

February 19, 2024



Larry Walker Associates (LWA)
Attn: Laura Foglia
1480 Drew Avenue
Suite 100
Davis, CA 95618

RE: Notice of Offer of Work Pursuant to the Sierra Valley Groundwater Management District Purchasing Policy Statement of Qualification (SOQ) Procedures as a qualified firm on the established Sierra Valley Subbasin (5-012.01) Groundwater Sustainability Project (GSP) Implementation Activities On-Call Consulting Services List

Dear Ms. Foglia,

The Sierra Valley Groundwater Management District (District) Board of Directors wishes to inform the Larry Walker Associates Team (LWA, DBS&A, Stillwater, Judie Talbot, McGinley & Associates, and J-U-B Engineering), being a qualified firm on the established Sierra Valley Subbasin (5-012.01) GSP Implementation Activities On-Call Consulting Services List, your Team has been selected as preferred consultants to perform work on the "Synergistic Sierra Valley Groundwater Recharge and Irrigation Efficiency Project."

Enclosed is the executed 'Services Agreement' with the Plumas County Flood Control and Water Conservation District, on behalf of the Plumas Watershed Forum, for your review, including the terms and conditions, which your Team would be subject to, as applicable, and the Scope of Work (Exhibit A) with Grant Tasks 1 through 7 and associated deliverables and budget.

A line-item budget detail, by task, has been attached to this letter (Attachment A), which the LWA Team would be responsible to perform. Note, some tasks may be in coordination with District/Plumas County staff and/or the Stetson & DRI Team.

Please contact Jenny Gant, Board Clerk, at your earliest convenience via email (sierravalleygmd@sbcglobal.net) to accept or deny, in writing, this Offer of Work. Should you accept, the District will immediately engage in contract negotiations to execute a Professional Services Agreement (Agreement), confirming scope, schedule, and budget. The LWA Team will also be required to submit documentary proof of the following before entering into the Agreement:

- Insurance Requirements
- Drug-Free Workplace Policy Signatures

Sincerely,

Einen Grandi, Chairman

Directors: Dwight Ceresola, Dave Goicoechea, Greg Ramelli, Jim Roberti, Paul Roen
Sierra Valley Groundwater Management District Board of Directors

Attachment A

Task	Equipment Budget Estimate	Professional Services Budget Estimate	Budgeted Estimated Cost
Task 1 – Administration and Management	--	\$30,000	\$30,000
Task 2 – Stakeholder Outreach	--	\$50,000	\$50,000
Task 3 – Farm Assessments	\$40,000	\$20,000	\$60,000
Task 4 – Preliminary Design and Permitting of MAR Project	\$100,000	\$280,000	\$380,000
Task 5 – Construction of MAR Facilities at Little Last Chance Creek	\$350,000	\$120,000	\$470,000
Task 6 – MAR Performance and Monitoring	\$10,000	\$50,000	\$60,000
Task 7 – Irrigation Efficiency Demonstration, LEPA & LESA Conversions	\$120,000	\$50,000	\$170,000
TOTAL	\$620,000	\$600,000	\$1,220,000

District/ Plumas County	LWA Team	Stetson & DRI Team
\$10,000	\$10,000	\$10,000
\$5,000	\$20,000	\$25,000
\$40,000	--	\$20,000
\$100,000	\$280,000	--
\$350,000	\$120,000	--
\$15,000	\$45,000	--
\$120,000	--	\$50,000
\$640,000	\$475,000	\$105,000

Services Agreement

This Agreement is made by and between **Plumas County Flood Control and Water Conservation District** (hereinafter referred to as "District"), and **Sierra Valley Groundwater Management District, a Groundwater Sustainability Agency** (hereinafter referred to as "Contractor").

The parties agree as follows:

1. Scope of Work. Contractor shall provide the District with services as set forth in Exhibit A, attached hereto, on behalf of the Plumas Watershed Forum, which is composed of the Plumas County Flood Control and Water Conservation District and the California Department of Water Resources.
2. Funding. Contractor shall submit invoices to the Flood Control District as work is completed, each of which shall include a progress report identifying specific tasks completed and the related expenditures. If a subcontractor performs any work, District shall issue payments to Contractor and Contractor shall pay the subcontractor. Contractor must obtain District approval in advance to reallocate funds from one budget line-item to another. District shall pay Contractor for work as completed pursuant to this Agreement in the manner set forth in Exhibit B, attached hereto. The total amount paid by District to Contractor under this Agreement shall not exceed One Million Two Hundred Twenty Thousand Dollars (\$1,220,000).
3. Term. The term of this agreement shall be from Execution through December 31, 2026, unless terminated earlier as provided herein.
4. Termination. Either party may terminate this agreement by giving thirty (30) days written notice to the other party. The District may terminate this agreement at any time without cause upon notice to the Contractor. Contractor shall receive payment for all work completed under this Agreement prior to notice of termination.
5. Non-Appropriation of Funds. It is mutually agreed that if, for the current fiscal year and/or any subsequent fiscal years covered under this Agreement, insufficient funds are appropriated to make the payments called for by this Agreement, this Agreement shall be of no further force or effect. In this event, the District shall have no liability to pay any further funds whatsoever to Contractor or furnish any other consideration under this Agreement and Contractor shall not be obligated to perform any further services under this Agreement. If funding for any fiscal year is reduced or deleted for the purposes of this program, the District shall have the option to either cancel this Agreement with no further liability incurring to the District, or offer an amendment to Contractor to reflect the reduced amount available to the program. The parties acknowledge and agree that the limitations set forth above are required by Article XVI, section 18 of the California Constitution. Contractor acknowledges and agrees that said Article XVI, section 18 of the California Constitution supersedes any conflicting law, rule, regulation or statute.



DISTRICT INITIALS

CONTRACTOR INITIALS



6. Warranty and Legal Compliance. The services provided under this Agreement are non-exclusive and shall be completed promptly and competently. Contractor shall guarantee all parts and labor for a period of one year following the expiration of the term of this Agreement unless otherwise specified in Exhibit A. Contractor agrees to comply with all applicable terms of state and federal laws and regulations, all applicable grant funding conditions, and all applicable terms of the Plumas County Code and the Plumas County Purchasing and Practice Policies.
7. Amendment. This Agreement may be amended at any time by mutual agreement of the parties, expressed in writing and duly executed by both parties. No alteration of the terms of this Agreement shall be valid or binding upon either party unless made in writing and duly executed by both parties.
8. Indemnification. To the furthest extent permitted by law (including without limitation California Civil Code Sections 2782 and 2782.8, if applicable), District shall not be liable for, and Contractor shall defend and indemnify District and its officers, agents, employees, and volunteers (collectively "County Parties"), against any and all claims, deductibles, self-insured retentions, demands, liability, judgments, awards, fines, mechanics' liens or other liens, labor disputes, losses, damages, expenses, charges or costs of any kind or character, including attorney's fees and court costs (hereinafter collectively referred to as "Claims"), which arise out of or are in any way connected to the work covered by this Agreement arising either directly or indirectly from any act, error, omission or negligence of Contractor or its officers, employees, agents, contractors, licensees or servants, including, without limitation, Claims caused by the concurrent negligent act, error or omission, whether active or passive of County Parties. Contractor shall have no obligation, however, to defend or indemnify County Parties from a Claim if it is determined by a court of competent jurisdiction that such Claim was caused by the sole negligence or willful misconduct of County Parties.
9. Insurance. Contractor agrees to maintain the following insurance coverage throughout the term of this Agreement:
 - a. Commercial general liability (and professional liability, if applicable to the services provided) coverage, with minimum per occurrence limit of the greater of (i) the limit available on the policy, or (ii) one million dollars (\$1,000,000).
 - b. Automobile liability coverage (including non-owned automobiles), with minimum bodily injury limit of the greater of (i) the limit available on the policy, or (ii) two-hundred fifty thousand dollars (\$250,000) per person and five hundred thousand dollars (\$500,000) per accident, as well as a minimum property damage limit of the greater of (i) the limit available on the policy, or (ii) fifty thousand dollars (\$50,000) per accident.
 - c. Each policy of commercial general liability (and professional liability, if applicable to the services provided) coverage and automobile liability



DISTRICT INITIALS

CONTRACTOR INITIALS 

coverage (including non-owned automobiles) shall meet the following requirements:

- i. Each policy shall be endorsed to name the District, its officers, officials, employees, representatives and agents (collectively, for the purpose of this section 9, the "District") as additional insureds. The Additional Insured endorsement shall be at least as broad as ISO Form Number CG 20 38 04 13; and
- ii. All coverage available under such policy to Contractor, as the named insured, shall also be available and applicable to the District, as the additional insured; and
- iii. All of Contractor's available insurance proceeds in excess of the specified minimum limits shall be available to satisfy any and all claims of the District, including defense costs and damages; and
- iv. Any insurance limitations are independent of and shall not limit the indemnification terms of this Agreement; and
- v. Contractor's policy shall be primary insurance as respects the District, its officers, officials, employees, representatives and agents, and any insurance or self-insurance maintained by the District, its officers, officials, employees, representatives and agents shall be in excess of the Contractor's insurance and shall not contribute with it, and such policy shall contain any endorsements necessary to effectuate this provision. The primary and non-contributory endorsement shall be at least as broad as ISO Form 20 01 04 13; and
- vi. To the extent that Contractor carries any excess insurance policy applicable to the work performed under this Agreement, such excess insurance policy shall also apply on a primary and non-contributory basis for the benefit of the District before the District's own primary insurance policy or self-insurance shall be called upon to protect it as a named insured, and such policy shall contain any endorsements necessary to effectuate this provision.

d. Workers Compensation insurance in accordance with California state law.

If requested by District in writing, Contractor shall furnish a certificate of insurance satisfactory to District as evidence that the insurance required above is being maintained. Said certificate of insurance shall include a provision stating that the insurers will not cancel the insurance coverage without thirty (30) days' prior written notice to the District. District reserves the right to require complete, certified copies of all required insurance policies, including endorsements affecting the coverage required by these specifications at any time. Contractor shall require all subcontractors to comply with all indemnification and insurance requirements of this agreement, and Contractor shall verify subcontractor's compliance.

DISTRICT INITIALS

CONTRACTOR INITIALS

10. Licenses and Permits. Contractor represents and warrants to District that it or its principals have all licenses, permits, qualifications, and approvals of whatsoever nature that are legally required for Contractor to practice its profession and to perform its duties and obligations under this Agreement. Contractor represents and warrants to District that Contractor shall, at its sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals that are legally required for Contractor or its principals to practice its professions and to perform its duties and obligations under this Agreement.
11. Relationship of Parties. It is understood that Contractor is not acting hereunder as an employee of the District, but solely as an independent contractor. Contractor, by virtue of this Agreement, has no authority to bind, or incur any obligation on behalf of, District. Except as expressly provided in this Agreement, Contractor has no authority or responsibility to exercise any rights or power vested in District. It is understood by both Contractor and District that this Agreement shall not under any circumstances be construed or considered to create an employer-employee relationship or joint venture.
12. Assignment. Contractor may not assign, subcontract, sublet, or transfer its interest in this Agreement without the prior written consent of the District.
13. Non-discrimination. Contractor agrees not to discriminate in the provision of service under this Agreement on the basis of race, color, religion, marital status, national origin, ancestry, sex, sexual orientation, physical or mental handicap, age, or medical condition.
14. Choice of Law. The laws of the State of California shall govern this agreement.
15. Interpretation. This agreement is the result of the joint efforts of both parties and their attorneys. The agreement and each of its provisions will be interpreted fairly, simply, and not strictly for or against either party.
16. Integration. This Agreement constitutes the entire understanding between the parties respecting the subject matter contained herein and supersedes any and all prior oral or written agreements regarding such subject matter.
17. Severability. The invalidity of any provision of this Agreement, as determined by a court of competent jurisdiction, shall in no way affect the validity of any other provision hereof.
18. Headings. The headings and captions contained in this Agreement are for convenience only, and shall be of no force or effect in construing and interpreting the provisions of this Agreement.
19. Waiver of Rights. No delay or failure of either party in exercising any right, and no partial or single exercise of any right, shall be deemed to constitute a waiver of that right or any other right.
20. Conflict of Interest. The parties to this Agreement have read and are aware of the provisions of Government Code section 1090 *et seq.* and section 87100 *et seq.* relating to



DISTRICT INITIALS

CONTRACTOR INITIALS 

conflicts of interest of public officers and employees. Contractor represents that it is unaware of any financial or economic interest of any public officer or employee of District relating to this Agreement. It is further understood and agreed that if such a financial interest does exist at the inception of this Agreement and is later discovered by the District, the District may immediately terminate this Agreement by giving written notice to Contractor.

21. Notice Addresses. All notices under this Agreement shall be effective only if made in writing and delivered by personal service or by mail and addressed as follows. Either party may, by written notice to the other, change its own mailing address.

