

SAMPLE Agreement for Engineering and Design Services for Eel-Russian Facility Planning and Design Project

This agreement (“Agreement”) is by and between **Sonoma County Water Agency** (“Sonoma Water”) and **McMillen, Inc.**, an Idaho 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.

RECITALS

- A. Consultant certifies that it is an Idaho corporation duly authorized to do business in the State of California, registered with the Secretary of State of California, and represents that it is a duly qualified and licensed engineering firm, experienced in engineering and design of water diversion facilities and related services.
- B. For over 100 years, the Potter Valley Project (PVP) has provided a critical source of water for over 650,000 people in Mendocino, Sonoma, and Marin counties and for threatened and endangered fish in the Russian River.
- C. Pacific Gas & Electric Company (PG&E) releases water from Lake Pillsbury to meet minimum instream flow requirements on the Eel River and to divert water through the PVP to generate electricity and maintain minimum instream flow requirements in the East Fork Russian River.
- D. PG&E’s current project license for the PVP expired in April 2022; the future of the PVP is unclear, and it is uncertain if the transfer of water from the Eel River to the Russian River will continue.
- E. The preferred alternative, the New Eel-Russian Facility (NERF), will include substantial removal of Cape Horn Dam, construction of a pump station, and modification of the Van Arsdale tunnel intake infrastructure on the Eel River. The NERF will be operated as a run-of-the-river facility – diverting flow from the Eel to the Russian River basin in a manner that protects the ecological integrity of the Eel River.
- F. This agreement is funded in part by the United States Bureau of Reclamation (Reclamation) WaterSMART Aquatic Ecosystem Restoration Grant Program (AERP).
- G. Under this Agreement, Consultant will advance the NERF to 60% design level or greater.

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 and are incorporated herein.

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 and Submittals.
- c. Exhibit C: Sonoma Water Standards.
- d. Exhibit D: Map
- e. Exhibit E: Schedule of Costs.
- f. Exhibit F: Estimated Budget for Scope of Work.
- g. Exhibit G: Federal Terms and Conditions.
- h. Exhibit H: Insurance Requirements.

3. SCOPE OF SERVICES

3.1. *Consultant’s Specified Services:* Consultant shall perform the services and provide submittals outlined in Exhibit A (Scope of Work) within the times or by the dates provided for in Exhibit B (Schedule and Submittals) and pursuant to Exhibit C (Sonoma Water Standards) and Article 9 (Prosecution of Work). In the event of a conflict between the body of this Agreement and Exhibit A (Scope of Work) or Exhibit C (Sonoma Water Standards), 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, except assistance during construction, with Sonoma Water’s Project Manager. Consultant shall coordinate assistance during construction with Sonoma Water’s Construction Management Principal Engineer. Contact information and mailing addresses:

Sonoma Water	Consultant
Project Manager: David Manning Phone: 707-547-1988 Email: David.Manning@scwa.ca.gov	Contact: Kevin Jensen 1471 Shoreline Drive, Suite 100 Boise, Idaho 83702 Phone: 208-914-1337 Email: jensen@mcmillen.com
Contract Manager: Brad Elliott Phone: 707-547-1060 Email: belliott@scwa.ca.gov	
404 Aviation Boulevard Santa Rosa, California 95403-9019	
Remit invoices to:	Remit payments to:

Sonoma Water	Consultant
Accounts Payable Same address as above Email: ap.agreements@scwa.ca.gov	Marci Mickelsen 1471 Shoreline Drive, Suite 100 Boise, ID 83702 Phone: 208-985-1531 Email: mickelsen@mcmillen.com

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. [TBD]
- c. With respect to performance under this Agreement, Consultant shall employ the following key personnel:

<i>Title</i>	<i>Name</i>
Senior Project Manager - Civil	Kevin Jensen

- 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 \$1,999,861.
 - a. Total costs shall not be exceeded, regardless of whether it takes Consultant more time to complete or costs more than anticipated.
- 4.2. *Method of Payment:* Consultant shall be paid in accordance with the following terms:
 - a. Consultant shall be paid in accordance with Exhibit D (Schedule of Costs). Billed hourly rates shall include all costs for overhead and any other charges, other than expenses specifically identified in Exhibit D (Schedule of Costs). Expenses not expressly authorized by the Agreement shall not be reimbursed.
- 4.3. *Invoices:* Consultant shall submit its bills on a monthly basis, based on work completed for the period, in a form approved by Sonoma Water. The bills shall show or include:
 - a. Consultant name.
 - b. Agreement title and TW 23/24-112.
 - c. Sonoma Water's Project-Activity Code W0113C001.
 - 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 Progress Reports with Invoices:* Payment of invoices is subject to receipt of the monthly progress reports required under Task 1.1 of Exhibit A.
- 4.5. *Cost Tracking:* Consultant has provided an estimated breakdown of costs, included in Exhibit E (Estimated Budget for Scope of Work). Exhibit E (Estimated Budget for Scope of Work) will only be used as a tool to monitor progress of work and budget. Actual payment will be made as specified in Paragraph 4.1 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.

4.8. *Funding:*

- a. Funding for this Agreement is as follows:

<i>Fiscal Years</i>	<i>Appropriation</i>
2024/2025	\$1,000,000
2025/2026	\$999,861

- b. Availability of Funding:
 - i. Funding is available for Fiscal Year 2024/2025.
 - ii. Sonoma Water’s performance under this Agreement in subsequent years is contingent upon appropriation of funds by Sonoma Water’s Board of Directors. Sonoma Water shall have no liability under this Agreement if sufficient funds are not appropriated in subsequent fiscal years by Sonoma Water’s Board of Directors for the purpose of this Agreement.
 - iii. If funding for this Agreement for any fiscal year is reduced or eliminated by Sonoma Water’s Board of Directors, Sonoma Water shall have the option to either terminate this Agreement in accordance with Article 6 (Termination) or offer an amendment to Consultant to reflect the reduced amount.

4.9. *Federal Funds:*

- a. Consultant is informed and aware that this Agreement is in part funded by a financial assistance agreement from the U.S. Bureau of Reclamation (award number R24AP00184), which is conditioned upon various terms that apply to Consultant. Consultant has reviewed the documents attached hereto as Exhibit G (Federal Terms and Conditions) and hereby agrees to comply with them. In the event of a conflict between the body of this Agreement and Exhibit G, the provisions in Exhibit G shall control.

5. TERM OF AGREEMENT

5.1. *Term of Agreement:*

- a. This Agreement shall expire on December 31, 2028, unless terminated earlier in accordance with the provisions of Article 6 (Termination).
- b. Sonoma County Water Agency's General Manager shall have the ability to extend the term of this Agreement for up to two additional years by providing written notice to Consultant thirty days in advance of the expiration date noted in this Article. The extension shall be formalized in an amended agreement or amendment signed by Sonoma Water and Consultant.

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 12.12 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.
- 6.6. *Change in Funding:* Consultant understands and agrees that Sonoma Water shall have the right to terminate this Agreement immediately upon written notice to Consultant in the event that (1) any state or federal agency or other funder reduces, withholds or terminates funding which Sonoma Water anticipated using to pay Consultant for services provided under this Agreement or (2) Sonoma Water has exhausted all funds legally available for payments due under this Agreement.

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, that 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 the part of Sonoma County Water Agency, 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, employees, contractors, subcontractors, or invitees 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 H (Insurance Requirements).

9. PROSECUTION OF WORK

9.1. Consultant is authorized to proceed immediately with the performance of this Agreement upon the Effective Date of this Agreement. 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)), Sonoma Water's Web Standards & Guidelines located at <https://sonomacounty.ca.gov/Services/Web-Standards-and-Guidelines/> and Sonoma Water's Web Site Accessibility Policy located at

<https://sonomacounty.ca.gov/CAO/Administrative-Policies/9-3-Website-Accessibility-Policy/>.

- 11.3. *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 submittals. Consultant agrees to cooperate with Sonoma Water 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.
- 11.4. *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 submittal 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.
- 11.5. *Sonoma Water's Rights Reserved*: Notwithstanding the foregoing, Sonoma Water may accept submittals 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. *Communication with Sonoma Water's Contractor:* All communication shall be between Consultant and Sonoma Water. Consultant shall have no authority to act on behalf of Sonoma Water, to stop work, to interpret conditions of the construction contract, or to give direction to Sonoma Water's contractor. Nothing in this provision shall serve to limit Consultant's responsibility to provide such engineering or related services as are required to complete other work or correct any errors or omissions of Consultant in the performance of services under this Agreement.
- 12.3. *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.
- 12.4. *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.
- 12.5. *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.
- 12.6. *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.

- 12.7. *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.
- 12.8. *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.
- 12.9. *AIDS Discrimination:* Consultant agrees to comply with the provisions of Chapter 19, Article II, of the Sonoma County Code prohibiting discrimination in housing, employment, and services because of AIDS or HIV infection during the term of this Agreement and any extensions of the term.
- 12.10. *Drug-Free Workplace Certification (Certification of Compliance):* By signing this Agreement, Consultant, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government 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(a)(1).
 - b. Establish a Drug-Free Awareness Program, as required by Government Code section 8355(a)(2) to inform employees, contractors, or subcontractors about all of the following:
 - i. The dangers of drug abuse in the workplace,
 - ii. Consultant'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(a)(3), that every employee, contractor, and/or subcontractor who works under this Agreement:
- i. Will receive a copy of Consultant's drug-free policy statement, and
 - ii. Will agree to abide by terms of Consultant's condition of employment, contract, or subcontract.

12.11. *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 work, 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.

12.12. *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.

12.13. *Authority:* The undersigned hereby represents and warrants that the undersigned has authority to execute and deliver this Agreement on behalf of Consultant.

12.14. *Nondisclosure of Confidential Information:* While doing the work required by this Agreement, Consultant may have access to technical information and materials pertaining to Sonoma Water's sensitive information or data determined by Sonoma Water to be confidential ("Confidential Information"). The Confidential Information may include confidential or proprietary information or trade secrets exempt from disclosure under provisions of the California Public Records Act. In consideration of disclosure by Sonoma Water of Confidential Information to Consultant, Consultant and its agents shall hold any material or information designated by Sonoma Water as Confidential in strict confidence and shall not disclose it or otherwise make it available, in any form or matter whatsoever, to any person or entity without the prior written consent of Sonoma Water, except as may be ordered by a court of law. Immediately upon receipt of any request or demand for disclosure of any Confidential Information within the scope of this Agreement, Consultant shall give Sonoma Water written notice and a copy of the request and the time period, if any, within which Consultant is required to respond to the request. Upon termination of this Agreement, Consultant shall return Confidential Information in its possession, including copies, to Sonoma Water. Consultant's obligation to maintain material and information designated as Confidential in strict confidence shall survive completion of work under this Agreement and termination of this Agreement and, as provided for in Paragraph 12.12, Consultant 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>Full Legal Name</i>	<i>Type of Services</i>	<i>Prevailing Wages Apply? Y/N</i>
Stillwater Ecosystem, Watershed & Riverine Sciences dba Stillwater Sciences	Engineering consulting services related to sediment transport modeling and topobathymetric data collection	N
TEG Oceanographic Services	Geotechnical boring and sampling	Y
The Burroughs Group	3D artistic renderings of the proposed facility	N

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.
- c. Outreach to Disadvantaged Business Enterprises (DBE) is required for additional subconsultants. Contact the Contract Manager for further information prior to entering into any contract with a subconsultant.

