



Commenter Name	Commenter Organization	Comment Received	Subject	Line #s or Figure #	Comment
Peter Quinlan	Dudek, Rancho Guejito	1/24/2020 email	TPR Meeting #2	Pages 8-15	Land use maps aren't accurate. Some orchards are mapped as field crops. See area to west of Rockwood Canyon which is irrigated from wells in the alluvial basin. Before estimating historical pumping from land use, these maps should be verified by using Google Earth at a minimum, or requesting verification by the farmers through the Advisory Group.
Peter Quinlan	Dudek, Rancho Guejito	1/24/2020 email	TPR Meeting #2	Pages 16-17	These maps show 22 wells in the section containing Rockwood Canyon, not counting the 4 monitoring wells. At least 6 of the wells are laterally outside of the basin and 5 of the wells are constructed to isolate them from the alluvium and residuum. Others are abandoned.
Peter Quinlan	Dudek, Rancho Guejito	1/24/2020 email	Numerical Model Discussion	Slides 7-10	<p>SGMA Emergency Regulations repeatedly call for addressing uncertainty. In the context of minimum thresholds, they raise the issue of uncertainty including model uncertainty: "§ 354.28. Minimum Thresholds</p> <p>(a) Each Agency in its Plan shall establish minimum thresholds that quantify groundwater conditions for each applicable sustainability indicator at each monitoring site or representative monitoring site established pursuant to Section 354.36. The numeric value used to define minimum thresholds shall represent a point in the basin that, if exceeded, may cause undesirable results as described in Section 354.26.</p> <p>(b) The description of minimum thresholds shall include the following:</p> <p>(1) The information and criteria relied upon to establish and justify the minimum thresholds for each sustainability indicator. The justification for the minimum threshold shall be supported by information provided in the basin setting, and other data or models as appropriate, and qualified by uncertainty in the understanding of the basin setting." Quantifying uncertainty in model predictions is important for providing context to management decisions. If the model-estimated sustainable yield that avoids undesirable results is less than current groundwater production, it may require unnecessary reductions in pumping and have negative economic consequences for groundwater users. The GSA should be aware of the confidence interval bounding the estimated sustainable yield before acting to limit production beyond what is necessary, so as to avoid unnecessary economic disruption. Uncertainty associated with numerical models can be addressed a number of ways. ASTM D5447-04 (2010) specifies validation or verification against historical observations held back from the data used for calibration: "6.6.5 Calibration of a groundwater flow model to a single set of field measurements does not guarantee a unique solution. In order to reduce the problem of nonuniqueness, the model calculations may be compared to another set of field observations that represent a different set of boundary conditions or stresses. This process is referred to in the groundwater modeling literature as either validation (1) or verification (14, 15). The term verification is adopted in this guide. In model verification, the calibrated model is used to simulate a different set of aquifer stresses for which field measurements have been made. The model results are then compared to the field measurements to assess the degree of correspondence. If the comparison is not favorable, additional calibration or data collection is required. Successful verification of the groundwater flow model results in a higher degree of confidence in model predictions." Verification enables quantitative assessment of model error / uncertainty. Uncertainty can also be characterized qualitatively through sensitivity analyses. Again from ASTM D5447-04 (2010): "A calibrated but unverified model may still be used to perform predictive simulations when coupled with a careful sensitivity analysis (15). 6.7 Sensitivity analysis is a quantitative method of determining the effect of parameter variation on model results. The purpose of a sensitivity analysis is to quantify the uncertainty in the calibrated model caused by uncertainty in the estimates of aquifer parameters, stresses, and boundary conditions (6). It is a means to identify the model inputs that have the most influence on model calibration and predictions (1). Perform sensitivity analysis to provide users with an understanding of the level of confidence in model results and to identify data deficiencies (16). 6.7.1 Sensitivity analysis is performed during model calibration and during predictive analyses. Model sensitivity provides a means of determining the key parameters and boundary conditions to be adjusted during model calibration. Sensitivity analysis is used in conjunction with predictive simulations to assess the effect of parameter uncertainty on model results."</p>
Peter Quinlan	Dudek, Rancho Guejito	1/24/2020 email	TPR Meeting #2	Page 42	The hydrograph for SPV GSP 199 is plotted upside down.
