

AGREEMENT FOR THE MIDDLE CREEK FLOOD CONTROL FEASIBILITY STUDY FOR THE COMMUNITY OF UPPER LAKE

This Agreement is made and entered into by and between the County of Lake, hereinafter referred to as "County", and Peterson Brustad, Inc., hereinafter referred to as "Contractor", collectively referred to as the "parties".

1. **SERVICES.** Subject to the terms and conditions set forth in this Agreement, Contractor shall provide to County the services described in the Scope of Services attached hereto and incorporated herein as Exhibit A at the time and place and in the manner specified therein. In the event of a conflict in or inconsistency between the terms of this Agreement and Exhibits A or B, the Agreement shall prevail.

2. **TERM.** This Agreement shall commence on September 1, 2018, and shall terminate on April 1, 2020, unless earlier terminated as hereinafter provided. In the event County desires to temporarily continue services after the expiration of this Agreement, such continuation shall be deemed on a month-to-month basis, subject to the same terms, covenants, and conditions contained herein.

3. **COMPENSATION.** Contractor has been selected by County to provide the services described hereunder in Exhibit "A" (Scope of Services), attached hereto. Compensation to Contractor shall not exceed four-hundred eighty-three thousand, eight hundred and four dollars (\$483,804).

The County shall compensate Contractor for services rendered, in accordance with the provisions set forth in Exhibit "B" (Fiscal Provisions), attached hereto, provided that Contractor is not in default under any provisions of this agreement. Compensation to Contractor is contingent upon appropriation of federal, state and county funds.

4. **TERMINATION.** This Agreement may be terminated by mutual consent of the parties or by County upon 30 days written notice to Contractor.

In the event of non-appropriation of funds for the services provided under this Agreement, County may terminate this Agreement, without termination charge or other liability.

Upon termination, Contractor shall be paid a prorated amount for the services provided up to the date of termination.

5. **MODIFICATION.** This Agreement may only be modified by a written amendment hereto, executed by both parties; however, matters concerning scope of services which do not affect the compensation may be modified by mutual written consent of Contractor and County executed by the Water Resources Director.

6. **NOTICES.** All notices between the parties shall be in writing addressed as follows:

County of Lake
Water Resources
255 N. Forbes Street, Room 301
Lakeport, CA 95453
Attn: David Cowan

Peterson Brustad, Inc.
80 Blue Ravine Rd., Suite 280
Folsom, CA 95630

Attn: Chris Fritz

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7. **EXHIBITS.** The Agreement Exhibits, as listed below, are incorporated herein by reference:

Exhibit A – Scope of Services
Exhibit B – Fiscal Provisions
Exhibit C – Compliance Provisions

8. **TERMS AND CONDITIONS.** Contractor warrants that it will comply with all terms and conditions of this Agreement and Exhibits, and all other applicable federal, state and local laws, regulations and policies.


9. **INTEGRATION.** This Agreement, including attachments, constitutes the entire agreement between the parties regarding its subject matter and supersedes all prior Agreements, related proposals, oral and written, and all negotiations, conversations or discussions heretofore and between the parties.

Executed at _____, California on _____.

COUNTY OF LAKE

CHAIR, Board of Supervisors

CONTRACTOR



David Peterson, Principal
Peterson Brustad, Inc.

ATTEST:
CAROL J. HUCHINGSON
Clerk to the Board of Supervisors

By: _____

APPROVED AS TO FORM:
ANITA L. GRANT
County Counsel

By: _____

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EXHIBIT "A" – SCOPE OF SERVICES

1. **CONTRACTOR RESPONSIBILITIES.** Attached hereto as 'Exhibit A – Scope of Services'.
2. **REPORTING REQUIREMENTS.** Contractor shall submit quarterly reports in a format approved by County by the 15th of the month following the report period.
3. **RECORDS RETENTION.** Contractor shall prepare, maintain and/or make available to County upon request, all records and documentation pertaining to this Agreement, including financial, statistical, property, recipient and service records and supporting documentation for a period of five (5) years from the date of final payment of this Agreement. If at the end of the retention period, there is ongoing litigation or an outstanding audit involving the records, Contractor shall retain the records until resolution of litigation or audit. After the retention period has expired, Contractor assures that confidential records shall be shredded and disposed of appropriately.

