

## **DRAFT Agreement for Sonoma Valley Hydrologic and Hydraulic Modeling**

This agreement (“Agreement”) is by and between **Sonoma County Water Agency**, a body corporate and politic of the State of California (“Sonoma Water”) and **Environmental Science Associates**, a California corporation (“Consultant”). The Effective Date of this Agreement is the date the Agreement is last signed by the parties to the Agreement, unless otherwise specified in Paragraph 5.1.

### **RECITALS**

- A. Consultant represents that it is a duly qualified and licensed engineering firm experienced in watershed planning, hydrologic and hydraulic modeling, and related services.
- B. Sonoma Water, in coordination with Flood Control Zone 3A advisory committee and other local stakeholders, has been actively involved in planning efforts to identify feasible opportunities to develop multi-objective projects to capture stormwater, recharge groundwater, and reduce flooding.
- C. Sonoma Water desires to develop a watershed-wide hydrologic-hydraulic model to evaluate flooding conditions within the Sonoma Valley and assess the benefits of multi-benefit flood risk reduction projects. This modeling tool will serve as an important tool in further developing these planning efforts.
- D. Under this agreement, Consultant will develop a hydrologic model of the Sonoma Valley watershed, including hydraulic models of Sonoma, Nathanson, and Fryer Creeks that can be used 1) to better understand flood dynamics and risk within the Sonoma Valley, 2) to evaluate conceptual projects in the future, and 3) to inform other watershed management efforts.

In consideration of the foregoing recitals and the mutual covenants contained herein, the parties hereto agree as follows:

### **AGREEMENT**

#### **1. RECITALS**

- 1.1. The above recitals are true and correct.

#### **2. LIST OF EXHIBITS**

- 2.1. The following exhibits are attached hereto and incorporated herein:
  - a. Exhibit A: Scope of Work
  - b. Exhibit B: Schedule of Costs
  - c. Exhibit C: Estimated Budget for Scope of Work

- d. Exhibit D: Location Map
- e. Exhibit E: Topobathymetric LiDAR Limits Map
- f. Exhibit F: Insurance Requirements

### 3. **SCOPE OF SERVICES**

3.1. *Consultant's Specified Services:* Consultant shall perform the services described in Exhibit A (Scope of Work), within the times or by the dates provided for in Exhibit A and pursuant to Article 9 (Prosecution of Work). In the event of a conflict between the body of this Agreement and Exhibit A, the provisions in the body of this Agreement shall control.

3.2. *Cooperation with Sonoma Water:* Consultant shall cooperate with Sonoma Water in the performance of all work hereunder. Consultant shall coordinate the work with Sonoma Water's Project Manager. Contact information and mailing addresses:

<b>Sonoma Water</b>	<b>Consultant</b>
Project Manager: Carlos Diaz 404 Aviation Boulevard Santa Rosa, CA 95403-9019 Phone: (707) 547-1956 Email: carlos.diaz@scwa.ca.gov	Contact: James Gregory, P.E. 180 Grand Avenue, Suite 1050 Oakland, CA 94612 Phone: (510) 463-6742 Email: jgregory@esassoc.com
<b>Remit invoices to:</b>	<b>Remit payments to:</b>
Accounts Payable Same address as above or Email: ap_agreements@scwa.ca.gov	

3.3. *Performance Standard and Standard of Care:* Consultant hereby agrees that all its work will be performed and that its operations shall be conducted in accordance with the standards of a reasonable professional having specialized knowledge and expertise in the services provided under this Agreement and in accordance with all applicable federal, state and local laws, it being understood that acceptance of Consultant's work by Sonoma Water shall not operate as a waiver or release. Sonoma Water has relied upon the professional ability and training of Consultant as a material inducement to enter into this Agreement. If Sonoma Water determines that any of Consultant's work is not in accordance with such level of competency and standard of care, Sonoma Water, in its sole discretion, shall have the right to do any or all of the following: (a) require Consultant to meet with Sonoma Water to review the quality of the work and resolve matters of concern; (b) require Consultant to repeat the work at no additional charge until it is satisfactory; (c) terminate this Agreement pursuant to the provisions of Article 6 (Termination); or (d) pursue any and all other remedies at law or in equity.

3.4. *Assigned Personnel:*

- a. Consultant shall assign only competent personnel to perform work hereunder. In the event that at any time Sonoma Water, in its sole discretion, desires the removal of any person or persons assigned by Consultant to perform work hereunder, Consultant shall remove such person or persons immediately upon receiving written notice from Sonoma Water.
- b. Any and all persons identified in this Agreement or any exhibit hereto as the project manager, project team, or other professional performing work hereunder are deemed by Sonoma Water to be key personnel whose services were a material inducement to Sonoma Water to enter into this Agreement, and without whose services Sonoma Water would not have entered into this Agreement. Consultant shall not remove, replace, substitute, or otherwise change any key personnel without the prior written consent of Sonoma Water.
- c. With respect to performance under this Agreement, Consultant shall employ the following key personnel:

<i>Title</i>	<i>Name</i>
Principal Engineer	James Gregory
Senior Director II	Betty Andrews

- d. In the event that any of Consultant's personnel assigned to perform services under this Agreement become unavailable due to resignation, sickness, or other factors outside of Consultant's control, Consultant shall be responsible for timely provision of adequately qualified replacements.

4. **PAYMENT**

- 4.1. *Total Costs:* Total costs under this Agreement shall not exceed \$468,219.
  - a. Total costs for Tasks 1-5 shall not exceed \$443,219.
  - b. Total costs for Optional Task 6, if requested in writing by Sonoma Water, shall not exceed \$25,000.
  - c. Total costs shall not be exceeded, regardless of whether it takes Consultant more time to complete or costs more than anticipated.
  - d. No more than \$423,480 will be paid until the draft report is submitted.
- 4.2. *Method of Payment:* Consultant shall be paid in accordance with the following terms: Consultant shall be paid in accordance with Exhibit B (Schedule of Costs). Billed hourly rates shall include all costs for overhead and any other charges, other than expenses specifically identified in Exhibit B. Expenses not expressly authorized by the Agreement shall not be reimbursed.
- 4.3. *Invoices:* Consultant shall submit its bills in arrears on a monthly basis, based on work completed for the period, upon final acceptance of work under this

Agreement in a form approved by Sonoma Water. The bills shall show or include:

- a. Consultant name
- b. Name of Agreement
- c. Sonoma Water's Project-Activity Code F0418C018
- d. Task performed with an itemized description of services rendered by date
- e. Summary of work performed by subconsultants, as described in Paragraph 15.4
- f. Time in quarter hours devoted to the task
- g. Hourly rate or rates of the persons performing the task
- h. List of reimbursable materials and expenses
- i. Copies of receipts for reimbursable materials and expenses

4.4. *Monthly Reports with Invoices:* Payment of invoices is subject to receipt of the monthly reports required under Task 6 of Exhibit A.

4.5. *Cost Tracking:* Consultant has provided an estimated breakdown of costs, included in Exhibit C (Estimated Budget for Scope of Work). Exhibit C will only be used as a tool to monitor progress of work and budget. Actual payment will be made as specified in Paragraph 4.2 above.