District:

Flood Control & Water Conservation District
1834 E Main Street, Quincy, CA 95971
Attention: Rob Thorman

Contractor:

Sierra Valley Groundwater Management District
PO Box 88
Chilcoat, CA 96105
Attention: Jenny Gant

22. Time of the Essence. Time is hereby expressly declared to be of the essence of this Agreement and of each and every provision thereof, and each such provision is hereby made and declared to be a material, necessary, and essential part of this Agreement.
23. Contract Execution. Each individual executing this Agreement on behalf of Contractor represents that he or she is fully authorized to execute and deliver this Agreement.
24. Ukraine Sanctions. Pursuant to Executive Order N-6-22 Contractor is aware that as a compliance with the economic sanctions imposed in response to Russia's actions in Ukraine is required, including with respect to, but not limited to, the federal executive orders identified in the EO and the sanctions identified on the U.S. Department of the Treasury website (<https://home.treasury.gov/policy-issues/financial-sanctions/sanctions-programs-and-country-information/ukraine-russia-related-sanctions>). Failure to comply may result in the termination of this agreement.
25. Suspension and Debarment. The District does not employ vendors or contractors who are listed on the National World Wide Web Site System for Award Management (sam.gov) by Federal General Services Administration (GSA) for the purpose of disseminating information on parties that are debarred from receiving Federal contracts, certain subcontracts, and certain Federal financial and nonfinancial assistance and benefits, pursuant to the provisions of 31 U.S.C. 6101, note, E.O. 12549, E.O. 12689, 48 CFR 9.404, and each agency's codification of the Common Rule for Non-procurement suspension and debarment.

DISTRICT INITIALS

CONTRACTOR INITIALS

- a. This Contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the Contractor is required to verify that none of the Contractor, its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
 - b. The Contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
 - c. This certification is a material representation of fact relied upon by the District. If it is later determined that the Contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the District, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
 - d. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any Contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.
26. Retention of Records. If the maximum compensation payable under section 2 of this Agreement exceeds \$10,000, then, pursuant to California Government Code section 8546.7, the performance of any work under this Agreement is subject to the examination and audit of the State Auditor at the request of the District or as part of any audit of the District for a period of three years after final payment under the Agreement. Each party hereto shall retain all records relating to the performance and administration of this Agreement for three years after final payment hereunder, and Contractor agrees to provide such records either to the District or to the State Auditor upon the request of either the State Auditor or the District. Contractor agrees to provide reasonable access to records relating to the Project and to maintain such records as may be necessary to document services performed and hours worked. Contractor shall maintain such records for a period of no less than three years following completion of the Project.
27. Conflicts. In the event of any conflict between the terms of this Agreement and the terms of any exhibit hereto, the terms of this Agreement shall control, and the conflicting term of the exhibit shall be given no effect. Any limitation of liability contained in an attached exhibit shall be null and void.
28. Grant Funds Requirements. Public Contracts code must be followed. Department of Industrial Relations requirements must be followed including prevailing wage. Construction drawings must be stamped by a licensed Civil Engineer. Projects are required to comply with CEQA and any required permitting prior to construction. Environmental permitting & CEQA compliance may be a part of the proposal. All projects utilizing other than own forces will be required to conduct formal request for bid

DISTRICT INITIALS

CONTRACTOR INITIALS


solicitation. District to hold 5% retention until project final report or other documentation is received and approved.

29. Annual Progress Reports and Final Report. Contractor shall provide District with a progress report in electronic form by October 1 of each year during the term of this Agreement, as well as a final report upon completion of the Project. Each report shall include (1) a brief scope of work, including any changes authorized to the original proposal; (2) an assessment of project progress and photographs of any physical work completed; (3) an updated schedule for completion of the project and delivery of any required data, reports, plans, or other items required by this Agreement; and (4) a statement of funds expended and the status of any matching funds. In addition to the foregoing items, the final report shall include an assessment of the effectiveness of the Project in meeting the objectives presented in the Project proposal.

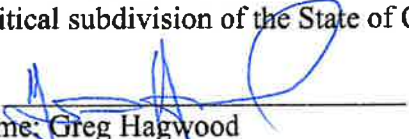
IN WITNESS WHEREOF, this Agreement has been executed as of the date set forth below.

