Matrix Development	\$7,584	2	8			16		16			
District Review											
Feasibility Analysis and Prioritization	\$28,114		16			80		80	1		
Draft Mitigations Options/Strategies Technical Memorandum	\$7,584	2	8			16		16			
District Review and Recommended Alternative Selection											
Conceptual Design and Preliminary Cost Estimate											
Development of Conceptual Plans	\$28,034		24			40		120	1		
Preliminary Cost Estimate	\$6,960		8					40			
Draft Hydrology and Hydraulics Report	\$10,626	4	8			24		24	1		
Final Hydrology and Hydraulics Report	\$5,370	2	4			12		12	1		
<b>C Community Outreach</b>											
Pre-Study Community Outreach Meeting	\$10,936	4	8	16					4	24	
Summary of Outreach Meeting	\$1,544		2	4							
Post-Analysis Community Outreach on Recommended Alternatives	\$10,936	4	8	16					4	24	
Summary of Outreach Meeting	\$1,544		2	4							
<b>D Project Management</b>											
Kickoff Meeting	\$3,316		4	4	4			4			
Coordination Meetings	\$5,900		12	4	8						
Schedule Updates	\$1,704						12				
Monthly Progress Meetings	\$8,972		12	4	8		12		12		
<b>Total Fee and Hours</b>	<b>\$328,670</b>	<b>30</b>	<b>226</b>	<b>52</b>	<b>68</b>	<b>604</b>	<b>132</b>	<b>804</b>	<b>30</b>	<b>54</b>	<b>900</b>

All Direct Expense Costs are billed at Cost + 10%