

Board Contract Summary

BC 17 - 204

For use with Expenditure Contracts submitted to the Board for approval. Complete information below, print, obtain signature of authorized departmental representative, and submit this form, along with attachments, to the appropriate departments for signature. See also: *Auditor-Controller Intranet Policies->Contracts.*

D1.	Fiscal Year	FY 16-17
D2.	Department Name	Flood Control/Water Agency
D3.	Contact Person	Shawn Johnson
D4.	Telephone	x3452

K1.	Contract Type (check one): <input checked="" type="checkbox"/> Personal Service <input type="checkbox"/> Capital	
K2.	Brief Summary of Contract Description/Purpose	Cooperative Stream Gaging and Groundwater Monitoring Program
K3.	Department Project Number	WA8207
K4.	Original Contract Amount	\$ 353,190 (FC \$236,750 WA \$116,440)
K5.	Contract Begin Date	11/1/16
K6.	Original Contract End Date	10/31/17
K7.	Amendment? (Yes or No)	No
K8.	- New Contract End Date	
K9.	- Total Number of Amendments	
K10.	- This Amendment Amount	\$
K11.	- Total Previous Amendment Amounts	\$
K12.	- Revised Total Contract Amount	\$

B1.	Intended Board Agenda Date	11/8/16
B2.	Number of Workers Displaced (if any)	N/A
B3.	Number of Competitive Bids (if any)	N/A
B4.	Lowest Bid Amount (if bid)	N/A
B5.	If Board waived bids, show Agenda Date	N/A
	and Agenda Item Number	N/A
B6.	Boilerplate Contract Text Changed? (If Yes, cite Paragraph)	N/A

F1.	Fund Number	2400/3050
F2.	Department Number	054
F3.	Line Item Account Number	7460/7460
F4.	Project Number (if applicable)	WA8207
F5.	Program Number (if applicable)	3012
F6.	Org Unit Number (if applicable)	
F7.	Payment Terms	billed quarterly (net 60)

V1.	Auditor-Controller Vendor Number	003601
V2.	Payee/Contractor Name	DOI USGS
V3.	Mailing Address	P.O. Box 71362
V4.	City State (two-letter) Zip (include +4 if known)	Philadelphia, PA 19176-1362
V5.	Telephone Number	(916) 278-3040
V6.	Vendor Contact Person	Tamara Seubert
V7.	Workers Comp Insurance Expiration Date	N/A
V8.	Liability Insurance Expiration Date	N/A
V9.	Professional License Number	
V10.	Verified by (print name of county staff)	

V11 Company Type (Check one): Individual Sole Proprietorship Partnership Corporation

I certify information is complete and accurate; designated funds available; required concurrences evidenced on signature page.

Date: 10-21-16 Authorized Signature: 

BC 17-204

Form 9-1366
(April 2015)

Page 1 of 2

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

Agreement#: 17WSCA03900
Customer#: 6000000816
Project #: ZG009J5
TIN #: 95-6002833
USGS DUNS #: 1761-38857

Fixed Cost Agreement YES[X] NO[]

THIS AGREEMENT is entered into as of the November 1, 2016, by the U.S. GEOLOGICAL SURVEY, California Water Science Center, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the SANTA BARBARA COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT, 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 for cooperative water resources investigations in the Santa Barbara County area as outlined in the USGS program letter dated October 12, 2016 (Attachment A), 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) \$125,340.00 by the party of the first part during the period November 1, 2016 to October 31, 2017
- (b) \$353,190.00 by the party of the second part during the period November 1, 2016 to October 31, 2017
- (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:
Not Applicable

- (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.

9. USGS will issue billings utilizing Department of the Interior Bill for Collection (form DI-1040). Billing documents are to be rendered quarterly. Payments of bills are due within 60 days after the billing date. If not paid by the due date, interest will be charged at the current Treasury rate for each 30 day period, or portion thereof, that the payment is delayed beyond the due date. (31 USC 3717; Comptroller General File B-212222, August 23, 1983.)

