

**CONSTRUCTION CONTRACT AGREEMENT
BY AND BETWEEN**

**THE SIERRA VALLEY GROUNDWATER MANAGEMENT DISTRICT
AND
AGRI-LINES IRRIGATION INC.**

**FOR
IRRIGATION EFFICIENCY DEMONSTRATION PROGRAM
LEPA CONVERSION OF IRRIGATION SYSTEM EQUIPMENT**

THIS AGREEMENT for work associated with sustainable groundwater services is entered into this 15 day of AUGUST, 2022, by and between the Sierra Valley Groundwater Management District (District) and Agri-Lines Irrigation Inc. (Contractor).

SECTION 1. SERVICES.

Subject to the terms and conditions set forth in this Agreement, Contractor shall provide to District the services as follows:

Irrigation Efficiency Demonstration Program work to convert and install LEPA irrigation system equipment at Roberti Ranch Pivot #13 including connections, piping, drops, pressure regulators, and sprinkler heads associated with implementation of a Groundwater Sustainability Plan (GSP) for the Sierra Valley Subbasin (SVSB). The services to be provided are further described in Exhibit A (Scope of Services) attached hereto and hereby incorporated herein.

1.1 Term of Services. The term of this Agreement shall begin on August 15, 2022 and terminate on November 30, 2022.

1.2 Standard of Performance. Contractor shall perform all services required pursuant to this Agreement in the manner and according to the standards observed by a competent practitioner of the profession in which Contractor is engaged in the area in which Contractor practices its profession. Contractor shall prepare all work products required by this Agreement in a substantial, first-class manner and shall conform to the standards of quality normally observed by a person practicing in Contractor's profession.

1.3 Assignment of Personnel. Contractor shall assign only competent personnel to perform services pursuant to this Agreement. Contractor will be assigned to provide the scope of work with the exception that the assigned individual may assign additional personnel for assistance.

1.4 Time, Notice of Access, and Right of Entry. Contractor shall devote such time to the performance of services pursuant to this Agreement as may be reasonably necessary to meet the standard of performance provided in Section 1.2 above and to satisfy Contractor's obligations hereunder. Time is of the essence with respect to this Agreement and the services to be provided hereunder. Contractor is required to provide forty-eight

(48) hour notice to District and landowner prior to property access. Access authorization must be granted by landowner prior to entry.

SECTION 2. COMPENSATION.

Contractor will invoice District on a quarterly basis. District shall compensate Contractor in a manner set forth in Exhibit B (Budget and Unit Price Schedules) attached hereto. Invoices shall be submitted no later than 30 days following the end of each calendar quarter along with sufficient backup documentation. When billing reaches the maximum Agreement amount as specified in Section 2.11, Contractor shall cease all work until such work is approved by the Board of Directors for District.

2.1 Invoices. Invoices shall contain the following information:

- The beginning and ending dates of the billing period;
- A Task Summary containing the amount of any prior billings, the total due for the period being billed for, and any outstanding sums remaining unpaid; and
- The applicable time entries showing the name of the person doing the work, the hours spent by each person, a brief description of the work, and each reimbursable expense.

2.2 Quarterly Payment. District shall make quarterly payments, based on invoices received and approved, for services satisfactorily performed and for authorized reimbursable costs incurred. District shall have thirty (30) days to pay Contractor from date of reimbursement from the California Department of Water Resources (DWR).

2.3 Payment of Taxes. Contractor is solely responsible for the payment of employment taxes incurred under this Agreement and any similar federal or state taxes. Contractor agrees to file tax returns and pay all applicable taxes on amounts paid pursuant to this Agreement.

2.5 Payment upon Termination. In the event that District or Contractor terminates this Agreement pursuant to Section 7 of this Agreement, District shall compensate the Contractor for all outstanding costs and reimbursable expenses incurred for work satisfactorily completed as of the date of written notice of termination. Contractor shall maintain adequate logs and timesheets in order to verify costs incurred to that date.

2.6 Authorization to Perform Services. Contractor is not authorized to perform any services or incur any costs whatsoever under the terms of this Agreement unless and until written authorization is received from District.

2.7 Travel Expenses. Travel and per diem costs are not eligible for reimbursement.

2.8 Labor Code Compliance. Contractor agrees to be bound by all the provisions of the Labor Code regarding prevailing wages and shall monitor all contracts subject to reimbursement from this Agreement to assure that the prevailing wage provisions of the Labor Code are being met. Current Department of Industrial Relations (DIR) requirements may be found at: <http://www.dir.ca.gov/lcp.asp>. For more information, please refer to DIR's *Public Works Manual* at: <http://www.dir.ca.gov/dlse/PWManualCombined.pdf>. Contractor affirms that it is aware of the provisions of section 3700 of the Labor Code, which requires every employer to be insured against

liability for workers' compensation or to undertake self-insurance, and Contractor affirms that it will comply with such provisions before commencing the performance of the work under this Agreement.

2.9 Suspension of Payments. This Agreement may be subject to suspension of payments or termination, or both, if the District determines that:

- A. Contractor or its subcontractors have made a false certification; or
- B. Contractor or its subcontractors violates the certification by failing to carry out the requirements noted in this Agreement.

2.10 Contingent Payment. Contractor acknowledges and accepts that all payments to Contractor under this Agreement by District are contingent upon funding availability as provided by the Grant Agreement between the Department of Water Resources of the State of California and District (Grant Agreement), attached hereto as Exhibit C. If, for any reason, the Grant Agreement is terminated, rescinded, or void, or funding is otherwise unavailable to the District, the District shall not have any obligation to make payments to Contractor under this Agreement.

2.11 Maximum Cost to District. Notwithstanding any other provision of this Agreement, in no event shall the cost to District for the services to be provided hereunder exceed the maximum sum of twenty-five thousand four-hundred and eighty-six dollars and thirty-four cents (\$25,486.34).

SECTION 3. FACILITIES AND EQUIPMENT.

Except as set forth herein, Contractor shall, at its sole cost and expense, provide all facilities and equipment that may be necessary to perform the services required by this Agreement.

SECTION 4. INSURANCE REQUIREMENTS.

4.1 Coverage. Coverage shall be at least as broad as:

1. Commercial General Liability (CGL): Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$1,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

2. Automobile Liability: Insurance Services Office Form Number CA 0001 covering, Code 1 (any auto), or if Contractor has no owned autos, Code 8 (hired) and 9 (non-owned), with limit no less than **\$1,000,000** per accident for bodily injury and property damage.

3. Workers' Compensation insurance as required by the State of California, with Statutory Limits, and Employer's Liability Insurance with limit of no less than **\$1,000,000** per accident for bodily injury or disease.

4. Professional Liability (Errors and Omissions) Insurance appropriate to the Contractor's profession, with limit no less than **\$1,000,000** per occurrence or claim, \$2,000,000 aggregate.

If the Contractor maintains broader coverage and/or higher limits than the minimums shown above, the District requires and shall be entitled to the broader coverage and/or higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the District and/or DWR.

4.2 Other Insurance Provisions. The insurance policies are to contain, or be endorsed to contain, the following provisions:

4.2.1 Additional Insured Status. **The District, its officers, officials, employees, and volunteers are to be covered as additional insureds** on the CGL policy with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10 11 85 or **both** CG 20 10, CG 20 26, CG 20 33, or CG 20 38; **and** CG 20 37 forms if later revisions used). Contractor shall also name the Department of Water Resources of the State of California (DWR), its officers, agents and employees as additional insureds for activities undertaken pursuant to this Agreement.

4.2.2 Primary Coverage. For any claims related to this contract, the **Contractor's insurance coverage shall be primary** insurance primary coverage at least as broad as ISO CG 20 01 04 13 as respects the District, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the District, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.

4.2.3 Notice of Cancellation. Each insurance policy required above shall state that **coverage shall not be canceled, except with notice to the District.**

4.2.4 Waiver of Subrogation. Contractor hereby grants to District a waiver of any right to subrogation which any insurer of said Contractor may acquire against the District by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the District has received a waiver of subrogation endorsement from the insurer.

4.2.5 Self-Insured Retentions. Self-insured retentions must be declared to and approved by the District. The District may require the Contractor to provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention. The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or District. Consultant shall carry a 10% retention until project completion.

4.3 Acceptability of Insurers. Insurance is to be placed with insurers with a current A.M. Best's rating of no less than A:VII, unless otherwise acceptable to the District.

4.4 Claims Made Policies. If any of the required policies provide coverage on a claims-made basis:

4.4.1. The Retroactive Date must be shown and must be before the date of the contract or the beginning of contract work.

4.4.2. Insurance must be maintained and evidence of insurance must be provided *for at least five (5) years after completion of the contract of work.*

4.4.3. If coverage is canceled or non-renewed, and not *replaced with another claims-made policy form with a Retroactive Date* prior to the contract effective date, the Contractor must purchase “extended reporting” coverage for a minimum of *five (5) years* after completion of contract work.

4.5 Verification of Coverage. Contractor shall furnish the District with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this clause. All certificates and endorsements are to be received and approved by the District before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor’s obligation to provide them. The District reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by these specifications, at any time.

4.6 Special Risks or Circumstances. District reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

4.7 Indemnity. Contractor shall hold harmless, defend and indemnify District and its officers, officials, employees and volunteers from and against any and all liability, loss, damage, expense, costs in connection with Contractor’s direct negligence in the performance of work hereunder or its failure to comply with any of its obligations contained in the Agreement, except such loss or damage which was caused by the sole negligence or willful misconduct of the District.

Contractor shall hold harmless, defend and indemnify DWR and its officers, officials, employees and volunteers from and against any and all liability, loss, damage, expense, costs in connection with Contractor’s direct negligence in the performance of work hereunder or its failure to comply with any of its obligations contained in the Agreement, except such loss or damage which was caused by the sole negligence or willful misconduct of DWR.

4.8 Performance Bond. Contractor shall furnish a performance bond in favor of the District in the following amounts: faithful performance (100%) of contract value, and labor and materials (100%) of contract value. Any bond issued pursuant to this paragraph must be issued by a California-admitted surety. (Pub. Contract Code, § 7103; Code Civ. Proc., § 995.311.)

SECTION 5. STATUS OF CONTRACTOR.

5.1 Independent Contractor. At all times during the term of this Agreement, Contractor shall be an independent contractor and shall not be an employee of District. District shall have the right to control Contractor only insofar as the results of Contractor’s services rendered pursuant to this Agreement and assignment of personnel pursuant to Subparagraph 1.3; however, District shall otherwise not have the right to control the means by which Contractor accomplishes services rendered pursuant to this Agreement. Notwithstanding any other District, state, or federal policy, rule, regulation, law, or ordinance to the contrary, Contractor – and any of its employees, agents, and subcontractors providing services under this Agreement – shall not qualify for or become entitled to, and hereby agree to waive any and all claims to, any compensation, benefit, or

any incident of employment by District, including but not limited to eligibility to enroll in the California Public Employees Retirement System (PERS) as an employee of District, and entitlement to any contribution to be paid by District for employer contributions and/or employee contributions for PERS benefits.

5.2 Contractor Not Agent. Except as District may specify in writing or as provided by law, Contractor shall have no authority, express or implied, to act on behalf of District in any capacity whatsoever as an agent. Contractor shall have no authority, express or implied, pursuant to this Agreement to bind District to any obligation whatsoever.

SECTION 6. LEGAL REQUIREMENTS.

6.1 Governing Law. The laws of the State of California shall govern this Agreement.

6.2 Compliance with Applicable Laws. Contractor shall comply with all laws applicable to the performance of the work hereunder.

6.3 Other Governmental Regulations. To the extent that this Agreement may be funded by fiscal assistance from another governmental entity, Contractor shall comply with all applicable rules and regulations to which District is bound by the terms of such fiscal assistance program.

6.4 Licenses and Permits. Contractor represents and warrants to District that Contractor and its employees, agents, and any subcontractors have all licenses, permits, qualifications, and approvals of whatever nature legally required to practice their respective professions. Contractor represents and warrants to District that Contractor and its employees, agents, and subcontractors shall, at their sole cost and expense, keep in effect at all times during the term of this Agreement any licenses, permits, and approvals legally required to practice their respective professions. In addition to the foregoing, Contractor and any subcontractors shall obtain and maintain during the term of this Agreement any required business licenses from District.

6.5 Nondiscrimination and Equal Opportunity. Contractor shall comply with all applicable federal, state, and local laws, policies, rules, and requirements related to equal opportunity and nondiscrimination in employment, contracting, and the provision of any services that are the subject of this Agreement.

During the performance of this Agreement, Contractor or its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex (gender), sexual orientation, race, color, ancestry, religion, creed, national origin (including language use restriction), pregnancy, physical disability (including HIV and AIDS), mental disability, medical condition (cancer/genetic characteristics), age (over 40), marital status, and denial of medial and family care leave or pregnancy disability leave. Contractor and its subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. Contractor and its subcontractors shall comply with the provisions of the California Fair Employment and Housing Act (Gov. Code, § 12990.) and the applicable regulations promulgated there under (Cal. Code Regs., tit. 2, § 11000 et seq.). The applicable regulations of the Fair Employment and Housing are incorporated into this Agreement by reference. Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.

6.6 Drug-Free Workplace Certification. Certification of Compliance: By signing this Agreement, Contractor hereby certifies, under penalty of perjury under the laws of the State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Gov. Code, § 8350 et seq.) and have or will provide a drug-free workplace by taking the following actions:

- A. Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code section 8355.
- B. Establish a Drug-Free Awareness Program, as required by Government Code section 8355 to inform employees, contractors, or subcontractors about all of the following:
 - i. The dangers of drug abuse in the workplace,
 - ii. The Contractor's policy of maintaining a drug-free workplace,
 - iii. Any available counseling, rehabilitation, and employee assistance programs, and
 - iv. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
- C. Provide, as required by Government Code section 8355, that every employee, contractor, and/or subcontractor who works under this Agreement:
 - i. Will receive a copy of the Contractor's drug-free policy statement, and
 - ii. Will agree to abide by terms of the Contractor's condition of employment, contract or subcontract.

6.7 Income Restrictions. Contractor agrees that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Contractor under this Agreement shall be paid by the Contractor to the State or District, to the extent that they are properly allocable to costs for which the Contractor has been reimbursed by the State or District, respectively, under this Agreement.

SECTION 7. TERMINATION AND MODIFICATION.

7.1 Termination. District may cancel this Agreement for any reason upon thirty (30) days' notice to Contractor.

In the event of termination, Contractor shall be entitled to compensation for services performed to the effective date of termination; District, however, may condition payment of such compensation upon Contractor delivering to District copies of any or all reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, or any other documents or materials, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement and that relate to the matters covered hereunder. Originals of attorney work product shall remain the property of Contractor.

7.2 Amendments. The parties may amend this Agreement only by a writing signed by all the parties.

7.3 Assignment and Subcontracting. District and Contractor recognize and agree that this Agreement contemplates personal performance by Contractor and is based upon a determination of Contractor's unique personal competence, experience, and specialized personal knowledge. Moreover, a substantial inducement to District for entering into this Agreement was and is the professional reputation and competence of Contractor. Contractor may not assign this Agreement or any interest therein without the prior written approval of the District.

7.4 Survival. All obligations arising prior to the termination of this Agreement and all provisions of this Agreement allocating liability between District and Contractor shall survive the termination of this Agreement.

7.5 Options Upon Breach by Contractor. If Contractor materially breaches any of the terms of this Agreement, District's remedies shall include but not be limited to the following:

7.5.1 Immediate termination of the Agreement;

7.5.2 Retention of the plans, reports, documents, and any other work product prepared by Contractor pursuant to this Agreement; and/or

7.5.3 Retention of a different Contractor to complete any work described in Exhibit A remaining unfinished by Contractor.

SECTION 8. KEEPING AND STATUS OF RECORDS.

8.1 Records Created as Part of Contractor's Performance. Contractor hereby agrees to promptly and expeditiously deliver copies of all reports, data, maps, models, charts, studies, surveys, photographs, memoranda, plans, studies, specifications, records, files, certification, permits, approvals, or any other documents, materials, or information, in electronic or any other form, that Contractor prepares or obtains pursuant to this Agreement to District upon reasonable request or termination of the Agreement. It is understood and agreed that the documents and other materials, including but not limited to those described above, prepared pursuant to this Agreement are prepared specifically for District, are the sole property of District, and are not necessarily suitable for any future or other use. District and Contractor agree that, until final approval by District, all data, plans, specifications, reports and other documents are confidential and will not be released to third parties without prior written consent of both parties.

Contractor further agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Agreement shall be made available to DWR and shall be in the public domain to the extent to which release of such materials is required under the California Public Records Act. (Gov. Code, § 6250 et seq.)

8.2 Contractor's Books and Records. Contractor shall maintain any and all ledgers, books of account, invoices, vouchers, canceled checks, and other records or documents evidencing or relating to charges for services or expenditures and disbursements charged to District under this Agreement for a minimum of three (3) years, or for any longer period required by law, from the date of final payment to the Contractor pursuant to this Agreement. Contractor shall maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices.

8.3 Inspection and Audit of Records. Any records or documents that Section 8.2 of this Agreement requires Contractor to maintain shall be made available for inspection, audit, and/or copying at any time during regular business hours, upon oral or written request of District. Records are subject to inspection by DWR at any and all reasonable times.

8.4 Confidentiality. All information and records obtained in the course of providing services under this Agreement shall be confidential and shall not be open to examination for any purpose not directly connected to the administration of the services to be performed hereunder. Both parties shall comply with State and Federal requirements regarding confidential information.

SECTION 9. MISCELLANEOUS PROVISIONS.

9.1 Inspections of Project by DWR. DWR shall have the right to inspect the work being performed at any and all reasonable times during the term of this Agreement. This right shall include, but not be limited to, access to contracts or subcontracts entered into pursuant to this Agreement.

9.2 Acknowledgement of Credit and Signage. Contractor shall include appropriate acknowledgement of credit to DWR for its support when promoting the Sierra Valley Subbasin GSP Development (Project) or using any data and/or information developed under this Agreement. Signage shall be posted in a prominent location at Project site(s) (if applicable) or at the Contractor's headquarters and shall include the Department of Water Resources color logo and the following disclosure statement: "Funding for this project has been provided in full or in part from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68) and through an agreement with the State Department of Water Resources."

9.3 Attorneys' Fees. If a party to this Agreement brings any action, including an action for declaratory relief, to enforce or interpret the provision of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees in addition to any other relief to which that party may be entitled. The court may set such fees in the same action or in a separate action brought for that purpose.

9.4 Venue. In the event that either party brings any action against the other under this Agreement, the parties agree that trial of such action shall be vested exclusively in the Superior Court of the County of Sierra.

9.5 Severability. If a court of competent jurisdiction finds or rules that any provision of this Agreement is invalid, void, or unenforceable, the provisions of this Agreement not so adjudged shall remain in full force and effect. The invalidity in whole or in part of any provision of this Agreement shall not void or affect the validity of any other provision of this Agreement.

9.6 No Implied Waiver of Breach. The waiver of any breach of a specific provision of this Agreement does not constitute a waiver of any other breach of that term or any other term of this Agreement.

9.7 Successors and Assigns. The provisions of this Agreement shall inure to the benefit of and shall apply to and bind the successors and assigns of the parties.

9.8 Conflict of Interest. Contractor may serve other clients, but none whose activities within the corporate limits of District or whose business, regardless of location, would place Contractor in a "conflict of interest," as that term is defined in the rules of professional responsibility governing Contractor's profession, unless such conflict may be waived by District and District chooses to waive such conflict in writing.

Contractor shall not employ any District official in the work performed pursuant to this Agreement. No officer or employee of District shall have any financial interest in this Agreement that would violate California Government Code section 1090 *et seq.*, or Public Contract Code sections 10410 and 10411.

Contractor hereby warrants that it is not now, nor has it been in the previous twelve (12) months, an employee, agent, appointee, or official of District. If Contractor were an employee, agent, appointee, or official of District in the previous 12 months, Contractor warrants that it did not participate in any manner in the forming of this Agreement. Contractor understands that, if this Agreement is made in violation of Government Code section 1090 *et seq.*, or Public Contract Code sections 10410 and 10411, the entire Agreement is void and Contractor will not be entitled to any compensation for services performed pursuant to this Agreement, including reimbursement of expenses, and Contractor will be required to reimburse District for any sums paid to the Contractor. Contractor understands that, in addition to the foregoing, it may be subject to criminal prosecution for a violation of Government Code section 1090 or Public Contract Code sections 10410 and 10411 and, if applicable, will be disqualified from holding public office in the State of California.

All participants are subject to State and Federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in this Agreement being declared void. Other legal actions may also be taken. Applicable statutes include, but are not limited to, Government Code section 1090 and Public Contract Code sections 10410 and 10411.