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 4.2.a. 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.
- 17.11. *Counterpart; Electronic Signatures:* The parties agree that this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, and together which when executed by the requisite parties shall be deemed to be a complete original agreement. Counterparts may be delivered via electronic means, or other transmission method, and any counterpart so delivered shall be deemed to have been duly and validly delivered, be valid and effective for all purposes, and shall have the same legal force and effect as an original document. This Agreement, and any counterpart, may be electronically signed by each or any of the parties through the use of any commercially available digital and/or electronic signature software or other electronic signature method in compliance with the U.S. federal ESIGN Act of 2000, California's Uniform Electronic Transactions Act (Cal. Civil Code § 1633.1 et seq.), or other applicable law. By its use of any electronic signature below, the signing

party agrees to have conducted this transaction and to execution of this Agreement by electronic means.

/

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 23/24-112

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

McMillen, Inc., an Idaho corporation

By: _____
Grant Davis
General Manager
Authorized per Sonoma County Water
Agency's Board of Directors Action on
10/8/24

By: _____
Name: _____

Title: _____

Date: _____

Date: _____

DIR Registration #: 10011087483

Exhibit A

Scope of Work

Perform tasks in accordance with Exhibit C (Sonoma Water Standards), unless modified by this Exhibit A.

1. TASK 1.0 – PROJECT MANAGEMENT

Consultant's Project Manager shall manage and oversee all Consultant team members, including contracting, monitoring budgets and schedules, and ensuring the work is executed according to the contract scope, schedule, and budget. This task also includes required general project management tasks such as meeting coordination, general design coordination, meeting minutes, quality control, and reporting. Project management activities shall take place throughout the term of the Agreement.

1.1. Task 1.1 – Progress Reporting

Progress reports shall be developed monthly to accompany monthly invoices and to document the activities carried out during the invoicing period, summarize anticipated activities over the next billing cycle, summarize the status of both the Project budget and schedule, and to document any specific coordination items or areas of concern (e.g., anticipated changes in scope, schedule, or budget).

1.2. Task 1.2 – Project Schedule

Develop, maintain, and track the Project schedule using Microsoft Project to specify start and end dates for each work breakdown structure (WBS) element.

1.3. Task 1.3 – Quality Assurance/Quality Control

Maintain a QA/QC Program to provide a design that is consistently technically correct, well organized, and complete. Base the QA/QC Program on the requirements detailed in ER 1110-3-12 (Quality Management) and ER 1110-2-1150 (Engineering and Design for Civil Works Projects). Develop and maintain the quality management plan throughout the life of the Project and conduct internal peer review on all calculations and models as the Project progresses through design.

1.4. Task 1.4 – Project Team Coordination

Conduct bi-weekly project team coordination meetings, both internal to the Consultant team and separately with Sonoma Water. Project Manager, key subconsultant staff, engineering, and CAD staff shall attend bi-weekly Consultant team

coordination meetings to support agenda topics. Lead recurring meetings every two weeks (bi-weekly) with Sonoma Water to coordinate Project components, provide updates on the schedule and progress, and identify any data needs. Organize meetings, including but not limited to preparing and distributing agendas in advance. Key members of the Consultant's team (e.g., key structural, mechanical, electrical, civil engineers) shall attend bi-weekly meetings to support agenda topics. Conduct general Project-related coordination required to advance Project deliverables, in addition to these standing meetings.

2. TASK 2.0 – TECHNICAL INVESTIGATIONS

Task 2.0 includes data collection efforts and technical analyses required to develop the baseline conditions at the Project site needed for the new facility design.

2.1. Task 2.1 – Project Kick-Off and Data Collection

Conduct an in-person kickoff meeting (one day) with Sonoma Water, with an accompanying site visit (two days) to be coordinated with PG&E. Up to 8 Consultant team members shall attend the site visit to gather additional data and information on the existing facilities, and potentially pose questions to personnel from PG&E. Prior to the site visit, coordinate with PG&E to develop a site visit health and safety plan. Subsequent to the kickoff meeting, review all existing Project-specific data and information and develop a supplemental data and information request highlighting data gaps and information that will support subsequent design under this scope of work.

2.2. Task 2.2 – Geotechnical Investigation and Dam Coring

Develop a Geotechnical Investigation Plan (GIP) to obtain data needed for the facility design, sediment transport modeling, dam stability analysis, and construction sequencing. Perform geotechnical borings within Van Arsdale Reservoir to collect the data needed to develop a Geotechnical Design Report (GDR). Determine the specific number and location of borings once the Project details are developed and included in the GIP. Additionally, perform concrete coring of Cape Horn Dam. The general framework for this task is broken into the following subtasks.

a. Sub-Task 2.2.1 - Reconnaissance

Perform on-site reconnaissance and review drill equipment access constraints and opportunities. Review existing geotechnical data made available by PG&E

during earlier Project iterations. Include essential coordination and drilling safety considerations, ensuring no impact on the existing dam and reduced ground disturbance. Coordinate all access requirements with PG&E.

b. Sub-Task 2.2.2 - Permitting

Geotechnical drilling in the reservoir deposits behind Cape Horn Dam will likely require a Lake and Streambed Alteration Agreement from CDFW, a Section 404 permit from the U.S. Army Corps of Engineers and Regional Water Quality Control Board, and a local county permit for exploration. Additionally, concrete coring of the existing dam will require FERC and/or DSOD permits. Prepare all necessary permit applications and track these permits in the Project schedule. Additionally, provide support to Bureau of Reclamation on any NEPA-related aspects of the drilling operation.

c. Sub-Task 2.2.3 - Subsurface Explorations and Sampling

Evaluate and coordinate driller access and conduct utilities clearance. Mobilize equipment to the site, advance borings, and conduct sampling according to the GIP. Obtain samples from the sediment deposits to characterize the sediment stratigraphy, the grain size distributions, and other required sediment properties needed to inform sediment removal and transport and to support the 60% design. At select locations, advance borings beyond the sediment layer into the supporting soils and bedrock strata by rotary drilling or rock coring to collect additional data required for foundation design. Investigate groundwater levels at select borings to evaluate sediment removal and transport options, as well as liquefaction analysis and slope stability analysis adjacent to the fills.

The GIP is anticipated to include up to 15 sediment borings (using 8' core barrel for sampling, scattered throughout Van Arsdale Reservoir) and 8 Rotary drilling borings (3 at the pump station location and 5 along the length of the guide wall, 60-foot depth, sampling at 5-foot intervals for the first 20 feet and 10 feet afterward).

d. Sub-Task 2.2.4 Laboratory Testing

Conduct laboratory testing on collected samples to aid in selecting soil and rock properties and geotechnical design parameters for structural calculations and to understand the characteristics and quality of impounded sediment for environmental reasons. Determine the extent of testing with development of

the GIP and include all testing necessary to the complete structural design of the project. Tests may include, but are not necessarily limited to:

- 1) Classification and index testing
- 2) Triaxial strength testing of soil
- 3) Uni-axial compression strength testing of rock
- 4) Corrosion potential
- 5) Environmental testing for constituents of concern to be developed in coordination with regulatory agencies
- 6) Particle size distributions
- 7) Others to be determined with GIP development

e. Sub-Task 2.2.5 - Reporting

Develop a Geotechnical Design Report (GDR) that shall be used for sediment transport modeling, the design of the facility foundations, channel revegetation and restoration design, and other design deliverables.

f. Sub-Task 2.2.6 - Cape Horn Dam Concrete Coring

To provide key structural inputs to the geo-structural analysis, gather data on the dam's concrete characteristics. Conduct coring of the concrete and conduct non-destructive testing (NDT) methods on the dam to inform dam stability throughout the construction sequencing. Take cores to a lab for analysis and reporting. The analysis results shall be included in the Basis of Design Report and used throughout design.

2.3. Task 2.3 – Bathymetric and Topographic Survey

Conduct bathymetric surveys, collect velocity profiles, and install two water level loggers to support two-dimensional hydraulic modeling of Van Arsdale Reservoir. Combine the bathymetric field survey data with existing Light Detection and Ranging (LiDAR) topographic data to generate a detailed digital terrain model (DTM) to serve as the model domain. Extend the model domain at least five channel widths upstream of the existing upstream limits of Van Arsdale Reservoir and ten channel width downstream of the exclusion barrier located downstream of Cape Horn Dam. Use the combined DTM to conduct two-dimensional hydraulic modeling and the continuous water level data and velocity profiles for model validation and calibration.

Conduct the following to support the reservoir bathymetric surveys and model calibration data collection:

- a. Acquire USGS LiDAR data from the 2018-2019 (or 2023 if available) Northern California Wildfire – QL2 project from the USGS data repository. Use point clouds to build a baseline DTM, determine reservoir water surface elevation at the time of acquisition, and identify data gaps to build a field survey plan.
- b. Conduct a bathymetric survey with single beam echo-sounder(s) and a real-time kinematic global navigation satellite system (RTK GNSS) deployed from manned and/or unmanned watercraft (e.g., kayak or cataraft). Use a remote-controlled hydrographic survey boat to survey the downstream portion of Van Arsdale (beyond the debris boom) and a manned bathymetry unit to survey the remainder of the reservoir. The bathymetry survey shall consist of a grid of regularly spaced transects across the reservoir and a perimeter survey near the water edge boundary. Collect and use check lines that cross the regular survey transects to evaluate the final DTM interpolation techniques. Use a graduated sounding rod to collect manual depth readings to validate areas of dense aquatic vegetation that may interfere with sonar readings.
- c. Conduct conventional topographic survey utilizing robotic total station (RTS) and RTK GNSS equipment to fill in data gaps identified in the LiDAR data and capture important features not well represented by the LiDAR or bathymetry, such as diversion infrastructure. Collect additional topographic data from road centerlines or other features that can be easily identified from the LiDAR DTM to ensure vertical agreement between field surveys and LiDAR data.
- d. Perform high-definition laser scans of the existing interior of the diversion facility to ensure the new designs developed under Task 3.0 seamlessly integrate with existing structures. Import the laser scans into design software to build an accurate 3D model of the existing facilities. The completion of this subtask is contingent on permission to access the interior of the diversion facility by PG&E.
- e. Install two continuous recording water level loggers (i.e., pressure transducers) within the model domain to use for model validation and calibration. Install the pressure transducers below the lowest anticipated water level to ensure they remain submerged during the monitoring period. Install a manual stage reference such as staff plates or top of T-posts near the submerged pressure transducers to ensure proper function and to correct for transducer drift. Survey the elevation of the pressure transducers and manual stage references with RTK GNSS or RTS during installation. Install a barometric pressure data logger out of the water in a discrete, nearby location for barometric compensation.
- f. Survey the elevation of the existing USGS Gage (Gage # 11471500) downstream of Van Arsdale Reservoir to develop a water surface elevation-

discharge relationship to use for the downstream boundary condition in the two-dimensional hydraulic model. The completion of this subtask is contingent on permission to access the gage location by PG&E.

