

**AGREEMENT BETWEEN
THE COUNTY OF SAN MATEO AND
THE SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT
FOR
ADVERTISEMENT, AWARD, AND ADMINISTRATION OF CONTRACTS
FOR THE
OLD HAUL ROAD SEDIMENT REDUCTION PROJECT, PHASE 1
IN PESCADERO CREEK COUNTY PARK, SAN MATEO COUNTY**

THIS AGREEMENT is entered into as of the _____ day of _____, **2016**, by and between County of San Mateo (“COUNTY” or “COUNTY PARKS”) and San Mateo County Resource Conservation District (“RCD” or “Contractor”).

W I T N E S S E T H:

WHEREAS, COUNTY PARKS obtained funding from Measure A sales tax to repair crossings on Old Haul Road in order to reduce sediment in the Pescadero Creek; and

WHEREAS, the Old Haul Road Sediment Reduction Project (“Project”) consists of several phases, and

WHEREAS, COUNTY PARKS requested assistance from the RCD for the Old Haul Road Sediment Reduction Project; and

WHEREAS, RCD and COUNTY PARKS signed a Stewardship MOU for coordinating and completing projects within the Pescadero Creek Watershed; and

WHEREAS, COUNTY PARKS has programmed \$130,000 dollars for Old Haul Road Project, Phase 1; and

WHEREAS, COUNTY PARKS and RCD have defined the purpose and scope of Phase 1, which includes engineering surveys, topographic surveys, geotechnical field study, and preliminary designs, as described in Exhibit A; and

WHEREAS, RCD coordinated with COUNTY PARKS on contract scope; and

WHEREAS, RCD is willing and able to provide contract advertisement, award, and administration services (Services) for the Old Haul Road Sediment Reduction Project, Phase 1.

NOW, THEREFORE, IT IS HEREBY AGREED by the parties hereto, as follows:

1. SCOPE OF SERVICES

Refer to Exhibit A, attached hereto and incorporated by reference.

2. TIME OF PERFORMANCE

The services funded by this Agreement shall commence after full execution of this Agreement. This Agreement shall terminate upon Old Haul Road Sediment Reduction Project, Phase 1 completion or December 31, 2017, whichever is earlier.

3. FUNDING AND METHOD OF PAYMENT

- a. COUNTY PARKS agrees to reimburse RCD for payments made in the Old Haul Road Sediment Reduction Project, Phase 1 in an amount not to exceed \$ 130,000. Any additional unforeseen costs shall not be compensated without the prior written approval of the County.
- b. Payments to RCD will be on a reimbursable basis, based upon an itemized invoice submitted to COUNTY PARKS for payment.
- c. COUNTY PARKS agrees to reimburse the RCD for contract change orders, in accordance with the requirements of this Section 3.
- d. Any individual contract change orders exceeding \$1,000 shall require written approval from the County Parks Director or her designee before change order work can proceed. Contract change orders in an amount less than \$1,000 will not require prior written approval from the County Parks Director and may be authorized by the RCD acting alone. When the sum total of contract change orders exceeds \$5,000, then any and all subsequent change orders, regardless of value, shall require the prior approval of the County Parks Director before change order work can proceed.
- e. RCD shall submit monthly billings, accompanied by the activity reports and invoices issued by RCD's contractors or progress payments issued by RCD as proof that services were rendered and paid for by the RCD. Upon receipt of the invoice and approval of its accompanying documentation, COUNTY PARKS shall pay the amount invoiced under this Agreement within ninety (90) days of receipt of the invoice, delivered or mailed to the COUNTY as follows:

County of San Mateo
Parks Director
455 County Center, 4th Floor
Redwood City, CA 94063-1665

RCD shall advertise, solicit proposals, and award the contracts as set forth in the Scope of Work described in Exhibit A hereto.

