Attachment 5

AMENDMENT NO. 2 TO
AGREEMENT FOR PROFESSIONAL SERVICES BETWEEN
MARIN MUNICIPAL WATER DISTRICT and ENVIRONMENTAL SCIENCE ASSOCIATES
(Miscellaneous Agreement No. 5884**)**

This contract amendment ("Second Amendment") is entered into by and between Marin Municipal Water District ("District") and Environmental Science Associates ("ESA" or "Consultant").

For good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the parties hereto agree as follows:

Section 1. Recitals:

A. On September 15, 2020, the Marin Municipal Water District Board of Directors approved a contract with Consultant and authorized the General Manager to execute this contract.

B. District and Consultant entered into an Agreement for Professional Services dated **October 14, 2020** ("Agreement") with a total not to exceed amount of $300,000**.**

C. On April 1, 2022 the Board of Directors approved Amendment No. 1 to the ESA Design Contract to advance Phase I designs to the 100% stage with grant funding secured from the California Department of Fish and Wildlife in the amount of $869,178.

D. At this time, the parties desire to enter into this Second Amendment to the Agreement to extend the contract end date to July 31, 2026, and to increase the budget by $2,079,689 to expand the scope of work to support the Lagunitas Creek Coho Habitat Enhancement Project Construction Support Services and for Final Design Plans and Specs for Phase II as outlined in the Additional Scope of Work at Attachment A to this Amendment No. 2, and in accordance with the Board of Directors approval of this Agreement.

Section 2. Terms:

A. Amendment to Agreement: This Amendment No 2 modifies the Agreement, as previously amended. Except for the modifications contained herein, all the terms of the Agreement shall apply.

B. Terms:

1. Part B, Section 4, entitled "PROSECUTION OF WORK" is amended to read as follows:

The execution of this agreement shall constitute the Consultant's authority to proceed immediately with the performance of this contract. Performance of the services hereunder shall be completed by July 31, 2026, provided, however, that if the performance is delayed by earthquake, flood, high water or other Act of God or by strike, lockout or similar labor disturbance ("Acts"), the time for the Consultant's performance of this contract shall be extended by a number of days equal to the number of days the Consultant has been delayed by such Acts.

C. Scope of Work:

The original Scope of Work is amended to include the scope of work for the Lagunitas Creek Coho Habitat Enhancement Phase I Construction Support Services and for Phase II Final Design Plans and Specifications as outlined in the Additional Scope of Work at Attachment A to Amendment No. 2.

D. Fee and Fee Payment:

The fee and fee payment for such work shall be as set forth under the amended fee scheduled included in Attachment B to Amendment No. 2 and expenses as presented in Attachment B hereby increases the budget by $2,079,689, with a total annual not to exceed contract amount of $3,248,867.

ENVIRONMENTAL SCIENCE ASSOCIATES

Dated: _____

By _____
Jim O'Toole, Vice President

Dated: _____ MARIN MUNICIPAL WATER DISTRICT

By _____
Bennett Horenstein, General Manager

ATTACHMENTS:

Attachment A – Additional Scope of Work
Attachment B – Schedule of Fees

ATTACHMENT A

Amendment No. 2 Scope of Work

Phase I Construction Compliance, Engineering, and Performance Monitoring Support

The following scope of work is for Environmental Science Associates to support Marin Water with construction compliance, engineering, and performance monitoring support on Phase 1 of the Lagunitas Creek Coho Habitat Enhancement Project. It is based on in-channel construction between June 15th through October 31st occurring over two seasons in 2024 and 2025.

Task 1 Project Management

Over the course of bidding, construction, and performance monitoring, ESA will manage coordination with Marin Water, State Parks, contractor, and other project partners, track the schedule and budget, oversee subconsultants, and provide monthly invoicing and progress reports.