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

Agreement#: 17WSCA03900
Customer#: 6000000816
Project #: ZG009J5
TIN #: 95-6002833
USGS DUNS #: 1761-38857

USGS Technical Point of Contact

Name: Stuart Hill
Supervisory Hydrologic Technician
Address: 3130 Skyway Drive, Suite 602
Santa Maria, CA 93455
Telephone: (805) 928-9539
Fax: (805) 928-9220
Email: sahill@usgs.gov

Customer Technical Point of Contact

Name: Thomas D. Fayram
Deputy Public Works Director
Address: 130 East Victoria Street, Suite 200
Santa Barbara, CA 93101
Telephone:
Fax:
Email:

USGS Billing Point of Contact

Name: Tamara Seubert
Budget Analyst
Address: Placer Hall 6000 J Street
Sacramento, CA 95819
Telephone: (916) 278-3040
Fax: (916) 278-3070
Email: tseubert@usgs.gov

Customer Billing Point of Contact

Name: Fray Crease
Senior Program Specialist
Address: 130 East Victoria Street, Suite 200
Santa Barbara, CA 93101
Telephone: (805) 568-3542
Fax:
Email: fcrease@cosbpw.net

U.S. Geological Survey
United States
Department of Interior

SANTA BARBARA COUNTY FLOOD CONTROL
& WATER CONSERVATION DISTRICT
and
SANTA BARBARA COUNTY WATER AGENCY

Signature

By  Date: 10/12/2016
Name: Eric G. Reichard
Title: Director, USGS California Water Science
Center

See signatures on page 3

Signature Page Continued - Page 3

SANTA BARBARA COUNTY FLOOD
CONTROL & WATER CONSERVATION
DISTRICT

SANTA BARBARA COUNTY WATER AGENCY

BY: _____
Peter Adam, Board of Directors

BY: _____
Peter Adam, Board of Directors

Date: _____

Date: _____

ATTEST:

ATTEST:

APPROVED AS TO FORM:
MONA MIYASATO
County Executive Officer
Ex Officio Clerk of the Board
of Directors of the Santa Barbara
County Flood Control & Water
Conservation District

APPROVED AS TO FORM:
MONA MIYASATO
County Executive Officer
Ex Officio Clerk of the Board
of Directors of the Santa Barbara
County Water Agency

BY: _____
Deputy Clerk

BY: _____
Deputy Clerk

RECOMMENDED FOR APPROVAL:
Santa Barbara County Flood Control & Water
Conservation District

RECOMMENDED FOR APPROVAL:
Santa Barbara County Water Agency

BY: 

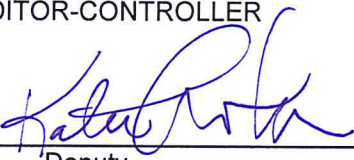
Scott D. McGolpin,
Public Works Director

BY: 

Scott D. McGolpin,
Public Works Director

APPROVE AS TO ACCOUNTING FORM:
THEODORE A. FALLATI, CPA
AUDITOR-CONTROLLER

APPROVE AS TO ACCOUNTING FORM:
THEODORE A. FALLATI, CPA
AUDITOR-CONTROLLER

BY: 

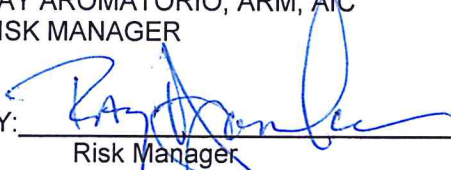
Deputy

BY: 

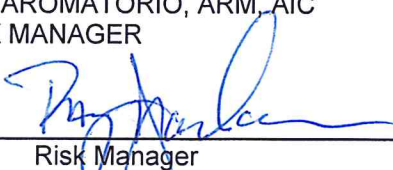
Deputy

APPROVE AS TO FORM:
RAY AROMATORIO, ARM, AIC
RISK MANAGER

APPROVE AS TO FORM:
RAY AROMATORIO, ARM, AIC
RISK MANAGER

BY: 

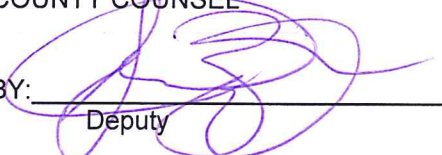
Risk Manager

BY: 

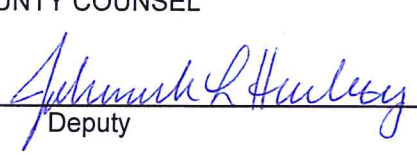
Risk Manager

APPROVE AS TO FORM:
MICHAEL C. GHIZZONI
COUNTY COUNSEL

APPROVE AS TO FORM:
MICHAEL C. GHIZZONI
COUNTY COUNSEL

BY: 

Deputy

BY: 

Deputy



Attachment A
United States Department of the Interior

U.S. GEOLOGICAL SURVEY

California Water Science Center
6000 J Street, Placer Hall
California State University
Sacramento, California 95819-6129
Phone: (916) 278-3000 Fax: (916) 278-3070
<http://water.wr.usgs.gov>

October 12, 2016

Mr. Thomas D. Fayram, Deputy Director
Santa Barbara County Department of Public Works
Flood Control and Water Conservation District and Water Agency
130 East Victoria Street, Suite 200
Santa Barbara, California 93101

Dear Mr. Fayram:

This letter confirms discussions between Santa Barbara County Flood Control & Water Conservation District (FC & WCD) and the Santa Barbara County Water Agency (WA) and the U.S. Geological Survey (USGS), concerning the continuation of the water resources program for the period November 1, 2016 to October 31, 2017. This program letter serves as "Attachment A" for Joint Funding Agreement (JFA) 17WSCA03900.

The proposed program for this period and associated costs are as follows:

I. Santa Barbara County Flood Control and Water Conservation District (FC & WCD)

**A. Surface Water Streamgaging Stations:
Operation and Maintenance**

<u>Station number and name</u>	<u>FC & WCD Funds</u>	<u>USGS Funds</u>	<u>Total Funds</u>
11119500 Carpinteria Creek near Carpinteria	\$ 14,700	\$ 7,400	\$ 22,100
11119750 Mission Creek near Mission Street at Santa Barbara	14,700	7,400	22,100
11120000 Atascadero Creek near Goleta	14,700	7,400	22,100
11120500 San Jose Creek near Goleta	14,700	7,400	22,100
11123500 Santa Ynez River below Los Laureles Canyon near Santa Barbara	14,700	7,400	22,100

Surface Water Streamgaging Stations (continued):
Operation and Maintenance

<u>Station number and name</u>		<u>FC & WCD Funds</u>	<u>USGS Funds</u>	<u>Total Funds</u>
11124500	Santa Cruz Creek near Santa Ynez	14,700	7,400	22,100
11128250	Alamo Pintado Creek near Solvang	14,700	7,400	22,100
11128300	Alisal Reservoir near Solvang	8,600	-0-	8,600
11129800	Zaca Creek near Buellton	14,700	7,400	22,100
11132500	Salsipuedes Creek near Lompoc	14,700	7,400	22,100
11135800	San Antonio Creek at Los Alamos	14,700	7,400	22,100
11136600	Santa Barbara Canyon Creek near Ventucopa ¹	12,500	-0-	12,500
11136800	Cuyama River below Buckhorn Canyon	14,700	7,400	22,100
11138500	Sisquoc River near Sisquoc	24,550	-0-	24,550
11140585	Santa Maria River at Suey Crossing	14,700	7,400	22,100
11141050	Orcutt Creek near Orcutt	<u>14,700</u>	<u>7,400</u>	<u>22,100</u>
SW Streamgaging Stations Subtotal		\$236,750	\$96,200	\$332,950

II. Santa Barbara County Water Agency

A. Groundwater Monitoring Program:

1. Water-level monitoring

The USGS will conduct monitoring of approximately 270 wells in the spring and approximately 75 wells in the fall as part of the County-wide wide monitoring program described by lists A-1 and A-2 files.

The program continues to evolve as groundwater level and quality sites are lost each year due to abandonment by legal owner, obstruction, denied access, etc. (List C). Water-level and water-quality sites need to be evaluated on an ongoing basis to ascertain that the program is collecting the best data and is as cost efficient as possible. Water Agency staff will assist the USGS staff on an annual basis to complete this task. This task was identified in the summer of 2002, and has been worked on intensively in recent years.

2. Biannual water-level monitoring in March and October to meet California Statewide Groundwater Elevation Monitoring (CASGEM) requirements.

Water-levels will be monitored at 7 wells described by List A-3.

3. Water-quality monitoring

In 1981, a groundwater quality network was reestablished in selected basins of Santa Barbara County (List B). Water samples from 19 of the wells listed in the network will be collected annually, during the pumping season (in July), and analyzed for the constituents shown in List D. Nineteen wells and three alternates are currently listed as sampling options for July groundwater sampling in List B.

¹ San Luis Obispo County is responsible for the remaining cost of \$12,050 for 11136600 through a separate agreement.

A. Groundwater Monitoring Program (continued):

4. Seawater encroachment monitoring

Four water samples from four different water-bearing zones from each of the two well groups known as Guadalupe Dunes will be obtained once during the year at the end of the pumping season in November (List B). These 8 well samples will be analyzed for the chemical constituents shown in List D. Water-levels will be included.

Water samples noted by a double asterisk in List B will be obtained at the same time as prescribed in the Santa Ynez River Water Conservation District program letter. These samples will be analyzed for the constituents on List D, plus barium and iodide.

A total of 31 water quality monitoring wells will be sampled and analyzed annually for the constituents noted on List D. The results of chemical analyses for these 31 wells will be provided to the WA as they become available.

B. Surface Water Quality Monitoring Program:

1. Stream-quality stations - Water samples will be collected on a monthly basis, as flow permits, at the stations listed below. Once per year (as flow permits, and usually during the month of April) samples will be collected for the constituents on List D. Field determinations of pH, alkalinity, dissolved oxygen, specific conductance, temperature, and discharge will also be made. All other monthly samples will be analyzed for pH, total dissolved solids, specific conductance, temperature, and discharge.

- 11123500 Santa Ynez River below Los Laureles Canyon near Santa Ynez
- 11124500 Santa Cruz Creek near Santa Ynez
- 11132500 Salsipuedes Creek near Lompoc
- 11133000 Santa Ynez River at Narrows near Lompoc
- 11135800 San Antonio Creek at Los Alamos
- 11136800 Cuyama River below Buckhorn Canyon near Santa Maria
- 11138500 Sisquoc River near Sisquoc
- 11141050 Orcutt Creek near Orcutt

2. Continuous temperature recording, specific conductance, and dissolved oxygen at Santa Ynez River near Santa Ynez (11126000).²

Program Reporting

Annually, no later than January, the USGS will send a letter with a status report on the completed work from the previous water-year, inclusive of:

- a) Summary of Stream Gage site measurements
- b) Summary of Groundwater site measurements
- c) Summary of Water Quality site measurements
- d) Summary of new wells added to groundwater monitoring network

Following is a summary of the work and associated costs for the Santa Barbara County FC & WCD and WA during the period November 1, 2016 to October 31, 2017:

² Cost of the continuous water quality monitoring at station 11126000 Santa Ynez River near Santa Ynez is split between four agencies as follows:

Santa Barbara County \$3,600

Cachuma Operations Management Board \$13,800

Santa Ynez River Water Conservation District \$2,650 located on City of Lompoc Program

City of Lompoc \$3,650

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works

	<u>County Funds</u>	<u>USGS Funds</u>	<u>Total Funds</u>
I. Santa Barbara County Flood Control and Water Conservation District			
A. Surface Water Streamgaging Stations			
Operation and Maintenance	\$236,750	\$ 96,200	\$332,950
FC&WCD Sub-Total	\$236,750	\$ 96,200	\$332,950
II. Santa Barbara County Water Agency			
A. Groundwater Monitoring			
1. Water-levels	51,100	1,000	52,100
2. CASGEM Water-levels	1,650	-0-	1,650
3. Water-quality	23,500	9,200	32,700
4. Seawater encroachment			
- Guadalupe	9,800	4,550	14,350
- Surf	5,650	2,250	7,900
B. Surface Water Quality Monitoring			
1. Stream-quality stations ³	21,140	10,590	31,730
2. Continuous temperature, specific conductance, and dissolved oxygen ⁴	<u>3,600</u>	<u>1,550</u>	<u>5,150</u>
WA Sub-Total	\$116,440	\$ 29,140	\$145,580
TOTAL	\$353,190	\$125,340	\$478,530

Total cost of the proposed program is \$478,530. Cost to FC & WCD and WA will be \$353,190 and subject to the availability of Federal matching funds, the USGS will provide \$125,340.

Enclosed are three originals of JFA 17WSCA03900, signed by our agency, for your approval. If you are in agreement with this proposed program, please return one fully executed JFA to our office. Work performed with funds from this agreement will be conducted on a fixed-price basis. Billing for this agreement will be rendered quarterly.

The USGS is required to have an agreement in place prior to any work being performed on a project. We request that a fully excuted JFA be returned prior to November 30, 2016. If it is not received by November 30, we will be required to suspend operations until an agreement is received.

