

MASTER AGREEMENT FOR PROFESSIONAL SERVICES GROUNDWATER MONITORING PROGRAM

This Master Agreement for Professional Services ("Agreement") is made and entered into on the [insert date] by and between the SALINAS VALLEY BASIN GROUNDWATER SUSTAINABILITY AGENCY ("SVBGSA") and MONTEREY COUNTY WATER RESOURCES AGENCY ("MCWRA").

RECITALS

SVBGSA has a need for the professional services described in Exhibit A and MCWRA is specially trained, experienced and competent to perform, and has agreed to provide such services;

On October 1, 2024, the MCWRA Board of Supervisors adopted Ordinance No. 5426, providing for well registration and groundwater reporting requirements. On the same date, the Board approved the MCWRA's Groundwater Monitoring Program ("GMP") Manual that will be used to guide the implementation of the GMP; and

The MCWRA Board of Supervisors may adopt fees for the GMP on an annual basis, as authorized by Ordinance No. 5426.

AGREEMENT

1) Scope of Services.

- a) MCWRA shall furnish to SVBGSA those services as set forth in Exhibit A ("Scope of Services") and work further specified in Task Order(s) related to this Agreement.
- b) MCWRA shall provide services and work under this Agreement consistent with the requirements and standards established by applicable federal, state and local ordinances, regulations and resolutions. MCWRA represents and warrants that it will perform its work in accordance with generally accepted industry standards and practices for the work required under this Agreement that are in effect at the time of performance of this Agreement.

2) Term and Schedule.

- a) The term of this Agreement shall be effective March 1, 2025.
- b) By January 31 of each year, SVBGSA will submit a Task Order for the following water year and MCWRA will provide a written response for such request within 30 business days.

3) Reimbursement.

- a) Ordinance No. 5426 established annual GMP Fees to support implementation and operations of GMP by MCWRA. A fee study may be performed on an as-needed basis to inform future GMP fees.
- b) If revenue from GMP fees is insufficient to fund activities of GMP, SVBGSA may contribute to MCWRA for its GMP funding gap.

- c) If SVBGSA is contributing to GMP expenses, MCWRA shall provide SVBGSA with invoices on a quarterly basis as set forth in the particular task order.
- d) Except as expressly provided in this Agreement, MCWRA shall not be entitled to nor receive from SVBGSA any additional consideration, compensation, salary, wages or other type of remuneration for services rendered under this Agreement.
- e) MCWRA shall provide SVBGSA with a W-9 form upon request.
- f) MCWRA shall submit invoices to SVBGSA via email to ap@svbgsa.org and to the Agreement administrator identified in Section 13(r) per the schedule described in Section 3(a).

4) Performance Standards.

- a) MCWRA warrants that MCWRA and its agents, employees, and subcontractors performing services under this Agreement are specially trained, experienced, competent, and appropriately licensed to perform the work and deliver the services required under this Agreement and are not employees of SVBGSA, or immediate family of an employee of SVBGSA.
- b) MCWRA, its agents, employees, and subcontractors 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.
- c) MCWRA shall not use SVBGSA's premises, property (including equipment, instruments, or supplies) or personnel for any purpose other than in the performance of its obligations under this Agreement.

5) Prevailing Wages, DIR Registration. MCWRA shall abide by all applicable prevailing wage laws as set forth in Labor Code sections 1720 and 1770 *et seq.* If the services under this Agreement, or any portion thereof, are being performed as part of an applicable public works or maintenance project, as defined by the Prevailing Wage Laws, MCWRA agrees to fully comply, and to require its subcontractors to comply with such laws. It shall be MCWRA's sole responsibility to comply with all applicable registration and labor compliance requirements.

6) Termination.

- a) During the term of this Agreement, either party may terminate the Agreement for any reason or no reason 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 service provided prior to the effective date of termination.
- b) SVBGSA may cancel and terminate this Agreement for good cause upon written notice to MCWRA and providing ten (10) working days to cure the defective services. "Good cause" includes the failure of MCWRA to perform the required services at the time and in the manner provided under this Agreement. If SVBGSA terminates this Agreement for good cause, SVBGSA may be relieved of the payment of any consideration to MCWRA, and SVBGSA may proceed with the work in any manner, which SVBGSA deems proper. This Agreement

shall terminate immediately upon MCWRA filing for bankruptcy protection or making a general assignment for creditors.

- 7) **Indemnification.** MCWRA shall indemnify, defend and hold harmless SVBGSA, its officers, agents and employees from any claim, liability, loss, injury, or damage to the extent caused by MCWRA's negligence under this Agreement arising out of, or in connection with, performance of this Agreement by MCWRA and/or its agents, employees or subcontractors, excepting only loss, injury, or damage caused by the negligence or willful misconduct of personnel employed by SVBGSA. The prevailing party shall reimburse the other for all costs, attorneys' fees, expenses and liabilities incurred with respect to any litigation in which MCWRA is obligated to indemnify, defend and hold harmless SVBGSA under this Agreement.

SVBGSA shall indemnify, defend and hold harmless MCWRA, its officers, agents and employees from any claim, liability, loss, injury, or damage to the extent caused by SVBGSA's negligence under this Agreement arising out of, or in connection with, performance of this Agreement by SVBGSA and/or its agents, employees or subcontractors, excepting only loss, injury, or damage caused by the negligence or willful misconduct of personnel employed by MCWRA. The prevailing party shall reimburse the other for all costs, attorneys' fees, expenses and liabilities incurred with respect to any litigation in which SVBGSA is obligated to indemnify, defend and hold harmless MCWRA under this Agreement.

8) Records and Confidentiality.

