

INSTRUCTIONS:

This SWAMP field/lab Scope of Work (SOW) template document is designed to give you a starting point on what SWAMP requires from our lab and field Contractors. Many of the final SWAMP SOWs have modifications to address the actual types of work that the Vendor will be doing vs. the one-size fits all approach of this document. It is helpful if you use track changes when working with the Vendor so that you can keep track of any changes to your original template.

Please work with the Vendors to establish what you need and what will deliver in your specific contract.

EXHIBIT A
PROJECT SUMMARY AND SCOPE OF WORK

1. WORK TO BE PERFORMED:

- A. The Contractor, [Contractor Name], agrees to provide to the State Water Resources Control Board (Water Board), along with the Regional Water Quality Control Boards (Regional Water Boards), collectively referred to as Water Boards services as described herein:

The Contractor shall provide to the Water Boards' Surface Water Ambient Monitoring Program (SWAMP) the following: [what are we getting for this contract? e.g., Laboratory Analytical Services, Field Services, etc.].

2. BACKGROUND AND GOALS:

- A. The objective of SWAMP is to implement comprehensive environmental monitoring, assessment and reporting. The overall program goals of SWAMP are to:
- 1) Conduct an ambient monitoring program that addresses all hydrologic units of the State using consistent and objective monitoring, sampling, and analytical methods; consistent data quality assurance protocols; and centralized data management. This program shall be the umbrella program that shall monitor and interpret the data for each hydrologic unit.
 - 2) Document ambient water quality conditions in potentially clean and polluted areas. The scale for these assessments ranges from the site-specific to statewide.
 - 3) Identify specific water quality problems preventing the Water Boards, and the public from realizing beneficial uses of water in targeted watersheds.
 - 4) Provide the data to evaluate the overall effectiveness of water quality regulatory programs in protecting beneficial uses of waters of the State.

3. FIELD WORK

A. **FIELD WORK: PROCEDURES AND DOCUMENTATION**

The Contractor shall follow the Standard Operating Procedures (SOPs) detailed in each SWAMP Statewide or Regional Project's approved Quality Assurance Planning Document (QA Plan). In the absence of an approved QA Plan, the Contractor shall refer to and follow the most current general SWAMP approved SOP for a given field procedure. Any deviations in the field procedures shall be recorded on the field sheet and Chain of Custody form, as well as communicated to the applicable SWAMP Project Manager.

The Contractor shall utilize only SWAMP approved field and bioassessment forms. The Contractor shall fill out forms completely, accurately and as legibly as possible. In the event that a sampling location is dry, a field sheet shall be completed with at least the location, date, time and an indication that the site was dry. The field sheets

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shall be used for data entry of the site visit, successful sample collection or observations of dry water body.

Sample collection containers, preservatives, and shipping containers shall be provided by the Laboratory Contractor upon request.

The Contractor shall complete Water Boards Chain of Custody (COC) forms when submitting samples to a laboratory. The Contractor shall request the use of an alternative COC form, if the Water Boards COC does not record enough information needed for the sampling or analyses. The Contractor shall submit the alternative form for review and approval by the Contract Manager, SWAMP QA Officer, and Project Manager prior to use. The forms shall be used by the Water Boards' Contract Manager for tracking and verifying invoices from the laboratory. The forms shall also be used by the Project Managers for reviewing project completeness. The Contractor shall record only one project on each form and fill out the form completely, accurately and as legibly (if applicable) as possible. At the time of sample custody transfer, the Contractor shall send an electronic copy of the COC form to the Project Manager, Contract Manager, and the SWAMP Information Management and Quality Assurance Unit (SWAMP IQ) at the Water Boards (OIMA-Helpdesk@waterboards.ca.gov). At a minimum, the COC form shall be completed with the following information:

- Agency/Crew responsible for collecting the sample
- Date and time of sample collected
- Sample collection type (grab, composite)
- Station code
- Any field preparations (ex: filtration) or preservations (ex: acidification) performed.
- Sample container type, volume and number
- Analyses Requested
- Project code(s)
- Custody Transfer Information (If form is sent electronically, an email acknowledging shipment shall be printed and attached to document relinquished samples).
 - a. Relinquishing agency and receiving agency
 - b. Date and time sample was relinquished and received
 - c. Space for relinquishing and receiving person's signature (if printed).