³ Stream-quality stations average cost for SBCWA is \$2,643. The USGS average cost for these stations is \$1,324.

⁴ SBCWA to be reimbursed \$3,600 by the City of Lompoc.

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works

If you have any questions concerning this program, please contact Stuart Hill, in our Santa Maria Field Office, at (805) 928-9539. If you have any administrative questions, please contact Tammy Seubert, in our Sacramento Office, at (916) 278-3040.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric G. Reichard", with a long horizontal flourish extending to the right.

Eric G. Reichard
Director, USGS California Water Science Center

Enclosures

cc: Stuart Hill, USGS CAWSC

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works

List A-1: Groundwater Wells Measured Annually (March)

Page 1 of 2

USGS (reviewed 09/27/2016 by Melchiorson/Hill/Hamilton)

4N/28W-2P3	7N/30W-16B1	7N/34W-29N7
4N/28W-16J5	7N/30W-19H1	7N/34W-30L10
4N/30W-1G1	7N/30W-22E1	7N/34W-31R2
5N/29W-1C1	7N/30W-22E2	7N/34W-32H2
5N/29W-31C1	7N/30W-24Q1	7N/34W-35K9
5N/30W-19E1	7N/30W-25Q2	7N/35W-15M1
5N/30W-28R1	7N/30W-27H1	7N/35W-17M1
5N/30W-28R2	7N/30W-29D1	7N/35W-17K20
5N/30W-30N2	7N/30W-30M1	7N/35W-18H1
6N/29W-5A1	7N/30W-32R1	7N/35W-18J2
6N/29W-6F1	7N/30W-33M1	7N/35W-21G2
6N/29W-6G1	7N/30W-35R1	7N/35W-22J1
6N/29W-7L1	7N/30W-36N2	7N/35W-22M1
6N/29W-8P1	7N/30W-36N3	7N/35W-23B2
6N/29W-8P2	7N/31W-22A3	7N/35W-23E6
6N/30W-1R3	7N/31W-23P1	7N/35W-23J5
6N/30W-7G5	7N/31W-34M1	7N/35W-23Q2
6N/30W-7G6	7N/31W-35K4	7N/35W-23Q3
6N/30W-11G1	7N/31W-36L2	7N/35W-23Q4
6N/30W-11G2	7N/32W-7B1	7N/35W-24J4
6N/31W-1P2	7N/32W-31M1	7N/35W-24K5
6N/31W-1P3	7N/33W-16G5	7N/35W-24N3
6N/31W-2K1	7N/33W-17M1	7N/35W-25F6
6N/31W-3A1	7N/33W-17N2	7N/35W-25F7
6N/31W-4A1	7N/33W-19D1	7N/35W-26F4
6N/31W-7F1	7N/33W-20G1	7N/35W-26L1
6N/31W-10F1	7N/33W-21G2	7N/35W-26L2
6N/31W-11D4	7N/33W-21N1	7N/35W-26L4
6N/31W-13D1	7N/33W-27G1	7N/35W-27C1
6N/31W-17F1	7N/33W-28D3	7N/35W-27F1
6N/31W-17F3	7N/33W-36J1	7N/35W-27H5
6N/32W-2Q1	7N/34W-12E1	7N/35W-27J1
6N/32W-11L4	7N/34W-14F4	7N/35W-27P1
6N/32W-16P3	7N/34W-14L1	7N/35W-30G1
6N/32W-18H1	7N/34W-15D2	7N/35W-31J2
6N/33W-8R1	7N/34W-15D3 (?)	7N/35W-32N1
6N/33W-8J3	7N/34W-15E1	7N/35W-35A3
6N/33W-9M1	7N/34W-15P2	8N/24W-6J2
6N/34W-6C4	7N/34W-20K4	8N/30W-30R1
6N/34W-12C5	7N/34W-22J6	8N/31W-22J1
6N/36W-1K2	7N/34W-24N1	8N/31W-22J2
6N/36W-26C1	7N/34W-26H3	8N/31W-36H1
6N/36W-26G1	7N/34W-27G6	8N/32W-25D1
7N/29W-29R1	7N/34W-29E4	8N/32W-28P1
7N/29W-29R2	7N/34W-29N6	8N/32W-28P4

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works

List A-1: Groundwater Wells Measured Annually (March)

