CALIFORNIA DEPARTMENT OF WATER RESOURCES AND UNITED STATES BUREAU OF RECLAMATION REQUEST FOR A CHANGE IN POINT OF DIVERSION FOR CALIFORNIA WATER FIX. I. INTRODUCTION My name is Kerry Schmitz and I am a registered civil engineer licensed in the State of California. I have worked for the County of Sacramento for 16 years, having spent the last 5 years serving as Water Supply Division Chief for the Department of Water Resources. In my role as Water Supply Division Chief, I am responsible for overseeing to operations and engineering groups for the Sacramento County Water Agency (SCN In this role, I oversee activities related to both surface water and groundwater supply My responsibility with SCWA includes the operation and maintenance of 102 groundwater supply wells, 12 groundwater treatment plants, a 50-million gallon per supply services.		
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serving over 50,000 customer connections throughout both wholesale and retail service areas.

I also have the responsibility of helping Sacramento County to comply with the Sustainable Groundwater Management Act (SGMA). Since SGMA became effective in 2015, I have worked with stakeholders in each of the County's five subbasins to work toward SGMA compliance.

II. PURPOSE AND SUMMARY OF TESTIMONY

This testimony builds on the testimony provided by Steffen Mehl regarding Petitioners' inadequate effort on: (1) modeling in an attempt to support their analysis of the potential impacts to groundwater supplies in Sacramento County, particularly in the area known as SCWA Zone 40 (Exhibits SCWA-50, 51, 200); and (2) groundwater impact mitigation (MMGW-1) proposed by Petitioners in their Final EIR for the California WaterFix (CWF) project (Exhibit SCWA-302). This testimony discusses how the impacts to groundwater resources and the proposed MMGW-1 discussed by Dr. Mehl could impact the ability of the County groundwater interests, including SCWA and other water purveyors, stakeholders and individual landowners, to comply with SGMA. Additionally these impacts to groundwater resources and planning could affect SCWA's conjunctive use program as described in testimony submitted by Michael Peterson, Director of the Sacramento County Department of Water Resources (Exhibit SCWA-19). SCWA's conjunctive use program balances the use of surface water and groundwater in the South American Subbasin, supporting long-term sustainable management of both sources of supply.

III. BASINS

Sacramento County overlies four main groundwater subbasins as defined in California Department of Water Resources (DWR) Bulletin 118, as well as a small portion of the Tracy Subbasin. The North American Subbasin is north of the American River and includes portions of Placer and Sutter counties. The South American Subbasin is south of the American River and north of the Cosumnes River and is wholly

within Sacramento County. The Cosumnes Subbasin is south of the Cosumnes River and north of San Joaquin County, and a portion is within Amador County. The Solano Subbasin includes the Delta portion of Sacramento County and much of Solano County, which lies west of Sacramento County. The Tracy Subbasin is contained primarily in Contra Costa County but includes a small (less than 600 acres) portion of Sacramento County.

IV. SGMA

SGMA was passed in 2014 and became effective in January 2015. SGMA provides a framework for sustainable management of groundwater by local water supply, water management, and land use agencies. Sustainable groundwater management is defined as the avoidance of six undesirable results:

- Chronic lowering of groundwater levels
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion
- Significant and unreasonable degraded water quality
- Significant and unreasonable land subsidence
- Depletions of interconnected surface water

In addition, SGMA requires the identification of groundwater dependent ecosystems.

V. SACRAMENTO COUNTY SGMA EFFORTS

The SGMA framework includes a process to establish Groundwater Sustainability Agencies (GSAs) and allows a county the opportunity to become the GSA over unmanaged areas (areas without a qualified agency or not embraced by a qualified agency). Within the basins identified above, the following GSAs have been formed:

North American Subbasin – Sacramento Groundwater Authority (SGA) is the sole GSA in the Sacramento County portion of this subbasin and Sacramento County Water Agency is a member of the SGA Board of Directors.

South American Subbasin (also known as the Central Basin) – Sacramento

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Central Groundwater Authority (SCGA) is governed by a sixteen member board and Sacramento County has one seat on this Board. SCGA has submitted an Alternative covering the entire subbasin and is waiting for approval by DWR. The Alternative can be considered an equivalent to a GSP, based on an existing groundwater management plan and on at least 10 years of operations within the basin's sustainable yield. If approved, the Alternative will serve in lieu of the GSP for the subbasin as long as periodic evaluations at 5-year intervals demonstrate sustainable groundwater management. The Alternative contains information about the basin setting, historical groundwater monitoring and modeling data to establish the sustainable yield of the basin and groundwater production data for 2005 through 2017. The Alternative does not account for any potential impacts to groundwater associated with the CWF.

