

United States Department of the Interior

U.S. GEOLOGICAL SURVEY California Water Science Center 6000 J Street Sacramento, CA 95819

September 27, 2023

Mr. Kevin Booker Water Agency Engineer Sonoma County Water Agency 404 Aviation Boulevard Santa Rosa, CA 95403

Dear Mr. Booker:

Attached is the Joint Funding Agreement (JFA) 24ZGJFA01000012, signed by our agency, for your approval to enact the cost changes to the project(s) California Water Science Center Water Resources Investigations, during the period October 1, 2023 through September 30, 2024 in the amount of \$663,240 from your agency. U.S. Geological Survey contributions for this agreement are \$44,100 for a combined total of \$707,340. If you are in agreement with this proposed program, please return the fully executed signed copy to CAgageADMIN@usgs.gov (preferred) or send one fully executed paper copy to Cade Castro at the address in the letter head.

Federal law requires that we have a signed agreement before we start or continue work. Please return the signed agreement by October 1, 2023. If, for any reason, the agreement cannot be signed and returned by the date shown above, please contact Andrew Watson by phone number (707) 468-4042 or email afwatson@usgs.gov to make alternative arrangements.

This is a fixed cost agreement to be billed quarterly via Down Payment Request (automated Form DI-1040), Please allow 30-days from the end of the billing period for issuance of the bill. If you experience any problems with your invoice(s), please contact Cade Castro at phone number (970) 462-2034 or email at ccastro@usgs.gov.

The results of all work performed under this agreement will be available for publication by the U.S. Geological Survey. We look forward to continuing this and future cooperative efforts in these mutually beneficial water resources studies.

Sincerely,

SOLGER

Digitally signed by ANKE ANKE MUELLER-MUELLER-SOLGER Date: 2023.09.28 09:04:42 -07'00'

Anke Mueller-Solger Director, USGS California Water Science Center

Enclosure **Detailed Summary** Form 9-1366 (May 2018)

U.S. Department of the Interior U.S. Geological Survey Joint Funding Agreement FOR

Water Resource Investigations

Customer #: 6000000828 Agreement #: 24ZGJFA01000012 Project #: ZG00GZV TIN #: 94-6000539

Fixed Cost Agreement YES[X]NO[]

THIS AGREEMENT is entered into as of the October 1, 2023, by the U.S. GEOLOGICAL SURVEY, California Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the Sonoma County Water Agency party of the second part.

- 1. The parties hereto agree that subject to the availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation Water Resource Investigations (per attachment), herein called the program. The USGS legal authority is 43 USC 36C; 43 USC 50, and 43 USC 50b.
- 2. The following amounts shall be contributed to cover all of the cost of the necessary field and analytical work directly related to this program. 2(b) include In-Kind-Services in the amount of \$0.00.
 - (a) \$44,100 by the party of the first part during the period October 1, 2023 to September 30, 2024
 - (b) \$663,240 by the party of the second part during the period October 1, 2023 to September 30, 2024
 - (c) Contributions are provided by the party of the first part through other USGS regional or national programs, in the amount of: \$0.00.

Description of the USGS regional/national program:

- (d) Additional or reduced amounts by each party during the above period or succeeding periods as may be determined by mutual agreement and set forth in an exchange of letters between the parties.
- (e) The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.
- 3. The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
- 4. The field and analytical work pertaining to this program shall be under the direction of or subject to periodic review by an authorized representative of the party of the first part.
- 5. The areas to be included in the program shall be determined by mutual agreement between the parties hereto or their authorized representatives. The methods employed in the field and office shall be those adopted by the party of the first part to insure the required standards of accuracy subject to modification by mutual agreement.
- 6. During the course of this program, all field and analytical work of either party pertaining to this program shall be open to the inspection of the other party, and if the work is not being carried on in a mutually satisfactory manner, either party may terminate this agreement upon 60 days written notice to the other party.
- 7. The original records resulting from this program will be deposited in the office of origin of those records. Upon request, copies of the original records will be provided to the office of the other party.
- 8. The maps, records or reports resulting from this program shall be made available to the public as promptly as possible. The maps, records or reports normally will be published by the party of the first part. However, the party of the second part reserves the right to publish the results of this program, and if already published by the party of the first part shall, upon request, be furnished by the party of the first part, at cost, impressions suitable for purposes of reproduction similar to that for which the original copy was prepared. The maps, records or reports published by either party shall contain a statement of the cooperative relations between the parties. The Parties acknowledge that scientific information and data developed as a result of the Scope of Work (SOW) are subject to applicable USGS review, approval, and release requirements, which are available on the USGS Fundamental Science Practices website (https://www2.usgs.gov/fsp/).