- f. If the total project expenditures at project completion are less than the total RCD payments, then the excess funds shall be returned to COUNTY PARKS within ninety (90) days from the last reimbursement payment.
- g. RCD shall notify COUNTY PARKS of any contractor claim or change order disputes ("Contract Claims") that arise in connection with the contracts and COUNTY PARKS shall cooperate with the RCD in its efforts to resolve such Contract Claims. As the RCD is effectively serving as COUNTY PARKS' contract administrator and manager, COUNTY PARKS shall indemnify and defend the RCD in connection with any and all Contract Claims, except to the extent that a Contract Claim arises out of the negligence or willful misconduct of the RCD.

4. AMENDMENTS

Any changes in the services to be performed under this Agreement shall be incorporated in written amendments, which shall specify the changes in work performed and any adjustments in compensation and schedule. All amendments shall be executed by COUNTY PARKS and the RCD. No claim for additional compensation of this Agreement shall be recognized unless contained in a duly executed amendment.

5. NOTICES

All notices or other communications to either party by the other shall be deemed acceptable given when made in writing and delivered or mailed to such party at their respective addresses as follows:

To COUNTY PARKS: Marlene Finley, Parks Director
San Mateo County Parks Department
455 County Center, 4th Floor
Redwood City, CA 94063

To RCD: Kellyx Nelson, Executive Director
San Mateo County Resource Conservation District
625 Miramontes Street, Suite 103
Half Moon Bay, CA 94019

6. INDEPENDENT CONTRACTOR

RCD and its employees, agents and consultants shall be deemed independent contractors of COUNTY PARKS. Nothing herein shall be deemed to create any joint venture or partnership arrangement between COUNTY and RCD.

7. MUTUAL HOLD HARMLESS

- a. It is agreed that COUNTY PARKS shall defend, save harmless and indemnify RCD, its officers and employees from any and all claims which arise out of the terms and conditions of this Agreement and which result from the negligent acts or omissions of COUNTY PARKS, its officers and/or employees.
- b. It is agreed that RCD shall defend, save harmless, and indemnify COUNTY PARKS, its officers and employees from any and all claims for injuries or damage to persons and/or property which arise out of the terms and conditions of this Agreement and which result from the negligent acts or omissions of RCD, its officers and/or employees.
- c. In the event of concurrent negligence of RCD, its officers and/or employees, and COUNTY PARKS, its officers and/or employees, then the liability for any and all claims for injuries or damage to persons and/or property, which arise out of terms and conditions of this Agreement, shall be apportioned according to the California theory of comparative negligence.

8. Assignability and Subcontracting

RCD shall not assign this Agreement or any portion of it to a third party or subcontract with a third party to provide services required by RCD under this Agreement without the prior written consent of County. Any such assignment or subcontract without County's prior written consent shall give County the right to automatically and immediately terminate this Agreement without penalty or advance notice.

9. Payment of Permits/Licenses

RCD bears responsibility to obtain any license, permit, or approval required from any agency for work/services to be performed under this Agreement at RCD's own expense prior to commencement of said work/services. Failure to do so will result in forfeit of any right to compensation under this Agreement.

10. Insurance

a. General Requirements

RCD shall not commence work or be required to commence work under this Agreement unless and until all insurance required under this Section has been obtained and such insurance has been approved by County's Risk Management, and RCD shall use diligence to obtain such insurance and to obtain such approval. RCD shall furnish County with certificates of insurance evidencing the required coverage, and there shall be a specific contractual liability endorsement extending RCD's coverage to include the contractual liability assumed by RCD pursuant to this Agreement. These certificates shall specify or be endorsed to provide that thirty (30) days' notice must be given, in writing, to County of any pending change in the limits of liability or of any cancellation or modification of the policy.

b. Workers' Compensation and Employer's Liability Insurance

RCD shall have in effect during the entire term of this Agreement workers' compensation and employer's liability insurance providing full statutory coverage. In signing this Agreement, RCD certifies, as required by Section 1861 of the California Labor Code, that (a) it is aware of the provisions of Section 3700 of the California Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the Labor Code, and (b) it will comply with such provisions before commencing the performance of work under this Agreement.