4.6. *Timing of Payments:* Unless otherwise noted in this Agreement, payments shall be made within the normal course of Sonoma Water business after presentation of an invoice in a form approved by Sonoma Water for services performed. Payments shall be made only upon the satisfactory completion of the services as determined by Sonoma Water.

4.7. *Taxes Withheld by Sonoma Water:*

- a. Pursuant to California Revenue and Taxation Code (R&TC) section 18662, Sonoma Water shall withhold seven percent of the income paid to Consultant for services performed within the State of California under this Agreement, for payment and reporting to the California Franchise Tax Board, if Consultant does not qualify as: (1) a corporation with its principal place of business in California, (2) an LLC or Partnership with a permanent place of business in California, (3) a corporation/LLC or Partnership qualified to do business in California by the Secretary of State, or (4) an individual with a permanent residence in the State of California.
- b. If Consultant does not qualify, as described in Paragraph 4.7.a, Sonoma Water requires that a completed and signed Form 587 be provided by Consultant in order for payments to be made. If Consultant is qualified, as described in Paragraph 4.7.a, then Sonoma Water requires a completed Form 590. Forms 587 and 590 remain valid for the duration of the Agreement provided there is no material change in facts. By signing either form, Consultant agrees to promptly notify Sonoma Water of any changes in the

facts. Forms should be sent to Sonoma Water pursuant to Article 16 (Method and Place of Giving Notice, Submitting Bills, and Making Payments) of this Agreement. To reduce the amount withheld, Consultant has the option to provide Sonoma Water with either a full or partial waiver from the State of California.

## **5. TERM OF AGREEMENT AND COMMENCEMENT OF WORK**

### **5.1. *Term of Agreement:***

- a. This Agreement shall expire on October 20, 2023, unless terminated earlier in accordance with the provisions of Article 6 (Termination).
- b. Sonoma Water shall have two options to extend this Agreement for a period of one year each by providing written notice to Consultant thirty days in advance of the expiration date noted in this Article and of the first extension option.

### **5.2. *Commencement of Work:*** Consultant is authorized to proceed immediately with the performance of this Agreement upon the Effective Date of this Agreement.

## **6. TERMINATION**

- 6.1. *Authority to Terminate:* Sonoma Water's right to terminate may be exercised by Sonoma County Water Agency's General Manager.
- 6.2. *Termination Without Cause:* Notwithstanding any other provision of this Agreement, at any time and without cause, Sonoma Water shall have the right, in its sole discretion, to terminate this Agreement by giving 5 days written notice to Consultant.
- 6.3. *Termination for Cause:* Notwithstanding any other provision of this Agreement, should Consultant fail to perform any of its obligations hereunder, within the time and in the manner herein provided, or otherwise violate any of the terms of this Agreement, Sonoma Water may immediately terminate this Agreement by giving Consultant written notice of such termination, stating the reason for termination.
- 6.4. *Delivery of Work Product and Final Payment Upon Termination:* In the event of termination, Consultant, within 14 days following the date of termination, shall deliver to Sonoma Water all reports, original drawings, graphics, plans, studies, and other data or documents, in whatever form or format, assembled or prepared by Consultant or Consultant's subcontractors, consultants, and other agents in connection with this Agreement subject to Paragraph 12.9 and shall submit to Sonoma Water an invoice showing the services performed, hours worked, and copies of receipts for reimbursable expenses up to the date of termination.

6.5. *Payment Upon Termination:* Upon termination of this Agreement by Sonoma Water, Consultant shall be entitled to receive as full payment for all services satisfactorily rendered and reimbursable expenses properly incurred hereunder, an amount which bears the same ratio to the total payment specified in the Agreement as the services satisfactorily rendered hereunder by Consultant bear to the total services otherwise required to be performed for such total payment; provided, however, that if services are to be paid on a per-hour or per-day basis, then Consultant shall be entitled to receive as full payment an amount equal to the number of hours or days actually worked prior to termination multiplied by the applicable hourly or daily rate; and further provided, however, that if Sonoma Water terminates the Agreement for cause pursuant to Paragraph 6.3, Sonoma Water shall deduct from such amounts the amount of damage, if any, sustained by Sonoma Water by virtue of the breach of the Agreement by Consultant.

## **7. INDEMNIFICATION**

7.1. Consultant agrees to accept responsibility for loss or damage to any person or entity, including Sonoma County Water Agency, and to defend, indemnify, hold harmless, and release Sonoma County Water Agency, its officers, agents, and employees, from and against any actions, claims, damages, liabilities, disabilities, or expenses, that may be asserted by any person or entity, including Consultant, to the extent that they arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of Consultant or its agents, employees, contractors, subcontractors, or invitees hereunder, whether or not there is concurrent or contributory negligence on Sonoma County Water Agency's part, but, to the extent required by law, excluding liability due to Sonoma County Water Agency's conduct. This indemnification obligation is not limited in any way by any limitation on the amount or type of damages or compensation payable to or for Consultant or its agents under workers' compensation acts, disability benefits acts, or other employee benefit acts.

## **8. INSURANCE**

8.1. With respect to performance of work under this Agreement, Consultant shall maintain and shall require all of its subcontractors, consultants, and other agents to maintain, insurance as described in Exhibit F (Insurance Requirements).

## **9. PROSECUTION OF WORK**

9.1. Performance of the services hereunder shall be completed within the time required herein, provided, however, that if the performance is delayed by earthquake, flood, high water, or other Act of God or by strike, lockout, or similar labor disturbances, the time for Consultant's performance of this Agreement shall be extended by a number of days equal to the number of days Consultant has been delayed.

## **10. EXTRA OR CHANGED WORK**

- 10.1. Extra or changed work or other changes to the Agreement may be authorized only by written amendment to this Agreement, signed by both parties. Changes to lengthen time schedules or make minor modifications to the scope of work, which do not increase the amount paid under the Agreement, may be executed by Sonoma County Water Agency's General Manager in a form approved by County Counsel. The parties expressly recognize that Sonoma Water personnel are without authorization to order all other extra or changed work or waive Agreement requirements. Failure of Consultant to secure such written authorization for extra or changed work shall constitute a waiver of any and all right to adjustment in the Agreement price or Agreement time due to such unauthorized work and thereafter Consultant shall be entitled to no compensation whatsoever for the performance of such work. Consultant further expressly waives any and all right or remedy by way of restitution and quantum meruit for any and all extra work performed without such express and prior written authorization of Sonoma Water.

## **11. CONTENT ONLINE ACCESSIBILITY**

- 11.1. *Accessibility:* Sonoma Water policy requires that all documents that may be published to the Web meet accessibility standards to the greatest extent possible, and utilizing available existing technologies.
- 11.2. *Standards:* All consultants responsible for preparing content intended for use or publication on a Sonoma Water managed or Sonoma Water funded web site must comply with applicable federal accessibility standards established by 36 C.F.R. section 1194, pursuant to section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. section 794(d)), and Sonoma Water's Web Site Accessibility Policy located at <http://sonomacounty.ca.gov/Services/Web-Standards-and-Guidelines/>.
- 11.3. *Certification:* With each final deliverable intended for public distribution (report, presentations posted to the internet, public outreach materials), Consultant shall include a descriptive summary describing how all deliverable documents were assessed for accessibility (e.g., Microsoft Word accessibility check; Adobe Acrobat accessibility check, or other commonly accepted compliance check).
- 11.4. *Alternate Format:* When it is strictly impossible due to the unavailability of technologies required to produce an accessible document, Consultant shall identify the anticipated accessibility deficiency prior to commencement of any work to produce such deliverables. Consultant agrees to cooperate with Sonoma Water staff in the development of alternate document formats to maximize the facilitative features of the impacted document(s); e.g., embedding the document with alt-tags that describe complex data/tables.