Peter Quinlan	Dudek, Rancho Guejito	1/24/2020 email	TPR Meeting #2	Slides 35-36	DWR Bulletin 188 defines the San Pasqual Basin as being comprised of the alluvium and residuum. The BMP guidance cited in the presentation the bottom of the basin may be defined as the depth to bedrock also recognized as the top of bedrock below which no significant groundwater movement occurs. The City of San Diego expressly recognized the lower boundary of the basin as granite bedrock in its 2007 Groundwater Management Plan for the San Pasqual Valley. There is no new information available to suggest that classification should change. It is the responsibility of the GSA to provide evidence that the 2007 characterization was incorrect and to justify expanding the basin boundaries beyond what is specified in Bulletin 118.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Fig 1-5	The depiction of the extent of the County outside the basin boundary is uneven and it is unclear as to the approach taken as to how much to show. Some areas show a lot of the County whereas others do not show any county area outside the basin boundary. Also, The location of the City of San Diego label is on top of the County area. Suggest either moving the label to overlay where the City is located or add an arrow that points to the dark blue City area. Another option is to remove both the City and County labels since the Legend already identifies what portion of the map is City versus County.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Fig 1-6 through Fig 1-15	We discussed the crop type labels already at the meeting. For modeling purposes, it will be difficult to assign a water demand to some of these designations. I would suggest that if Nate develops a land use map for modeling that depicts crop types (perhaps consistent with LandEQ and/or DWR) and if there are any years where you have DWR land use and SanGIS then you change the legend.

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Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Fig 1-16	There are some labels located along the north and east boundary of the figure that are cut off. The southeast portion of the basin (and other portions of the figure where there is a relatively large number of wells) includes a darker color inside the basin and a lighter blue color outside the basin. This creates confusion as to what densities/number of wells are located inside vs. outside the basin within a particular section. In these cases, where the label says 8 or 10 wells in that section, does that mean there is that number of wells inside the basin or does that number represent the entire section, including both inside and outside the basin? Without having text to read, it is difficult to interpret whether the density refers to what is inside the basin or in the entire section. As shown, the 8 or 10 wells area conveys that there is actually 8 or 10 wells within the basin where the darker color represents a certain number of wells. Suggest that the source:DWR be a bit more useful and include a reference citation so it can be included in the references such as (DWR, DATE). This is a global comment for all figures where you use or show data from other sources that should be cited. This will be useful as part of the uploading and compilation of references when the GSP is submitted to DWR.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Fig 1-17	Same comment as for Figure 1-16. Font size for "# Wells" is smaller than Figure 1-16. Suggest having consistent font size on well density maps.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Fig 1-18	Same comment as for Figure 1-16. Font size for "# Wells" is smaller than Figure 1-16. Suggest having consistent font size on well density maps.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Fig 3-1	The label of this figure does not fit the content since there is only structural (faluts) shown but no Geology.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 21, 23	Why not use the same base map as page 23 so each figure shows the whole basin rather than a portion. I understand the desire, perhaps, for wanting to show as much resolution as possible but I would suggest using the same basemap as you have used for other figures showing basin features.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 27, 28	I know you did not want comments on the color scheme, but I am not a fan of a dual color flood scheme. I prefer a single range from light to dark or vice versa..
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 29	This figure is confusing without having text to describe what is being shown. I believe this is a watershed map, even though it is referred to as a drainage map. Drainage is a term that can be misinterpreted to also describe a drainagesystem for agriculture in areas where there is high groundwater and potential for root zone damage. I do not think that is the case with this figure thought.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 30	Recommend changing the title on this figure to replace "Hydrology" with the particular soil property that is being presented. Is this figure supposed to convey soil permeability, soil unsaturated conductivity? Also, it seems as if the scale ranges represent log cycles. If so, then I suggest not showing a 0.0 since that is not possible for a log cycle. Instead, I would use a less than 0.01.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 31	Suggest not using an acronym for a figure title.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 32, 33	Seems as if this figure and page 33 figure should be the first ones and be before the page 30 figure.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 35	The numbering scheme for the wells does not follow a sequential pattern which is fine but not inherently understandable and may convey that there are at least a couple hundred wells in the basin. Also, is there a mix of actual monitoring wells, inactive and active supply wells that are monitored, domestic wells, etc. that are all grouped under the "monitoring well" designation. Did you want to consider differentiating the well types because this may provide DWR with an impression that all wells being monitored are actually monitoring wells rather than wells that were designed for supply.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 36	Global Comment: If data are available, show the entire period of record and adjust the date range on the hydrographs to reflect that if possible. I like your approach in having the same y axis span for all hydrographs to allow for comparison, although I noticed that some spans are 120 feet or 140 feet and the intervals vary between 20 feet or 40 feet. If these hydrographs are planned for the body of the report as compared to an appendix, it may be helpful to include a basin map insert showing the well location for easy reference. I noticed that the single wells do not have any well construction related information compared to the monitoring wells. Is this because that information is not available? Some appear to have some anomalous data points that are abnormally high or low compared to the other data points (generally this is observed in a few of the single well hydrographs). I wonder whether it would be useful to add trendlines to the hydrographs if they will be used to describe temporal trends in the HCM/Basin Setting/GW conditions section of the GSP.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 39	Is there a reason why the size of this and the following hydrographs are smaller than the previous three?. Well construction to total depth info would be nice.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 40	2014 data point seems anomalously high, otherwise no comment.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 42	2014 data point seems anomalously low, otherwise no comment.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 43, 50	Multi year line between 2014 and 2018 should be removed however, if these are generated from an Access database, that can be a difficult task to develop a query for.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 44	Last data point seems anomalously high.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 45	Next to last data point seems anomalously high. Remove it??

