

**MONTEREY COUNTY WATER RESOURCES AGENCY
AGREEMENT FOR PROFESSIONAL SERVICES
WITH SURVEYORS, ARCHITECTS, ENGINEERS AND/OR DESIGN
PROFESSIONALS**

This is an agreement ("Agreement") between the Monterey County Water Resources Agency, hereinafter called "Agency," and _____, a _____ hereinafter called "CONTRACTOR".

In consideration of the mutual covenants and conditions set forth in this Agreement, the parties agree as follows:

1. Scope of Work. Agency hereby engages CONTRACTOR and CONTRACTOR hereby agrees to perform the services set forth in Exhibit A, in conformity with the terms of this Agreement. CONTRACTOR will complete all work in accordance with the **Scope of Work/Work Schedule set forth in Exhibit A:**
 - a) The scope of work is briefly described and outlined as follows:
 - b) The CONTRACTOR shall perform its services under this agreement in accordance with usual and customary care and with generally accepted practices in effect at the time the services are rendered. The CONTRACTOR and its agents and employees performing work hereunder are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required by this Agreement.
 - c) CONTRACTOR, its agents and employees shall perform all work in a safe and skillful manner and in compliance with all applicable laws and regulations. All work performed under this Agreement that is required by law to be performed or supervised by licensed personnel shall be performed in accordance with such licensing requirements.
 - d) CONTRACTOR shall furnish, at its own expense, all materials and equipment necessary to carry out the terms of this Agreement, except as otherwise provided herein. CONTRACTOR shall not use Agency premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations hereunder.
2. Term of Agreement. The term of this Agreement shall begin on _____ by CONTRACTOR and Agency, and will terminate on _____, unless earlier terminated as provided herein.

3. Payments to CONTRACTOR; maximum liability. Subject to the limitations set forth herein, Agency shall pay to CONTRACTOR in accordance with the fee schedule set forth in Exhibit B. The maximum amount payable to CONTRACTOR under this contract is

(\$ _____).

4. Monthly Invoices by CONTRACTOR; Payment.

- a) CONTRACTOR shall submit to Agency an invoice, in a format approved by Agency, setting forth the amounts claimed by CONTRACTOR, together with an itemized basis for such amounts, and setting forth such other pertinent information Agency may require. CONTRACTOR shall submit such invoice monthly or as agreed by Agency, but in no event shall such invoice be submitted later than 30 days after completion of CONTRACTOR's work hereunder. Agency shall certify the claim if it complies with this contract and shall promptly submit such claim to the Monterey County Auditor-Controller, who shall pay the certified amount within 30 days after receiving the invoice certified by Agency. It is understood and agreed that CONTRACTOR shall complete all work described in Exhibit A for an amount not exceeding that set forth above, notwithstanding CONTRACTOR's submission of periodic invoices.
- b) CONTRACTOR shall submit to Agency an invoice via email to WRAAccountsPayable@countyofmonterey.gov and to the Contract Administrator listed in Section 27.
- c) CONTRACTOR agrees that Agency may withhold five percent (5%) of the amount requested by CONTRACTOR from any progress payment, until such time as all goods and services are received in a manner and form acceptable to Agency.
- d) If, as of the date of execution of this Agreement, CONTRACTOR has already received payment from Agency for work which is the subject of this Agreement, such amounts shall be deemed to have been paid under this Agreement and shall be counted toward Agency's maximum liability set forth above.
- e) CONTRACTOR shall not be reimbursed for travel expenses unless expressly approved in writing in accordance with this Agreement.

5. Indemnification.

- 5.1 For purposes of the following indemnification provisions ("Indemnification Agreement"), "design professional" has the same meaning as set forth in California Civil Code section 2782.8. If any term, provision or application of this Indemnification Agreement is found to be invalid, in violation of public policy or unenforceable to any

extent, such finding shall not invalidate any other term or provision of this Indemnification Agreement and such other terms and provisions shall continue in full force and effect. If there is any conflict between the terms, provisions or application of this Indemnification Agreement and the provisions of California Civil Code sections 2782 or 2782.8, the broadest indemnity protection for the AGENCY under this Indemnity Agreement that is permitted by law shall be provided by CONTRACTOR.

- 5.2 Indemnification for Design Professional Services Claims: CONTRACTOR shall indemnify, defend and hold harmless AGENCY, its governing board, directors, officers, employees, and agents against any claims that arise out of, or pertain to, or relate to the negligence, recklessness, or willful misconduct of the CONTRACTOR, its employees, subcontractors, and agents in the performance of design professional services under this Agreement, excepting only liability arising from the sole negligence, active negligence or willful misconduct of AGENCY, or defect in a design furnished by AGENCY, but in no event shall the amount of such CONTRACTOR's liability exceed such CONTRACTOR's proportionate percentage of fault as determined by a court, arbitrator or mediator, or as set out in a settlement agreement. In the event one or more defendants to any action involving such claim or claims against AGENCY is unable to pay its share of defense costs due to bankruptcy or dissolution of the business, such CONTRACTOR shall meet and confer with the other parties to such action regarding unpaid defense costs.

5.3

Indemnification for All Other Claims or Loss:

For any claim, loss, injury, damage, expense or liability other than claims arising out of the CONTRACTOR's performance of design professional services under this Agreement, CONTRACTOR shall indemnify, defend and hold harmless AGENCY, its governing board, directors, officers, employees, and agents against any claim for loss, injury, damage, expense or liability resulting from or alleging injury to or death of any person or loss of use of or damage to property, arising from or related to the performance of services under this Agreement by CONTRACTOR, its employees, subcontractors or agents, excepting only liability arising from the sole negligence, active negligence or willful misconduct of the AGENCY, or defect in a design furnished by the AGENCY.

6. Insurance.

6.1 Evidence of Coverage:

Prior to commencement of this Agreement, the CONTRACTOR shall provide a "Certificate of Insurance" certifying that coverage as required herein has been obtained. Individual endorsements executed by the insurance carrier shall accompany the certificate. In addition the CONTRACTOR upon request shall provide a certified copy of the policy or policies.