c. Liability Insurance

RCD shall take out and maintain during the term of this Agreement such bodily injury liability and property damage liability insurance as shall protect RCD and all of its employees/officers/agents while performing work covered by this Agreement from any and all claims for damages for bodily injury, including accidental death, as well as any and all claims for property damage which may arise from RCD's operations under this Agreement, whether such operations be by RCD, any subcontractor, anyone directly or indirectly employed by either of them, or an agent of either of them. Such insurance shall be combined single limit bodily injury and property damage for each occurrence and shall not be less than the amounts specified below:

1. Comprehensive General Liability\$1,000,000
2. Motor Vehicle Liability Insurance\$1,000,000
3. Professional Liability\$1,000,000

County and its officers, agents, employees, and servants shall be named as additional insured on any such policies of insurance, which shall also contain a provision that (a) the insurance afforded thereby to County and its officers, agents, employees, and servants shall be primary insurance to the full limits of liability of the policy and (b) if the County or its officers, agents, employees, and servants have other insurance against the loss covered by such a policy, such other insurance shall be excess insurance only. In the event of the breach of any provision of this Section, or in the event any notice is received which indicates any required insurance coverage will be diminished or canceled, County, at its option, may, notwithstanding any other provision of this Agreement to the contrary, immediately declare a material breach of this Agreement and suspend all further work and payment pursuant to this Agreement.

11. Compliance With Laws

All services to be performed by RCD pursuant to this Agreement shall be performed in accordance with all applicable Federal, State, County, and municipal laws, ordinances, and regulations, including but not limited to the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and the Federal Regulations promulgated thereunder, as amended (if applicable), the Business Associate requirements set forth in Attachment H (if attached), the Americans with Disabilities Act of 1990, as amended, and Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability in programs and activities receiving any Federal or County financial assistance. Such services shall also be performed in accordance with all applicable ordinances and regulations, including but not limited to appropriate licensure, certification regulations, provisions pertaining to confidentiality of records, and applicable quality assurance regulations. In the event of a conflict between the terms of this Agreement and any applicable State, Federal, County, or municipal law or regulation, the requirements of the applicable law or regulation will take precedence over the requirements set forth in this Agreement. RCD will timely and accurately complete, sign, and submit all necessary documentation of compliance.

12. Non-Discrimination and Other Requirements

a. General Non-discrimination

No person shall be denied any services provided pursuant to this Agreement (except as limited by the scope of services) on the grounds of race, color, national origin, ancestry, age, disability (physical or mental), sex, sexual orientation, gender identity, marital or domestic partner status, religion, political beliefs or affiliation, familial or parental status (including pregnancy), medical condition (cancer-related), military service, or genetic information.

b. Equal Employment Opportunity

RCD shall ensure equal employment opportunity based on objective standards of recruitment, classification, selection, promotion, compensation, performance evaluation, and management relations for all employees under this Agreement. RCD's equal employment policies shall be made available to County upon request.

c. Section 504 of the Rehabilitation Act of 1973

RCD shall comply with Section 504 of the Rehabilitation Act of 1973, as amended, which provides that no otherwise qualified individual with a disability shall, solely by reason of a disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination in the performance of any services this Agreement. This Section applies only to contractors who are providing services to members of the public under this Agreement.

d. Compliance with County's Equal Benefits Ordinance

With respect to the provision of benefits to its employees, RCD shall comply with Chapter 2.84 of the County Ordinance Code, which prohibits contractors from discriminating in the provision of employee benefits between an employee with a domestic partner and an employee with a spouse. In order to meet the requirements of Chapter 2.84, Contractor must certify which of the following statements is/are accurate:

- Contractor complies with Chapter 2.84 by offering the same benefits to its employees with spouses and its employees with domestic partners.
- Contractor complies with Chapter 2.84 by offering, in the case where the same benefits are not offered to its employees with spouses and its employees with domestic partners, a cash payment to an employee with a domestic partner that is equal to Contractor's cost of providing the benefit to an employee with a spouse.
- Contractor is exempt from having to comply with Chapter 2.84 because it has no employees or does not provide benefits to employees' spouses.
- Contractor does not comply with Chapter 2.84, and a waiver must be sought.

e. Discrimination Against Individuals with Disabilities

The nondiscrimination requirements of 41 C.F.R. 60-741.5(a) are incorporated into this Agreement as if fully set forth here, and RCD and any subcontractor shall abide by the requirements of 41 C.F.R. 60-741.5(a). This regulation prohibits discrimination against qualified individuals on the basis of disability and requires affirmative action by covered prime contractors and subcontractors to employ and advance in employment qualified individuals with disabilities.

f. History of Discrimination

RCD must check one of the two following options, and by executing this Agreement, RCD certifies that the option selected is accurate:

- No finding of discrimination has been issued in the past 365 days against RCD by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or any other investigative entity.

- Finding(s) of discrimination have been issued against RCD within the past 365 days by the Equal Employment Opportunity Commission, Fair Employment and Housing Commission, or other investigative entity. If this box is checked, RCD shall provide County with a written explanation of the outcome(s) or remedy for the discrimination.

g. Reporting; Violation of Non-discrimination Provisions

RCD shall report to the County Manager the filing in any court or with any administrative agency of any complaint or allegation of discrimination on any of the bases prohibited by this Section of the Agreement or Section 11, above. Such duty shall include reporting of the filing of any and all charges with the Equal Employment Opportunity Commission, the Fair Employment and Housing Commission, or any other entity charged with the investigation or adjudication of allegations covered by this subsection within 30 days of such filing, provided that within such 30 days such entity has not notified RCD that such charges are dismissed or otherwise unfounded. Such notification shall include a general description of the circumstances involved and a general description of the kind of discrimination alleged (for example, gender-, sexual orientation-, religion-, or race-based discrimination).

Violation of the non-discrimination provisions of this Agreement shall be considered a breach of this Agreement and subject the RCD to penalties, to be determined by the County Manager, including but not limited to the following:

- i. termination of this Agreement;
- ii. disqualification of the Contractor from being considered for or being awarded a County contract for a period of up to 3 years;
- iii. liquidated damages of \$2,500 per violation; and/or
- iv. imposition of other appropriate contractual and civil remedies and sanctions, as determined by the County Manager.

To effectuate the provisions of this Section, the County Manager shall have the authority to offset all or any portion of the amount described in this Section against amounts due to RCD under this Agreement or any other agreement between RCD and County.

13. Compliance with County Employee Jury Service Ordinance

RCD shall comply with Chapter 2.85 of the County's Ordinance Code, which states that RCD shall have and adhere to a written policy providing that its employees, to the extent they are full-time employees and live in San Mateo County, shall receive from the Contractor, on an annual basis, no fewer than five days of regular pay for jury service in San Mateo County, with jury pay being provided only for each day of actual jury service. The policy may provide that such employees deposit any fees received for such jury service with RCD or that the RCD may deduct from an employee's regular pay the fees received for jury service in San Mateo County. By signing this Agreement, RCD certifies that it has and adheres to a policy consistent with Chapter 2.85. For purposes of this Section, if RCD has no employees in San Mateo County, it is sufficient for Contractor to provide the following written statement to County: "For purposes of

San Mateo County's jury service ordinance, RCD certifies that it has no full-time employees who live in San Mateo County. To the extent that it hires any such employees during the term of its Agreement with San Mateo County, RCD shall adopt a policy that complies with Chapter 2.85 of the County's Ordinance Code." The requirements of Chapter 2.85 do not apply if this Agreement's total value listed, above, is less than one-hundred thousand dollars (\$100,000), but RCD acknowledges that Chapter 2.85's requirements will apply if this Agreement is amended such that its total value meets or exceeds that threshold amount.

