# EXHIBIT 1



13846 Conference Center Drive ◆ Apple Valley, California 92307

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June 25, 2015

Mr. William J. Brunick P.O. Box 13130 San Bernardino, CA 92423-3130

Subject:

Determination of the geohydrologic characteristics of the boundary between the

Mojave River and Antelope Valley groundwater basins

Dear Mr. Brunick:

An investigation into the hydraulic connection and potential development of a long-term monitoring program along the Los Angeles/San Bernardino County line in the vicinity of the Mojave Water Agency's Oeste Subarea is currently underway. Developing a better understanding of the hydraulic connection between the Mojave River and Antelope Valley groundwater basins was discussed at initial meetings in 2013 between staff from the Mojave Water Agency (MWA), the U.S. Geologicial Survey (USGS), Robert Wagner of Wagner & Bonsignore Consulting Civil Engineers (Wagner & Bonsignore), and major municipal producers on the Antelope Valley side. During subsequent meetings in 2014, a multiphase program plan was developed and is expected to result in a cooperative monitoring program between entities along the common boundary. Attached is a copy of the Cooperative Water Resources Program Agreement between the MWA and the USGS for Phase I of this project. The current agreement extends from July 2014 through September 30, 2015 and the work associated with this phase includes:

- Gathering of available well information and geologic data
- · Performing field reconnaissance of existing wells
- Collecting surface-gravity data at approximately 500 locations to:
  - Determine the general lithology
  - Locate possible faults and bedrock highs
  - Help determine the overall subsurface structure controlling groundwater flow within the study area
- Producing an interim USGS Scientific Investigation Report documenting the results of this study

The Kick-Off Meeting for Phase I was held in the field on August 28, 2014 with representatives from MWA, USGS, Phelan-Piñon Hills CSD, Los Angeles County Waterworks District No. 40, Antelope Valley East Kern Water Agency, and Wagner & Bonsignore, Consulting Civil Engineers present. The field work for this phase is complete and the USGS is in the process of analyzing the data and preparing the interim report.

Mr. William J. Brunick June 25, 2015 Page 2

Please feel free to contact me at (760) 946-7063 if you have any questions.

Sincerely,

Anna L. Garcia

Principal Hydrogeologist

Attachment

C:

K. Brill L. Eckhart



# United States Department of the InteriomOJAYE MATER ADENCY

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U.S. GEOLOGICAL SURVEY
California Water Science Center
6000 J Street, Placer Hall
California State University
Sacramento, California 95819-6129
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June 18, 2014

Mr. Kirby Brill, General Manager Mojave Water Agency 13846 Conference Center Drive Apple Valley, California 92307-4377

Dear Mr. Brill:

This letter confirms discussions between our respective staffs concerning a new cooperative water resources program between the Mojave Water Agency (MWA) and the U.S. Geological Survey (USGS) titled "Determination of the geohydrologic characteristics of the boundary between the Mojave River and Antelope Valley groundwater basins". The period of performance for this agreement is July15, 2014 to September 30, 2015.

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

## 1. Field reconnaissance, gravity-data collection, and interim report

The objective of this element is to determine groundwater flow directions in the boundary region between the Mojave River and Antelope Valley groundwater basins to evaluate if a groundwater divide exists, and to determine the thickness of the unconsolidated deposits and depth to bedrock at the groundwater boundary. This element will entail gathering available well information, performing a field reconnaissance by USGS personnel to canvas any existing wells, measuring water levels to construct a current water-level map for the area between the Mojave River and Antelope Valley groundwater basins, and collecting surface-gravity data. The surface-gravity data will be collected at approximately 500 stations in the area between the northern edge of the San Gabriel Mountains to the Three Sisters bedrock Upland to determine the general lithology, locate possible faults and bedrock highs, and help determine the overall subsurface structure controlling groundwater flow. Local gravity measurements will be incorporated with existing regional gravity data to determine the thickness of the alluvial deposits. Geologic data collected from existing wells will be used to constrain the gravity-determined basin thickness by providing ground-truth where it is available.

