



BOARD OF SUPERVISORS  
AGENDA LETTER

Agenda Number:

Clerk of the Board of Supervisors  
105 E. Anapamu Street, Suite 407  
Santa Barbara, CA 93101  
(805) 568-2240

Department Name: Water Agency  
Department No.: 054  
For Agenda Of: August 14, 2018  
Placement: Administrative  
Estimated Tme: N/A  
Continued Item: No  
If Yes, date from:  
Vote Required: Majority

---

**TO:** Board of Directors, Water Agency

**FROM:** Department Scott D. McGolpin, Public Works Director, 805-568-3010  
Director(s)  
Contact Info: Thomas D. Fayram, Deputy Public Works Director, 805-568-3436

**SUBJECT: San Antonio Groundwater Basin Study, Third, Fourth and Fifth Supervisorial Districts**

---

**County Counsel Concurrence**

As to form: Yes

**Auditor-Controller Concurrence**

As to form: Yes

**Other Concurrence:** Risk Management

As to form: Yes

**Recommended Actions:**

- a) Approve and authorize the Chair to execute Amendment No. 4 to the Joint Funding Agreement #15WSCA600081610.A4 with the United States Geological Survey and continue to fund the project with the amount of \$107,627 to a not to exceed amount of \$1,985,198 (in which \$1,633,956 will be funded by the County Water Agency and \$351,242 will be funded by the United States Geological Survey) to continue a comprehensive study of the San Antonio Groundwater Basin in order to assess current and future water availability; and
- b) Determine that the amendment to the agreement for San Antonio Groundwater Study is exempt under California Environmental Quality Act guidelines, Section 15262; Feasibility and Planning Studies and Section 15306 (Class 6) Basic data collection, research, experimental management, and resource evaluation activities, as previously approved by the Board on November 4, 2014  
<https://santabarbara.legistar.com/LegislationDetail.aspx?ID=1940549&GUID=F61F7286-71F1-431B-8A55-561FDD88ADAA>.

**Summary Text:**

This item is on the agenda in order to approve Amendment No. 4 to the Joint Funding Agreement with the United States Geological Survey (USGS) to continue the San Antonio Groundwater Basin Study.

The San Antonio Groundwater Basin serves as the sole source of water to meet the agricultural and municipal needs of the greater Los Alamos Valley. The basin also augments Vandenberg Air Force Base's (VAFB) water supply, which includes State Water. The Water Agency is working in cooperation with the San Antonio Creek Valley Consultation Committee, and has elected to conduct this study with the USGS. The USGS have the most expertise and highest level of credibility in water resources science investigations. VAFB is also partnering in this study.

### Study Update

The study consists of five main tasks, which include: (1) data compilation, (2) new data acquisition, including an assessment of water quality and groundwater/surface water interactions, (3) model development, (4) analysis of water availability, and (5) report preparation. Work has commenced on all tasks and work to date includes the following:

- 1) Existing climate, land-use, geologic, water-quality, and geodetic data have been compiled and assembled into a Geographic Information System (GIS) (Task 1).
- 2) Existing water-quality data have been compiled (Task 1).
- 3) A previously operated gage at San Antonio Creek near Casmalia (11136100) has been reinstalled and is currently operating (Task 2).
- 4) A new stream gage on Harris Canyon Creek near Orcutt (11136040) has been installed and is currently operating (Task 2).
- 5) Multiple-well site 16C1, 2, 4 has been instrumented with pressure transducers and is transmitting water level data in real time (Task 2).
- 6) Eight shallow monitoring wells and two deep multiple-well monitoring sites have been installed (Task 2).
- 7) Continuous water-level measurements are being recorded in 13 monitoring wells (Task 2).
- 8) About 25 streambed electrical resistance sensors and three temperature sensor rods have been deployed and are currently monitoring stream flow and duration (Task 2).
- 9) Quarterly measurements of wells (about 25) that are part of the existing groundwater-level monitoring network continue (Task 2).
- 10) Additional wells (about 12) have been canvassed and added to the quarterly groundwater-level monitoring network (Task 2).
- 11) Groundwater geochemistry samples from 27 wells have been collected and analyzed (Task 2).
- 12) Construction of the 3-dimensional geohydrologic framework for the groundwater model has commenced (Task 3).

- 13) The project website has been built and is accessible at:  
<https://ca.water.usgs.gov/projects/san-antonio-creek/index.html> (Task 5).
- 14) Infiltrometer tests have been collected and processed (12 locations, Task 2).
- 15) Aquifer slug tests have been collected on all monitoring wells installed as part of this study (16 wells, Task 2).
- 16) Differential GPS measurements were taken to establish vertical geodetic control at all accessible wells in the monitoring network (Task 2).

This project is being conducted over a six-year period in order to allow adequate time to collect and analyze the necessary data. Along with periodic updates to stakeholders and the Board of Directors, a final report will be published. The USGS has agreed to cost share for some elements of the project. Total cost to the Water Agency over the six-year study period is estimated to be \$1,647,810.

Amendment 4 to the Joint Funding Agreement provides for the continuation of Tasks 2, 3, 4, and 5 (Task 1 is complete). Groundwater and surface water data will be collected to include continuous and discrete water levels and stream channel discharge. These data will be integrated into the development of the model and water availability analysis. The scope and detail of this project is reviewed annually during the end of the Federal Fiscal Year (FFY) in September as required by the USGS. Adjustments to the study are made to reflect changes in funding and work plan accomplishments if necessary. Staff will return to the Board with an amendment for adjusting scope and cost for each fiscal year until the study is complete. It is expected that Tasks 2, 3 and 4 will be completed by July 1, 2019. The final study reporting (Task 5) is expected to be completed by July 1, 2020.

The culmination of this project will be a detailed report and fact sheet on current and future water availability in the San Antonio Groundwater Basin under current and future cultural and climatic scenarios. When complete the final report will be brought back to the Board to receive and file.

This project will provide a valuable tool for the San Antonio Basin Groundwater Sustainability Agency and the development of a Groundwater Sustainability Plan for this basin due to the Department of Water Resources by 2022 as required by the Sustainable Groundwater Management Act.

**Background:**

The San Antonio Creek Valley is located in western Santa Barbara County about 15 miles south of Santa Maria and 55 miles north of Santa Barbara. Land in the San Antonio Creek Valley is used primarily for agriculture. Historically, the upland parts of the Valley have been used for dry farming or pastureland and the flatlands along the streams for irrigated farming.

Significant changes in land use have occurred since the San Antonio Groundwater Basin was last comprehensively studied in the early 1980s. Since then, large sections of formerly non-irrigated pastureland in the upland parts of the Valley have been converted to irrigated vineyards. Data has thus far been limited in the uplands but in some areas, there have been water level declines of over 50 feet since the early 1980s. The western quarter of the Valley is owned by VAFB and they have agreed to participate in the project with a discrete level of funding and interaction.

**Fiscal and Facilities Impacts:**

Budgeted: Yes

**Fiscal Analysis:**

<b><u>Funding Sources</u></b>	<b><u>Current Cost:</u></b>	<b><u>Annualized On-going Cost:</u></b>	<b><u>Total 6-year Project Cost</u></b>
Federal USGS	\$ 351,242.00		\$ 352,627.00
Water Agency	\$ 1,633,956.00		\$ 1,647,810.00
VAFB	\$ 45,875.00		\$ 533,174.00
Total	\$ 2,031,073.00	\$ -	\$ 2,533,611.00

**Narrative:**

Costs for this study were included in the Adopted 2018-2019 budget in the Water Resources Division of the Public Works Department. No General Fund monies will be utilized for this study.

The USGS is providing a cost share for specific project costs. Including Amendment No. 4, the USGS has funded a total of \$351,242 and the Water Agency has funded a total of \$1,633,956. VAFB is also partnering in this study but under a separate contract with the USGS.

**Key Contract Risks**

The key contract risks for this agreement are low.

**Special Instructions:**

Direct the Clerk of the Board to return a signed original of the agreement and a copy of minute order of these actions to the Water Agency office, Attn: Christina Lopez.

**Attachments:**

- Attachment A: Amendment No. 4 to the Joint Funding Agreement #15WSCA600081610.A4 with contract summary (2 originals)
- Attachment B: Joint Funding Agreement (original agreement)

**Authored by:**

Matthew C. Scudato, Senior Hydrologist, Water Agency, 805-739-8781