

**Request for Proposals
for
Inland Empire Brine Line:
SCADA Specification Design and Work Plan**



Santa Ana Watershed Project Authority

11615 Sterling Ave, Riverside, CA 92503

(951) 354-4220

**REQUEST FOR PROPOSALS
FOR
SANTA ANA WATERSHED PROJECT AUTHORITY
SCADA Specification Design and Work Plan**

Santa Ana Watershed Project Authority (SAWPA) requests proposals from qualified consultant firms to design and develop a Supervisory Control and Data Acquisition (SCADA) Specification Design and Work Plan per the requirements set forth in the Scope of Work.

Proposals must be submitted and uploaded onto Planet Bids at: <https://pbsystem.planetbids.com/portal/52676/portal-home> as a complete electronic/PDF file by no later than **April 16, 2025 at 4:00 pm.**, along with the Fee Proposal, which shall be submitted as both a PDF and Microsoft Excel file and uploaded as General Attachments. SAWPA will not accept hand-delivered proposals. **Proposals received after specified date and time WILL NOT be accepted.**

A non-mandatory **pre-proposal meeting** will be held via Zoom on March 19, 2025 at 10 am. Please email Daniel Vasquez at dvasquez@sawpa.gov for a link to the Zoom Meeting.

Prospective Offerors are required to put all RFP questions, clarifications, or comments through PlanetBids' Q&A system at: <https://pbsystem.planetbids.com/portal/52676/portal-home> and/or in writing to Emily Fuentes, Communications Specialist at Efuentes@sawpa.gov. Questions, clarifications, or comments must be received no later than April 11, 2025 at 4:00 pm. Brine Line GIS guest access and Record Drawings available upon request. The Offerors must verify that SAWPA received the e-mail transmission.

1. Background

Santa Ana Watershed Project Authority (SAWPA) completed the Inland Empire Brine Line Master Plan in December 2024. The Brine Line Master Plan was developed to determine how best to manage and implement the growth and expansion of the Brine Line in a manner that best serves the Santa Ana River Watershed, Member Agencies, and Brine Line dischargers. The development of a SCADA system was identified in several future projects in the Capital Improvement Program (CIP) for the enhanced monitoring and control of the Brine Line system. A design specification and work plan for remote, automated flow and water quality data capture will be developed for future SCADA project(s). The Brine Line Master Plan can be accessed online on SAWPA's website at https://sawpa.gov/wp-content/uploads/2025/02/SAWPA-Brine-Line-Master-Plan-Report_FINAL_1-9-25.pdf

Introduction

- a) **Agency Background:** SAWPA was formed in 1972 to plan and build facilities to protect water quality in the Santa Ana River Watershed. SAWPA is a Joint Powers Authority (JPA) comprised of five (5) member agencies: Eastern Municipal Water District (EMWD), Inland Empire Utilities Agency (IEUA), Orange County Water District (OCWD), San Bernardino Valley Municipal Water District (SBVMWD), and Western Municipal Water District (Western Water). To learn more about SAWPA please visit www.sawpa.gov.
- b) **The Inland Empire Brine Line:** The Inland Empire Brine Line (Brine Line) is approximately 73 miles of pipeline constructed to provide for a safe discharge of highly saline wastewater to protect the water quality of the Santa Ana River Watershed. The Brine Line carries this highly saline wastewater to a wastewater treatment plant in Huntington Beach operated by Orange County Sanitation District.

SAWPA owns approximately 73 miles the Brine Line in Riverside and San Bernardino Counties. Table 1 summarizes average flows and their sources in the Brine Line. The Brine Line was constructed to provide for highly saline, non-domestic discharges to protect the inland water quality in the upper Santa Ana River Watershed. Figure A shows the SAWPA Member Agency boundaries and associated Brine Line reaches.