- 11.5. *Noncompliant Materials; Obligation to Cure:* Remediation of any materials that do not comply with Sonoma Water's Web Site Accessibility Policy shall be the responsibility of Consultant. If Sonoma Water, in its sole and absolute discretion, determines that any deliverable intended for use or publication on any Sonoma Water managed or Sonoma Water funded Web site does not comply with Sonoma Water Accessibility Standards, Sonoma Water will promptly inform Consultant in writing. Upon such notice, Consultant shall, without charge to Sonoma Water, repair or replace the non-compliant materials within such period of time as specified by Sonoma Water in writing. If the required repair or replacement is not completed within the time specified, Sonoma Water shall have the right to do any or all of the following, without prejudice to Sonoma Water's right to pursue any and all other remedies at law or in equity:
- a. Cancel any delivery or task order
  - b. Terminate this Agreement pursuant to the provisions of Article 6 (Termination); and/or
  - c. In the case of custom Electronic and Information Technology (EIT) developed by Consultant for Sonoma Water, Sonoma Water may have any necessary changes or repairs performed by itself or by another contractor. In such event, Consultant shall be liable for all expenses incurred by Sonoma Water in connection with such changes or repairs.
- 11.6. *Sonoma Water's Rights Reserved:* Notwithstanding the foregoing, Sonoma Water may accept deliverables that are not strictly compliant with Sonoma Water Accessibility Standards if Sonoma Water, in its sole and absolute discretion, determines that acceptance of such products or services is in Sonoma Water's best interest.

## **12. REPRESENTATIONS OF CONSULTANT**

- 12.1. *Status of Consultant:* The parties intend that Consultant, in performing the services specified herein, shall act as an independent contractor and shall control the work and the manner in which it is performed. Consultant is not to be considered an agent or employee of Sonoma Water and is not entitled to participate in any pension plan, worker's compensation plan, insurance, bonus, or similar benefits Sonoma Water provides its employees. In the event Sonoma Water exercises its right to terminate this Agreement pursuant to Article 6 (Termination), Consultant expressly agrees that it shall have no recourse or right of appeal under rules, regulations, ordinances, or laws applicable to employees.
- 12.2. *No Suspension or Debarment:* Consultant warrants that it is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in covered transactions by any federal department or agency. Consultant also warrants that it is not suspended or debarred from receiving federal funds as listed in the List of Parties Excluded from Federal Procurement or Non-procurement Programs issued by the General Services Administration.



- 12.3. *Taxes:* Consultant agrees to file federal and state tax returns and pay all applicable taxes on amounts paid pursuant to this Agreement and shall be solely liable and responsible to pay such taxes and other obligations, including, but not limited to, state and federal income and FICA taxes. Consultant agrees to indemnify and hold Sonoma Water harmless from any liability which it may incur to the United States or to the State of California or to any other public entity as a consequence of Consultant's failure to pay, when due, all such taxes and obligations. In case Sonoma Water is audited for compliance regarding any withholding or other applicable taxes, Consultant agrees to furnish Sonoma Water with proof of payment of taxes on these earnings.
- 12.4. *Records Maintenance:* Consultant shall keep and maintain full and complete documentation and accounting records concerning all services performed that are compensable under this Agreement and shall make such documents and records available to Sonoma Water for inspection at any reasonable time. Consultant shall maintain such records for a period of four (4) years following completion of work hereunder.
- 12.5. *Conflict of Interest:* Consultant covenants that it presently has no interest and that it will not acquire any interest, direct or indirect, that represents a financial conflict of interest under state law or that would otherwise conflict in any manner or degree with the performance of its services hereunder. Consultant further covenants that in the performance of this Agreement no person having any such interests shall be employed. In addition, if required by law or requested to do so by Sonoma Water, Consultant shall submit a completed Fair Political Practices Commission Statement of Economic Interests (Form 700) with Sonoma Water within 30 calendar days after the Effective Date of this Agreement and each year thereafter during the term of this Agreement, or as required by state law.
- 12.6. *Statutory Compliance/Living Wage Ordinance:* Consultant agrees to comply, and to ensure compliance by its subconsultants or subcontractors, with all applicable federal, state and local laws, regulations, statutes and policies, including but not limited to the County of Sonoma Living Wage Ordinance, applicable to the services provided under this Agreement as they exist now and as they are changed, amended or modified during the term of this Agreement. Without limiting the generality of the foregoing, Consultant expressly acknowledges and agrees that this Agreement is subject to the provisions of Article XXVI of Chapter 2 of the Sonoma County Code, requiring payment of a living wage to covered employees. Noncompliance during the term of the Agreement will be considered a material breach and may result in termination of the Agreement or pursuit of other legal or administrative remedies.
- 12.7. *Nondiscrimination:* Consultant shall comply with all applicable federal, state, and local laws, rules, and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex,

marital status, age, medical condition, pregnancy, disability, sexual orientation or other prohibited basis. All nondiscrimination rules or regulations required by law to be included in this Agreement are incorporated herein by this reference.

- 12.8. *Assignment of Rights:* Consultant assigns to Sonoma Water all rights throughout the world in perpetuity in the nature of copyright, trademark, patent, right to ideas, in and to all versions of the plans and specifications, if any, now or later prepared by Consultant in connection with this Agreement. Consultant agrees to take such actions as are necessary to protect the rights assigned to Sonoma Water in this Agreement, and to refrain from taking any action which would impair those rights. Consultant's responsibilities under this provision include, but are not limited to, placing proper notice of copyright on all versions of the plans and specifications as Sonoma Water may direct, and refraining from disclosing any versions of the plans and specifications to any third party without first obtaining written permission of Sonoma Water. Consultant shall not use or permit another to use the plans and specifications in connection with this or any other project without first obtaining written permission of Sonoma Water.
- 12.9. *Ownership and Disclosure of Work Product:* All reports, original drawings, graphics, plans, studies, and other data or documents ("documents"), in whatever form or format, assembled or prepared by Consultant or Consultant's subcontractors, consultants, and other agents in connection with this Agreement shall be the property of Sonoma Water. Sonoma Water shall be entitled to immediate possession of such documents upon completion of the work pursuant to this Agreement. Upon expiration or termination of this Agreement, Consultant shall promptly deliver to Sonoma Water all such documents, which have not already been provided to Sonoma Water in such form or format as Sonoma Water deems appropriate. Such documents shall be and will remain the property of Sonoma Water without restriction or limitation. Consultant may retain copies of the above described documents but agrees not to disclose or discuss any information gathered, discovered, or generated in any way through this Agreement without the express written permission of Sonoma Water.