14. Retention of Records; Right to Monitor and Audit

(a) RCD shall maintain all required records relating to services provided under this Agreement for three (3) years after County makes final payment and all other pending matters are closed, and RCD shall be subject to the examination and/or audit by County, a Federal grantor agency, and the State of California.

(b) RCD shall comply with all program and fiscal reporting requirements set forth by applicable Federal, State, and local agencies and as required by County.

(c) RCD agrees upon reasonable notice to provide to County, to any Federal or State department having monitoring or review authority, to County's authorized representative, and/or to any of their respective audit agencies access to and the right to examine all records and documents necessary to determine compliance with relevant Federal, State, and local statutes, rules, and regulations, to determine compliance with this Agreement, and to evaluate the quality, appropriateness, and timeliness of services performed.

15. Merger Clause; Amendments

This Agreement, including the Exhibits and Attachments attached to this Agreement and incorporated by reference, constitutes the sole Agreement of the parties to this Agreement and correctly states the rights, duties, and obligations of each party as of this document's date. In the event that any term, condition, provision, requirement, or specification set forth in the body of this Agreement conflicts with or is inconsistent with any term, condition, provision, requirement, or specification in any Exhibit and/or Attachment to this Agreement, the provisions of the body of the Agreement shall prevail. Any prior agreement, promises, negotiations, or representations between the parties not expressly stated in this document are not binding. All subsequent modifications or amendments shall be in writing and signed by the parties.

16. Controlling Law; Venue

The validity of this Agreement and of its terms, the rights and duties of the parties under this Agreement, the interpretation of this Agreement, the performance of this Agreement, and any other dispute of any nature arising out of this Agreement shall be governed by the laws of the State of California without regard to its choice of law or conflict of law rules. Any dispute arising out of this Agreement shall be venued either in the San Mateo County Superior Court or in the United States District Court for the Northern District of California.

IN WITNESS WHEREOF, this Agreement between the COUNTY PARKS and RCD for design, specifications, permits and construction contract advertisement, award, and administration of the Old Haul Road Sediment Reduction Project has been executed by the parties hereto as of the day and year first written above.

COUNTY OF SAN MATEO

By: _____
President, Board of Supervisors, San Mateo County

Date: _____

ATTEST:

By: _____
Clerk of Said Board

SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT

By:  _____
Executive Director

Date: 11/8/2016

EXHIBIT A

SCOPE OF WORK – Old Haul Road Sediment Reduction Project, Phase 1

The San Mateo County Resource Conservation District (RCD) is a non-regulatory, public agency that works in partnership with landowners/managers and provides technical assistance to help with land management goals in a way that also restores and protects local watersheds. As part of its Rural Roads program, the RCD has been working to identify and address priority rural roads that are delivering sediment into Pescadero Creek. The Legacy Forest Road Sediment Reduction on Old Haul Road Project will address legacy impacts of forest management on high priority salmonid habitat in Pescadero Creek by improving the stream crossing at Dark Gulch Creek (a tributary to Pescadero Creek) and surface drainage on Old Haul Road, a legacy logging road that is now used for recreation and emergency response, timber property, and fire protection access in Pescadero Creek County Park in Pescadero. San Mateo County Parks Department and the RCD have identified two issues that must be resolved to develop a project to address this crossing. First, uncertainty about the amount and exact types of fill in the Dark Gulch crossing will be addressed through topographical and geotechnical surveys, and this information will be used to evaluate the feasibility of different approaches to removing and potentially reusing some of the material that comprises the crossing. Second, a narrow work window is necessary to complete a project of this scale, however, the work site is located within Marbled Murrelet (MAMU) nesting territory and California Red Legged Frog (CRLF) breeding habitat, and standard allowable work windows would be insufficient. In order to ensure the selected contractor will be able to do the work in one season, the RCD and San Mateo County Parks are consulting with state and federal agencies to identify options for the needed work window.