- g. Collect a series of up to 15 velocity profiles representing varying hydraulic conditions throughout the Project reach using an Acoustic Doppler Current Profiler (ADCP) to aid in hydraulic model calibration. Collect a similar velocity profile of the USGS Gage using ADCP in order to obtain a second estimate of the bathymetry at that location to aid in the development of an elevation-discharge relationship.
- h. Create a continuous DTM of Van Arsdale reservoir by combining all topographic data collected including bathymetry points, conventional fill-in topography, and LiDAR data. All data sources shall be post-processed to remove erroneous points and outliers.

2.4. Task 2.4 – Hydrology and Sediment Evacuation Modeling

Review the hydrologic inputs assumed for previous modeling work efforts at Scott Dam and Cape Horn Dam and work with Sonoma Water to identify the most appropriate suite of hydrologic conditions to 1) simulate sediment evacuation out of Lake Pillsbury, 2) investigate the short-term erosion potential of impounded sediment at Cape Horn Dam once Cape Horn Dam has been lowered, and 3) investigate the short-term and long-term sediment supply and deposition potential in the former reservoir after removal of both Cape Horn Dam and Scott Dam. These hydrologic boundary conditions shall include the following series of steady-state flows:

- a. High and low fish passage design flows for adult and juvenile upstream salmonid migration and juvenile downstream migration.
- b. Annual Exceedance Probability (AEP) flows, including the 2-, 5-, 10-, 20, 50-, and 100-year flows.

In addition, develop a series of up to four unsteady hydrographs to support sediment evacuation modeling at Lake Pillsbury and Van Arsdale Reservoir. These shall be multi-year hydrographs that represent very dry, dry, average, and wet conditions for a period of between about 2 and 8 years.

For both the steady and unsteady flows discussed above, develop separate values/hydrographs for both Scott Dam and Cape Horn Dam to account for accretion flows between the two locations.

Previous sediment evacuation modeling of Lake Pillsbury was conducted in 2021 by Stillwater Sciences which focused on transport of sand and finer material due to the lack of adequate site-specific grain size information in the coarse range.

Additional geotechnical information related to Lake Pillsbury sediment deposits may be forthcoming, however, and could warrant additional sediment evacuation modeling using the Dam Removal Express Assessment Model 2 (DREAM-2), which focuses on gravel transport. The DREAM-2 model shall be built upon the previous work by Stillwater Sciences with modifications to the geometric representation of Scott Dam and Lake Pillsbury and shall combine the previous DREAM-1 model with a new DREAM-2 model that simulates the erosion and transport of coarse grain material out of the reservoir and downstream to Van Arsdale reservoir. The unsteady hydrologic conditions specified above shall be used as inflow boundary conditions to the DREAM models. Results shall be provided as an addendum to the previous Stillwater Sciences report. Results shall also serve as upstream boundary conditions to a higher resolution two-dimensional model of Van Arsdale Reservoir and Cape Horn Dam, providing detailed time-series sediment supply inputs for the various dam removal scenarios described below in Task 2.5. Present the information to Sonoma Water in a separate meeting or series of meetings.

2.5. Task 2.5 – Hydraulic and Sediment Transport Modeling

Develop a coupled two-dimensional hydraulic and sediment transport model of Van Arsdale Reservoir using either SRH-2D or HEC-RAS 2D. The model domain shall extend from approximately 10 channel widths downstream of Cape Horn Dam to approximately 5 channel widths upstream of the assumed extents of the Van Arsdale Reservoir.

Conduct calibration of existing water surface elevations and velocities using water level data and velocity data obtained for the Project (see Subtask 2.3). The model shall utilize the output from the DREAM modeling (Subtask 2.4) as an upstream sediment loading boundary condition. Develop the model to 1) investigate the short-term erosion potential of impounded sediment at Cape Horn Dam once Cape Horn Dam has been lowered, 2) investigate the short-term, and 3) long-term sediment supply and deposition potential in the former reservoir after removal of Scott Dam.

The material characteristics of impounded sediment behind Cape Horn Dam shall be derived from the geotechnical investigation described under Subtask 2.2, and the model domain shall be developed using the topobathymetric data obtained in Subtask 2.3. Focus the modeling effort on understanding the relative changes to sediment

transport dynamics through the Van Arsdale Reservoir and near the Van Arsdale Diversion infrastructure.

Use model results to inform the sequencing of dam removal (i.e., Cape Horn Dam versus Scott Dam removal first), the sequencing of construction activities for the Project, and to design the layout of the facility based on water levels, shear stresses, flow rates, and velocities for the purposes of water diversion, fish passage, and sediment management. Present the results to Sonoma Water in one or more separate meetings. Develop a Hydraulic and Sediment Transport Modeling Report describing methods and results.

The hydraulic and sediment transport modeling shall simulate the following scenarios:

1. Baseline Conditions:

- a. Model the existing dam and reservoir with a calibration run using known water surface elevations and velocities to help adjust model parameters so that model output best matches recorded data. (hydraulic model only)
- b. Then simulate the existing dam and reservoir using the hydrologic boundary conditions discussed in Subtask 2.4. (hydraulic model only)

2. Scott Dam Removed First:

- a. Simulate the existing dam and reservoir using the unsteady hydrologic boundary conditions discussed in Subtask 2.4 and the sediment loading boundary conditions produced through the DREAM modeling. (hydraulic and sediment transport models)

3. Cape Horn Dam Removed First:

- a. Simulate a modified model domain representative of the proposed pump station configuration with Cape Horn Dam partially removed using the unsteady hydrologic boundary conditions discussed in Subtask 2.4 and the sediment loading boundary conditions produced through the DREAM modeling. (hydraulic and sediment transport models).
- b. The modified model domain may be altered up to three times to help optimize the layout of the pump station and dam lowering, with simulations for each altered geometry to include the boundary conditions discussed in Subtask 2.4 and the sediment loading boundary conditions produced through the DREAM modeling. (hydraulic and sediment transport models).

Provide quality review of the 2D hydraulic and sediment transport modeling in accordance with the QA/QC plan. This review shall encompass, at a minimum, the following:

1. **Input Parameters:** Assess the suitability and relevance of the input parameters used in the modeling. This includes verifying that the parameters accurately represent the physical properties and conditions of the site. Also, conduct a hydraulic and sediment transport model sensitivity analysis that investigates the impact on model results from varying key model parameter values.
2. **Mesh Representation:** Evaluate the mesh used in the model to represent the terrain. This involves ensuring the mesh is sufficiently detailed and accurately reflects the site's topography.
3. **Review of Results:** Evaluate the results generated by the model. This includes checking for consistency with expected outcomes based on known site conditions and experience drawn from conducting similar efforts for other dam removal projects.
4. **Report Review Comments:** Provide feedback on the draft report, including assessing the report's clarity, completeness, and accuracy.

3. TASK 3.0 – DESIGN PACKAGE

The design package is broken down into three primary subtasks that include the development of a Basis of Design Report, along with 60% drawings for the pump station facility and the powerhouse modifications, and 60% technical specifications.

3.1. Task 3.1 – Basis of Design Report

Prepare a Basis of Design Report, in accordance with Paragraph 6.2 and 6.4 of Exhibit C (Sonoma Water Standards), containing the design assumptions, calculations, governing codes, and associated design data used to develop the construction documents. The goal of the Basis of Design Report is to capture and document design decisions made throughout the Project design process. Submit a preliminary report outline for review and comment to establish the report's content. The report shall include sections for all pertinent Project data including geotechnical design criteria and analysis; hydraulic and sediment transport modeling criteria; description of diversion facility conditions, fish passage and screening criteria; dam safety requirements; pumping facility component data and design criteria; discipline-specific narratives for the structural, mechanical, civil, and electrical design of the facility; and geomorphology and restoration criteria.

Supplementary content such as calculations, investigation reports, and modeling output shall be included in separate appendices for each of the above sections. Advance the Basis of Design Report content to a 60% level of design. Submit Basis of Design Report for review, address comments, and submit final version.

Basis of Design Report shall include a brief condition assessment of the existing diversion facility and powerhouse that integrates previous studies and investigations, record drawings, information obtained from PG&E, and applicable new data collected in the field under Task 2.0. Additional potholing and utility research is not anticipated.

The Basis of Design Report and appendices shall include stamped and signed design calculations, conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, engineering drawings (see Subtask 3.2), product and material selection evaluation (as appropriate), assessment of alternative dam removal sequencing, and other supporting information pertaining to the design of the Project. In addition, the Basis of Design Report shall include an appended technical memorandum that discusses post-construction sediment management, as well as facility operations and general maintenance.

3.2. Task 3.2 - 60% Pump Station Design Drawings

The Alternative E-2 Schematic Design Drawings developed for the Preliminary Engineering Report shall be advanced to a 60% level of design. Prepare drawings for each major Project component using advanced modeling (BIM, CAD) software such as Autodesk Civil3D.

Conduct a design review meeting with Sonoma Water to review a draft of the drawing package before the final submittal. Prepare meeting minutes for the review meeting and add Sonoma Water's comments to an Excel spreadsheet with a response provided to each comment (comment response log).

Drawing package shall include, but not be limited to, the following:

- a. General Arrangement Plans
- b. Construction Access, Sequencing and Staging Plans
- c. Dam Removal Plans
- d. Demolition Plans and Sections
- e. Erosion and Sediment Control Plans
- f. Civil Grading Plans

- g. Diversion Pipeline Plan and Profile
- h. Diversion Wall Plan and Profile
- i. Structural Design Criteria
- j. Structural Foundation Plan
- k. Pump Station Floor Plans for structural, mechanical and electrical
- l. Structural Concrete Sections
- m. Mechanical Design Criteria
- n. Mechanical Equipment Schedule
- o. Electrical Lighting Plan
- p. Electrical One-Line Diagrams
- q. Instrumentation and Control Diagrams and Schematics
- r. Channel restoration
- s. Erosion Control and Planting

3.3. Task 3.3 – 60% Powerhouse Design Drawings

The Alternative R-1 Schematic Design Drawings developed for the Preliminary Engineering Report shall be advanced to a 60% level of design. Prepare drawings for each major Project component using advanced modeling (BIM, CAD) software such as Autodesk Civil3D and Autodesk Revit.