This verification of coverage shall be sent to the Agency's Contact, unless otherwise directed. The CONTRACTOR shall not receive a "Notice to Proceed" with the

work under this Agreement until it has obtained all insurance required and such, insurance has been approved by the Agency. This approval of insurance shall neither relieve nor decrease the liability of the CONTRACTOR.

6.2 Qualifying Insurers:

All coverage's, except surety, shall be issued by companies which hold a current policy holder's alphabetic and financial size category rating of not less than A-VII, according to the current Best's Key Rating Guide or a company of equal financial stability that is approved by the County's Purchasing Manager.

6.3 Insurance Coverage Requirements:

Without limiting CONTRACTOR's duty to indemnify, CONTRACTOR shall maintain in effect throughout the term of this Agreement a policy or policies of insurance with the following minimum limits of liability:

Commercial general liability insurance, including but not limited to premises and operations, including coverage for Bodily Injury and Property Damage, Personal Injury, Contractual Liability, Broad form Property Damage, Independent CONTRACTORS, Products and Completed Operations, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

☐ Exemption/Modification (Justification attached; subject to approval).

Business automobile liability insurance, covering all motor vehicles, including owned, leased, non-owned, and hired vehicles, used in providing services under this Agreement, with a combined single limit for Bodily Injury and Property Damage of not less than \$1,000,000 per occurrence.

☐ Exemption/Modification (Justification attached; subject to approval).

Workers' Compensation Insurance, if CONTRACTOR employs others in the performance of this Agreement, in accordance with California Labor Code section 3700 and with Employer's Liability limits not less than \$1,000,000 each person, \$1,000,000 each accident and \$1,000,000 each disease.

☐ Exemption/Modification (Justification attached; subject to approval).

Professional liability insurance, if required for the professional services being provided, (e.g., those persons authorized by a license to engage in a business or profession regulated by the California Business and Professions Code), in the amount of not less than \$1,000,000 per claim and \$2,000,000 in the aggregate, to cover liability for malpractice or errors or omissions made in the course of rendering professional services. If professional liability insurance is written on a "claims-made" basis rather than an occurrence basis, the CONTRACTOR shall, upon the expiration or earlier termination of this Agreement, obtain extended reporting coverage ("tail coverage") with the same liability limits. Any such tail coverage shall continue for at least three years following the expiration or earlier termination

of this Agreement.

☐ Exemption/Modification (Justification attached; subject to approval).

6.4 Other Insurance Requirements.

All insurance required by this Agreement shall be with a company acceptable to the Agency and issued and executed by an admitted insurer authorized to transact Insurance business in the State of California. Unless otherwise specified by this Agreement, all such insurance shall be written on an occurrence basis, or, if the policy is not written on an occurrence basis, such policy with the coverage required herein shall continue in effect for a period of three years following the date CONTRACTOR completes its performance of services under this Agreement.

Each liability policy shall provide that the Agency shall be given notice in writing at least thirty days in advance of any endorsed reduction in coverage or limit, cancellation, or intended non-renewal thereof. Each policy shall provide coverage for CONTRACTOR and additional insureds with respect to claims arising from each subcontractors, if any, performing work under this Agreement, or be accompanied by a certificate of insurance from each subcontractors showing each subcontractors has identical insurance coverage to the above requirements.

Commercial general liability and automobile liability policies shall provide an endorsement naming the Monterey County Water Resources Agency and the County of Monterey, their officers, agents, and employees as Additional Insureds with respect to liability arising out of the CONTRACTOR'S work, including ongoing and completed operations, and shall further provide that such insurance is primary insurance to any insurance or self-insurance maintained by the County and that the insurance of the Additional Insureds shall not be called upon to contribute to a loss covered by the CONTRACTOR'S insurance. The required endorsement form for Commercial General Liability Additional Insured is **ISO Form CG 20 10 11-85 or CG 20 10 10 01 in tandem with CG 20 37 10 01 (2000)**. The required endorsement form for Automobile Additional Insured endorsement is **ISO Form CA 20 48 02 99**.

Prior to the execution of this Agreement by the Agency, CONTRACTOR shall file certificates of insurance with the Agency's contract administrator, showing that the CONTRACTOR has in effect the insurance required by this Agreement. The CONTRACTOR shall file a new or amended certificate of insurance within five calendar days after any change is made in any insurance policy, which would alter the information on the certificate then on file. Acceptance or approval of insurance shall in no way modify or change the indemnification clause in this Agreement, which shall continue in full force and effect.

CONTRACTOR shall at all times during the term of this Agreement maintain in force the insurance coverage required under this Agreement and shall send, without demand by Agency, annual certificates to Agency's Contract Administrator. If

the certificate is not received by the expiration date, Agency shall notify CONTRACTOR and CONTRACTOR shall have five calendar days to send in the certificate, evidencing no lapse in coverage during the interim. Failure by CONTRACTOR to maintain such insurance is a default of this Agreement, which entitles Agency, at its sole discretion, to terminate this Agreement immediately.

7. Maintenance of Records. CONTRACTOR shall prepare, maintain and preserve all reports and records that may be required by federal, State, and local rules and regulations relating to services performed under this Agreement. CONTRACTOR shall retain all such records for at least five years from the date of final payment, or until any litigation relating to this Agreement is concluded, whichever is later.
8. Right to Audit at Any Time. Agency officials shall have the right, at any time during regular working hours and on reasonable advance notice, to examine, monitor and audit all work performed and all records, documents, conditions, activities and procedures of CONTRACTOR or its subcontractors relating to this Agreement. Government Code section 8546.7 provides that an audit by the State Auditor General may be performed up to three years after the final payment under any contract involving the expenditure of public funds in excess of \$10,000.
9. Confidentiality; Return of Records. CONTRACTOR and its officers, employees, agents, and subcontractors shall comply with all federal, State and local laws providing for the confidentiality of records and other information. To the extent permitted by applicable law and regulations, CONTRACTOR shall maintain confidentiality with respect to Agency's well database and other water use data.