Task 2 Compliance Support

Subtask 2.1 Preconstruction Surveys

As described in AMP-3 of the project's protection measures and Measures 2.23, 2.25, and 2.26 of the project's CDFW Streambed Alteration Agreement (SAA), a USFWS approved biologist and CDFW approved Qualified Biologist from ESA will perform preconstruction surveys of the work areas for California red-legged frog (CRLF), foothill yellow legged frog (FYLF), and western pond turtle (WPT) within 24 prior to initial ground disturbance or vegetation clearing at each site. This scope assumes one survey per work site will be required, and that no handling or relocation of CRLF, FYLF, or WPT will be required. This scope includes the preparation of a FYLF survey methodology for submittal to and approval from CDFW prior to performing the surveys. Survey results will be submitted to CDFW for each site prior to the start of work, as required by the SAA.

As described in Measure 2.38 of the SAA, a CDFW approved Qualified Biologist from ESA will conduct a habitat assessment for bats a minimum of 90 days prior to tree removal. This scope assumes that a single comprehensive bat habitat assessment will be performed for all sites and that trees proposed for removal will be identified and flagged or marked prior to the habitat assessment. This scope also includes up to two 8-hour days of monitoring or one night emergence/visual examination of potential roosting habitat in the event roosting habitat is identified during the assessment.

As described in Measures 2.26 and 2.29 of the SAA, a CDFW approved Qualified Biologist from ESA will conduct a combination nesting bird and WPT survey of the project area within 7 days prior to the beginning of project related activities. This scope assumes that two surveys will be required to cover all the work areas. Results of the surveys will be submitted to CDFW as described in the SAA. This scope assumes that no active nests or WPT will be identified during the surveys.

Subtask 2.2 Worker Environmental Awareness Program (WEAP)

ESA will develop and implement a Worker Environmental Awareness Program (WEAP) for biological and cultural resources to be provided to all construction personnel. The biological portion of the WEAP will include a description of all sensitive natural resources which could be impacted during construction and the avoidance measures which will be implemented to avoid or minimize these impacts, Project-specific rules and permit conditions, and a discussion of sensitive resource areas within the Project footprint.

The WEAP will be developed by qualified biologists, and in-person trainings will be provided prior to construction for all site supervisory personnel.

Subtask 2.3 Fish Rescue

Qualified ESA Fisheries Biologists and Aquatic Ecologists will develop and implement a fish rescue plan for in-water work activities. The fish rescue plan will be developed and implemented consistent with Section 1.3.7.1, Requirements for Fish Relocation and Dewatering Activities, as described in the NMFS/NOAA RC Programmatic BO (NMFS 2016). The plan will provide an overview of the fish rescue and relocation effort and describe, in detail, work activities associated with site isolation and preliminary clearance, dewatering, fish relocation, post-operation reporting, and equipment that will be used. The plan will be prepared for submittal to NMFS, NOAA RC, and CDFW for review and input prior to implementation. Implementation of the fish rescue plan will occur in close coordination with the construction contractor and Marin Water staff, as appropriate. It is assumed that eight separate fish relocation efforts will be conducted, one at each of the eight sites. Fish rescue deliverables will include:

- Draft and final Fish Relocation Plan
- Field implementation (fish relocation at two separate sites)
- Draft and final technical memorandum reporting the findings of the operation (e.g., description of field activities, number of fish relocated, enumerated by species, size class, disposition, etc.)

ESA assumes for fish relocation 4 staff for 13 days (for 8 sites). The level of effort for this task may vary depending on level of participation and support from Marin Water biologists. ESA also understands that rescue of California freshwater shrimp will be performed by Marin Water (Jonathan Koehler).

Subtask 2.4 Biological Monitoring

During the construction period, ESA's biological monitors will be on-site as required by regulatory agency permit conditions, including AMP-6 of the project's protection measures, as needed to support and supplement Marin Water's biological monitoring. Documentation of surveys and reporting prior to and during construction will be maintained consistent with Project permit requirements. Upon completion of monitoring requirements, if needed a summary of Project compliance will be prepared for submittal to regulatory agencies. This scope includes monitoring up to twenty 8-hour construction work days. Additionally, up to 96 hours of as-needed japanese knotweed surveys will be performed by an ESA botanist prior to construction activities as specified in the plans and specifications.