CONTRACTOR:


Sierra Valley Groundwater Management District, a political subdivision of the State of California, and a Groundwater Sustainability Agency

By: 
Name: Eimen Grandi
Title: Chairman
Date signed:

PLUMAS COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT, a political subdivision of the State of California:

By: 
Name: Greg Hagwood
Title: Chair, Governing Board
Date signed: 1-9-24

ATTEST:

By: 
Name: Allen Hiskey
Title: Clerk of the Board of Directors
Date signed: 1-9-24

Approved as to form:


Craig Settemire
Counsel



DISTRICT INITIALS

CONTRACTOR INITIALS



EXHIBIT A

Scope of Work

The project will be conducted according to the following tasks:

Task 1: Administration and Management

The Sierra Valley Groundwater Management District will conduct administration and management tasks for this project in coordination with and in support of efforts by other applicable and affiliated Forum groups.

Deliverables for Task 1 monthly project status reports and invoices. The budget for Task 1 is \$30,000, and will cover this effort throughout the duration of the project.

Task 2: Stakeholder Outreach

An early task in this project will be to reach out to ranchers and property owners in the project area to describe the project and its benefits to agriculture and groundwater resources. This will be done through direct communication with the property owners and will build on existing relationships established through previous work. In addition, with the goal of building additional stakeholder support, the project will be publicized using the SVGMD and County website and a presentation at the SVGMD Board meeting. The proposed project has been previously discussed at Board meetings and is described in the GSP and other publicly available technical reports developed for SVGMD.

Following up on initial outreach, in coordination with the FCWCD and the Forum, the SVGMD will host a meeting with ranchers to establish willingness to participate in a synergistic recharge/irrigation efficiency project. This more focused outreach will be to ranchers in the vicinity of the proposed recharge areas, focusing on the Little Last Chance Creek Recharge Area. The initial meeting will involve sharing information on the proposed recharge sites, as well as discussing design feasibility and the proposed approach to both recharge and irrigation efficiency implementation projects. During the meeting, the SVGMD will describe the mutual economic benefits to both ranchers and Plumas County, as well as seek feedback on components to consider prior to implementation. Ranchers interested in participation will be contacted for a follow-up meeting about project participation in ranch assessments.

After the first year of project implementation, a follow-up workshop for participating ranchers will be held by the SVGMD to share preliminary results and progress of the project, as well as collect feedback and consider next steps for implementation.

At the end of the project period, a final workshop will be held to present results to stakeholders, discuss overall benefits, and discuss possible future projects across the Sierra Valley.

Deliverables for Task 2 will include reports drafted and made publicly available on the County Website after each meeting, for a total of three reports, to summarize the status of the project. The reports will incorporate feedback and suggestions from ranchers and the general public on project implementation. Additionally, a final memo will be drafted at the end of the project to describe the effectiveness of outreach efforts in enhancing the project goals and implementation.



DISTRICT INITIALS

CONTRACTOR INITIALS 

This final memo will also include copies of all farm assessments conducted across the project region.

The budget for Task 2 is \$50,000 and will span the full period of project implementation.

Task 3: Farm Assessments

Funds will be provided to the UC Cooperative Extension to conduct farm audits for farmers that express interest in participation in this project during the original stakeholder outreach meetings described in Task 2. Each farm audit will entail monitoring and will provide a detailed report for the corresponding farm on ways to improve irrigation efficiency in the future.

Deliverables for Task 3 will be a compilation of all farm audits that will be included in Task 2. The budget for Task 3 is \$60,000.

Task 4: Preliminary Design and Permitting of Managed Aquifer Recharge (MAR) Project

During the first stage of Task 4, the MAR component of this project will require landownership discussions and both access and utilization agreements for stream gages, water conveyance routes, infiltration sites, monitoring well sites, water rights assessment, and legal descriptions. Two stream gages will be installed and will require routine maintenance and operational review throughout the project period. Identifying potential infiltration facilities will require updated hydrogeologic characterizations via numerical flow models, area-specific geophysics, phase I borings to confirm lithologies at prospective locations, and refinement of the numerical flow models to complete a mounding assessment and to assess the efficacy of the proposed work. The next phase of site assessment will require geotechnical investigations, including upper soil profiles for proposed sites, phase 2 borings to the water table to characterize unsaturated zone soils at planned infiltration sites, and small basin flooded infiltration test measurements at planned bottom depths of infiltration basins, galleries or dry wells. Once geotechnical investigations are complete, the Precipitation Runoff Modelling System (PRMS) model will be updated based on preliminary stream gauge data, and 1-yr, 10-yr and 100-yr runoff event flows will be determined. Preliminary design of the MAR infiltration system will be developed sufficient to advance water rights application and CEQA for the project implementation.

The water rights applications will comprise the final phase of Task 4. Initially the SVGMD will pursue a diversion permit through the State Water Board's Streamlined Processing for Standard Groundwater Recharge Rights. This type of permit allows for diversion of streamflow to recharge points between December 1st and March 31st, when flows in the waterbody reach or exceed thresholds that trigger flood controls actions, and when streamflow is above the 90th percentile. Diversions with this permit are limited to 20% of total streamflow, and therefore are not expected to adversely impact fish and wildlife. The SVGMD has completed step one of the streamlined permitting process by confirming eligibility of the project. The next step involves completing an application that describes the project's source, place of use, purpose, point(s) of diversion and quantity of water to be diverted. Upon acceptance of the application (decisions are expected within 30 days of submission), the permit must be environmentally reviewed under CEQA and the State Water Board must determine whether both unappropriated water is available for the project and whether the permit is in the public interest. This process involves a short processing period, thereby allowing the SVGMD to begin the diversion and recharge process as soon as possible.



DISTRICT INITIALS

Once Streamlined Recharge Rights are acquired, the SVGMD will proceed to apply for a 180-Day Temporary Diversion Permit. This process will involve similar steps of environmental review relative to the Standard Streamlined Permit application. The SVGMD will seek input from the Division of Water Rights for consultation on the application prior to submission.

Deliverables for Task 4 will be a report of both MAR design and permitting progress for water diversions and recharge as well as results of numerical model scenarios. The budget for Task 4 is \$380,000.

STATUS OF PROJECT PLANNING

As described below, permits will be obtained, if needed, as part of the recharge project development **Task 4**

- a. NEPA / CEQA complete – CEQA/NEPA has not been completed. It is expected that a CEQA Notice of Exemption (NOE) will be filed. NEPA is not expected to be needed.
- b. Estimated date of completion - Notice of Exemption (NOE) expected within 6 months of project initiation.
- c. NMFS ESA consultation - This project is not expected to have adverse effects on wildlife but the need for consultations with NMFS will be determined and conducted as needed
- d. USFWS ESA consultation - This project is not expected to have adverse effects on wildlife but the need for consultations with USFWS will be determined and conducted as needed
- e. RWQCB/CDFG Permits - A Streamlined or Temporary water right permits to divert water from Little Last Chance Creek for groundwater recharge will be obtained from the State Water Board. In addition, SVGMD will serve as the CEQA lead agency and will work with Sierra County and the State Water Board as needed to issue the CEQA Notice of Exemption (NOE) needed for the temporary water rights permit.
- f. RWQCB/COE 401/404 Fill/Removal Permit Obtained - The need for permits associated with construction (i.e., 401/404 permit) will be determined during project design.
- g. SHPO Concurrence Received - SHPO concurrence has not been obtained but the need for this will be determined during project development.
- h. Project Designs Completed - Project design will be completed as part of Tasks 5 and 6
- i. FEMA/National Flood Insurance Program (NFIP) Compliance - FEMA compliance is not expected to be needed.
- j. Local/Regional Permits and Regulatory Compliance - The need for local/regional permits and regulatory compliance will be determined during project development. Permits from the Plumas County Environmental Health Department may be required.



DISTRICT INITIALS

CONTRACTOR INITIALS 

Task 5: Construction of MAR Facilities at Little Last Chance Creek

Facilities required for the MAR Project will be constructed, including diversion works, conveyance systems, and infiltrations facilities. Part of this construction will require diversion gaging and water table and vadose zone monitoring at infiltration facilities. Subtasks for Task 5 include completion of the engineering design, securing necessary construction permits, bidding the project to select a contractor, construction with inspection services, and start-up testing and documentation of constructed facilities.

Deliverables for Task 5 include a memo detailing all costs and progress incurred during construction and will include initial monitoring data at infiltration facilities. The budget for Task 5 is \$470,000.

Task 6: MAR Performance and Monitoring

Monitoring of MAR performance will be conducted across two-years, until the end of the grant period. Performance evaluation will include bi-weekly monitoring during the diversion period, likely spanning approximately 4 months from December 1st through March 31st. Monitoring will also include regular quarterly reporting. Task 6 will also require standard minor basin and infrastructure maintenance each year. Groundwater level monitoring will be conducted separately as part of the GSP Monitoring Program.