CONTRACTOR shall not disclose any confidential information received from Agency or prepared in connection with the performance of this Agreement without the express permission of Agency. CONTRACTOR shall promptly transmit to Agency all requests for disclosure of any such confidential information. CONTRACTOR shall not use any confidential information gained through the performance of this Agreement except for the purpose of carrying out CONTRACTOR's obligations hereunder. When this Agreement expires or terminates, CONTRACTOR shall return to Agency all records, which CONTRACTOR utilized or received, from Agency to perform services under this Agreement.

10. Termination. Either party may terminate this Agreement by giving written notice of termination to the other party at least thirty (30) days prior to the effective date of termination, which date shall be specified in any such notice. In the event of such termination, the amount payable hereunder shall be reduced in proportion to the services provided prior to the effective date of termination. Agency may terminate this Agreement at any time for good cause effective immediately upon written notice to CONTRACTOR. "Good cause" includes, without limitation, the failure of CONTRACTOR to perform the required services at the time and in the manner provided herein. If Agency terminates this Agreement for good cause, Agency may be relieved of

the payment of any consideration to CONTRACTOR, and Agency may proceed with the work in any manner, which it deems proper. Costs incurred by Agency thereby shall be deducted from any sum due CONTRACTOR.

11. Amendments and Modifications. No modification or amendment of this agreement shall be valid unless it is set forth in writing and executed by the parties.
12. Non-Discrimination. Throughout the performance of this Agreement, CONTRACTOR will not unlawfully discriminate against any person because of race, color, religion, gender, national origin, ancestry, physical disability, medical condition, marital status, age older than 40, or sexual orientation, gender identity or any other status protected under federal, state or local law, either in CONTRACTOR's employment practices or in the furnishing of services to recipients. CONTRACTOR shall ensure that the evaluation and treatment of its employees and applicants for employment and all persons receiving and requesting services are free of such discrimination. CONTRACTOR shall comply fully with all federal, State and local laws and regulations which prohibit discrimination. The provision of services primarily or exclusively to any target population designated herein shall not be deemed prohibited discrimination.
13. Independent Contractor. In its performance under this Agreement, CONTRACTOR is at all times acting and performing as an independent CONTRACTOR and not an employee of Agency. No offer or obligation of employment with Agency is intended in any manner, and CONTRACTOR shall not become entitled by virtue of this Agreement to receive from Agency any form of benefits accorded to employees including without limitation leave time, health insurance, workers compensation coverage, disability benefits, and retirement contributions. CONTRACTOR shall be solely liable for and obligated to pay directly all applicable taxes, including without limitation federal and State income taxes and social security arising out of CONTRACTOR's performance of this Agreement. In connection therewith, CONTRACTOR shall defend, indemnify, and hold harmless Agency from any and all liability, which Agency may incur because of CONTRACTOR's failure to make such payments.
14. Delegation of Duties; Subcontracting. CONTRACTOR is engaged by Agency for its unique qualifications and abilities. CONTRACTOR may not, therefore, delegate any of its basic duties under this Agreement, except to the extent that delegation to CONTRACTOR's employees is contemplated herein. No work shall be subcontracted without the written consent of Agency, except as provided in this Agreement or its attachments. Notwithstanding any subcontract, CONTRACTOR shall continue to be liable to Agency for the performance of all work hereunder. CONTRACTOR shall not assign, sell, mortgage or otherwise transfer its interest or obligations in this Agreement without Agency's prior written consent.
15. Agency's Rights in Work Product. All original materials prepared by CONTRACTOR in connection with its work hereunder -- including but not limited to computer codes, customized computer routines developed using proprietary or commercial software packages, reports, documents, maps, graphs, charts, photographs and photographic

negatives -- shall be the property of Agency and shall be delivered to Agency prior to final payment. CONTRACTOR may utilize any existing materials developed by CONTRACTOR prior to commencement of work under this Agreement, which materials shall remain the property of CONTRACTOR.

16. Independent Contractor Compliance with Government Code Section 1097.6(c). This section applies to those situations when a contractor/consultant is awarded a contract for a preliminary phase of a project, with future phases to bid separately. This section does not apply to those situations when a contract is awarded for multiple phases of a project under a single contract/proposal. When applicable, and as described below, CONTRACTOR's duties and services under this Agreement shall not include preparing or assisting the Agency with any portion of the Agency's preparation of a request for proposals, request for qualifications, or any other solicitation regarding a subsequent or additional contract with the Agency. The Agency shall at all times retain responsibility for public contracting, including with respect to any subsequent phase stemming from this Agreement. CONTRACTOR's participation in the planning, discussions, or drawing of project plans or specifications shall be limited to conceptual, preliminary, or initial plans or specifications. CONTRACTOR shall cooperate with the Agency to ensure that all bidders for a subsequent contract on any subsequent phase of this project, if applicable, have access to the same information, including all conceptual, preliminary, or initial plans or specifications prepared by CONTRACTOR pursuant to this Agreement.
17. Compliance with Terms of Federal or State Grant. If any part of this Agreement has been or will be funded pursuant to a grant from the federal or State government in which Agency is the grantee, CONTRACTOR shall comply with all provisions of such grant applicable to CONTRACTOR's work hereunder, and said provisions shall be deemed a part of this Agreement as though fully set forth herein.
18. Conflict of Interest. CONTRACTOR warrants that it presently has no interest and shall not acquire any interest during the term of this Agreement, which would directly or indirectly conflict in any manner or to any degree with its full and complete performance of all services under this Agreement.
19. Governing Laws. This Agreement is entered into in the County of Monterey, State of California, and shall be construed and enforced in accordance with the laws of the State of California. The parties hereby agree that the County of Monterey shall be the proper venue for any dispute arising hereunder.
20. Compliance with Applicable Law. The parties shall comply with all applicable federal, state, and local laws and regulations in performing this Agreement.
21. Construction of Agreement. The parties agree that each party has fully participated in the review and revision of this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any exhibit or amendment. To that end, it is understood and agreed that this Agreement has been arrived at through negotiation, and that neither party is to be deemed the party which prepared this Agreement within the meaning of Civil Code section 1654. Section and paragraph headings appearing herein are for convenience only and shall not be used to interpret the terms of this Agreement.