An interim USGS Scientific Investigations Report will be prepared describing the results from this element. The report will include a description of groundwater flow directions and the geometry of the groundwater system based on maps presenting the water-level data, estimated depth to bedrock, thickness of the alluvial sediments in the study area, and identification of areas where further study through monitoring well installation is needed.

### Mr. Kirby Brill, General Manager - Mojave Water Agency

The publication will be prepared by USGS California Water Science Center hydrologists working in collaboration with a Research Geophysicist from USGS Geologic Discipline, Menlo Park, California.

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

## Proposed budget for project to determine the boundary between the Mojave River and Antelope Valley groundwater basins.

			Total Cost	MWA	USGS FMF	Fiscal Year
Element	1	Field Reconnaissance and Gravity	\$58,500	\$46,000	\$12,500	FY2014
			\$71,800	\$54,000	\$17,800	FY2015
		Total	\$130,300	\$100,000	\$30,300	

#### **SUMMARY**

The total cost for the proposed cooperative water resources program during the period July 2014 through September 30, 2015 will be \$130,300. MWA's contribution will be \$100,000. Subject to the availability of Federal Matching Funds (FMF), the USGS will provide \$30,300.

Enclosed are two originals of Joint Funding Agreement (JFA) 14WSCA600085210, 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 executed JFA be returned prior to July 15, 2014.

If you have any questions concerning this program please contact Christina Stamos in our San Diego Projects Office at (619) 225-6141. If you have any administrative questions please contact Irene Rios at (619) 225-6156.

Sincerely,

Eric G. Reichard

Director, USGS California Water Science Center

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Enclosures

cc: Christina Stamos, USGS CAWSC Matt Landon, USGS CAWSC

Claudia Faunt, USGS CAWSC

Form 9-1366 (Oct. 2005)

U.S. DEPARTMENT OF THE INTERIOR **GEOLOGICAL SURVEY** 

Customer #:

6000000852

Agreement #:

14WSCA600085210

Project #: JOINT FUNDING AGREEMENT

TIN #:

95-2283025

**Fixed Cost** 

Agreement

YES

FOR

#### WATER RESOURCES INVESTIGATIONS

THIS AGREEMENT is entered into as of the, 16th day of June, 2014 by the U.S. GEOLOGICAL SURVEY, UNITED STATES DEPARTMENT OF THE INTERIOR, party of the first part, and the MOJAVE WATER AGENCY (MOJAVE), party of the second part.

- The parties hereto agree that subject to availability of appropriations and in accordance with their respective authorities there shall be maintained in cooperation in the determination of geohydrologic characteristics of the boundary between the Mojave River and Antelope Valley groundwater basins 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) includes In-Kind Services in the amount of \$0.00

(a) by the party of the first part during the period

Amount

Date

Date

to

\$30,300,00

(b) by the party of the second part during the period Amount

July 1, 2014

September 30, 2015

\$100,000.00

Date July 1, 2014

Date September 30, 2015

USGS DUNS is 1761-38857. The amounts in both 2(a) and 2(b) above are for Federal Fiscal year 2014 (FFY14). Total USGS contribution is \$30,300.00. Total Mojave contribution is \$100,000.00. Total cost of this

- 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.
- The performance period may be changed by mutual agreement and set forth in an exchange of letters between the parties.
- The costs of this program may be paid by either party in conformity with the laws and regulations respectively governing each party.
- 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.
- 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.
- 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.

Title:

Director, USGS California Water Science Center

9-1366 (Continuation) Customer #: 60000000852 Agreement #: 14WSCA600085210 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. 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 costs, 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. 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. Geological Survey** MOJAVE WATER DISTRICT **United States** Department of the Interior **USGS Point of Contact Customer Point of Contact** Name: Name: Irene Rios, Budget Analyst Mr. Kirby Brill, General Manager Address: 4165 Spruance Road, Suite 200, San Diego, Address: Mojave Water District, 13846 Conference Center California 92101 Drive, Apple Valley, California 92307-4377 Telephone: 619-225-6156 Telephone: 760-946-7000 Email: iarios@usgs.gov Email: Signatures and Date Signature: Signature: Name Eric G. Reichard Name:

Title: