



September 26, 2024

Becky Bucar, Assistant Public Works Director
Town of Truckee
10183 Truckee Airport Rd.
Truckee, CA 96161

Dear Becky,

The Truckee River Watershed Council (TRWC) would like to thank the Town of Truckee for its support of the Donner Lake Bank Restoration. The Town Council committed \$200,000 of match funding for the Martis Fund for improvements at and adjacent to the public piers at Donner Lake.

Scope of Work

- **Project Management** – Coordinate with landowners and stakeholders, manage subcontractors, and submit quarterly invoicing for expenses incurred for reimbursement.
- **Evaluation** – Data collection, analysis of current conditions and causes of degradation, and prioritization of restoration opportunities.
- **Design** – Focusing on 3-5 top priority restoration projects, develop concept designs for stakeholder review and discussion, intermediate designs sufficient for permitting and additional funding applications, and final design sufficient for construction.
- **Permitting and Environmental Compliance** – Resource studies and analysis, prepare CEQA documents, and obtain all permits necessary for construction.
- **Construction** – Construction oversight to meet project design and permitting requirements, and construction by a qualified contractor.

Of funds from the Town, \$75,000 will be used in support of evaluation, design, permitting, and environmental compliance (see attached contract between TRWC and selected consultant, Wildscape Engineering, Inc.). The remainder will be used for construction. Please feel free to contact me if you have any questions.

Sincerely,

Michele Prestowitz, Project Director

530.550.8760

P.O. Box 8568

Truckee, CA 96162

www.truckeeriverwc.org

TRUCKEE RIVER WATERSHED COUNCIL

PO Box 8568
Truckee, CA 96162
530-550-8760
www.truckeeriverwc.org

CONTRACT WITH WILDSCAPE ENGINEERING, Inc. Donner Lake Bank Restoration Design

Agreement is hereby made between the Wildscape Engineering, Inc. (CONTRACTOR) and Truckee River Watershed Council (CLIENT) according to the following terms, conditions, and provisions:

IDENTITY OF CLIENT

Truckee River Watershed Council
P.O. Box 8568
Truckee, CA 96162
Contact: Michele Prestowitz, Project Director
530.550.8760 x4
mprestowitz@truckeeriverwc.org

CONTRACTOR

Wildscape Engineering, Inc.
1901 Lisa Maloff Way, Suite 108
South Lake Tahoe, CA 99150
Contact: Carol Beahan, PE, QSD/P, President
855-816.6593
carol@wildscape-engineering.com

SCOPE OF WORK

The purpose of this contract is to complete the evaluation and restoration design related to degraded banks on the north shore of Donner Lake in Truckee, California. The end goal is to complete design of three to five top priority shoreline restoration projects at the public piers which will improve the ecological function, habitat quality and water quality of the Lake, and improve visitor safety, user experience, and long-term stability at the project sites.

CONTRACTOR shall complete the activities described in the attached detailed Scope of Work (Appendix A).

SERVICE

Deliverables

CONTRACTOR shall provide comprehensive technical services and expertise to assess the existing condition of the banks of Donner Lake and provide sound, engineering design plans and recommendations for bank restoration (see Appendix A). Exact deliverables are outlined in Appendix A. The budget is included as Appendix B and the schedule is in Appendix C.

CONTRACTOR must be available to meet with CLIENT's representatives upon reasonable notice to allow CLIENT to determine if the contract is on the right track, whether the project is on schedule, provide communication of interim findings, and afford occasions for airing difficulties or special problems encountered so that remedies can be developed.

Invoicing

CONTRACTOR shall provide a brief narrative progress report with each invoice.

The invoice will include details of the task performed, delineate staff by name, date, hours, rate, total for the period, and remaining amount. The invoice will be consistent with the Cost Estimate included with Appendix B

Invoices will be submitted to CLIENT on the 25th of March, June, September, and December.

Travel and per diem expenses are allowed at current Federal rates.