Page 2 of 2

USGS (reviewed 09/27/2016 by Melchiorson/Hill/Hamilton)

8N/32W-29L2	9N/32W-33F1	10N/33W-28F2
8N/32W-30D1	9N/32W-33M1	10N/33W-29F1
8N/32W-30E5	9N/32W-33M2	10N/33W-30G1
8N/33W-13C1	9N/33W-2A7	10N/33W-31Q2
8N/33W-13Q1	9N/33W-6G1	10N/33W-34E1
8N/33W-19K1	9N/33W-12C1	10N/33W-35B1
8N/33W-20Q2	9N/33W-12R2	10N/34W-6N3
8N/33W-22K3/22K4	9N/33W-15D3 (Teixeira Dropped)	10N/34W-9D1
8N/33W-24B3	9N/33W-? (Golden State Water)	10N/34W-13G1
8N/33W-25B5	9N/33W-17B1	10N/34W-13H1
8N/34W-2M1	9N/33W-22K1	10N/34W-13J1
8N/34W-14L1	9N/33W-22L1	10N/34W-14E4
8N/34W-15F2	9N/33W-24L1	10N/34W-14E5
8N/34W-15F4	9N/34W-3A2	10N/34W-20H3
8N/34W-16C1	9N/34W-3F2	10N/34W-24K1
8N/34W-16C2	9N/34W-6C1	10N/34W-24K3
8N/34W-16C3	9N/34W-8H1	10N/34W-26H2
8N/34W-16C4	9N/34W-9R1	10N/34W-29N2
8N/34W-16F1	9N/34W-34P1	10N/35W-5P2
8N/34W-16G3	10N/25W-19P2	10N/35W-7E5
8N/34W-17E1	10N/25W-19P3	10N/35W-9E5
8N/34W-17H1	10N/25W-19P4	10N/35W-9F1
8N/34W-17K2	10N/25W-32N3	10N/35W-9N2
8N/34W-17Q1	10N/26W-7L2	10N/35W-11E4
8N/34W-21A1	10N/26W-17R2	10N/35W-14P1
8N/34W-23B1	10N/26W-20M1	10N/35W-18F2
8N/34W-24E1	10N/26W-20P1	10N/35W-21B1
9N/24W-19D1	10N/26W-22N2	10N/35W-23M2
9N/24W-30K1	10N/26W-34N1	10N/35W-24B1
9N/24W-32C1	10N/26W-34N2	10N/35W-24Q1
9N/24W-32C4	10N/26W-34N3	10N/35W-35J2
9N/24W-33M1	10N/26W-34N4	10N/36W-12P1
9N/25W-2B1	10N/32W-19M2	11N/34W-30Q2
9N/25W-3B1	10N/33W-7M1	11N/34W-29R2
9N/25W-3B2	10N/33W-7R1	11N/34W-33J1
9N/25W-3B3	10N/33W-7R6	11N/35W-19E3
9N/25W-3B4	10N/33W-16L1	11N/35W-20E1
9N/25W-28R1	10N/33W-18H1	11N/35W-25F3
9N/26W-1F3	10N/33W-19B1	11N/35W-26M3
9N/26W-2P2	10N/33W-19K1	11N/35W-28F1
9N/32W-6D1	10N/33W-20H1	11N/35W-29E2
9N/32W-16L1	10N/33W-21P1	11N/35W-28M1
9N/32W-17G1	10N/33W-26N1	11N/35W-33G2
9N/32W-22D1	10N/33W-27G1	
9N/32W-23K1	10N/33W-28A1	

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works

List A-2: Groundwater Wells Measured Biannually (Mar. and Oct.)

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USGS (reviewed 09/27/2016 by Melchiorson/Hill/Hamilton)

