SIERRA VALLEY GROUNDWATER MANAGEMENT DISTRICT
SPECIAL BOARD OF DIRECTORS MEETING
BECKWOURTH TAVERN, BECKWOURTH, CA
Monday, February 29, 2016 8:30 AM

MINUTES

1) CALL TO ORDER & ROLL CALL OF DIRECTORS

Chairman Grandi called the meeting to order at 8:35 AM. Directors present: Genasci, Wallace, Roen, Swofford, Ramelli (arrival 8:50 AM), Roberti. Also present: Dr. Kenneth Schmidt, Steve Baker, Tim Beals, Brandon Pangman, Carol Dobbas, Leah Wills, Bill Powers, Jay Hubert, Rick Maddalena, Kristi Jamason.

A. Introduction of Dr. Kenneth D. Schmidt, PhD., Hydrologeologist for the Sierra Valley Groundwater Management District (SVGMD)

2) PUBLIC COMMENT

None

3) DISCUSSIONS/ACTIONS

A. Presentation and discussion led by Dr. Kenneth Schmidt on the CASGEM (California Statewide Groundwater Elevation Monitoring) Groundwater Basin Prioritization process. Further discussion on how the SVGMD may or may not qualify as the Groundwater Sustainability Agency (GSA) for this basin.

B. Presentation and discussion led by Dr. Schmidt on the determination of "safe yield" amount of 6,000 acre feet mentioned in the 2012-2014 Technical Report and explanation of methods used in creating the SVGMD Technical Reports.

Dr. Schmidt's discussion centered on the topic of "safe yield".

According to Dr. Schmidt, safe yield is a legal term, not a technical term. The definition is intended to mean how much water is pumped out of an area that would not cause overdraft. Not all agree on it's meaning, as it is considered an opinion. Overdraft also refers to a change in water storage in a basin; the Sierra Valley is full of water. It is Dr. Schmidt's opinion that the latest legislation "Sustainable

Groundwater Management Act 2014 (SGMA) was not driven by Hydrogeologists. The purpose of this legislation is to cure overdraft in all basins in California. Overdraft is easier to calculate in "unconfined" aquifers, whereas the SVGMD is a "confined" aquifer.

Dr. Schmidt believes that the SVGMD, with it's data collecting history, is at least 5 years ahead of any other basin in the State. To clearly define overdraft, more than 10 years of data needs to be looked at. Starting with the data collected during a "wet period" and ending with a "wet period". Not starting with a "wet period and ending with a "dry period".

To correctly measure the "overdraft" in a basin, data should show at least the last 20-25 years of pumping.

Dr. Schmidt refers to the State of Arizona's Sustainable Groundwater Management Manual that addresses overdraft in each of that state's basins. Dr. Schmidt believes that it will take decades to completely cure overdraft in all of the basins in California. A part of curing the overdraft involves well spacing ordinances that need to be implemented. Wells need to be at least ½ mile apart as has been proven effective in the San Joaquin Valley in California. Dr. Schmidt's observation of subsidence (the earth dropping due to overdraft) has caused some areas, like in the Mendota Pool in the San Joaquin Valley, to reimburse parcels affected by the drawdown.

The other issue regarding curing any overdraft is recharge. The DWR 1970 study of the Sierra Valley (copy on file) indicate that the "alluvial" (material deposited by rivers, consisting of silt, sand, clay and gravel) nature of the recharge areas of this basin show that the water in the older, deeper wells are over 10,000 years old. The recharges of the shallow wells are due to snowmelt.

Further discussion regarding the SVGMD priority ranking will be discussed with William Ehorn, DWR, following this discussion.

Dr. Schmidt concludes by stating that the SVGMD needs to do the following to adhere to the SGMA mandates addressing overdraft:

-draft a monitoring plan addressing the last 20-25 years of pumping
-implement a well spacing study
-consider the use of pressure aquifer transducers
-FOCUS ON OVERDRAFT

BREAK

1B) Introduction of William Ehorn P.G.C.H. (Professional Geologist Certified Hydrologist) Senior Engineering Geologist, Groundwater Investigations Section, Northern Region Office, Department of Water Resources (DWR) and staff (Mary Randall)

3C) Presentation and discussion led by Mr. Ehorn on the CASGEM Groundwater Basin Prioritization process.

Much of the discussion centered on the role of the SVGMD as the GSA for this region. Many factors contributed to the ranking of all of the 551 basins in the State, and the data collection process is being challenged by a majority of these basins. Towards the end of this year, DWR will be collecting data where local entities can provide better data that may affect their prioritization score.

LUNCH

3D) Presentation and discussions led by Mr. Ehorn on the Groundwater Sustainability Plan (GSP) and the process associated with the formation of the SVGMD as the GSA for this basin.

The SVGMD is the logical Groundwater Sustainability Agency (GSA) for this basin; it has been classified as an "exclusive" GSA, (created by Senate Bill 1391). However, the data being collected now will not be sufficient in the future.

All high and medium priority basins need to be regulated by either a Groundwater Sustainability Plan (GSP) by 1/31/2020. Or by an Alternate Plan by 1/1/2017.

4) ADJOURNMENT

The meeting was adjourned at 2 PM.