Individuals working on behalf of Contractor may be required by the Department to file a Statement of Economic Interests (Fair Political Practices Commission Form 700) if it is determined that an individual is a consultant for Political Reform Act purposes.

9.9 Solicitation. Contractor agrees not to solicit business at any meeting, focus group, or interview related to this Agreement, either orally or through any written materials.

9.10 Notices.

Any written notice to Contractor shall be sent to:

Agri-Lines Irrigation Inc.
Attn: Megan Thomason, Design and Sales
Attn: Janine Avery, Manager
4975 W Winnemucca Blvd
Winnemucca, NV 89445

Any written notice to District shall be sent to:

Sierra Valley Groundwater Management District
P.O. Box 88
Chilcoat, CA 96105

9.11 Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be an original and all of which together shall constitute one agreement.

9.12 Authorized Signature. Each person and party signing this Agreement warrants that he/she has the authority to execute this Agreement on behalf of the principal and that the party will be bound by such signature.

[signature page to follow]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first written above.

DISTRICT

CONTRACTOR

By: _____
Einen Grandi, Chairman

By: _____
Tim Standerford, General Manager

APPROVED AS TO FORM:

By: _____
District Counsel

EXHIBIT A

SCOPE OF SERVICES

**Technical Specifications
for
Purchase of Irrigation Equipment to Convert a Zimmatic 307 Pivot (Roberti
Ranch Pivot #13) from MESA to a LEPA Irrigation System**

1.0 General

The Vendor shall provide all equipment, supplies and materials required to convert one existing Zimmatic 307 center pivot irrigation system, currently equipped with ~9 ft spaced mid-elevation spray heads (MESA), to a low energy precision application (LEPA) irrigation system with ~30” sprinkler head spacing. Details of the existing pivot, and required LEPA conversion parts and materials are contained in the attached LEPA conversion design from Senninger (SEN-61634-22). Reference is made to **Attachment A**.

Equal alternatives to the Senninger sprinkler products in the design package shall be considered by SVGMD, provided the Vendor can provide details showing equal equipment performance to the Senninger LEPA equipment as specified in **Attachment A**. Only close-spaced (~30”) LEPA products will be considered by SVGMD as an equal alternative.

2.0 LEPA Equipment Delivery

All equipment shall be delivered to the following installation site address:

**Roberti Ranch
7411 Dyson Lane
Vinton, CA 96135
Attn: Mr. Jim Roberti
(530) 429-0999**

The Vendor bid shall include all shipping costs.

3.0 Receipt of Equipment

All equipment shall be delivered to the installation site not later than **September 15, 2022**.

4.0 Optional Item - LEPA Equipment Installation

SVGMD may elect to have the Vendor install LEPA equipment. In this case, all existing MESA irrigation equipment shall be removed from the pivot and placed next to the irrigated field at a location approved by the property owner. The Vendor shall take care to minimize unnecessary damage to existing equipment. The Vendor shall then install all new LEPA equipment for full functionality of the pivot.

If authorized to provide installation services, the Vendor shall schedule the installation on acceptable dates to the Roberti Ranch, as agreed upon between the Vendor and property owner. The Vendor shall complete the installation in a diligent manner, minimizing interruption of ranching operations to the degree possible.

If authorized to provide installation services, the anticipated date range for installation will be between September 1st to October 15th, 2022. *Installation shall be completed not later than October 15, 2022.*

Attachment A

Senninger Irrigation, Inc.

Zimmatic 307 LEPA System Conversion Design



Senninger Irrigation Clermont, FL

Dealer : Senninger Irrigation
Clermont, Fl

Customer : Sierra Valley
Zimmatic 307

Printout No: Sen-61634-22



** Specify Senninger UP3 Nozzles when ordering **

Senninger Irrigation, Inc

13505 Granville Ave

Clermont, FL 34711

407-877-5655-ph

407-905-8249-fax

Date: 04/12/2022

Chart No: Sen-61634-22

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Dealer:

Senninger Irrigation
Clermont, FL

Customer:

Sierra Valley
Zimmatic 307

Comments:

Machine

Mfg: Lindsay
Flow: 850.00 gpm
Pivot Pressure: 25.00 psi
Base Press: 29.56 psi
End Pressure: 14.54 psi
Spacing: Span dependent
Length: 1234.08 ft
GPM / Acre: 7.40 gpm
Average Drop: 9.0 ft
End Gun: Nelson R55 i 70 Yellow
End Gun Throw: 36.8 ft
Booster pump: None

Pipes

C Factor: 140
Pipe 1: 1234.1 ft, 6.40 inch ID

Elevation

Difference above(+) pivot 0.00
Difference below(-) pivot 0.00
Elevation Rise included in calculations

Sprinklers

389 LDN UP3
(164)C24-B (225)C33-B



Regs

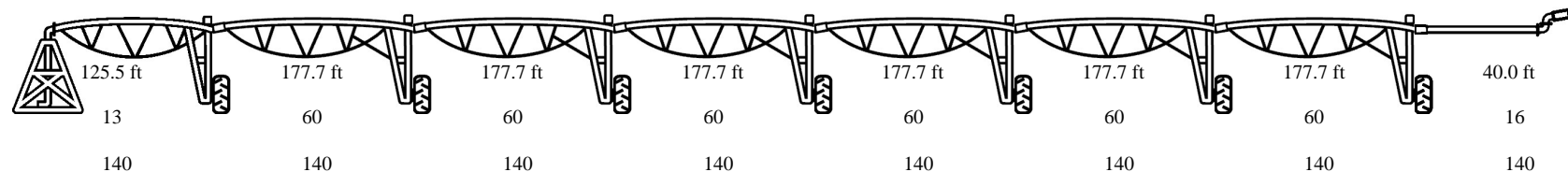
Position : Bottom
13 PSR-2-10
376 PSR-2-6

Spans # 7

Gauge 25.00 psi

6.40

14.54 psi



29.56 psi

Senninger Irrigation, Inc

13505 Granville Ave

Clermont, FL 34711

407-877-5655-ph

407-905-8249-fax

Date: 04/12/2022

Chart No: Sen-61634-22

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WARRANTY

WATER APPLICATION UNIFORMITY OBTAINED WITH THIS SYSTEM CAN BE ADVERSELY AFFECTED BY MANY VARIABLES INCLUDING THE IMPROPER MAKEUP OR INSTALLATION OF THE SPRINKLER OR SPRAY NOZZLE PACKAGE, OBSTRUCTED NOZZLES, MAINTAINING INCORRECT PIVOT PRESSURE, UNFAVORABLE CLIMATE CONDITIONS, TIGHT AND/OR SLOPING SOILS, IMPROPER END GUN ARC SETTINGS, ERRATIC AND IMPROPER OPERATING SPEED OF THE SYSTEM, AND AS WELL AS INHERENT VARIABLES IN THE MANY COMPONENTS COMPRISING THE SYSTEM. THEREFORE, SENNINGER IRRIGATION INC. MAKES NO WARRANTY AS TO THE UNIFORMITY OF COVERAGE OBTAINED FROM THIS WATER APPLICATION PRINTOUT OTHER THAN ITS MATHEMATICAL ACCURACY.

PRODUCTS MANUFACTURED BY SENNINGER IRRIGATION INC. THAT ARE SPECIFIED ON THIS SYSTEM ARE COVERED UNDER THE PRINTED "LIMITED WARRANTY" OF EACH INDIVIDUAL ITEM.

IT IS THE RESPONSIBILITY OF THE END USER TO DETERMINE IF ANY INCOMPATIBILITY EXISTS BETWEEN THE WATER DISTRIBUTION DEVICES AND THE CROP, THE SOIL, AND THE PHYSICAL STRUCTURE OF THE MECHANICAL MOVE SYSTEM. SENNINGER IRRIGATION THEREFORE DISCLAIMS ANY LIABILITY FOR DAMAGES DUE TO FAILURE OF THE SYSTEM TO PERFORM AS CONTEMPLATED.

ALL FIGURES PRESENTED ON THIS COMPUTER PRINTOUT ARE BASED ON THE FOLLOWING...

1. INFORMATION PROVIDED TO SENNINGER IRRIGATION, INC. CONCERNING PIPE LENGTH, DIAMETER, SURFACE FINISH AND OUTLET SPACINGS, PLUS WATER FLOW AND PRESSURE, PLUS ALL OTHER APPLICABLE DATA IS CORRECT.
2. THERE IS 100% WATER APPLICATION EFFICIENCY (ZERO WIND VELOCITY & NO EVAPORATION)
3. ALL BOW STRING AND WARREN TRUSS TYPE SPANS (EXCEPT THE LAST) ARE CONSIDERED TO END AT THE CENTER OF THE FLEXIBLE COUPLING. THE LAST SPAN IS CONSIDERED TO END AFTER THE "TOWER TOP" OR "END BOOM TRANSITION PIECE" FLANGE. CABLE SUPPORTED SPANS ARE CONSIDERED TO END AT THE CENTER OF THE TOWER.
4. PIVOT PRESSURE IS MEASURED UP ON THE MAIN HORIZONTAL DISTRIBUTION PIPE JUST AFTER THE LAST ELBOW.
5. PIVOT PRESSURE HAS BEEN DETERMINED IN CONSIDERATION OF A MAXIMUM FIELD ELEVATION RISE AND FALL FROM THE PIVOT POINT AS SHOWN ON PAGE ONE, WITH THESE ELEVATIONS OCCURING AT THE END OF THE SYSTEM.
6. SPRINKLER OR SPRAY NOZZLE BASE PRESSURE MAY BE LESS THAN MAIN LINE PIPE PRESSURE DUE TO THE USE OF PRESSURE REGULATORS, WITH FLOW VS. FRICTION LOSS THROUGH EACH REGULATOR CONSIDERED. WHERE DROP PIPES ARE USED THE STATIC HEAD IS ADDED TO THE MAIN PIPE PRESSURE TO DETERMINE SPRAY NOZZLE INLET PRESSURE.

Senninger Irrigation, Inc

13505 Granville Ave

Clermont, FL 34711

407-877-5655-ph

407-905-8249-fax

Date: 04/12/2022

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CAUTIONS

This package was plugged with the recommended minimum ground clearance and above the crop canopy.

Senninger Irrigation, Inc

13505 Granville Ave

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Chart No: Sen-61634-22

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Dealer:

Senninger Irrigation
Clermont, FL

Customer:

Sierra Valley
Zimmatic 307

Comments:

Precipitation

Delivered Flow:	850.17 gpm
Pivot Pressure:	25.00 psi
Length:	1234.08 ft
Area:	114.80 acre
Distance to last tower:	1194.08 ft
Speed of last tower:	6.29 ft
Precip. / Acre: (360)	7.40 gpm
Time for coverage:	19.88Hrs
Tire Size	11.2 x 24
Motor loaded speed (RPM)	1725
Center gear box reduction (RATIO)	58:1
Wheel gear box reduction (RATIO)	50:1
End Gun Throw:	36.8 ft

Circle Degree 360

<u>Average Depth</u>	<u>Timer</u>	<u>Rotation</u>
0.33 inch	100.00%	19.9hrs
	---	---
	---	---
0.40 inch	81.29%	24.5hrs
0.50 inch	65.03%	30.6hrs
0.60 inch	54.19%	36.7hrs
0.70 inch	46.45%	42.8hrs
0.80 inch	40.64%	48.9hrs
0.90 inch	36.13%	55.0hrs
1.00 inch	32.52%	61.1hrs
1.25 inch	26.01%	76.4hrs
1.50 inch	21.68%	91.7hrs
2.00 inch	16.26%	122.3hrs
2.50 inch	13.01%	152.8hrs

Caution**This chart is an estimate of the performance for your irrigation system. Tire inflation, tire slippage, soil conditions, flow fluctuations and other conditions can cause application and time deviations. The info above should be used as a guide and used with caution.

12 hrs : Exceeds Specifications







































0.39 inch	82.82%	24 hrs
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SENNINGER IRRIGATION

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION				Goose Neck
OUTLET COUNT	DISTANCE FROM LAST OUTLET (FT)		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg Sg=125°Sg Db=125°Db NOZZ#
	LAST TOWER (FT)	PIVOT POINT (FT)										G
Pivot - Gauge												
1-Plg			7.0									
2-Plg			15.3									
3		23.66	23.7	0.21	0.38	24.64	11.42		PSR-2-10	LDN UP3 C24-B		4-LT BLUE 1 G
4	8.33	31.99	32.0	0.28	0.38	24.52	11.42		PSR-2-10	LDN UP3 C24-B		4-LT BLUE 2 G
5	8.33	40.32	40.3	0.36	0.38	24.39	11.42		PSR-2-10	LDN UP3 C24-B		4-LT BLUE 3 G
6	8.33	48.65	48.6	0.43	0.48	24.26	11.42		PSR-2-10	LDN UP3 C24-B		4.5-LBL/* 4 G
7	8.33	56.98	57.0	0.51	0.48	24.14	11.42		PSR-2-10	LDN UP3 C24-B		4.5-LBL/* 5 G
8	8.33	65.31	65.3	0.58	0.59	24.01	11.41		PSR-2-10	LDN UP3 C24-B		5-BEIGE 6 G
9	8.33	73.64	73.6	0.66	0.72	23.89	11.41		PSR-2-10	LDN UP3 C24-B		5.5-BGE/* 7 G
10	8.33	81.97	82.0	0.73	0.72	23.76	11.41		PSR-2-10	LDN UP3 C24-B		5.5-BGE/* 8 G
11	8.33	90.30	90.3	0.80	0.85	23.64	11.41		PSR-2-10	LDN UP3 C24-B		6-GOLD 9 G
12	8.33	98.63	98.6	0.88	0.85	23.51	11.41		PSR-2-10	LDN UP3 C24-B		6-GOLD 10 G
13	8.33	106.96	107.0	0.95	1.00	23.39	11.41		PSR-2-10	LDN UP3 C24-B		6.5-GLD/* 11 G
14	8.33	115.29	115.3	1.03	1.00	23.26	11.41		PSR-2-10	LDN UP3 C24-B		6.5-GLD/* 12 G
15	8.33	123.62	123.6	1.03	1.00	23.14	11.41		PSR-2-10	LDN UP3 C24-B		6.5-GLD/* 13 G
Tower 1												
		125.50	128.06									
16	5.92	1.48	129.5	0.41	0.38	23.05	7.30		PSR-2-6	LDN UP3 C24-B		4.5-LBL/* 14 G
17	2.96	4.44	132.5	0.42	0.38	23.01	7.30		PSR-2-6	LDN UP3 C24-B		4.5-LBL/* 15 G
18	2.96	7.40	135.5	0.43	0.47	22.96	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 16 G
19	2.96	10.36	138.4	0.44	0.47	22.92	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 17 G
20	2.96	13.32	141.4	0.45	0.47	22.88	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 18 G
21	2.96	16.28	144.3	0.46	0.47	22.83	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 19 G
22	2.96	19.24	147.3	0.47	0.47	22.79	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 20 G
23	2.96	22.20	150.3	0.48	0.47	22.75	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 21 G
24	2.96	25.16	153.2	0.48	0.47	22.70	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 22 G
25	2.96	28.12	156.2	0.49	0.47	22.66	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 23 G
26	2.96	31.08	159.1	0.50	0.47	22.61	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 24 G
27	2.96	34.04	162.1	0.51	0.47	22.57	7.30		PSR-2-6	LDN UP3 C24-B		5-BEIGE 25 G
28	2.96	37.00	165.1	0.52	0.57	22.53	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 26 G
29	2.96	39.96	168.0	0.53	0.57	22.48	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 27 G
30	2.96	42.92	171.0	0.54	0.57	22.44	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 28 G
31	2.96	45.88	173.9	0.55	0.57	22.40	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 29 G
32	2.96	48.84	176.9	0.56	0.57	22.35	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 30 G
33	2.96	51.80	179.9	0.57	0.57	22.31	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 31 G
34	2.96	54.76	182.8	0.58	0.57	22.27	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 32 G
35	2.96	57.72	185.8	0.59	0.57	22.23	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 33 G
36	2.96	60.68	188.7	0.60	0.57	22.18	7.30		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 34 G
37	2.96	63.64	191.7	0.61	0.57	22.14	7.29		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 35 G
38	2.96	66.60	194.7	0.62	0.57	22.10	7.29		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 36 G
39	2.96	69.56	197.6	0.63	0.57	22.05	7.29		PSR-2-6	LDN UP3 C24-B		5.5-BGE/* 37 G
40	2.96	72.52	200.6	0.63	0.68	22.01	7.29		PSR-2-6	LDN UP3 C24-B		6-GOLD 38 G

SENNINGER IRRIGATION

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION				Goose Neck
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg Sg=125°Sg Db=125°Db NOZZ#
	LAST OUTLET (FT)	LAST TOWER (FT)										
41	2.96	75.48	203.5	0.64	0.68	21.97	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	39 G
42	2.96	78.44	206.5	0.65	0.68	21.93	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	40 G
43	2.96	81.40	209.5	0.66	0.68	21.88	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	41 G
44	2.96	84.36	212.4	0.67	0.68	21.84	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	42 G
45	2.96	87.32	215.4	0.68	0.68	21.80	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	43 G
46	2.96	90.28	218.3	0.69	0.68	21.76	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	44 G
47	2.96	93.24	221.3	0.70	0.68	21.71	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	45 G
48	2.96	96.20	224.3	0.71	0.68	21.67	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	46 G
49	2.96	99.16	227.2	0.72	0.68	21.63	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	47 G
50	2.96	102.12	230.2	0.73	0.68	21.59	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	48 G
51	2.96	105.08	233.1	0.74	0.68	21.55	7.29		PSR-2-6	LDN UP3 C24-B	 6-GOLD	49 G
52	2.96	108.04	236.1	0.75	0.80	21.50	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	50 G
53	2.96	111.00	239.1	0.76	0.80	21.46	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	51 G
54	2.96	113.96	242.0	0.77	0.80	21.42	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	52 G
55	2.96	116.92	245.0	0.77	0.80	21.38	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	53 G
56	2.96	119.88	247.9	0.78	0.80	21.34	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	54 G
57	2.96	122.84	250.9	0.79	0.80	21.29	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	55 G
58	2.96	125.80	253.9	0.80	0.80	21.25	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	56 G
59	2.96	128.76	256.8	0.81	0.80	21.21	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	57 G
60	2.96	131.72	259.8	0.82	0.80	21.17	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	58 G
61	2.96	134.68	262.7	0.83	0.80	21.13	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	59 G
62	2.96	137.64	265.7	0.84	0.80	21.09	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	60 G
63	2.96	140.60	268.7	0.85	0.80	21.05	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	61 G
64	2.96	143.56	271.6	0.86	0.80	21.01	7.29		PSR-2-6	LDN UP3 C24-B	 6.5-GLD/*	62 G
65	2.96	146.52	274.6	0.87	0.93	20.96	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	63 G
66	2.96	149.48	277.5	0.88	0.93	20.92	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	64 G
67	2.96	152.44	280.5	0.89	0.93	20.88	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	65 G
68	2.96	155.40	283.5	0.90	0.93	20.84	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	66 G
69	2.96	158.36	286.4	0.91	0.93	20.80	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	67 G
70	2.96	161.32	289.4	0.92	0.93	20.76	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	68 G
71	2.96	164.28	292.3	0.92	0.93	20.72	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	69 G
72	2.96	167.24	295.3	0.93	0.93	20.68	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	70 G
73	2.96	170.20	298.3	0.94	0.93	20.64	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	71 G
74	2.96	173.16	301.2	0.95	0.93	20.60	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	72 G
75	2.96	176.12	304.2	0.95	0.93	20.56	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	73 G
Tower 2		177.67	305.73									
76	3.03	1.48	307.2	0.98	0.93	20.52	7.29		PSR-2-6	LDN UP3 C24-B	 7-LIME	74 G
77	2.96	4.44	310.2	0.98	0.93	20.48	7.29		PSR-2-6	LDN UP3 C24-B	7-LIME	75 G
78	2.96	7.40	313.1	0.99	0.93	20.44	7.29		PSR-2-6	LDN UP3 C24-B	7-LIME	76 G
79	2.96	10.36	316.1	1.00	1.07	20.40	7.29		PSR-2-6	LDN UP3 C24-B	7.5-LIM/*	77 G
80	2.96	13.32	319.0	1.01	1.07	20.36	7.29		PSR-2-6	LDN UP3 C24-B	7.5-LIM/*	78 G
81	2.96	16.28	322.0	1.02	1.07	20.32	7.29		PSR-2-6	LDN UP3 C24-B	7.5-LIM/*	79 G