22. Waiver. Any waiver of any term or condition hereof must be in writing. No such waiver shall be construed as a waiver of any other term or condition herein.
23. Successors and Assigns. This Agreement and all rights, privileges, duties and obligations hereunder, to the extent assignable or delegable, shall be binding upon and inure to the benefit of the parties and their respective successors, permitted assigns and heirs.
24. Contractor. The term “CONTRACTOR” as used in this Agreement includes CONTRACTOR’s officers, agents, and employees acting on Contractor’s behalf in the performance of this Agreement.
25. Interpretation of Conflicting Provisions. In the event of any conflict or inconsistency between the provisions of this Agreement and the provisions of any exhibit or other attachment to this Agreement, the provisions of this Agreement shall prevail and control.
26. Time is of the Essence. The parties mutually acknowledge and agree that time is of the essence with respect to every provision hereof in which time is an element. No extension of time for performance of any obligation or act shall be deemed an extension of time for performance of any other obligation or act, nor shall any such extension create a precedent for any further or future extension.
27. Contract Administrators.

CONTRACTOR's designated principal responsible for administering CONTRACTOR's work under this Agreement shall be:

Agency’s designated administrator of this Agreement shall be:

28. Notices. Notices required under this Agreement shall be delivered personally or by electronic facsimile, or by first class or certified mail with postage prepaid. Notice shall be deemed effective upon personal delivery or facsimile transmission, or on the third day after deposit with the U.S. Postal Service. CONTRACTOR shall give Agency prompt notice of any change of address. Unless otherwise changed according to these notice provisions, notices shall be addressed as follows:

TO AGENCY	TO CONTRACTOR
Name: _____	Name: _____
Address: _____	Address: _____
Telephone: _____	Telephone: _____
Fax: _____	Fax: _____
E-Mail: _____	E-Mail: _____

29. Electronic Deliverables. Where feasible, all reports, documents and other printed information provided to the Agency pursuant to this Agreement shall be submitted in both written and Electronic formats.
30. Non-exclusive Agreement. This Agreement is non-exclusive and both parties reserve the right to contract with other entities for the same or similar services.
31. Execution of Agreement. Any individual executing this Agreement on behalf of an entity represents and warrants that he or she has the requisite authority to enter into this Agreement on behalf of such entity and to bind the entity to the terms and conditions hereof. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement.
32. Exhibits. The following Exhibits are attached hereto and incorporated by reference:
- Exhibit A - Scope of Work/ Work Schedule
Exhibit B - Fee Schedule
33. Entire Agreement. As of the effective date of this Agreement, this document, including all exhibits hereto, constitutes the entire agreement between the parties, and supersedes any and all prior written or oral negotiations and representations between the parties concerning all matters relating to the subject of this Agreement.

**MONTEREY COUNTY WATER RESOURCES AGENCY
AGREEMENT FOR PROFESSIONAL SERVICES
WITH SURVEYORS, ARCHITECTS, ENGINEERS AND/OR DESIGN
PROFESSIONALS**

IN WITNESS WHEREOF, AGENCY and CONTRACTOR execute this agreement as follows:

**MONTEREY COUNTY WATER
RESOURCES AGENCY:**

BY:

Ara Azhderian
General Manager

Date: _____

CONTRACTOR:

BY:

Type Name:

Title: _____

Date: _____

BY:

Type Name: _____

Title: _____

Date: _____

* INSTRUCTIONS: If CONTRACTOR is a corporation (including limited liability and nonprofit corporations), the full legal name of the corporation shall be set forth together with the signatures of two specified officers. If CONTRACTOR is a partnership, the name of the partnership shall be set forth together with the signature of a partner with authority to execute this Agreement on behalf of the partnership. If CONTRACTOR is contracting in an individual capacity, the individual shall set forth the name of his or her business, if any, and shall personally sign the Agreement.

(_____)
Agreement/Amendment No # (_____)

* * * * *

Approved as to form ¹:

Approved as to fiscal provisions:

Chief Assistant County Counsel

Administrative Analyst

Dated: _____

Dated: _____

County Counsel – Risk Manager:

Auditor-Controller ²:

Dated: _____

Dated: _____

¹ Approval by County Counsel is required, and/or when legal services are rendered

² Approval by Auditor-Controller is required

Scope of Work

The GEI Team will assist Monterey County Water Resources Agency (MCWRA) with enhancing predictive tools and operational strategies for the Nacimiento and San Antonio Dams and Reservoirs to support water resource management objectives. The project aims to improve reservoir operations by integrating advanced forecasting and modeling capabilities that support water supply management, groundwater recharge, flood management, and riverine habitat restoration. This work will build upon existing policies and procedures, ensuring operational decisions align with MCWRA's water rights while optimizing the beneficial use of stored water under changing hydrologic conditions.

The GEI Team brings a uniquely integrated approach to implementing FIRO to enhance water supply reliability for the MCWRA. Leveraging decades of experience in California reservoir operations, hydrologic modeling, and climate science, GEI's FIRO strategy combines cutting-edge forecasting technologies with system-specific operational expertise tailored to the Nacimiento and San Antonio Reservoirs.

Our methodology begins with a comprehensive assessment of current reservoir operations, infrastructure constraints, and water supply objectives. Building on this foundation, the GEI Team will integrate advanced ensemble flow forecasts from the CNRFC with state-of-the-art reservoir simulation models (e.g., HEC-ResSim and/or custom Python-based tools) to evaluate a wide range of hydrometeorological scenarios. The team will calibrate and validate models using historical data.

A central component of our approach is the co-development of FIRO decision-support tools and dynamic operating procedures in close collaboration with MCWRA. The GEI Team emphasizes operational flexibility and resilience, ensuring that new procedures are not only technically sound but also actionable under real-time conditions. These tools will quantify trade-offs between flood risk management, water supply yield, and ecosystem needs—offering MCWRA a transparent and science-driven framework for adaptive decision-making. To meet operating requirements, we will coordinate with the California Division of Safety of Dams (DSOD) on any proposed operating procedures that may require the current certificate of approval to be altered.