Roles and Responsibilities (per Stewardship MOU signed July 2015):

San Mateo County Resource Conservation District: The RCD will be responsible for all aspects of project management, including fiscal management, reporting, and successful and timely completion of deliverables. With project partners, the RCD will develop and distribute a bid package, select contractors, and manage contracts. The RCD will draft, finalize, and manage subcontracts with the Engineer Subcontractors (Timothy C. Best, CEG, and HKA Associates), the Permit Contractor (Lux Environmental Consulting), and the Qualified Biologist(s) and Archeologist(s). The RCD will oversee coordination among partners and contractors and ensure pre-, during, and post- project monitoring is completed.

San Mateo County Parks Department: County Parks is the landowner. They will allow for access to the property for assessments, surveys, designs, and related biological monitoring associated with the project. County Parks will work with RCD to facilitate the project as needed by posting/noticing the public of planned closures of a portion of the Old Haul Road. This will include posting of temporary signage explaining the project by County Parks.

PHASE 1

During Phase I Planning, the RCD will work with County Parks, County Department of Public Works, consultants, and regulatory agencies to address critical issues and position the project towards implementation. Integrated Watershed Restoration Program (IWRP) funding will pay for RCD staff time to complete the Phase I Planning tasks in this scope of work (SOW). San Mateo County will be providing funding to pay for the consultant costs of topographic and geotechnical surveys and analyses, and feasibility analyses.

EXHIBIT A

Task 1 – Project Administration and Oversight. (RCD Staff – no cost to San Mateo County for 2016)

Project administration includes time spent working on review of the site evaluation and feasibility of design alternatives, species and permit related issues, project management, preparation of the work program, contracts, invoices, progress reports, and organizing and attending meetings and site visits.

TASK 1.1 – CONTRACTING

Time spent securing funds and procuring consultants.

TASK 1.2 – REVIEW AND COORDINATION OF ENGINEERING WORK

RCD will work with San Mateo County staff and engineering consultants to complete needed site evaluation studies and analyses of design feasibility, and deliverables.

TASK 1.3 – SPECIES PERMITTING ISSUES

RCD will work on species permitting issues related to extending the construction window.

TASK 1.4 – MEETINGS AND SITE VISITS

RCD will organize and host project meetings and site visits, including a site visit with IWRP multi-agency Technical Advisory Committee to review and get input on design concepts.

Task 2 – Technical Direction of Engineering Surveys and Analyses. (Engineering Project Consultant)

Evaluation of site conditions and development of designs for this crossing will require specialized engineering work by multiple consultants. This task, to be completed by the engineering project consultant, includes technical direction and coordination of all data collection and analyses performed by the entire consultant team (described in Tasks 3, 4 and 5) to ensure their sufficiency and quality to support development of the technical work products. These technical management and administrative duties include correspondence, coordination, and technical documentation and reports directly related to the project.

Task 3 – Site Evaluation (Consultant Team)

TASK 3.1 - SITE RESEARCH AND REVIEW OF EXISTING SITE DATA/INFORMATION

The site evaluation will begin with a review of existing background information (data and reports) related to the project, including existing technical reports (e.g., geotechnical or geological studies or watershed assessments), stream and rainfall gauge records, historic aerial photographs, and any other information made available by the County.

TASK 3.2 - DARK GULCH TOPOGRAPHIC SURVEY

A survey of the Dark Gulch Crossing will be conducted and a topographic map prepared to aid in the design and construction of a proposed new crossing. This work will include the following scope:

- Set several random control points to the North and South of the Dark Gulch crossing which will be utilized throughout the duration of the project.

EXHIBIT A

- Survey existing site conditions, including but not limited to; existing roadbed, grade breaks, drainage structures, trees over 18" in diameter, creek flowline upstream and downstream of the site, sink holes, slides, and grade breaks.
- Locate temporary control points
- Elevations will be based on an assumed datum.
- Prepare up to 4 cross sections of the existing conditions.
- Prepare a topographic map with 1' contour intervals and spot elevations throughout.

