

Commenting Organization	Comment By	Date of Comment	Section/Appendix #	PDF Page Number	PDF Line Number or Figure Number	Comment
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	20	566	Allowing the minimum threshold at some representative monitoring points to be set lower than the 2015 low is unacceptable. Model simulations of projected conditions with climate change and PMA should not be allowed to serve as the minimum threshold. The purpose of SGMA is to ensure sustainability of the subbasin. If projected conditions with climate change and PMA result in groundwater levels lower than the 2015 low, then additional management actions must be taken in order to raise groundwater levels to at least the level of the 2015 low. It is unacceptable and disingenuous just lower the minimum threshold so that existing PMA are sufficient to not exceed the minimum threshold.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	7	109	Localized undesirable results such as this would likely not exceed the sustainable management criterion of 25% of representative monitoring wells being below the minimum threshold for three consecutive years. How will beneficial users be protected from localized undesirable results?
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	8	151	Wells that are currently functioning and become impacted due to lowering of groundwater levels must be included in this count even if the wells are not listed in the DWR Well Completion Report database (as is the case for many older domestic wells). That is, even if a well is not listed on the DWR Well Completion Report database, if it is impacted it will be considered as contributing to the undesirable result threshold.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	27	661	Both the 31 or 40 year retirement age for wells is inappropriate. My own domestic well is 47 years old and still functions quite well. Most of the other homes in my Ag/Res area were also built in the 1970s and still have original functioning wells. By assuming that older wells are not active, functional wells are being inappropriately removed from the domestic well count.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	27	654	The DWR Well Completion Report database that provides the basis for the number of active domestic wells is woefully incomplete, particularly for older wells (prior to 1990). My 1974 fully functioning domestic well is not included in the database, nor are many of my neighbors' wells. I live in a section of Elk Grove that is specifically zoned for Ag/Res small parcels and each residence has its own well, but many of these wells are not shown on the database. I've heard that Sacramento County well records prior to 1990 are a mess and not digitized, so weren't included in the database. In order to get a better count of active domestic wells and a more representative depth estimate of those wells, a well census should be conducted.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	27	668	If 2-3% of domestic wells are impacted, the number of domestic wells impacted will be much higher than the 7 estimated by the climate change + PMA simulation. This is due to the incomplete nature of the DWR Well Completion Report database. The database is missing many older wells (pre-1990) that are still functioning, so the number of active domestic wells is undercounted. Also, newer wells tend to be drilled deeper than the older wells were, so the depth of domestic wells appear deeper and thus less vulnerable than they actually are.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	27	675	Well rehabilitation costs is estimated based on the number of wells that will need to be deepened due to the water level declining to below 30 feet above the bottom of the well. However, there may be many more wells that are impacted due to the water level falling below the minimum level above the pump. These wells will need to have
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	27	677	This cost is likely a gross underestimate because 1) it ignores the cost of lowering pumps which may be much more commonly needed than deepening wells, and 2) the number of wells that may be impacted is underestimated due to the fact that the DWR Well Completion Report database only includes a fraction of active wells and is skewed younger and deeper than the actual active well population.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	27	681	Estimated well impacts and associated rehabilitation costs were shared during public meetings, but the public response and feedback has not been properly addressed. During public meetings, Ag/Res residents brought up the incomplete nature of the DWR Well Completion Report database and the inappropriate 31-40 year old retirement age for domestic wells, but neither of those issues were addressed.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	31	745	Again, allowing the minimum threshold to be set lower than the 2015 low is unacceptable. Model simulations of projected conditions with climate change and PMA should not be allowed to serve as the minimum threshold. The purpose of SGMA is to ensure sustainability of the subbasin. If projected conditions with climate change and PMA result in conditions worse than the 2015 low, then additional management actions must be taken. It is unacceptable and disingenuous just lower the minimum threshold so that existing PMA are sufficient to not exceed the minimum threshold.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	81	1610	Rather than using "best professional judgement" to ensure that groundwater samples are representative of ambient groundwater, sampler collectors should use standard protocol from USGS National Field Manual for the Collection of Water-Quality Data, which specifies allowable fluctuation in pH, temperature, electrical conductivity, turbidity, etc.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	65	1362	Public supply wells tend to be deeper than domestic wells. Will groundwater quality measurements from these wells actually be representative of groundwater quality in domestic wells? Most domestic well users do not monitor groundwater quality on a regular basis, but could be the first affected by water quality changes. Some domestic well owners (like myself) might be willing to allow regular sampling from our wells in order to get better spatial and depth coverage for monitoring efforts.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	60	1306	The monitoring network only achieves 92% spatial coverage when combining data from both aquifers. The upper aquifer only has 70% spatial coverage and the lower aquifer only 50% coverage. There is a large spatial gap, particularly in the upper aquifer, near the center of the subbasin to the north and south of Elk Grove. Additional wells should be added to the monitoring network in those locations to fill the spatial data gap. These locations are particularly important to monitor due to the high density of domestic wells in the rural estates of Elk Grove.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	66	1388	The water quality monitoring network should also include wells with a history of arsenic measurement. Figure 2.3-36 showed many shallow wells with arsenic exceeding the EPA MCL. Changes in groundwater levels and flow directions due to groundwater management could mobilize arsenic into other shallow wells such as those used for domestic purposes. Even if arsenic is naturally occurring and being mobilized from sediments, changes in groundwater flow and chemistry (i.e., changes in oxidation-reduction potential) could mobilize arsenic into the water.