- a) **Confidentiality.** MCWRA and its officers, employees, agents, and subcontractors shall comply with all federal, state, and local laws, which provide for the confidentiality of records and other information. MCWRA shall not disclose any confidential records or other confidential information received from SVBGSA or prepared in connection with the performance of this Agreement, unless SVBGSA specifically permits MCWRA to disclose such records or information. MCWRA shall promptly transmit to SVBGSA all requests for disclosure of any such confidential records or information. MCWRA shall not use any confidential information gained by MCWRA in the performance of this Agreement except for the sole purpose of carrying out MCWRA's obligations under this Agreement.

SVBGSA and its officers, employees, agents, and subcontractors shall comply with all federal, state, and local laws, which provide for the confidentiality of records and other information. SVBGSA shall not disclose any confidential records or other confidential information received from MCWRA or prepared in connection with the performance of this Agreement, unless MCWRA specifically permits SVBGSA to disclose such records or information.

- b) **Maintenance of Records.** MCWRA shall prepare, maintain, and preserve all reports and records that may be required by federal, state, and SVBGSA rules and regulations related to services performed under this Agreement. MCWRA shall maintain such records for a period of at least three years after receipt of final payment under this Agreement. If any litigation, claim, negotiation, audit exception, or other action relating to this Agreement is pending at the end of the three-year period, then MCWRA shall retain said records until such action is resolved.

- c) Access to and Audit of Records. SVBGSA shall have the right to examine, monitor and audit all records, documents, conditions, and activities of MCWRA and its subcontractors related to services provided under this Agreement. Pursuant to Government Code section 8546.7, if this Agreement involves the expenditure of public funds in excess of \$10,000, the parties to this Agreement may be subject, at the request of SVBGSA or as part of any audit of SVBGSA, to the examination and audit of the State Auditor pertaining to matters connected with the performance of this Agreement for a period of three years after final payment under the Agreement.
- 9) **Non-Discrimination.** During the performance of this Agreement, MCWRA, and its subcontractors, shall not unlawfully discriminate against any person because of race, religious creed, color, sex, national origin, ancestry, physical disability, mental disability, medical condition, marital status, age (over 40), or sexual orientation, either in MCWRA's employment practices or in the furnishing of services to recipients. MCWRA 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. MCWRA and any subcontractor shall, in the performance of this Agreement, fully comply with all federal, state, and local laws and regulations, which prohibit discrimination. The provision of services primarily or exclusively to such target population as may be designated in this Agreement shall not be deemed to be prohibited discrimination.
- 10) **Compliance with Terms of State or Federal Grant.** MCWRA shall comply with all the provisions of the grant agreements listed on Exhibit B (Grant Requirements), to the extent applicable to MCWRA and said provisions shall be deemed a part of this Agreement, as though fully set forth herein. Upon request, SVBGSA shall deliver a copy of said agreements to MCWRA.
- 11) **Independent Contractor.** In the performance of work, duties, and obligations under this Agreement, MCWRA is at all times acting and performing as an independent MCWRA and not as an employee of SVBGSA. No offer or obligation of permanent employment with SVBGSA is intended in any manner, and MCWRA shall not become entitled by virtue of this Agreement to receive from SVBGSA any form of employee benefits including but not limited to sick leave, vacation, retirement benefits, workers' compensation coverage, insurance or disability benefits. MCWRA shall be solely liable for and obligated to pay directly all applicable taxes, including federal and state income taxes and social security, arising out of MCWRA's performance of this Agreement. In connection therewith, MCWRA shall defend, indemnify, and hold SVBGSA harmless from any and all liability, which SVBGSA may incur because of MCWRA's failure to pay such taxes.
- 12) **Miscellaneous Provisions.**
- a) Conflict of Interest. MCWRA represents that it presently has no interest and agrees not to acquire any interest during the term of this Agreement, which would directly, or indirectly conflict in any manner or to any degree with the full and complete performance of the services required to be rendered under this Agreement.
- b) Amendment. This Agreement may be amended or modified only by an instrument in writing signed by SVBGSA and MCWRA.

- c) Waiver. Any waiver of any terms and conditions of this Agreement must be in writing and signed by SVBGSA and MCWRA. A waiver of any of the terms and conditions of this Agreement shall not be construed as a waiver of any other terms or conditions in this Agreement.
- d) Disputes. MCWRA shall continue to perform under this Agreement during any dispute. In the event there are disputes and/or controversies relating to the interpretation, construction, performance, termination, breach of, or withdrawal from this Agreement, the parties shall in good faith meet and confer within ten (10) calendar days after written notice has been sent to the disputing party by the non-disputing party. In the event that the parties are not able to resolve the dispute through informal negotiation, the parties agree to submit such dispute to formal mediation before litigation. If the parties cannot agree upon the identity of a mediator within ten (10) business days after a party requests mediation, then the parties shall each select a mediator, and those two mediators will select a third mediator to mediate the dispute. The parties shall share equally in the cost of the mediator or mediators who ultimately mediate the dispute, but neither party shall be entitled to collect or be reimbursed for other related costs, including but not limited to attorneys' fees. If mediation is unsuccessful in resolving the dispute, the parties may pursue and legal or equitable remedies available to them.
- e) Assignment and Subcontracting. MCWRA shall not assign, sell, or otherwise transfer its interest or obligations in this Agreement without the prior written consent of SVBGSA. None of the services covered by this Agreement shall be subcontracted without the prior written approval of SVBGSA. Notwithstanding any such subcontract, MCWRA shall continue to be liable for the performance of all requirements of this Agreement.
- f) Successors and Assigns. This Agreement and the rights, privileges, duties, and obligations of SVBGSA and MCWRA under this Agreement, 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.
- g) Compliance with Applicable Law. The parties shall comply with all applicable federal, state, and local laws and regulations in performing this Agreement.
- h) Headings. The headings are for convenience only and shall not be used to interpret the terms of this Agreement.
- i) Time is an important element. Time is an important element in each and all the provisions of this Agreement.
- j) Governing Law. This Agreement shall be governed by and interpreted under the laws of the State of California. The parties hereby agree that Monterey County shall be the proper venue for any dispute arising hereunder.
- k) Non-exclusive Agreement. This Agreement is non-exclusive and both, SVBGSA and MCWRA expressly reserve the right to contract with other entities for the same or similar services.
- l) Construction of Agreement. SVBGSA and MCWRA 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 amendment to this Agreement.