Conduct a design review meeting with Sonoma Water to review a draft of the drawing package before the final submittal. Prepare meeting minutes for the review meetings and add Sonoma Water’s comments to an Excel spreadsheet with a response provided to each comment.

Drawing package shall include, but not be limited to, the following:

- a. General Arrangement Plans
- b. Construction Access and Staging Plans
- c. Demolition Plans and Sections
- d. Erosion and Sediment Control Plans
- e. Hydraulic Profile
- f. Civil Grading Plans
- g. Energy Dissipating Valve Foundation Plan and Sections
- h. Diversion Pipeline Plan and Profile
- i. Diversion Wall Plan and Profile
- j. Structural Design Criteria
- k. Structural Concrete Sections
- l. Mechanical Design Criteria

- m. Mechanical Equipment Schedule
- n. Electrical One-Line Diagrams
- o. Instrumentation and Control Diagrams and Schematics

3.4. Task 3.4 - 60% Technical Specifications

Prepare specifications using CSI MasterFormat 2018. In addition, prepare drafts of major product specification sections listed in the deliverables below for review by Sonoma Water. General Requirements (Division 01) specification sections are not required.

Draft major product specification sections shall include the following, at a minimum:

- a. Cast-in-Place Concrete
- b. Fish Screening Equipment
- c. Vertical Turbine Pumps
- d. Variable Frequency Drives
- e. Energy Dissipating Valves
- f. Aggregate Materials
- g. Electrical Equipment
- h. Controls Equipment

4. TASK 4.0 – PRE-CONSTRUCTION SERVICES

Pre-Construction services shall include construction scheduling, cost estimating, and constructability review.

4.1. Task 4.1 – Construction Scheduling

Prepare a detailed construction schedule utilizing the Primavera P6 scheduling software. Organize the construction schedule based on the specific work activities and by work area, including the cofferdam and dewatering system, excavation, demolition of, and modifications to the dam and diversion facilities, concrete placement, pump and mechanical/electrical equipment installation, site piping, final grading and planting, channel restoration, and startup and commissioning of the completed pump station.

In addition, and at the direction of Sonoma Water, organize either a separate or an integrated project schedule for the powerhouse work, where a separate schedule would allow for separate construction contracts, and an integrated schedule would be intended more for a single construction contract. Organize the construction schedule based on the specific work activities and by work area, including dewatering and work area isolation, existing bypass operations, demolition, concrete placement, energy

dissipating valve and mechanical/electrical equipment installation, site piping, final grading, site cleanup, and startup and commissioning of the completed flow control and energy dissipation system.

Support Sonoma Water and PG&E in developing and evaluating the full Project schedule, including permitting, subcontractor bid period, and the multi-phase construction based on a 60% level of design. Develop up to two separate construction schedules to address different dam removal sequences.

4.2. Task 4.2 – AACE Class 3 Opinion of Probable Construction Costs and Bid Table

Prepare a detailed construction cost estimate. Prepare the cost estimate using the Heavy Bid Cost Estimating software, a standard estimating package used in the heavy civil construction industry. Utilize the cost estimate the 60% construction design package prepared under Task 3.0, with quantity takeoffs prepared for each major work activity identified in the design package. Obtain budgetary quotes for the major equipment, such as pumps, fish screens, energy dissipating valve, and electrical equipment specified for the Project construction. The cost estimate shall provide a breakdown of the labor, materials, equipment, and consumables required to construct the Project and shall be an AACE Class 3 estimate. Assist with the lifecycle cost analysis and associated work activities to support a full analysis of the Project's sustainability. Develop a risk register within this work task to identify potential risks by considering each phase of the Project's development and the factors that could impact the schedule, cost, or success.

Develop a bid table and bid item descriptions. The bid table shall include individual line items for high-value equipment and general material placements including, but not limited to, items such as concrete, pumps, valves, flow-control structures, electrical equipment and controls, pipes, intake screens, and other items in the specifications.

4.3. Task 4.3 – Constructability Review

Review the preliminary design package for constructability and provide value engineering alternatives to the design team. Provide constructability review prior to draft and final submittal of the Task 3.0 deliverables in order to provide the opportunity to propose and adopt changes to the design and/or implementation approach. Constructability review shall culminate in a constructability review

meeting, to be held with Sonoma Water and up to 5 members of the Consultant team.

5. TASK 5.0 – COMMUNICATION AND STAKEHOLDER OUTREACH

Communicate monthly with stakeholder groups including: Sonoma Water, Mendocino Inland Water and Power Commission, Round Valley Indian Tribes, California Department of Fish and Wildlife, Humboldt County, Cal Trout, and Trout Unlimited, in addition to the current owner, PG&E, to help ensure that 1) the engineering design meets the specific needs of Sonoma Water and the regulatory agencies, 2) proper coordination, division of labor, and identification of scope is carried out in lockstep with PG&E, and 3) the design team stays in front of any issues that evolve out of the FERC license surrender process. Attend meetings between Sonoma Water and the various stakeholder groups on an as-needed basis or as requested by Sonoma Water. To support the discussions with stakeholders, prepare visualizations and renderings of the proposed design.

6. SUBMITTAL OF DOCUMENTS

6.1. In accordance with Exhibit C (Sonoma Water Standards).

Exhibit B

Schedule and Submittals

MILESTONE	DOCUMENTS TO BE SUBMITTED	DATE DUE
Monthly Reports	<ul style="list-style-type: none"> • Progress reports • Project schedule updates 	Monthly with invoices
Bi-Weekly Coordination meetings	<ul style="list-style-type: none"> • Bi-weekly meeting agenda, three-week look ahead schedule, and action item list 	1 day prior to meetings
	<ul style="list-style-type: none"> • Bi-Weekly Coordination meetings 	every 2 weeks on mutually agreed upon times and dates
	<ul style="list-style-type: none"> • Bi-weekly meeting minutes 	2 days after meetings
Monthly Stakeholder Communication	<ul style="list-style-type: none"> • Meeting agendas 	2 days prior to meeting
	<ul style="list-style-type: none"> • 3D visualizations and renderings of Project designs 	2 days prior to meeting
	<ul style="list-style-type: none"> • Meeting minutes 	2 days after the meeting
Office Kick-off Meeting	<ul style="list-style-type: none"> • Agenda and other meeting materials 	at least 2 days prior to meeting
	<ul style="list-style-type: none"> • Office Kick-off Meeting 	10/15/24
	<ul style="list-style-type: none"> • Meeting minutes 	2 days after meeting
On-Site Kick-off Meeting	<ul style="list-style-type: none"> • Site visit health and safety plan 	14 days prior to meeting
	<ul style="list-style-type: none"> • On-Site Kick-off Meeting 	11/13/24
	<ul style="list-style-type: none"> • Data and information request 	14 days after meeting
Geotechnical Investigation and Dam Coring	<ul style="list-style-type: none"> • DRAFT Geotechnical Investigation and Dam Coring Plan (GIP) 	1/1/25
	<ul style="list-style-type: none"> • FINAL Geotechnical Investigation and Dam Coring Plan (GIP) 	1/29/25
	<ul style="list-style-type: none"> • Permit Applications 	2/5/25
	<ul style="list-style-type: none"> • Boring Logs 	14 days after sampling is complete
	<ul style="list-style-type: none"> • Laboratory Testing Results 	28 days after sampling is complete
	<ul style="list-style-type: none"> • DRAFT Geotechnical Design Report 	8/27/25
	<ul style="list-style-type: none"> • FINAL Geotechnical Design Report 	9/24/25
Basis of Design Report Outline	<ul style="list-style-type: none"> • Preliminary Basis of Design Report Outline 	3/25/25
Bathymetric and Topographic Survey	<ul style="list-style-type: none"> • Integrated Project DTM • Existing condition velocity profiles and color contour plots • Survey source files and raw data 	7/9/25

MILESTONE	DOCUMENTS TO BE SUBMITTED	DATE DUE
Hydrology and Sediment Evacuation Modeling	<ul style="list-style-type: none"> • DRAFT Hydrology and Sediment Erosion and Transport Technical Memorandum 	10/15/25
	<ul style="list-style-type: none"> • FINAL Hydrology and Sediment Erosion and Transport Technical Memorandum 	11/19/25
Hydraulic and Sediment Transport Modeling	<ul style="list-style-type: none"> • DRAFT Hydraulic and Sediment Transport Modeling Report 	1/14/26
	<ul style="list-style-type: none"> • FINAL Hydraulic and Sediment Transport Modeling Report • Hydraulic model files provided in package containing final model plans and associated geometry, flow, sediment, and other necessary files 	3/25/26
Constructability Review Meeting	<ul style="list-style-type: none"> • Meeting agenda 	2 days prior to meeting
	<ul style="list-style-type: none"> • Constructability Review Meeting 	6/24/26
	<ul style="list-style-type: none"> • Meeting Minutes 	2 days following meeting
DRAFT 60% Design Submittal	<ul style="list-style-type: none"> • Drawings • Technical specifications • Bid item descriptions • Primavera Construction Schedule • 60% design level Basis of Design Report • Project Survey Control binder • Project risk register • QA/QC Certificate 	10/7/26
Cost Estimate	<ul style="list-style-type: none"> • Draft 60% AACE Class 3 OPCC 	11/4/26
	<ul style="list-style-type: none"> • Final 60% AACE Class 3 OPCC 	12/9/26
60% Design Review Meeting	<ul style="list-style-type: none"> • Meeting Agenda 	2 days prior to meeting
	<ul style="list-style-type: none"> • 60% Design Review Meeting 	10/28/26
	<ul style="list-style-type: none"> • Meeting Minutes 	2 days following meeting
FINAL 60% Design Submittal	<ul style="list-style-type: none"> • FINAL 60% submittal addressing comments • Comment response log 	12/9/26

Exhibit C

Sonoma Water Standards

1. **GENERAL**

- 1.1. Consultant agrees to perform obligations described in this Agreement and to furnish necessary engineering (or architectural, if applicable) skills, services, labor, supplies, supervision, and material required to perform and complete the Project.
- 1.2. By execution of this Agreement, Consultant warrants that it has carefully examined the Project site and has satisfied itself of local and any special conditions affecting this Scope of Work. Tests, survey results, geotechnical reports, or other data or information, whether furnished by Sonoma Water, or referenced in this Agreement, are for Consultant's convenience. Sonoma Water does not guarantee that such tests or preliminary investigations or other data and information are accurate and assumes no responsibility whatsoever as to their accuracy or interpretation. Consultant shall satisfy itself as to the accuracy or interpretation of such tests or survey results or other information or data.