Figure A: Inland Empire Brine Line and Member Agency Boundaries

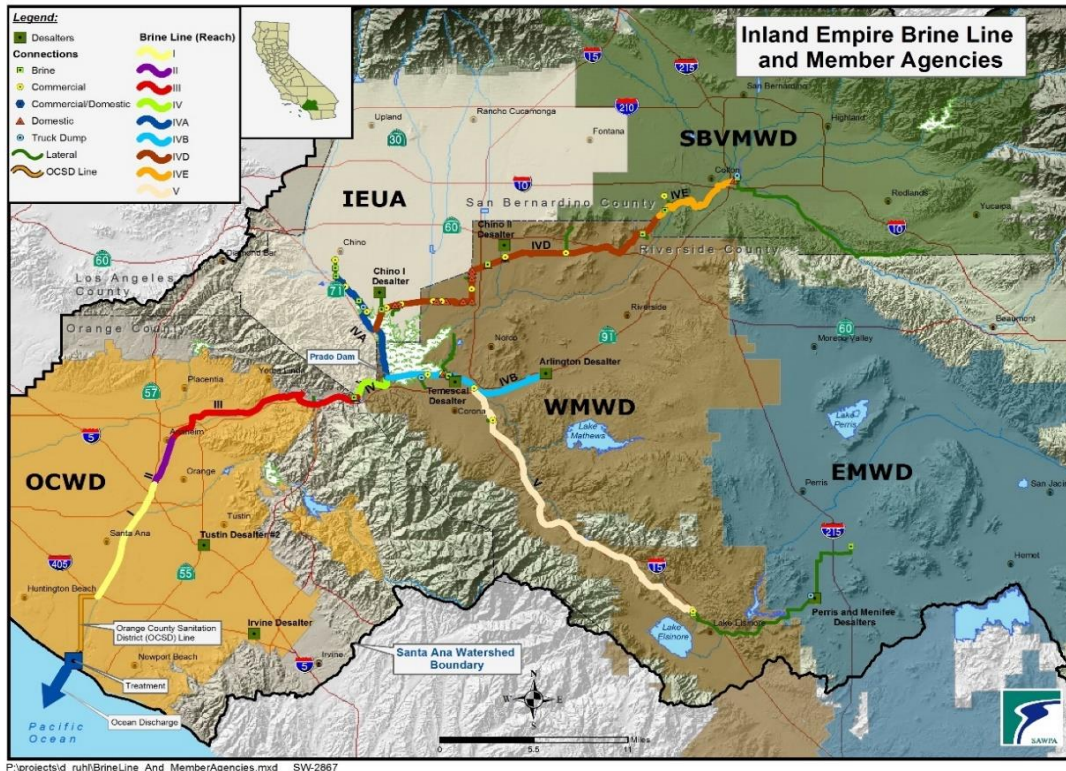


Table 1: SAWPA Monthly Total Flow (2022) to Orange County Sanitation District

| Flow Type | Average Daily Flow (MGD) | Percent of Total (%) |
|--------------------------|--------------------------|----------------------|
| Potable Water Production | 9.6 | 79 |
| Industrial | 1.2 | 10 |
| Power Generation | 0.5 | 4 |
| Wastewater Desalination | 0.4 | 4 |
| Domestic | 0.3 | 3 |
| Total | 12.0 | 100.00 |

c.) **SCADA Projects Identified in Brine Line Master Plan:** Collection of real-time flow and quality information increases SAWPA’s ability to monitor, operate, and control the Brine Line system. Furthermore, real-time data gathering allows SAWPA to monitor system dischargers on a continuous basis, thereby recording potential discharge violations and facilitating future pretreatment enforcement. Finally, a real-time understanding of each discharger’s flow and strength characteristics will allow for a more equitable distribution of cost between the dischargers, and ultimately between the SAWPA Member Agencies. For these reasons, SAWPA is proposing implementation of a Supervisory Control and Data Acquisition (SCADA) based system for the purpose of data collection, evaluation, and management.