- m) Authority. Any individual executing this Agreement on behalf of SVBGSA or MCWRA represents and warrants hereby that he or she has the requisite authority to enter into this Agreement on behalf of such party and bind the party to the terms and conditions of this Agreement.
- n) Integration. This Agreement, including the exhibits, represent the entire Agreement between SVBGSA and MCWRA with respect to the subject matter of this Agreement and shall supersede all prior negotiations, representations, or agreements, either written or oral, between SVBGSA and MCWRA as of the effective date of this Agreement.
- o) 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.
- p) Counterparts. 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. A signature reproduced electronically, by facsimile or .pdf shall be treated as an original signature.
- q) Contract Administrators.

The designated principals responsible for administering work under this Agreement shall be:

MCWRA	SVBGSA
Amy Woodrow Senior Hydrologist 1441 Schilling Place, North Building Salinas, CA 93901 831-294-3882 woodrowa@countyofmonterey.gov	Emily Gardner Deputy General Manager PO Box 1350 Carmel Valley, CA 93924 831-471-7512 ext. 204 gardnere@svbgsa.org

- r) Notices. Notices required under this Agreement shall be delivered by electronic mail. Notice shall be deemed effective upon electronic mail transmission to the emails above.

IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year first written above.

MCWRA

SVBGSA

By: _____

Ara Azhderian, General Manager
Monterey County Water Resources Agency
1441 Schilling Place, North Bldg.
Salinas, CA 93901
AzhderianA@countyofmonterey.gov

By: _____

Piret Harmon, General Manager
Salinas Valley Basin GSA
PO Box 1350
Carmel Valley, CA 93924
harmonp@svbgsa.org

EXHIBIT A

Scope of Services

SVBGSA has a need for both ongoing and periodic groundwater monitoring to comply with the 2014 Sustainable Groundwater Management Act and more specifically the adopted Groundwater Sustainability Plans for the areas within the jurisdiction of the SVBGSA. These are services that MCWRA conducts regularly. MCWRA's team is available to assist SVBGSA with implementation of the established Groundwater Monitoring Program, as described in the adopted Groundwater Monitoring Program Manual and related Ordinance No. 5426, within the jurisdiction of the SVBGSA.

MCWRA offers breadth and depth of expertise to provide a full range of services for SVBGSA including groundwater data collection, processing, and reporting.

This Agreement serves as a master services agreement. Specific activities related to individual projects or workstreams will be governed by a Scope of Work detailed in Task Orders. At SVBGSA's request, MCWRA will submit a project specific Task Order including a Scope of Work, Schedule, and Budget.

SVBGSA will review and issue a written authorization to proceed for each Task Order.

MCWRA will periodically meet with SVBGSA staff to review progress and be available to respond to phone calls, emails and other forms of communication from SVBGSA staff.

As needed to complete tasks within the Task Order, MCWRA may engage subcontractors through this Agreement if specialized equipment or supplies, sample analysis, or other expertise is needed.

Following is the initial list of specific activities that MCWRA is ready to provide to SVBGSA under Task Orders after providing specific details and costs. The following activities will be conducted in accordance with MCWRA Ordinance No. 5426 and the adopted Groundwater Monitoring Program Manual.

- Groundwater level monitoring data collection and analysis
- Groundwater quality monitoring data collection and analysis
- Groundwater extraction reporting data management and analysis
- Well registration data management

**MASTER AGREEMENT FOR PROFESSIONAL SERVICES
GROUNDWATER MONITORING PROGRAM**

TASK ORDER NO 2025-01 FOR SERVICES MARCH 1, 2025 – JUNE 30, 2026

Scope of Work

MCWRA will implement the Groundwater Monitoring Program (“GMP”), as described in the MCWRA's GMP Manual dated October 1, 2024 (Exhibit C) and provide additional services summarized below.

Task Number	Task Description	Cost Estimate
1	Groundwater level monitoring data collection and analysis	\$411,880
2	Groundwater quality monitoring data collection and analysis	\$170,016
3	Groundwater extraction reporting data management and analysis	\$136,122
4	Well registration data management	\$84,518
ESTIMATED TOTAL		\$802,536

Schedule of Deliverables

It is anticipated that MCWRA’s services will be required on a regular but sometimes intermittent basis throughout the period from March 1, 2025 to June 30, 2026.

MCWRA will provide the following deliverables during the term of the Agreement.

1. Groundwater level measurements for all available and accessible wells in the Groundwater Level Monitoring Program for Water Year 2025 with data collection at the frequency shown in Table 1. (Task 1)
 - Two attempts will be made by MCWRA to collect a groundwater level measurement from each available and accessible well. Does not include pre-arranged times for data collection.
 - Data shall be supplied in an electronic format and shall include State Well Identification Number, Facility Code, Subbasin, Measurement Date, Water Surface Elevation, Depth to Water, Reference Point Elevation, Sample Type, Method, Value Flag, and, if requested by the SVBGSA, GIS data of well locations.
2. Groundwater elevation contour maps using summer 2025 data from available and accessible wells for (a) the 180-Foot Aquifer and Eastside Aquifer - Shallow Zone; and (b) the 400-Foot Aquifer and Eastside Aquifer - Deep Zone. (Task 1)
 - Data shall be supplied in an electronic format and shall include shapefiles of the completed groundwater elevation contours, and files describing the wells and groundwater elevation data used to develop the contours.

- For each well used to develop the contours, data shall include State Well Identification Number, Facility Code, Subbasin, Measurement Date, Water Surface Elevation, Depth to Water, Reference Point Elevation, Sample Type, Method, and Value Flag.
3. Groundwater elevation contour maps using Fall/Annual 2025 data from available and accessible wells for (a) the 180-Foot Aquifer, Eastside Aquifer - Shallow Zone, Forebay Aquifer, and Upper Valley Aquifer; and (b) the 400-Foot Aquifer and Eastside Aquifer - Deep Zone. (Task 1)
 - Data supplied shall include shapefiles of the completed groundwater elevation contours, and files describing the wells and groundwater elevation data used to develop the contours.
 - Data fields for each well used to develop the contours shall include State Well Identification Number, Facility Code, Subbasin, Measurement Date, Water Surface Elevation, Depth to Water, Reference Point Elevation, Sample Type, Method, and Value Flag.
 4. Seawater intrusion isocontour maps for the 180-Foot and 400-Foot Aquifers using summer 2025 data from available and accessible wells. (Task 2)
 - Data shall be supplied in an electronic format and shall include shapefiles of the 500 milligram per liter chloride isocontour line and location data for wells used to develop the isocontours. Groundwater quality data associated with the wells used to develop the isocontours shall be made available upon request.
 5. Groundwater extraction data submitted to the MCWRA for Water Year 2025 as of October 31, 2025. (Task 3)
 - Data supplied shall include the following for each well that reported data by October 31, 2025: monthly and annual extraction quantity, subbasin, type of use, and type of device used for measuring groundwater extraction.
 6. Information acquired during Water Year 2025 for any wells newly registered with the MCWRA through the Well Registration Program. (Task 4)
 - Data supplied shall be consistent with what is specified in the GMP Manual.

Payment

On August 5, 2025, the MCWRA Board of Supervisors adopted a resolution approving the Fiscal Year 2025-2026 (FY 2026) Groundwater Monitoring Program fees of \$160.16 per well for Initial Well Registration, \$21.86 per well for Annual Well Registration Renewal, \$64.82 per well for Groundwater Extraction Reporting, \$117.68 per well for Groundwater Level Monitoring, and \$73.92 per well for Groundwater Quality Monitoring. The SVBGSA has agreed to offset the GMP fees for all well owners within its jurisdiction, utilizing available funds from Department of Water Resources Sustainable Groundwater Management Implementation Grants.

The total amount for this Task Order is not to exceed \$802,536 without prior written authorization from SVBGSA based on MCWRA's approved per well fee. The rate schedule is updated annually. Cost estimates for each task are provided in this task order.

Payment for services is based on the number of wells per program in the GMP and the approved per well fee for each program during Fiscal Year 2025/2026.

Program	Number of Wells	Fee Per Well	Program Total
Initial Well Registration	50	\$160.16	\$8,008
Annual Well Registration Renewal	3,500	\$21.86	\$76,510
Groundwater Level Monitoring	3,500	\$117.68	\$411,880
Groundwater Quality Monitoring	2,300	\$73.92	\$170,016
Groundwater Extraction Reporting	2,100	\$64.82	\$136,122

EXHIBIT B

Grant Requirements

The following is to comply with:

- The Sustainable Groundwater Management Act (SGMA) Implementation Grant Agreement (#4600015881) between the State of California (Department of Water Resources) and the Agency. The grant is funded by the Budget Acts of 2021 and 2022 (Stats. 2021, ch. 240, § 80; Stats. 2022, ch. 43, § 2), and Public Resources Code section 80146 et seq. (Proposition 68); and
- The Sustainable Groundwater Management Act (SGMA) Implementation Grant for the Monterey Subbasin Subgrant Agreement between the Marina Coast Water District Groundwater Sustainability Agency (MCWDGSA) and the Agency pursuant to the State of California (Department of Water Resources) Agreement #4600015624. The grant is funded by the Budget Acts of 2021 and 2022 (Stats. 2021, ch. 240, § 80; Stats. 2022, ch. 43, § 2), and Public Resources Code section 80146 et seq. (Proposition 68).

Monterey County Water Resources Agency (MCWRA) agrees to be bound by all applicable provisions of the Labor Code regarding prevailing wages and shall monitor all contracts subject to reimbursement from this Agreement to assure that the prevailing wage provisions of the Labor Code are being met.

MCWRA shall maintain books, records, and other documents pertinent to their work in accordance with generally accepted accounting principles and practices.

Pursuant to Government Code §8546.7, MCWRA shall be subject to the examination and audit by the State for a period of three years after final payment under the Grant Agreement with respect to all matters connected with the Grant Agreement, including but not limited to, the cost of administering this Grant Agreement. All records of MCWRA shall be preserved for this purpose for at least three (3) years after project completion or final billing, whichever comes later.

MCWRA is subject to State and Federal conflict of interest laws. Failure to comply with these laws, including business and financial disclosure provisions, will result in the contract being rejected and any subsequent contract being declared void. Other legal action may also be taken. Applicable statutes include, but are not limited to, Government Code, §1090 and Public Contract Code, §10410 and §10411, for State conflict of interest requirements.