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EXHIBIT "B" – FISCAL PROVISIONS

1. **CONTRACTOR'S FINANCIAL RECORDS.** Contractor shall keep financial records for funds received hereunder, separate from any other funds administered by Contractor, and maintained in accordance with Generally Accepted Accounting Principles and Procedures and the Office of Management and Budget's Cost Principles.

2. **INVOICES.**

2.1 Contractor's invoices shall be submitted in arrears on a monthly basis, or such other time that is mutually agreed upon in writing, and shall be itemized and formatted to the satisfaction of the County.

2.2 County shall make payment within 20 business days of an undisputed invoice for the compensation stipulated herein for supplies delivered and accepted or services rendered and accepted, less potential deductions, if any, as herein provided. Payment on partial deliverables may be made whenever amounts due so warrant or when requested by the Contractor and approved by the Assistant Purchasing Agent.

3. **AUDIT REQUIREMENTS AND AUDIT EXCEPTIONS**

3.1 Contractor warrants that it shall comply with all audit requirements established by County and will provide a copy of Contractor's Annual Independent Audit Report, if applicable.

3.2 County may conduct periodic audits of Contractor's financial records, notifying Contractor no less than 48 hours prior to scheduled audit. Said notice shall include a detailed listing of the records required for review. Contractor shall allow County, or other appropriate entities designated by County, access to all financial records pertinent to this Agreement.

3.3 Contractor shall reimburse County for audit exceptions within 30 days of written demand or shall make other repayment arrangements subject to the approval of County.

4. **BUDGET.** The Contractor shall submit, in advance, a detailed budget, in the format provided by County for review and approval by the County. Contractor shall be compensated only for expenses included in the approved budget. Modification to the budget must be approved in advance by the County.

5. **EXPENDITURE OF FUNDS.**

5.1 Funds payable through this agreement shall not be used to purchase food or promotional merchandise or to attend conferences unless specifically approved in the budget.

5.2 County reserves the right to refuse payment to Contractor or disallow costs for any expenditure determined to be unreasonable, out of compliance, or inappropriate to the services provided hereunder.

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EXHIBIT “C” – COMPLIANCE PROVISIONS

1. **INFORMATION INTEGRITY AND SECURITY.** Contractor shall immediately notify County of any known or suspected breach of personal, sensitive and confidential information related to Contractor’s work under this Agreement.

2. **NON-DISCRIMINATION.** Contractor shall not unlawfully discriminate against any qualified worker or recipient of services because of race, religious creed, color, sex, sexual orientation, national origin, ancestry, physical disability, mental disability, medical condition, marital status or age.

3. **DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS**

3.1 The Contractor certifies to the best of its knowledge and belief, that it and its subcontractors:

A. Are not presently debarred, suspended, proposed for disbarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;

B. Have not, within a three-year period preceding this Agreement, been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public transaction; violation of federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

C. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity with commission of any of the offenses enumerated in the preceding paragraph; and

D. Have not, within a three-year period preceding this Agreement, had one or more public transactions terminated for cause or default.

3.2 Contractor shall report immediately to County, in writing, any incidents of alleged fraud and/or abuse by either Contractor or Contractor’s subcontractor. Contractor shall maintain any records, documents, or other evidence of fraud and abuse until otherwise notified by County.

4. **AGREEMENTS IN EXCESS OF \$100,000.** Contractor shall comply with all applicable orders or requirements issued under the following laws:

4.1 Clean Air Act, as amended (42 USC 1857).

4.2 Clean Water Act, as amended (33 USC 1368).

4.3 Federal Water Pollution Control Act, as amended (33 USC 1251, et seq.)

4.4 Environmental Protection Agency Regulations (40 CFR, Part 15 and Executive Order 11738).

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5. **INDEMNIFICATION AND HOLD HARMLESS.** Each party shall indemnify and hold the other harmless against all actions, claims, demands, and liabilities and against all losses, damage, cost, expenses, and reasonable attorney=s fees, arising directly or indirectly out of an actual or alleged injury to a person or property in the same proportion that its own negligent error, acts and/or omissions are attributed to said claim, demand, liability, loss, damage, cost, expenses, and/or reasonable attorney=s fees. This provision shall not extend to any claim, demand, liability, loss, damage, cost, expenses, and/or attorney=s fees covered by the insurance of either party and shall be limited in proportion to the degree to which such negligence has contributed to the total damages.