It is recommended in the Master Plan that the SCADA-based system be implemented (more for data acquisition than control at this time), with data collection and transmittal devices installed at each discharger location and at each in-line flow monitoring location.

The proposed SCADA-based system provides remote, automated flow (and ultimately water quality) data collection for each discharger, and the overall Brine Line system. The collected data provides SAWPA staff information for monitoring discharge flow and quality, understanding the movement of brine discharges throughout the Brine Line system, and accurately quantifying system capacity and conditions on a real-time basis. Furthermore, automated data collection reduces SAWPA staff time related to data management and enhances

ongoing effort related to compliance. The collected data is also useful in maintenance of the Brine Line hydraulic model, providing more accurate information throughout the current and future conveyance system.

The Brine Line Master Plan describes the SCADA system to be developed in a phased approach to construction, based on the discharge conditions of each site. A possible phasing of the SCADA system is summarized in Table 2.

Table 2: Possible Phasing for SCADA Project

| Phase | Description of Work |
|-------|--|
| 1 | Construction and installation of Master Station, operator workstation, setup, integration of programming and automation |
| 2 | Construction and installation of monitoring for discharger sites and SARI Metering Station (may be multiple phases based on flow, readiness, or other factors). |
| 3 | Construction and installation of up to five in-line flow monitoring stations (may be multiple phases based on cost, connectivity, site assessment or other factors). |

Development of design specifications and a work plan will support the implementation of these projects. In brief, this scope will include a Master Station, Operation Workstation, five (5) inline monitoring locations, and real time monitoring of all direct dischargers. Further details are given in the Scope of Work, Section 4.

2. Schedule

Table 3: RFP Schedule

| | |
|----------------------------------|-----------------------------------|
| Issue Request for Proposals | March 4, 2025 |
| Pre-proposal meeting | March 19, 2025 |
| Proposals due | April 16, 2025 4:00 PM PST |
| Interview of top proposing firms | April 24, 2025 |
| Recommend Award | May 6, 2025 |
| Issue Notice to Proceed | May 2025 |