### **13. PREVAILING WAGES**

- 13.1. *General:* Consultant shall pay to any worker on the job for whom prevailing wages have been established an amount equal to or more than the general prevailing rate of per diem wages for (1) work of a similar character in the locality in which the work is performed and (2) legal holiday and overtime work in said locality. The per diem wages shall be an amount equal to or more than the stipulated rates contained in a schedule that has been ascertained and determined by the Director of the State Department of Industrial Relations and Sonoma Water to be the general prevailing rate of per diem wages for each craft or type of workman or mechanic needed to execute this Agreement. Consultant shall also cause a copy of this determination of the prevailing rate of per diem wages to be posted at each site work is being performed, in addition to all other

job site notices prescribed by regulation. Copies of the prevailing wage rate of per diem wages are on file at Sonoma Water and will be made available to any person upon request.

- 13.2. *Subcontracts:* Consultant shall insert in every subcontract or other arrangement which Consultant may make for performance of such work or labor on work provided for in the Agreement, provision that Subcontractor shall pay persons performing labor or rendering service under subcontract or other arrangement not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed in the Labor Code. Pursuant to Labor Code section 1775(b)(1), Consultant shall provide to each Subcontractor a copy of sections 1771, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code.
- 13.3. *Compliance Monitoring and Registration:* This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. Consultant shall furnish and shall require all subcontractors to furnish the records specified in Labor Code section 1776 (e.g. electronic certified payroll records) directly to the Labor Commissioner in a format prescribed by the Labor Commissioner at least monthly (Labor Code 1771.4 (a)(3)). Consultant and all subcontractors performing work that requires payment of prevailing wages shall be registered and qualified to perform public work pursuant to Labor Code section 1725.5 as a condition to engage in the performance of any services under this Agreement.
- 13.4. *Compliance with Law:* In addition to the above, Consultant stipulates that it shall comply with all applicable wage and hour laws, including without limitation Labor Code sections 1725.5, 1775, 1776, 1777.5, 1813, and 1815 and California Code of Regulations, Title 8, section 16000, et seq.

#### **14. DEMAND FOR ASSURANCE**

- 14.1. Each party to this Agreement undertakes the obligation that the other's expectation of receiving due performance will not be impaired. When reasonable grounds for insecurity arise with respect to the performance of either party, the other may in writing demand adequate assurance of due performance and until such assurance is received may, if commercially reasonable, suspend any performance for which the agreed return has not been received. "Commercially reasonable" includes not only the conduct of a party with respect to performance under this Agreement, but also conduct with respect to other agreements with parties to this Agreement or others. After receipt of a justified demand, failure to provide within a reasonable time, but not exceeding thirty (30) days, such assurance of due performance as is adequate under the circumstances of the particular case is a repudiation of this Agreement. Acceptance of any improper delivery, service, or payment does not prejudice the

aggrieved party's right to demand adequate assurance of future performance. Nothing in this Article 14 limits Sonoma Water's right to terminate this Agreement pursuant to Article 6 (Termination).

## 15. **ASSIGNMENT AND DELEGATION**

15.1. *Consent:* Neither party hereto shall assign, delegate, sublet, or transfer any interest in or duty under this Agreement without the prior written consent of the other, and no such transfer shall be of any force or effect whatsoever unless and until the other party shall have so consented.

15.2. *Subcontracts:* Notwithstanding the foregoing, Consultant may enter into subcontracts with the subconsultants specifically identified herein. If no subconsultants are listed, then no subconsultants will be utilized in the performance of the work specified in this Agreement. Approved subconsultants are as follows:

<i>Name</i>	<i>Type of Services</i>	<i>Prevailing Wages Apply? Y/N</i>
LACO Associates	Land Survey	
Quantum Spatial, Inc.	Survey Data Collection	

15.3. *Change of Subcontractors or Subconsultants:* If, after execution of the Agreement, parties agree that subconsultants not listed in Paragraph 15.2 will be utilized, Consultant may enter into subcontracts with subconsultants to perform other specific duties pursuant to the provisions of this Paragraph 15.3. The following provisions apply to any subcontract entered into by Consultant other than those listed in Paragraph 15.2:

- a. Prior to entering into any contract with subconsultant, Consultant shall obtain Sonoma Water approval of subconsultant.
- b. All agreements with subconsultants shall (a) contain indemnity requirements in favor of Sonoma Water in substantially the same form as that contained in Article 7 (Indemnification), (b) contain language that the subconsultant may be terminated with or without cause upon reasonable written notice, and (c) prohibit the assignment or delegation of work under the agreement to any third party.

15.4. *Summary of Subconsultants' Work:* Consultant shall provide Sonoma Water with a summary of work performed by subconsultants with each invoice submitted under Paragraph 4.3. Such summary shall identify the individuals performing work on behalf of subconsultants and the total amount paid to subconsultant, broken down by the tasks listed in the Scope of Work.

**16. METHOD AND PLACE OF GIVING NOTICE, SUBMITTING BILLS, AND MAKING PAYMENTS**

- 16.1. *Method of Delivery:* All notices, bills, and payments shall be made in writing and shall be given by personal delivery, U.S. Mail, courier service, or electronic means. Notices, bills, and payments shall be addressed as specified in Paragraph 3.2.
- 16.2. *Receipt:* When a notice, bill, or payment is given by a generally recognized overnight courier service, the notice, bill, or payment shall be deemed received on the next business day. When a copy of a notice, bill, or payment is sent by electronic means, the notice, bill, or payment shall be deemed received upon transmission as long as (1) the original copy of the notice, bill, or payment is deposited in the U.S. mail and postmarked on the date of the electronic transmission (for a payment, on or before the due date), (2) the sender has a written confirmation of the electronic transmission, and (3) the electronic transmission is transmitted before 5 p.m. (recipient's time). In all other instances, notices, bills, and payments shall be effective upon receipt by the recipient. Changes may be made in the names and addresses of the person to whom notices are to be given by giving notice pursuant to this Article 16.

**17. MISCELLANEOUS PROVISIONS**

- 17.1. *No Bottled Water:* In accordance with Sonoma Water Board of Directors Resolution No. 09-0920, dated September 29, 2009, no Sonoma Water funding shall be used to purchase single-serving, disposable water bottles for use in Sonoma Water facilities or at Sonoma Water-sponsored events. This restriction shall not apply when potable water is not available.
- 17.2. *No Waiver of Breach:* The waiver by Sonoma Water of any breach of any term or promise contained in this Agreement shall not be deemed to be a waiver of such term or promise or any subsequent breach of the same or any other term or promise contained in this Agreement.
- 17.3. *Construction:* To the fullest extent allowed by law, the provisions of this Agreement shall be construed and given effect in a manner that avoids any violation of statute, ordinance, regulation, or law. The parties covenant and agree that in the event that any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions hereof shall remain in full force and effect and shall in no way be affected, impaired, or invalidated thereby. Consultant and Sonoma Water acknowledge that they have each contributed to the making of this Agreement and that, in the event of a dispute over the interpretation of this Agreement, the language of the Agreement will not be construed against one party in favor of the other. Consultant and Sonoma Water acknowledge that they have each had an adequate opportunity to consult with counsel in the negotiation and preparation of this Agreement.