Contractor=s obligations under this Section shall survive the termination of the Agreement.

6. **STANDARD OF CARE.** Contractor is specially trained, licensed, experienced and competent to perform all the services, responsibilities and duties specified herein and that such services, responsibilities and duties shall be performed, whether by Contractor or designated subcontractors, in a manner according to generally accepted practices of the engineering profession practicing in the same locality, under similar conditions and at the date the services are provided.

7. **INTEREST OF CONTRACTOR.** Contractor assures that neither it nor its employees has any interest, and that it shall not acquire any interest in the future, direct or indirect, which would conflict in any manner or degree with the performance of services hereunder.

8. **DUE PERFORMANCE – DEFAULT.** Each party agrees to fully perform all aspects of this agreement. If a default to this agreement occurs then the party in default shall be given written notice of said default by the other party. If the party in default does not fully correct (cure) the default within 30 days of the date of that notice (i.e. the time to cure) then such party shall be in default. The time period for corrective action of the party in default may be extended in writing executed by both parties, which must include the reason(s) for the extension and the date the extension expires.

Notice given under this provision shall specify the alleged default and the applicable Agreement provision and shall demand that the party in default perform the provisions of this Agreement within the applicable time period. No such notice shall be deemed a termination of this Agreement, unless the party giving notice so elects in that notice, or so elects in a subsequent written notice after the time to cure has expired.

9. **INSURANCE.**

9.1 Contractor shall procure and maintain Workers' Compensation Insurance for all of its employees.

9.2 Contractor shall procure and maintain Comprehensive Public Liability Insurance, both bodily injury and property damage, in an amount of not less than one million dollars (\$1,000,000) combined single limit coverage per occurrence, including but not limited to endorsements for the following coverage: personal injury, premises-operations, products and completed operations, blanket contractual, and independent contractor's liability.

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9.3 Contractor shall procure and maintain Comprehensive Automobile Liability Insurance, both bodily injury and property damage, on owned, hired, leased and non-owned vehicles used in connection with Contractor's business in an amount of not less than one million dollars (\$1,000,000) combined single limit coverage per occurrence.

9.4 Contractor shall procure and maintain Professional Liability Insurance for the protection against claims arising out of the performance of services under this Agreement caused by errors, omissions or other acts for which Contractor is liable. Said insurance shall be written with limits of not less than five hundred thousand dollars (\$500,000).

9.5 Contractor shall not commence work under this Agreement until it has obtained all the insurance required hereinabove and submitted to County certificates of insurance naming the County of Lake as additional insured. Contractor agrees to provide to County, at least 30 days prior to expiration date, a new certificate of insurance.

9.6 In case of any subcontract, Contractor shall require each subcontractor to provide all of the same coverage as detailed hereinabove. Subcontractors shall provide certificates of insurance naming the County of Lake as additional insured and shall submit new certificates of insurance at least 30 days prior to expiration date. Contractor shall not allow any subcontractor to commence work until the required insurances have been obtained.

9.7 For any claims related to the work performed under this Agreement, the Contractor=s insurance coverage shall be primary insurance as to the County, its officers, officials, employees, agents and volunteers. Any insurance or self-insurance maintained by County, its officers, officials, employees, agents or volunteers shall be in excess of the Contractor=s insurance and shall not contribute with it.

9.8 The Commercial General Liability and Automobile Liability Insurance must each contain, or be endorsed to contain, the following provision:

The County, its officers, officials, employees, agents, and volunteers are to be covered as additional insureds and shall be added in the form of an endorsement to Contractor=s insurance on Form CG 20 10 11 85. Contractor shall not commence work under this Agreement until Contractor has had delivered to County the Additional Insured Endorsements required herein.