B. FIELD QUALITY CONTROL

The Contractor shall comply with the quality control requirements set forth in each of the most current approved SWAMP QA Plans. In the absence of an approved QA Plan, the Contractor shall follow the most current SWAMP Programmatic Measurement Quality Objectives (MQOs) for each analyte group sample or measurement collected. The Contractor shall prepare and submit for analysis the applicable field quality control samples at the required frequency. This includes, but is not limited to the preparation of blanks (where appropriate and of

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appropriate type), collection of field duplicates and collection of enough sample volume for the creation of matrix spikes and matrix spike duplicates where applicable and required. The Contractor shall meet or exceed the completeness requirements per project.

The Contractor shall make a reasonable effort to follow the corrective actions set forth by the applicable MQOs assigned by the project. The Contractor shall also respond to requests for verification of corrective action follow-through or requests to perform corrective actions from the SWAMP Quality Assurance (QA) Officer, applicable Project Staff or Water Boards' Contract Manager, should the results of the field quality control samples reveal potential issues. Corrective Actions shall include, but are not limited to, requests for investigation, retraining of field staff or an audit of field protocols. Applied corrective actions shall be documented in a SWAMP Corrective and Preventative Action Report (CPAR) and provided at the request of the SWAMP Project Manager, SWAMP QA Officer or Water Boards' Contract Manager within twenty (20) business days of the request. The SWAMP QA Officer will review the report and may request additional information of actions to be taken. The Contractor shall respond with an amended CPAR within twenty (20) business days of the additional request. Should the Contractor require more time to complete or respond to comments on a CPAR, the Contractor shall request a deadline extension from the Water Boards' Contract Manager.

C. FIELD SAMPLE HANDLING

The Contractor shall follow the sample handling guidelines detailed in each SWAMP approved QA Plan. In the absence of an approved QA Plan, the Contractor shall follow the most current general SWAMP approved sample handling guidelines. The sample handling guidelines shall include the appropriate container type, preservation, and transportation requirements. Any deviations from the sample handling guidelines shall be recorded on the field sheet and COC forms.

The Contractor shall support the required holding times outlined in an approved QA Plan or the general SWAMP approved sample handling guidelines. The Contractor shall also coordinate with the receiving lab and plan accordingly for the transfer of samples within a schedule agreeable to both parties.

D. FIELD DATA REPORTING – ELECTRONIC DATA DELIVERABLE(S) – (EDDs), FORMS

The Contractor shall be responsible for the entry of field samples, observations and measurements into the most current Excel data templates or entry database provided by the SWAMP IQ. In the event a site is dry, the Contractor shall create a data entry record and enter the observation of the dry site.

The Contractor shall record accurate information and meet the most current SWAMP Formatting and Business Rules. The Contractor shall include applicable sample and/or collection comments when conditions exist that may affect analytical results,

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or when a collection that was expected to be completed is not completed (due to site or collection conditions.) The Contractor shall aim to complete the entry of field records and shall submit the EDD to the SWAMP IQ within:

- i. Conventional Water/Sediment/Toxicity Collection Only: twenty (20) business days following a site visit.
- ii. Collections with Bioassessment Physical Habitat: forty (40) business days following the end of the field season.

Data entry shall begin within two (2) business days after the site visit to ensure the most accurate and complete entry. Should the Contractor require more time to enter data for a site visit, the Contractor shall request a deadline extension from the Water Boards' Contract Manager.

When field data is entered from paper forms to templates or a database, the Contractor shall be responsible for performing verification of the data entry against the field sheets for accuracy and completion. The verification shall be completed by a staff person who was not responsible for the primary entry of the records being verified.