- 17.4. *Consent:* Wherever in this Agreement the consent or approval of one party is required to an act of the other party, such consent or approval shall not be unreasonably withheld or delayed.
- 17.5. *No Third-Party Beneficiaries:* Except as provided in Article 7 (Indemnification), nothing contained in this Agreement shall be construed to create and the parties do not intend to create any rights in third parties.
- 17.6. *Applicable Law and Forum:* This Agreement shall be construed and interpreted according to the substantive law of California, regardless of the law of conflicts to the contrary in any jurisdiction. Any action to enforce the terms of this Agreement or for the breach thereof shall be brought and tried in Santa Rosa or in the forum nearest to the City of Santa Rosa, in the County of Sonoma.
- 17.7. *Captions:* The captions in this Agreement are solely for convenience of reference. They are not a part of this Agreement and shall have no effect on its construction or interpretation.
- 17.8. *Merger:* This writing is intended both as the final expression of the Agreement between the parties hereto with respect to the included terms and as a complete and exclusive statement of the terms of the Agreement, pursuant to Code of Civil Procedure section 1856. Each Party acknowledges that, in entering into this Agreement, it has not relied on any representation or undertaking, whether oral or in writing, other than those which are expressly set forth in this Agreement. No modification of this Agreement shall be effective unless and until such modification is evidenced by a writing signed by both parties.
- 17.9. *Survival of Terms:* All express representations, waivers, indemnifications, and limitations of liability included in this Agreement will survive its completion or termination for any reason.
- 17.10. *Time of Essence:* Time is and shall be of the essence of this Agreement and every provision hereof.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date last signed by the parties to the Agreement.

Reviewed as to funds:

TW 20/21-005

By: \_\_\_\_\_  
Sonoma County Water Agency  
Division Manager - Administrative  
Services

Approved as to form:

By: \_\_\_\_\_  
Adam Brand, Deputy County Counsel

Insurance Documentation is on file with  
Sonoma Water

Date/TW Initials: \_\_\_\_\_

**Sonoma County Water Agency**

**Environmental Science Associates, a**  
California corporation

By: \_\_\_\_\_  
Grant Davis  
General Manager  
Authorized per Boards of Directors  
Action on January 5, 2021

By: \_\_\_\_\_  
\_\_\_\_\_  
(Please print name here)

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

DIR Registration #: \_\_\_\_\_

# **Exhibit A**

## **Scope of Work**

### **1. TASKS**

- 1.1. Task 1: Field Reconnaissance and Topographic Ground Survey
  - a. Conduct three days of field reconnaissance to identify key geomorphic features and identify potential issues to consider for the ground and topobathymetric surveys.
    - i. Generate preliminary estimates of roughness in the channel and overbank areas to guide development of the hydraulic model
    - ii. Document channel roughness and ensure details needed for the modeling are captured
  - b. Develop a survey plan to identify structures and preliminary survey cross-sections to be surveyed and identify potential channel access routes. Include up to 30 structures along Sonoma Creek, Nathanson Creek, and Fryer Creek in areas highlighted “New Model Coverage” as shown in Exhibit D (Location Map).
  - c. Prepare a field reconnaissance and survey plan that includes, but is not limited to, the items below:
    - i. Findings of the field reconnaissance, including summary of key geomorphic features and preliminary estimates of roughness
    - ii. Structure and cross section survey plan
    - iii. Preliminary channel survey access plan
    - iv. Topo-bathymetric survey specifications and flight timing coordination plan
    - v. Other information to support the summary or as requested by Sonoma Water
    - vi. Review. Submit to Sonoma Water for review.
      - a) First Draft: Prepare the summary in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return the draft summary to Consultant with comments or approval in writing.
      - b) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft summary and resubmit for Sonoma Water approval.
    - vii. Final: Following Sonoma Water approval and prior to Sonoma Water’s acceptance of work under this Agreement, submit the final approved summary to Sonoma Water in accordance with the date listed for this deliverable.
  - d. Collect the topo-bathymetric survey as shown in Exhibit E (Topo-bathymetric LiDAR Limits Map) upon receiving written notice to proceed from Sonoma Water. Minimum specifications for LiDAR shall include pulse rate of 15



pulses/square meter, vertical accuracy  $RMSE_z$  less than or equal to 5 cm for non-bathymetric areas, and a horizontal accuracy RMSE less than or equal to 30cm.

- i. Produce a high-resolution topo-bathymetric data set
- ii. Collect geo-spatial aircraft positional coordinate data using either conventional base supported survey control, TerraPos Precise Point Positioning, or Trimble Center Point Post-Processed Real-Time Extended methods
- iii. Collect ground check points using real-time kinematic survey techniques
- iv. Collect 5 non-vegetated vertical accuracy (NVA), 20 vegetated vertical accuracy (VVA), and 20 bathymetric checkpoints evenly distributed across the LiDAR limits. Collect bathymetric checkpoints in varying depths of water
- e. Provide Topo-bathymetric geospatial data products including:
  - i. LiDAR Point Cloud –classified returns, in Las 1.4 format
  - ii. Topo-bathymetric Bare Earth Digital Elevation Model (DEM), 3-foot resolution, ERDAS IMG format
  - iii. Highest Hit Digital Surface Model (DSM), 3-foot resolution, ERDAS IMG format
  - iv. Intensity Images, 1.5-foot resolution, GeoTiff format
  - v. Bathymetric Coverage Polygon, shapefile format
- f. Prepare Topo-bathymetric LiDAR technical data report to be included in the Report in Task 3.
  - i. Contents. Prepare a report that includes, but is not limited to, the items below.
    - a) Table of Contents
    - b) Overview
    - c) Description of the process of planning and summary of methods for data collection, including ground survey, airborne survey, LiDAR data processing, and LiDAR point classification, and orthophoto processing
    - d) Results of the data collection
    - e) Accuracy assessment
    - f) An animation for each event modeled and a PDF mapbook of flood inundation extents for each event at a 1:24,000 scale
    - g) A detailed description of the work performed, including methodology, literature reviewed, and individuals and agencies contacted
    - h) Other information to support the report information or as requested by Sonoma Water
    - i) Appendices including Field Survey Data Report and LiDAR Final Project Report described in Task 1.