Subtask 2.5 Cultural Resources Monitoring

ESA has prepared a Cultural Resources Monitoring Plan (CRMP) for Phase 1 to support compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. Based on survey results, nearby site distribution, previous disturbance, and environmental context, there's limited potential for the discovery of unrecorded pre-contact or historic-era cultural materials during project

implementation. An archaeological monitor and a tribal monitor will be present during the initial day of grading for each work location in the Phase 1 Project. Following the initial day of grading, the monitors will determine, based on professional judgment and proposed project activities, if additional days are warranted. Monitoring will not be required during the activities that do not involve ground disturbance, ground disturbance deeper than 5 feet, or ground disturbance on slopes greater than 20 percent. Prior to the start of construction, the monitors will provide a cultural resources and tribal cultural resources sensitivity and awareness training program for all personnel involved in project construction. Monitoring will be completed in coordination with Marin Water, ESA, and the Federated Indians of Graton Rancheria. Cultural resources monitoring will performed in accordance with the CRMP.

Subtask 2.5.1 Tribal Monitor Subconsultant

ESA will retain the services of Federated Indians of Graton Rancheria to serve as the tribal monitor.

Task 3 Engineering Support

Subtask 3.1 Bid Period Support

ESA will support two bidding efforts by attending the pre-bid meeting, responding to bidders' questions through Marin Water, and issuing up to one (1) written addendum, if needed. If needed, an addendum will consist of minor written changes, rather than issuing revised specifications and/or drawings. ESA will also prepare the bid tab as a spreadsheet of all bid pricing results.

Subtask 3.2 Design Engineer Observation

As the restoration designer, ESA will provide as-needed engineering observation services to Marin Water throughout the construction period. Engineering observation will be performed during the installation of wood structures and gravel at each site. Other construction support services will include but are not limited to reviewing Contractor's submittals, respond to requests for information (RFIs), and attending a pre-construction meeting and weekly Contractor meetings. Throughout construction ESA will be onsite periodically during critical moments and as requested by the contractor and/or Marin Water to help interpret the plans and specifications, check layout, observe construction, and review constructed features. ESA will also support Marin Water and the construction management with compiling and closeout review of a punch list.

Subtask 3.3 Construction Management

ESA will retain the services of subcontractor, Anchor Engineering, Inc, to support Marin Water with construction management and administration (see Attachments 1 & 2).

Subtask 3.3.1 Construction Management Subconsultant

ESA will retain the services of a qualified construction management and administration subconsultant, Anchor Engineering, Inc, with experience with instream restoration and large wood construction. The consultant will coordinate with the construction contractor to manage scheduling, staging and mobilization, and other construction-related activities. Duties include but are not limited to attending weekly Contractor meetings, reporting compliance issues to Marin Water, assisting with schedule tracking, assisting with measurements for payment, supporting any change orders, and assisting Marin Water with the punch list. See attachment for more detailed scope.

Subtask 3.4 Baseline Survey and Review

Upon completion of construction, the contractor will provide record drawings that document the post-construction condition of the site and serve as baseline conditions for post-construction performance measures. The record drawings will be compiled primarily based on construction documentation

provided by the contractor and construction manager, and supplemented by ESA's periodic observations.

ESA will support the contractor with capturing baseline conditions by performing topo-bathymetric surveys[1] of Sites 1-6 and 12-13 before the first rain and building digital terrain models (DTMs) for each individual site area. Four rebar pins will be placed outside the channel at the upstream and downstream corners of each site, and the locations will be recorded to provide survey control and a defined area for subsequent surveys. Each pin will be surveyed into real-world coordinates using the design/construction survey control network as a basis of coordinates. It is assumed that the survey control network will remain stable through construction and sufficient for these purposes. Each new log placed will be tagged, its diameter measured at each end, and the centerline surveyed at both ends of the log to document location, orientation, and relative elevation. Additionally, any large wood elements that previously existed at a project site will be surveyed, and the diameter of the log will be recorded. The channel bed topography within each site will be surveyed along with the water surface. The survey density may vary depending on how variable the channel is, but is intended to generally capture the range of elevations present, from the deepest scour holes to the highest riffle crests and gravel bars. It is assumed that ESA will spend, on average, approximately 1.4 days at each of the eight sites collecting these data.