By integrating the latest forecasting science with agency stakeholder-informed operational strategies, the GEI Team will deliver a robust FIRO implementation plan that improves reservoir efficiency, enhances drought resilience, and aligns with regional water management goals. Our approach reflects GEI's commitment to innovation, practicality, and long-term water resource sustainability.

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

In addition to flood and water supply goals, the FIRO approach also considers ecological and water quality benefits.

Upon completion of this Project:

- MCWRA will have a FIRO framework to evaluate the viability of FIRO for the Salinas River. A real time operations dashboard will be developed that will allow reservoir managers and operators to become familiar with FIRO concepts and assess the feasibility of future implementation.
- MCWRA will have an implementable plan to integrate the DST into MCWRA's current decision-making process.
- MCWRA will have a summary of needs and estimated costs for long-term FIRO support.

The GEI Team includes qualified staff from GEI as well as support from Sonoma Water to leverage their years of experience to evaluate FIRO and develop decision support tools to support real-time operations. GEI will manage all project tasks covered under this agreement. GEI and Sonoma Water's respective responsibilities for each task are identified in the Scope of Work below. Sonoma Water's contributions will be compensated through a separate agreement with MCWRA.

Task 1: Information Gathering

Implementation of a FIRO framework will require an initial review of all modeling and decision support components. A tailored reservoir operations decision support system will require design based on specific water management requirements, data availability and current capabilities of the MCWRA modeling system. Additionally, development of this system will require the acquisition of data to drive models and aid in decision making. Our approach to Task 1 focuses on establishing a robust foundation for the FIRO framework by conducting a comprehensive evaluation of MCWRA's current reservoir operations and collecting essential hydrologic and forecasting data.

Leveraging the GEI Team's deep expertise in flood control modeling and reservoir operations, we will accomplish the objective of Task 1 through four steps:

1. Summarize MCWRA operations and system constraints and acquire additional necessary information through coordination with MCWRA engineers and operators. (GEI and Sonoma Water)
2. Review and evaluate existing capabilities of the MCWRA reservoir operation/flood management tools. (GEI)

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

3. Gather and review pertinent historical data for model development. (GEI and Sonoma Water)
4. Review available hindcast data and determine reasonable data streams for real-time reservoir simulations. (GEI and Sonoma Water)

Steps 1) and 2) are described in the following section (Current System Review and Evaluation), and steps 3) and 4) are described in “Model Data Gathering.”

Current System Review and Evaluation

As an initial step, the GEI Team will review the current reservoir system within the Salinas River watershed. Leveraging prior experience within the Salinas River, we will evaluate systemwide constraints to support the development of the FIRO framework. Consideration of the current operations and system constraints will include analysis of existing water supply agreements, water rights holders at and downstream of flood control operation locations (e.g., Nacimiento and San Antonio Reservoirs, Salinas River Diversion Facility), overlaid with governing requirements of dam safety, flood control, conservation and fisheries releases, and climate. Using our experience in assessing and developing watershed operational control systems, we will evaluate the current and historical operations concerning flood control releases from MCWRA-managed reservoirs.

After assessing the operational constraints within the Salinas River watershed, the GEI Team will evaluate the existing reservoir management tools used by MCWRA. GEI Team members will assess the usage of existing tools, identifying their utility in a FIRO framework and ensuring existing capabilities are carried forward into a new system.

Model Data Gathering

Historical data, including observed flows and reservoir stage information, will be essential for model development for the FIRO system. Data gathering work will begin with the identification of available data sources, working with MCWRA first to identify readily available data, and reaching out to other agencies as necessary (e.g. USGS, California Data Exchange Center (CDEC), USACE).

Development of a real-time operations model framework will require information about the hydrologic forecasts that drive the reservoir models. Based on previous FIRO applications, natural flow forecasts will be gathered from the Hydrologic Ensemble Forecast System (HEFS) and other forecast products. The GEI Team will work with the CNRFC to gather all available hindcasts, which will be necessary to create operating rules and review performance under historical scenarios. As a part of gathering hindcast information, the GEI Team will develop an approach to real-time data gathering of the forecast information required for developing a real-time operations model framework.

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

GEI will lead the above approach to information and data gathering to achieve the objectives of Task 1, and to lay the groundwork for real-time operation model and decision support tool development in subsequent tasks. Sonoma Water's role for Task 1 will be to advise GEI on Task 1 objectives and outcomes needed to support other project tasks. Two deliverables will be provided:

Deliverable 1: A memo summarizing the review of current operations, system constraints and existing tools used by MCWRA for flood control operations as well as a summary of the data organization for Deliverable 2.

Deliverable 2: Model and forecast data packaged for the support of later tasks.

Task 2: Develop Models to Simulate Historical Conditions

The GEI Team will develop a reservoir operations model to represent the physical system and will include Nacimiento and San Antonio Reservoirs, and downstream reaches of the Salinas River to the City of Soledad. Sonoma Water will lead the development of the model using the latest version of the Ensemble Forecast Operations (EFO) model base code that has been developed to support previous FIRO projects including Lake Mendocino, Prado Dam, and the Yuba Feather River system. GEI's role for Task 2 will be to advise Sonoma Water on the Task 2 scope and deliverables, review Task 2 deliverables, and coordinate and track Task 2 activities relative to the overall project requirements (scope, schedule, budget, and deliverables). The model developed for the Salinas River will incorporate hydrology and hindcasts of the HEFS prepared by the CNRFC for the period 2010 through 2023. GEI will also assess the need to develop reservoir operations models in other software platforms, such as HEC-ResSim, to assist with model validation and enable future integration with other DST platforms such as the California Department of Water Resources (DWR) Forecast-Coordinated Operations (F-CO) framework.

Working closely with MCWRA, GEI will advise Sonoma Water with developing simulations of existing flood control operations of Nacimiento and San Antonio for 5 high flow events sampled from the CNRFC hydrology. Simulations of existing operations will incorporate reservoir rules such as reservoir guide curves, release rate of change, and downstream objective flow rules. We will work with MCWRA to validate these simulations comparing simulation results of storage, release, and downstream flows to observed conditions. Modifications to model parameters may be made to improve validation.