MCWRA, its contractors or subcontractors hereby certify, under penalty of perjury under the laws of State of California, compliance with the requirements of the Drug-Free Workplace Act of 1990 (Government Code §8350 et seq.) and have or will provide a drug-free workplace.

MCWRA affirms that it is aware of the provisions of §3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and MCWRA affirms that it will comply with such provisions before commencing the performance of the work under this Grant Agreement and will make its contractors and subcontractors aware of this provision.

MCWRA agrees to expeditiously provide throughout the term of the Grant Agreement, such reports, data, information, and certifications relating to MCWRA's scope of work as may be reasonably required by State.

MCWRA shall comply with the provisions of the Fair Employment and Housing Act (Government Code §12990 (a-f) et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, §7285 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code §12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations, are incorporated into this Agreement by reference and made a part hereof as if set forth in full.

MCWRA shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement. MCWRA shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the Grant Agreement.

EXHIBIT C

Monterey County Water Resources Agency's Groundwater Monitoring Program Manual

October 1, 2024

Section 1 Introduction

This Groundwater Monitoring Program Manual (“Manual”) is a supplement to Monterey County Water Resources Agency (“Agency”) Ordinance No. 5426. The purpose of the Manual is to establish guidelines for the types of data collected, the schedule and time frames for data submittals, the applicability of certain programs based on geography or water user type, and methods and equipment for data collection.

The Manual also establishes the guidelines for data that is requested from the Agency by external entities, in accordance with Ordinance No. 5426 and outlines requirements associated with those requests. The Manual is reviewed regularly and may be updated as the Agency’s or external entity’s needs evolve.

Four Agency groundwater monitoring programs are covered by the Manual: Well Registration, Groundwater Extraction Monitoring, Groundwater Level Monitoring, and Groundwater Quality Monitoring.

Section 2 Definitions

1. Abandoned well – means any well whose original purpose and use has been permanently discontinued or which is in such a state of disrepair that it cannot be used for its original purpose. A well is considered abandoned when it has not been used for a period of one year, unless the owner demonstrates his or her intent to use the well again for supplying water or other associated purposes.
2. Accuracy – means the measured value relative to the actual value, expressed as a percentage and calculated as: $\text{Accuracy} = 100\% * (\text{Measured Value} - \text{Actual Value}) / \text{Actual Value}$.
3. Actual Value – means the value as determined through laboratory, design, or field-testing protocols.
4. Agency – means the Monterey County Water Resources Agency.
5. Agency Act – means the Monterey County Water Resources Agency Act, California Water Code, Appendix Chapter 52 (Stats. 1990, Chap. 1159).
6. Board – means the Board of Supervisors of the Monterey County Water Resources Agency.

7. County – means the County of Monterey.
8. De minimis extractor – means a person who extracts, for domestic purposes, two acre-feet or less per year (California Water Code section 10721(e)).
9. Human consumption – means the use of water for drinking, bathing or showering, hand washing, food preparation, cooking, or oral hygiene.
10. Inactive or standby well – means a well not routinely operating but capable of being made operable with a minimum effort.
11. Local Small Water System – means a system for the provision of piped water for human consumption that serves at least two, but not more than four, service connections. It includes any collection, treatment, storage, and distribution facilities under control of the operator of such system which are used primarily in connection with such system. “Local small water system” does not include two or more service connections on a single lot of record where none of the dwellings are leased, rented, or offered for remuneration.
12. Measured Value – means the value indicated by a Measuring Device or determined through calculations using other measured values.
13. Measuring Device – means any device capable of recording the date, time, and a numeric value of either water flow rate, water velocity, water elevation, or volume of water diverted.
14. Monterey County – means the geographical area of Monterey County.
15. Qualified Individual – means any person meeting the criteria specified in the Manual who can perform the required tasks for using and installing a Measuring Device.
16. Reference Point – means the fixed location from which a groundwater level measurement is collected at a well and the elevation of that fixed location.
17. Requesting Entity – means an entity engaged in the management of groundwater resources within Monterey County, either through the monitoring and reporting of groundwater level, usage, and/or quality data; scientific investigations; or in the administration and compliance of a regulatory program(s).
18. Service connection – means a connection to any habitable structure, except a guesthouse, or parcel which uses potable water from a water system for domestic and not agricultural purposes.

19. Small Public Water System – means a system for the provision of piped water to the public for human consumption that has at least fifteen but not more than one hundred ninety-nine service connections or regularly serves at least twenty-five individuals at least sixty days out of the year. A small public water system includes “community water system” and “noncommunity water system” as defined in Section 116275(i) and (j), respectively, of the California Health and Safety Code, and “non-transient noncommunity water system” as defined in Section 116275(k) of the California Health and Safety Code, and a “transient-noncommunity water system” as defined in California Health and Safety Code Section 116275(o), as these sections may be amended from time to time.
20. State Small Water System – means a system for the provision of piped water to the public for human consumption that serves at least five, but not more than fourteen (14), service connections and does not regularly serve drinking water to more than an average of twenty-five (25) individuals daily for more than sixty (60) days out of the year. It includes any collection, treatment, storage, and distribution facilities under control of the operator of such system which are used primarily in connection with such system, and any collection or pretreatment storage facilities not under the control of the operator which are used primarily in connection with such system.
21. Water Year – means the 12-month period between October 1, of any given year, through September 30, of the following year, as defined by the United States Geological Survey.
22. Well – means any artificial excavation constructed by any method for the purpose of extracting water from, or injecting water into, the underground. “Well” includes abandoned wells, inactive wells, monitoring wells, and observation wells. For the purposes of this Manual, “well” does not include: (1) oil and gas wells, or geothermal wells constructed under the jurisdiction of the Department of Conservation, except those wells converted to use as water wells; (2) wells used for the purpose of dewatering excavation during construction, or stabilizing hillsides or earth embankments; (3) cathodic protection wells; or (4) test wells or dry wells.
23. Well Operator – means a person or entity authorized by a Well Owner to operate a Well.
24. Well Owner – means a landowner or landowners that own a Well.

Section 3 Well Registration Program

3.1 Geographic Extent

The Well Registration Program applies to all wells located in Agency Zone 2C and/or the following subbasins of the Salinas Valley Groundwater Basin: 180/400 Foot Aquifer (3-004.01), East Side Aquifer (3-004.02), Forebay Aquifer (3-004.04), Langley Area (3-004.09), Monterey (3-004.10), and Upper Valley Aquifer (3-004.05). Such geographic locations are depicted in a map attached to this Manual as Attachment A.

3.2 General Requirements

Well registration must be completed by submitting the required data to the Agency using the well registration portal available at *[insert link when available]*. Information about and assistance with completing well registration are available at *[insert URL when available]* or by contacting the Agency at 831-755-4860. Wells that are currently registered with the Agency and which meet the data requirements in Section 3.3 will not have to re-register but the Well Owner may be asked to verify the well registration data on file with the Agency and provide updates as applicable.

3.3 Data Requirements

The following data must be submitted to the Agency when a well is initially registered and must be updated by contacting the Agency when any changes occur.

1. Well owner name, address, phone number, and email address.
2. Well operator name, address, phone number, and email address.
3. Name of Local Small Water System, Small Public Water System, or State Small Water System, if applicable.
4. Number of connections to Local Small Water System, Small Public Water System, or State Small Water System, if applicable.
5. Geographic coordinates of the well location collected via GPS, with accuracy within 20 feet. Note that GPS-enabled smartphones are typically accurate to within a 16-foot radius under open sky (www.gps.gov).
6. Scaled map showing the well location and the area served water from the well, with relevant geographic features and landmarks labeled (e.g., roads, intersections).
7. Well name (owner-given well identification).
8. Well construction details including all the following information:
 - a. Date of construction
 - b. Drilling method
 - c. Total well depth
 - d. Perforation/screen interval(s)
 - e. Annular seal depth
 - f. Casing diameter
 - g. Casing material
 - h. Depth of pump
 - i. Pump motor horsepower
 - j. Discharge pipe diameter
9. Use category(ies) for which water from the well will be used (e.g., domestic, municipal, agriculture).
10. Status of the well (active, inactive or standby, or abandoned).
 - a. A well owner may demonstrate the inactive or standby status of a well by actions including, but not limited to, keeping the well structure in good condition; preventing the accumulation of vegetative growth or debris at the well and in adjacent areas; and retaining equipment and infrastructure necessary for operation of the well, such as pumps, piping, or a power source for operating the well.
11. Number of existing and anticipated service connections.

12. Description of water quantity measuring device(s) on the well.
13. Description of each water quantity measuring device on all service connections receiving water from the facility.
14. Electrical meter service numbers and plant numbers for each well having such a number.
15. Copy of the Well Completion Report.
16. Copy of the County of Monterey well construction permit that was issued for the well, and any other related County well permits.
17. Copy of any borehole geophysical logs collected during the well drilling.
18. Copy of any pump testing data obtained during well drilling and development.

Section 4 Groundwater Extraction Monitoring Program

4.1 Geographic Extent

The Groundwater Extraction Monitoring Program applies to non-*de minimis* extractors located in Agency Zone 2C and/or the following subbasins of the Salinas Valley Groundwater Basin: 180/400 Foot Aquifer (3-004.01), East Side Aquifer (3-004.02), Forebay Aquifer (3-004.04), Langley Area (3-004.09), Monterey (3-004.10), and Upper Valley Aquifer (3-004.05). Such geographic locations are depicted in a map attached to this Manual as Attachment A.

4.2 General Requirements

1. Groundwater extraction data are required from all non-*de minimis* users i.e., wells pumping more than 2 acre-feet per year (AF/yr.) for domestic use.
2. Groundwater extraction data must be collected on a monthly basis for each Water Year (i.e., October 1 through September 30).
3. Monthly totals of groundwater extracted must be reported to the Agency no later than November 1 for the prior Water Year.
4. Data that are reported to the State Water Resources Control Board Electronic Water Rights Management System (eWRIMS) must also be reported to the Agency and be identified as being reported to both entities.
5. Any Measuring Device required by this Manual must be purchased, installed, and maintained by the well owner or operator.

4.3 Data Collecting and Reporting

1. Well owners or operators must collect and maintain monthly records of groundwater extraction volumes and cumulative totals including:
 - a. Quantity of water produced by each well.
 - b. Quantity of water produced for each use type.
2. Annual reporting submitted to the Agency must specify the type of approved Measuring Device that was used to collect data at each well. Currently approved Measuring Devices include all of the following: flow meter, electrical meter, or hour meter. Additional types of Measuring Devices or equipment may be considered and approved for use in the future. When new Measuring Devices are approved by the Agency as described in Ordinance

5426, Well Owners or Well Operators of Wells currently registered with and reporting extractions to the Agency using a currently approved Measuring Device as described in this Manual or “Alternative Compliance Plan” will not have to re-request approval from the Agency to continue using a currently approved Measuring Device or “Alternative Compliance Plan”.

a. Annual reporting occurs online through an application maintained by the Agency at https://apps.co.monterey.ca.us/wra_gems/.

b. Information about how to use the application is available at <https://www.countyofmonterey.gov/government/government-links/water-resources-agency/programs/groundwater-extractions-gems>.

3. Well owners or operators using the flow meter method must abide by the following:

a. Flow meters must be tested every five years by a Qualified Individual and calibrated to comply with applicable Agency specifications in (b) and (c) below. Upon completion of the test, a copy of the test report including the flowmeter reading must be submitted to the Agency.

i. A Qualified Individual may be any of the following:

I. Anyone trained and experienced in water measurements and reporting.

II. A California-registered Professional Engineer or a person under their supervision.

III. A California-licensed contractor for C-57 well drilling or C-61/D-21 Limited Specialty: Machinery and Pumps.

IV. Any individual who has completed a class on measurement devices and methods offered through the University of California Cooperative Extension.

V. Hydrologist or Professional Engineer experienced and trained in water measurement.

b. Flow meters must be installed per manufacturer instructions.

c. Flow meters must come from the manufacturer with a provable accuracy of +/- 2%. The Measured Value must read within +/- 10% at all times after installation.

d. Reported data must include monthly readings from the flow meter and associated meter number.

4. Well owners or operators using the electrical meter method must abide by all of the following:

a. Quantities of water must be reported based on calculations using accurate electrical bills, data from pump efficiency tests, and formulas that are approved by the Agency.

- b. Electrical bills must be based on electrical meters on the well. The well's use of electricity must be the only electrical use measured by the electrical meter.
 - c. Reported data must show the kilowatt hours used each month by each well.
 - d. A pump efficiency test must be completed annually. The test must be a three-point efficiency test which evaluates three discharge pressures and is obtained during the period from March through June. Upon completion of the test, the tester must submit to the Agency a report of the testing that includes the electrical meter reading on the date of the test. The pump efficiency test report must be submitted to the Agency no later than October 31 of the year in which it was conducted.
 - e. Reporting party must submit all computations necessary to show the quantity of water used, including the raw data, the computation itself, and the result as prescribed by the Agency.
5. Well owners or operators using the hour meter method must abide by all of the following:
- a. Quantities of water must be reported based on calculations using readings from hour meters, discharge rates from pump efficiency tests, and formulas approved by the Agency.
 - b. Hour meters must be accurate to within 2% of correct time.
 - c. Information showing the total number of hours each facility was operated in each month must be submitted to the Agency.
 - d. A pump efficiency test must be completed annually. The test must be a three-point efficiency test which evaluates three discharge pressures and is obtained during the period from March through June. Upon completion of the test, the tester must submit to the Agency a report of the testing that includes the hour meter reading on the date of the test and discharge rates determined pursuant to the test.
 - e. Reporting party must submit all computations necessary to show the quantity of water used, including the raw data, the computation itself, and the result as prescribed by the Agency.

Section 5 Groundwater Level Monitoring Program

5.1 Geographic Extent

The Agency monitors groundwater levels throughout Monterey County, primarily within the Salinas Valley Groundwater Basin, but also in areas of Lockwood Valley (Attachment B).

5.2 Record Keeping

Wells that are part of the Agency's groundwater level monitoring network are required to be registered, per the criteria described in Section 3 of this Manual. In addition to the data requirements therein, the Agency will collect data regarding the Reference Point elevation of the well.

The Agency may install a well data tag at the well site to indicate that the well is part of a monitoring program. The well data tag will be labeled with the site's State Well Identification Number.

5.3 Data Collection

The Agency measures groundwater levels on a monthly basis at some well sites and biannually or annually at other well sites. The Agency adheres to the following field methods and data management practices.

5.3.1 Field Methods

Groundwater level data collected from wells is intended to reflect static (i.e., non-pumping) groundwater conditions. Best efforts are made to ensure that wells are not pumping and have not recently been pumped prior to collecting a groundwater level data point. Depth to water measurements are made using one or more of the methods discussed in the following sections. The Agency's groundwater level data collection methodology is based on the standardized *Groundwater Technical Procedures of the U.S. Geological Survey* (2011) available at <https://pubs.usgs.gov/tm/1a1/> and the State of California Department of Water Resources *Groundwater Elevation Guidelines* (2010).

5.3.1.1 Graduated Steel Tape

The following steps must be completed prior to taking a measurement:

- Ensure that the reference point on the well can be clearly determined. Check notes in the field data collection notebook or application.
- Review the notes and comments associated with previous measurements to determine if there are any unique circumstances at the well.
- Take note of whether oil has previously been present at the well. This will be recorded in the comments section of the data collection form.
- Evaluate the well and surrounding area to determine if the well may have recently been operating.

To collect a measurement:

- Use the previous depth to water measurement to estimate a length of tape that will be needed.
- Lower the tape into the well, feeling for a change in the weight of the tape, which typically indicates that either (a) the tap has reached the water surface or (b) the tape is sticking to the side of the well.

- Continue lowering the tape into the well until the next whole foot mark is at the reference point. This value on the tape should be recorded in the field data collection notebook or application.
- Bring the tape to the surface and record the number of the wetted interval to the nearest foot.
- In an oil layer is present, read the tape at the top of the oil mark to the nearest foot. Note in the comments section of the data form that oil was present.
- Repeat this procedure a second time and note any differences in measurement in the field data collection notebook or application. If needed, repeat additional times until two consistent depth readings are obtained.
- After completing the measurement, disinfect and rinse the part of the tape that was submerged below the water surface.

5.3.1.2 Electric water level meter

This method of measurement employs a battery-powered water level meter and a small probe attached to a ruled length of cable. Depth to water measurements collected using this equipment are recorded to the nearest tenth of an inch. This instrument is sometimes referred to as a “sounder.”