The limits of the mapping will be sufficient to include the anticipated limits of disturbance associated with crossing and approach road construction, temporary access, dewatering (if required), and staging. It is anticipated that this survey will extend 50 feet beyond the limits of the existing fill. County Parks Department will assist in the removal of low vegetation to improve line of sight for improved efficiency of the survey.

TASK 3.3 –OLD HAUL ROAD AND RHODODENDRON CREEK MAPPING

The consulting team will map site conditions along Old Haul Road and at Rhododendron Creek using a topographic map generated from the County LiDAR bare earth data. This map will depict limits of the existing roadbed, cut and fill slope limits, erosional features, drainage structures, and trees over 12" in diameter. We will establish a network of permanent control points in the vicinity of the proposed work.

TASK 3.4 – GEOTECHNICAL / ENGINEERING GEOLOGIC and GEOMORPHIC STUDY

The purpose of this study will be to explore the surface and subsurface conditions at the site to develop recommendations for the removal and replacement of fill embankment and installation of a new culvert at Dark Gulch, placement of temporary fill along the Old Haul Road, and improvements to Rhododendron Creek.

The geotechnical work will be focused at Dark Gulch and will be centered around 1) determination of fill material below the roadway that comprises the fill embankment including an understanding of the distribution of logs (to the extent feasible) and 2) analysis that seeks to establish cost effective fill compaction and embankment design criteria. We recognize the desire to use on-site soil as engineered fill, the limited water resources readily available for moisture conditioning soil during compaction, and the potential need for adaptation to the actual conditions that may be uncovered during excavation for the project. We also understand that the existence, distribution and decay of large diameter crib logs that comprise the existing fill embankment presents a potential significant constraint on the repair.

The engineering geologic and geomorphic work will focus on 1) mapping of site conditions, 2) identification of geologic and erosion hazards, and 3) development of grading and erosion control measures to mitigate those hazards. Mapping and information gathered during the engineering study will provide the foundation for the proposed upgrades

Geotechnical Field Study (Dark Gulch)

- Drill and log three or four exploratory boreholes utilizing a truck mounted drill rig, gather field data including standard penetration testing results, and collect soil samples to return to our lab for testing.
 - Obtain a geotechnical drilling permit from San Mateo County
 - The exploratory drill rig will be provided and operated by a consultant.
 - County Environmental Health requires all exploratory borings to be backfilled with concrete grout. This is not appropriate at this site due to cavities in the fill and the potential for the

EXHIBIT A

concrete to reach the stream channel. Grouting only the top 8-10 feet of the boring with the lower portion backed filled with earth is recommended. A variance to the Environmental Health grouting policy will be required.

- ASSUMPTION: Costs outlined here assume the boring will be grouted to a 8-10 foot depth. If a variance is not granted and the entire hole needs to be grouted, extra costs will apply.
- Characterize and determine the density and relative compaction of the existing embankment soils in relation to the existing oversteepened ¼:1 to 1:1 (H:V) fillslopes.

Geotechnical Engineering Analysis

- Measurements will be taken of moisture content and density of the existing fill materials sampled during the field investigation.
- Three compaction curves (ASTM D 1557) of collected subsurface soil from the site will be completed in a laboratory that will then be used for stability analysis and during actual construction of the fill embankments during the construction project.
- Three samples of soils collected during the field investigation will be recompacted, and used to measure the shear strength of those recompacted fills. We anticipate that 80 to 85% relative density will be used in the compacted samples selected for shear testing.
- A slop stability analysis for the proposed embankments at the site will be completed. These will include static analysis of 1:1 or ½:1 temporary cutslope gradients, anticipated for use during construction; and seismic analysis of 1.5:1 finished fillslope embankment gradients.

Engineering Geologic Study

This study includes the following tasks:

- Map geologic and geomorphic conditions along the entirety of the roadway and at Dark Gulch and Rhododendron Creek.
- Field characterize soils
- Qualitatively evaluate landslide and seismic hazards at the project site
- Qualitatively evaluate erosion hazards at the project site.