Submission shall be completed through the SWAMP Online Data Checker or via database submission through the SWAMP IQ FTP site.

Electronic Data Deliverables (EDDs) submitted to SWAMP IQ shall be reviewed for required formatting and accuracy. EDDs that are formatted incorrectly or inaccurate shall be returned to the Contractor for correction. In the event that an EDD is returned to the Contractor for correction, the Contractor shall re-submit the EDD with corrections within ten (10) business days of receiving a request for correction. Should the contractor require more time to make the required corrections, the Contractor shall request a deadline extension from the Water Boards' Contract Manager.

E. FIELD DOCUMENTATION, RECORDS, AND RETENTION

Field sheets, calibration logs and other documentation shall be retained by the Contractor for ten (10) years following the final invoice of this contract. Those records shall be available for review at the request of the Contract Manager or SWAMP QA Officer.

F. FIELD CREW TRAINING

The Contractor shall be responsible for ensuring that Staff are fully trained in field safety, applicable SWAMP approved QA Plans, SWAMP SOPs, and SWAMP sample collection and handling guidelines. Records of staff training shall be maintained and available for inspection at the request of the Water Boards' Contract Manager or SWAMP QA Officer.

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G. FIELD AUDIT

At the request of the Water Boards' Contract Manager or SWAMP QA Officer, the Contractor shall permit observation of field procedures and inspection of equipment including calibration logs.

4. LABORATORY SERVICES

A. COMMUNICATION

1) Point of Contact

The Contractor shall identify a dedicated staff person as the main point of contact for Water Boards staff and project manager(s) for all services provided under this Agreement.

2) Meetings

The Contractor shall attend meetings upon request of the Water Boards Contract Manager, Surface Water Ambient Monitoring Program (SWAMP) Quality Assurance (QA) Officer, or the Water Boards QA Officer.

3) Communication Plan

The Contractor shall meet with the Water Boards Contract Manager, and SWAMP and Water Boards QA Officers at the beginning of the contract term for onboarding and training to ensure the terms of this Agreement are understood by the Contractor, and to develop procedures that ensure all requirements of the contract are met. The Water Boards Contract Manager, and SWAMP and Water Boards QA Officers shall work with the Contractor to develop a Communication Plan to be shared with Water Boards staff that outlines protocols for communication, submitting samples, reporting and resolving issues, and submitting results and deliverables.

B. ANALYTICAL EQUIPMENT AND SUPPLIES

The Contractor shall provide sample collection containers, preservatives, and shipping containers. The Contractor shall follow the sample container and sample handling guidelines detailed in each project's approved Quality Assurance Planning Document (QA Plan) when providing supplies to field crews and when receiving samples. In the absence of an approved QA Plan for a project, the Contractor shall default to the sample container and sample handling requirements of the method.

C. LABORATORY PROCEDURES

Upon sample custody transfer, the Contractor shall review the COC form or other approved form, to ensure that all information required for laboratory analytical services and data reporting has been recorded. If any information is missing from the COC, the Contractor shall attempt to notify the field crew responsible within forty-eight (48) hours to obtain the missing information. If the Contractor is not able to

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get the missing COC information within forty-eight (48) hours, the Contractor shall notify the Water Boards Project Manager and the Water Boards Contract Manager within three (3) business days.

C.1 ANALYSES FOR GENERAL SUPPORT OF PROGRAMS/PROJECTS

The Contractor shall use the methods specified by each SWAMP approved QA Plan. In the absence of an approved QA Plan for a Project, the Contractor shall use their best judgment in selecting an appropriate standard method or internally developed procedures for analyses of interest. In either case, the Contractor shall demonstrate method capability (see section E). If the chosen method is not within a Project's QA Plan, the Contractor shall provide a copy of the method SOP to the SWAMP Quality Assurance (QA) Officer for documentation and amendment of the Project's QA Plan.