Monitoring will be optimized to assess the effect of recharge on groundwater retention and storage in the aquifer, as well as the effect of irrigation efficiency on improving upland vegetation management. For the recharge component of this project, initial monitoring will be required during construction of recharge facilities, and will include diversion gaging, as well as water table and vadose zone monitoring at infiltration facilities. Monitoring during implementation of the recharge project will occur at stream gauges both upstream and downstream of the proposed diversion points throughout the study period, and enhanced monitoring will be conducted on a bi-weekly basis during the permitted diversion interval from December 1st through March 31st. Groundwater table elevations will be measured at 2-3 groundwater monitoring sites and all monitoring results for the recharge component of this project will be reported on a quarterly basis.

Deliverables for Task 6 will include a summary of the regular (bi-weekly) monitoring reports. The budget for Task 6 is \$60,000.

Task 7: Irrigation Efficiency Demonstration, LEPA & LESA Conversions

As the first step in the irrigation efficiency component of this project, Task 7 will involve the conversion of conventional MESA systems to LEPA systems and LESA equipment with the flexibility of including multiple options, as described below.

First, collaboration with willing ranchers and 2 volunteer farmers on 2 center pivot fields and 1 additional baseline fields to convert 1 conventional MESA systems to LEPA systems, which release a reduced volume of water closer to crop level in an effort to reduce water loss from evaporation and wind drift and reduce overall energy and pumping required for irrigation. LEPA implementation will require the installation of 5 flow meters at pivot heads and 5 soil moisture systems, to evaluate both pivot water use and soil moisture before and after system conversion.



DISTRICT INITIALS

CONTRACTOR INITIALS 

In addition to the LEPA demonstration, this project will also convert 2 additional center pivots from the MESA systems to LESA equipment, in order to assess the efficiency of LESA in improving agricultural irrigation relative to one baseline field. LESA applies water more uniformly than LEPA (Peters et al., 2016)¹, and may have different benefits or drawbacks that will be assessed for the northeast region of the Sierra Valley. LESA demonstration will require 1 to 2 volunteer farms, and installation of 2 LESA systems, 3 flow meters and 3 soil moisture systems.

Monitoring will involve flow meter monitoring at pivot heads, and monitoring of soil moisture before and after system conversion using soil moisture systems. Combined, flow meters will provide information on water use during the study interval, and soil moisture monitoring will allow for comparison of moisture content and retention using LEPA and LESA systems relative to conventional MESA systems.

Deliverables for Task 7 will include a compilation of monitoring data, before and after LEPA and LESA conversions, for the annual irrigation report detailed in Task 2. The budget for Task 7 is \$170,000, based on the cost for 1 LEPA conversions and 1 LESA conversion.

¹ Peters, T., Neibling, H., Stroh, R., Molaci, B., and Mehanna, H., 2016, Low Energy Precision Application (LEPA) and Low Elevation Spray Application (LESA) Trials in the Pacific Northwest, p. 3.

<http://irrigation.wsu.edu/Content/Fact-Sheets/LEPA-LESA.pdf>



DISTRICT INITIALS

CONTRACTOR INITIALS 

EXHIBIT B

Fee Schedule

Task	Equipment Budget Estimate	Professional Services Budget Estimate	Budgeted Estimated Cost	Estimated Schedule
Task 1 – Administration and Management	--	\$30,000	\$30,000	Ongoing
Task 2 – Stakeholder Outreach	--	\$50,000	\$50,000	Ongoing
Task 3 – Farm Assessments	\$40,000	\$20,000	\$60,000	2024
Task 4 – Preliminary Design and Permitting of MAR Project	\$100,000	\$280,000	\$380,000	2024-2025
Task 5 – Construction of MAR Facilities at Little Last Chance Creek	\$350,000	\$120,000	\$470,000	2025
Task 6 – MAR Performance and Monitoring	\$10,000	\$50,000	\$60,000	2025-2026
Task 7 – Irrigation Efficiency Demonstration, LEPA & LESA Conversions	\$120,000	\$50,000	\$170,000	2024
TOTAL	\$620,000	\$600,000	\$1,220,000	2024-2026



DISTRICT INITIALS

CONTRACTOR INITIALS 