GEI will advise Sonoma Water with developing the EFO flood control alternative approach for Nacimiento and San Antonio Reservoirs, which will require close coordination with MCWRA. The EFO approach uses ensemble streamflow predictions to forecast the probability or risk of exceeding critical operational thresholds. Reservoir releases are

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

formulated that mitigate the forecasted risk to a defined risk tolerance profile. Additional FIRO alternatives may be assessed, such as an alternative that utilizes deterministic streamflow forecasts, if adequate information and resources to complete the assessment of additional alternatives are available. GEI and Sonoma Water will work with MCWRA engineers and operators to determine the project objectives and identify critical thresholds of reservoir storage and downstream flows. Risk tolerance curves will be calibrated to optimize system performance to meet project objectives. Calibration will be completed through simulation of historical floods using hydrology and hindcasts developed by the CNRFC.

In addition, the GEI Team understands that MCWRA has been working on the Interlake Tunnel project, which has been under consideration since 1991, represents a long-standing regional water management challenge. While the current scope does not include a comprehensive system operations model for the Interlake Tunnel, our approach will maintain flexibility to potentially incorporate tunnel-related considerations in future iterations. This allows us to develop tools that can adapt to evolving regional water management needs and potentially support broader infrastructure planning objectives.

The deliverables from Task 2 include:

- **Technical Memo.** GEI will advise Sonoma Water with preparing a technical memo (Model and Simulation Memo) for MCWRA documenting the development of the model, validation of existing operations, and the development and calibration of the FIRO alternatives for Nacimiento and San Antonio.
- **Model.** GEI will advise Sonoma Water with providing the Model and Simulation Memo that will include summaries of simulation results to demonstrate performance of FIRO alternatives relative to simulations of existing operations, and discussion as to whether the identified Project objectives associated with critical thresholds of reservoir storage and downstream flows were met.
- **Model:** GEI will advise Sonoma Water with providing the EFO model source code and input files.
- **Model Results.** GEI will advise Sonoma Water with providing model results in a comma-separated values (CSV) file format.

Task 3: Develop Real-Time Operations Model Framework and Operations Dashboard

A critical component for the implementation of FIRO is the development of a decision support system that can provide operators and water managers with a dashboard of important operational information to allow for rapid and informed decision-making.

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

GEI and Sonoma Water will employ a comprehensive, scalable approach to develop a proof-of-concept level real-time operations DST modeling framework and dashboard utilizing the reservoir operations model developed through **Task 2**. The initial DST developed under this scope will allow reservoir managers and operators to evaluate forecast results and release recommendations in real-time to become familiar with FIRO concepts and assess the feasibility of future implementation. The model framework and dashboard will be tailored to the operational and forecasting needs of MCWRA and will leverage observed hydrology and HEFS forecasts from the CNRFC to formulate recommended reservoir release schedules on a daily or sub daily basis. The GEI Team will work closely with MCWRA to design a system that suits the agency's IT infrastructure and workflow.

Key features of the DST include the following.

- Import, formatting, and QA for hindcast and forecast boundary conditions. This includes importing CNRFC ensemble forecast data.
- Managing model runs, including organizing forecast configuration and boundary condition data, executing the model runs, managing model output.
- Post processing and analysis of model results.

Sonoma Water, with support from GEI, will develop data extraction and web scraping tools to obtain required data from online sources such as observed reservoir storage levels, downstream flows, and HEFS forecasts from the CNRFC. Sonoma Water, with support from GEI, will develop a database structure to store and archive observed hydrology and forecasts used for the real time operations model.

The forecasting model will run within a flexible compute environment (cloud or on-premises), equipped with observability features such as logging, performance metrics, and alerts. Emphasis will be placed on maintaining security, data integrity, and compliance with best practices in water resources forecasting.

The GEI Team will work closely with MCWRA to create a user-friendly dashboard to support real time operations of Nacimiento and San Antonio Reservoirs. Sonoma Water, with support from GEI, will develop an initial draft of a dashboard based on experience with developing dashboards for other FIRO projects (Lake Mendocino, Lake Sonoma and Prado Dam). Dashboards will include forecasted reservoir storage, forecasted downstream flows, and forecasted risk of exceeding critical operations thresholds.

As a standard practice, the GEI software development team utilizes a modern devOps workflow for full software life cycle management including version control, issue tracking, testing, software build systems, and artifact management. Our team has utilized these

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

methodologies to develop and maintain long-lived enterprise systems for public agencies for more than two decades.

Deliverables from Task 3 will include initial implementation of the DST and presentation of DST analysis projects in a dashboard display. While the precise form of the DST and supporting dashboard will be developed in collaboration with MCWRA through this project, we expect the software to have the following characteristics:

- GEI will advise Sonoma Water with providing the DST that will incorporate the EFO model developed through Task 2 and will run either on a workstation, local server, or cloud instance. Internet connectivity will be required to allow automatic data collection of boundary condition data. Forecast simulations will be initiated manually or on a time schedule, and DST output graphics and text will be saved to a location accessible for dashboard reporting.
- The dashboard will present tabular and/or graphical results from individual simulations performed by the DST along with descriptive text. We expect the dashboard to be accessed through a web browser, although it is also possible to provide the dashboard as a desktop software application if that is preferred by MCWRA.

Task 4: Develop a Decision Support Tool (DST) Implementation Plan to Update Existing Operating Procedures and Train Staff

The GEI Team will develop an Implementation Plan for the FIRO DST that will include the following components: FIRO DST Computation Needs, Virtual Operations (**optional**), a FIRO DST Integration Plan, and FIRO DST Training. Each of these components are described in further detail below.

FIRO DST Computation Needs

GEI, with support from Sonoma Water, will assess computational needs and requirements to host the DST and work with MCWRA to develop and evaluate hosting options such as using existing networks used by MCWRA or hosting the DST on an off-site network such as a cloud-based service and/or other resources.