3. Proposal Instructions and Conditions

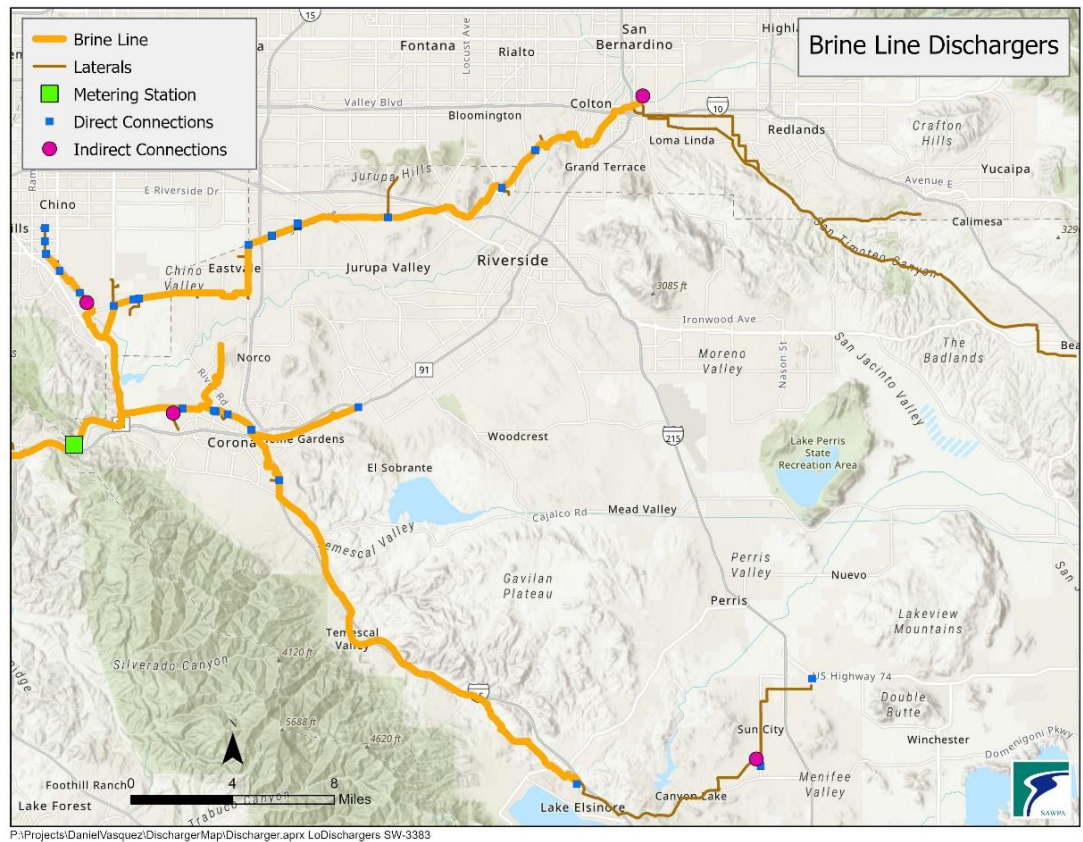
- a.) **Pre-Contractual Expenses:** Pre-Contractual expenses are defined as expenses incurred by prospective bidders in:
- Preparing a proposal in response to the RFP
 - Submitting that proposal to SAWPA
 - Negotiating with SAWPA in any matter related to this RFP, proposal, and/or contractual agreement
 - Any other expenses incurred by the prospective bidder prior to the date of an executed contract
 - SAWPA will not, in any event, be liable for any pre-contractual expenses incurred by any prospective bidder. In addition, no prospective bidder shall include any such expenses as part of the price proposed to perform the requested services.
- b.) **Authority to Withdraw RFP and/or Not Award Contract:** SAWPA reserves the right to withdraw the RFP at any time without prior notice. Further, SAWPA makes no representations that any agreement will be awarded to any prospective bidder responding to this RFP. SAWPA expressly reserves the right to postpone the opening of proposals for its own convenience and to reject any and all proposals in response to this RFP without indicating any reasons for such rejection(s).
- c.) **Selection of Multiple Proposals:** Due to the widely varied geographic area and technical requirements, SAWPA has found teams of consultants to be very effective in providing the technical expertise and personnel required to perform services for the Brine Line. Therefore, SAWPA reserves the right to select more than one prospective firm to provide services for all or part of the proposed scope of work.

- d.) **Right to Reject Proposal:** SAWPA reserves the right to reject any or all proposals submitted. Any award made for this engagement will be made to the firm/s, which, in the opinion of SAWPA, is best qualified to perform the services and represents the best value and effectiveness.
- e.) **Discrepancies in Proposal Documents:** Should prospective firms find discrepancies in, or omissions from the RFP, or if the intent of the RFP is not clear, and if provisions of the specifications restrict any prospective firm from proposing, they may request in writing that the deficiency(s) be modified. Such request must be received by SAWPA at least ten (10) working days before the proposal due date. All registered firms will be notified by addendum of any approved changes in the request for proposal documents.
- f.) **Oral Statements:** SAWPA is not responsible for oral statements made by any of its employees or agents concerning the RFP. If the prospective firm requires specific information, a written request must be submitted to SAWPA.
- g.) **Conflict of Interest:** The Consultant shall review their past, current, or proposed work with agencies or firms having a significant interest in the Brine Line to verify a conflict of interest or the appearance of a conflict will not occur.

4. Scope of Work

- a.) **Task 1: Project Management:** The consultant shall provide all efforts to manage all tasks in a cost effective, timely, and professional manner, including but not limited to, overseeing consultant efforts; attend kick-off meeting with SAWPA staff to solicit input and confirm approach and criteria; provide monthly project status and invoices of appropriate detail and participate in (4) workshops with SAWPA staff to review findings and incorporate feedback. A template for status reports has been provided in Appendix B.
- b.) **Task 2: Data Collection and Assessment:** The consultant shall gather and review all pertinent documentation pertaining to the implementation of the SCADA Project . This may require physical visits to discharger sites, inspection of existing meters, space, easements, utility vicinity, and member agency existing SCADA systems. Proposers must not contact dischargers during proposal process. Please direct all questions and information requests via Planetbids. A Map of general discharger locations along the Brine Line is shown below in Figure B. A list of dischargers and their location can be seen as detailed in Appendix C

Figure B: Existing Brine Line Discharger Meter Locations



c.) Task 3: Preliminary Design and Work Plan:

- a. Define SCADA system architecture and network topology. These SCADA infrastructure components include but are not limited to SCADA Master Station & HMI, Operational Workstation(s), Remote Terminal Units and/or Programmable Logic Controllers (PLCs), communication Network, Data Historian, Alarm Management, and sensor types.
- b. Identify locations for SCADA Master Station, Operational Workstation(s), and In-Line Monitoring Stations.
- c. Determine necessary utility developments to support sites.
- d. Develop outline of necessary new server infrastructure to support SCADA Master Station, Operator Station, Data Historian and Alarm Management.
- e. Develop preliminary PLC/RTU configurations and I/O lists.
- f. Select communication protocols for all sites (cellular, fiber, radio including security measures such as encryption, network segmentation, access control mechanisms as appropriate).
- g. Create preliminary HMI screen mockups, alarm categories, and reporting capabilities.
- h. Outline cybersecurity framework and compliance considerations.
- i. Preliminary Communication Network Plan.
- j. HMI Mockups.
- k. Preliminary Design and Work Plan that covers the following elements at a minimum:
 - i. Summary of data and results for Task 3 a – j
 - ii. Structured implementation roadmap for recommended phased deployment based on constraints.
 - iii. Prioritization rationale for component installation and integration.
 - iv. Detailed planning level Cost Estimate
 - v. Testing and commissioning framework for future construction contracts.
- l. Deliverables (SAWPA to review and provide comments):

- i. Draft and Final Preliminary Design and Work Plan for SAWPA to review and provide comments. Two (2) workshop meetings with SAWPA staff should be used for the development of the Draft and Final Preliminary Design and Work Plan.
- d.) **Task 4: 60% Design Specification:**
 - a. Incorporate stakeholder feedback.
 - b. Further refine SCADA Master Station & HMI design.
 - c. Finalize PLC/RTU selection, I/O mapping, and preliminary control logic.
 - d. Develop detailed communication network design and data transmission plan.
 - e. Finalize sensor specifications.
 - f. Develop cybersecurity strategy.
 - g. Deliverables (SAWPA to review and provide comments):
 - i. 60% Brine Line SCADA Design
 - ii. SCADA System Network Diagram.
 - iii. Detailed I/O List and PLC Programming Framework.
 - iv. Updated Work Plan
 - v. Cybersecurity Strategy Document (Referencing appropriate standards from NIST 800-82, IEC 62443, NERC CIP, ISO 27001 etc).
- e.) **Task 5: 90% Design Specification:**
 - a. Incorporate stakeholder feedback.
 - b. Prepare full SCADA system design drawings and specifications.
 - c. Provide detailed wiring diagrams and control panel layouts.
 - d. Finalize HMI screen navigation and alarm configuration.
 - e. Define functional testing criteria for future construction.
 - f. Deliverables (SAWPA to review and provide comments):
 - i. 90% Brine Line SCADA Design Specification
 - ii. HMI Interface Final Design.
 - iii. Updated Work Plan
 - iv. Alarm Management and Cybersecurity Compliance Report. (Alarm Rationalization Best Practices, cybersecurity validation standards, and network security testing including penetration tests, firewall rule audits and patch management verification as appropriate).
 - v. Testing and Validation Criteria.
- f.) **Task 6: 100% Design Specification**
 - a. Incorporate stakeholder feedback and finalize all design documents.
 - b. Prepare final bid-ready SCADA System Specifications for the implementation of SCADA system.
 - c. Deliverables (SAWPA to review and provide comments):
 - i. 100% Brine Line SCADA Design Specifications.
 - ii. Finalized Detailed I/O List and PLC Programming Framework.
 - iii. Finalized Work Plan with all previous sub-elements.
 - iv. Finalized Network and Communication Plan.
 - v. Finalized PLC&RTU Control Logic Guidelines.
 - vi. Finalized Alarm Management and Cybersecurity Compliance Report.