Ag/Res resident	Amelia Vankeuren	8/17/2021	Appendix 3-A	18	Figure 7	The projected conditions with PMA and climate change result in a decline of groundwater levels to 15 ft below the Fall 2015 low along a north-south oriented line at the center of the subbasin. This amount of decline is unacceptable, particularly given the high concentration of domestic wells that fall in that zone of groundwater level depletion near Elk Grove. While it appears that most domestic wells were still functioning during the 2012-2016 drought, an additional decline of 15 ft may impact many domestic wells in that area and require well rehabilitation in the form of pump lowering or well deepening. Additional PMA should be planned in order to prevent the projected groundwater level declines in the center of the subbasin.
Ag/Res resident	Amelia Vankeuren	8/17/2021	Appendix 3-A	25	Figure 13	The range of domestic well total completed depths determined from the DWR Well Completion Report database is likely deeper the actual range of depths in active domestic wells. The database is incomplete, particularly for wells installed prior to 1990, many of which are still in use in rural communities that were built in the 1970s and 1980s like those near Elk Grove. The older wells that are not listed on the database tend to be shallower than the newer wells that are listed. The Greater Sheldon Rural Estates Homeowners Association has been collecting well information from its members and has found that there may be significantly more wells in the more vulnerable 150-200 ft depth range than Figure 13 suggests.
Ag/Res resident	Amelia Vankeuren	8/17/2021	3	68	Figure 3-24	There are huge spatial gaps in the groundwater quality monitoring network. This is highly concerning given the concentration of domestic wells in the upper aquifer. Most domestic well users do not measure groundwater quality except when buying or selling a house, so changes in water quality in this aquifer (e.g., increases in nitrate or arsenic) could go undetected for years and cause significant health impacts.
Ag/Res resident	Amelia Vankeuren	8/17/2021	2	125	1938	The declining trend in groundwater levels in the eastern portion of the subbasin is highly concerning. "Not well understood" declines of 40 ft over 50 years are unacceptable, particularly as well 244 is relatively close to an area with a high concentrations of shallow domestic wells.
Ag/Res resident	Amelia Vankeuren	8/17/2021	2	102	1577	Section 2.2.7 Natural Water Quality Characterization only summarizes older groundwater quality data (pre-2016) in public supply wells, which tend to be deeper than shallow domestic wells. The summary in this section should also incorporate the more recent data downloaded from the GAMA Groundwater Information System Data Download in 2020 (as mentioned on page 2-142) as that would include shallow well information from the 2017 GAMA Sacramento-Metro Study Unit - Shallow Assessment.

Ag/Res resident	Amelia Vankeuren	8/17/2021	2	132	2019	The hydrographs for the 4 shallower wells show that the shallow aquifer groundwater elevation is generally 30 ft higher than the deeper aquifer wells, so there is a strong downward vertical gradient. The shift from an upward vertical gradient in other locations in the subbasin to the downward vertical gradient in Elk Grove suggests that the deeper aquifer is being heavily exploited in this location. Why is this downward gradient not mentioned in the summary of this section?
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