Reports and invoices will be submitted electronically in Microsoft Word, Microsoft Excel or Adobe PDF.

Timing

All deliverables will be completed by June 30, 2025, with final invoicing by July 31, 2025.

TERMS OF PAYMENT

As compensation for CONTRACTOR'S service, CLIENT pays CONTRACTOR as specified in Appendix B. The total contract amount will not exceed \$159,930.

Funding for this contract is provided by grants. CLIENT is a grantee and invoices quarterly (March 31, June 30, September 30, and December 31) for work completed. The obligation of CLIENT to pay its subcontractors shall be subject to and conditioned upon its receipt of payment from the funder. Implied or stated in CLIENT's agreement with the grantor is that payments are subject to the availability of funds.

INDEPENDENCE

CONTRACTOR understands CONTRACTOR is not the CLIENT's employee and is not entitled to any benefits provided by CLIENT to its employees. CONTRACTOR will perform all services in an independent capacity, subject to the CLIENT's direction and control only as to the result and not the manner or means of accomplishing that result. Except as specified above, CONTRACTOR shall, at CONTRACTOR'S sole expense, provide all instruments or supplies, any required licenses or permits, additional helpers or subcontractors, and any other expense incurred by CONTRACTOR except as otherwise specified herein.

INSURANCE

Contractor shall provide before entering the premises and shall maintain in force during the term of this contract the following liability insurance:

- General Liability
- Motor Vehicle Liability

Each policy of liability insurance described above shall be in an amount of not less than one million dollars (\$1,000,000) per occurrence for bodily injury and property damages combined.

CONTRACTOR shall provide a certificate of liability insurance to CLIENT, naming the Truckee River Watershed Council as Also Insured. Insurance certificate must be received by CLIENT prior to starting work on this contract.

INDEMNITY

CONTRACTOR, at its expense, shall indemnify, hold harmless, and when requested by CLIENT to do so, defend CLIENT, its officers, agents, and employees from any and all claims, demands or charges and from any loss or liability, including attorney's fees and expenses of litigation, resulting from negligence or carelessness on the part of the CONTRACTOR, its employees, or agents in the execution of the work or delivery of materials and supplies, by or on account of any act or omission of the CONTRACTOR, its employees or agents, including damage or destruction of any property or properties arising from, caused by or connected with the performance of work by CONTRACTOR, its agents, subcontractors and employees, and any failure to fulfill the terms of any laws or regulations which apply to the contract.

OWNERSHIP

CLIENT will have rights to all data and documents produced under this contract. All work produced under this contract is original for CLIENT and has not been billed to other clients previously. Work under this contract is being billed only to this contract and not to other clients or funders.

TERMINATION WITHOUT CAUSE

Either party may terminate this agreement without cause after giving 15 days written notice to the other. The parties shall deal with each other in good faith during the 15-day period after notice is given. CLIENT agrees to pay CONTRACTOR all expenses to date of termination and any uncancellable obligations.

TERMINATION WITH CAUSE

With reasonable cause, either party may terminate this agreement effective immediately upon giving written notice of termination for cause. Reasonable cause shall include material violation of this agreement and any act exposing the other party to liability to others for personal injury or property damage. The failure of either party to exercise any of its rights under this agreement for a breach thereof shall not be deemed to be a waiver of such rights or a waiver of any subsequent breach.

CHOICE OF LAW

Any dispute related to this agreement shall be decided in accordance with the laws of the State of California.

AUDIT

Contractor must retain records relative to the goods, services, equipment, materials, supplies, or other assistance provided to TRWC for the Project for a period of three year after project completion and provide to TRWC in event of an audit.

RIVER TALK

To more effectively engage in this cooperative project, CONTRACTOR will send one employee to a one-hour "River Talk" presented by the CLIENT in order to become more familiar with the work of the CLIENT. Attendance at a River Talk will take place prior to CLIENT making the first payment to CONTRACTOR.