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





























LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION			Goose Neck		
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg	
	LAST OUTLET (FT)	LAST TOWER (FT)										Sg=125°Sg	Db=125°Db
82	2.96	19.24	325.0	1.03	1.07	20.28	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	80 G
83	2.96	22.20	327.9	1.04	1.07	20.24	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	81 G
84	2.96	25.16	330.9	1.05	1.07	20.20	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	82 G
85	2.96	28.12	333.8	1.06	1.07	20.16	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	83 G
86	2.96	31.08	336.8	1.07	1.07	20.12	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	84 G
87	2.96	34.04	339.8	1.07	1.07	20.08	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	85 G
88	2.96	37.00	342.7	1.08	1.07	20.04	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	86 G
89	2.96	39.96	345.7	1.09	1.07	20.01	7.29		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	87 G
90	2.96	42.92	348.6	1.10	1.07	19.97	7.28		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	88 G
91	2.96	45.88	351.6	1.11	1.07	19.93	7.28		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	89 G
92	2.96	48.84	354.6	1.12	1.07	19.89	7.28		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	90 G
93	2.96	51.80	357.5	1.13	1.07	19.85	7.28		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	91 G
94	2.96	54.76	360.5	1.14	1.07	19.81	7.28		PSR-2-6	LDN UP3 C24-B		7.5-LIM/*	92 G
95	2.96	57.72	363.4	1.15	1.22	19.78	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	93 G
96	2.96	60.68	366.4	1.16	1.22	19.74	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	94 G
97	2.96	63.64	369.4	1.17	1.22	19.70	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	95 G
98	2.96	66.60	372.3	1.18	1.22	19.66	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	96 G
99	2.96	69.56	375.3	1.19	1.22	19.62	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	97 G
100	2.96	72.52	378.2	1.20	1.22	19.59	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	98 G
101	2.96	75.48	381.2	1.21	1.22	19.55	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	99 G
102	2.96	78.44	384.2	1.22	1.22	19.51	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	100 G
103	2.96	81.40	387.1	1.22	1.22	19.47	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	101 G
104	2.96	84.36	390.1	1.23	1.22	19.44	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	102 G
105	2.96	87.32	393.0	1.24	1.22	19.40	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	103 G
106	2.96	90.28	396.0	1.25	1.22	19.36	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	104 G
107	2.96	93.24	399.0	1.26	1.22	19.33	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	105 G
108	2.96	96.20	401.9	1.27	1.22	19.29	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	106 G
109	2.96	99.16	404.9	1.28	1.22	19.25	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	107 G
110	2.96	102.12	407.8	1.29	1.22	19.22	7.28		PSR-2-6	LDN UP3 C24-B		8-LAVENDER	108 G
111	2.96	105.08	410.8	1.30	1.38	19.18	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	109 G
112	2.96	108.04	413.8	1.31	1.38	19.14	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	110 G
113	2.96	111.00	416.7	1.32	1.38	19.11	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	111 G
114	2.96	113.96	419.7	1.33	1.38	19.07	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	112 G
115	2.96	116.92	422.6	1.34	1.38	19.03	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	113 G
116	2.96	119.88	425.6	1.35	1.38	19.00	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	114 G
117	2.96	122.84	428.6	1.36	1.38	18.96	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	115 G
118	2.96	125.80	431.5	1.37	1.38	18.93	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	116 G
119	2.96	128.76	434.5	1.37	1.38	18.89	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	117 G
120	2.96	131.72	437.4	1.38	1.38	18.86	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	118 G
121	2.96	134.68	440.4	1.39	1.38	18.82	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	119 G
122	2.96	137.64	443.4	1.40	1.38	18.79	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	120 G
123	2.96	140.60	446.3	1.41	1.38	18.75	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	121 G

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION			Goose Neck		
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg	
	LAST OUTLET (FT)	LAST TOWER (FT)										Sg=125°Sg	Db=125°Db
124	2.96	143.56	449.3	1.42	1.38	18.72	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	122 G
125	2.96	146.52	452.2	1.43	1.38	18.68	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	123 G
126	2.96	149.48	455.2	1.44	1.38	18.65	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	124 G
127	2.96	152.44	458.2	1.45	1.38	18.61	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	125 G
128	2.96	155.40	461.1	1.46	1.38	18.58	7.28		PSR-2-6	LDN UP3 C24-B		8.5-LAV/*	126 G
129	2.96	158.36	464.1	1.47	1.55	18.54	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	127 G
130	2.96	161.32	467.0	1.48	1.55	18.51	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	128 G
131	2.96	164.28	470.0	1.49	1.55	18.48	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	129 G
132	2.96	167.24	473.0	1.50	1.55	18.44	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	130 G
133	2.96	170.20	475.9	1.51	1.55	18.41	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	131 G
134	2.96	173.16	478.9	1.51	1.55	18.37	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	132 G
135	2.96	176.12	481.8	1.51	1.55	18.34	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	133 G
Tower 3		177.67	483.40										
136	3.03	1.48	484.9	1.54	1.55	18.31	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	134 G
137	2.96	4.44	487.8	1.54	1.55	18.27	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	135 G
138	2.96	7.40	490.8	1.55	1.55	18.24	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	136 G
139	2.96	10.36	493.8	1.56	1.55	18.21	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	137 G
140	2.96	13.32	496.7	1.57	1.55	18.17	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	138 G
141	2.96	16.28	499.7	1.58	1.55	18.14	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	139 G
142	2.96	19.24	502.6	1.59	1.55	18.11	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	140 G
143	2.96	22.20	505.6	1.60	1.55	18.08	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	141 G
144	2.96	25.16	508.6	1.61	1.55	18.04	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	142 G
145	2.96	28.12	511.5	1.62	1.55	18.01	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	143 G
146	2.96	31.08	514.5	1.63	1.55	17.98	7.27		PSR-2-6	LDN UP3 C24-B		9-GREY	144 G
147	2.96	34.04	517.4	1.64	1.72	17.95	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	145 G
148	2.96	37.00	520.4	1.65	1.72	17.92	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	146 G
149	2.96	39.96	523.4	1.66	1.72	17.88	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	147 G
150	2.96	42.92	526.3	1.66	1.72	17.85	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	148 G
151	2.96	45.88	529.3	1.67	1.72	17.82	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	149 G
152	2.96	48.84	532.2	1.68	1.72	17.79	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	150 G
153	2.96	51.80	535.2	1.69	1.72	17.76	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	151 G
154	2.96	54.76	538.2	1.70	1.72	17.73	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	152 G
155	2.96	57.72	541.1	1.71	1.72	17.70	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	153 G
156	2.96	60.68	544.1	1.72	1.72	17.67	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	154 G
157	2.96	63.64	547.0	1.73	1.72	17.64	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	155 G
158	2.96	66.60	550.0	1.74	1.72	17.61	7.27		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	156 G
159	2.96	69.56	553.0	1.75	1.72	17.58	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	157 G
160	2.96	72.52	555.9	1.76	1.72	17.55	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	158 G
161	2.96	75.48	558.9	1.77	1.72	17.52	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	159 G
162	2.96	78.44	561.8	1.78	1.72	17.49	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	160 G
163	2.96	81.40	564.8	1.79	1.72	17.46	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	161 G
164	2.96	84.36	567.8	1.80	1.72	17.43	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	162 G

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION			Goose Neck		
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg Sg=125°Sg Db=125°Db NOZZ#	
	LAST OUTLET (FT)	LAST TOWER (FT)										G	S
165	2.96	87.32	570.7	1.81	1.72	17.40	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	163 G
166	2.96	90.28	573.7	1.81	1.72	17.37	7.26		PSR-2-6	LDN UP3 C24-B		9.5-GRY/*	164 G
167	2.96	93.24	576.6	1.82	1.91	17.34	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	165 G
168	2.96	96.20	579.6	1.83	1.91	17.31	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	166 G
169	2.96	99.16	582.6	1.84	1.91	17.28	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	167 G
170	2.96	102.12	585.5	1.85	1.91	17.25	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	168 G
171	2.96	105.08	588.5	1.86	1.91	17.22	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	169 G
172	2.96	108.04	591.4	1.87	1.91	17.20	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	170 G
173	2.96	111.00	594.4	1.88	1.91	17.17	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	171 G
174	2.96	113.96	597.4	1.89	1.91	17.14	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	172 G
175	2.96	116.92	600.3	1.90	1.91	17.11	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	173 G
176	2.96	119.88	603.3	1.91	1.91	17.08	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	174 G
177	2.96	122.84	606.2	1.92	1.91	17.06	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	175 G
178	2.96	125.80	609.2	1.93	1.91	17.03	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	176 G
179	2.96	128.76	612.2	1.94	1.91	17.00	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	177 G
180	2.96	131.72	615.1	1.95	1.91	16.97	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	178 G
181	2.96	134.68	618.1	1.96	1.91	16.95	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	179 G
182	2.96	137.64	621.0	1.96	1.91	16.92	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	180 G
183	2.96	140.60	624.0	1.97	1.91	16.89	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	181 G
184	2.96	143.56	627.0	1.98	1.91	16.87	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	182 G
185	2.96	146.52	629.9	1.99	1.91	16.84	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	183 G
186	2.96	149.48	632.9	2.00	1.91	16.81	7.26		PSR-2-6	LDN UP3 C33-B		10-TURQUOISE	184 G
187	2.96	152.44	635.8	2.01	2.11	16.79	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	185 G
188	2.96	155.40	638.8	2.02	2.11	16.76	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	186 G
189	2.96	158.36	641.8	2.03	2.11	16.74	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	187 G
190	2.96	161.32	644.7	2.04	2.11	16.71	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	188 G
191	2.96	164.28	647.7	2.05	2.11	16.69	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	189 G
192	2.96	167.24	650.6	2.06	2.11	16.66	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	190 G
193	2.96	170.20	653.6	2.07	2.11	16.64	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	191 G
194	2.96	173.16	656.6	2.08	2.11	16.61	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	192 G
195	2.96	176.12	659.5	2.08	2.11	16.59	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	193 G
Tower 4		177.67	661.07										
196	3.03	1.48	662.5	2.10	2.11	16.56	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	194 G
197	2.96	4.44	665.5	2.11	2.11	16.54	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	195 G
198	2.96	7.40	668.5	2.11	2.11	16.51	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	196 G
199	2.96	10.36	671.4	2.12	2.11	16.49	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	197 G
200	2.96	13.32	674.4	2.13	2.11	16.46	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	198 G
201	2.96	16.28	677.4	2.14	2.11	16.44	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	199 G
202	2.96	19.24	680.3	2.15	2.11	16.42	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	200 G
203	2.96	22.20	683.3	2.16	2.11	16.39	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	201 G
204	2.96	25.16	686.2	2.17	2.11	16.37	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	202 G
205	2.96	28.12	689.2	2.18	2.11	16.34	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	203 G

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION			Goose Neck		
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg	
	LAST OUTLET (FT)	LAST TOWER (FT)										Sg=125°Sg	Db=125°Db
206	2.96	31.08	692.2	2.19	2.11	16.32	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	204 G
207	2.96	34.04	695.1	2.20	2.11	16.30	7.25		PSR-2-6	LDN UP3 C33-B		10.5-TUR/*	205 G
208	2.96	37.00	698.1	2.21	2.31	16.28	7.25		PSR-2-6	LDN UP3 C33-B		11-YELLOW	206 G
209	2.96	39.96	701.0	2.22	2.31	16.25	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	207 G
210	2.96	42.92	704.0	2.23	2.31	16.23	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	208 G
211	2.96	45.88	707.0	2.24	2.31	16.21	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	209 G
212	2.96	48.84	709.9	2.25	2.31	16.19	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	210 G
213	2.96	51.80	712.9	2.25	2.31	16.16	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	211 G
214	2.96	54.76	715.8	2.26	2.31	16.14	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	212 G
215	2.96	57.72	718.8	2.27	2.31	16.12	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	213 G
216	2.96	60.68	721.8	2.28	2.31	16.10	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	214 G
217	2.96	63.64	724.7	2.29	2.31	16.08	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	215 G
218	2.96	66.60	727.7	2.30	2.31	16.06	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	216 G
219	2.96	69.56	730.6	2.31	2.31	16.04	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	217 G
220	2.96	72.52	733.6	2.32	2.31	16.01	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	218 G
221	2.96	75.48	736.6	2.33	2.31	15.99	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	219 G
222	2.96	78.44	739.5	2.34	2.31	15.97	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	220 G
223	2.96	81.40	742.5	2.35	2.31	15.95	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	221 G
224	2.96	84.36	745.4	2.36	2.31	15.93	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	222 G
225	2.96	87.32	748.4	2.37	2.31	15.91	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	223 G
226	2.96	90.28	751.4	2.38	2.31	15.89	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	224 G
227	2.96	93.24	754.3	2.39	2.31	15.87	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	225 G
228	2.96	96.20	757.3	2.40	2.31	15.85	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	226 G
229	2.96	99.16	760.2	2.40	2.31	15.83	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	227 G
230	2.96	102.12	763.2	2.41	2.31	15.81	7.24		PSR-2-6	LDN UP3 C33-B		11-YELLOW	228 G
231	2.96	105.08	766.2	2.42	2.53	15.79	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	229 G
232	2.96	108.04	769.1	2.43	2.53	15.78	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	230 G
233	2.96	111.00	772.1	2.44	2.53	15.76	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	231 G
234	2.96	113.96	775.0	2.45	2.53	15.74	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	232 G
235	2.96	116.92	778.0	2.46	2.53	15.72	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	233 G
236	2.96	119.88	781.0	2.47	2.53	15.70	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	234 G
237	2.96	122.84	783.9	2.48	2.53	15.68	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	235 G
238	2.96	125.80	786.9	2.49	2.53	15.67	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	236 G
239	2.96	128.76	789.8	2.50	2.53	15.65	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	237 G
240	2.96	131.72	792.8	2.51	2.53	15.63	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	238 G
241	2.96	134.68	795.8	2.52	2.53	15.61	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	239 G
242	2.96	137.64	798.7	2.53	2.53	15.59	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	240 G
243	2.96	140.60	801.7	2.54	2.53	15.58	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	241 G
244	2.96	143.56	804.6	2.55	2.53	15.56	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	242 G
245	2.96	146.52	807.6	2.55	2.53	15.54	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	243 G
246	2.96	149.48	810.6	2.56	2.53	15.53	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	244 G
247	2.96	152.44	813.5	2.57	2.53	15.51	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/*	245 G

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OUTLET COUNT	DISTANCE FROM LAST OUTLET (FT)	DISTANCE FROM LAST TOWER (FT)	PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg Sg=125°Sg Db=125°Db NOZZ#
248	2.96	155.40	816.5	2.58	2.53	15.49	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 246 G
249	2.96	158.36	819.4	2.59	2.53	15.48	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 247 G
250	2.96	161.32	822.4	2.60	2.53	15.46	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 248 G
251	2.96	164.28	825.4	2.61	2.53	15.45	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 249 G
252	2.96	167.24	828.3	2.62	2.53	15.43	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 250 G
253	2.96	170.20	831.3	2.63	2.53	15.41	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 251 G
254	2.96	173.16	834.2	2.64	2.53	15.40	7.22		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 252 G
255	2.96	176.12	837.2	2.64	2.53	15.38	7.23		PSR-2-6	LDN UP3 C33-B		11.5-YEL/* 253 G
Tower 5		177.67	838.74									
256	3.03	1.48	840.2	2.67	2.75	15.37	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 254 G
257	2.96	4.44	843.2	2.67	2.75	15.35	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 255 G
258	2.96	7.40	846.1	2.68	2.75	15.34	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 256 G
259	2.96	10.36	849.1	2.69	2.75	15.32	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 257 G
260	2.96	13.32	852.1	2.70	2.75	15.31	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 258 G
261	2.96	16.28	855.0	2.70	2.75	15.29	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 259 G
262	2.96	19.24	858.0	2.71	2.75	15.28	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 260 G
263	2.96	22.20	860.9	2.72	2.75	15.27	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 261 G
264	2.96	25.16	863.9	2.73	2.75	15.25	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 262 G
265	2.96	28.12	866.9	2.74	2.75	15.24	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 263 G
266	2.96	31.08	869.8	2.75	2.75	15.22	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 264 G
267	2.96	34.04	872.8	2.76	2.75	15.21	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 265 G
268	2.96	37.00	875.7	2.77	2.75	15.20	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 266 G
269	2.96	39.96	878.7	2.78	2.75	15.18	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 267 G
270	2.96	42.92	881.7	2.79	2.75	15.17	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 268 G
271	2.96	45.88	884.6	2.80	2.75	15.16	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 269 G
272	2.96	48.84	887.6	2.81	2.75	15.15	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 270 G
273	2.96	51.80	890.5	2.82	2.75	15.13	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 271 G
274	2.96	54.76	893.5	2.83	2.75	15.12	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 272 G
275	2.96	57.72	896.5	2.84	2.75	15.11	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 273 G
276	2.96	60.68	899.4	2.85	2.75	15.10	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 274 G
277	2.96	63.64	902.4	2.85	2.75	15.08	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 275 G
278	2.96	66.60	905.3	2.86	2.75	15.07	7.22		PSR-2-6	LDN UP3 C33-B		12-RED 276 G
279	2.96	69.56	908.3	2.87	2.99	15.06	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 277 G
280	2.96	72.52	911.3	2.88	2.99	15.05	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 278 G
281	2.96	75.48	914.2	2.89	2.99	15.04	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 279 G
282	2.96	78.44	917.2	2.90	2.99	15.03	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 280 G
283	2.96	81.40	920.1	2.91	2.99	15.02	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 281 G
284	2.96	84.36	923.1	2.92	2.99	15.00	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 282 G
285	2.96	87.32	926.1	2.93	2.99	14.99	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 283 G
286	2.96	90.28	929.0	2.94	2.99	14.98	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 284 G
287	2.96	93.24	932.0	2.95	2.99	14.97	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 285 G
288	2.96	96.20	934.9	2.96	2.99	14.96	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 286 G

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION				Goose Neck
OUTLET COUNT	DISTANCE FROM LAST OUTLET (FT)	DISTANCE FROM LAST TOWER (FT)	PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg Sg=125°Sg Db=125°Db NOZZ#
289	2.96	99.16	937.9	2.97	2.99	14.95	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 287 G
290	2.96	102.12	940.9	2.98	2.99	14.94	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 288 G
291	2.96	105.08	943.8	2.99	2.99	14.93	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 289 G
292	2.96	108.04	946.8	2.99	2.99	14.92	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 290 G
293	2.96	111.00	949.7	3.00	2.99	14.91	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 291 G
294	2.96	113.96	952.7	3.01	2.99	14.90	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 292 G
295	2.96	116.92	955.7	3.02	2.99	14.89	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 293 G
296	2.96	119.88	958.6	3.03	2.99	14.88	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 294 G
297	2.96	122.84	961.6	3.04	2.99	14.88	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 295 G
298	2.96	125.80	964.5	3.05	2.98	14.87	7.21		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 296 G
299	2.96	128.76	967.5	3.06	2.98	14.86	7.20		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 297 G
300	2.96	131.72	970.5	3.07	2.98	14.85	7.20		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 298 G
301	2.96	134.68	973.4	3.08	2.98	14.84	7.20		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 299 G
302	2.96	137.64	976.4	3.09	2.98	14.83	7.20		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 300 G
303	2.96	140.60	979.3	3.10	2.98	14.82	7.20		PSR-2-6	LDN UP3 C33-B		12.5-RED/* 301 G
304	2.96	143.56	982.3	3.11	3.23	14.82	7.20		PSR-2-6	LDN UP3 C33-B		13-WHITE 302 G
305	2.96	146.52	985.3	3.12	3.23	14.81	7.20		PSR-2-6	LDN UP3 C33-B		13-WHITE 303 G
306	2.96	149.48	988.2	3.13	3.23	14.80	7.20		PSR-2-6	LDN UP3 C33-B		13-WHITE 304 G
307	2.96	152.44	991.2	3.14	3.23	14.79	7.20		PSR-2-6	LDN UP3 C33-B		13-WHITE 305 G
308	2.96	155.40	994.1	3.14	3.23	14.79	7.20		PSR-2-6	LDN UP3 C33-B		13-WHITE 306 G
309	2.96	158.36	997.1	3.15	3.23	14.78	7.20		PSR-2-6	LDN UP3 C33-B		13-WHITE 307 G
310	2.96	161.32	1000.1	3.16	3.23	14.77	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 308 G
311	2.96	164.28	1003.0	3.17	3.23	14.76	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 309 G
312	2.96	167.24	1006.0	3.18	3.23	14.76	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 310 G
313	2.96	170.20	1008.9	3.19	3.23	14.75	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 311 G
314	2.96	173.16	1011.9	3.20	3.23	14.74	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 312 G
315	2.96	176.12	1014.9	3.20	3.23	14.74	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 313 G
Tower 6		177.67	1016.4									
316	3.03	1.48	1017.9	3.23	3.23	14.73	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 314 G
317	2.96	4.44	1020.8	3.23	3.23	14.72	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 315 G
318	2.96	7.40	1023.8	3.24	3.23	14.72	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 316 G
319	2.96	10.36	1026.8	3.25	3.23	14.71	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 317 G
320	2.96	13.32	1029.7	3.26	3.23	14.71	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 318 G
321	2.96	16.28	1032.7	3.27	3.23	14.70	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 319 G
322	2.96	19.24	1035.7	3.28	3.23	14.69	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 320 G
323	2.96	22.20	1038.6	3.29	3.23	14.69	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 321 G
324	2.96	25.16	1041.6	3.29	3.23	14.68	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 322 G
325	2.96	28.12	1044.5	3.30	3.23	14.68	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 323 G
326	2.96	31.08	1047.5	3.31	3.23	14.67	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 324 G
327	2.96	34.04	1050.5	3.32	3.23	14.67	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 325 G
328	2.96	37.00	1053.4	3.33	3.23	14.66	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 326 G
329	2.96	39.96	1056.4	3.34	3.23	14.66	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE 327 G