Form 9-1366 (May 2018)

U.S. Department of the Interior U.S. Geological Survey Joint Funding Agreement FOR

Customer #: 6000000828

Agreement #: 24ZGJFA01000012

Project #: ZG00GZV TIN #: 94-6000539

Water Resource Investigations

9. Billing for this agreement will be rendered <u>quarterly</u>. Invoices not paid within 60 days from the billing date will bear Interest, Penalties, and Administrative cost at the annual rate pursuant the Debt Collection Act of 1982, (codified at 31 U.S.C. § 3717) established by the U.S. Treasury.

| · | | | |
|--------------------------|---|--------------------|--|
| | USGS Technical Point of Contact | | Customer Technical Point of Contact |
| Name: | Andrew Watson | Name: | Kevin Booker |
| A -1-1 | Supervisory Hydrologic Technician | | Water Agency Engineer |
| Address: | 2550 No. State Street Suite 1 Ukiah, CA 95482 | Address: | 404 Aviation Boulevard |
| Telephone: | (707) 468-4042 | Telephone: | Santa Rosa, CA 95403 (707) 521-1865 |
| Fax: | (707) 468-4022 | Fax: | • |
| Email: | afwatson@usgs.gov | Email: | Kevin.Booker@scwa.ca.gov |
| | USGS Billing Point of Contact | | Customer Billing Point of Contact |
| Name: | Cade Castro | Name: | Kevin Booker |
| | Budget Analyst | | Water Agency Engineer |
| Address: | 6000 J Street Placer Hall | Address: | 404 Aviation Boulevard Santa Rosa, CA 95403 |
| Telephone: Fax: | , (970) 462-2034 | Telephone: Fax: | (707) 521-1865 |
| Email: | ccastro@usgs.gov | Email: | Kevin.Booker@scwa.ca.gov |
| | U.S. Geological Survey United States Department of Interior | s | onoma County Water Agency |
| ANKE MUELLER- | Signature Digitally signed by ANKE MUELLER-SOLGER | | Signatures |
| By SOLGER | Date: 2023.09.28 09:06:18-07'00' Date: | Ву | Date: |
| Name: Anke | Mueller-Solger | Name: | |
| Title: Directo Center | or, USGS California Water Science | Title: | |
| | | Ву | Date: |
| | | Name: | |
| | | Title: | |
| | | Ву | Date: |
| | | Name: | |
| | | Title: | |

Sonoma County Water Agency Attachment for 24ZGJFA01000012 2023-10-01 to 2024-09-30

| SITE NUMBER | DESCRIPTION | CODE | NO. UNITS | DIFF FACTOR | USGS FUNDS | CUST.OTHER CASHFUNDS | COST |
|----------------|---|------------------|--------------|--|----------------|---|------------------|
| ***** | | | | | | | |
| | Discharge, Measurement | QMEAS | 40 | 1 | | \$14,000 | |
| | Discharge, Measurement | QMEAS | 37 | 1 SW Total: | (| (\$12,950) | \$1,050 |
| 11458433 | SONOMA CREEK A KENWOOD CA | <u> </u> | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 | \$7,350 | \$17,850 | 405.00 |
| | | | | SW Total: | | | \$25,200 |
| 11458500 | SONOMA C A AGUA CALIENTE CA | THOOD | | 4 | | 010 150 | |
| | Full Range Streamflow Station | QCONT | 1 | 1 SW Total: | | \$13,150 | \$13,150 |
| 11458600 | NATHANSON C A SONOMA CA | | | MARKET MA | | | |
| | Full Range Streamflow - Seasonal | QCONT- | 1 | 1 | | \$15,800 | |
| | Turriange Greatimow Geasonal | SEASON | • | SW Total: | | ψ10,000 | \$15.900 |
| | | | | SW TOTAL. | | | \$15,800 |
| 11461500 | EF RUSSIAN R NR CALPELLA CA Full Range Streamflow Station | QCONT | 1 | 1 | \$7.350 | ¢17.850 | |
| | Tuli Natige difeamiliow Station | QOON | ļ | SW Total: | φ7,000 | \$17,850 | \$25,200 |
| 11462080 | RUSSIAN R NR TALMAGE CA | | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 | | \$13,150 | |
| | · | | ,,,,, | SW Total: | | | \$13,150 |
| 11463000 | RUSSIAN R NR CLOVERDALE CA | | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 SW Total: | \$7,350 | \$17,850 | \$ 05.000 |
| | | | | | | | \$25,200 |
| 11463200 | BIG SULPHUR C NR CLOVERDALE C | A QCONT | 1 | 1 | | \$26,300 | |
| | Full Range Streamflow Station | QOONT | ' | SW Total: | | φ20,300 | \$26,300 |
| 11463500 | RUSSIAN R A GEYSERVILLE CA | | | | | | |
| 11100000 | Full Range Streamflow Station | QCONT | 1 | 1 | | \$26,300 | |
| | | | | SW Total: | | | \$26,300 |
| 11463682 | RUSSIAN R A JIMTOWN CA | | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 SW Total: | | \$26,300 | \$26,300 |
| | | | | Sw rotar. | | | Ψ20,300 |
| 11463900 | MAACAMA C NR KELLOGG CA Full Range Streamflow Station | QCONT | 1 | 1 | | \$26,300 | |
| | Full hange differnition diation | QOON | | SW Total: | | φ20,300 | \$26,300 |
| 11463980 | RUSSIAN R A DIGGER BEND NR HEA | ALDSBURG CA | ****** | | | *************************************** | |
| 11400300 | Partial range streamflow O&M | QPART | 1 | 1 | | \$15,800 | |
| | | | | SW Total: | | | \$15,800 |
| 11464000 | RUSSIAN R NR HEALDSBURG CA | | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 SW Total: | | \$19,730 | ¢10.720 |
| | | | | SW Total: | | | \$19,730 |
| 11465240 | DRY C BLW LAMBERT BR NR GEYSE | | 1 | 1 | | \$26,300 | |
| | Full Range Streamflow Station | QCONT | • | SW Total: | | φ20,300 | \$26,300 |
| 11465350 | DRY C NR MOUTH NR HEALDSBURG | | | | | | |
| . 1-100000 | Full Range Streamflow Station | QCONT | 1 | 1 | | \$26,300 | |
| | | | | SW Total: | | | \$26,300 |
| 11465390 | RUSSIAN R NR WINDSOR CA | | | | | | |
| | Full Range Streamflow - Seasonal | QCONT- SEASON | 1 | 1 | | \$15,800 | |
| | | OLAGON | | SW Total: | | | \$15,800 |