PUBLIC SAFETY OUTAGE MANAGEMENT

During periods of extreme wildfire risk, the local utility district may de-energize transmission lines with notification between 48-24 hours and 12-4 hours before the outage. Upon notification, CONTRACTOR will provide the CLIENT with a contingency plan for approval.

TERMS OF AGREEMENT

This is the entire agreement of the parties and cannot be modified orally; only written changes are authorized. This includes budget, scope of work, and staffing whether or not identified by name.

If any part of this agreement shall be held unenforceable, the rest of this agreement will nevertheless remain in force.

This agreement may be supplemented or amended only in writing by agreement of authorized representatives of the parties.

This agreement becomes effective upon signatures of both parties.

CONTRACTOR: Wildscape Engineering, Inc.

BY: Carol Beahan DATE: 7/31/2024
Carol Beahan, PE, QSD/P, President

CLIENT: Truckee River Watershed Council

BY: Lisa Wallace DATE: 8/6/2024
Lisa Wallace, Executive Director

Jose R. Rivero 8/7/2024

Jose R. Rivero Board Secretary

Appendix A: Scope of Work

TASK 1. Meetings

We rely on clearly understanding the client and stakeholders' restoration goals for the site and participating in a collaborative process to ensure project success. To assimilate and integrate client and stakeholder knowledge, concerns, and intentions for the Project, the Project Manager and key members of the team will prepare for and participate in four meetings with TRWC, project partners, any other designated stakeholders. The four meetings are described below based on the RFP and include a project launch/scoping meeting, review of evaluation findings to prioritize restoration opportunities, conceptual design review, and intermediate design review.

1.1 Project Launch and Scoping Meeting

To clarify and solidify the restoration goals and align the scope accordingly, the proposed Project Manager/Lead Ecological Engineer, Carol Beahan and Lead Geotechnical Engineer, Jonathan Pease will meet with the TRWC and TDRPD, at the start of the project. In addition to clarifying goals and objectives for site evaluation and design, this meeting will cover existing data sources, land ownership and access, lake management history and operational plans, infrastructure protection, recreational use, coordination with other projects, management goals, and deliverable requirements. Wildscape will provide draft meeting materials to TRWC for review and approval prior to the meeting to facilitate a productive discussion. Wildscape recommends that this meeting initiate at the TRWC or TDRPD office and be followed by a field visit of the site.

Objective: Develop a greater understanding of the project goals and objectives and partner and stakeholder desires and concerns; gather additional information on site condition opportunities and constraints; and modify our field investigation studies and design efforts to target desired outcomes.

Deliverables: Meeting materials and draft and final meeting summary

1.2 Review of Evaluation Findings to Prioritize Restoration Opportunities

Once the team has completed the desktop and field assessment tasks and compiled and analyzed the data, they will meet with TRWC and TDRPD to provide an overview of the site setting and restoration opportunities and approaches. This will be a key time to bring the partners and stakeholders up to date on what is known about past and ongoing impacts to the shoreline of Donner Lake in the context of lake operations and recreational demands, climate change and lake behavior and anticipated future needs that may have a cumulative impact on lake and shoreline condition. We will also introduce the methods and approaches the team would like to implement to repair, prevent and mitigate continued degradation.

Objective: Present information gained regarding site setting and ways to address shoreline degradation and involve TRWC, TDRPD and their stakeholders in discussion of evaluation findings and restoration opportunities.

Deliverables: Meeting materials and draft and final meeting summary

1.3 Conceptual Design Review Meeting

Once conceptual design plans (30% detail) and the draft Design Basis Memo have been completed for the Project and provided to TRWC, TDRPD and stakeholders for review, the

Wildscape/RTGA team will present the 30% plans, answer questions, and collect feedback for completing intermediate (i.e., 65% design) plans.

Objective: Collaborate and collect TRWC and stakeholder input on conceptual design plans.