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION			Goose Neck	
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg
	LAST OUTLET (FT)	LAST TOWER (FT)										Sg=125°Sg
												NOZZ#
330	2.96	42.92	1059.3	3.35	3.23	14.65	7.19		PSR-2-6	LDN UP3 C33-B	13-WHITE	328 G
331	2.96	45.88	1062.3	3.36	3.48	14.65	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	329 G
332	2.96	48.84	1065.3	3.37	3.48	14.64	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	330 G
333	2.96	51.80	1068.2	3.38	3.48	14.64	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	331 G
334	2.96	54.76	1071.2	3.39	3.48	14.64	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	332 G
335	2.96	57.72	1074.1	3.40	3.48	14.63	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	333 G
336	2.96	60.68	1077.1	3.41	3.48	14.63	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	334 G
337	2.96	63.64	1080.1	3.42	3.48	14.62	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	335 G
338	2.96	66.60	1083.0	3.43	3.48	14.62	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	336 G
339	2.96	69.56	1086.0	3.44	3.48	14.62	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	337 G
340	2.96	72.52	1088.9	3.44	3.48	14.61	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	338 G
341	2.96	75.48	1091.9	3.45	3.48	14.61	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	339 G
342	2.96	78.44	1094.9	3.46	3.48	14.61	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	340 G
343	2.96	81.40	1097.8	3.47	3.48	14.60	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	341 G
344	2.96	84.36	1100.8	3.48	3.48	14.60	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	342 G
345	2.96	87.32	1103.7	3.49	3.48	14.60	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	343 G
346	2.96	90.28	1106.7	3.50	3.48	14.59	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	344 G
347	2.96	93.24	1109.7	3.51	3.48	14.59	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	345 G
348	2.96	96.20	1112.6	3.52	3.48	14.59	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	346 G
349	2.96	99.16	1115.6	3.53	3.48	14.58	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	347 G
350	2.96	102.12	1118.5	3.54	3.48	14.58	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	348 G
351	2.96	105.08	1121.5	3.55	3.48	14.58	7.18		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	349 G
352	2.96	108.04	1124.5	3.56	3.48	14.58	7.17		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	350 G
353	2.96	111.00	1127.4	3.57	3.48	14.57	7.17		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	351 G
354	2.96	113.96	1130.4	3.58	3.48	14.57	7.17		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	352 G
355	2.96	116.92	1133.3	3.58	3.48	14.57	7.17		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	353 G
356	2.96	119.88	1136.3	3.59	3.48	14.57	7.17		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	354 G
357	2.96	122.84	1139.3	3.60	3.48	14.57	7.17		PSR-2-6	LDN UP3 C33-B	13.5-WHT/*	355 G
358	2.96	125.80	1142.2	3.61	3.74	14.56	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	356 G
359	2.96	128.76	1145.2	3.62	3.74	14.56	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	357 G
360	2.96	131.72	1148.1	3.63	3.74	14.56	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	358 G
361	2.96	134.68	1151.1	3.64	3.74	14.56	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	359 G
362	2.96	137.64	1154.1	3.65	3.74	14.56	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	360 G
363	2.96	140.60	1157.0	3.66	3.74	14.56	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	361 G
364	2.96	143.56	1160.0	3.67	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	362 G
365	2.96	146.52	1162.9	3.68	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	363 G
366	2.96	149.48	1165.9	3.69	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	364 G
367	2.96	152.44	1168.9	3.70	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	365 G
368	2.96	155.40	1171.8	3.71	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	366 G
369	2.96	158.36	1174.8	3.72	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	367 G
370	2.96	161.32	1177.7	3.73	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	368 G
371	2.96	164.28	1180.7	3.73	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B	14-BLUE	369 G

SENNINGER IRRIGATION

Date: 04/12/2022

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LOCATION				HYDRAULICS DATA				HARDWARE DESCRIPTION				Goose Neck	
OUTLET COUNT	DISTANCE FROM		PIVOT POINT (FT)	OUTLET FLOW NEEDED (GPM)	ACTUAL OUTLET FLOW (GPM)	MAIN PIPE PRESS (PSI)	SPR. BASE PRESS (PSI)	DROP LENGTH (in)	PRESS REG MODEL	SENNINGER SPRINKLER MODEL&PAD/Weight	NOZZ SIZE (64TH INCH) &COLOR	G=180°Sg Sg=125°Sg Db=125°Db NOZZ#	
	LAST OUTLET (FT)	LAST TOWER (FT)											
372	2.96	167.24	1183.7	3.74	3.74	14.55	7.16		PSR-2-6	LDN UP3 C33-B		14-BLUE	370 G
373	2.96	170.20	1186.6	3.75	3.74	14.54	7.16		PSR-2-6	LDN UP3 C33-B		14-BLUE	371 G
374	2.96	173.16	1189.6	3.76	3.74	14.54	7.16		PSR-2-6	LDN UP3 C33-B		14-BLUE	372 G
375	2.96	176.12	1192.5	3.77	3.74	14.54	7.16		PSR-2-6	LDN UP3 C33-B		14-BLUE	373 G
Tower 7		177.67	1194.0										
376	2.80	1.25	1195.3	3.19	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	374 G
377	2.50	3.75	1197.8	3.20	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	375 G
378	2.50	6.25	1200.3	3.21	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	376 G
379	2.50	8.75	1202.8	3.21	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	377 G
380	2.50	11.25	1205.3	3.22	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	378 G
381	2.50	13.75	1207.8	3.23	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	379 G
382	2.50	16.25	1210.3	3.23	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	380 G
383	2.50	18.75	1212.8	3.24	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	381 G
384	2.50	21.25	1215.3	3.25	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	382 G
385	2.50	23.75	1217.8	3.25	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	383 G
386	2.50	26.25	1220.3	3.26	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	384 G
387	2.50	28.75	1222.8	3.27	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	385 G
388	2.50	31.25	1225.3	3.27	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	386 G
389	2.50	33.75	1227.8	3.28	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	387 G
390	2.50	36.25	1230.3	3.29	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	388 G
391	2.50	38.75	1232.8	3.29	3.23	14.54	7.19		PSR-2-6	LDN UP3 C33-B		13-WHITE	389 G
	1.25	40.00	1234.1	36.80	36.72	14.54	14.54	End Gun 1		Nelson R55 i 70 Yellow			
No Booster Pump													

Senninger Irrigation, Inc

13505 Granville Ave

Clermont, FL 34711

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QUANTITIES

Qty	Item	Description
389	LDN UP3	(164)C24-B (225)C33-B
13	PSR-2-10	
376	PSR-2-6	
2	Plugs	
1	Nelson R55 i 70 Yellow	

Drop lengths are based on the following values.

Span Tower height Crown height Ground Clearance ft

1,2,3,4,5,6,7

0.00

0.00

Ground Clearance : General

3.00

**These dimensions must be confirmed
prior to manufacturing the drop components**

DEVIATION SUMMARY

Span number	Area	Required flow	Actual flow	% Deviation	GPM/Acre
1	1.18	8.55	8.93	4.34	7.55
2	5.56	41.06	41.17	0.27	7.41
3	10.11	74.88	75.10	0.29	7.43
4	14.66	108.60	108.66	0.05	7.41
5	19.22	142.32	141.66	-0.47	7.37
6	23.77	176.05	176.67	0.36	7.43
7	28.32	209.90	209.79	-0.05	7.41
8	7.00	51.72	51.47	-0.49	7.35
End Gun 1	4.92	36.80	36.72	-0.21	7.46

Nozzle Discharge Uniformity Coefficient = 97.5 %

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BILL of MATERIALS - Hydraulic Components

Qty	PartNumber	Cost	Description
389	LDNBRASMUP3		UP3 LDN 3/4" NPT
225	LDNPHDCBB		Concave - Bubbler
164	LDNPHDMCBB		Concave mini - Bubbler
389	LDNSUP3		LDN Shroud
2	FTP3		3/4" Plugs
3	UP3NZ04		# 4 UP3 Nozzle (light blue)
4	UP3NZ045		# 4.5 UP3 Nozzle (light blue) notche
11	UP3NZ05		# 5 UP3 Nozzle (beige)
14	UP3NZ055		# 5.5 UP3 Nozzle (beige) notched
14	UP3NZ06		# 6 UP3 Nozzle (gold)
16	UP3NZ065		# 6.5 UP3 Nozzle (gold) notched
14	UP3NZ07		# 7 UP3 Nozzle (lime)
16	UP3NZ075		# 7.5 UP3 Nozzle (lime) notched
16	UP3NZ08		# 8 UP3 Nozzle (lavender)
18	UP3NZ085		# 8.5 UP3 Nozzle (lavender) notched
18	UP3NZ09		# 9 UP3 Nozzle (grey)
20	UP3NZ095		# 9.5 UP3 Nozzle (grey) notched
20	UP3NZ10		#10 UP3 Nozzle (turquoise)
21	UP3NZ105		#10.5 UP3 Nozzle (turquoise) notched
23	UP3NZ11		#11 UP3 Nozzle (yellow)
25	UP3NZ115		#11.5 UP3 Nozzle (yellow) notched
23	UP3NZ12		#12 UP3 Nozzle (red)
25	UP3NZ125		#12.5 UP3 Nozzle (red) notched
43	UP3NZ13		#13 UP3 Nozzle (white)
27	UP3NZ135		#13.5 UP3 Nozzle (white) notched
18	UP3NZ14		#14 UP3 Nozzle (blue)
376	06 PSR-2		6 PSI PSR 2 3 3/4"f X 3/4" F
13	PSR2103F3F		10 PSI PSR 2 - 3/4"f X 3/4"f
1	Nozzle,Komet140 24de		Nozzle,Komet140 24deg .87

Senninger Irrigation, Inc

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BILL of MATERIALS - Hydraulic Components

Qty	PartNumber	Cost	----- Description -----
1948	Total		

Senninger Irrigation, Inc
13505 Granville Ave
Clermont, FL 34711

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407-905-8249-fax

Dealer : Senninger Irrigation
Clermont, FL
Customer : Sierra Valley
Zimmatic 307
Printout No: Sen-61634-22

Date: 04/12/2022

Chart No: Sen-61634-22

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INSTALLATION

Tower No. 1				Tower No. 2				Tower No. 3				Tower No. 4				
Len	Noz	Reg		Len	Noz	Reg		Len	Noz	Reg		Len	Noz	Reg		
Out#	Pos		Out#	Pos		Out#	Pos	Out#	Pos	Reg	Out#	Pos	Reg			
1			29	42	6	PSR-2-6		12	85	7.5	PSR-2-6	60	133	9	PSR-2-6	
2			30	43	6	PSR-2-6		13	86	7.5	PSR-2-6		44	177	10	PSR-2-6
3	1	4	31	44	6	PSR-2-6		14	87	7.5	PSR-2-6		45	178	10	PSR-2-6
4	2	4	32	45	6	PSR-2-6		15	88	7.5	PSR-2-6		46	179	10	PSR-2-6
5	3	4	33	46	6	PSR-2-6		16	89	7.5	PSR-2-6		47	180	10	PSR-2-6
6	4	4.5	34	47	6	PSR-2-6		17	90	7.5	PSR-2-6		48	181	10	PSR-2-6
7	5	4.5	35	48	6	PSR-2-6		18	91	7.5	PSR-2-6		49	182	10	PSR-2-6
8	6	5	36	49	6	PSR-2-6		19	92	7.5	PSR-2-6		50	183	10	PSR-2-6
9	7	5.5	37	50	6.5	PSR-2-6		20	93	8	PSR-2-6		51	184	10	PSR-2-6
10	8	5.5	38	51	6.5	PSR-2-6		21	94	8	PSR-2-6		52	185	10.5	PSR-2-6
11	9	6	39	52	6.5	PSR-2-6		22	95	8	PSR-2-6		53	186	10.5	PSR-2-6
12	10	6	40	53	6.5	PSR-2-6		23	96	8	PSR-2-6		54	187	10.5	PSR-2-6
13	11	6.5	41	54	6.5	PSR-2-6		24	97	8	PSR-2-6		55	188	10.5	PSR-2-6
14	12	6.5	42	55	6.5	PSR-2-6		25	98	8	PSR-2-6		56	189	10.5	PSR-2-6
15	13	6.5	43	56	6.5	PSR-2-6		26	99	8	PSR-2-6		57	190	10.5	PSR-2-6
			44	57	6.5	PSR-2-6		27	100	8	PSR-2-6		58	191	10.5	PSR-2-6
			45	58	6.5	PSR-2-6		28	101	8	PSR-2-6		59	192	10.5	PSR-2-6
			46	59	6.5	PSR-2-6		29	102	8	PSR-2-6		60	193	10.5	PSR-2-6
			47	60	6.5	PSR-2-6		30	103	8	PSR-2-6					
			48	61	6.5	PSR-2-6		31	104	8	PSR-2-6					
			49	62	6.5	PSR-2-6		32	105	8	PSR-2-6					
			50	63	7	PSR-2-6		33	106	8	PSR-2-6					
			51	64	7	PSR-2-6		34	107	8	PSR-2-6					
			52	65	7	PSR-2-6		35	108	8	PSR-2-6					
			53	66	7	PSR-2-6		36	109	8.5	PSR-2-6					
			54	67	7	PSR-2-6		37	110	8.5	PSR-2-6					
			55	68	7	PSR-2-6		38	111	8.5	PSR-2-6					
			56	69	7	PSR-2-6		39	112	8.5	PSR-2-6					
			57	70	7	PSR-2-6		40	113	8.5	PSR-2-6					
			58	71	7	PSR-2-6		41	114	8.5	PSR-2-6					
			59	72	7	PSR-2-6		42	115	8.5	PSR-2-6					
			60	73	7	PSR-2-6		43	116	8.5	PSR-2-6					
								44	117	8.5	PSR-2-6					
								45	118	8.5	PSR-2-6					
								46	119	8.5	PSR-2-6					
								47	120	8.5	PSR-2-6					
								48	121	8.5	PSR-2-6					
								49	122	8.5	PSR-2-6					
								50	123	8.5	PSR-2-6					
								51	124	8.5	PSR-2-6					
								52	125	8.5	PSR-2-6					
								53	126	8.5	PSR-2-6					
								54	127	9	PSR-2-6					
								55	128	9	PSR-2-6					
								56	129	9	PSR-2-6					
								57	130	9	PSR-2-6					
								58	131	9	PSR-2-6					
								59	132	9	PSR-2-6					

Senninger Irrigation, Inc

407-877-5655-ph

Dealer :

Senninger Irrigation

13505 Granville Ave

407-905-8249-fax

Clermont, FL

Clermont, FL 34711

Customer :

Sierra Valley

Zimmatic 307

Printout No:

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Date: 04/12/2022

Chart No: Sen-61634-22

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INSTALLATION

Len	Noz	Reg	Len	Noz	Reg	Len	Noz	Reg	Len	Noz	Reg	Len	Noz	Reg
Out#	Pos		Out#	Pos		Out#	Pos		Out#	Pos		Out#	Pos	
26	219	11 PSR-2-6	9	262	12 PSR-2-6	57	310	13 PSR-2-6	40	353	13.5 PSR-2-6			
27	220	11 PSR-2-6	10	263	12 PSR-2-6	58	311	13 PSR-2-6	41	354	13.5 PSR-2-6			
28	221	11 PSR-2-6	11	264	12 PSR-2-6	59	312	13 PSR-2-6	42	355	13.5 PSR-2-6			
29	222	11 PSR-2-6	12	265	12 PSR-2-6	60	313	13 PSR-2-6	43	356	14 PSR-2-6			
30	223	11 PSR-2-6	13	266	12 PSR-2-6				44	357	14 PSR-2-6			
31	224	11 PSR-2-6	14	267	12 PSR-2-6				45	358	14 PSR-2-6			
32	225	11 PSR-2-6	15	268	12 PSR-2-6				46	359	14 PSR-2-6			
33	226	11 PSR-2-6	16	269	12 PSR-2-6				47	360	14 PSR-2-6			
34	227	11 PSR-2-6	17	270	12 PSR-2-6				48	361	14 PSR-2-6			
35	228	11 PSR-2-6	18	271	12 PSR-2-6				49	362	14 PSR-2-6			
36	229	11.5 PSR-2-6	19	272	12 PSR-2-6				50	363	14 PSR-2-6			
37	230	11.5 PSR-2-6	20	273	12 PSR-2-6				51	364	14 PSR-2-6			
38	231	11.5 PSR-2-6	21	274	12 PSR-2-6				52	365	14 PSR-2-6			
39	232	11.5 PSR-2-6	22	275	12 PSR-2-6				53	366	14 PSR-2-6			
40	233	11.5 PSR-2-6	23	276	12 PSR-2-6				54	367	14 PSR-2-6			
41	234	11.5 PSR-2-6	24	277	12.5 PSR-2-6				55	368	14 PSR-2-6			
42	235	11.5 PSR-2-6	25	278	12.5 PSR-2-6				56	369	14 PSR-2-6			
43	236	11.5 PSR-2-6	26	279	12.5 PSR-2-6				57	370	14 PSR-2-6			
44	237	11.5 PSR-2-6	27	280	12.5 PSR-2-6				58	371	14 PSR-2-6			
45	238	11.5 PSR-2-6	28	281	12.5 PSR-2-6				59	372	14 PSR-2-6			
46	239	11.5 PSR-2-6	29	282	12.5 PSR-2-6				60	373	14 PSR-2-6			
47	240	11.5 PSR-2-6	30	283	12.5 PSR-2-6									
48	241	11.5 PSR-2-6	31	284	12.5 PSR-2-6									
49	242	11.5 PSR-2-6	32	285	12.5 PSR-2-6									
50	243	11.5 PSR-2-6	33	286	12.5 PSR-2-6									
51	244	11.5 PSR-2-6	34	287	12.5 PSR-2-6									
52	245	11.5 PSR-2-6	35	288	12.5 PSR-2-6									
53	246	11.5 PSR-2-6	36	289	12.5 PSR-2-6									
54	247	11.5 PSR-2-6	37	290	12.5 PSR-2-6									
55	248	11.5 PSR-2-6	38	291	12.5 PSR-2-6									
56	249	11.5 PSR-2-6	39	292	12.5 PSR-2-6									
57	250	11.5 PSR-2-6	40	293	12.5 PSR-2-6									
58	251	11.5 PSR-2-6	41	294	12.5 PSR-2-6									
59	252	11.5 PSR-2-6	42	295	12.5 PSR-2-6									
60	253	11.5 PSR-2-6	43	296	12.5 PSR-2-6									
			44	297	12.5 PSR-2-6									
			45	298	12.5 PSR-2-6									
			46	299	12.5 PSR-2-6									
			47	300	12.5 PSR-2-6									
			48	301	12.5 PSR-2-6									
			49	302	13 PSR-2-6									
			50	303	13 PSR-2-6									
			51	304	13 PSR-2-6									
			52	305	13 PSR-2-6									
			53	306	13 PSR-2-6									
			54	307	13 PSR-2-6									
			55	308	13 PSR-2-6									
			56	309	13 PSR-2-6									
1	254	12 PSR-2-6												
2	255	12 PSR-2-6												
3	256	12 PSR-2-6												
4	257	12 PSR-2-6												
5	258	12 PSR-2-6												
6	259	12 PSR-2-6												
7	260	12 PSR-2-6												
8	261	12 PSR-2-6												

Tower No. 6

Tower No. 7

Overhang

EXHIBIT B

BUDGET AND UNIT PRICE SCHEDULES



115 N 2nd ST. Parma, ID 83660 - (208) 722-5121
 360 Riverside Ave Grand View, ID 83624 - (208) 834-2380
 4975 West Winnemucca Blvd Winnemucca, NV 89445 - (775) 625-1945
 9120 Lakeshore Dr. Nampa, ID 83686 (208) 482-3151
 1200 S 10th E Mountain Home, ID 83647 (208) 580-4002
 135 Day Ln Smith, NV 89430 (775) 465-2316
 605 US-95 Weiser, ID 83672 (208) 549-2089

Invoice

#INV88684

11/22/2022

Bill To

DWIGHT SMITH
 JENNY GRANT
 SVGMD
 PO BOX 88
 CHILCOOT CA 96105
 United States

Ship To

ROBERTI RANCH
 7411 Dyson Lane
 VINTON CA 96135
 United States

Due Date: 1/10/2023

Terms	Due Date	PO #	Sales Rep	Shipping Method
10th of the Month	1/10/2023	SIERRAVILLE NELSON SPRINKLER PACKAGE	Megan Thomason	

Quantity	Item	Options	Unit Price	Amount
1	SPRL PKG - WISH SPRINKLER PACKAGE-WISH LEPA SPRINKLER PACKAGE INCLUDES THE FIRST SPAN BEING ORBITOR STYLE SPRINKLERS TO REDUCE OVERWATERING		\$14,523.85	\$14,523.85
	382 - TOTAL DROPS 8 - NELSON ORBITORS 374 - NELSON SPRAYHEADS/BUBBLERS			
	8 - SINGLE DROPS 125 - 3-WAY SPLIT DROPS 1 - ENDGUN AND NOZZLE SPRINKLER CHART PRINT OUT			
1	FREIGHT FREIGHT		\$487.56	\$425.00
1	SPRL PKG - WISH SPRINKLER PACKAGE-WISH LEPA PACKAGE EXTENSION FOR 8TH SPAN		\$2,296.90	\$2,296.90
	60 - NELSON SPRAYHEADS/BUBBLERS			
1	FREIGHT FREIGHT FOR ADDITIONAL MATERIALS		\$201.59	\$201.59
250	TRHS-875 TRUSS ROD HOSE SLING 7/8" TRUSS ROD HOSE SLING 7/8"		\$2.6333	\$0.00
	DIRECT REPLACEMENTS			
1	FREIGHT FREIGHT		\$77.44	\$0.00

Subtotal	\$17,447.34
Discount Rate	
Tax (6.85%)	\$0.00
Total	\$17,447.34

Customer Signature

A finance charge of 1 1/2 per month (18%) per Annum will be added to all past due accounts

BUYER FURTHER AGREES TO THE TERMS AND CONDITIONS SET FORTH (SEE REVERSE SIDE OF PAGE), WHICH ARE INCORPORATED HEREIN AND PART OF THIS AGREEMENT. THE TERMS AND CONDITIONS COVER ALL SALES OF GOODS AND SERVICES BY AGRI-LINES IRRIGATION, INC.



115 N 2nd ST. Parma, ID 83660 - (208) 722-5121
 360 Riverside Ave Grand View, ID 83624 - (208) 834-2380
 4975 West Winnemucca Blvd Winnemucca, NV 89445 - (775) 625-1945
 9120 Lakeshore Dr. Nampa, ID 83686 (208) 482-3151
 1200 S 10th E Mountain Home, ID 83647 (208) 580-4002
 135 Day Ln Smith, NV 89430 (775) 465-2316
 605 US-95 Weiser, ID 83672 (208) 549-2089

Invoice

#INV88689

11/22/2022

Bill To

DWIGHT SMITH
 JENNY GRANT
 SVGMD
 PO BOX 88
 CHILCOOT CA 96105
 United States

Ship To

Due Date: 1/10/2023

Terms	Due Date	PO #	Sales Rep	Shipping Method
10th of the Month	1/10/2023	INSTALLATION OF LEPA PACKAGE #13 ROBERTI	Megan Thomason	

Quantity	Item	Options	Unit Price	Amount
382	SPRINKLER PKG INSTALL SPRINKLER PKG INSTALL REMOVE OLD & INSTALL NEW SPRINKLER PACKAGE COMPLETE		\$17.00	\$6,494.00
	INCLUDES 3 MAN CREW AND SKIDSTEER			

\$1,545.00

Subtotal	\$8,039.00
Discount Rate	
Tax (6.85%)	\$0.00
Total	\$8,039.00

Customer Signature

A finance charge of 1 1/2 per month (18%) per Annum will be added to all past due accounts

BUYER FURTHER AGREES TO THE TERMS AND CONDITIONS SET FORTH (SEE REVERSE SIDE OF PAGE), WHICH ARE INCORPORATED HEREIN AND PART OF THIS AGREEMENT. THE TERMS AND CONDITIONS COVER ALL SALES OF GOODS AND SERVICES BY AGRI-LINES IRRIGATION, INC.

EXHIBIT C

**GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA
(DEPARTMENT OF WATER RESOURCES) AND SIERRA VALLEY
GROUNDWATER MANAGEMENT DISTRICT (SVGMD)
AGREEMENT NUMBER 4600013595
SUSTAINABLE GROUNDWATER MANAGEMENT (SGM) GRANT**

**GRANT AGREEMENT BETWEEN THE STATE OF CALIFORNIA
(DEPARTMENT OF WATER RESOURCES) AND
SIERRA VALLEY GROUNDWATER MANAGEMENT DISTRICT (SVGMD)
AGREEMENT NUMBER 4600013595
SUSTAINABLE GROUNDWATER MANAGEMENT (SGM) GRANT**

Amendment #2

THIS GRANT AGREEMENT is entered into by and between the Department of Water Resources of the State of California, herein referred to as the "State" or "DWR" and the Sierra Valley Groundwater Management District, a public agency in the State of California, duly organized, existing, and acting pursuant to the laws thereof, herein referred to as the "Grantee," which parties do hereby agree as follows:

1. **PURPOSE.** The State shall provide funding from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68; Pub. Resources Code, § 80000, et seq.) or the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1; Pub. Resources Code, § 79700 et seq.) to the Grantee to assist in financing the Sierra Valley Subbasin Groundwater Sustainability Plan (GSP) Development (Project). The provision of State funds pursuant to this Agreement shall result in an adopted GSP by the applicable Groundwater Sustainability Agency (GSA) and submitted to the Department of Water Resources (DWR) via the Sustainable Groundwater Management Act (SGMA) GSP Submittal Portal for review. The provisions of State funds does not guarantee adoption of the GSP by the applicable GSA or that the GSP will meet all of the evaluation and assessment criteria when submitted to DWR as required by SGMA and implementing regulations.
2. **TERM OF GRANT AGREEMENT.** The term of this Grant Agreement begins on the date this Grant Agreement is initially executed by the State, through final payment plus three (3) years unless otherwise terminated or amended as provided in this Agreement. However, all work shall be completed by December 31, 2022 and no funds may be requested after February 28, 2023.
3. **GRANT AMOUNT.** The maximum amount payable by the State under this Agreement shall not exceed \$2,000,000
4. **GRANTEE COST SHARE.** Not applicable for this Agreement.
5. **BASIC CONDITIONS.** The State shall have no obligation to disburse money for the Project under this Grant Agreement until the Grantee has satisfied the following conditions:
 - A. Prior to execution of this Grant Agreement, selected applicants (Groundwater Sustainability Agency) for GSP Development projects must submit evidence of a notification to the public and DWR prior to initiating development of a GSP in compliance with California Code of Regulations, title 23, Section 350 et seq. (GSP Regulations) and Water Code Section 10727.8.
 - B. The Grantee must demonstrate compliance with all eligibility criteria as set forth in the 2019 Program Guidelines for the Sustainable Groundwater Management (SGM) Grant Program.
 - C. The Grantee submits Quarterly Progress Reports, associated quarterly invoices, and all invoice backup documentation no later than 60-days following the end of the calendar quarter (e.g. submitted by May 30th, August 30th, November 30th, and February 28th) and all other deliverables as required by Paragraph 12, "Submission of Reports" and Exhibit A, "Work Plan".
 - D. Prior to the commencement of construction or implementation activities, if applicable, the Grantee shall submit the following to the State:
 - i. Final plans and specifications certified, signed, and stamped by a California Registered Civil Engineer as to compliance for each approved project as listed in Exhibit A of this Grant Agreement.
 - ii. Work that is subject to the California Environmental Quality Act (CEQA) and or environmental permitting shall not proceed under this Grant Agreement until the following actions are performed:
 - a. The Grantee submits to the State all applicable environmental permits as indicated on the Environmental Information Form to the State,

- b. Documents that satisfy the CEQA process are received by the State,
- c. The State has completed its CEQA compliance review as a Responsible Agency, and
- d. The Grantee receives written concurrence from the State of Lead Agency's CEQA document(s) and State notice of verification of environmental permit submittal.

The State's concurrence of Lead Agency's CEQA documents is fully discretionary and shall constitute a condition precedent to any work (i.e., construction or implementation activities) for which it is required. Once CEQA documentation has been completed, the State will consider the environmental documents and decide whether to continue to fund the project or to require changes, alterations or other mitigation. The Grantee must also demonstrate that it has complied with all applicable requirements of the National Environmental Policy Act by submitting copies of any environmental documents, including environmental impact statements, Finding of No Significant Impact, mitigation monitoring programs, and environmental permits as may be required prior to beginning construction/implementation.

E. A monitoring plan as required by Paragraph 18, "Monitoring Plan Requirements", if applicable for Implementation Components/Project(s).

- 6. DISBURSEMENT OF FUNDS. The State will disburse to the Grantee the amount approved, subject to the availability of funds through normal State processes. Notwithstanding any other provision of this Grant Agreement, no disbursement shall be required at any time or in any manner which is in violation of, or in conflict with, federal or state laws, rules, or regulations, or which may require any rebates to the federal government, or any loss of tax-free status on state bonds, pursuant to any federal statute or regulation. Any and all money disbursed to the Grantee under this Grant Agreement shall be deposited in a non-interest bearing account and shall be used solely to pay Eligible Project Costs.
- 7. ELIGIBLE PROJECT COST. The Grantee shall apply State funds received only to Eligible Project Costs in accordance with applicable provisions of the law and Exhibit B, "Budget". Eligible Project Costs include the reasonable costs of studies, engineering, design, land and easement acquisition and associated legal fees, preparation of environmental documentation, environmental mitigations, monitoring, and project construction. Reimbursable administrative expenses are the necessary costs incidental but directly related to the Project included in this Agreement.

Costs that are not eligible for reimbursement include, but are not limited to the following items:

- A. Costs associated with the formation of a GSA(s).
- B. Costs for preparing and filing a grant application.
- C. Operation and maintenance costs, including post construction performance and monitoring costs.
- D. Purchase of equipment not an integral part of a project.
- E. Establishing a reserve fund.
- F. Purchase of water supplies.
- G. Monitoring and assessment costs for efforts required after project construction is complete.
- H. Replacement of existing funding sources for ongoing programs.
- I. Travel and per diem costs.
- J. Support of existing agency requirements and mandates.
- K. Purchase of land in excess of the minimum required acreage necessary to operate as an integral part of a project, as set forth and detailed by engineering and feasibility studies, or acquisition of land by eminent domain.
- L. Meals, food items, or refreshments.

M. Overhead and indirect costs: "Indirect Costs" means those costs that are incurred for a common or joint purpose benefiting more than one cost objective and are not readily assignable to the funded project (i.e., costs that are not directly related to the funded project). Examples of Indirect Costs include, but are not limited to: central service costs; general administration of the Grantee; non-project-specific accounting and personnel services performed within the Grantee's organization; depreciation or use allowances on buildings and equipment; the costs of operating and maintaining non-project-specific facilities; tuition and conference fees; forums, trainings, and seminars; and, generic overhead or markup. This prohibition applies to the Grantee and any subcontract or sub-agreement for work on the Project that will be reimbursed pursuant to this Agreement.

8. METHOD OF PAYMENT. After the disbursement requirements in Paragraph 5, "Basic Conditions" are met, the State will disburse the whole or portions of State funding to the Grantee, following receipt from the Grantee via US mail or Express mail delivery of a "wet signature" invoice or an electronic invoice certified and transmitted via DocuSign for costs incurred, including Local Cost Share, and timely Quarterly Progress Reports as required by Paragraph 12, "Submission of Reports." Payment will be made no more frequently than quarterly, in arrears, upon receipt of an invoice bearing the Grant Agreement number. Invoices must accompany a Quarterly Progress Report and shall be submitted within forty-five (60) days following the end of the calendar quarter (i.e. May 30, August 30, November 30, and February 28). The State will notify the Grantee, in a timely manner, whenever, upon review of an Invoice, the State determines that any portion or portions of the costs claimed are not eligible costs or is not supported by documentation or receipts acceptable to the State. The Grantee may, within thirty (30) calendar days of the date of receipt of such notice, submit additional documentation to the State to cure such deficiency(ies). If the Grantee fails to submit adequate documentation curing the deficiency(ies), the State will adjust the pending invoice by the amount of ineligible or unapproved costs.

Invoices submitted by the Grantee shall include the following information:

- A. Costs incurred for work performed in implementing the Project during the period identified in the particular invoice.
- B. Costs incurred for any interests in real property (land or easements) that have been necessarily acquired for a project during the period identified in the particular invoice for the implementation of a project.
- C. Invoices shall be submitted on forms provided by the State and shall meet the following format requirements:
 - i. Invoices must contain the date of the invoice, either the time period covered by the invoice or the invoice date received within the time period covered, and the total amount due.
 - ii. Invoices must be itemized based on the categories (i.e., tasks) specified in Exhibit B, "Budget". The amount claimed for salaries/wages/consultant fees must include a calculation formula (i.e., hours or days worked times the hourly or daily rate = the total amount claimed).
 - iii. One set of sufficient evidence (i.e., receipts, copies of checks, time sheets) must be provided for all costs included in the invoice.
 - iv. Each invoice shall clearly delineate those costs claimed for reimbursement from the State's funding amount, as depicted in Paragraph 3, "Grant Amount" and those costs that represent the Grantee's costs, as applicable, in Paragraph 4, "Grantee Cost Share."
 - v. Original signature and date of the Grantee's Project Representative. Submit the original "wet signature" copy of the invoice form to the following address: Debbie Spangler, 2440 Main Street, Red Bluff, California 96080 or an electronic signature certified and transmitted via DocuSign from authorized representative to Debbie Spangler at Debbie.Spangler@water.ca.gov.

All invoices submitted shall be accurate and signed under penalty of law. Any and all costs submitted pursuant to this Agreement shall only be for the tasks set forth herein. The Grantee shall not submit any

invoice containing costs that are ineligible or have been reimbursed from other funding sources unless required and specifically noted as such (i.e., match costs/cost share). Any eligible costs for which the Grantee is seeking reimbursement shall not be reimbursed from any other source. Double or multiple billing for time, services, or any other eligible cost is illegal and constitutes fraud. Any suspected occurrences of fraud, forgery, embezzlement, theft, or any other misuse of public funds may result in suspension of disbursements of grant funds and/or termination of this Agreement requiring the repayment of all funds disbursed hereunder plus interest. Additionally, the State may request an audit pursuant to Paragraph D.5 and refer the matter to the Attorney General's Office or the appropriate district attorney's office for criminal prosecution or the imposition of civil liability. (Civ. Code, §§ 1572-1573; Pen. Code, §§ 470, 487-489.)

9. WITHHOLDING OF DISBURSEMENTS BY THE STATE. If the State determines that a project is not being implemented in accordance with the provisions of this Grant Agreement, or that the Grantee has failed in any other respect to comply with the provisions of this Grant Agreement, and if the Grantee does not remedy any such failure to the State's satisfaction, the State may withhold from the Grantee all or any portion of the State funding and take any other action that it deems necessary to protect its interests. Where a portion of the State funding has been disbursed to the Grantee and the State notifies the Grantee of its decision not to release funds that have been withheld pursuant to Paragraph 10, "Default Provisions," the portion that has been disbursed shall thereafter be repaid immediately with interest at the California general obligation bond interest rate at the time the State notifies the Grantee, as directed by the State. The State may consider the Grantee's refusal to repay the requested disbursed amount a contract breach subject to the default provisions in Paragraph 10. If the State notifies the Grantee of its decision to withhold the entire funding amount from the Grantee pursuant to this Paragraph, this Grant Agreement shall terminate upon receipt of such notice by the Grantee and the State shall no longer be required to provide funds under this Grant Agreement and the Grant Agreement shall no longer be binding on either party.
10. DEFAULT PROVISIONS. The Grantee will be in default under this Grant Agreement if any of the following occur:
- A. Substantial breaches of this Grant Agreement, or any supplement or amendment to it, or any other agreement between the Grantee and the State evidencing or securing the Grantee's obligations;
 - B. Making any false warranty, representation, or statement with respect to this Grant Agreement or the application filed to obtain this Grant Agreement;
 - C. Failure to operate or maintain the Project in accordance with this Grant Agreement.
 - D. Failure to make any remittance required by this Grant Agreement, including any remittance recommended as the result of an audit conducted pursuant to Paragraph D.5.
 - E. Failure to submit quarterly progress reports pursuant to Paragraph 8.
 - F. Failure to routinely invoice the State pursuant to Paragraph 8.
 - G. Failure to meet any of the requirements set forth in Paragraph 11, "Continuing Eligibility."
- Should an event of default occur, the State shall provide a notice of default to the Grantee and shall give the Grantee at least ten (10) calendar days to cure the default from the date the notice is sent via first-class mail to the Grantee. If the Grantee fails to cure the default within the time prescribed by the State, the State may do any of the following:
- A. Declare the funding be immediately repaid, with interest, which shall be equal to State of California general obligation bond interest rate in effect at the time of the default.
 - B. Terminate any obligation to make future payments to the Grantee.
 - C. Terminate the Grant Agreement.
 - D. Take any other action that it deems necessary to protect its interests.

In the event the State finds it necessary to enforce this provision of this Grant Agreement in the manner provided by law, the Grantee agrees to pay all costs incurred by the State including, but not limited to, reasonable attorneys' fees, legal expenses, and costs.

11. CONTINUING ELIGIBILITY. The Grantee must meet the following ongoing requirement(s) and all eligibility criteria outlined in the 2019 Guidelines to remain eligible to receive State funds:
- A. The Grantee must continue to demonstrate eligibility by being a GSA, a member agency of a GSA, or an entity that has an approved Alternative to a GSP and the groundwater basin must continue to be an eligible basin as outlined in the 2019 Guidelines and 2019 Proposal Solicitation Package (PSP).
 - B. An agricultural water supplier receiving State funds must comply with Sustainable Water Use and Demand Reduction requirements outlined in Water Code section 10608, et seq. and have their Agricultural Water Management Plan (AWMP) deemed consistent by DWR. To maintain eligibility and continue funding disbursements, an agricultural water supply must have their 2015 AWMP identified on the State's website. For more information, visit the website listed in Appendix A in 2019 Guidelines.
 - C. Grantees that have been designated as monitoring entities under the California Statewide Groundwater Elevation Monitoring (CASGEM) Program must maintain reporting compliance, as required by Water Code section 10932 and the CASGEM Program.
 - D. To the extent practicable, Grantees shall measure the amount of greenhouse gas emissions reduced and carbon sequestered resulting from an implementation project funded under this Grant Agreement. (Pub. Resources Code, § 80001(b)(7)).
 - E. For groundwater implementation projects that directly affect groundwater levels or quality, the Grantee must demonstrate compliance with the Groundwater Management Act set forth on page 7 of the 2019 Guidelines.
 - F. Grantees must adhere to the protocols developed pursuant to The Open and Transparent Water Data Act (Wat. Code, § 12405, et seq.) for data sharing, transparency, documentation, and quality control.
 - G. If applicable, the development of a Stormwater Resource Plan or functionally equivalent plan for stormwater and dry weather runoff capture projects is required to receive State funds set forth on page 8 of the 2019 Guidelines.
 - H. Grantees diverting surface water must maintain compliance with diversion reporting requirements as outlined in Water Code section 5100 et seq.
 - I. Sustainable Water Use and Demand Reduction: Senate Bill (SB)x7-7 (Water Code § 10608 et seq.) conditions the receipt of a water management grant or loan for urban water suppliers on gallons per capita per day reduction targets with the end goal of a 20% reduction by 2020.
 - J. An urban water supplier that receives grant funds pursuant to this Agreement must maintain compliance with the Urban Water Management Planning Act (UWMP; Water Code § 10610 et seq.) and Sustainable Water Use and Demand Reduction (Water Code § 10608 et seq.) as set forth on page 18 of the 2019 Guidelines. For more information, visit the website listed in Appendix A in 2019 Guidelines.
12. SUBMISSION OF REPORTS. The submittal and approval of all reports is a requirement for the successful completion of this Grant Agreement. Reports shall meet generally accepted professional standards for technical reporting and shall be proofread for content, numerical accuracy, spelling, and grammar prior to submittal to the State. All reports shall be submitted to the State's Grant Manager, and shall be submitted via DWR's "Grant Review and Tracking System" (GRanTS). If requested, the Grantee shall promptly provide any additional information deemed necessary by the State for the approval of reports. Reports shall be presented in the formats described in the applicable portion of Exhibit F, "Report Formats and Requirements." The timely submittal of reports is a requirement for initial and continued disbursement of State funds. Submittal and subsequent approval by the State, of a Project Completion Report is a requirement for the release of any funds retained for such project.