- ii. Review. Submit to Sonoma Water for review.
  - a) First Draft: Prepare the report in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return the draft report to Consultant with comments or approval in writing.
  - b) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft report and resubmit for Sonoma Water approval.
- iii. Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved report to Sonoma Water in accordance with the date listed for this deliverable.
- g. Establish survey control for the LiDAR flight using physical ground control monuments with a survey accuracy of less than or equal to 2cm RMSE<sub>xyz</sub>. In addition to standard field survey, collect supplemental survey, including:
  - i. A minimum of five non-vegetated vertical accuracy (NVA),
  - ii. 20 vegetated vertical accuracy (VVA) of varying vegetation type
  - iii. 20 bathymetric checkpoints evenly distributed across the LiDAR coverage area
- h. Coordinate property access for channel survey by mailing a notification to property owners adjacent to the bridge structures. The notification will contain contact information, purpose of survey, and estimated dates of survey. On day of survey, survey team will knock on doors to inform property owners of the survey and follow current public health orders related to COVID-19.
- i. Conduct a ground survey to collect structure geometry and channel cross-sections at the upstream and downstream face of each structure.
  - i. Use a combination of Total Station and Real-Time-Kinetic GPS survey equipment
  - ii. Bridge structure data to fully define structures in hydraulic model including but not limited to deck, high chord, low chord, abutment, piers, and any other obstructions to flow.
  - iii. At each cross-section, collect photographs facing upstream, downstream, left bank, right bank, and channel bed.
  - iv. Provide a georeferenced database of the photographs to Sonoma Water.
- j. Compile and assess the survey data. Provide the quality-controlled data to Sonoma Water along with a shapefile and comma-delimited Excel file in PNEZD format of the survey points.
- k. Prepare a field survey data report signed and stamped by a Licensed Land Surveyor that includes, but is not limited to, the items below:
  - i. Table of Contents
  - ii. Plan and profile views of each structure
  - iii. Field survey notes and photographs

- iv. Benchmarks,
- v. Control points
- vi. Raw data
- vii. Coordinates
- viii. Review. Submit to Sonoma Water for review.
  - a) First Draft: Prepare the report in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return the draft report to Consultant with comments or approval in writing.
  - b) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft report and resubmit for Sonoma Water approval.
- ix. Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved report to Sonoma Water in accordance with the date listed for this deliverable.

<b>Deliverable</b>	<b>Due Date</b>
Draft summary of reconnaissance and survey plan	Within 2 weeks of Effective Date
Final summary of reconnaissance and survey plan	Within 7 calendar days of Sonoma Water approval of draft
Topo-bathymetric geospatial data products	Within 45 calendar days of Sonoma Water notice to proceed with LiDAR acquisition
Draft Topo-bathymetric project report and FGDC-compliant metadata	Within 45 calendar days of Sonoma Water notice to proceed with LiDAR acquisition
Final Topo-bathymetric project report and FGDC-compliant metadata	Within 7 calendar days of Sonoma Water approval of draft
Georeferenced database of survey photographs	Within 180 calendar days of submittal of final summary of reconnaissance and survey plan
Post-processed and quality-controlled topographic survey point data in GIS and Excel	Within 180 calendar days of submittal of final summary of reconnaissance and survey plan
Draft field survey data report	??
Field survey data report	Within 180 calendar days of submittal of final summary of reconnaissance and survey plan

- 1.2. Task 2: Develop Coupled Hydrologic-Hydraulic Model of Sonoma Valley Watershed and Sonoma Creek Channel and Floodplain
  - a. Hydrologic model development

- i. Review model inputs in accordance with the updated Sonoma Water Draft Flood Management Design Manual.
  - ii. Update flood frequency at Agua Caliente gage by conducting updated flood frequency analysis to include flow years since 2007, and updating using the Bulletin 17C methodology released in 2018 by the USGS. Conduct a screening level flood frequency analysis for the Kenwood USGS gage.
  - iii. Update model version by running the model in the latest version of HEC-HMS (v4.3 as of June, 2019). Provide to Sonoma Water the final GIS files used for hydrologic model development.
  - iv. After coupled model calibration in Task 1.2.c is complete, provide a digital copy of the HEC-HMS model files with initial and calibrated parameter estimates to Sonoma Water.
- b. Hydraulic model development
- i. Develop baseline 1D/2D hydraulic model in HEC-RAS latest model version consistent with extents shown in Exhibit D (Location Map). Topographic and structure survey data will be incorporated to represent 1D channel in addition to newly acquired topobathymetric LiDAR data to supplement 1D channel areas and 2D overbank areas.
  - ii. Integrate the hydraulic model with Kenwood model shown in Exhibit D.
  - iii. Integrate the hydraulic model with Lower Sonoma Creek restoration model by extending the coupled model to Highway 121 using cross-sections provided by Southern Sonoma County RCD from data collected in 1998.
  - iv. Integrate the hydraulic model with Sonoma City Watersheds model by integrating cross section and structure data from the open channel elements of the MIKE-URBAN and MIKE-FLOOD model. Utilize newly acquired topobathymetric LiDAR data to fill in missing gaps in 1D channels for Nathanson and Fryer Creeks between Sonoma City Watersheds model and confluence with Sonoma Creek.
- c. Coupled model calibration
- i. Directly couple the hydrologic and hydraulic models and calibrate to observed and statistical events at the USGS gages at Agua Caliente (#11458500) and Kenwood (#11458433) and other OneRain stage gages as appropriate.
  - ii. Link the subbasin flow output from the HMS model as boundary condition input to the hydraulic model.
    - a) Model tributaries and other major direct inflows to creeks as direct lateral inflows.
    - b) Model basins that straddle creeks as uniform lateral inflows.
  - iii. Update the prior model calibration for the New Year's Eve 2005 event for the Agua Caliente gage.

- iv. Calibrate the model to USGS gages at Kenwood, Agua Caliente, and Nathanson Creek and other OneRain stage gages as appropriate for the large flood event that occurred on February 25-27, 2019. Incorporate new rainfall gages that were installed after the New Year's Eve 2005 event including OneRain rainfall gages.
  - a) Use the February 25-27, 2019, event to calibrate the drainage above the Kenwood gage, and validate the model to the Agua Caliente gage.
  - b) Use the coupled model to route flows and calibrate to these events.
- d. After the models have been developed and an initial round of calibration is completed, hold an in-person Calibration Review meeting with Sonoma Water to provide an overview and detailed summary of the model results.
  - i. Prepare and distribute meeting agendas.
  - ii. Prepare meeting minutes.
    - a) Review. Submit to Sonoma Water for review.
      - i) First Draft: Prepare meeting minutes in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return 1 copy of the draft meeting minutes to Consultant with comments or approval in writing.
      - ii) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft meeting minutes and resubmit one electronic copy of the meeting minutes for Sonoma Water approval.
    - b) Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved this deliverable.
  - iii. Provide a draft of the model results and preliminary model version to Sonoma Water in advance of the meeting.
    - a) Review. Submit to Sonoma Water for review.
      - i) First Draft: Prepare model results and preliminary model version in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return 1 copy of the draft model results and preliminary model version to Consultant with comments or approval in writing.
      - ii) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft model results and preliminary model version and resubmit one electronic copy of the model results and preliminary model version for Sonoma Water approval.
    - b) Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved this deliverable.
- iv. After coupled model calibration in Task 1.2.c is complete, provide a digital copy of the calibrated baseline conditions HEC-RAS model files.

- e. Run final calibrated model for a range of flow scenarios including the 50%, 20%, 10%, 2%, 1%, and 0.2% annual exceedance probability events.
- f. Hold an in-person Final Model Review meeting with Sonoma Water to provide an overview and detailed summary of the model results.
  - i. Prepare and distribute meeting agendas.
  - ii. Prepare meeting minutes.
    - a) Review. Submit to Sonoma Water for review.
      - i) First Draft: Prepare meeting minutes in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return 1 copy of the draft meeting minutes to Consultant with comments or approval in writing.
      - ii) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft meeting minutes and resubmit one electronic copy of the meeting minutes for Sonoma Water approval.
    - b) Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved this deliverable.
  - iii. Provide final model results in advance of the meeting.
    - a) Review. Submit to Sonoma Water for review.
      - i) First Draft: Prepare model results and preliminary model version in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return 1 copy of the draft model results and preliminary model version to Consultant with comments or approval in writing.
      - ii) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft model results and preliminary model version and resubmit one electronic copy of the model results and preliminary model version for Sonoma Water approval.
    - b) Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved this deliverable.
  - iv. Provide a copy of the final models to Sonoma Water at the conclusion of the work.

<b>Deliverable</b>	<b>Due Date</b>
Calibration Review Meeting agenda	Model review meeting to be held within 120 calendar days of completion of field and aerial survey. Meeting agenda to be distributed three days in advance of meeting.
Calibration Review Draft meeting minutes	Within 7 calendar days of Calibration Review meeting.

Calibration Review Final meeting minutes	Within 7 calendar days of Sonoma Water's approval of draft
Preliminary model files for Initial Calibration Meeting	Within 7 calendar days of Calibration Review Meeting
Final Model Review Meeting agenda	Final Model Review meeting to be held within 60 calendar days of Calibration Review meeting. Meeting agenda to be distributed three days in advance of meeting.
Final Model Review meeting Draft minutes	Within 7 calendar days of Final Model Review meeting.
Final Model Review meeting Final minutes	Within 7 calendar days of Sonoma Water's approval of draft
Final model results and preliminary model version	Within 7 calendar days of Final Model Review meeting.
Final GIS files used for hydrologic model development & HEC-HMS model with initial and calibrated parameter estimates	Within 7 calendar days of Final Model Review meeting.
Digital copy of the calibrated baseline conditions HEC-RAS model	Within 7 calendar days of Final Model Review meeting.

### 1.3. Task 3: Reporting

- a. Develop a report to document the development and results of the coupled hydrologic-hydraulic model.
  - i. Contents. Prepare a report that includes, but is not limited to, the items below.
    - a) Table of Contents
    - b) Description of the process and methods of data collection, model development, model calibration, and key results and conclusions
    - c) An animation for each event modeled and a PDF mapbook of flood inundation extents for each event at a 1:24,000 scale
    - d) A detailed description of the work performed, including methodology, literature reviewed, and individuals and agencies contacted
    - e) Other information to support the report information or as requested by Sonoma Water
    - f) Appendices including Field Survey Data Report and LiDAR Final Project Report described in Task 1.
  - ii. Review. Submit to Sonoma Water for review.
    - a) First Draft: Prepare the report in draft form and submit to Sonoma Water for review and approval in accordance with the date listed for this deliverable. Sonoma Water will return the draft report to Consultant with comments or approval in writing.

- b) Subsequent Draft(s): If Sonoma Water requests revisions, revise the draft report and resubmit for Sonoma Water approval.
- iii. Final: Following Sonoma Water approval and prior to Sonoma Water's acceptance of work under this Agreement, submit the final approved report to Sonoma Water in accordance with the date listed for this deliverable.

Deliverable	Due Date
Draft Report	Within 30 calendar days of Final Model Review Meeting
Final Report	Within 7 calendar days of Sonoma Water's approval of draft

- 1.4. Task 4: Kickoff Meeting and Progress Calls
  - a. Conduct an in-person kickoff meeting to discuss project roles, milestones, key deliverables, and schedule.
  - b. Prepare and distribute meeting agendas.
  - c. Prepare and distribute meeting minutes.
- 1.5. Conduct monthly coordination and progress calls with Sonoma Water. Task 5: Monthly Reports
  - a. Prepare monthly reports. Submit to Sonoma Water in accordance with the date listed for this deliverable.
  - b. Include the following in each monthly report:
    - i. A detailed list of work performed
    - ii. Dates and subject of meetings conducted, meeting attendees, and summary of meeting results
    - iii. Other information as appropriate or as requested by Sonoma Water

Deliverable	Due Date
Monthly Report	Monthly with invoices

- 1.6. Optional Task 6: Additional Services
  - a. Do not proceed with this task unless requested in writing by Sonoma Water.
  - b. Perform additional services as requested by Sonoma Water to support the work under this Agreement. The additional services will be agreed to by Consultant and Sonoma Water and described in writing by Sonoma Water.

Deliverable	Due Date
To be determined	To be determined

## 2. **DELIVERABLES**

- 2.1. In addition to requirements above, submit one electronic copy in PDF format (emailed, on USB flash drive, or via internet) of each final deliverable to Sonoma Water.



2.2. Comply with requirements of Article 11 (Content Online Accessibility).

## Exhibit B

### Schedule of Costs

PERSONNEL	
Title	Hourly Rates not Subject to Prevailing Wage
Senior Director II	\$280
Managing Associate /Technical Associate II	\$190
Senior Associate II	\$160
Senior Associate I	\$150
Associate III	\$135
Associate II	\$125
Project Technician	\$85
PREVAILING WAGES	
For work subject to prevailing wage rates, the hourly rate charged will be equivalent to the prevailing wage rate applicable to the work performed by each laborer.	
EXPENSES	
Item	Cost
Subconsultant: LACO	at cost plus 10%, not to exceed \$86,900
Subconsultant: QSI	at cost plus 10%, not to exceed \$156,200
Copies	\$0.10 per page
Postage	at cost
Overnight mail	at cost
Mileage for personal car	Current IRS rate

# Exhibit C

## Estimated Budget for Scope of Work

Labor Category		Senior Director II	Managing Associate II	Senior Associate II	Senior Associate I	Associate III	Associate II	Subtotal	Project Technician I	Subtotal	Total Hours	Labor Price
Task #	Task Name/Description	\$ 280	\$ 190	\$ 160	\$ 150	\$ 135	\$ 125		\$ 85			
1.1	Survey and reconnaissance	2	32	68	40	12	0	\$ 25,140	0	\$ -	154.00	\$ 25,140
1.2	Property access coordination	8	12		0	8	0	\$ 5,600	0	\$ -	28.00	\$ 5,600
2.1	Hydrologic modeling	6	24	60	0	0	0	\$ 15,840	0	\$ -	90.00	\$ 15,840
2.2	Hydraulic model development	0	36	220	0	0	0	\$ 42,040	0	\$ -	256.00	\$ 42,040
2.3	Model calibration - 2005 event	12	94	200	0	0	0	\$ 53,220	0	\$ -	306.00	\$ 53,220
3.0	Reporting	36	64	84	16	0	0	\$ 38,080	16	\$ 1,360	216.00	\$ 39,440
4.0	Project management and meetings	27	45	0	0	0	0	\$ 16,110	0	\$ -	72.00	\$ 16,110
								\$ -		\$ -	-	\$ -
Total Hours		91	307	632	56	20	-	1106	16	16	1,122	
Total Labor Costs		\$ 25,480	\$ 58,330	\$ 101,120	\$ 8,400	\$ 2,700	\$ -	\$ 196,030	\$ 1,360	\$ 1,360		\$ 197,390
Percent of Effort - Labor Hours Only		8.1%	27.4%	56.3%	5.0%	1.8%	0.0%	98.6%	1.4%	1.4%	100.0%	
Percent of Effort - Total Project Cost		5.7%	13.2%	22.8%	1.9%	0.6%	0.0%		0.3%			44.5%