Coverage shall not extend to any indemnity coverage for the active negligence of the additional insured in any case where an agreement to indemnify the additional insured would be invalid under subdivision (b) of California Civil Code Section 2782.

9.9 Insurance coverage required of Contractor under this Agreement shall be placed with insurers with a current A.M. Best rating of no less than A: VII.

Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve the Contractor for liability in excess of such coverage, nor shall it preclude County from taking other action as is available to it under any other provision of this Agreement or applicable law. Failure of County to enforce in a timely manner any of the provisions of this section shall not act as a waiver to enforcement of any of these provisions at a later date.

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9.10 Any failure of Contractor to maintain the insurance required by this section, or to comply with any of the requirements of this section, shall constitute a material breach of the entire Agreement.

10. ATTORNEY'S FEES AND COSTS. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, the prevailing party shall be entitled to reasonable attorney's fees, costs, and necessary disbursements in addition to any other relief to which such party may be entitled.

11. ASSIGNMENT. Contractor shall not assign any interest in this Agreement and shall not transfer any interest in the same without the prior written consent of County except that claims for money due or to become due Contractor from County under this Agreement may be assigned by Contractor to a bank, trust company, or other financial institution without such approval. Written notice of any such transfer shall be furnished promptly to County. Any attempt at assignment of rights under this Agreement except for those specifically consented to by both parties or as stated above shall be void.

12. PAYROLL TAXES AND DEDUCTIONS. Contractor shall promptly forward payroll taxes, insurances, and contributions to designated governmental agencies.

13. INDEPENDENT CONTRACTOR. It is specifically understood and agreed that, in the making and performance of this Agreement, Contractor is an independent contractor and is not an employee, agent or servant of County. Contractor is not entitled to any employee benefits. County agrees that Contractor shall have the right to control the manner and means of accomplishing the result contracted for herein.

Contractor is solely responsible for the payment of all federal, state and local taxes, charges, fees, or contributions required with respect to Contractor and Contractor's officers, employees, and agents who are engaged in the performance of this Agreement (including without limitation, unemployment insurance, social security and payroll tax withholding.)

14. OWNERSHIP OF DOCUMENTS. All non-proprietary reports, drawings, renderings, or other documents or materials prepared by Contractor hereunder are the property of County.

15. SEVERABILITY. If any provision of this Agreement is held to be unenforceable, the remainder of this Agreement shall be severable and not affected thereby.

16. ADHERENCE TO APPLICABLE DISABILITY LAW. Contractor shall be responsible for knowing and adhering to the requirements of Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act, (42 U.S.C. Sections 12101, et seq.). California Government Code Sections 12920 et seq., and all related state and local laws.

17. HIPAA COMPLIANCE. Contractor will adhere to Titles 9 and 22 and all other applicable Federal and State statutes and regulations, including the Health Insurance Portability

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and Accountability Act of 1996 (HIPAA) and will make his best efforts to preserve data integrity and the confidentiality of protected health information.

18. SAFETY RESPONSIBILITIES. Contractor will adhere to all applicable CalOSHA requirements in performing work pursuant to this Agreement. Contractor agrees that in the performance of work under this Agreement, Contractor will provide for the safety needs of its employees and will be responsible for maintaining the standards necessary to minimize health and safety hazards.

19. JURISDICTION AND VENUE. This Agreement shall be construed in accordance with the laws of the State of California and the parties hereto agree that venue of any action or proceeding regarding this Agreement or performance thereof shall be in Lake County, California. Contractor waives any right of removal it might have under California Code of Civil Procedure Section 394.

20. RESIDENCY. All independent contractors providing services to County for compensation must file a State of California Form 590, certifying California residency or, in the case of a corporation, certifying that they have a permanent place of business in California.

21. NO THIRD-PARTY BENEFICIARIES. Nothing contained in this Agreement shall be construed to create, and the parties do not intend to create, any rights in or for the benefit of third parties.