Juliana Walsh, Secretary

Attachment 1

Groundwater Basin Data and Ranking Priorities

Basin-Subbasin Number:	5-12.01
Basin Name:	SIERRA VALLEY
SubBasin Name:	SIERRA VALLEY
Regional Office:	Northern Region Office
Acreage:	117,680

Total Ranking:	19.5
Overall Priority:	Medium

Population Data

Population (2010 Census)	Density ppl/sqmi	Ranking
2,196	12	1

Population Growth Data

Population (2030 Proj.)	% Increase/ Decrease	Ranking
2,205	100.41%	5

Monitoring Well Data

Based on NDLog Data (NRO only)

	Number of Wells	Density wells/sqmi	Percent
DWR:	37	0.2012	100.00%
Other:	0	0.0000	0.00%
Total:	37	0.2012	

Total Wells Data

Based on WellMa Data

Number of Wells	Density wells/sqmi	Ranking
561	3.05	1.5

Public Supply Well Data

Based CPPH Data

Number of Wells	Density wells/sqmi	Ranking
16	0.09	1

Groundwater Reliance

Volume (Acre-Feet)		Percentages	
68,188	Groundwater:	32.42%	Ranking
Amount (Acre-Feet/Acre)	Surface:	67.58%	3
0.5794			

○ Derived from DAU/County Datase
◉ Modified by Region Staff

Irrigated Acreage

Total Acres	Acres/SqMi	Basin %
81,465	443.05	69.23%

Ranking: 5

○ Derived from DAU/County Datase
◉ Modified by Region Staff

Documented Impacts, including overdraft, subsidence, saline intrusion, and other water quality degradation:

Ranking: 3

Declining GW Levels and artesian well production along the east and northeast side of the valley. Poor quality water in west-central side of valley (boron, fluoride, arsenic, & sodium).

Other Information, determined to be relevant by the department:

Ranking:

Additional Comments

NRO Reviewed: GW Use is based on updated LWU data

Attachment 2

CALIFORNIA WATER CODE
PART 2.74 - SUSTAINABLE GROUNDWATER MANAGEMENT

Section	Groundwater Sustainability Plan (GSP) Required and Related Components	# Components
10726.9	A groundwater sustainability plan shall take into account the most recent planning assumptions stated in local general plans of jurisdictions overlying the basin.	1
10727.2	A groundwater sustainability plan shall include all of the following:	
10727.2(a)	A description of the physical setting and characteristics of the aquifer system underlying the basin that includes the following:	
10727.2(a)(1)	Historical data, to the extent available.	1
10727.2(a)(2)	Groundwater levels, groundwater quality, subsidence, and groundwater-surface water interaction.	4
10727.2(a)(3)	A general discussion of historical and projected water demands and supplies.	1
10727.2(a)(4)	A map that details the area of the basin and the boundaries of the groundwater sustainability agencies that overlie the basin that have or are developing groundwater sustainability plans.	1+
10727.2(a)(5)	A map identifying existing and potential recharge areas for the basin. The map or maps shall identify the existing recharge areas that substantially contribute to the replenishment of the groundwater basin. The map or maps shall be provided to the appropriate local planning agencies after adoption of the groundwater sustainability plan.	1
10727.2(b)(1)	Measurable objectives, as well as interim milestones in increments of five years, to achieve the sustainability goal in the basin within 20 years of the implementation of the plan.	1+
10727.2(b)(2)	A description of how the plan helps meet each objective and how each objective is intended to achieve the sustainability goal for the basin for long-term beneficial uses of groundwater.	1
10727.2(b)(4)	*The plan may, but is not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015. Notwithstanding paragraphs (1) to (3), inclusive, a groundwater sustainability agency has discretion as to whether to set measurable objectives and the timeframes for achieving any objectives for undesirable results that occurred before, and have not been corrected by, January 1, 2015.*	
10727.2(c)	A planning and implementation horizon.	1
10727.2(d)	Components relating to the following, as applicable to the basin:	
10727.2(d)(1)	The monitoring and management of groundwater levels within the basin.	1+
10727.2(d)(2)	The monitoring and management of groundwater quality, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin.	4+
10727.2(d)(3)	Mitigation of overdraft.	1
10727.2(d)(4)	How recharge areas identified in the plan substantially contribute to the replenishment of the basin.	1
10727.2(d)(5)	A description of surface water supply used or available for use for groundwater recharge or in-lieu use.	1
10727.2(e)	A summary of the type of monitoring sites, type of measurements, and the frequency of monitoring for each location monitoring groundwater levels, groundwater quality, subsidence, streamflow, precipitation, evaporation, and tidal influence. The plan shall include a summary of monitoring information such as well depth, screened intervals, and aquifer zones monitored, and a summary of the type of well relied on for the information, including public, irrigation, domestic, industrial, and monitoring wells.	7+
10727.2(f)	Monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management.	5+
10727.2(g)	A description of the consideration given to the applicable county and city general plans and a description of the various adopted water resources-related plans and programs within the basin and an assessment of how the groundwater sustainability plan may affect those plans.	1
10727.4	In addition to the requirements of Section 10727.2, a groundwater sustainability plan shall include, where appropriate and in collaboration with the appropriate local agencies, all of the following:	
10727.4(a)	Control of saline water intrusion.	1
10727.4(b)	Wellhead protection areas and recharge areas.	1+
10727.4(c)	Migration of contaminated groundwater.	1
10727.4(d)	A well abandonment and well destruction program.	1
10727.4(e)	Replenishment of groundwater extractions.	1