Virtual Operations (Optional)

To get a sense of how FIRO would play out – but in a safe environment – virtual FIRO-based operations can be developed. Virtual operations will simulate real time reservoir and downstream conditions as if the reservoir releases provided by the reservoir operations model developed in Task 2 and 3 are fully implemented. This will allow operators to compare current operations to the decisions recommended by the EFO model, helping to

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

gain a better understanding of the FIRO DST and to possibly identify areas of future improvement of the DST for future seasons. GEI, with support from Sonoma Water, will assess the information and time available to develop Virtual Operations simulations and can make recommendations to MCWRA on pursuing this option. This approach has been used successfully at Lake Mendocino and Prado Dam.

FIRO DST Integration

GEI with support from Sonoma Water will work with MCWRA to evaluate existing operational tools and identify a process to integrate the FIRO DST developed in Tasks 2 and 3 into the existing operational framework. This may also include a plan to update the water control manuals for Nacimiento and San Antonio Reservoirs to modify any existing reservoir rules and policies that may be needed to fully implement FIRO. Additionally, the GEI Team will assess needs and costs for long-term support, maintenance and refinement of the DST to support operators.

GEI, with support from Sonoma Water, will assist MCWRA with conceptualizing the DWR F-CO framework as the foundation of the MCWRA DST. The F-CO, which is managed by DWR, is a program that works with water management agencies to facilitate the coordination of reservoir operations using forecast information. DWR has been supportive of local efforts to stand up an F-CO and our relationships with F-CO staff at DWR will make such an effort a truly collaborative process. The F-CO program utilizes a common web-based user interface that leverages additional DWR resources such as the CDEC for hosting DSTs and accessing real time observations and forecasts. F-CO also holds recurring management agency coordination meetings, annual workshops, and training exercises each Fall to prepare reservoir operators and water managers for the upcoming winter season. The integration plan will include an assessment of feasibility and potential benefits of integrating the FIRO DST into the F-CO program.

FIRO DST Training

GEI with support from Sonoma Water will provide a 1-day training workshop to MCWRA to introduce and train MCWRA operators and engineers on the FIRO DST. This will be an in-person workshop with role-specific training to build capacity within MCWRA. The training will include the development of a workbook with a step-by-step guide that trainees can annotate. Any lessons learned from the training will be incorporated and the updated product will be delivered to MCWRA as a user's manual.

The deliverables from Task 4 include a 1-day training workshop and the DST Implementation Plan document that includes the following components:

- An evaluation of the computational and hosting requirements

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

- Development and assessment of hosting options
- Virtual Operations Scenario (**Optional**)
- FIRO DST Integration
- FIRO DST Training Program

Task 5: WaterSmart Grant Support

While developing an exceptional DST and DST Implementation Plan will be the measure of success for project outcomes, meeting the administrative and reporting requirements of the WaterSMART Grant Agreement (Grant Agreement), held between MCWRA and U.S. Bureau of Reclamation (USBR), is also a critical part of the project. GEI, with support from Sonoma Water, will document the outcomes of the project in a draft and final report. Per the Grant Agreement, the report will include the following:

- a. Discussion as to whether the Project objectives and goals were met;
- b. Discussion of the benefits achieved by the Project, including project outcomes and relevant information supporting the benefits; and
- c. How the Project improves long-term resiliency to drought.

As the project progresses, GEI will provide supporting information to assist MCWRA with completion of semi-annual Interim Performance Reports to USBR to comply with the Grant Agreement requirements. Supporting information provided by GEI, with support from Sonoma Water, to MCWRA for each Interim Performance Report will include:

- A comparison of actual accomplishments to the milestones established for the reporting period;
- The reasons why established milestones were not met, if applicable;
- The status of milestones from the previous reporting period that were not met, if applicable;
- Whether the project is on schedule and within the original cost estimate;
- Any additional pertinent information or issues related to the status of the project.

The deliverables from Task 5 include:

- Draft and Final Project Report
- Participation in a BOR-Sponsored Webinar (upon request)
- Supporting information for MCWRA to use in semi-annual Interim Performance Reports. MCWRA will be responsible for preparing and submitting all forms and reports to USBR required by the Grant Agreement.

EXHIBIT A: GEI SCOPE OF WORK / WORK SCHEDULE

Work Schedule

For the above GEI Team Scope of Work, the following schedule will be followed:

Task	Description of Milestone Item	Timeframe
1	Complete Information Gathering	November 30, 2025
2	Complete model to simulate historical conditions	April 30, 2026
3	Complete operations model framework and dashboard	July 31, 2026
4	Complete DST Implementation Plan	September 30, 2026
5	Complete Draft Project Report	September 30, 2026
5	Complete Final Project Report	September 30, 2026
5	Input to MCWRA Project Completion Webinar to BOR	September 30, 2026

Task descriptions and timelines may be modified by agreement of both parties. Task cost and individual staff effort is estimated and may be shifted between tasks with Agency approval.

**EXHIBIT B
FEE SCHEDULE**

The table below summarizes GEI's estimated cost for tasks described in Exhibit A: GEI Scope of Work / Work Schedule.

Estimated Project Cost by Task	
Task	Estimated Cost
<i>Task 1: Information Gathering</i>	<i>\$22,589</i>
<i>Task 2: Develop Models to Simulate Historical Conditions</i>	<i>\$26,146</i>
<i>Task 3: Develop Realtime Operations Model Framework and Operations Dashboard</i>	<i>\$97,012</i>
<i>Task 4: Develop Decision Support Tool Implementation Plan and Train Staff</i>	<i>\$64,515</i>
<i>Task 5: WaterSMART Grant Support</i>	<i>\$16,553</i>
Project Total	\$226,815

The GEI Cost Estimate Detail and 2025 GEI Standard Fee Schedule with Hourly Rates is provided on the following pages.