Exhibit A - Scope of Work

Middle Creek Flood Control Feasibility Study for the Community of Upper Lake

Upper Lake (Community) is an unincorporated small community in Lake County and is reliant on State Plan of Flood Control (SPFC) levees to protect it from flooding from Alley Creek, Clover Creek, and Middle Creek. The SPFC levees are maintained by the Lake County Watershed Protection District and by the California Department of Water Resources (DWR) Sutter Yard (Maintenance Area 17). As the authorized land use and floodplain management authority for Upper Lake, Lake County will be the Grantee for the Middle Creek Flood Control Feasibility Study for the Community of Upper Lake (Project) under DWR's Small Community Flood Risk Reduction Program (SCFRRP). The Grantee's Project Team will include Lake County staff and a team of consultants assembled to execute the Project.

Scope of Work

Task 1. Project Management and Reporting

This task includes the management activities including preparing invoices and progress reports for submittal to DWR. The progress reports will summarize the services provided, budget status, and schedule updates. Project management meetings with DWR and the Project Team will occur as necessary during the feasibility study process. This scope includes up to two general purpose meetings (one hour each) with DWR and the Project Team.

Task 1 Deliverables:

- *Monthly Invoices and Quarterly Progress Reports*

Task 2. Identification of Problems and Opportunities

Subtask 2.1: Community Background

Subtask 2.1 will include assembling a description of the community location, setting, history and context. A review of past studies (e.g.- the Mid and Upper Sacramento River Regional Flood Management Plan) will be conducted to develop a summary of known flooding issues within the community and known problems with the existing flood protection facilities that surround the Community.

Subtask 2.2: Existing Conditions Hydraulic Modeling

Previously developed technical tools [Central Valley Hydrology Study (CVHS) and DWR's Hydrologic Engineering Center (HEC) River Analysis Software (RAS) models] will be used to identify flooding sources and to aid in the identification of problems and opportunities. A 100-

year flow scenario will be modeled for existing conditions to develop a 100-year water surface profile along levees that are protecting the Community.

Subtask 2.3: Existing Conditions Floodplain Mapping

The DWR HEC-RAS model will be converted to a HEC-RAS v.5.0 model so that it can be used to simulate overland flow and to map floodplains. One hundred-year levee breach scenarios (up to 6) will be run at various levee locations to delineate the floodplain boundaries for the community and the surrounding area.

Subtask 2.4: Geotechnical Data Review and Consultation

This subtask will consist of a review of previous geotechnical issues observed and documented along the SPFC levees which protect the Community and an evaluation of the current geotechnical levee safety concerns and hazards that may be present during a 100-year event. This information will be used with existing Non-Urban Levee Evaluation (NULE) information to inform the development of alternatives and to outline future geotechnical evaluation needs. The Project Team will also review other existing relevant information including geologic maps, historic aerial photographs, United States Geological Survey info, United States Department of Agriculture soil survey, and existing area surface conditions.

Subtask 2.5: Review Sedimentation Issues and Consultation

The Project Team will research and review existing information including past flood historic information, previous sedimentation studies, or documented changes in the physical geometry of the channel in order to estimate, as best as possible using existing information, quantities and locations of sediment deposition occurring within the Middle Creek system. This information will be used by the Project Team to inform the alternative formulation process.

Subtask 2.6: Identify Planning Goals and Objectives

Following the review and evaluation of existing conditions, the Project's planning goals and objectives will be defined, along with constraints that may limit the planning process. The goals and objectives will be discussed with and vetted amongst the Project Team and key stakeholders.

Task 2 Deliverables:

- *Technical memorandum documenting the development of the 100-year existing hydraulic conditions;*
- *100-year existing condition water surface profile plots;*
- *100-year floodplain map for up to 6 breach scenarios;*
- *Technical memorandum documenting the sedimentation evaluation;*
- *Technical memorandum describing the planning goals, objectives, and constraints.*

Task 3. Formulate Alternatives**Subtask 3.1: Exploration of Potential Alternatives**

Workgroup sessions (up to 2) with the Project Team will be used to discuss possible solutions (both structural and non-structural) that would meet the planning goals and objectives. Plan view layouts of potential alternatives (up to 10) will be created along with brief narrative descriptions.