2. **HAZARDOUS WASTE**

- 2.1. See Exhibit A (Scope of Work), as applicable.

3. **ENVIRONMENTAL SERVICES**

- 3.1. See Exhibit A (Scope of Work), as applicable.

4. **RIGHTS-OF-WAY**

- 4.1. Sonoma Water will acquire such permissions or rights necessary for Sonoma Water and its Consultant(s) to gain lawful entry into, across, over or upon property not owned by Sonoma Water, which are necessary for investigations, surveys, or studies required for Consultant to provide the services described in Exhibit A (Scope of Work).
- 4.2. At the project Kick-off meeting and thereafter, identify the entry/access in/onto private property (not owned by Sonoma Water) that is needed in connection with investigations, surveys, or studies required for Consultant to provide the services described in Exhibit A (Scope of Work).
- 4.3. Coordinate with Sonoma Water in a timely manner to allow Sonoma Water to obtain the permission or legal rights required, and set and adjust the schedule and timing of Consultant's services and activities required under Exhibit A (Scope of Work) as needed.

- 4.4. Submit requests for Permission to Enter needed for Consultant's access to private property (not owned by Sonoma Water) to Sonoma Water at least 7 calendar days in advance of desired access date. Requests submitted shall indicate properties to be accessed (by Assessor's Parcel Number, date and time, planned activities, approximate number of staff, and anticipated number of vehicles). Include a map showing proposed access route and areas of the property to be visited.
- 4.5. Determine the extents of the property areas (Footprint) needed for Project construction and provide information to Sonoma Water including, but not limited to, disturbance limit for work, areas needed for access and staging, improvements needed to access the site or perform the work, and obstacles or impediments that may restrict access to or mobility within the site or conflict with proposed Project features (e.g., tight corners, inadequate ingress/egress ramps, narrow bridges, utility poles and lines, vineyard infrastructure, and other physical features).

5. COST ESTIMATES

- 5.1. Prepare a Statement of Probable Construction Costs broken down by bid item, and revise and submit at each design phase. Provide estimated quantities for unit priced items.

6. DESIGN SERVICES

- 6.1. Design Stages:
 - a. Preliminary Design:
 - i. Conduct Kick-off meeting to consult with Sonoma Water to define and clarify Sonoma Water's requirements for the Project and available data.
 - ii. Present assumptions and preliminary conclusions to be included in the draft Design Report at Design Workshop. Sonoma Water may direct the Consultant regarding the assumptions made that may alter the conclusions.
 - iii. Identify, consult with, and analyze requirements of governmental authorities having jurisdiction to approve the portions of the Project designed or specified by Consultant.
 - iv. Identify and evaluate at least three alternative solutions available to Sonoma Water and, after consultation with Sonoma Water, recommend to Sonoma Water those solutions that in Consultant's judgment meet Sonoma Water's requirements for the Project.
 - v. Identify key utility locations and identify utility conflicts, if any.
 - vi. For sanitation projects, smoke test sewer mains between manholes, and between manholes and cleanouts, and locate and log any locations where smoke exits the subsystems other than at cleanouts, manholes, or roof vents.

- vii. For sanitation projects, inspect the existing condition of manholes and document condition using Sonoma Water-supplied form.
- viii. For sanitation projects, inspect the existing condition of sewer main cleanouts and log any variances from Sonoma County Water Agency Sanitation Standards.
- ix. Site investigation(s):
 - a) Shall be sufficient for purpose of obtaining permits, satisfying CEQA requirements, performing engineering analyses and modeling to support Project design.
 - b) Following any investigation(s) at the Project site, return site to pre-existing conditions, including filling holes and excavations, and grading as required.
- b. 30%:
 - i. Project parameters shall be fully defined; calculations, including sizing of Project components, shall be complete; outline of technical specifications and preliminary sketches and drawings shall be available.
 - ii. Drawings shall indicate topographic property boundaries, proposed access routes, USA mark-out, and potholing, if applicable.
- c. 60%:
 - i. Drawings shall describe the general size, nature, and complexity of the Project and indicate the information for Sonoma Water to identify the right-of-way acquisitions needed for Project completion including, but is not limited to, the disturbance limit for work, areas needed for access and staging, temporary improvements needed to access the site or perform the work, and obstacles or impediments that may be present. Alignment and location of facilities shall be final; draft specifications shall be completed with sufficient detail to allow Sonoma Water review and comment.
- d. 90%:
 - i. Drawings shall indicate the scope, extent, and character of the work to be provided by the contractor. Specifications and drawings, all-inclusive and in their entirety, shall be 90% completed and rights-of-way, permits, and regulatory considerations shall be resolved.
- e. 99%:
 - i. Changes and modifications from Sonoma Water shall be incorporated, any outstanding issues resolved, and specifications and drawings essentially complete.
- f. Final:
 - i. Specifications and drawings shall be complete and Sonoma Water comments incorporated into a final construction documents set.

- 6.2. Design Report:
- a. Prepare a design report for the Project (Design Report) that includes the following:
 - i. Title page with name of Project, name of preparer, preparer's company name and address, and date.
 - ii. Table of Contents.
 - iii. A summary of results.
 - iv. Conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, considerations involved, and those alternative solutions available to Sonoma Water that Consultant recommends.
 - v. A description of the work performed, including methodology, a detailed description of the inspections performed, literature reviewed, documents and records reviewed, and individuals and agencies contacted.
 - vi. Construction cost estimate itemized by bid item, as described in Paragraph 5.
 - vii. Appendix, including copies of documents, photographs, manufacturer's literature, and other records deemed appropriate. For sanitation projects, also include video logs, smoke testing logs, sewer manhole inspection logs, and sewer main cleanout inspection logs.
 - viii. Schematic drawings, sketches, and exhibits as necessary to illustrate the recommended Project.
 - ix. Other information to support the recommendations.
 - b. Submit draft of Design Report to Sonoma Water for review and approval within 30 calendar days after Kick-off meeting.
 - c. Sonoma Water will provide comments within 14 calendar days of Design Report submittal. Incorporate Sonoma Water comments on draft Design Report into final Design Report and resubmit within 14 calendar days of receiving comments, if any.
- 6.3. Prepare Project design, as recommended in Sonoma Water-approved Design Report.
- 6.4. Design Notebook:
- a. Design Notebook shall contain, as appropriate, copies of the Design Report, stamped and signed design calculations, conceptual design criteria with appropriate exhibits to indicate the agreed-to requirements, engineering sketches, schematic layouts, product and material selection evaluation, alternate solutions available to Sonoma Water that Consultant recommends, and supporting information pertaining to the design of the Project. The design calculations and engineering sketches shall be in sufficient detail to design the Project with its appurtenances. The Design Notebook shall include a technical memorandum summarizing the design parameters. Submit updated Design Notebook at each design phase.

- 6.5. Construction Schedule: Construction schedule shall show the anticipated timeframe for completing construction of major units. Use a simple bar chart approach for each item and indicate the anticipated critical path of construction.
- 6.6. Additional Requirements:
 - a. Obtain encroachment permits as required for inclusion in the Project specifications from the applicable agencies having jurisdiction.
 - b. Determine right-of-way needs for the Project and provide information to Sonoma Water, including, but not limited to disturbance limit for work, areas needed for access and staging, temporary improvements needed to access the site or perform the work, and obstacles or impediments that may be present.
 - c. Identify requirements, if any, which Sonoma Water may not have identified. Possible requirements include, but are not limited to, provisions in the environmental documents, including the Mitigation Monitoring Plan (if applicable), permits (if applicable), right-of-way agreements, and local ordinances.
 - d. Incorporate applicable requirements into Project.
- 6.7. Meeting Requirements:
 - a. Arrange, attend, prepare agendas for, and conduct meetings at each design stage. Submit meeting agendas to Sonoma Water 7 days prior to each meeting.
 - b. At meetings, discuss the progress and direction of the design. Advise Sonoma Water in writing how Sonoma Water comments impact Project scheduling and cost.
 - c. Prepare meeting minutes for each meeting and submit to Sonoma Water within 7 days of each meeting.
 - d. Meetings shall be held at Sonoma Water's Office, 404 Aviation Boulevard, Santa Rosa, California, or by teleconference.

7. **SURVEYING SERVICES**

- 7.1. General:
 - a. Surveying and mapping services and data collected, mapped, or produced shall meet or exceed Geospatial Positioning Accuracy Standards as endorsed by the Federal Geographic Data Committee, and as may be updated from time to time during the term of this Agreement, in particular but not specifically limited to (Part 4) Standards for Architecture, Engineering, Construction (A/E/C) and Facilities Management as recommended by the Federal Geographic Data Committee (FGDC)- Publication FGDC-STD-007.4-2002.
 - b. Horizontal datum for surveying services shall be North American Datum of 1983 (NAD 83).

- c. Vertical Datum of surveying and mapping services and data provided shall be the North American Vertical Datum of 1988 (NAVD88) when or where practical. The National Geodetic Vertical Datum of 1929 (NGVD29) is acceptable for projects/locations where sufficient reference marks necessary to recover NAVD88 are not practically available.
- d. Surveys and mapping shall be projected upon the California Coordinate System of 1983 (CCS83), Zone 2 in US Survey feet (Coordinates and Elevations) unless directed otherwise by Sonoma Water.
- e. Surveys and mapping services shall comply with sections 6731.1 and 6731.2 of the Business and Professions Code of the State of California, and section 8801-8819 of the Public Resources Code of the State of California.
- f. File a Record of Survey in accordance with and when required under section 8762 of the Business and Professional Code of the State of California, and/or Corner Record(s) where applicable under section 8771 of the Business and Professional Code of the State of California.
- g. Comply with industry accepted standards associated with a given element of the services provided by Consultant and implement best practices whenever and wherever possible to achieve the highest quality and integrity of the resulting data and services produced. Whenever and wherever the signals from Global Navigation Satellite Systems (GNSS) are leveraged by Consultant to determine precise positioning (generally required Network Control as may requested by Sonoma Water or as necessary to comply with the requirements of this Agreement), comply with the GNSS Surveying an Specification Version 1.1, Dated December 10, 2014, and/or such updates as may be endorsed from time to time during the term of this Agreement by the Joint Task Force of the California Land Surveyors Association and California Spatial Reference Center.
- h. Conduct such research and other due diligence required to comply with the requirements outlined herein.

7.2. Project Survey Control:

- a. Use only a class and character (Order/Accuracy/Stability) of reference control required and appropriate to meet the accuracy requirements for the works proposed by the Project.
- b. Establish such inter-visible project survey control (points) that are necessary to facilitate the design and construction surveys required for the Project. Project survey control points set shall be a durable character and suitably tagged, capped, and stamped or otherwise durably identified to allow for their recovery for future work and reference.
- c. Project survey control points established shall be sited in publicly accessible areas that can be safely reoccupied without traffic control (when practical) and placed such that their destruction from roadway overlay or other construction is minimized to the greatest degree possible or practical.