Additionally, a minimum of 24 permanent photo stations for the Phase 1 construction will be established during baseline surveys and will be utilized for future monitoring. Photographic documentation figures will be developed to provide perspective of site development over time.

Task 4 Performance Monitoring

Following construction, ESA will perform monitoring included in implementation grant funding for Phase 1 of the Lagunitas Enhancement Project.

Subtask 4.1 Gravel Augmentation Monitoring Years 1-2

Subtask 4.1.1 Gravel Augmentation Site Passive Integrated Transponder (PIT) Tag Tracer Analysis
A passive Radio Frequency Identification (RFID) system will be used to track movement of placed gravel from the gravel augmentation site using Passive Integrated Transponder (PIT) tags. Up to 100 PIT tags will be placed at each of the gravel augmentation sites (Sites 1, 12 and 13) to serve as tracers to track the distance traveled of placed gravel. ESA assumes Marin Water will insert PIT tags into up to 300 individual gravel particles and install PIT tag antennas appropriately placed to detect the movement of gravel tracers over predetermined distances. ESA staff with expertise in geomorphology and sediment transport will support Marin Water with locating the PIT tag antennas, PIT tag placement, and PIT tag data analysis.

Subtask 4.1.2 Gravel Augmentation Site Repeat Topographic Surveys
ESA will perform annual repeat topo-bathymetric surveys of the gravel augmentation sites (Sites 1, 12, and 13) to quantify volumetric changes in placed gravel for Years 1 and 2. Surveys will be completed using the same methods used in the baseline surveys (Task 3.4), and the same design/construction survey control network will be utilized as a basis of coordinates (assuming that the network remains stable and sufficient for these purposes). It is assumed that ESA will spend, on average, approximately 1 day at each of the three sites each of the two years to collect these data.

A DTM of each individual gravel augmentation site (Sites 1, 12, and 13) will be created from topobathymetric data collected in each year, similar to the DTMs created for Task 3.4. The difference in bed elevation will be compared to baseline conditions calculated in CAD Civil 3D or GIS in order to provide a measure of the volume of gravel entrained each year. The annual monitoring report will record the volume of gravel at the site over time.

Subtask 4.2 Photo Monitoring

Conditions will be photo documented at established photo stations per the grant requirements and monitoring plan. Photographic documentation figures will be developed to provide perspective of site development over time.

Subtask 4.3 Monitoring Report

ESA will document the methods, results, and conclusions of the geomorphic monitoring in an annual monitoring report each monitoring year, for a total of two reports

Phase II 100% Design, Permitting, and Specifications (Sites 7, 8, 9, 10, 11)

The purpose of the Lagunitas Creek Coho Enhancement Plan 100% Designs Phase 2 Project (Project) is to address current large wood and gravel deficit created by the upstream Peters Dam. Phase 2 of the Project will include completion of final design documents and permitting support for Sites 7, 8, 9, 10, 11 in Lagunitas Creek. These sites have been identified through Marin Water's Lagunitas Creek Enhancement Plan and have 30% design plans completed. All five sites are located in high-usage Coho Salmon spawning and rearing reaches of Lagunitas Creek within Samuel P. Taylor State Park downstream of Peters Dam.

The five restoration sites encompass up to approximately 2,700 feet of stream channel. The design will include five sites that create riffle-pool-wood habitat complexes by adding large wood (up to 115 pieces) and clean river-run gravel (up to 4,000 tons) for riffle enhancement. ESA will provide technical services to MMWD to support completing final design documents, permitting, and environmental compliance. ESA's scope of services is described in detail in the four (4) tasks below.

Task 1 – Project Management

ESA will provide project management and data management, and stakeholder outreach support.

Subtask 1.1 – Project Administration: ESA will perform contracting, schedule and budget tracking for its work.