- A. Quarterly Progress Reports: The Grantee shall submit Quarterly Progress Reports to meet the State's requirement for disbursement of funds. Quarterly Progress Reports shall be shall be uploaded via GRanTS, and the State's Grant Manager notified of upload. Quarterly Progress Reports shall, in part, provide a brief description of the work performed, the Grantees activities, milestones achieved, any accomplishments and any problems encountered in the performance of the work under this Grant Agreement during the reporting period. The first Quarterly Progress Report should be submitted to the State no later than four (4) months after the execution of the agreement, with future reports then due May 30, August 30, November 30, and February 28.
- B. Groundwater Sustainability Plan: The Grantee shall submit an adopted GSP to DWR by the date as specified per the SGMA. The GSP shall be formatted, drafted, prepared, and completed as required by the GSP Regulations, and in accordance with any other regulations or requirements that are stipulated through SGMA.
- C. Coordination Agreement: The Grantee shall provide the State a copy of the executed Coordination Agreement, and all supporting documentation. This condition is only required in basins where GSAs develop multiple GSPs pursuant to Water Code section 10727(b)(3). Refer to the GSP Regulations for necessary details and requirements to prepare and submit a Coordination Agreement.
- D. Component Completion Report: The Grantee shall prepare and submit to the State a separate Completion Report for each component included in Exhibit A, if applicable. The Grantee shall submit a Completion Report as outlined in Exhibits A and F. Each Completion Report shall include, in part, a description of actual work done, any changes or amendments to each project, and a final schedule showing actual progress versus planned progress, copies of any final documents or reports generated or utilized during a project. The Completion Report shall also include, if applicable for Implementation Project(s), certification of final project by a registered civil engineer, consistent with Exhibit D. A "Certification of Project Completion" form will be provided by the State.
- E. Grant Completion Report: Upon completion of the Project included in Exhibit A, "Work Plan" the Grantee shall submit to the State a Grant Completion Report. The Grant Completion Report shall be submitted as outlined in Exhibits A, "Work Plan", and F, "Report Formats and Requirements". Retention for the last component to be completed as part of this Grant Agreement will not be disbursed until the Grant Completion Report is submitted to be approved by the State.
13. STATEWIDE MONITORING REQUIREMENTS. The Grantee shall ensure that all groundwater projects and projects that include groundwater monitoring requirements are consistent with the Groundwater Quality Monitoring Act of 2001 (Wat. Code, § 10780 et seq.) and, where applicable, that projects that affect water quality shall include a monitoring component that allows the integration of data into statewide monitoring efforts, including where applicable, the Surface Water Ambient Monitoring Program carried out by the State Water Resources Control Board. See Exhibit G, "Requirements for Data Submittal" for web links and information regarding other State monitoring and data reporting requirements.
14. NOTIFICATION OF STATE. The Grantee shall promptly notify the State, in writing, of the following items:
- A. Events or proposed changes that could affect the scope, budget, or work performed under this Grant Agreement. The Grantee agrees that no substantial change in the scope of a project will be undertaken until written notice of the proposed change has been provided to the State and the State has given written approval for such change. Substantial changes generally include changes to the scope of work, schedule or term, and budget.
- B. Any public or media event publicizing the accomplishments and/or results of this Grant Agreement and provide the opportunity for attendance and participation by the State's representatives. The Grantee shall make such notification at least fourteen (14) calendar days prior to the event.
- C. Discovery of any potential archaeological or historical resource. Should a potential archaeological or historical resource be discovered during construction, the Grantee agrees that all work in the area of the find will cease until a qualified archaeologist has evaluated the situation and made

recommendations regarding preservation of the resource, and the State has determined what actions should be taken to protect and preserve the resource. The Grantee agrees to implement appropriate actions as directed by the State.

- D. The initiation of any litigation or the threat of litigation against the Grantee regarding the Project or that may affect the Project in any way.
15. NOTICES. Any notice, demand, request, consent, or approval that either party desires or is required to give to the other party under this Grant Agreement shall be in writing. Notices may be transmitted by any of the following means:
- A. By delivery in person.
 - B. By certified U.S. mail, return receipt requested, postage prepaid.
 - C. By "overnight" delivery service; provided that next-business-day delivery is requested by the sender.
 - D. By electronic means.
 - E. Notices delivered in person will be deemed effective immediately on receipt (or refusal of delivery or receipt). Notices sent by certified mail will be deemed effective given ten (10) calendar days after the date deposited with the U. S. Postal Service. Notices sent by overnight delivery service will be deemed effective one business day after the date deposited with the delivery service. Notices sent electronically will be effective on the date of transmission, which is documented in writing. Notices shall be sent to the below addresses. Either party may, by written notice to the other, designate a different address that shall be substituted for the one below.
16. PERFORMANCE EVALUATION. Upon completion of this Grant Agreement, the Grantee's performance will be evaluated by the State and a copy of the evaluation will be placed in the State file and a copy sent to the Grantee.
17. PROJECT REPRESENTATIVES. The Project Representatives during the term of this Grant Agreement are as follows:

Department of Water Resources
 Arthur Hinojosa
 Manager, Division of Regional Assistance
 P.O. Box 942836
 Sacramento, CA 94236-0001
 Phone: (916) 653-4736
 Email: Arthur.Hinojosa@water.ca.gov

Sierra Valley Groundwater Management District
 Einen Grandi, Chairman
 P.O. Box 88
 Chilcoot, CA 96105
 Phone: (530) 414-6831
 Email: grandiranch@gmail.com

Direct all inquiries to the Grant Manager:

Department of Water Resources
 Debbie Spangler
 Engineering Geologist
 2440 Main Street
 Red Bluff, CA 96080
 Phone: (530) 528-7404
 Email: debbie.spangler@water.ca.gov

Sierra Valley Groundwater Management District
 Einen Grandi, Chairman
 P.O. Box 88
 Chilcoot, CA 96105
 Phone: (530) 414-6831
 Email: grandiranch@gmail.com

Either party may change its Grant Manager, Project Representative, or Project Manager upon written notice to the other party.

18. STANDARD PROVISIONS AND INTEGRATION. This Grant Agreement is complete and is the final Agreement between the parties. The following Exhibits are attached and made a part of this Grant Agreement by this reference:

Exhibit A – Work Plan

Exhibit B – Budget

Exhibit C – Schedule

Exhibit D – Standard Conditions

Exhibit E – Authorizing Resolution Accepting Funds

Exhibit F – Report Formats and Requirements

Exhibit G – Requirements for Data Submittal

Exhibit H – State Audit Document Requirements for Grantees

Exhibit I – Project Location

Exhibit J – Monitoring and Maintenance Plan Components

IN WITNESS WHEREOF, the parties hereto have executed this Grant Agreement.

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

SIERRA VALLEY GROUNDWATER MANAGEMENT
DISTRICT

Carmel Brown

Carmel K. Brown, P.E., Manager
Financial Assistance Branch
Division of Regional Assistance

Einen Grandi

Einen Grandi, Chairman

Date 8/17/2022

Date 8/13/2022

Approved as to Legal Form and Sufficiency

James Herink

for

Robin Brewer
Assistant Chief Counsel, Office of Chief Counsel

Date 8/14/2022

Exhibit A

WORK PLAN

Project Title: Sierra Valley Subbasin GSP Development (Project)

Project Description: This Work Plan includes activities associated with the planning, development, and preparation of a GSP for the Sierra Valley Basin. The resulting GSP will incorporate appropriate Best Management Practices (BMPs) as developed by DWR, and will result in a more complete understanding of the groundwater subbasin to support long-term sustainable groundwater management.

Category (a): Grant Agreement Administration

Prepare reports detailing work completed during reporting period as outlined in Exhibit F, "Report Formats and Requirements" of this Agreement. Progress Reports will include sufficient information for DWR Grant Manager to understand and review backup documentation submitted with invoices. Quarterly invoices will accompany the Quarterly Progress Reports and should be submitted to the DWR Grant Manager for review to receive reimbursement of Eligible Project Costs. Collect and organize backup documentation by task and prepare a summary Excel document detailing contents of the backup documentation organized by task.

Prepare and submit the Environmental Information Form (EIF) within 30 days of the execution date of the Grant Agreement. No invoices will be reviewed or processed until the EIF has been received and deemed acceptable by DWRs Grant Manager. Submit a deliverable due date schedule prior to the execution of the Grant Agreement to be reviewed and approved by the DWR Grant Manager. Any edits to the schedule must be approved by the DWR Grant Manager and the revised schedule saved in the appropriate project files.

Prepare draft a Grant Completion Report and submit to DWR for Project Manager's comments and review no later than 90 days prior to the work completion date listed on Page 1, Paragraph 2. Prepare a Final Grant Completion Report addressing the DWR Project Manager's comments and submit within 30 days prior to the work completion date listed on Page 1, Paragraph 2. The reports will be prepared and presented in accordance with the provisions of Exhibit F of this Agreement. All deliverables shall be submitted prior to the Final Grant Completion Report submittal as outlined on the approved deliverable due date schedule.

Develop a selection committee develop Request for Proposals and hire contractor(s) to complete the work described. Review GSA policies and contracting procedures for compliance with grant requirements. Update policies, procedures, and templates that are identified as deficient.

Deliverables:

- EIF
- Deliverable due date schedule
- Quarterly Progress Reports, Quarterly Invoices, and all required backup documentation
- Grant Completion Report
- Awarded contract(s)

Category (b): Stakeholder Engagement / Outreach

Engage stakeholders and other interested parties, provide information necessary to understand SGMA-related activities, and engage other GSAs and agencies about their concerns and questions. Contract a professional facilitator who will guide the stakeholder engagement process through GSP adoption, consistent with DWR guidance document recommendations and guidelines.

Maintain and share contact list within the project team. Develop a negotiation and consensus building process, as requested for support in reaching agreement(s) on controversial GSP element(s). Develop outreach

material and identify methods to share information with stakeholders, public, member agencies, and GSA(s). Conduct meetings.

Form an interdisciplinary Technical Advisory Committee (TAC) that includes individuals who are willing to lend their expertise to the GSP development and implementation. Ensure the TAC will review, comment, and advise during GSP development regarding technical issues relevant to GSP development tasks.

Engage the tribes with Plumas County as the primary point of contact on the SGMA process, tribal water rights, and tribal lands. Consult with DWR's Office of Tribal Policy Advisor for guidance.

Deliverables:

- Stakeholder Communication and Engagement Plan
- Presentation materials for Technical Meetings
- Meeting summaries included as attachments in the Quarterly Progress Report

Category (c): GSP Development

Prepare a GSP that meets the SGMA regulations. Work collaboratively with the GSA Advisory Committee to reach consensus whenever possible on the GSP as it is developed. Adjust and modify the GSP, as necessary, to respond to stakeholder input. Submit deliverables listed below electronically through an online reporting system. Compile the complete GSP and prepare for adoption by the GSA's Board. Provide a minimum of 90-day notice to local cities and counties for GSP review. Post a public notice for the hearing to adopt the GSP. Assist with conducting the public hearing to adopt the GSP. Provide summaries of activities within the Quarterly Progress Report(s). Submit the adopted GSP to the SGMA Portal and submit the email response from the SGMA Portal to DWR's Project Manager.

Activities to develop the GSP and sections that may be included within the GSP, but are not limited to, those described below.

1. Initial Notification of GSP Preparation
Prepare the initial notification of GSP preparation and submit to DWR and local agencies, distribute to the Grantee's interested-parties email list, and post on the website.
2. Data Collection and Analysis
Compile, evaluate, and analyze data necessary for development of the GSP. Identify data gaps and develop a plan for obtaining that data.
3. Integrated Hydrologic Modeling
Evaluate the available options and develop an integrated hydrologic model for the Basin. Compile, evaluate, and compare simulated and local water budget information. Select and refine integrated hydrologic model for water budget development and other GSP model scenario analysis. Develop model scenarios, complete model runs, evaluate model results. Develop model scenarios to support evaluation of potential projects and management actions or other analysis.
4. GSP Administrative Information
Compile and organize information necessary for completing GSP Administrative Information section.
5. Basin Setting
Develop a GSP Basin Setting section for the Basin including, but not limited to, management areas as applicable, hydrogeologic conceptual model, current and historical groundwater conditions, and water budget.
6. Sustainable Management Criteria

Develop GSP Sustainable Management Criteria for the Basin, including analysis and determination of Sustainability Goals, Undesirable Results, Minimum Thresholds, Measurable Objectives, as appropriate.

7. Projects and Management Actions

Develop Projects and Management Actions to achieve Sustainability Goals for the Basin, describe the implementation feasibility, and the method by which each will be evaluated for effectiveness.

Deliverables:

- Adopted GSP
- Proof of Adopted GSP submittal to DWR

Category (d): Monitoring / Assessment

Prepare the Monitoring Network Section of the GSP. Prepare an Engineering Packet that contains: agricultural pump flow metering program workplan; the groundwater pumping reduction assessment workplan; and the monitoring networks development workplan.

Task 1: Monitoring Networks and Data Management

1. Monitoring Protocols

Identify and compile existing monitoring protocols, evaluate monitoring protocols for consistency with GSP regulations, update protocols as necessary to meet GSP requirements, and document final monitoring protocols for GSP data.

2. Data and Reporting Standards

Identify and compile data and reporting standards in compliance with the GSP regulations. Check past and future data procedures to verify they comply with the standards. Review existing compiled data for use in the GSP preparation; correct, reformat, and qualify data; determine data gaps; and provide data gap information for use in the development of the Monitoring Network(s).

3. Data Management System (DMS)

Develop a DMS that is consistent with the GSP regulations. Define DMS System specifications and requirements; evaluate DMS options based on project needs, cost, and ease of use; develop and test a beta DMS system; and finalize the DMS system.

4. Monitoring Networks

Define a monitoring network capable of demonstrating trends in groundwater and related conditions over different time frames, as necessary, to evaluate GSP implementation, and as related to each Sustainability Indicator. The monitoring network should include, but not be limited to, those described below. Use the findings to identify monitoring locations to address the identified data gaps. Update the Monitoring Network section of the GSP to refine procedures and protocols, as needed, based upon the findings from the monitoring well installation activities.

a. Subsidence Network

Select and install new monitoring points and ground-truth existing ground level monitoring points to monitor subsidence and to ascertain significance and unreasonable effects. Establish, map, and describe level monitoring points or areas. Obtain landowner access agreements where necessary for the network. Develop sample datasets to ensure data monitoring, management and analyses will be consistent with DMS data management and processing tools. Identify additional tools for inclusion in the GSP. Finalize reporting structure and standard operating procedures (SOPs).

b. Groundwater Well Network Expansion Utilizing CASGEM

Identify CASGEM wells (and available private wells) to address spatial or temporal data gaps defined in the GSP or in collaboration with the GSP effort. Verify potential groundwater level wells for suitability (e.g., access, instrumentation suitability, internal video log of considered wells, location). Develop all monitoring point data required for GSP, including surveying well elevations and establishing appropriate location data for all district monitoring wells.

c. Agricultural Pump Flow Metering Program

Identify the temporal and spatial data requirements for the agricultural pump flow metering program. Identify and prioritize metering locations for inclusion in the agricultural pump metering program. Develop SOPs for agricultural pump flow metering, including upgrades to current systems and for new installations. Specify instrumentation and equipment.

d. Groundwater Dependent Ecosystems (GDE)

Focus on approaches for GDE monitoring and develop and assess monitoring alternatives. Identify potential funding and implementation partners based on monitoring goals and value, including outside of SGMA and for broader ecosystem/environmental assessment. Perform CEQA review and permitting if implementation requires, as well as permits for installations of shallow piezometers.

5. Financial and Economic Resources Assessment and Estimate of GSP Implementation Costs

Quantify the sustainable financial resources. Develop cost structures for potential monitoring network alternatives using best available data, estimate required funding levels for each, and discuss data products and their use and value. Consider the Different sustainability indicators currently or at risk of becoming significant and unreasonable. Recommend cost savings opportunities and consider alternative funding sources.

Deliverables:

- Technical memorandum on development of DMS
- Financial and Economic Resources Assessment Technical Memorandum
- Engineering Packet

Task 2: Agricultural Pump Flow Metering Program

Ensure that flow meters are installed in compliance with manufacturers specifications, working properly, and properly calibrated. Develop SOPs for agricultural pump flow metering program, including specifications for new installations and upgrades to current systems. Specify instrumentation and equipment.

Subtask 3.1: Planning/Design/Environmental

Perform site visits for proposed new meter installations and existing meter installations. Evaluate current installations and meters for compliance with SOPs. Determine if meter requires calibration or repair. Develop site-specific plans to make each meter consistent with developed SOPs.

Deliverables:

- Site Visit Summary Documentation

Subtask 3.2: Flow Meter Installation, Repair, and Calibration

Install flow meters as described in the Engineering Packet and SOPs. Upgrade existing meter installations that are not compliant with developed SOPs. Have all meters repaired that are identified as needing repair. Have all meters identified requiring calibration properly calibrated.

Deliverables:

- Site Visit Summary Documentation

Task 3: Monitoring Networks

Based on the data gap analysis, identify and select additional GSP-related monitoring points and bring all monitoring network points (new and existing) up to monitoring program standards.

Anticipated activities include establishing appropriate location data and descriptions for points, mapping monitoring networks, surveying monitoring point elevations, and developing network instructions.

Deliverables:

- Monitoring Networks Technical Memorandum

Task 4: Groundwater Pumping Reduction Assessment

Investigate opportunities or methods to reduce and optimize groundwater pumping practices. Engage agricultural groundwater users to identify opportunities/methods to reduce and/or optimize groundwater pumping practices. Prioritize and investigate opportunities and methods identifies including working with surface water delivery agencies to determine extent of surface water delivery flexibility and determine optimized delivery schedule. Develop a groundwater pumping optimization work plan. Obtain landowner access agreements where necessary. Under take work identified in the work plan including the purchase and installation of irrigation efficiency measures, evaluation of recording metered pumping, and calculating reduction in groundwater extraction from measures undertaken.

Develop technical results and recommendations document(s) that describe the results of the various evaluations and investigations and provides recommendations for optimizing groundwater and surface water use in the basin. This document will be used to inform planning efforts and future project evaluations.

Deliverables:

- Technical results and recommendations document(s)

Exhibit B**BUDGET**Project Title: **Sierra Valley Subbasin GSP Development**Grantee: **Sierra Valley Groundwater Management District**Project serves a need of a Disadvantaged Area?: **Yes**Local Cost Share Required: **0%**

Budget Categories	Grant Amount	Local Cost Share (Non-State Fund Source)¹	Total Cost	% Local Cost Share
(a) Grant Agreement Administration	\$125,000	\$0	\$125,000	
(b) Stakeholder Engagement / Outreach	\$185,000	\$0	\$185,000	
(c) GSP Development	\$905,000	\$0	\$905,000	
(d) Monitoring / Assessment	\$785,000	\$0	\$785,000	
TOTAL:	\$2,000,000	\$0	\$2,000,000	0%

Exhibit C
SCHEDULE

Project Title: **Sierra Valley Subbasin GSP Development**

Categories	Start Date ¹	End Date ¹
(a) Grant Agreement Administration	02/03/2020	12/31/2022
(b) Stakeholder Engagement / Outreach	08/04/2020	01/31/2022
(c) GSP Development	08/04/2020	04/30/2022
(d) Monitoring / Assessment	08/04/2020	11/30/2022

NOTES:

¹Exhibit C Schedule only dictates the work start date and the work end date for the Budget Category listed. The Grantee should refer to the Deliverable Due Date Schedule that has been approved by the DWR Grant Manager to obtain the estimated due date for the deliverables listed in Exhibit A. The dates listed in Exhibit C Schedule are date ranges that correlates to the activities listed within that Budget Category in Exhibit A. Eligible costs for each Budget Category will only be approved if the work completed falls within the date ranges listed in Exhibit C.