Geotechnical / Engineering Geologic report or memorandum

- Preparation of a geotechnical report presenting findings, conclusions and recommendations for fill removal, culvert placement, fill replacement and erosion control.

TASK 3.5 – HYDROLOGIC STUDY

The peak flow rates at the project site will be determined for several return intervals (10, 50 and 100-year) based upon regional regression equation calculations. Culvert diameter for the different peak discharge events will be calculated. A hydraulic model will be developed to determine the velocity and depth of the water in the creek during several peak flow events at the culvert outfall. This information will assist in evaluating the project's impacts on flooding, scour, and bank stability/erosional forces.

Task 4 – Feasibility Analysis and Development of Preliminary Crossing Design (Consultant Team)

TASK 4.1 – FEASIBILITY ANALYSIS OF DESIGN CONCEPTS

An analysis of feasibility for the design concepts will be conducted based on the findings of the site evaluation.

TASK 4.2 – PRELIMINARY CROSSING DESIGN

Preliminary level designs for the crossing repair will be developed. Details of this design will be dependent on the outcomes site evaluation and feasibility analysis, and

EXHIBIT A

The design drawings will be sufficiently accurate and complete to determine project layout, impacts, opportunities, constraints and material quantities. Information to be provided on the Drawings will include:

- Site topography and grading plan, identifying ground disturbance and vegetation removal.
- Estimate of grading volumes
- Typical details, cross sections and profiles.
- Limits of disturbance, including temporary access, staging areas, and disposal sites for materials.

A technical memorandum will be prepared to support the concept design. This memorandum will outline site conditions, constraints and will detail uncertainties. A preliminary engineer's cost estimate will also be provided.

Task 5 – Meetings and Consultations (Consultant Team)

The consulting team will attend 4 meetings and two conference calls with the client, stake holders and agency personnel and will include the following:

- One progress site meeting to discuss project status and preliminary findings
- One site visit with relevant regulatory agency staff to identify key issues and provide the agencies with an on-site assessment of conditions.
- On site visit with biologist, archeologist, and/or botanist to review project limits
- One meeting following completion of the preliminary design alternatives to provide an opportunity for the project team, client and stake holders to review the results
- Two conference calls to discuss project status

Budget for Engineering Consulting Team	Cost:
Task 2 - Technical Direction of Engineering Surveys and Analyses (Engineering Project Consultant)	\$3,900.00
Task 3 – Site Evaluation	
Task 3.1 – Site Research and Review of Existing Site Data/Information (Geotechnical Consultant)	\$2,150.00
Task 3.2a – Topographic Survey of Dark Gulch (Land Surveying and Civil Engineering Consultant)	\$12,500.00
Task 3.2b – Analysis of Topographic Survey (Engineering Project Consultant)	\$6,000.00
Task 3.3. – Reconnaissance Mapping of Old Haul Road and Rhododendron Gulch (Engineering Project Consultant)	\$9,150.00
Task 3.4a – Geotechnical Field Study (Geotechnical Consultant)	\$27,450.00
Task 3.4b – Engineering Geologic Study (Engineering Project Consultant)	\$6,360.00
Task 3.5 – Hydrologic Study (Engineering Project Consultant)	\$1,330.00
Task 4 – Analysis of Feasibility and Preliminary Design	
Task 4.1 – Analysis of Feasibility of Design Concepts (Engineering Project Consultant)	\$6,000.00
Task 4.2a – Development of Preliminary Crossing Design (Geotechnical Consultant)	\$9,300.00

EXHIBIT A

Task 4.2b – Development of Preliminary Crossing Design (Land Surveying and Civil Engineering Consultant)	\$8,400.00
Task 4.2c – Development of Preliminary Crossing Design and Technical Memo (Engineering Project Consultant)	\$10,150.00
Task 5a – Meetings and Coordination (Engineering Project Consultant)	\$6,000.00
Task 5b – Meetings and Coordination (Geotechnical Consultant)	\$7,090.00
Total:	\$115,780.00