Deliverables: Concept (30%) Design Comment and Response Table

1.4 Intermediate Design Review Meeting

Incorporating comments and edits to the 30% design plans and Design Basis Memo, the Wildscape/RTGA team will produce and provide 65% design plans and a revised Design Basis Memo to the TRWC, TDRPD and stakeholders for review. The Wildscape/RTGA team will present the 65% design plans, answer any additional questions, and collect input and feedback on any desired or necessary changes of the design. Wildscape recommends that this meeting be held virtually since it will likely occur in winter 2025.

Objective: Collect final input on intermediate (65%) design plans.

Deliverables: Intermediate (65%) Design Comment and Response Table

TASK 2. EVALUATION & SUPPLEMENTAL DATA COLLECTION

The Wildscape/RTGA team will build upon the assessment work done to date, including the Donner Basin Watershed Assessment Report, acquire supplemental data relevant to site understanding and design development and conduct supplemental surveys/analyses as described below. Research and assessment of the Donner Basin and the 37 public piers will be examined to determine areas of erosion and degradation, opportunities for habitat, access, and safety improvements, and will be the basis for design recommendations presented in the Design Basis Memo.

2.1 Desktop Data Collection and Review

The Wildscape/RTGA team will collect and review existing available data including the prior watershed assessment and identify data gaps that need to be filled. Existing studies and data to be reviewed include, but are not limited to, topographic data, geologic and soils maps, utility infrastructure (ASCE Quality Level D review for utility records), reservoir operation plans, recreational uses and any other data and documents relevant to the project area. Historic and current aerial imagery, mapping and other pertinent historical documentation will be compiled and examined for watershed hydromodification impacts and indications of other historic and natural influences on the lake and surrounding area over time. The Team will analyze hydrologic data to understand the pattern of reservoir levels and their impact to shoreline condition and vegetation survivability. Aerial photo and map analysis will be used to document geomorphological responses and more specifically identify sources of disturbance and degradation. Historical wind direction and intensity data will be reviewed using figures such as the provided wind rose from the Truckee River Airport.

The existing LiDAR data from 2018 or 2021 will be used for general planning and mapping purposes given the suitability of collecting new LiDAR data before we initiate site assessment is low given water levels are not expected to drop to reveal the lower bank topography until October or November. After the assessment and initial identification of the priority sites, a

supplemental topographic survey may be performed, depending on the quality of the existing 2021 LiDAR survey as described in the next section.

The relevant data and reports will be referenced during preparation of conceptual designs to guide designs and ensure no unforeseen impacts to recreational uses and TDRPD existing or future management objectives.

Objective: Develop solid baseline, identify data gaps, document weather and human past and present influences and resultant changes in shoreline condition form and extents and refine conceptual design approach.

Deliverables: Summary of data analysis to be incorporated in the Design Basis Memorandum.

2.2 Supplemental Field Data

Preliminary Field Reconnaissance: A preliminary field investigation will be conducted with key team members of the Wildscape/RTGA team to collaboratively review and validate existing data and to observe and record current shoreline conditions. The team members will also use this time in the field to discuss restoration and bank revetment approaches and opportunities to incorporate access and trail enhancements and improve safety.

Shoreline Condition Assessment: Field maps will be used to systemically collect and analyze data for the project site. Smart forms will be utilized to assess the existing condition of each pier and bank, recording erosion severity, vegetation, existing protection measures, ease of public access to piers, safety concerns, and overall user experience quality. From this assessment, we will develop a simplified scoring system addressing level of disturbance, types of erosion or slope hazards, opportunities for habitat and safety improvements, and potential solutions. A preliminary writeup consisting of a draft memorandum and summary of site visit pages will be prepared to support development of restoration opportunities and conceptual designs and for incorporation into the Design Memo.

RTGA will evaluate wave heights and runup during one or more windy days to compare with wave runup design methods. Additionally, wave heights will be visually observed and recorded during peak boat activity to determine if wake waves are comparable to those generated from wave fetch. Based on the resulting data, RTGA will evaluate runup and determine static/dynamic particle sizes for effective stabilization.