C.2 ANALYSES FOR SUPPORT OF PROGRAMS/PROJECTS THAT REQUIRE OR REQUEST LAB CERTIFICATION FOR SPECIFIC METHODS

The Contractor and sub-Contractor(s) shall possess and maintain State Water Resources Control Board - Environmental Laboratory Accreditation Program (SWRCB-ELAP) certification to perform an analysis that has been requested as part of compliance with conditions of, including but not limited to, a waiver, order, permit, or Basin Plan.

The Contractor shall use the methods specified by each SWAMP approved QA Plan. The QA Plan must clearly indicate when a certification is required for an analysis. At the request of the SWAMP Project Manager or SWAMP QA Officer, and in the absence of an approved QA Plan for a Project, the Contractor shall use their best judgment in selecting the best standard test methods for which they are certified. Analyses and determinations shall be performed by qualified personnel in accordance with that accreditation.

Standard analytical test procedures shall be modified subject to application and approval of Alternate Test Procedures (ATP) under the CFR, Title 40, Parts 136.4 and 136.5.

D. INSPECTION OF THE LABORATORY

At the request of the Contract Manager or SWAMP QA Officer, the Contractor and any subcontractors shall permit its laboratory facilities to be inspected and its analytical procedures observed, in order to ensure that all analyses conform to the methods specified in this Agreement. The Water Boards will provide the Contractor or subcontractor with the particulars of an inspection, including possible timing, scope, frequency, etc. and the visit shall be coordinated between the Water Board and the laboratory. Upon request of the Water Boards Contract Manager or SWAMP QA Officer, the Contractor or subcontractor shall furnish information about

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any specific analysis, and personnel shall be available to answer any questions appropriate to the capability of the Contractor's or subcontractor's laboratory. The Water Board will ensure that inspection requests include reasonable timelines for the Contractor's and subcontractor's response, and scheduling needs.

E. LABORATORY ANALYTICAL QUALITY CONTROL, VERIFICATION, AND HOLDING TIMES

The Contractor shall comply with the quality control requirements set forth in each of the most current SWAMP approved QA Plans. The Contractor shall create, include, analyze and appropriately report the applicable quality control samples, calculations, and assessments at the required frequency to establish and verify compliance with the applicable laboratory analysis Measurement Quality Objectives (MQOs) within each QA Plan. The Contractor shall evaluate the results of the quality control samples and calculations and apply appropriate qualifications to results that do not meet the applicable MQOs. The qualifications shall be applied to the records following the SWAMP formatting business rules.

In the absence of an approved QA Plan for a specific project, the Contractor shall refer to the MQOs within the most current version of the SWAMP Quality Assurance Program Plan (SWAMP QAPrP). At a minimum, the Contractor shall include, analyze and report the applicable quality control samples at the required frequency to establish and verify compliance with the applicable MQOs. If MQOs do not yet exist for a particular analysis, the Contractor shall use the default quality control requirements of the method or their best judgment to include sufficient quality controls to assess precision, accuracy, and analyte integrity.

The Contractor shall make a reasonable effort to follow the corrective actions set forth in each of the most current SWAMP approved QA Plans. The Contractor shall also respond to requests for specific corrective actions or verification of corrective action follow-through from the SWAMP QA Officer, the applicable Project Manager or Water Boards' Contract Manager, should the laboratory quality control samples reveal potential issues. Corrective actions shall be documented and provided in a Corrective and Preventative Action Report (CPAR) at the request of the SWAMP Project Manager, SWAMP QA Officer or Water Boards' Contract Manager within twenty (20) business days of the request. The SWAMP QA Officer will review the report and may request additional information or actions to be taken. The Contractor shall respond with an amended CPAR within twenty (20) business days of the additional request. Should the Contractor require more time to complete or respond to questions on a CPAR, the Contractor shall request a deadline extension from the Water Boards' Contract Manager.