- d. Place such monuments necessary to witness and conduct the surveys necessary to locate and reference existing monuments at risk of destruction as necessary for the Consultant, Sonoma Water or its contractors to comply with the requirements section 8771 of the Business and Professional Code of the State of California.
- e. Place and state monuments and control set in accordance with section 8771 of the Business and Professional Code of the State of California such that the surveys can be retraced and any monuments destroyed by construction can be efficiently reestablished by Sonoma Water or its contractors.
- f. Memorialize project survey control (points) established by Consultant or monuments surveyed in accordance with section 8771 of the Business and Professional Code of the State of California by appropriate field notes that include a thorough description and character of existing monuments and materials used to monument the points or monuments set.
- g. Provide an organized binder or digital package with the 60% design submittal that includes a control diagram overlaid over a topographic, orthographic aerial photo, or other suitable base showing:
 - a) Reference stations, marks, monuments, and points used, set by the Consultant for control surveys.
 - b) Locations, character, and description of the monuments set and surveyed in connection with section 8771 of the Business and Professional Code of the State of California.
 - c) Line-work representing the observation network (where applicable).
 - d) Traverse lines and survey ties.
 - e) Original field notes and observation or session sheets.
 - f) Raw data and coordinate files.
 - g) Monument records and data sheets for control constraints.
 - h) Data processing and adjustment reports.
 - i) Tabular list of final adjusted coordinates and elevations.
 - j) Other information required under Sec. 8813.2 of the Public Resources Code of the State of California.

7.3. Design Surveys:

- a. Provide surveys and mapping services necessary to identify, represent and depict existing conditions, which in the judgment of Consultant are material to or required for design and construction of the Project (Design Survey).
- b. Represent, depict, identify, and include the project survey control (points) or set and surveyed in connection with section 8771 of the Business and Professional Code of the State of California, in the resulting mapping and the Construction Drawings.
- c. Representations of existing property or parcel boundaries, easements and rights of way shall be referenced to the source maps, documents, and information they were derived from and identified in the resulting mapping and the Construction Drawings.

- d. Provide copies of design coordinates, elevations, survey notes, maps, records, reference documents, and other pertinent information generated during design (“Design Survey Data”).
- e. Perform research and inquiries, investigations, utility locating or surveys necessary to identify and depict existing utilities material to the design or construction of the Project. The location of existing utilities discovered, disclosed, or located by Consultant shall be appropriately identified, depicted, labeled, or otherwise represented (including pipe diameter and invert elevations for gravity pipelines, rim elevations of man holes, grate or flow-line elevations of catch basins or drop inlet structures) in the resulting mapping to be provided and the Construction Drawings.
- f. Where the possibility of discrepancies exist between the surveys and data being collected by Consultant and existing utilities or other physical impediments that might materially affect the Project, the details of potholing or other verification efforts (reference locations or elevations) shall be represented and depicted in the resulting Design Survey.
- g. Where the possibility of conflicts or clearance issues between proposed construction and existing utilities exist, the details of potholing or other verification efforts (reference locations/elevations) shall be represented and depicted in the resulting Design Survey, and the conflict shall be indicated on the staging and access sheet of the plans.
- h. Provide the source of reference (example: utility mapping, USA paint, or potholing) of underground or other utilities represented and depicted in the resulting Design Survey. Such items shall be distinctly layered, labeled, or otherwise distinguished from utilities whose location was determined by survey.
- i. Represent and depict features that present a possible clearance limitation or accessibility or other physical constraint to contractor(s) constructing the work and that are not being relocated, temporarily removed, diverted, or otherwise modified as part of work to be done as part of the Project (example: structures, overhead wires, watercourses), or that potentially affect right of way to be acquired for the Project.
- j. Represent and depict vegetation and trees (including driplines as of the date of survey) that potentially are impacted or are to be removed in connection with the Project in the resulting mapping-and Construction Drawings. Trees depicted shall be identified by species and labeled by their diameter at breast height. The footprint of the trunk (at ground level) of trees to be removed, whose trunk touches or spans a property owned by Sonoma Water (“Boundary Trees”) shall be accurately represented and depicted in the resulting Design Survey.

8. DRAFTING SERVICES

- 8.1. Prepare drawings necessary for bidding and construction of the Project. Include the following with sufficient detail to describe construction of the Project for Project advertisement and bidding purposes:
 - a. Title sheet with location map, vicinity map, access, index to drawings, and legend (abbreviations, symbols, etc.).
 - b. Right-of-way drawings.
 - c. Plans.
 - d. Profiles (where applicable).
 - e. Sections.
 - f. Construction details.
 - g. Other drawings as may be needed for construction.
- 8.2. Include the following features on each plan and profile drawing:
 - a. Location of control points with point number identification, elevation, and description, include bearings and distances for alignments and right-of-way lines where applicable.
 - b. Graphic scale.
 - c. North arrow.
 - d. Key map.
 - e. For sanitation projects include building street addresses.
 - f. Mapping showing streets, edges of pavement, ditch flowlines, and top of curb.
- 8.3. Use Sonoma Water-provided template drawings, title blocks, and border drawings. Basic layers and line types are part of template drawings and are recommended where applicable.
- 8.4. Prepare drawings using a scale acceptable to Sonoma Water.
- 8.5. Drawings:
 - a. Provide final contract drawings in native AutoCAD format along with supporting files such as fonts, Xref and image files, point data, plotter and/or pen style table configuration files. Include CTB or STB plot configuration file with electronic submittals to ensure correct and intended image quality when plotting from file. No hand-drawn media is allowed. Ensure that drawings converted to PDF do not contain SHX AutoCAD data.
 - b. Electronic drawing file names shall be at the direction of Sonoma Water's Drafting/GIS Section. Xref files shall have filename with an "X" prefix (i.e., X_ExTopo for original existing topographic file used as base reference file). Drawings shall have filenames displayed per Sonoma Water-provided standards.

- c. Existing and design features shall be represented spatially accurate in “real world model space” in the CAD files. Coordinate information shall be preserved in its true and original orientation in real world space (X axis= East Coordinates, Y axis = North Coordinates, Z axis =Elevation; all in US Survey Feet Units; Scale 1:1). Data files, such as topo files and point files, may be “Xrefed” provided the Xref file is inserted at 0,0,0 and no rotation is imposed on the file.
 - d. Each drawing file shall contain a layer named “CadNotes.” This layer shall be a non-plot layer and shall contain pertinent “metadata” that includes, but is not limited to, the following:
 - i. Coordinate or projection basis.
 - ii. Relevant survey, data dates.
 - iii. Data sources, references.
 - iv. Design notes, assumptions, or other relevant information useful to design review.
 - e. Prepare construction detail drawings in the same manner as described in this Paragraph 8.5 such that each detail item is represented in its full size in model space and is represented in a scale and orientation to appropriately and adequately convey the necessary information for construction on layout space.
 - f. Sonoma Water will accept electronic drawing files with multiple “drawings” or “Sheet” layouts. Tab layouts are to be setup as follows:
 - i. Each layout tab’s label shall be the drawing name (i.e., C1, G1, D1, P1, etc.) and therefore only include one sheet per layout tab. The layouts shall be set to the standard 22” x 34” sheet at a 1:1 scale.
- 8.6. Minimize the use of notes on drawings. Specifications of any type shall be written in the specifications and shall not be added to drawings.
- 8.7. Use match lines with appropriate sheet numbers.
- 8.8. Use lettering size no smaller than a 0.12-inch tall for construction notes and data.
- 8.9. Ensure that drawings are easily readable when reduced to 11” x 17.”
- 8.10. Reconcile drawings with specifications to minimize redundancies and avoid conflicts.
- 8.11. If requested by Sonoma Water, provide conformed drawings within 7 calendar days of request. Sonoma Water’s standard will be provided by Sonoma Water’s Project Manager.

9. SPECIFICATIONS PREPARATION

- 9.1. Assist Sonoma Water's Project Manager in completing Sonoma Water's Project Manual Initiation Questionnaire.
- 9.2. Prepare Divisions 2 through 49 (Technical Specifications), as appropriate, of the Project Manual as necessary for construction of the Project in conformance with the Project Manual concept of the Construction Specification Institute (CSI), using Sonoma Water's template, CSI's Project Resource Manual, and the 2018 edition of CSI's MasterFormat, including SectionFormat and PageFormat.
- 9.3. Comply with applicable provisions of the Public Contract Code including, but not limited to, formal and informal bid procedures and the avoidance of closed proprietary specifications (where no substitutions are allowed).
- 9.4. Assist Sonoma Water to develop justification memos for any proposed single-source products or materials; for special qualification of bidders, manufacturers, installers, or other professionals performing construction work for the Project; and for other special circumstances that require justification to Sonoma Water's Board of Directors.
- 9.5. Provide bid item descriptions for inclusion in Division 1. Ensure that method of payment for materials, equipment, and work required to complete Project is described clearly.
- 9.6. In coordination with Sonoma Water's Project Manager, reconcile redundancies and conflicts with Sonoma Water-prepared Division 0 and Division 1 requirements.

10. OPERATION AND MAINTENANCE MANUAL(S) MODIFICATIONS

- 10.1. Prepare modifications to Sonoma Water's existing Operations and Maintenance Manual(s) and submit on a mutually agreed upon date. At a minimum, include the following:
 - a. New sections to cover aspects of the Project that are not included in existing manual(s).
 - b. Modifications and revisions to existing sections that are affected by the Project.

11. ASSISTANCE DURING BIDDING AND CONSTRUCTION

- 11.1. For bidding:
 - a. Answer questions submitted by Sonoma Water ("questions") during bid advertisement period.
 - b. Communicate only through Sonoma Water.
 - c. Immediately hand-deliver or email copies of bidder questions (non-Sonoma Water questions) directed to Consultant to Sonoma Water.