Geomorphic and Limnological Assessment: While RTGA is in the field for the shoreline condition, the Wildscape restoration ecologist and restoration engineer will also map the drainages to Donner Lake and document their condition along with the physical, biologic, and water quality attributes of the nearshore that interact with the piers and shoreline. Aspects to be observed and recorded include drainage or culvert inputs, trail redundancy/intersections, bank and bed substrate and material types, bank height/slope, presence of erosion, rills, knickpoints or undercutting, presence of natural or applied armoring (tree roots, rock revetment, other), soil compaction, intersecting infrastructure, aquatic plant growth, presence of land-based or aquatic invasives, and water clarity. During this data collection effort, we will also begin to formulate restoration options to address the degraded conditions to incorporate into the conceptual designs.

Supplemental Topographic Survey: The Wildscape/RTGA engineers will evaluate the LiDAR topographic data and aerial imagery collected under Task 2.1 to confirm it is adequate for conceptual planning and priority site identification in combination with the shoreline condition assessment work described above. Given the optimum low lake levels for surveying will not likely be until the fall, we recommend waiting until the priority sites are first identified and then performing a supplemental topographic survey using a survey-grade GPS at those specific locations. This task would cover the supplemental surveys performed by Wildscape engineers and if helpful, we have a certified diver on staff who could supplement the land survey data with additional data collection below the water surface in those locations.

Botanical Surveys: At each site Wildscape will map existing vegetation along the banks and nearby vegetation that could be used for revegetation (sod, willow cuttings, and other desirable salvageable vegetation that may be obtained on-site or nearby). Vegetation data will be collected to determine dominant plant species and general plant composition of disturbed areas. Sediment cores may be needed to understand stratifications in sediment size, especially at root-zone depths. Lake-wide investigations conducted via water will focus on what plants can tolerate the fluctuating water levels in relationship to sediment particle size along the shores of Donner Lake. Field reconnaissance data, observations, mapping, and photographs will be summarized and documented to be used in conceptual design considerations and construction.

Objective: Supplement existing data with focused field surveys to inform site setting understanding and causes of degradation and inform design development.

Deliverables: Collected data will be summarized in the Design Basis Memo.

2.3 Evaluation and Technical Memorandum

A draft technical memorandum will be developed compiling all the information collected during the desktop and field efforts. It will summarize the following at a minimum:

- Existing conditions – current state of the shoreline at the 37 public piers, and adjacent shoreline areas. Discussion of ecosystem functioning, areas of impairment, causes and sources of degradation, comparison of conditions and processes to reference sites to the extent possible.
- Data collection and methodologies
- Identified locations for prioritization
- General recommended or alternative strategies that would be recommended or applicable to multiple sites, in addition to design strategies that might be applicable to a specific site.

Comments from TRWC/TDRPD and their stakeholders collected during the evaluation meeting will be incorporated into a final technical evaluation memorandum for continued reference during design development.

Objective: Provide a single reference document that summarizes site setting and causes of degradation and informs site prioritization and design development.

Deliverables: Draft and Final Technical Evaluation Memorandum

TASK 3. CONCEPTUAL RESTORATION (30%) DESIGN

Building upon the information and insight gained from the scoping and evaluation meetings, field work, technical data and engineering analysis summarized under Task 2.3, Wildscape/RTGA will develop restoration concepts for the three to five agreed upon priority sites. These designs will incorporate aspects of structural, biotechnical, and vegetative shoreline stabilization methods, as well as access management.

Where applicable, at least two conceptual designs will be recommended with different levels of mitigation or complexity for each site. Concept designs will include enough detail to evaluate the relative ecological benefits accrued by each approach and relative costs. Working with TRWC/TDRPD we will identify the preferred conceptual restoration design alternatives for each location to advance to intermediate design.

Conceptual plans will likely consist of a single 24 x 36 sheet with notes and limited details completed in GIS and/or CAD, for each site.