Subtask 3.2: Geotechnical Exploration, Laboratory Testing, and Analysis

Geotechnical exploration work will be conducted to define potential levee deficiency mitigation options. The explorations will include soil borings, cone penetrometer tests (CPTs), and laboratory testing for characterization of the levee embankment and foundation soils to fill in data gaps based on the limits of existing information. The scope includes a total of 15 explorations (12 CPTs and 3 borings) focused along a 1-mile section of the south levee (Unit 5) of the Clover Creek Diversion Channel, and along a 3.5-mile section the east levee (Unit 1) of Middle Creek (see Figure 1). The average height of these levees is approximately 10-feet and the depth of each exploration will be approximately 40-feet.

Subtask 3.3: Identification of Multi-Benefit Opportunities

Alternatives from Subtask 3.1 will be evaluated to determine if, and to what extent, multi-benefit components can reasonably be incorporated into the flood protection solutions. Opportunities to enhance water supply, water quality, recreation, and the ecosystem will be explored at a qualitative level and will be integrated into the potential alternatives if practical.

Subtask 3.4: Selection of Final Array of Alternatives

Potential alternatives and multi-benefit opportunities will be reviewed. Engineering judgement and local knowledge of the community's problems, opportunities, and constraints will be used to select a final array of alternatives. It is assumed that there will be no more than three (3) alternatives that will make up the final array to be fully analyzed. Plan view layouts of final alternatives will be created along with narrative descriptions. A brief technical memorandum will be developed to describe the final array of alternatives and the process that led to their selection.

Subtask 3.5: DWR Engagement on Final Array of Alternatives

As part of this Subtask, the Project Team will coordinate with DWR to get the State's input on the final array of alternatives by providing DWR with a draft of the Subtask 3.4 technical memorandum. Following DWR's review of the technical memorandum, a meeting will be held with DWR to discuss the final array of alternatives.

Task 3 Deliverables:

- *Geotechnical Laboratory Testing Results;*

- *Plan view layouts and descriptions of potential alternatives;*
- *Technical Memorandum describing the development and selection of the final array of alternatives*

Task 4. Evaluate Final Array of Alternatives

Subtask 4.1: Site Reconnaissance and Field Surveys

The Project Team will conduct site reconnaissance and field surveys to evaluate the proposed alternatives. Preliminary boundary and right-of-way investigations will also be performed using available record documents to show existing boundary lines, easement lines (if definable), and right-of-way lines. The field survey information and preliminary right-of-way mapping will be used to assist the Project Team in identifying potential impacts resulting from the proposed alternatives.

Subtask 4.2: Hydraulic Evaluation

The final array of alternatives will be evaluated from a hydraulic standpoint using HEC-RAS v5.0 (2D). The hydraulic model will be updated to incorporate the physical changes associated with each of the three alternatives and 100-year flow simulations will be performed. The models will be used to provide hydraulic information to aid in the evaluation of each alternative. The results of the hydraulic analysis for each alternative will also be mapped to help quantify, evaluate, and communicate the benefits associated with each alternative.

Subtask 4.3: Geotechnical Evaluation

The final array of alternatives will be analyzed and evaluated with respect to geotechnical deficiency mitigation for under-seepage, through-seepage, slope stability and settlement. The evaluation will utilize United States Army Corps of Engineers (USACE) criteria and guidance. Preliminary levee section recommendations (e.g. anticipated seepage or stability berms, cut-off walls, inspection trench, etc.) will be provided along with recommendations for future geotechnical design-level scope.

Subtask 4.4: Cost Estimates

Basic planning-level cost estimates will be developed to evaluate the costs to implement each alternative in the final array. The estimates will include a preliminary estimate of capital costs, costs of right-of-way and land acquisition, permitting costs, and operations and maintenance (O&M) costs that are associated with each alternative.

Subtask 4.5: Evaluation of Non-Structural and Multi-Benefit Components

Criteria will be developed to rate each alternative for other project benefits that aren't easily quantifiable. The alternatives will be evaluated to assess the degree of benefits that come from non-structural and multi-benefit components. Included in this subtask is a basic and qualitative

environmental assessment to identify potential ecosystem enhancement opportunities in the areas surrounding the Community.