There are currently nine valid GSAs in the South American Subbasin including SCGA, Sacramento County and seven reclamation or drainage districts. Sloughhouse Resource Conservation District (SRCD) and Omochumne-Hartnell Water District (OHWD) submitted GSA applications that overlap with areas that were included in the SCGA GSA application and these overlaps are in the process of being resolved. The South American Subbasin would be most impacted by the CWF project given the proximity to the three intakes. (Exhibit SCWA-301.)

Cosumnes Subbasin – There are six GSAs in the Sacramento County portion of the Cosumnes Subbasin including: City of Galt, Galt Irrigation District, Clay Water District, SRCD, OHWD and Sacramento County.

Solano Subbasin – There are nine GSAs in the Sacramento County portion of the Solano subbasin including eight reclamation districts and Sacramento County.

On April 11, 2017, the Sacramento County Board of Supervisors approved a resolution to accept GSA responsibility for any areas of Sacramento County that remained unmanaged on June 30, 2017. On September 26, 2017, the Sacramento County Board of Supervisors approved a resolution to accept GSA responsibility for any overlap areas in Sacramento County in the event that the Alternative for the South

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American Subbasin is withdrawn or denied by DWR. Currently Sacramento County is actively participating in each of the subbasins within the County and is the GSA for unmanaged areas in the Cosumnes, and Solano Subbasin. Depending on the success of the Alternative and the resolution of the overlap areas, Sacramento County may have a direct GSA role in the South American Subbasin as well.

The success of these GSAs as they develop groundwater sustainability plans (GSPs) or implement Alternatives in compliance with SGMA, particularly in the South American Subbasin where the County and SCWA have invested in a conjunctive use program that benefits all users in the basin, is dependent on the sound science and groundwater-surface water interaction that has been monitored over the last decade and factored into groundwater modeling and management efforts. Dr. Mehl's testimony indicates that modeling performed as part of the CWF did not mention the impact on stream/aquifer interactions in the area directly downstream of the diversions, and failed to do a detailed analysis of the water budget for the South American Subbasin. (Exhibits SCWA-50, 51, 200.) Additionally, Dr. Mehl's testimony indicates that the models prepared in support of the CWF are not accurate enough to achieve reliable results on the water balance for the South American Subbasin. (See Exhibits SCWA-50, 51, 200.)

DWR's failure to analyze impacts and to demonstrate no impact leaves many questions for all entities in Sacramento County who are participating in efforts to comply with SGMA. SGMA requires the avoidance of undesirable results, and those that could be impacted by the CWF include:

- Chronic lowering of groundwater levels
- Significant and unreasonable reduction of groundwater storage
- Depletions of interconnected surface water
- Impacts to groundwater dependent ecosystems

Lowering groundwater levels, reduction in groundwater storage and depletions of interconnected surface water due to the CWF would not only impact SGMA compliance, but would also impact private well owners in Sacramento County and their ability to

access groundwater that is critical to their livelihood. Also lower groundwater levels could impact SCWA's access to groundwater which would impact the implementation of the conjunctive use program, which is a benefit to all groundwater users in the basin. As presented in Dr. Mehl's testimony (Exhibits SCWA-50, 51, 200), the modeling performed in support of the CWF does not adequately represent the stream/aquifer interaction and impacts to the connectivity between the river and underlying aquifer, which could have significant impacts on nearby wells as well as the adjacent environment.

Further, DWR's commitment to monitor groundwater levels along a 4-mile corridor for five years after commencing conveyance operations does not align with the long-term groundwater planning obligations of local GSAs under SGMA. GSAs must implement a GSP or Alternative that ensures sustainability over a planning horizon of 50 years. (See Wat. Code, §§ 10721(r), (u), (v); 10727.2(b).) Five years of monitoring is insufficient for various technical reasons explained by Dr. Mehl concerning aquifer response times (Exhibit SCWA-302), and it is insufficient for providing GSAs in the South American Subbasin the type of information they will need to understand how changes in surface water streams influence groundwater conditions in adjacent basins over the next 20-50 years. Also, as described in Dr. Mehl's testimony (Exhibit SCWA-302), the spatial extent of DWR's proposed monitoring may not adequately capture the CWF's influence on groundwater resources in the South American Subbasin, which could have negative effects on the water supply planning assumptions in the Alternative or any GSP, and risk sustainability of Subbasin resources.

VI. CONCLUSION

Sound science, which includes long-term monitoring as well as detailed modeling, is critical to understanding groundwater hydraulics and ultimately SGMA compliance through sustainable groundwater management. As presented in Dr. Mehl's Part 1 testimony, the analysis included in the Petitioners' testimony is inadequate to understand potential long-term impacts to groundwater in Sacramento County portion of the project. I urge the SWRCB to require the project proponents to perform a complete groundwater

1	impacts analysis. This analysis is critical to understanding how the CWF will impact the
2	local groundwater basins and the water purveyors and property owners that depend on
3	this important resource.
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