Objective: Provide restoration designs with plans that are displayed in sufficient detail for the TRWC/TDRPD and their stakeholders to understand, evaluate and provide input on.

Deliverables: 30% Concept Plans

Figure 6: Example of planted rock slope protection where rock spacing widens moving up the slope (Brodhead Park)

TASK 4. INTERMEDIATE RESTORATION (65%) DESIGN AND DESIGN BASIS MEMO

Following consensus on the Conceptual Restoration designs for the priority sites to carry forward, the Wildscape/RTGA Team will advance the conceptual designs to intermediate 65% plans with greater detail and an Engineer's estimate incorporating elements developed during the field investigations, targeted supplemental RTK surveying, and client and stakeholder meetings. The 65% Plans and Engineer's Estimate will be submitted to TRWC/TDRPD for distribution to other stakeholders for review and comment.

Intermediate design will include evaluation of technical considerations such as site grading, access, revegetation, costs, and environmental impacts. Plant species will be chosen based on their tolerance of site conditions, their anticipated adaptability to climate change, and the ability for their roots to stabilize lake banks and prevent further erosion.

The 65% design plans will include but not be limited to a title page, notes sheet, site grading plans and profile sheets showing location and extent of restoration/bank revetment improvements, staging and access, erosion control and planting plans, and misc. details sheets. The revegetation/planting plans and details will incorporate innovative revegetation and biotechnical treatments that will be viable under changing water surface levels. The plans will have sufficient detail on extents of temporary disturbance, site grading, staging, access, hauling, soil bioengineering, revegetation, quantities, costs, and environmental impacts to support permit applications. Designs will aim to balance materials on site as much as possible.

Any grading disturbance and associated treatment will try to make use of local native resource materials, and where feasible biotechnical treatments will be proposed to ensure success.

Designs will identify construction access, timing, and storage needs to prevent any surprises during implementation and to minimize disturbance.

To enable the TRWC to identify and acquire sufficient funding to implement the project this task will also develop a construction cost estimate (Engineer's estimate) using reliable construction project costs, RS Means, local suppliers and vendor costs.

A Design Basis Memo will accompany the Intermediate Plans to summarize continued technical data and analysis acquired and compiled with the technical memorandum developed under Task 2. These products will serve as a vehicle to share the information gained from the field efforts and how that information shaped design alternatives. Included in this memo will be a summary of any constraints, partner and stakeholder considerations, and cost of and implementation approach for the designs.

A design basis memo will accompany the intermediate plans. The design basis memo will provide project stakeholders with an understanding of the processes, methodologies, and the basis of the proposed restoration design. It will incorporate the technical data generated by Task 2 and include discussion of the limiting factors for restoration, partner considerations, and restoration feasibility for the identified alternative.

Objective: To have a sufficiently detailed set of design documents to support permit applications and continued project development. The objective of the Design Basis Memo is to provide the stakeholders with an understanding of the important elements of the selected designs, including the basis, methodologies, and processes.
a memo that provides background information on how the designs were developed from the technical information for the TRWC and their stakeholders to understand, evaluate and provide input on.

Deliverables: Intermediate (65%) Plans, Design Basis Memo, Engineer's Cost Estimate

TASK 5. DRAFT FINAL (90%) AND FINAL (100%) RESTORATION DESIGNS

This task will build on comments to the 65% design documents from the TRWC/TDRPD and their stakeholders provided in writing and collected during the 65% Design Review meeting to produce a more refined and detailed set of PS&E at the Draft Final (90%) level. The draft final design plan set will include additional cut/fill balance information and details for construction, temporary and permanent erosion and sediment controls, and a final staging and access plan. This set will provide an opportunity for the TRWC/TDRPD and their stakeholders to review and comment on what is being proposed as final and allow for those comments to be incorporated as final design changes. In addition, the final design will clearly show existing topography, proposed topography, and cut and fill volumes.