5. Project Schedule

- a) The Consultant shall conduct a kick-off meeting within one (1) week from the notice to proceed. SAWPA Anticipates the total time to complete the work is 4 – 6 months.

6. Fee Proposal Requirements

In preparing the fee schedule for the services identified under the scope of work, the Consultant shall take into consideration the following:

- a) Compensation for Consultant direct services provided in completing the tasks shall be based upon an hourly billing rate up to a not-to-exceed amount.

- b.) For each task, provide a breakdown of labor hours by employee billing classification together with the cost of non-labor and sub-consultant services. The labor breakdown shall be compiled by project task and be based on a listing of work tasks that correlates with the Consultant's defined scope of work for the project proposal. For each task, sum the total hours and the total cost. The sum of all task hours and task cost shall be provided. This information will be used by SAWPA to evaluate the reasonableness of the fee proposal and will be used in negotiating the final fee amounts for the contract agreement. Optional tasks shall be detailed as described above for all tasks. Optional tasks shall be broken out separately and not included in the sum of all task hours and all task costs. For each optional task sum the total hours and the total cost.
- c.) The Consultant shall detail the hours allocated to meetings by meeting type (kickoff, workshop, etc.).
- d.) The Consultant's billing rates for all classifications of staff likely to be involved in the project shall be included with the fee proposal, along with the markup rate for any non-labor expenses and sub-consultants.
- e.) SAWPA will review the fee proposal of the Consultant deemed most qualified after completing a review of the proposals and conducting interviews. The final scope and fee will be negotiated with the top ranked Consultant.
- f.) Reimbursable expenses will not be allowed unless included in the proposal and negotiated prior to a contract. Billing rate escalations during the contract term are disfavored and shall be approved in negotiations prior to execution of a contract.

7. Proposal Requirements

- a) **Content and Format:** Although no specific format is required by SAWPA, this section is intended to provide guidelines to the Consultant regarding features, which SAWPA will look for and expect to be included in the proposal. SAWPA requests that submitted proposals are organized, presented in an understandable format, and relevant to the services requested. Consultant's proposals shall be clear, accurate, and comprehensive. Excessive or irrelevant material is not of benefit and will not contribute to overall evaluation.

Proposals should be limited to pertinent information. Proposal should be no more than Twenty (20) **typed pages** (based on an 11-point minimum font size), including Table of Contents. Resumes, cover letter and page dividers will not count toward the proposal page limit. Resumes should be included in an appendix. The fee proposal, provided in a separate file, should contain information to clearly respond to the information that is requested in the RFP.

The proposal should include the following:

- Cover or transmittal letter
- Table of Contents, page numbering
- Project Approach and Scope of Services
- Project Team and Organization Diagram
- Descriptions of similar projects by key staff to be used on this assignment including scope and complexity of the projects
- Brief resumes of key staff and sub-consultants (In Appendix)
- Relevant and appropriate references
- Detailed Project schedule with date estimations for 30-60-90-100% Designs.
- Breakdown of total hours by Task. Total hours include Consultant personnel and subconsultants.
- Contract Exceptions, Proof of Insurance
- Fee proposal, billing rates for staff. In addition, the fee proposal shall include a breakdown of hours by type of personnel identified as part of the project team (**submitted in a separate file**).