Task 4 Deliverables:

- Preliminary Right-of-Way base map in AutoCAD format;
- Technical Memorandum documenting the hydraulic analysis of each alternative;
- Floodplain maps for each final array alternative;
- Technical Memorandum summarizing the geotechnical evaluation;
- Cost Estimates for each alternative

Task 5. Select and Refine the Preferred Alternative

Subtask 5.1: Selection of Preferred Alternative

Each alternative will be ranked based on the above evaluations and considering economic and life loss benefits, non-structural benefits, multi-benefit components, project cost, financial feasibility, and community support. A preferred alternative will be selected based on logic and data set forth in the evaluations. A technical memorandum will be drafted to summarize the alternative evaluations and to describe the thought-process that led to the selection of the preferred alternative.

Subtask 5.2: DWR Engagement on Selected Alternative

Grantee will provide DWR with a draft of the Task 5.1 technical memorandum. Following DWR review of the technical memorandum, a meeting will be held with DWR to discuss the selection of the preferred alternative.

Subtask 5.3: Refine Preferred Alternative

The preferred alternative will be refined following input received from DWR and from other key stakeholders. The preferred project narrative, drawings, costs, operations, and implementation plan will be finalized.

Task 5 Deliverables:

- Technical Memorandum summarizing the process used to evaluate and select the preferred alternative

Task 6. Environmental Constraints Analysis

The environmental constraints analysis will examine the potential impacts of implementing the various proposed alternatives. The Project Team will conduct desktop reviews and research existing information to identify potential constraints due to biological resources, cultural resources, and land use and real estate requirements. The constraints analysis will aid in the evaluation of the proposed alternatives by indicating the anticipated presence or absence of

environmental resources. The environmental constraints analysis will indicate the anticipated permitting needs and level of environmental documentation that would likely be required under the California Environmental Quality Act (CEQA) and/or National Environmental Policy Act (NEPA) as a result of project implementation.

Task 6 Deliverables:

- *Technical Memorandum documenting the environmental constraints analysis*

Task 7. Public Outreach and Stakeholder Engagement

The Project Team will build a stakeholder database to direct the electronic distribution of Project updates and outreach materials. The database will be continually updated throughout the feasibility study process as new interested stakeholders are identified. The Project Team will also conduct outreach meetings with impacted property owners and other interested stakeholders to seek input during the alternative formulation phase. Outreach meetings will also be conducted to explore proposed alternatives, respond to questions and to address concerns. This scope includes up to five (5) individual or small group public outreach meetings with key stakeholders. The Project Team will establish a dedicated email and phone number so that stakeholders can have direct communication with the Team throughout the study.

Task 7 Deliverables:

- *Copies of public outreach notices & meeting materials;*
- *Meeting summary notes*

Task 8. Financing Strategy

Following the selection of the final array of alternatives, the Project Team will identify potential funding sources and funding source requirements associated with each alternative. The identification of these sources and requirements will aid in the evaluation of the alternatives. Alternatives will also be screened for opportunities for funding from outside sources such as Federal, State, and non-governmental sources. Financial feasibility of funding the remaining local share will be explored and discussed.

Task 8 Deliverables:

- *Narrative describing potential funding sources and opportunities, financial feasibility, and recommended financing strategy*