Subtask 1.2 – Data Management: ESA will draft a Data Management Plan and MMWD will submit to CDFW. The CDFW Grant Manager will provide MMWD the Data Management Plan form upon request. ESA and its subcontractors will collect data using peer-approved methods, undergo a quality control and accuracy assessment process, include metadata that meet CDFW's minimum standards (https://www.wildlife.ca.gov/Data/BIOS/Metadata) and include documentation of the methods and quality assessments utilized, and are properly stored and protected until the Project has been completed and data have been delivered as required under this Agreement. All scientific data collection efforts are required to include metadata files or records indicating at a minimum:

1. Who collected the data;
2. When the data was collected;
3. Where the data was collected;
4. How the data was collected (description of methods and protocols);
5. The purposes for which the data was collected;
6. Definitions of variables, fields, codes, and abbreviations used in the data, including units of measure;
7. The terms of any landowner access agreement(s), if applicable;

8. References to any related CDFW permits or regulatory actions;

9. Peer review or statistical consultation documentation; and

10. Data licensing and disclaimer language.

Deliverables: All data and associated metadata collected by or created under this Agreement will be provided to CDFW, and/or available upon request. Data related to occurrence special status or listed species will be reported to the California Natural Diversity Database (CNDDB).

Subtask 1.3 – Administration: ESA will provide monthly invoices and progress reports in support of Marin Water's quarterly deliverables.

Deliverables: Monthly invoices and progress reports

Subtask 1.4 – Lagunitas TAC Outreach: Marin Water will coordinate and lead meetings with the Lagunitas Creek Technical Advisory Committee (TAC) throughout the grant term. ESA will provide technical presentations, handouts, and meeting notes, as needed. Marin Water will hold up to two meetings with the TAC to receive input on the project design (65% design and 90% design, prepared under Task 3). Marin Water, with support from ESA, will provide two (2) project updates to the established Lagunitas Creek Technical Advisory Committee (TAC). Marin Water will provide thirty (30) day notice to the CDFW Grant Manager for all Project public meetings.

Deliverables: Lagunitas TAC meeting agenda, notes, and/or presentations

Task 2 – Preliminary Design Studies

ESA will conduct Preliminary Design Studies prior to completing Task 3 Final Design. This task will be initiated by a field visit by the ESA design team.

Subtask 2.1 – Base Map Survey: ESA will prepare a base map of the Study Area suitable for final design. The base map will use an existing 2019 Light Detection and Ranging (LiDAR) Digital Elevation Model (DEM) data set, supplemented with survey of above ground utilities, trees and creek bathymetry. Ground survey, using survey control established by MMWD, will include: channel toe and thalweg of Lagunitas Creek, aboveground utility features, temporary access routes and existing trees. An ISA certified arborist will identify, tag, and map all trees greater or equal to 6" diameter at breast height (DBH) within the proposed project limit using a Trimble GPS device to get sub-meter accuracy. Tree survey data will support design, impacts analysis, and permitting task needs. This task assumes up to approximately 200 trees per site and staging areas, totaling up to approximately 1,600 trees.

Deliverable: Existing conditions base map (PDF)

Subtask 2.2 – Hydraulic Analysis: ESA will develop a two-dimensional (2-D) hydraulic model of Lagunitas Creek within the Project Area. ESA will develop Pre-project Conditions and Post-project Conditions models, and model up to six flows. The hydraulic model will be used to inform the restoration design, including gravel placement, large wood stability, geomorphic assessment, per Subtasks 2.3 to 2.5. The hydraulic model will also be used to evaluate potential flood increases by modeling an extreme (e.g. 100-year) flow event for pre- and post-project conditions. The results of hydraulic modeling and presented in the updated Basis of Design Report, and the flood analysis will be documented in a brief technical memorandum to support Marin County's Creek Permit application. The hydraulic modeling will use available hydrologic and topographic data.

Deliverable: Technical Memorandum of the hydraulic modeling details. Hydraulic modeling summary section in the Basis of Design report.