The Contractor shall complete sample analyses within the required holding times for each SWAMP project. The Contractor shall notify the Project Manager, SWAMP QA Officer, and Contract Manager before proceeding with an analysis that will result in a hold time violation. The Contractor shall seek permission from the

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Project Manager before proceeding with the analysis. The SWAMP Project Manager, SWAMP QA Officer or an approved QA Plan shall request analysis or corrective actions that shall result in hold time violations. Under these circumstances, if all other QA requirements have been met in an analysis, the Contractor shall expect payment. The results shall have appropriate qualifiers applied and a comment should be included in the EDD or Lab Results Comments providing information prior to submission to the SWAMP IQ.

F. LABORATORY ANALYTICAL CAPABILITIES

Reporting Limits (RLs) represent the lowest quantifiable concentration in a sample, based on the proper application of all method-based analytical procedures and the absence of any matrix interferences and dilutions. For instrumentation methods that use multi-point calibration techniques, the RL shall represent the lowest standard in the calibration curve that meets calibration criteria for that specific analytical technique. For instrumentation that does not require multi-point calibration such as inductively coupled plasma (ICP) or inductively coupled plasma mass spectrometer (ICPMS), a low-level check standard shall be run at the RL.

Method capability shall be documented prior to performance of a method. Method capability is defined as performance of a method detection limit study (MDL) and an initial precision and recovery (IPR) study. Method capability must be made available for review upon request from the Project Manager or SWAMP QA Officer.

At a minimum, the Contractor shall achieve Reporting Limits (RLs) specified in each SWAMP approved QA Plan. In the absence of an approved QA Plan, the Contractor shall follow the general SWAMP RLs within the most current SWAMP QAPrP. The Contractor shall notify the Project Manager, SWAMP QA Officer, and Contract Manager before proceeding with an analysis that will not achieve RLs. The Contractor shall obtain permission from the Project Manager before proceeding with the analysis. The SWAMP Project Manager, SWAMP QA Officer, or an approved QA Plan shall request analysis or corrective actions that shall result in exceedances of the RLs. Under these circumstances, if all other QA requirements have been met in an analysis, the Contractor shall expect payment. The results shall have appropriate qualifiers applied and a comment should be included in the EDD or Lab Results Comments providing information prior to submission to SWAMP IQ.

G. LABORATORY ANALYTICAL REPORT(S) – ELECTRONIC DATA DELIVERABLE(S) – (EDDs)

The Contractor shall be responsible for the entry or export of analytical and quality control results into the most current Excel data templates or entry database provided by SWAMP IQ. The records shall be complete and accurate, and meet the most current SWAMP Formatting and Business Rules. The Contractor shall include and appropriately report the applicable quality control samples required per batch or per project to establish and verify compliance with the applicable

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MQOs as detailed in a SWAMP approved QA Plan. The Contractor shall evaluate the results of the quality control samples and apply appropriate qualifications to results that do not meet the applicable MQOs. The qualifications shall be applied to the records following the SWAMP formatting business rules. The Contractor shall ensure result and/or batch comments include any applicable information about the result. The Contractor shall submit the EDD to the SWAMP IQ within forty (40) business days of the analysis date. Should the Contractor require more time to submit the EDD, the Contractor shall request a deadline extension from the Water Boards' Contract Manager.

Submission shall be completed through the SWAMP Online Data Checker or via database submission through the SWAMP IQ FTP site, or by direct entry.

EDDs submitted to SWAMP IQ shall be reviewed for required formatting and accuracy. EDDs that are formatted incorrectly or inaccurate shall be returned to the contractor for correction. In the event that an EDD is returned to the Contractor for correction, the Contractor shall re-submit the EDD with corrections within twenty (20) business days of receiving a request for correction. Should the contractor require more time to make the required corrections, the Contractor shall request a deadline extension from the Water Boards' Contract Manager.

H. LABORATORY DOCUMENTATION, RECORDS, AND RETENTION

Bench sheets, calibration logs, raw data and other documentation shall be retained by the Contractor for ten (10) years following the final invoice of this contract. Those records shall be available for review at the request of the Water Boards' Contract Manager or SWAMP QA Officer.