Some of these areas are described in further detail below:

- b.) **Cover or Transmittal Letter:** An individual authorized to bind the Consultant shall sign the proposal and fee proposal. The proposal shall contain a statement that the proposal and fee are valid for at least a 90-day period.
- c.) **Project Approach and Scope of Services:** A description of the work that will be undertaken shall be included in this section. It should explain the technical approach, methodology, and specific tasks and activities that will be performed to address the specific issues and work items identified in the RFP. It should also include a discussion of constraints, problems, and issues that should be anticipated during the contract, and suggestions for approaches to resolving them. Any proposed deviations to the scope of work as described herein should be clearly noted.
- d.) **Project Team and Organization Diagram:** The purpose of this section is to describe the organization of the project team including sub-consultants and key staff. A project manager shall be named who shall be the prime contact and be responsible for coordinating all activities with SAWPA. An organizational diagram shall be submitted showing all key team members, their office location, and the relationship between SAWPA, the project manager, key staff, and sub-consultants. There also shall be a brief description of the role and responsibilities of all key staff and sub-consultants identified in the team organization.
- e.) **Project Schedule:** A project schedule shall be included which identifies the timetable for completion of tasks, activities, and phases of the project that correlate with the scope of work for the project. There should be a brief discussion of any key assumptions used in preparing the timetable, and identification of critical tasks and/or events that could impact the overall schedule.
- f.) **Contract Exceptions, Proof of Insurance:** The Consultant shall carefully review the standard agreement and include with the proposal a description of any exceptions requested to the standard contract. If there are no exceptions, a statement to that effect shall be included in the proposal. The Consultant shall furnish, with the proposal, proof of insurance coverage to the minimum levels identified in Section 7.
- g.) **Fee Proposal** (Separate File) A Fee Proposal shall be submitted per the requirements of Section 7 as both a PDF and Excel file and uploaded as General Attachments.

8. General Requirements

a) **Insurance Requirements**

- i. **The Consultant shall furnish, with the proposal, proof of the following minimum insurance coverage. Full information on insurance requirements is listed in Attachment B.** These minimum levels of coverage are to be maintained for the duration of the project:
- ii. Obtain a Commercial **General Liability and an Automobile Liability** insurance policy, including contractual coverage, with limits for bodily injury and property damage in an amount of not less than \$2,000,000.00 per occurrence (Commercial General Liability) and with limit of one million dollars (\$1,000,000) for bodily injury and property damage each accident (Automobile Liability). Such policy shall name SAWPA, its officers, employees, agents and volunteers, as an additional insured, with any right to subrogation waived as to SAWPA, its officers, employees, agents and volunteers. If Commercial General Liability Insurance or other form with an aggregate limit is used, either the general aggregate limit shall apply separately to the work assigned by SAWPA under this Agreement or the general aggregate limit shall be at least twice the required occurrence limit. The coverage shall be at least as broad as Insurance Services Office Commercial General Liability Coverage (occurrence Form CG 00 01) and Insurance Services Office Form CA 00 01 covering Automobile Liability, Code 1 (any auto). The Commercial Liability Insurance shall include operations, products and completed operations, as applicable.