6N/29W-5A1	Phillips Ranch - North	7N/35W-27C1	Ocean Ave & Renwick
6N/32W-2Q1	SYR Alluvial; Buellton	7N/35W-27F1	E. of So. VAFB entrance
6N/34W-6C4	E of San Pasqual Rd	7N/35W-27H5	E. of So. VAFB entrance
7N/30W-16B1	Sedewick Ranch	7N/35W-27J1	South VAFB nr NASA
7N/31W-22A3	Foxen Cyn nr Los Olivos	8N/32W-28P4	SE of Los Alamos
7N/31W-35K4	N of Ballard School	8N/33W-13Q1	Berringer S of office
7N/33W-16G5	Mid Santa Rita Valley	8N/33W-22K3	Mid San Antonio Basin
7N/33W-17M1	Upper Cebada Canyon	8N/34W-14L1	NE Jct Hwy 1-SA road
7N/33W-19D1	Lower Cebada Canyon	9N/24W-19D1	Zannon Hwy 33
7N/33W-20G1	W of Tularosa Road	9N/34W-6C1	Laguna Sanitation Yard
7N/33W-21G2	Mid Santa Rita Valley	10N/26W-20M1	New Cuyama CSD Well
7N/33W-21N1	W Santa Rita Valley	10N/26W-22N2	Duncan Family Farms
7N/33W-28D3	W Santa Rita Valley	10N/34W-6N3	E of Bonita School Rd
7N/34W-12E1	N of Mission Hills	10N/34W-29N2	Taylor Residence
7N/34W-14F4	Mission Hills CSD	10N/35W-5P2	W. end of Thornberry
7N/34W-14L1	Mission Hills CSD	10N/35W-7E5	North of 18F2 - Gamble
7N/34W-15D1	Vandnrbg Village CSD	10N/35W-9E5	Guadalupe City Well
7N/34W-15D2	Vandnrbg Village CSD	10N/35W-9F1	Guadalupe: Waller Seed
7N/34W-15P2	Uplands E of Hwy 1	10N/35W-9N2	SW Main St - Hwy 166
7N/34W-20K4	USPrison E of Floradale	10N/35W-11E4	Silva Farm N of Hwy 166
7N/34W-24N1	Purisima Mission nr 246	10N/35W-14P1	N of Brown Road
7N/34W-26H3	Eastern Lompoc Valley	10N/35W-18F2	SW from Guadalupe
7N/34W-27G6	E of North A Street	10N/35W-21B1	Mahoney Bros Farm
7N/34W-30L10	SW cor Central & Leege	10N/35W-23M2	S of Brown Road
7N/34W-35K9	Eastern Lompoc Valley	10N/35W-24B1	SW Jct Ray & Brown rd
7N/35W-22M1	W of VAFB entrance N	10N/35W-24Q1	Ex B&W feedlot well
7N/35W-17M1	Surf (near RR xing)	10N/35W-35J2	Field E of Hwy 1
7N/35W-21G2	W of 22M1 in field	10N/36W-12P1	E of Guadalupe Dunes
7N/35W-22J1	W Valley: Jordan Farm	11N/35W-19E3	Mike Mills
7N/35W-23B2	N of SY River on VAFB	11N/35W-20E1	Oso Flaco Lake Road
7N/35W-23E6	W Valley: Jordan Farm	11N/35W-25F3	Division @ Bonita Road
7N/35W-24J4	At N end of Douglas Ave	11N/35W-26M3	O Flaco Rd E of Hwy 1
7N/35W-24K5	DeWolf Ave: Henning	11N/35W-28F1	Hwy 1 S of O Flaco Rd
7N/35W-25F6	NW of DeWolf & Central	11N/35W-28M1	E of Guadalupe dunes
7N/35W-25F7	NW of DeWolf & Central	11N/35W-29E2	Oso Flaco next to RVR
7N/35W-26F4	W Valley: Jordan Farm	11N/35W-33G2	Division St E. of RR Xing

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works
List A-3: California Statewide Groundwater Elevation Monitoring (CASGEM)
Measured Biannually (Mar. and Oct.) Page 1 of 1
USGS (reviewed 09/27/2016 by Melchiorsen/Hill/Hamilton)

6N/31W-7F1	Buellton Upland
7N/34W-12E1	N or Mission Hills
7N/35W-22J1	W Valley: Jordan Farm
7N/35W-26F4	W Valley: Jordan Farm
9N/25W-3B1	CVFR #1
10N/25W-19P2	CVKR #1
10N/26W-34N2	CVBR #2

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works
 List B: Groundwater Quality Sampling Page 1 of 1
 Santa Barbara County Water Agency
 USGS (reviewed 09/27/2016 by Melchiorson/Hill/Hamilton)