I. DISPOSAL OF SAMPLES

The Contractor shall be responsible for appropriate disposal of all samples when the analyses are completed. Samples shall be disposed if verbal authorization has been obtained from the Water Boards' Contract Manager.

J. SUBCONTRACTING OF LABORATORY ANALYSIS

If the Contractor deems it necessary to subcontract a particular sample analysis, the Contractor is responsible for ensuring that the sub-Contractor meets the same qualifications as those of the Contractor, including all appropriate certifications and accreditations. The Contractor shall ensure that custody requirements and requirements for times for performing analyses are maintained by the sub-Contractor. In the event the Contractor subcontracts the analysis of a sample to another laboratory, the Contractor shall include a COC with the subcontracted samples. The Contractor shall ensure the COC includes all the elements listed under Section 3.A. The Contractor shall send a copy of the COC to the Project Manager, Contract Manager and the SWAMP IQ at the Water Boards for sample tracking and invoicing purposes.

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In the event that the Contractor cannot provide analytical services meeting the specifications of the Water Boards (e.g., analytical methods, reporting limits, holding times, and submission dates, etc.), the Contractor shall be required to subcontract the work to another laboratory that can meet the specifications. In such cases, the Contractor shall charge the Water Boards the same rates identified in Exhibit B, Budget Estimate for Project Period.

Nothing contained in this Agreement or otherwise, shall create any contractual relationship between the Water Boards and any Subcontractors, and no Subcontract shall relieve the Contractor of his responsibility and obligations hereunder. The Contractor's obligation to pay its Subcontractors is an independent obligation from the Water Boards' obligation to make payments to the Contractor. As a result, the Water Boards shall have no obligation to pay or to enforce the payment of any moneys to any Subcontractor. Should Water Boards determine that the work performed by a Subcontractor is substantially unsatisfactory and is not in substantial accordance with the Contract terms and conditions, or that the Subcontractor is substantially delaying or disrupting the process of work, Water Boards may request substitution of the Subcontractor.

Should it be necessary to subcontract for supplemental services or specialists, the Contractor shall obtain prior written consent from Water Boards. If the subcontracts total more than \$50,000 or 25% of the total contract, whichever is less, then the Contractor must certify that the subcontractor has been selected by the Contractor pursuant to a bidding process requiring at least three bids from responsible bidders or pursuant to the procedures set forth in Government Code Section 4525 et seq., as applicable. If Contractor is unable to obtain three competitive bids the Contractor shall submit a written explanation to Water Boards. The Water Boards will then decide whether to seek authorization to allow Contractor to proceed with the proposed subcontract. Contractors shall assure that all administrative fees for subcontracts are reasonable considering the services being provided and the oversight required. Contractor shall only charge overhead on the first \$25,000 for each subcontract.

EXHIBIT A1
SCHEDULE OF DELIVERABLES

List all items that will be delivered to the State under the proposed Scope of Work. Include all reports, including draft reports for State review, and any other deliverables, if requested by the State and agreed to by the Parties.

| <i>Task #</i> | <i>Deliverable Description</i> | <i>Deliverable Due Date</i> |
|---------------|---|--|
| <i>1</i> | <i>Electronic Field Datasheets submitted to the Water Boards SWAMP IQ</i> | <i>In compliance with Exhibit A, Section 3.D</i> |
| <i>2</i> | <i>Electronic Laboratory Analysis Data submitted to the Water Boards SWAMP IQ</i> | <i>In compliance with Exhibit A, Section 4.F</i> |

**If use of any Deliverable is restricted or is anticipated to contain Preexisting Data or copyrightable works with any restricted use, it will be clearly identified in Exhibit A4, Use of Preexisting Data, Copyrighted Works and Deliverables.*

**If due date falls on a Saturday, Sunday or State holiday, deliverables shall be due the following business day*