| | Full Range Streamflow - Seasonal | QCONT- SEASON | 1 | 1 | | \$15,800 | . |
|---|---|--------------------------|-----------|--------------------|---------|---------------|-----------------|
| photogram control and a second | | | | SW Total: | | | \$15,800 |
| 11465680 | LAGUNA DE SANTA ROSA A STONY Full Range Streamflow Station | PT RD NR COTATI QCONT | I CA 1 | 1 \$7 | 350 | \$17,850 | |
| | I dii Hange Streamlow Station | QOOM | | SW Total: | ,550 | φ17,000 | \$25,200 |
| 11465690 | COLGAN C NR SANTA ROSA CA | | | | | | |
| *************************************** | Full Range Streamflow - Seasonal | QCONT- | 1 | 1 | | \$15,800 | |
| | v | SEASON | | SW Total: | | . , | \$15,800 |
| 11465700 | COLGAN C NR SEBASTOPOL CA | | | | | | |
| 11403700 | Full Range Streamflow Station | QCONT | 1 | | ,350 | \$17,850 | |
| | | | | SW Total: | | | \$25,20 |
| 11465820 | SANTA ROSA C DIV A VORTEX NR S | | | | | | |
| | Stage, Measurement, Crest Stage Gage | STGMEAS- CREST | 1 . | 1 | | \$5,490 | |
| | | 323. | | SW Total: | | | \$5,490 |
| 11465821 | SANTA ROSA C DIV A ORIFICE NR S | SANTA ROSA CA | | | | | |
| | Stage, Measurement, Crest Stage | STGMEAS- | 1 | 1 | | \$5,490 | |
| | Gage | CREST | | SW Total: | | | \$5,490 |
| 11466065 | BRUSH C A SANTA ROSA CA | | | | | | |
| 11700000 | Stage, Measurement, Crest Stage | STGMEAS- | 1 | 1 | | \$5,490 | |
| | Gage | CREST | | SW Total: | | ψο,του | \$5,490 |
| 44400450 | | | | 011 101011 | | | ψο, του |
| 11466150 | MATANZAS C RES OUTFLOW NR SA Stage, Measurement, Crest Stage | ANTA HOSA CA STGMEAS- | | . 4 | | AT 100 | |
| | Gage | CREST | 1 | 1 | | \$5,490 | |
| | | | | SW Total: | | - | \$5,490 |
| 11466170 | MATANZAS C A SANTA ROSA CA | QCONT- | | | | | |
| | Full Range Streamflow - Seasonal | SEASON | . 1 | 1 | | \$15,800 | |
| | | | | SW Total: | | | \$15,800 |
| 11466200 | SANTA ROSA C A SANTA ROSA CA | | | | | | |
| | Full Range Streamflow - Seasonal | QCONT- SEASON | 1 | 1 | | \$15,800 | |
| | | | | SW Total: | | | \$15,800 |
| 11466800 | MARK WEST C NR MIRABEL HEIGH | TS CA | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 CW Totals | | \$26,300 | 606 00 6 |
| | | | | SW Total: | | | \$26,300 |
| 11467002 | RUSSIAN R A JOHNSONS BEACH A | GUERNEVILLE CA STAGE- | | | | | |
| | Seasonal stage gage | SEASON | . 1 | 1 | | \$5,600 | |
| P-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1 | | | | SW Total: | | | \$5,600 |
| 11467200 | AUSTIN C NR CAZADERO CA | | | | | | |
| | Full Range Streamflow Station | QCONT | 1 | 1 \$7 SW Total: | ,350 | \$17,850 | \$25,200 |
| 44.407070 | BURGLAND A HIGHWAY A BRIDGE A | ID IENNED OA | | | | | , |
| 11467270 | RUSSIAN R A HIGHWAY 1 BRIDGE N Stage, Continuous | STGCONT | 1 | 1 | | \$9,200 | |
| | | | | SW Total: | | | \$9,200 |
| , | | | SW/ | Grand Total: \$44 | .100 \$ | 485,640 | \$529,740 |