- iii. Obtain a policy of **Professional Liability** (errors and omissions) insurance appropriate to the Consultant's profession in a minimum amount of \$1,000,000.00 per claim or occurrence to cover any negligent acts or omissions or willful misconduct committed by Consultant, its employees, agents and subcontractors in the performance of any services for SAWPA (\$2,000,000 aggregate). Architects' and engineers' coverage shall include contractual liability.
- iv. Provide **worker's compensation** insurance or a California Department of Insurance-approved self-insurance program with limit of no less than \$1,000,000 per accident for bodily injury or disease that meets all applicable Labor Code requirements, covering all persons or entities providing services on behalf of the Consultant and all risks to such persons or entities.
- v. Obtain a policy of **Cyber Liability Insurance** (Technology Professional Liability – Errors and Omissions) If Consultant will be providing technology services, limits not less than \$2,000,000 per occurrence or claim, and \$2,000,000 aggregate or the full per occurrence limits of the policies available, whichever is greater. Coverage shall be sufficiently broad to respond to the duties and obligations as is undertaken by Consultant in this Agreement and shall include, but not be limited to, claims involving infringement of intellectual property, including but not limited to infringement of copyright, trademark, trade dress, invasion of privacy violations, information theft, damage to or destruction of electronic information, release of private information, alteration of electronic information, extortion and network security. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses with limits sufficient to respond to these obligations.

The Consultant is encouraged to contact its insurance carriers during the Proposal stage to ensure that the insurance requirements can be met if selected for negotiation of a contract agreement.

- b) **Standard Form of Agreement:** The selected Consultant will enter into an agreement with SAWPA based upon the contents of the RFP and the Consultant's proposal. SAWPA's standard form of agreement is included as **Appendix A**. The Consultant shall carefully review the agreement, especially in regard to the indemnity and insurance provisions, and include with the proposal a description of any exceptions requested to the standard contract. If there are no exceptions, a statement to that effect shall be included in the proposal.
- c) **Assigned Representatives:** SAWPA will assign a responsible representative to administer the contract and to assist the Consultant in obtaining information. The Consultant also shall assign a project manager who shall be identified in the proposal. The Consultant's representative shall remain in responsible charge of the Consultant's duties from the notice-to-proceed through project completion. SAWPA's representative shall approve any substitution of representatives or sub-consultants identified in the written proposal. SAWPA reserves the right to review and approve/disapprove all key staff and sub-consultant substitution or removal and may consider such changes not approved to be a breach of contract.

9. Consultant Evaluation and Selection Process

- b) **Selection Process:** SAWPA's consultant evaluation and selection process is based on comprehensive review of the proposals for professional services. The following criteria will be used in evaluating the proposals:
 - (1) Understanding of the project requirements including identification of critical elements and key issues for successful project implementation.
 - (2) Technical approach and work plan for the project.
 - (3) Relevant qualifications and experience of the firm, project manager, other key individuals, and sub-consultants and past performance and experience.
 - (4) Schedule.
 - (5) Results of reference checks.
 - (6) Clarity of proposal and compliance with proposal requirements.
- c) **Potential Interview:** Firms submitting the best proposals may be invited to an interview conducted by a selection panel made up of representatives from SAWPA member agencies, sub-agencies, and/or SAWPA

staff. The number of firms to be invited for interviews is at the discretion of SAWPA. The interview format and details will be included in the interview invitation letter. SAWPA recognizes the significant effort required to respond to this RFP and therefore discourages any firm or team which lacks the required experience to submit a proposal for evaluation.

- d) **Negotiations:** SAWPA may negotiate a contract with the most qualified firm or firms for the desired consulting services and compensation level, which SAWPA determines is fair and reasonable. Failing a successful negotiation with the best-qualified firm or firms, SAWPA will terminate negotiations and continue the negotiation process with the next most qualified firm(s), in order to obtain the services at a fair and reasonable price, until an agreement is reached, a firm is selected, and an agreement is executed.

10. Attachments

Appendix A- Standard form of Agreement
Appendix B- Template for Monthly Status Reports
Appendix C- Brine Line Dischargers and Locations

PROPOSAL AUTHORIZATION

(Please provide this document (or exact information) on your letterhead)

I certify I am authorized to submit a binding proposal on behalf of my company, (enter company name), and this proposal conforms to required specifications unless otherwise noted.

Company Name

Proposal Submitted by

Title

Signature

Date

Email

Telephone Number

Facsimile Number