Task 9. Report Preparation

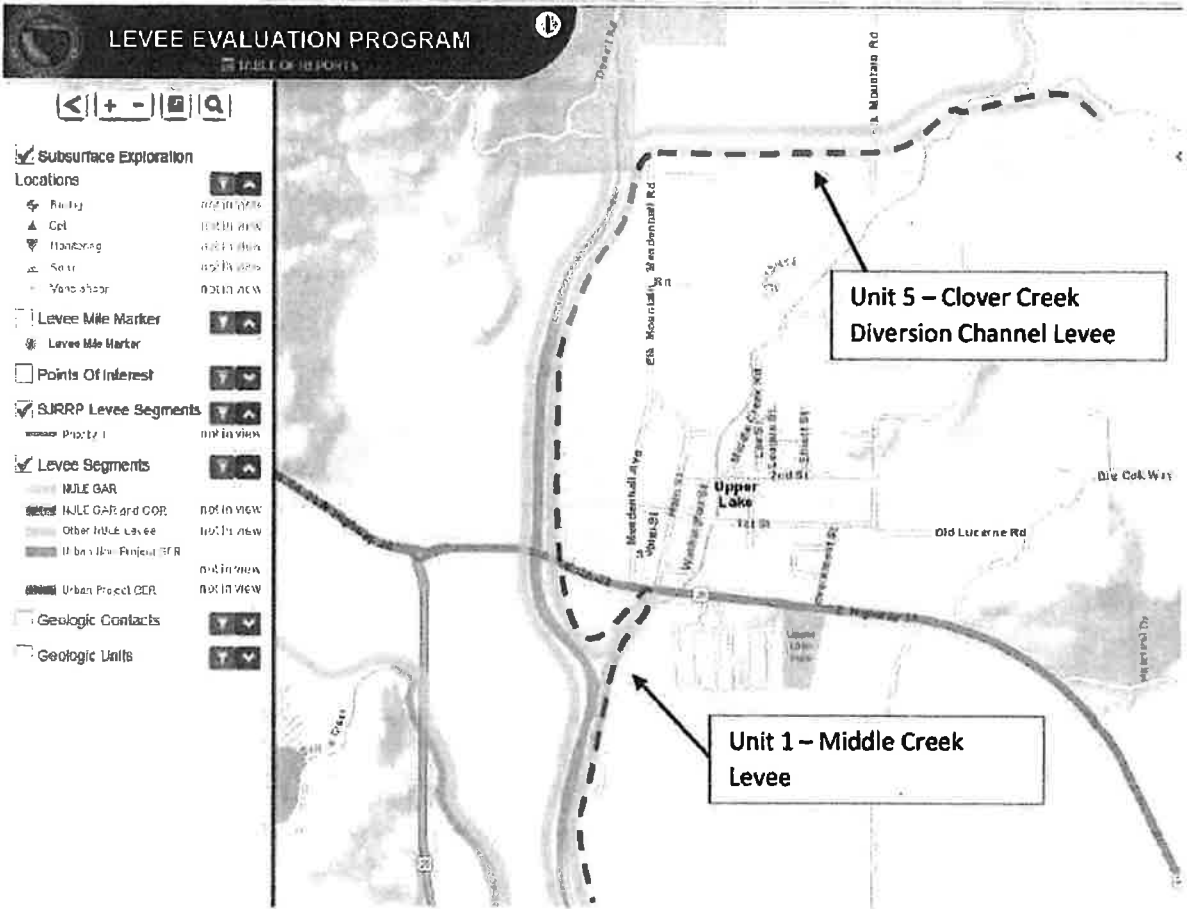
A draft document will be compiled to describe the steps taken during the Project that resulted in the selection of the preferred alternative. The technical memorandums developed as part of the

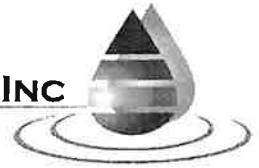
previous tasks will be directly incorporated within the final feasibility study report. Comments from DWR and stakeholders will be collected and addressed, and a final report will be released. One (1) round of review is anticipated for this task.

Task 9 Deliverables:

- *Draft Feasibility Study Report;*
- *Final Feasibility Study Report*

FIGURE 1 – Overview of where geotechnical explorations will be conducted.





2018 STANDARD RATE SCHEDULE *

Position	Description	Hourly Billing Rate
E9	Principal Engineer	\$264
E8	Project Manager 3	\$239
E7	Senior Engineer 2 Project Manager 2	\$218
E6	Senior Engineer 1 Project Manager 1	\$199
E5	Project Engineer 3	\$193
E4	Project Engineer 2	\$180
E3	Project Engineer 1	\$169
E2	Staff Engineer 2	\$148
E1	Staff Engineer 1	\$128
T4	Technician 4	\$142
T3	Technician 3	\$128
T2	Technician 2	\$109
T1	Technician 1	\$96
A4	Administrative 4	\$104
A3	Administrative 3	\$91
A2	Administrative 2	\$78
A1	Administrative 1	\$65

Expenses

- At cost for outside printing, plotting, copying, travel, subconsultants, and outside services and charges
- Auto mileage per current Federal Rates

* Rates will be modified January 1 of each year.