Subtask 2.3 – Large Wood and Constructed Riffle Design and Engineering: Large wood structures will be a key element in the design to enhance habitat within the priority reaches by adding cover, velocity refugia, influencing local morphology, and providing general habitat complexity. The large wood structures utilized for this project will require logs anchored to boulders for stability. Stability analysis of the large wood structures will be performed and reviewed by ESA's licensed engineers. The stability analysis will follow the latest standard guidelines on large wood structure design (USBR and USACE, 2016). ESA will provide detailed design of gravel placement for constructed riffles and gravel bars. The gravel placement design will examine the appropriate topographic shade and gravel size to be placed for the various design elements, which will inform the design plans and specifications.

Deliverable: Large wood stability analysis and riffle rock sizing sections in the Basis of Design report

Subtask 2.4 – Site 8 Tributary Enhancement Design:

ESA will provide detailed design of the tributary enhancements at Site 8. The tributary enhancement design will examine the appropriate topographic conditions and various design elements, which will inform the design plans and specifications. Design of this site must consider constraints such as the Marin Water's main line, the Cross Marin Trail, and bank protection. Various options will be explored to improve sediment continuity that consider site constraints.

Deliverables: Update the Basis of Design report

Subtask 2.5 – Geomorphic Assessment: ESA will provide a qualitative geomorphic assessment of pre-project conditions and the potential geomorphic response to post-project conditions. ESA will provide qualitative description of sediment supply, composition, and mode of transport through the project reach. The geomorphic assessment will inform the design of habitat that benefits from sediment deposition.

Deliverables: Geomorphic Assessment section of the Basis of Design report

Subtask 2.6 – Temporary Construction Access: ESA will design the temporary measures needed to provide access into the sites, including identifying proposed alignment, grading, tree removal, and conceptual protection measures for sensitive tree root systems. (Surfacing materials to be determined by the future implementation contractor.) ESA will also design measures to return the temporary access routes back to original conditions.

Deliverables: Incorporated into Task 3 Design deliverables

Subtask 2.7 – Basis of Design Report: ESA will document design-related work into a Basis of Design Report. The Report will build upon the Lagunitas Creek Habitat Enhancement Plan report and will include existing conditions review, restoration opportunities analysis, enhancement actions basis of design, feasibility assessment, hydraulic analysis, large wood design and engineering, gravel placement design, geomorphic assessment and temporary access.

Deliverables: Draft Basis of Design Report will be submitted with the 65% and 90% Designs; Final Basis of Design Report will be submitted with the 100% Designs

Task 3 – Project Design

For the Project, ESA will advance the current Conceptual (30%) Designs for the five Phase 2 Sites (7 through 11) within the Project Area through Final (100%) Designs. The current Conceptual (30%) Designs are focused on the adding large wood and gravel in selected sites within priority reaches of the Upper Lagunitas Creek in the Project Area within Samuel
P. Taylor Park.

Subtask 3.1 – Intermediate (65%) Designs and Specifications: ESA will develop the Intermediate (65%) Design (plans, outline technical specifications, estimate) for the Phase 2 Sites. The Intermediate (65%) Design plans will include the following sheets (quantity): title

(1); general notes, abbreviations and legend (1); overview/site plan (1); existing conditions and tree removal (5); enhancement plan (5); grading profiles and sections (up to 5); enhancement details for large wood and gravel placement (up to 5); temporary access repair plans and details (up to 5). Designs will be developed in CAD using available LiDAR topography and base map data prepared under Task 2.1. The Intermediate (65%) Designs will be focused on developing sufficiently detailed design to initiate permitting (Task 4).
CDFW Engineering must accept the 65% Designs Plans before work may continue to Subtask 3.2.

Deliverables: Intermediate (65%) Design Drawings, Engineer's Estimate of Construction Costs, and outline of Technical Specifications. The 65% Design Plans will be submitted to the Lagunitas TAC, regulatory agencies, and CDFW grant engineers for a thirty (30) day review period for comments. Marin Water and ESA will address all comments.