| SITE NUMBER | DESCRIPTION | CODE | NO. UNITS | DIFF FACTOR | USGS FUNDS | | OTHER FUNDS | TOTAL COST |
|----------------|---|------------------|---------------------------------|----------------|---------------|----------------|----------------|-----------------|
| 11458433 | SONOMA CREEK A KENWO | OD CA | | | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$12,260 | | |
| | | | | WQ Total: | | | | \$12,260 |
| 11461500 | EF RUSSIAN R NR CALPELL | A CA | | | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$3,040 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$9,800 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$2,990 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$12,260 | | |
| | · | | | WQ Total: | | | | \$28,090 |
| 11462500 | RUSSIAN R NR HOPLAND C | Δ | | | | | | |
| 11402300 | Water Quality, Continuous | WQCONT | 1 | 1 | | \$9,800 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$2,990 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$3,040 | | |
| | Water Quality, Continuous | WQCONT | | 1 | | | | |
| | vator addity, commutation | Waccitt | QCONT 1 1 \$12,260 WQ Total: | \$28,090 | | | | |
| | | | | | | , | | |
| 11463000 | RUSSIAN R NR CLOVERDAL | | 4 | 4 | | ሰ ባ Εባባ | | |
| | Water Quality, Continuous Water Quality, Continuous | WQCONT WQCONT | 1 1 | 1 1 | | \$2,590 | | |
| | water Quality, Continuous | WQCONT | , | WQ Total: | | \$1,520 | | \$4,110 |
| | W | | | | | | | Ψ1,110 |
| 11463500 | RUSSIAN R A GEYSERVILLE | | | | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$5,170 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 WQ Total: | | (\$5,070) | | \$100 |
| , | | | | wa rotar. | | | | φ100 |
| 11463682 | RUSSIAN R A JIMTOWN CA | | | | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$9,600 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$2,070 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$1,500 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$1,520 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 WQ Total: | | \$6,130 | | \$20,820 |
| , | | | | wa rotai. | | | | Ψ20,020 |
| 11463980 | RUSSIAN R A DIGGER BEND | | | | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$9,800 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$3,040 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$2,990 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 WQ Total: | | \$12,260 | | \$28,090 |
| | | | | WG Total: | | | | Φ 20,090 |
| 11465240 | DRY C BLW LAMBERT BR N | | E CA | | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$9,600 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$1,500 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$1,520 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$6,130 | | A |
| | | | | WQ Total: | | | | \$18,750 |
| 11467000 | RUSSIAN R A HACIENDA BE | IDGE NR GUEF | RNEVILLE | CA | | | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 . | | \$9,800 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$2,990 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$3,040 | | |
| | Water Quality, Continuous | WQCONT | 1 | 1 | | \$12,260 | | |
| | | | | WQ Total: | | | | \$28,090 |
| | | | | | | | | |

| | GF | ROUND WAT | ER | | | | |
|-----------------|-------------------------------|---------------|--------------|----------------|---------------|---------------------------|---------|
| SITE NUMBER | DESCRIPTION | CODE | NO. UNITS | DIFF FACTOR | USGS FUNDS | CUST. OTHER CASH FUNDS | |
| 11463500 | RUSSIAN R A GEYSERVILLE CA | | | | | | |
| | Groundwater level, Continuous | GWCONT | 1 | 1 | | \$9,200 | |
| | Groundwater level, Continuous | GWCONT | 1 | 1 | 1 | (\$9,200) | |
| | | | | GW Total: | | , , | |
| 383930122494801 | 009N009W02F001M | | | | | | |
| | Groundwater level, Continuous | GWCONT | 1 | 1 | | \$9,200 | |
| | | | | GW Total: | : | | \$9,200 |
| | | | GW | Grand Total: | | \$9,200 | \$9,200 |

| | SUMMAR | Y FOR | | | |
|--------------------|--------------|---------------|---------------|----------------|---------------|
| ТҮРЕ | | USGS FUNDS | CUST. CASH | OTHER FUNDS | TOTAL COST |
| SURFACE WATER (SW) | - | \$44,100 | \$485,640 | | \$529,740 |
| WATER QUALITY (WQ) | | | \$168,400 | | \$168,400 |
| GROUND WATER (GW) | | | \$9,200 | | \$9,200 |
| | = | | | | |
| | GRAND TOTAL | | | | \$707,340 |