The technical specifications and cost estimate will also be updated based on design plan changes, submittal requirements and a recommended order of work added to the specifications, more defined earthwork and material quantities, and similar project costs and vendor quotes incorporated into the updated cost estimate. Ideally, comments from regulatory agencies will also be incorporated before moving forward with the 100% final construction package. Once comments are received on the 90% design they will be incorporated, and the design documents carried forward to final (100%) construction documents.

The final product of this task will be PS&E at 100% design level incorporating all final comments collected. The (PS&E) will be similar to 90% documents but to a more detailed and final level, sufficient to support construction and bidding requirements. Final construction documents will be clear and concise, to be easily and accurately interpreted by bidding Contractors. If needed, the Wildscape/RTGA team can also provide (at additional cost) bid support services, including but not limited to pre-bid meeting presentations and written responses to requests for information or clarification.

Objective: To have a detailed set of design documents to support bid, award, and construction.

Deliverables: Draft Final (90%) and Final PS&E and Digital Copies of all data and photographs.

TASK 6. PERMIT AND ENVIRONMENTAL COMPLIANCE SUPPORT.

The Wildscape Team will provide permit assistance during design development.

Aquatic Resource Delineation: The Wildscape restoration ecologist will perform an aquatic resource delineation per US Army Corps of Engineers standards and provide to TRWC/TDRPD for review and comment. Those comments will be incorporated, and a final delineation will be provided for verification.

Wildscape will review existing data and reports including the U.S. Fish and Wildlife Service National Wetlands Inventory data and NRCS soils data. We will also map the estimated wetland boundary using the normalized difference vegetation index (NDVI) derived from National Aerial Imagery Program (NAIP) imagery. The desktop analyses will result in a draft wetland boundary that will guide the locations of the field assessment.

The Restoration Ecologist and supporting staff will conduct the field assessment during the growing season to allow plant identification. We will survey vegetation, soil, and hydrology at paired delineation points in and out of wetland boundaries. We will use standard scientific field procedures to characterize the vegetation, soils, and hydrology within the project area. Standard wetlands delineation data sheets will be used to record field data. Photo documentation will include photos of every soil pit analyzed. As standard practice, we will search the ground surface for any signs of cultural resources before excavating shallow soil samples (six inches across, 24 inches deep). We are also happy to coordinate with cultural resource monitors if required. Adjustments to wetland boundary delineated via the desktop analyses will be made based on field assessment results.

Wildscape will prepare the preliminary delineation report that meets or exceeds the Corps' 2016 Minimum Standards for Acceptance of Aquatic Resources Delineation Reports to include an Aquatic Resources excel spreadsheet, a map of all delineated aquatic resources, completed data forms, and digital GIS data for the site. Narrative describing the current definition of Waters of the U.S. (WOUS) rule (September 8, 2023 "Revised Definition of 'Waters of the United States', Conforming" rule or later rule) and any proposed or pending rules that could change the WOUS definition will be provided to update the delineation. Wildscape will provide the draft preliminary aquatic resources delineation report to TRWC for review and will revise the report, if needed, according to TRWC comments.

Quantities Estimates including Cut and Fill and Areas of Disturbance by Habitat Type: Design information will include estimates of cut and fill quantities of the disturbance areas by habitat type at 65% design to complete permitting. This includes the volume, linear length, and surface area of disturbance by habitat type. Additionally, the information provided will include onsite spoils volumes if produced, material import, number of haul trips if any, staging and access and areas of disturbance by habitat type for the TRWC to complete local, regional and federal environmental compliance permitting, likely to include 401 Water Quality Certification (Lahontan Regional Water Quality Control Board) and CWA Section 404 NWP 27 Authorization (USACE), Streambed and Lake Alteration Agreement (CDFW) and County grading permits. We will also provide the amount of disturbance in the or floodplain Wildscape will provide figures developed during the design process to include in the applications. During this project phase the team will also provide a FEMA 100-year Special Flood Hazard Area or floodplain map and calculations of disturbance within it as well as a completed USACE Aquatic Resources Delineation of the project area, up to USACE standards.