Subtask 3.2 – Draft (90%) Designs and Specifications: ESA will develop the Draft (90%) Design (plans, technical specifications and costs) for the Phase 2 Sites. The Draft (90%) Design Plans will include all sheets listed under Subtask 3.1, plus the survey and layout control sheet (1). The Draft (90%) Designs will generally include sufficient detail the design for bidding and construction. Marin Water will develop the Bid Manual, including Divisions 0 (Instructions for Bidders and Contracting) and Division 1 (General Requirements). CDFW Engineering must accept the 90% Designs Plans before work may continue to Subtask 3.3.

Deliverables: Draft (90%) Design Package which will include: an Engineer's Estimate of Construction Costs, Bid Items List and Technical Specifications. The 90% Design Plans will be submitted to the Lagunitas TAC, regulatory agencies, and CDFW grant engineers for a thirty (30) day review period for comments. Marin Water and ESA will address all comments.

Subtask 3.3 – Final (100%) Designs and Specifications: ESA will develop the Final (100%) Designs package for the Phase 2 Sites. ESA assumes that project drawings will consist of the same provisional sheet list as the Draft (90%) Design package. The Final Design Package will include final updates as needed to address comments received and prepare the project for bid and construction.

ATTACHMENT B

Amendment No. 2 Budget

Phase I Construction Compliance, Engineering, and Performance Monitoring Support

Phase I Construction Support Task		Budget
1	**Project Management**	$ 55,304
2	**Compliance Support**	
2.1	Preconstruction Surveys	$ 72,416
2.2	Worker Environmental Awareness Program (WEAP)	$ 21,496
2.3	Fish Rescue	$ 86,960
2.4	Biological Monitoring	$ 65,628
2.5	Cultural Resources Monitoring	$ 13,250
2.5.1	*Tribal Monitor Subconsultant*	$ 8,250
3	**Engineering Support**	
3.1	Bid Period Support	$ 12,728
3.2	Design Engineer Observation	$ 146,088
3.3	Construction Management	$ 16,460
3.3.1	*Construction Management Subconsultant*	$ 707,421
3.4	Baseline Survey and Review	$ 91,283
4	**Performance Monitoring**	
4.1	Gravel Augmentation Monitoring Years 1-2	
4.1.1	Gravel Augmentation Site Passive Integrated Transponder (PIT) Tag Tracer Analysis	$ 45,888
4.1.2	Gravel Augmentation Site Repeat Topographic Surveys	$ 51,200
4.2	Photo Monitoring	$ 10,200
4.3	Monitoring Report	$ 51,304
	ESA Expenses	$ 24,124
	TOTAL	**$1,480,000**

Phase II 100% Design, Permitting, and Specifications (Sites 7, 8, 9, 10, 11)

Task 1 – Project Management		
Subtask 1.1 – Project Administration	$	23,280
Subtask 1.2 – Data Management	$	3,000
Subtask 1.3 – Lagunitas TAC Outreach	$	26,704
Task 2 – Preliminary Design Studies		
Subtask 2.1 – Base Map Survey	$	71,084
Subtask 2.2 – Hydraulic Analysis	$	50,736
Subtask 2.3 – Large Wood and Constructed Riffle Engineering	$	30,852
Subtask 2.4 – Site 8 Tributary Enhancement Design	$	23,056
Subtask 2.5 – Geomorphic Assessment	$	16,248
Subtask 2.6 – Temporary Construction Access	$	8,500
Subtask 2.7 – Basis of Design Report	$	32,872
Task 3 – Project Design		
Subtask 3.1 – Intermediate (65%) Designs and Specifications	$	87,244
Subtask 3.2 – Draft (90%) Designs and Specifications	$	58,622
Subtask 3.3 – Final (100%) Designs and Specifications	$	58,011
Task 4 – Project Permitting Support		
Subtask 4.1 – CDFW 1602 Application	$	10,612
Subtask 4.2 – CDFW ITP Application	$	32,916
Subtask 4.3 – Regulatory Agency Coordination	$	51,892
Subtask 4.4 – Monitoring and Maintenance Plan	$	9,132
Expenses	$	4,928
PROJECT TOTAL	$	599,689