	<u>July Groundwater</u>
SANTA YNEZ	7N/30W-33M1
	7N/31W-35K4
SAN ANTONIO	8N/32W-30E6
	8N/33W 22K4
SANTA RITA	7N/33W-27G1
SANTA MARIA	9N/33W-2A7
	9N/33W-10E1 (alternate for 10M1)
	9N/33W-10M1
	9N/34W-3A2
	10N/33W-19K1 (alternate for 30G1)
	10N/33W-20H1
	10N/33W-22N3
	10N/33W-30G1
	10N/34W-4R2
	10N/34W-14E4
	10N/34W-14E5 (alternate for 14E4)
	10N/34W-29N1
	10N/35W-14D3
CUYAMA VALLEY	10N/26W-7L2
	10N/26W-17R2
	10N/26W-20M1
	10N/26W-22D2
	TOTAL – 19 Samples

<u>August Groundwater (Lompoc)</u>
7N/34W-27P5**
7N/35W-21G2**
7N/35W-26F4**
7N/35W-27F1**
TOTAL – 4 Samples

<u>November Groundwater (Guadalupe Dunes)</u>
10N/36W-2Q1***
10N/36W-2Q3***
10N/36W-2Q4***
10N/36W-2Q7***
11N/36W-35J2***
11N/36W-35J3***
11N/36W-35J4***
11N/36W-35J5***
TOTAL – 8 Samples

GRAND TOTAL – 31 groundwater samples

Wells will be selected to replace discontinued monitoring sites as needed.

Mr. Thomas D. Fayram, Deputy Director - Santa Barbara County Department of Public Works

LIST C: DISCONTINUED WELLS SINCE FY14

USGS (reviewed 10/06/2016 by Melchiorsen/Hill/Hamilton)

Discontinued Wells from List A-1

	LOCALITY	REASON
7N/34W-15D1	Vandenberg Village CSD	Poor measurement/will destroy soon
7N/34W-35L7	(well not in system)	Other
8N/31W-25K1	Neverland: Domestic #2	Access
8N/31W-25Q1	Neverland: Domestic #1	Access
8N/34W-9K1	E of S20; N of Barka S	Obstruction
8N/35W-12M1	Field N of San Antonio Rd	Casing filled
9N/25W-11R2	Cuyama; Eifrid; nr SB Cyn	Access
9N/33W-10E1	Dominion Road/Clark Ave	Obstruction
10N/25W-19J2	Robert Jansen Homestead	Other (locality)
10N/25W-21Q2	Kidd Residence	Other (locality)
10N/25W-23H1	Torres Well	Other (locality)
10N/34W-13C1	Suey Rd; Rosemarry Fm	No measurement access
9N/33W-15D3	Teixeira Well	Destroyed pump

Discontinued Wells from List A-2

	LOCALITY	REASON
7N/34W-9H5	Vandenberg Village CSD	Destroyed
7N/34W-9H6	Vandenberg Village CSD	Destroyed
7N/35W-17Q6	Surf (old barrier bridge)	Collapsed casing
7N/35W-23E2	W Valley: Jordan Farm	Obstruction
10N/25W-19J2		

Discontinued Wells from List A-3

None

Discontinued Wells from List B

	LOCALITY	REASON
8N/33W-22K3	Mid San Antonio Basin	Not able to sample
10N/25W-21Q2	Kidd Residence	Other (locality)
10N/25W-34N1	Foothill and Santa Bara Cyn Rd.	Pump removed. Not able to sample.

Mr. Thomas D. Fayram, Deputy Director- Santa Barbara County Department of Public Works

List D

Chemical Constituents
(mg/L or as indicated)

Dissolved boron ($\mu\text{g/L}$)	Dissolved solids (sum)
Dissolved calcium	Sodium adsorption ratio
Dissolved chloride	Percent sodium
Dissolved fluoride	Total alkalinity (CaCO_3)
Dissolved iron ($\mu\text{g/L}$)	Total hardness (CaCO_3)
Dissolved manganese ($\mu\text{g/L}$)	Temperature $^{\circ}\text{C}$
Dissolved magnesium	pH
Dissolved nitrogen (nitrate + nitrite)	Specific conductance (microsiemens)
Dissolved orthophosphate (PO_4)	
Dissolved orthophosphorus (P)	
Dissolved potassium	
Dissolved silica	
Dissolved sodium	
Dissolved sulfate	

Schedules used: 101, 117

Lab Codes used: 27

Additional analysis for monitoring wells noted by a double asterisk (**) in List B includes: Lab Codes as 1202, Iodide and 1786 as Barium

Triple asterisk (***) for lab code 1246 as Bromide.