- d. Alert Sonoma Water to potential impacts, if any, associated with questions including, but not limited to, impacts on schedule and cost.
 - e. Upon request from Sonoma Water, prepare addenda to clarify, correct, or change the technical specifications or drawings in accordance with the following:
 - i. Article 8, Article **Error! Reference source not found.**, and Article 12.
 - ii. Sonoma Water-provided drafting standards and standard form for addenda.
 - iii. Submit within 2 working days after request.
- 11.2. For construction:
- a. Assist Sonoma Water by providing engineering and related services after the receipt of construction bids as requested by Sonoma Water.
 - b. Attend preconstruction conference.
 - c. Assist Sonoma Water by answering request(s) for information (RFIs), as requested by Sonoma Water (up to 30 RFIs).
 - d. Submittal Review:
 - i. Review contractor's submittals of information and shop drawings for the Project and either mark "No Exceptions Taken," "Make Corrections Noted," "Revise and Resubmit," or "Rejected" on each submittal. Provide Sonoma Water with a brief written narrative of what is required from the contractor for items Consultant marks on each submittal response. Provide complete responses within 21 calendar days of receipt for submittals and within 10 calendar days for RFIs.
 - ii. Ensure that submittals reviewed are stamped, dated, and signed by the person reviewing.
 - iii. Review items that have been submitted by the contractor as a substitution or an "approved equal" for specified items. Review each substitution request for compliance with performance requirements specified in the Project specifications and ensure its compatibility with other components of the operating system (electrical connections, size). Consult with Sonoma Water's Project Manager regarding acceptability of the proposed substitution.
 - iv. Upon completion of review, return the submittals with any written narratives to Sonoma Water.
 - e. Upon request from Sonoma Water, provide construction site visits. Write summary memo of each site visit requested and provide to Sonoma Water 2 working days after date of site visit.
 - f. Review and comment on proposed change order(s), if any. Provide comments to Sonoma Water in writing within 2 working days after receipt of the proposed change order(s).

12. SUBMITTAL OF DOCUMENTS

12.1. Submittal requirements:

- a. Submit one electronic copy in PDF format (emailed, on USB flash drive, or via Internet) of each submittal to Sonoma Water (unless noted otherwise).
- b. Comply with requirements of Article 11 (Content Online Accessibility).
- c. If changes that Sonoma Water has not previously approved are made to the drawings or specifications after the 99% design review meeting, submit drawing(s) or specifications to Sonoma Water for approval prior to preparing the final submittal.

12.2. Electronic media formats:

- a. Survey information and drawings: Provide in electronic media format compatible with current Sonoma Water AutoCAD version at time of Agreement execution. Earlier compatible versions or alternate compatible Autodesk vertical products may only be used upon written approval of Sonoma Water.
- b. Technical Specifications and Operation and Maintenance Manual(s) modifications (including tables, charts, and drawings): Provide in electronic media format compatible with Microsoft® 365. Ensure that there are no discrepancies between electronic and hard copies.

12.3. Signatures:

- a. Signatures: Design Report, specifications, and drawings, including modifications, shall have the license seal and signature of the licensed professional (i.e., civil, electrical, structural, etc.) assigned responsibility for its preparation. Sign in accordance Paragraph 17.11 (Counterpart; Electronic Signatures).

12.4. Final Drawing Submittal Requirements:

- a. AutoCAD version sent via ETRANSMIT; remove signature from the file before sending.
- b. Half-size (11" x 17") signed version as PDF.
- c. Full-size (22" x 34") signed version as PDF.

Exhibit D

Map

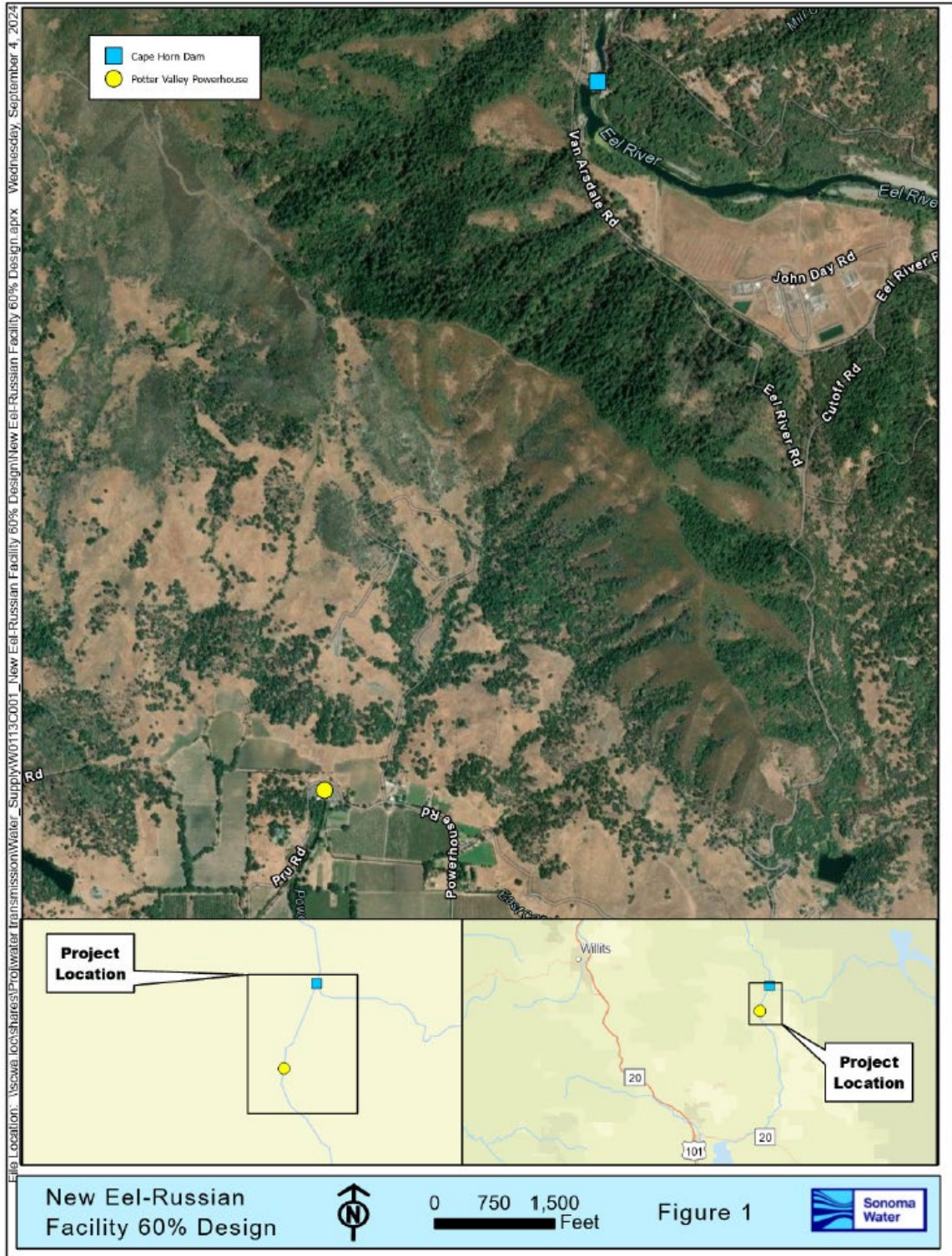


Exhibit E

Schedule of Costs

PERSONNEL	
Title(s)	Hourly Rate(s)
Executive Vice-President	\$325
Quality Control Engineer	\$270
Senior Project Manager	\$275
Assistant Project Manager	\$260
Senior Civil Engineer	\$260
Civil Engineer	\$185
Senior Structural Engineer	\$260
Structural Engineer	\$185
Geomorphologist	\$185
Senior Mechanical Engineer	\$260
Mechanical Engineer	\$225
Dam Safety Engineer	\$265
Senior Geotechnical Engineer	\$265
Geotechnical Engineer	\$260
Senior Hydraulic Engineer	\$260
Electrical Engineer	\$225
Instrumentation and Controls Engineer	\$225
Cost Estimator	\$205
Hydraulic Modeler	\$185
Senior CAD Designer	\$170
Project Administration /Accounting	\$115
Senior Technical Editor	\$145
SUBCONSULTANTS	
Name	Cost
Stillwater Ecosystem, Watershed & Riverine Sciences dba Stillwater Sciences	at cost plus 5%

TEG Oceanographic Services	at cost plus 5%
The Burroughs Group	at cost plus 5%
EXPENSES	
Item	Cost
Copies	\$0.10 per page
Postage	at cost
Overnight mail	at cost
Mileage for personal car	current IRS rate
Rental car	daily rate, at cost
Maximum expenses per day per person	\$100
Miscellaneous Supplies	at cost
Consultant's airfare as pre-approved by Sonoma Water's Project Manager	at cost
Consultant's lodging as pre-approved by Sonoma Water's Project Manager	at cost

Exhibit F

Estimated Budget for Scope of Work

DRAFT

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
	(QC) M. McMillen	(QC) ITR Team	(PM) K. Jensen	(Design Lead/ Asst PM) K. Thurman	(Lead Civil) J. Burgi	(Civil) R. Hudson	(Lead Struct.) P. Eggers	(Struct.) K. Heindel	(Geomorph) J. Larimer	(Lead Mech) W. Brown	(Pumps SME) B. Ticknor	(Lead Elec) M. Skelton	(I&C) M. Lawson	(Sr. Hydr) M. Cerucci	(Hydr) E. Koppes	(Geotech) I. Ghorbani
Staff																
Rates	\$ 325	\$ 270	\$ 275	\$ 260	\$ 260	\$ 185	\$ 260	\$ 185	\$ 185	\$ 260	\$ 225	\$ 225	\$ 225	\$ 260	\$ 185	\$ 265
1.0 Project Management	8	8	176	283	56	-	56	-	12	56	12	32	32	20	12	20
1.1 Progress Reporting				27												
1.2 Project Schedule			24	8												
1.3 Quality Assurance/Quality Control	8	8	8	8	8		8			8		8	8	8		8
1.4 Project Team Coordination			144	240	48		48		12	48	12	24	24	12	12	12
2.0 Technical Investigations	8	-	95	78	46	16	38	-	92	30	-	30	30	40	220	20
2.1 Project Kick-off and Data Collection			30	36	30		30			30		30	30		4	8
2.2 Geotechnical Investigation & Dam Coring	-	-	15	18	-	16	8	-	-	-	-	-	-	-	-	12
2.2.1 Reconnaissance			2	2												4
2.2.2 Permitting			2	4		16										
2.2.3 Subsurface Explorations and Sampling			4	2												
2.2.4 Laboratory Testing			2	2												
2.2.5 Reporting			4	4												
2.2.6 Cape Horn Dam Concrete Coring			1	4			8									8
2.3 Bathymetric and Topographic Survey			4	8	16											
2.4 Hydrology and Sediment Evacuation Modeling			16	8					24					8	32	
2.5 Hydraulic and Sediment Transport Modeling	8		30	8					68					32	184	
3.0 Design Package	48	216	88	210	62	160	78	248	80	188	106	164	124	8	52	40
3.1 Basis of Design Report	8	24	32	68	20	40	8	48	40	48	36	24	24	8	32	8
3.2 60% Pump Station Design Drawings ^{1,2}	16	64	24	64	20	60	30	100	20	60	40	60	40			16
3.3 60% Powerhouse Design Drawings ^{1,3}	8	64	16	30	10	30	20	60		40		40	30		20	
3.4 60% Technical Specifications ¹	16	64	16	48	12	30	20	40	20	40	30	40	30			16
4.0 Pre-Construction Services	12	24	36	30	8	-	8	-	-	10	10	8	8	-	-	-
4.1 Construction Scheduling ³	4	8	24	10	4		4			4	4	4	4			
4.2 AACE Class 3 OPCC & Bid Table ³	4	8	8	16	4		4			6	6	4	4			
4.3 Constructability Review	4	8	4	4												
5.0 Communication and Stakeholder Outreach	10	-	96	96	-	-	-	-	-	-	-	-	-	-	-	-
5.0 Communication and Stakeholder Outreach	10		96	96												
Total Hours	86	248	491	697	172	176	180	248	184	284	128	234	194	68	284	80
Total Budget	27,950	66,960	135,025	181,220	44,720	32,560	46,800	45,880	34,040	73,840	28,800	52,650	43,650	17,680	52,540	21,200