GEI Cost Estimate Detail

Task No.	Description	Grade 8	Grade 7	Grade 6	Grade 5	Grade 4	Grade 3	Grade 2	Grade 1	Admin	Labor Subtotals		Other Direct Costs \$	Total Project Costs \$
											Hours	Costs		
		\$370 /hr	\$331 /hr	\$278 /hr	\$244 /hr	\$207 /hr	\$184 /hr	\$168 /hr	\$153 /hr	\$137 /hr	Hrs	\$		
1	Information Gathering													
	Kickoff Meeting	2	2								4	\$1,402		\$1,402
	Review Physical and Operational Setting of the Salinas River	1	1	4	4	8					18	\$4,445		\$4,445
	Evaluate MCWRA reservoir operation/flood management tools	1	1	4	4	8					18	\$4,445		\$4,445
	Gather and review historical data			2	4	16					22	\$4,844		\$4,844
	Gather and review hindcast			2	4	8					14	\$3,188		\$3,188
	Task 1 Summary Memo	1	1	4						4	10	\$2,361		\$2,361
	Client Meeting	2	2							1	5	\$1,539	\$365	\$1,904
		7	7	16	16	40				5	91	\$22,224	\$365	\$22,589
2	Models and Simulations													
	Develop Reservoir Operations Model		4	12							16	\$4,660		\$4,660
	Develop simulations of existing flood control operations		4	12							16	\$4,660		\$4,660
	Develop the EFO flood control alternative approach		4	4							8	\$2,436		\$2,436
	Determine project objectives and identify critical thresholds	4	4	4							12	\$3,916		\$3,916
	Draft Model and Simulation Memo	4	4	4	4	8				4	28	\$7,096	\$122	\$7,218
	Final Model and Simulation Memo	2	2	2	2	2				2	12	\$3,134	\$122	\$3,256
		10	22	38	6	10				6	92	\$25,902	\$244	\$26,146
3	DST Framework and Dashboard													
	Requirements meeting with MCWRA Staff	4	4	2							10	\$3,360		\$3,360
	Decision Support Tool (DST)/Dashboard Design	4	12	24	4	46					90	\$22,622		\$22,622
	Design Review with MCWRA Staff	4	8	24	4	30					70	\$17,986		\$17,986
	DST Implementation	4	8	24	4	36				5	81	\$19,913	\$200	\$20,113
	Dashboard Implementation	4	8	24	4	36				5	81	\$19,913	\$200	\$20,113
	DST/Dashboard Demonstration	4	8	16	4	12				4	48	\$12,584	\$234	\$12,818
		24	48	114	20	160				14	380	\$96,378	\$634	\$97,012
4	DST Implementation Plan													
	FIRO DST Training Workshop (1 day)	8	16	32	8	48				4	116	\$29,588	\$200	\$29,788
	FIRO DST Computation Needs and Integration Plan	8	16	48	8	48				8	136	\$34,584	\$143	\$34,727
		16	32	80	16	96				12	252	\$64,172	\$343	\$64,515
5	WaterSMART Grant Support													
	Project Completion Webinar	1	4	2		2					9	\$2,664		\$2,664
	Draft Project Report	1	8	4		8				4	25	\$6,334	\$200	\$6,534
	Final Project Report	1	4	4		4				2	15	\$3,908	\$201	\$4,109
	Interim Progress Reports	1	2	4		4				2	13	\$3,246		\$3,246
		4	18	14	0	18				8	62	\$16,152	\$401	\$16,553
	Project Direct Costs													
	HOURLY TOTALS	122	254	524	116	648	0	0	0	90	1,754			
	PROJECT COST TOTALS	\$45,140	\$84,074	\$145,672	\$28,304	\$134,136	\$0	\$0	\$0	\$12,330		\$224,828	\$1,987	\$226,815

FEE SCHEDULE

<u>Personnel Category</u>	<i>Hourly Billing Rate</i> <u>\$ per hour</u>
Staff Professional – Grade 1	\$ 153
Staff Professional – Grade 2	\$ 168
Project Professional – Grade 3	\$ 184
Project Professional – Grade 4	\$ 207
Senior Professional – Grade 5	\$ 244
Senior Professional – Grade 6	\$ 278
Senior Professional – Grade 7	\$ 331
Senior Consultant – Grade 8	\$ 370
Senior Consultant – Grade 9	\$ 451
Senior Principal – Grade 10	\$ 451

Senior Drafter and Designer	\$ 184
Drafter / Designer and Senior Technician	\$ 168
Field Professional	\$ 170
Technician, Word Processor, Administrative Staff	\$ 137
Office Aide	\$ 107

These rates are billed for both regular and overtime hours in all categories.

Rates will increase up to 5% annually, at GEI's option, for all contracts that extend into the next calendar year. Rates for Deposition and Testimony are increased 1.5 times.

OTHER PROJECT COSTS

Subconsultants, Subcontractors and Other Project Expenses - All costs for subconsultants, subcontractors and other project expenses will be billed at cost plus a 15% service charge. Examples of such expenses ordinarily charged to projects are subcontractors; subconsultants: chemical laboratory charges; rented or leased field and laboratory equipment; outside printing and reproduction; communications and mailing charges; reproduction expenses; shipping costs for samples and equipment; disposal of samples; rental vehicles; fares for travel on public carriers; special fees for insurance certificates, permits, licenses, etc.; fees for restoration of paving or land due to field exploration, etc.; state and local sales and use taxes and state taxes on GEI fees. The 15% service charge will not apply to GEI-owned equipment and vehicles or in-house reproduction expenses.

Field and Laboratory Equipment Billing Rates – GEI-owned field and laboratory equipment such as pumps, sampling equipment, monitoring instrumentation, field density equipment, portable gas chromatographs, etc. will be billed at a daily, weekly, or monthly rate, as needed for the project. Expendable supplies are billed at a unit rate.

Transportation and Subsistence - Automobile expenses for GEI or employee owned cars will be charged at the rate per mile set by the Internal Revenue Service for tax purposes plus tolls and parking charges or at a day rate negotiated for each project. When required for a project, four-wheel drive vehicles owned by GEI or the employees will be billed at a daily rate appropriate for those vehicles. Per diem living costs for personnel on assignment away from their home office will be negotiated for each project.

PAYMENT TERMS

Invoices will be submitted monthly or upon completion of a specified scope of service, as described in the accompanying contract (proposal, project, or agreement document that is signed and dated by GEI and CLIENT).

Payment is due upon receipt of the invoice. Interest will accrue at the rate of 1% of the invoice amount per month, for amounts that remain unpaid more than 30 days after the invoice date. All payments will be made by either check or electronic transfer to the address specified by GEI and will include reference to GEI's invoice number.