The following steps must be completed prior to taking a measurement:

- Review the field data sheet for the well and note whether oil has been present at this well in the past. The electric water level meter should not be used in wells where oil is present.
- Ensure that the reference point on the well can be clearly determined. Check notes in the field data collection notebook.
- Confirm that the water level meter is functioning and is turned on so that the beeping indicator will operate properly.

To collect a measurement:

- Review previous depth to water measurements for the well to estimate the length of tape that will be needed.
- Lower the electrode into the well until the indicator sounds, showing the probe is in contact with the water surface.
- Place the tape against the reference point and read the depth to water to the nearest 0.1 foot. Record this value on the field data sheet.
- Make a second measurement and note any differences in measurement in the field data collection notebook or application. If needed, repeat additional times until two consistent depth readings are obtained.
- After completing the measurement, disinfect and rinse the part of the tape that was submerged below the water surface.

5.3.1.3 Sonic water level meter

This meter uses sound waves to measure the depth to water in a well. The meter must be adjusted to the air temperature outside the well. There is a card with reference temperatures in the case with the sonic meter.

Making a measurement:

- Insert the meter probe into the access port and push the power-on switch. Record the depth from the readout.
- Record the depth to water measurement in the field data collection notebook or application.
- No disinfection of the instrument is required because it does not come into contact with the water surface.

5.3.1.4 Pressure transducer

Automated water-level measurements are made with a pressure transducer attached to a data logger. Pressure transducers are lowered to a depth below the water level in the well and fastened to the well head at a reference point. Data points are logged on an hourly basis.

The Agency uses factory-calibrated, vented pressure transducers; the specific model and cable length is customized for each well. A desiccant is also used to avoid damage to the equipment from moisture.

Agency staff collects the pressure transducer data once per quarter. During the data collection process, data loggers are stopped, and the data is downloaded onto a laptop, and then the data logger is reactivated and scheduled to begin collecting data again on the next hour.

Section 6 Groundwater Quality Monitoring Program

6.1 Geographic Extent

The Agency monitors groundwater quality in the coastal region of the Salinas Valley Groundwater Basin and at selected monitoring wells in the Forebay Aquifer (3-004.04) and Upper Valley Aquifer (3-004.05) Subbasins (Attachment C).

6.2 Record Keeping

Wells that are part of the Agency's groundwater level monitoring network are required to be registered, per the criteria described in Section 3 of this Manual.

6.3 Data Collection

The Agency collects groundwater quality samples twice per year from wells in the groundwater quality monitoring program. Additional samples may be collected as needed for special projects or to meet the needs of a Requesting Entity.

Field blanks and field duplicates are collected as part of the groundwater quality monitoring program to evaluate the sample collection process for contamination from exposure to ambient conditions, sample containers, or improper sampling and handling techniques. Field blank

samples are obtained by pouring deionized (DI) water acquired from the Monterey County Consolidated Chemistry Laboratory into a sample container that has been triple-rinsed with DI water at the sampling location. If target analytes are identified in field blanks, sampling and handling procedures will be reevaluated and corrective actions, consisting of but not limited to re-training of field personnel, contact with the laboratory, invalidation, or qualifying of results, will be taken.

Field duplicates are collected and analyzed for the same analytical parameters as the native samples. The duplicate sample will be collected immediately after collection of the native sample, following the same sampling protocols.

The Agency adheres to the protocols set forth in the *Quality Assurance Project Plan for Water Quality Monitoring Associated with the Salinas Valley Integrated Water Management Plan* (EPA R9#03-238, X-97994701-0) approved by the U.S. Environmental Protection Agency in August 2007.

6.3.1 Groundwater Quality Sample Identification and Handling

Sample containers are high density polyethylene (HDPE), 0.25-gallon (approximately 1 liter) size for complete mineral analysis. Sample containers and caps are purchased in bulk and the caps for the containers are packaged separately. Sterility of the sample containers is not of importance because samples are not analyzed for microbiological testing. No chemical field preservation of the samples is required.

Sample containers are labeled with pre-printed labels. The collection date, collection time, and sampler name are recorded in the field with an indelible marker.

All samples are handled, prepared, transported, and stored in a manner so as to minimize contamination and spills. After collection, samples caps are checked for tightness, and the samples are immediately placed in an ice chest. During travel between sites, ice chest lids are kept tightly closed. Blue ice packs are used in sufficient quantity so that all samples are stored at $4\pm 2^{\circ}\text{C}$.

Chain-of-custody (COC) forms are provided by the Monterey County Consolidated Chemistry Laboratory and filled out by field personnel while in the field. The COC accompanies the samples at all times in order to ensure the custodial integrity of the samples. The COC form includes the sample site, which is identified by State Well Identification Number or Quality Control sample, if appropriate.

Upon relinquishing the sample(s) to the Monterey County Consolidated Chemistry Laboratory, the sampler signs and dates the COC form. Lab personnel will then receive the sample(s), check the temperature, mark the date and time received, assign unique lab identification numbers (lab IDs) to each sample, and sign the COC form. The signed COC form is copied; the lab keeps the

original and a copy is given to the sampler. Hard copies of COC forms are maintained by Agency for a period of ten years.

6.3.2 Analytical Methods

Groundwater samples, including field blanks and field duplicates, are analyzed for an “Ag Waiver Panel” consisting of the following analytes: calcium, cation-anion balance, chloride, conductivity, magnesium, nitrate, pH, potassium, sodium, sulfate, total alkalinity, and total dissolved solids.

Samples are analyzed at the Monterey County Consolidated Chemistry Laboratory, which is part of the Monterey County Health Department and holds Certification Number 1395 from the Environmental Laboratory Accreditation Program (ELAP). ELAP is part of the Division of Drinking Water at the State Water Resources Control Board.