A	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	
	(Geotech) Staff D. Huang	(Dam Safety) R. Scott	(Cost Est) G. Wilson	(Sr. Cadd)	(Sr Tech Editor)	(Adm.)	Hours	McMillen Total Labor	Direct Expenses					Subconsultant Expenses (5% markup on subcontractor fees)				Total Expenses	TOTAL FEE	
Rates	\$ 260	\$ 265	\$ 205	\$ 170	\$ 145	\$ 115			Airfare	Hotel	Car	Meals	Equipment	Stillwater	TEG*	Concrete Coring	TBG			
1.0 Project Management	12	6	12	-	-	27	840	\$ 212,735	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,590	\$ -	\$ -	\$ -	\$ -	\$ 16,590	\$ 229,325
1.1 Progress Reporting						27	84	\$ 10,125											\$ -	\$ 10,125
1.2 Project Schedule							32	\$ 8,680											\$ -	\$ 8,680
1.3 Quality Assurance/Quality Control							88	\$ 23,080											\$ -	\$ 23,080
1.4 Project Team Coordination	12	6	12				666	\$ 170,850						\$ 16,590					\$ 16,590	\$ 187,440
2.0 Technical Investigations	136	-	16	132	-	-	1,027	\$ 229,605	\$ 3,180	\$ 5,508	\$ 2,210	\$ 3,060	\$ 4,500	\$ 222,285	\$ 262,973	\$ 63,000	\$ -	\$ -	\$ 566,716	\$ 796,321
2.1 Project Kick-off and Data Collection	30		16				274	\$ 68,450	\$ 2,480	\$ 3,888	\$ 1,560	\$ 2,160							\$ 10,088	\$ 78,538
2.2 Geotechnical Investigation & Dam Coring	106	-	-	-	-	-	175	\$ 44,585							\$ 262,973				\$ 262,973	\$ 307,558
2.2.1 Reconnaissance	32						40	\$ 10,450											\$ -	\$ 10,450
2.2.2 Permitting	8						30	\$ 6,630											\$ -	\$ 6,630
2.2.3 Subsurface Explorations and Sampling	32						38	\$ 9,940											\$ -	\$ 9,940
2.2.4 Laboratory Testing	2						6	\$ 1,580											\$ -	\$ 1,580
2.2.5 Reporting	32						40	\$ 10,460											\$ -	\$ 10,460
2.2.6 Cape Horn Dam Concrete Coring							21	\$ 5,515								\$ 63,000			\$ 63,000	\$ 68,515
2.3 Bathymetric and Topographic Survey				100			128	\$ 24,340	\$ 700	\$ 1,620	\$ 650	\$ 900	\$ 4,500	\$ 131,145					\$ 139,515	\$ 163,855
2.4 Hydrology and Sediment Evacuation Modeling							88	\$ 18,920						\$ 59,325					\$ 59,325	\$ 78,245
2.5 Hydraulic and Sediment Transport Modeling					32		362	\$ 73,310						\$ 31,815					\$ 31,815	\$ 105,125
3.0 Design Package	56	28	18	1,760	56	20	3,810	\$ 774,520	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 30,135	\$ -	\$ -	\$ -	\$ -	\$ 30,135	\$ 804,655
3.1 Basis of Design Report	24	8				24	524	\$ 119,860						\$ 30,135					\$ 30,135	\$ 149,995
3.2 60% Pump Station Design Drawings ^{1,2}	16	10	6	1,040			1,686	\$ 328,200											\$ -	\$ 328,200
3.3 60% Powerhouse Design Drawings ^{1,3}			6	720			1,094	\$ 210,010											\$ -	\$ 210,010
3.4 60% Technical Specifications ³	16	10	6		32	20	506	\$ 116,450											\$ -	\$ 116,450
4.0 Pre-Construction Services	-	16	244	-	-	-	414	\$ 94,950	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 94,950
4.1 Construction Scheduling ³		16	80				166	\$ 39,120											\$ -	\$ 39,120
4.2 AACE Class 3 OPCC & Bid Table ³			100				164	\$ 37,110											\$ -	\$ 37,110
4.3 Constructability Review			64				84	\$ 18,720											\$ -	\$ 18,720
5.0 Communication and Stakeholder Outreach	-	-	-	-	-	-	202	\$ 54,610	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 20,000	\$ 20,000	\$ 20,000	\$ 74,610
5.0 Communication and Stakeholder Outreach							202	\$ 54,610									\$ 20,000	\$ 20,000	\$ 20,000	\$ 74,610
Total Hours	204	50	290	1,892	56	47	6,293													
Total Budget	53,040	13,250	59,450	321,640	8,120	5,405		\$ 1,366,420	\$ 3,180	\$ 5,508	\$ 2,210	\$ 3,060	\$ 4,500	\$ 269,010	\$ 262,973	\$ 63,000	\$ 20,000	\$ 633,441	\$ 1,999,861	

Exhibit G

Federal Terms and Conditions

1. DEFINITIONS

1.1 Government means the United States of America and any executive department or agency thereof.

1.2 USBR means the United State Bureau of Reclamation

1.3 Third Party Subcontract means a subcontract at any tier entered into by Consultant or any subconsultant or subcontractor, financed in whole or in part with federal assistance derived from USBR

1.4 For purposes of this Exhibit, **Consultant** may be referred to as “Contractor” or “contractor.”

1.5 Agreement or **Contract** means that certain Agreement between Sonoma County Water Agency (Sonoma Water) and Consultant, and to which this Exhibit is made a part.

2. Compliance with Federal Law, Regulations, And Executive Orders and Acknowledgement of Federal Funding

This is an acknowledgement that USBR financial assistance will be used to fund all or a portion of the Agreement. Consultant will comply with all applicable federal law, regulations, executive orders, USBR policies, procedures, and directives.

3. Affirmative Socioeconomic Steps

If subcontracts are to be let, Consultant is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women’s business enterprises, and labor surplus area firms are used when possible.

4. Access to Records

The Contractor agrees to provide Sonoma Water, USBR, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

The Contractor agrees to provide USBR or its authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.

5. No Obligation by Federal Government

The federal government is not a party to this contract and is not subject to any obligations or liabilities to the non-federal entity, contractor, or any other party pertaining to any matter resulting from the contract

6. Debarment and Suspension

a. This contract is a covered transaction for purposes of 2 C.F.R. Part 180 and 2 C.F.R. Part 3000. As such, the contractor is required to verify that none of the contractor’s principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).

b. The contractor must comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.

c. This certification is a material representation of fact relied upon by Sonoma Water. If it is later determined that the contractor did not comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part

- 3000, subpart C, in addition to remedies available to Sonoma Water, the federal government may pursue available remedies, including but not limited to suspension and/or debarment.
- d. The contractor agrees to comply with the requirements of 2 C.F.R. Part 180, subpart C, and 2 C.F.R. Part 3000, subpart C, throughout the period of this contract. The contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

7. Restrictions on Lobbying

Non-Federal entities are strictly prohibited from using funds under this grant or cooperative agreement for lobbying activities and must provide the required certifications and disclosures pursuant to 43 CFR Part 18 and 31 USC 1352.

8. Domestic Preferences for Procurements 2 CFR 200.322

- a. As appropriate, and to the extent consistent with law, the contractor should, to the greatest extent practicable, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States. This includes, but is not limited to iron, aluminum, steel, cement, and other manufactured products.

- b. For purposes of this clause:

Produced in the United States means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.

Manufactured products mean items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

9. Recipient Employee Whistleblower Rights and Requirements to Inform Employees of Whistleblower Rights (Sep 2013)

- a. This award and employees working on this financial assistance agreement will be subject to the whistleblower rights and remedies in the pilot program on Award Recipient employee whistleblower protections established at 41 U.S.C. 4712 by section 828 of the National Defense Authorization Act for Fiscal Year 2013 (Pub.L. 112-239).
- b. The Award Recipient shall inform its employees in writing, in the predominant language of the workforce, of employee whistleblower rights and protections under 41 U.S.C 4712.
- c. The Award Recipient shall insert the substance of this clause, including this paragraph (c), in all subawards or subcontracts over the simplified acquisition threshold. 48 CFR 52.203-17 (as referenced in 48 CFR 3.908-9).

10. Prohibition on Certain Telecommunication and Video Surveillance Services or Equipment

Federal award recipients are prohibited from using government funds to enter contracts (or extend or renew contracts) with entities that use covered telecommunications equipment or services as described in section 889 of the 2019 National Defense Authorization Act. This prohibition applies even if the contract is not intended to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services.

Exhibit H

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 \$100,000 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: 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 \$100,000 it must be approved in advance by Sonoma Water.
 - c. If the insurance is on a Claims-Made basis, the retroactive date shall be no later than the commencement of the work.
 - d. 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.
 - e. Required Evidence of Insurance: Certificate of Insurance specifying the limits and the claims-made retroactive date.

1.5. Contractors Pollution Liability Insurance

- a. Minimum Limits: \$1,000,000 per pollution Incident; \$2,000,000 Aggregate. 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.
- b. Any deductible or self-insured retention shall be shown on the Certificate of Insurance. If the deductible or self-insured retention exceeds \$100,000 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.
- c. If the insurance is on a Claims-Made basis, the retroactive date shall be no later than the commencement of work.
- d. Coverage shall be continued for one (1) year after completion of the work. If the insurance is on a Claims-Made basis, the continuation coverage may be provided by: (a) renewal of the existing policy; (b) an extended reporting period endorsement; or (c) replacement insurance with a retroactive date no later than the commencement of the work.
- e. Sonoma County Water Agency, its officers, agents, and employees, shall be additional insureds for liability arising out of operations by or on behalf of Consultant in the performance of this Agreement. The foregoing shall continue to be additional insureds for one (1) year after completion of the work.
- f. Required Evidence of Coverage:
 - i. Copy of the additional insured endorsement or policy language granting additional insured status, and
 - ii. Certificate of Insurance.

1.6. 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.

1.7. Documentation

- a. The Certificate of Insurance must include the following reference:
TW 23/24-112.
- 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, 1.4, or 1.5, 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, California 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.

1.8. Policy Obligations

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

1.9. 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.