Exhibit D**STANDARD CONDITIONS****D.1. ACCOUNTING AND DEPOSIT OF FUNDING DISBURSEMENT:**

- A. **Separate Accounting of Funding Disbursements:** The Grantee shall account for the money disbursed pursuant to this Grant Agreement separately from all other Grantee funds. The Grantee shall maintain audit and accounting procedures that are in accordance with generally accepted accounting principles and practices, consistently applied. The Grantee shall keep complete and accurate records of all receipts and disbursements on expenditures of such funds. The Grantee shall require its contractors or subcontractors to maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices. Records are subject to inspection by the State at any and all reasonable times.
- B. **Disposition of Money Disbursed:** All money disbursed pursuant to this Grant Agreement shall be deposited in a non-interest bearing account, administered, and accounted for pursuant to the provisions of applicable law.
- C. **Remittance of Unexpended Funds:** The Grantee shall remit to the State any unexpended funds that were disbursed to the Grantee under this Grant Agreement and were not used to pay Eligible Project Costs within a period of sixty (60) calendar days from the final disbursement from the State to the Grantee of funds or, within thirty (30) calendar days of the expiration of the Grant Agreement, whichever comes first.

D.2. ACKNOWLEDGEMENT OF CREDIT AND SIGNAGE: The Grantee shall include appropriate acknowledgement of credit to the State for its support when promoting the Project or using any data and/or information developed under this Grant Agreement. Signage shall be posted in a prominent location at Project site(s) (if applicable) or at the Grantee's headquarters and shall include the Department of Water Resources color logo and the following disclosure statement: "Funding for this project has been provided in full or in part from the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68) and through an agreement with the State Department of Water Resources." The Grantee shall also include in each of its contracts for work under this Agreement a provision that incorporates the requirements stated within this paragraph.

D.3. AMENDMENT: This Grant Agreement may be amended at any time by mutual agreement of the Parties, except insofar as any proposed amendments are in any way contrary to applicable law. Requests by the Grantee for amendments must be in writing stating the amendment request and the reason for the request. Requests solely for a time extension must be submitted at least 90 days prior to the work completion date set forth in Paragraph 2, "Term of Grant Agreement." Any other request for an amendment must be submitted at least 180 days prior to the work completion date set forth in Paragraph 2, "Term of Grant Agreement." The State shall have no obligation to agree to an amendment.

D.4. AMERICANS WITH DISABILITIES ACT: By signing this Grant Agreement, the Grantee assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. § 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

D.5. AUDITS: The State reserves the right to conduct an audit at any time between the execution of this Grant Agreement and the completion of the Project, with the costs of such audit borne by the State. After completion of the Project, the State may require the Grantee to conduct a final audit to the State's specifications, at the Grantee's expense, such audit to be conducted by and a report prepared by an independent Certified Public Accountant. Failure or refusal by the Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and the State may elect to pursue any remedies provided in Paragraph 10, "Default Provisions" or take any other action it deems necessary to protect its interests. The Grantee agrees it shall return any audit disallowances to the State.

Pursuant to Government Code section 8546.7, the Grantee shall be subject to the examination and audit by the State for a period of three (3) years after final payment under this Grant Agreement with respect of all matters connected with this Grant Agreement, including but not limited to, the cost of administering this Grant Agreement. All records of the Grantee or its contractor or subcontractors shall be preserved for this purpose for at least three (3) years after receipt of the final disbursement under this Agreement. If an audit reveals any impropriety, the Bureau of State Audits or the State Controller's Office may conduct a full audit of any or all of the Grantee's activities. (Pub. Resources Code, § 80012, subd. (b).)

- D.6. **BUDGET CONTINGENCY:** If the Budget Act of the current year covered under this Grant Agreement does not appropriate sufficient funds for this program, this Grant Agreement shall be of no force and effect. This provision shall be construed as a condition precedent to the obligation of the State to make any payments under this Grant Agreement. In this event, the State shall have no liability to pay any funds whatsoever to the Grantee or to furnish any other considerations under this Grant Agreement and the Grantee shall not be obligated to perform any provisions of this Grant Agreement. Nothing in this Grant Agreement shall be construed to provide the Grantee with a right of priority for payment over any other Grantee. If funding for any fiscal year after the current year covered by this Grant Agreement is reduced or deleted by the Budget Act, by Executive Order, or by order of the Department of Finance, the State shall have the option to either cancel this Grant Agreement with no liability occurring to the State, or offer a Grant Agreement amendment to the Grantee to reflect the reduced amount.
- D.7. **CALIFORNIA CONSERVATION CORPS:** The Grantee may use the services of the California Conservation Corps or other community conservation corps as defined in Public Resources Code section 14507.5.
- D.8. **CEQA:** Activities funded under this Grant Agreement, regardless of funding source, must be in compliance with the California Environmental Quality Act (CEQA). (Pub. Resources Code, § 21000 et seq.) Any work that is subject to CEQA and funded under this Agreement shall not proceed until documents that satisfy the CEQA process are received by the DWR Grant Manager and the State has completed its CEQA compliance. Work funded under this Agreement that is subject to a CEQA document shall not proceed until and unless approved by the Department of Water Resources. Such approval is fully discretionary and shall constitute a condition precedent to any work for which it is required. If CEQA compliance by the Grantee is not complete at the time the State signs this Agreement, once the State has considered the environmental documents, it may decide to require changes, alterations, or other mitigation to the Project; or to not fund the Project. Should the State decide to not fund the Project, this Agreement shall be terminated in accordance with Paragraph 10, "Default Provisions."
- D.9. **CHILD SUPPORT COMPLIANCE ACT:** The Grantee acknowledges in accordance with Public Contract Code section 7110, that:
- A. The Grantee recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Family Code section 5200 et seq.; and
 - B. The Grantee, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- D.10. **CLAIMS DISPUTE:** Any claim that the Grantee may have regarding performance of this Agreement including, but not limited to, claims for additional compensation or extension of time, shall be submitted to the DWR Project Representative, within thirty (30) days of the Grantee's knowledge of the claim. The State and the Grantee shall then attempt to negotiate a resolution of such claim and process an amendment to this Agreement to implement the terms of any such resolution.

- D.11. COMPETITIVE BIDDING AND PROCUREMENTS: The Grantee's contracts with other entities for the acquisition of goods and services and construction of public works with funds provided by the State under this Grant Agreement must be in writing and shall comply with all applicable laws and regulations regarding the securing of competitive bids and undertaking competitive negotiations. If the Grantee does not have a written policy to award contracts through a competitive bidding or sole source process, the Department of General Services' *State Contracting Manual* rules must be followed and are available at: <https://www.dgs.ca.gov/OLS/Resources/Page-Content/Office-of-Legal-Services-Resources-List-Folder/State-Contracting>.
- D.12. COMPUTER SOFTWARE: The Grantee certifies that it has appropriate systems and controls in place to ensure that state funds will not be used in the performance of this Grant Agreement for the acquisition, operation, or maintenance of computer software in violation of copyright laws.
- D.13. CONFLICT OF INTEREST: All participants are subject to State and Federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the application being rejected and any subsequent contract being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code section 1090 and Public Contract Code sections 10410 and 10411, for State conflict of interest requirements.
- A. Current State Employees: No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any State agency, unless the employment, activity, or enterprise is required as a condition of regular State employment. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State agency to provide goods or services.
- B. Former State Employees: For the two-year period from the date he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State agency. For the twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service.
- C. Employees of the Grantee: Employees of the Grantee shall comply with all applicable provisions of law pertaining to conflicts of interest, including but not limited to any applicable conflict of interest provisions of the California Political Reform Act. (Gov. Code, § 87100 et seq.)
- D. Employees and Consultants to the Grantee: Individuals working on behalf of a Grantee may be required by the Department to file a Statement of Economic Interests (Fair Political Practices Commission Form 700) if it is determined that an individual is a consultant for Political Reform Act purposes.
- D.14. DELIVERY OF INFORMATION, REPORTS, AND DATA: The Grantee agrees to expeditiously provide throughout the term of this Grant Agreement, such reports, data, information, and certifications as may be reasonably required by the State.
- D.15. DISPOSITION OF EQUIPMENT: The Grantee shall provide to the State, not less than 30 calendar days prior to submission of the final invoice, an itemized inventory of equipment purchased with funds provided by the State. The inventory shall include all items with a current estimated fair market value of more than \$5,000.00 per item. Within 60 calendar days of receipt of such inventory the State shall provide the Grantee with a list of the items on the inventory that the State will take title to. All other items shall become the property of the Grantee. The State shall arrange for delivery from the Grantee of items that it takes title to. Cost of transportation, if any, shall be borne by the State.

- D.16. **DRUG-FREE WORKPLACE CERTIFICATION:** Certification of Compliance: By signing this Grant Agreement, the Grantee, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of the State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Gov. Code, § 8350 et seq.) and have or will provide a drug-free workplace by taking the following actions:
- A. Publish a statement notifying employees, contractors, and subcontractors that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees, contractors, or subcontractors for violations, as required by Government Code section 8355.
 - B. Establish a Drug-Free Awareness Program, as required by Government Code section 8355 to inform employees, contractors, or subcontractors about all of the following:
 - i. The dangers of drug abuse in the workplace,
 - ii. The Grantee's policy of maintaining a drug-free workplace,
 - iii. Any available counseling, rehabilitation, and employee assistance programs, and
 - iv. Penalties that may be imposed upon employees, contractors, and subcontractors for drug abuse violations.
 - C. Provide, as required by Government Code section 8355, that every employee, contractor, and/or subcontractor who works under this Grant Agreement:
 - i. Will receive a copy of the Grantee's drug-free policy statement, and
 - ii. Will agree to abide by terms of the Grantee's condition of employment, contract or subcontract.
- D.17. **EASEMENTS:** Where the Grantee acquires property in fee title or funds improvements to real property already owned in fee by the Grantee using State funds provided through this Grant Agreement, an appropriate easement or other title restriction shall be provided and approved by the State. The easement or other title restriction must be in first position ahead of any recorded mortgage or lien on the property unless this requirement is waived by the State.
- Where the Grantee acquires an easement under this Agreement, the Grantee agrees to monitor and enforce the terms of the easement, unless the easement is subsequently transferred to another land management or conservation organization or entity with State permission, at which time monitoring and enforcement responsibilities will transfer to the new easement owner.
- Failure to provide an easement acceptable to the State may result in termination of this Agreement.
- D.18. **GRANTEE'S RESPONSIBILITIES:** The Grantee and its representatives shall:
- A. Faithfully and expeditiously perform or cause to be performed all project work as described in Exhibit A, "Work Plan" and in accordance with Project Exhibit B, "Budget" and Exhibit C, "Schedule".
 - B. Must maintain eligibility requirements as outlined in the 2019 Guidelines and 2019 PSP.
 - C. Accept and agree to comply with all terms, provisions, conditions, and written commitments of this Grant Agreement, including all incorporated documents, and to fulfill all assurances, declarations, representations, and statements made by the Grantee in the application, documents, amendments, and communications filed in support of its request for funding.
 - D. Comply with all applicable California, federal, and local laws and regulations.
 - E. Implement the Project in accordance with applicable provisions of the law.
 - F. Fulfill its obligations under the Grant Agreement and be responsible for the performance of the Project.

- G. Obtain any and all permits, licenses, and approvals required for performing any work under this Grant Agreement, including those necessary to perform design, construction, or operation and maintenance of the Project. The Grantee shall provide copies of permits and approvals to the State.
- H. Be solely responsible for design, construction, and operation and maintenance of projects within the work plan. Review or approval of plans, specifications, bid documents, or other construction documents by the State is solely for the purpose of proper administration of funds by the State and shall not be deemed to relieve or restrict responsibilities of the Grantee under this Agreement.
- I. Be solely responsible for all work and for persons or entities engaged in work performed pursuant to this Agreement, including, but not limited to, contractors, subcontractors, suppliers, and providers of services. The Grantee shall be responsible for any and all disputes arising out of its contracts for work on the Project, including but not limited to payment disputes with contractors and subcontractors. The State will not mediate disputes between the Grantee and any other entity concerning responsibility for performance of work.
- D.19. GOVERNING LAW: This Grant Agreement is governed by and shall be interpreted in accordance with the laws of the State of California.
- D.20. INCOME RESTRICTIONS: The Grantee agrees that any refunds, rebates, credits, or other amounts (including any interest thereon) accruing to or received by the Grantee under this Agreement shall be paid by the Grantee to the State, to the extent that they are properly allocable to costs for which the Grantee has been reimbursed by the State under this Agreement. The Grantee shall also include in each of its contracts for work under this Agreement a provision that incorporates the requirements stated within this paragraph.
- D.21. INDEMNIFICATION: The Grantee shall indemnify and hold and save the State, its officers, agents, and employees, free and harmless from any and all liabilities for any claims and damages (including inverse condemnation) that may arise out of the Project and this Agreement, and any breach of this Agreement. The Grantee shall require its contractors or subcontractors to name the State, its officers, agents and employees as additional insureds on their liability insurance for activities undertaken pursuant to this Agreement.
- D.22. INDEPENDENT CAPACITY: The Grantee, and the agents and employees of the Grantees, in the performance of the Grant Agreement, shall act in an independent capacity and not as officers, employees, or agents of the State.
- D.23. INSPECTION OF BOOKS, RECORDS, AND REPORTS: During regular office hours, each of the parties hereto and their duly authorized representatives shall have the right to inspect and to make copies of any books, records, or reports of either party pertaining to this Grant Agreement or matters related hereto. Each of the parties hereto shall maintain and shall make available at all times for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Grant Agreement. Failure or refusal by the Grantee to comply with this provision shall be considered a breach of this Grant Agreement, and the State may withhold disbursements to the Grantee or take any other action it deems necessary to protect its interests.
- D.24. INSPECTIONS OF PROJECT BY STATE: The State shall have the right to inspect the work being performed at any and all reasonable times during the term of the Grant Agreement. This right shall extend to any subcontracts, and the Grantee shall include provisions ensuring such access in all its contracts or subcontracts entered into pursuant to its Grant Agreement with the State.
- D.25. LABOR CODE COMPLIANCE: The Grantee agrees to be bound by all the provisions of the Labor Code regarding prevailing wages and shall monitor all contracts subject to reimbursement from this Agreement to assure that the prevailing wage provisions of the Labor Code are being met. Current Department of Industrial Relations (DIR) requirements may be found at: <http://www.dir.ca.gov/lcp.asp>. For more information, please refer to DIR's *Public Works Manual* at: <http://www.dir.ca.gov/dlse/PWManualCombined.pdf>. The Grantee affirms that it is aware of the provisions of section 3700 of

the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance, and the Grantee affirms that it will comply with such provisions before commencing the performance of the work under this Agreement and will make its contractors and subcontractors aware of this provision.

- D.26. **MODIFICATION OF OVERALL WORK PLAN:** At the request of the Grantee, the State may at its sole discretion approve non-material changes to the portions of Exhibits A, B, and C which concern the budget and schedule without formally amending this Grant Agreement. Non-material changes with respect to the budget are changes that only result in reallocation of less than 20 percent (20%) of any line item within the budget and will not result in an increase in the amount of the State Grant Agreement. Non-material changes with respect to the Project schedule are changes that will not extend the term of this Grant Agreement. Requests for non-material changes to the budget and schedule must be submitted by the Grantee to the State in writing and are not effective unless and until specifically approved by the State's Program Manager in writing.
- D.27. **NONDISCRIMINATION:** During the performance of this Grant Agreement, the Grantee and its contractors or subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of sex (gender), sexual orientation, race, color, ancestry, religion, creed, national origin (including language use restriction), pregnancy, physical disability (including HIV and AIDS), mental disability, medical condition (cancer/genetic characteristics), age (over 40), marital status, and denial of medial and family care leave or pregnancy disability leave. The Grantee and its contractors or subcontractors shall ensure that the evaluation and treatment of their employees and applicants for employment are free from such discrimination and harassment. The Grantee and its contractors or subcontractors shall comply with the provisions of the California Fair Employment and Housing Act (Gov. Code, § 12990.) and the applicable regulations promulgated there under (Cal. Code Regs., tit. 2, § 11000 et seq.). The applicable regulations of the Fair Employment and Housing are incorporated into this Agreement by reference. The Grantee and its contractors or subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- The Grantee shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Grant Agreement.
- D.28. **OPINIONS AND DETERMINATIONS:** Where the terms of this Grant Agreement provide for action to be based upon, judgment, approval, review, or determination of either party hereto, such terms are not intended to be and shall never be construed as permitting such opinion, judgment, approval, review, or determination to be arbitrary, capricious, or unreasonable.
- D.29. **PERFORMANCE BOND:** Where contractors are used, the Grantee shall not authorize construction to begin until each contractor has furnished a performance bond in favor of the Grantee in the following amounts: faithful performance (100%) of contract value, and labor and materials (100%) of contract value. This requirement shall not apply to any contract for less than \$25,000.00. Any bond issued pursuant to this paragraph must be issued by a California-admitted surety. (Pub. Contract Code, § 7103; Code Civ. Proc., § 995.311.)
- D.30. **PRIORITY HIRING CONSIDERATIONS:** If this Grant Agreement includes services in excess of \$200,000, the Grantee shall give priority consideration in filling vacancies in positions funded by the Grant Agreement to qualified recipients of aid under Welfare and Institutions Code section 11200 in accordance with Public Contract Code section 10353.
- D.31. **PROHIBITION AGAINST DISPOSAL OF PROJECT WITHOUT STATE PERMISSION:** The Grantee shall not sell, abandon, lease, transfer, exchange, mortgage, hypothecate, or encumber in any manner whatsoever all or any portion of any real or other property necessarily connected or used in conjunction with the Project, or with the Grantee's service of water, without prior permission of the State. The Grantee shall not take any action, including but not limited to actions relating to user fees, charges, and assessments that could adversely affect the ability of the Grantee meet its obligations under this Grant

Agreement, without prior written permission of the State. The State may require that the proceeds from the disposition of any real or personal property be remitted to the State.

- D.32. PROJECT ACCESS: The Grantee shall ensure that the State, the Governor of the State, or any authorized representative of the foregoing, will have safe and suitable access to the Project site at all reasonable times during Project construction and thereafter for the term of this Agreement.
- D.33. REMAINING BALANCE: In the event the Grantee does not submit invoices requesting all of the funds encumbered under this Grant Agreement, any remaining funds revert to the State. The State will notify the Grantee stating that the Project file is closed and any remaining balance will be disencumbered and unavailable for further use under this Grant Agreement.
- D.34. REMEDIES NOT EXCLUSIVE: The use by either party of any remedy specified herein for the enforcement of this Grant Agreement is not exclusive and shall not deprive the party using such remedy of, or limit the application of, any other remedy provided by law.
- D.35. RETENTION: The State shall withhold ten percent (10%) of the funds requested by the Grantee for reimbursement of Eligible Project Costs until the Project is completed and Final Project Report is approved. At the State's discretion and upon a written request by the Grantee, any retained amount attributable to a single Component may be released when that Component is complete and the Final Component Completion Report is approved. Any retained amounts due to the Grantee will be promptly disbursed to the Grantee, without interest, upon completion of the Project or an approved Component upon request.
- D.36. RIGHTS IN DATA: The Grantee agrees that all data, plans, drawings, specifications, reports, computer programs, operating manuals, notes and other written or graphic work produced in the performance of this Grant Agreement shall be made available to the State and shall be in the public domain to the extent to which release of such materials is required under the California Public Records Act. (Gov. Code, § 6250 et seq.) The Grantee may disclose, disseminate and use in whole or in part, any final form data and information received, collected and developed under this Grant Agreement, subject to appropriate acknowledgement of credit to the State for financial support. The Grantee shall not utilize the materials for any profit-making venture or sell or grant rights to a third party who intends to do so. The State shall have the right to use any data described in this paragraph for any public purpose.
- D.37. SEVERABILITY: Should any portion of this Grant Agreement be determined to be void or unenforceable, such shall be severed from the whole and the Grant Agreement shall continue as modified.
- D.38. SUSPENSION OF PAYMENTS: This Grant Agreement may be subject to suspension of payments or termination, or both if the State determines that:
- A. The Grantee, its contractors, or subcontractors have made a false certification, or
 - B. The Grantee, its contractors, or subcontractors violates the certification by failing to carry out the requirements noted in this Grant Agreement.
- D.39. SUCCESSORS AND ASSIGNS: This Grant Agreement and all of its provisions shall apply to and bind the successors and assigns of the parties. No assignment or transfer of this Grant Agreement or any part thereof, rights hereunder, or interest herein by the Grantee shall be valid unless and until it is approved by the State and made subject to such reasonable terms and conditions as the State may impose.
- D.40. TERMINATION BY THE GRANTEE: Subject to State approval which may be reasonably withheld, the Grantee may terminate this Agreement and be relieved of contractual obligations. In doing so, the Grantee must provide a reason(s) for termination. The Grantee must submit all progress reports summarizing accomplishments up until termination date.