Objective: To support the TRWC with applying for and acquiring all necessary construction permits.

Deliverables: Estimates of cut and fill quantities and area disturbance by habitat type, supplemental information on an as-needed basis, quantities for permit applications, figures for inclusion in permits and the PS&E described in tasks above, Aquatic Resources Report up to USACE standards, 100-year floodplain disturbance map and calculations.

TASK 7. COORDINATION AND REPORTING.

As Project Manager, Carol Beahan will communicate regularly with the TRWC Project Manager primarily and occasionally with stakeholders as directed. Quarterly invoices and progress reports will be produced and submitted to TRWC by the 25th of the last month of each calendar quarter. Copies of all data collection and analysis including topographic surveying and shoreline condition mapping will be provided to the TRWC in electronic format (Word, Excel, or Adobe pdf) as well as summarized in submitted reports.

Objective: To help TRWC track project efforts, submittals, timelines, and payments

Deliverables: Quarterly Progress Reports and digital copies of all photographs, data collection and analyses, and design/GIS-based survey data in electronic form.

Appendix B: Budget

Firm		WILDSCAPE ENGINEERING INC								RENO TAHOE GEO ASSOCIATES			Labor Cost by Task
Personnel Classification	Hourly Rate	Project Manager, Carol Beahan, PE, QSD/P, QISP	Senior Water Resource Engineer David Thompson, PhD, PE	Senior Restoration Engineer Dr. Susan Mortenson, PhD	Staff Engineers, Brooke Ahmed EIT, Stephen Cook, PE	Staff Ecologist/Field Technician Skylar Jones Alex Gheen	CAD Specialist, John Alexander	GIS Specialist, Susan Goodman	Report Specialist, Jamie Allec	Principal	Associate Engineer	Staff II	
Task Description													
Task 1 Meetings	Scoping and Design Review Meetings	24		8	8				8	24	4	16	\$13,921
Task 2 Evaluation													\$13,921
	Data Collection and Analysis to include Desktop Data Compilation and Analysis, Preliminary Field Reconnaissance, Geomorphic, Limnological Assessments Supplemental Topographic Survey and Shoreline Condition and Geotechnical Investigation	44	6	24	32	30	16	16		40	24	74	\$40,847
	Technical Memorandum	10		8	16		4		8	6	4	4	\$8,074
Task 3 Conceptual Restoration (30%) Design													\$20,658
	Conceptual Design Plans	16	2	12	16		32	2		32		40	\$20,658
Task 4 Intermediate (65%) Restoration Design and Design Basis Memo													\$35,286
	65% Design Plans, Specifications and Engineer's Estimate	32	2	10	30		40		4	36		60	\$28,621
	Design Basis Memo	8		6	24				8	2		4	\$6,665
Task 5 Draft Final (90%) and Final (100%) Restoration Designs													\$27,765
	90% Design Plans, Specifications and Engineer's Estimate	16	2	6	20		28			8		36	\$14,481
	100% Design Plans, Specifications and Engineer's Estimate	8		4	8		16			6		24	\$8,245
	Draft and Final (Updated) Design Basis Memo	8		4	16				4	2		4	\$5,039
Task 6 Permitting and Environmental Compliance Support													\$13,832
	Permit Assistance. Includes Aquatic Wetland Delineation Surveys and Disturbance Areas and Quantifies	2		48	4	40	4	8		2		12	\$13,832
Task 7 Coordination and Reporting													\$3,926
	Coordination	8								6			\$2,466
	Progress Reports	6											\$1,460
LABOR TOTALS		182	12	130	174	70	140	26	38	164	32	274	
	Field/Survey Equipment Rental												\$1,800
	Mileage and Per Diem	\$482	\$67	\$228	\$241	\$314				\$563			\$1,895
DIRECT COST TOTALS													\$3,695
TOTAL PROJECT COST													\$159,930