ESA Labor Cost \$ 197,390

ESA Non-Labor Expenses

Reimbursable Expenses \$ 2,729

ESA Equipment Usage

Subtotal ESA Non-Labor Expenses \$ 2,729

Subconsultant Costs (subconsultant fee + ESA markup) \$ 243,100

**PROJECT TOTAL \$ 443,219**

## Exhibit D

### Location Map



## Exhibit E

### Topobathymetric LiDAR Limits Map



*Topobathymetric LiDAR survey limits outlined in red above is approximately 48 square miles (30,828 acres)*



## **Exhibit F**

### **Insurance Requirements**

With respect to performance of work under this Agreement, Consultant shall maintain and shall require all of its subcontractors, consultants, and other agents to maintain insurance as described below unless such insurance has been expressly waived by the attachment of a *Waiver of Insurance Requirements*. Any requirement for insurance to be maintained after completion of the work shall survive this Agreement.

Sonoma Water reserves the right to review any and all of the required insurance policies and/or endorsements, but has no obligation to do so. Failure to demand evidence of full compliance with the insurance requirements set forth in this Agreement or failure to identify any insurance deficiency shall not relieve Consultant from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Agreement.

#### **1. INSURANCE**

##### **1.1. Workers Compensation and Employers Liability Insurance**

- a. Required if Consultant has employees as defined by the Labor Code of the State of California.
- b. If Consultant currently has no employees as defined by the Labor Code of the State of California, Consultant agrees to obtain the above-specified Workers Compensation and Employers' Liability insurance should employees be engaged during the term of this Agreement or any extensions of the term.

##### **1.2. General Liability Insurance**

- a. Commercial General Liability Insurance on a standard occurrence form, no less broad than Insurance Services Office (ISO) form CG 00 01.
- b. Minimum Limits: \$1,000,000 per Occurrence; \$2,000,000 General Aggregate; \$2,000,000 Products/Completed Operations Aggregate. The required limits may be provided by a combination of General Liability Insurance and Commercial Excess or Commercial Umbrella Liability Insurance. If Consultant maintains higher limits than the specified minimum limits, Sonoma Water requires and shall be entitled to coverage for the higher limits maintained by Consultant.
- c. Any deductible or self-insured retention shall be shown on the Certificate of Insurance. If the deductible or self-insured retention exceeds \$25,000 it must be approved in advance by Sonoma Water. Consultant is responsible for any deductible or self-insured retention and shall fund it upon Sonoma Water's written request, regardless of whether Consultant has a claim against the insurance or is named as a party in any action involving Sonoma Water.

- d. Sonoma County Water Agency, its officers, agents, and employees, shall be endorsed as additional insureds for liability arising out of operations by or on behalf of Consultant in the performance of this Agreement.
- e. The insurance provided to the additional insureds shall be primary to, and non-contributory with, any insurance or self-insurance program maintained by them.
- f. The policy definition of “insured contract” shall include assumptions of liability arising out of both ongoing operations and the products-completed operations hazard (broad form contractual liability coverage including the “f” definition of insured contract in Insurance Services Office form CG 00 01, or equivalent).
- g. The policy shall cover inter-insured suits between the additional insureds and Consultant and include a “separation of insureds” or “severability” clause which treats each insured separately.
- h. Required Evidence of Insurance:
  - i. Copy of the additional insured endorsement or policy language granting additional insured status, and
  - ii. Certificate of Insurance.

#### 1.3. Automobile Liability Insurance

- a. Minimum Limit: \$1,000,000 combined single limit per accident. The required limit may be provided by a combination of Automobile Liability Insurance and Commercial Excess or Commercial Umbrella Liability Insurance.
- b. Insurance shall cover all owned autos. If Consultant currently owns no autos, Consultant agrees to obtain such insurance should any autos be acquired during the term of this Agreement or any extensions of the term.
- c. Insurance shall cover hired and non-owned autos.
- d. Required Evidence of Insurance: Certificate of Insurance.

#### 1.4. Professional Liability/Errors and Omissions Insurance

- a. Minimum Limit: \$1,000,000 per claim or per occurrence; \$1,000,000 annual aggregate.
- b. Any deductible or self-insured retention shall be shown on the Certificate of Insurance. If the deductible or self-insured retention exceeds \$25,000 it must be approved in advance by Sonoma Water.
- c. If Consultant’s services include: (1) programming, customization, or maintenance of software: or (2) access to individuals’ private, personally identifiable information, the insurance shall cover:
  - i. Breach of privacy; breach of data; programming errors, failure of work to meet contracted standards, and unauthorized access; and
  - ii. Claims against Consultant arising from the negligence of Consultant, Consultant’s employees and Consultant’s subcontractors.

- d. If the insurance is on a Claims-Made basis, the retroactive date shall be no later than the commencement of the work.
- e. Coverage applicable to the work performed under this Agreement shall be continued for two (2) years after completion of the work. Such continuation coverage may be provided by one of the following: (1) renewal of the existing policy; (2) an extended reporting period endorsement; or (3) replacement insurance with a retroactive date no later than the commencement of the work under this Agreement.
- f. Required Evidence of Insurance: Certificate of Insurance specifying the limits and the claims-made retroactive date.

#### 1.5. Standards for Insurance Companies

- a. Insurers, other than the California State Compensation Insurance Fund, shall have an A.M. Best's rating of at least A:VII.

#### 1.6. Documentation

- a. The Certificate of Insurance must include the following reference:  
TW 20/21-005.
- b. All required Evidence of Insurance shall be submitted prior to the execution of this Agreement. Consultant agrees to maintain current Evidence of Insurance on file with Sonoma Water for the entire term of this Agreement and any additional periods if specified in Sections 1.1, 1.2, 1.3, or 1.4, above.
- c. The name and address for mailing Additional Insured endorsements and Certificates of Insurance is: Sonoma County Water Agency, 404 Aviation Boulevard, Santa Rosa, CA 95403-9019.
- d. Required Evidence of Insurance shall be submitted for any renewal or replacement of a policy that already exists, at least ten (10) days before expiration or other termination of the existing policy.
- e. Consultant shall provide immediate written notice if: (1) any of the required insurance policies is terminated; (2) the limits of any of the required policies are reduced; or (3) the deductible or self-insured retention is increased.
- f. Upon written request, certified copies of required insurance policies must be provided within thirty (30) days.

#### 1.7. Policy Obligations

- a. Consultant's indemnity and other obligations shall not be limited by the foregoing insurance requirements.

#### 1.8. Material Breach

- a. If Consultant fails to maintain insurance which is required pursuant to this Agreement, it shall be deemed a material breach of this Agreement. Sonoma Water, at its sole option, may terminate this Agreement and obtain damages from Consultant resulting from said breach. Alternatively, Sonoma Water may purchase the required insurance, and without further notice to



Consultant, Sonoma Water may deduct from sums due to Consultant any premium costs advanced by Sonoma Water for such insurance. These remedies shall be in addition to any other remedies available to Sonoma Water.