- D.41. TERMINATION FOR CAUSE: Subject to the right to cure under Paragraph 10, "Default Provisions," the State may terminate this Grant Agreement and be relieved of any payments should the Grantee fail to perform the requirements of this Grant Agreement at the time and in the manner herein, provided including but not limited to reasons of default under Paragraph 10, "Default Provisions."
- D.42. TERMINATION WITHOUT CAUSE: The State may terminate this Agreement without cause on 30 days' advance written notice. The Grantee shall be reimbursed for all reasonable expenses incurred up to the date of termination.
- D.43. THIRD PARTY BENEFICIARIES: The parties to this Agreement do not intend to create rights in, or grant remedies to, any third party as a beneficiary of this Agreement, or any duty, covenant, obligation or understanding established herein.
- D.44. TIMELINESS: Time is of the essence in this Grant Agreement.
- D.45. UNION ORGANIZING: The Grantee, by signing this Grant Agreement, hereby acknowledges the applicability of Government Code sections 16645 through 16649 to this Grant Agreement. Furthermore, the Grantee, by signing this Grant Agreement, hereby certifies that:
- A. No State funds disbursed by this Grant Agreement will be used to assist, promote, or deter union organizing.
 - B. The Grantee shall account for State funds disbursed for a specific expenditure by this Grant Agreement to show those funds were allocated to that expenditure.
 - C. The Grantee shall, where State funds are not designated as described in (b) above, allocate, on a pro rata basis, all disbursements that support the program.
 - D. If the Grantee makes expenditures to assist, promote, or deter union organizing, the Grantee will maintain records sufficient to show that no State funds were used for those expenditures and that the Grantee shall provide those records to the Attorney General upon request.
- D.46. VENUE: The State and the Grantee hereby agree that any action arising out of this Agreement shall be filed and maintained in the Superior Court in and for the County of Sacramento, California, or in the United States District Court in and for the Eastern District of California. The Grantee hereby waives any existing sovereign immunity for the purposes of this Agreement.
- D.47. WAIVER OF RIGHTS: None of the provisions of this Grant Agreement shall be deemed waived unless expressly waived in writing. It is the intention of the parties here to that from time to time either party may waive any of its rights under this Grant Agreement unless contrary to law. Any waiver by either party of rights arising in connection with the Grant Agreement shall not be deemed to be a waiver with respect to any other rights or matters, and such provisions shall continue in full force and effect.

Exhibit E

AUTHORIZING RESOLUTION ACCEPTING FUNDS

RESOLUTION NO. 19-05

Resolved by the Sierra Valley Groundwater Management District Board of Directors, that application be made to the California Department of Water Resources to obtain a grant under the 2019 Sustainable Groundwater Management (SGM) Grant Program Planning – Round 3 Grant pursuant to the Water Quality, Supply, and Infrastructure Improvement Act of 2014 (Proposition 1) (Wat.Code,§79700 et seq.) and/or the California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018 (Proposition 68) (Pub. Resources Code, § 80000 et seq.), and to enter into an agreement to receive a grant for the: GSP Development and Critical Programs for Efficient and Effective Sustainable Groundwater Management under an Adaptive Management Approach. The Chairman of the Sierra Valley Groundwater Management District, or designee is hereby authorized and directed to prepare the necessary data, conduct investigations, file such application, and execute a grant agreement with California Department of Water Resources. Passed and adopted at a meeting of the Sierra Valley Groundwater Management District on October 21, 2019.

Authorized Original Signature: 
Printed Name: Einar M. Grandi
Title: SVGMD chairman
Clerk/Secretary: Jenny Grant

CERTIFICATION

I do hereby certify that the foregoing is a full, true, and correct copy of a resolution duly and regularly adopted at a meeting of the Sierra Valley Groundwater Management District held on October 21, 2019.


Clerk/Secretary: 

Exhibit F

REPORT FORMATS AND REQUIREMENTS

The following reporting formats should be utilized. Please obtain State approval prior to submitting a report in an alternative format.

1. QUARTERLY PROGRESS REPORTS

- A Progress Report template will be provided by the assigned Grant Manager. Grantees must use the template provided for all Quarterly Progress Reports to obtain reimbursement and credit for local cost share reported. The Progress Report must accompany an Invoice and be numbered the same for ease of reference for auditing purposes.

2. COMPONENT COMPLETION REPORT

Component Completion Reports shall generally use the following format.

EXECUTIVE SUMMARY – Should include a brief summary of project information and include the following items:

- Brief description of work proposed to be done in the original application
- Description of actual work completed and any deviations from the work plan identified in the Grant Agreement

REPORTS AND/OR PRODUCTS – The following items should be provided

- Final Evaluation report
- Electronic copies of any data collected, not previously submitted
- As-built drawings
- Final geodetic survey information
- Self-Certification that the Project meets the stated goal of the Grant Agreement (e.g. 100-year level of flood protection, HMP standard, PI-84-99, etc.)
- Project photos
- Discussion of problems that occurred during the work and how those problems were resolved
- A final project schedule showing actual progress versus planned progress

COSTS AND DISPOSITION OF FUNDS – A list of showing:

- The date each invoice was submitted to the State
- The amount of the invoice
- The date the check was received
- The amount of the check (If a check has not been received for the final invoice, then state this in this section.)
- A summary of the payments made by the Grantee for meeting its cost sharing obligations under this Grant Agreement.
- A summary of final funds disbursement including:
 - Labor cost of personnel of agency/ major consultant /sub-consultants. Indicate personnel, hours, rates, type of profession and reason for consultant, i.e., design, CEQA work, etc.
 - Evaluation cost information, shown by material, equipment, labor costs, and any change orders
 - Any other incurred cost detail
 - A statement verifying separate accounting of funding disbursements
- Summary of project cost including the following items:
 - Accounting of the cost of project expenditure;

- Include all internal and external costs not previously disclosed; and
- A discussion of factors that positively or negatively affected the project cost and any deviation from the original project cost estimate.

ADDITIONAL INFORMATION – Any relevant additional Information should be included.

3. GRANT COMPLETION REPORT

Grant Completion Reports shall generally use the following format.

EXECUTIVE SUMMARY – The Executive Summary consists of a maximum of ten (10) pages summarizing information for the grant as well as the individual components.

REPORTS AND/OR PRODUCTS – The following items should be provided

- Brief comparison of work proposed in the original 2017 SGWP Grant application and actual work done.
- Brief description of the Project or components completed and how they achieve either or both of the following:
 - Serve SDAC(s) and support groundwater sustainability planning and management in the basin (Implementation Projects); and/or
 - Support planning, development, and/or preparation of GSP(s) that will comply with and meet the requirements of the GSP Regulations (GSP Development Projects).
- Identify remaining work and mechanism for their implementation (Implementation Projects).
- If applicable (e.g., if a DAC, EDA, or SDAC Cost Share Waiver was approved), a discussion of the benefits to DAC, EDA, and/or SDAC as part of this Grant Agreement.

COSTS AND DISPOSITION OF FUNDS

- A summary of final funds disbursement for the Project, or each component.

ADDITIONAL INFORMATION – Any relevant additional Information should be included.3

4. POST-PERFORMANCE REPORT

The Post-Performance Report should be concise and focus on how (each/the) project or component is actually performing compared to its expected performance; whether the project or component is being operated and maintained, and providing intended benefits as proposed (for Implementation Project or components). The Post-Performance Report should follow the same general format and provide requested information as required to be included in the Project Monitoring Plan (Exhibit K). As applicable, the following information, at a minimum, shall be provided:

REPORTS AND/OR PRODUCTS:

- Time period of the annual report (e.g., January 2018 through December 2018)
- Short project description
- Discussion of the project benefits
- An assessment of any explanations for any differences between the expected versus actual project benefits as stated in the original 2017 SGWP Grant application. Where applicable, the reporting should include quantitative metrics (i.e., new acre-feet of water produced that year, etc.).
- Summary of any additional costs and/or benefits deriving from the project since its completion, if applicable.
- Continued reporting on meeting the Output Indicators and Targets discussed in the Project and/or Component Monitoring Plan discussed in Paragraph 18 of this Grant Agreement.
- Any additional information relevant to or generated by the continued operation of the project.

Exhibit G

REQUIREMENTS FOR DATA SUBMITTAL

Surface and Groundwater Quality Data:

Groundwater quality and ambient surface water quality monitoring data that include chemical, physical, or biological data shall be submitted to the State as described below, with a narrative description of data submittal activities included in project reports, as described in Exhibit G, "Requirements for Data Submittal."

Surface water quality monitoring data shall be prepared for submission to the California Environmental Data Exchange Network (CEDEN). The CEDEN data templates are available on the CEDEN website. Inclusion of additional data elements described on the data templates is desirable. Data ready for submission should be uploaded to your CEDEN Regional Data Center via the CEDEN website. CEDEN website: <http://www.ceden.org>.

If a project's Work Plan contains a groundwater ambient monitoring element, groundwater quality monitoring data shall be submitted to the State for inclusion in the State Water Resources Control Board's Groundwater Ambient Monitoring and Assessment (GAMA) Program. Information on the GAMA Program can be obtained at: https://www.waterboards.ca.gov/water_issues/programs/gama/. If further information is required, the Grantee can contact the State Water Resources Control Board (SWRCB) GAMA Program. A listing of SWRCB staff involved in the GAMA program can be found at: https://www.waterboards.ca.gov/water_issues/programs/gama/contact.shtml.

Groundwater Level Data

For each project that collects groundwater level data, the Grantee will need to submit this data to DWR's Water Data Library (WDL), with a narrative description of data submittal activities included in project reports, as described in Exhibit F, "Report Formats and Requirements." Information regarding the WDL and in what format to submit data in can be found at: <http://www.water.ca.gov/waterdatalibrary/>.

In the near future, DWR's WDL will be replaced by the California Statewide Groundwater Elevation Monitoring program (CASGEM). Once this Program comes online the Grantee will then submit groundwater level data to CASGEM. Information regarding the CASGEM program can be found at: <http://www.water.ca.gov/groundwater/casgem/>.

Exhibit H

STATE AUDIT DOCUMENT REQUIREMENTS FOR GRANTEES

The following provides a list of documents typically required by State Auditors and general guidelines for Grantees. List of documents pertains to both State funding and the Grantee's Local Cost Share and details the documents/records that State Auditors would need to review in the event of this Grant Agreement is audited. Grantees should ensure that such records are maintained for each funded project.

State Audit Document Requirements

Internal Controls

1. Organization chart (e.g., Agency's overall organization chart and organization chart for the State funded Program/Project).
2. Written internal procedures and flowcharts for the following:
 - a) Receipts and deposits
 - b) Disbursements
 - c) State reimbursement requests
 - d) Expenditure tracking of State funds
 - e) Guidelines, policy, and procedures on State funded Program/Project
3. Audit reports of the Agency internal control structure and/or financial statements within the last two years.
4. Prior audit reports on the State funded Program/Project.

State Funding:

1. Original Grant Agreement, any amendment(s) and budget modification documents.
2. A listing of all bond-funded grants, loans, or subventions received from the State.
3. A listing of all other funding sources for each Program/Project.

Contracts:

1. All subcontractor and consultant contracts and related or partners' documents, if applicable.
2. Contracts between the Agency and member agencies as related to the State funded Program/Project.

Invoices:

1. Invoices from vendors and subcontractors for expenditures submitted to the State for payments under the Grant Agreement.
2. Documentation linking subcontractor invoices to State reimbursement, requests and related Grant Agreement budget line items.
3. Reimbursement requests submitted to the State for the Grant Agreement.

Cash Documents:

1. Receipts (copies of warrants) showing payments received from the State.
2. Deposit slips (or bank statements) showing deposit of the payments received from the State.
3. Cancelled checks or disbursement documents showing payments made to vendors, subcontractors, consultants, and/or agents under the grants or loans.
4. Bank statements showing the deposit of the receipts.

Accounting Records:

1. Ledgers showing entries for funding receipts and cash disbursements.
2. Ledgers showing receipts and cash disbursement entries of other funding sources.
3. Bridging documents that tie the general ledger to requests for Grant Agreement reimbursement.

Administration Costs:

1. Supporting documents showing the calculation of administration costs.

Personnel:

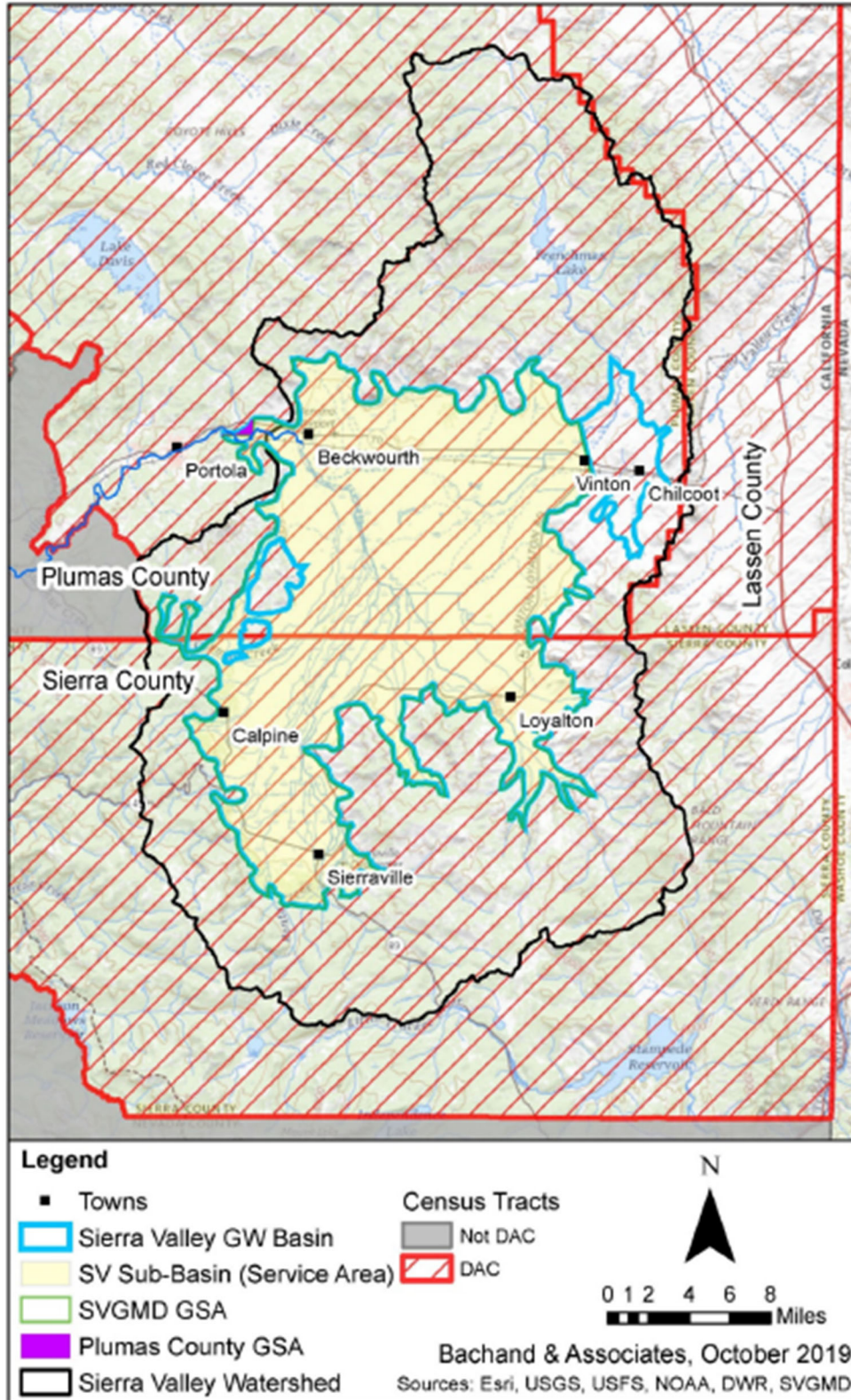
1. List of all contractors and Agency staff that worked on the State funded Program/Project.

2. Payroll records including timesheets for contractor staff and the Agency personnel who provided services charged to the program

Project Files:

1. All supporting documentation maintained in the project files.
2. All Grant Agreement related correspondence.

Exhibit I PROJECT LOCATION



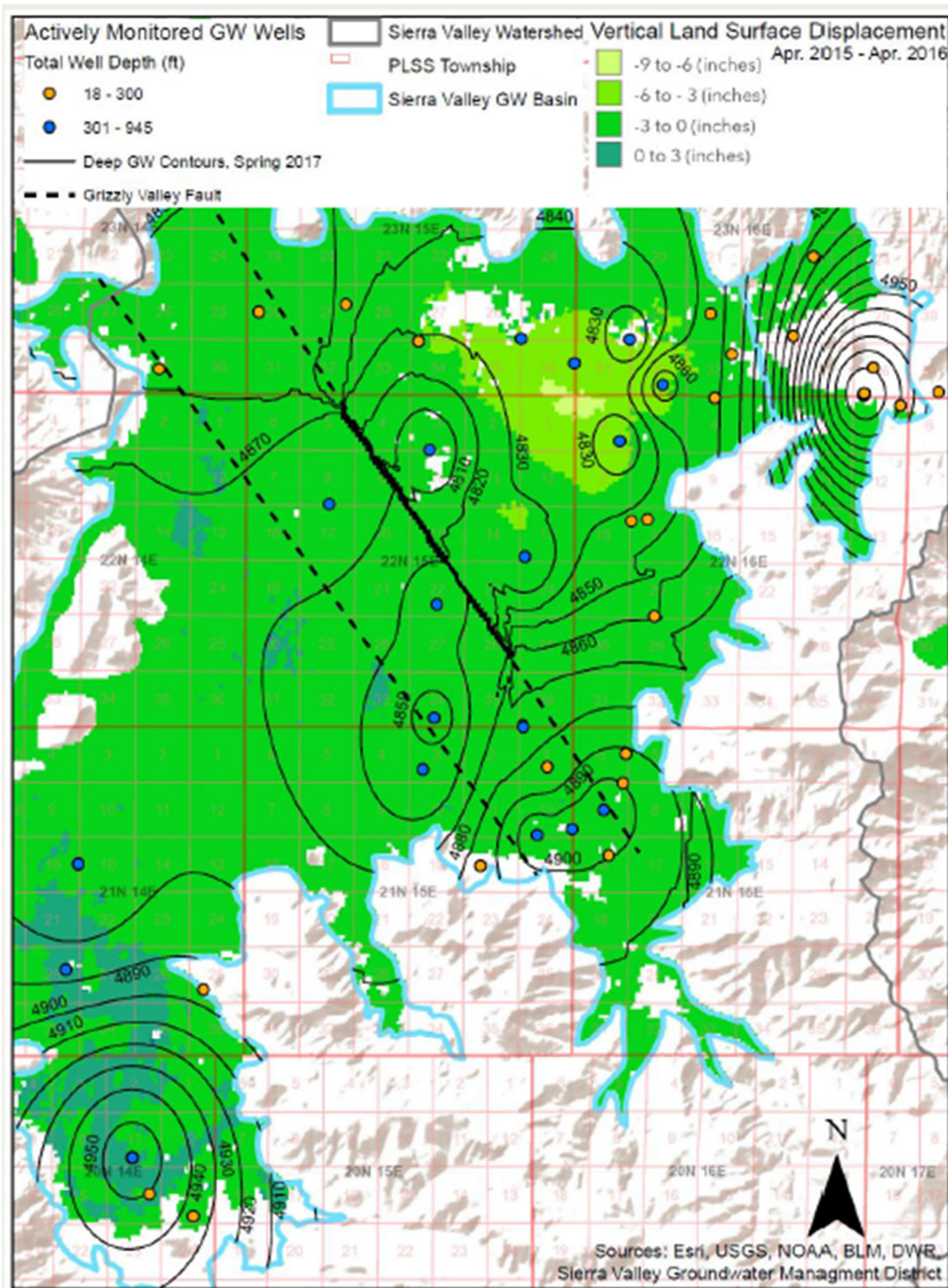


Exhibit J

MONITORING AND MAINTENANCE PLAN COMPONENTS

Introduction

- Goals and objectives of project
- Site location and history
- Improvements implemented

Monitoring and Maintenance Plan

- Monitoring Metrics (ex: Plant establishment, bank erosion, hydraulic characteristics, habitat expansion)
- Maintenance Metrics (ex: irrigation, pest management, weed abatement, continuous invasive species removal until natives established)
- Special Environmental Considerations (ex: resource agency requirements, permit requirements, CEQA/NEPA mitigation measures)
- Performance Measures, or success/failure criteria monitoring results measured against (ex: percent canopy cover after 1, 5, 10 years, water temperature decrease, site specific sediment scour or retention)
- Method of Reporting (ex: paper reports, online databases, public meetings)
- Frequency of Duration Monitoring and Reporting (daily, weekly, monthly, yearly)
- Frequency and Duration of Maintenance Activities
- Responsible Party (who is conducting monitoring and/or maintenance) Implementing responsibility (i.e., who is responsible for monitoring and maintenance)
- Adaptive Management Strategies (i.e., what happens when routine monitoring or maintenance encounters a problem)