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Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 53	Not sure I would include this hydrograph as the dataset seems suspect. Is there more information on this well that would be useful to share in order to interpret this dataset. I would definitely not use this well for model calibration.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 54	Another dataset that looks suspect and definitely needs some QA/QC or notes included (similar to GSP 199 on page 53). If this is transducer data, from 2017 on, it appears as if the consultant did not deploy the transducer deep enough as it appears as if the gw levels went below the transducer and whoever developed the dataset chose to select the depth of the transducer as the gw level. Again, this dataset needs additional clarification if it is to be used.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 57, 58	No comment, except that if I were to use the count of wells with measurements as a guide for selecting which periods of time to contour, I would first select only Spring periods to contour and to select years which represent a wet, dry, and maybe normal year type to contour. I suppose if you want to select years to contour "seasonal lows" then I would try to use the same years as selected for the Spring contours.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 59	I like the panel map approach, however, the font sizes for the graph axes labels need to be much larger to be readable. Generally, the trends of TDS over time look generally stable throughout the basin perhaps with the slight exceptions of wells 120 and 118 to the southeast of the basin. Is there a reference/citation for the TDS data in this panel map? You reference a source for page 60.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 60	The charts are easier to read than page 59, therefore, the actual concentrations are readable. Since it is difficult to read the x and y axis labels in page 59, it is difficult to compare the charts, although it seems as if this panel map only has one well with an upward trend (SP065) which is different than the two wells in page 59.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 61	Same comments about readability as page 59. Generally only one well shows an upward trend in nitrate (SP006). Unless there is a desire to use the GSP to be a restoration program, I do not see trends in nitrate that are worrisome for the most part.
Will Halligan	LSCE	1/23/2020 email	TPR Mtg No 2	Page 62	Better figure to read, however, similar to the figures for TDS, there are different wells in this figure that show upward trends than are shown on page 61. Seems odd. Again what are the data sources for the gw quality charts for pages 59 through 62? Seems like some QA/QC is needed because the differences will invite comment and criticism.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Figure 1-7 & 8	Big change in ag use from field crops to intensive ag between 1990 and 1995 This will require follow up.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Figure 1-12	Comparing 2013 Land Use Map to Google Earth Images for the same time frame shows error in classification where undeveloped areas are classified as field crops, orchards classified as field crops, former poultry ops, abandoned decades ago, classified as intensive agriculture. See attached Figure 1-12, with annotations.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Figure 3-1	This is not really a depiction of the Regional Geologic Setting. It is a depiction of regional faulting. You do show the regional geologic setting in Figures 3-3 & 3-4. I think these three maps should be integrated into one map. Simpler, more comprehensive, and allows the reader and author to better assess regional geologic relationships. I also recommend including the watershed divide on the geologic map. That would eliminate another map. Is the entire drainage area characterized here? Wouldn't that be a logical presentation?
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 27, Figure #-	Include the watershed divide on this map and provide more color/shading resolution to the topography.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 29 1-X	The purpose of this map should be to readily identify the extent of the area that drains into San Pasqual Valley. It does a poor job of depicting that. It's hard to see San Pasqual Valley and the other hydrologic basins, as presented, distract the reader from understanding what area drains into San Pasqual Valley.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 31, Figure #-	Define the acronym SAGBI in the legend.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 34, Figure #-	Is it necessary or useful to have a separate map for surface water. This information could be included in a regional map or topo map, right?
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Figure WF-7	The project could use some wells in the middle of the basin. There are/were wells in this area used by Izbicki in the early 1980's. He used the State Well ID nomenclature to label them (see Izbicki page 94-95).
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 39, Hydrograph SPV GSP-19	Vertical and horizontal scale inconsistent with other hydrographs. Scale needs to be large enough to readily depict changes in head over time. This well is in the same location as Izbicki's 5A which has heads for 1977 (much lower than depicted on the present record) and 1982 (near peak high on the present record).
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 40, Hydrograph SPV GSP-22	Same as page 39. Izbicki 32M3?
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 42, Hydrograph SPV GSP-29	Same as page 39. Izbicki 6M3? Spring 1982 head greater than presented record.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 42, Hydrograph SPV GSP-43	Same as page 39. Izbicki 35F1/F2? Spring 1982 head greater than the presented record.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 46, Hydrograph SPV GSP-44	Same as page 39. Izbicki 36D3 or 35A1.

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Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 49, Hydrograph SPV GSP-45	Same as page 39. Izbicki 29D1?.
Matt Wiedlin	W&A	1/21/20 email	TPR Handout #3	Page 49, Hydrograph SPV GSP-70	Same as page 39. Izbicki 34J1? Spring 1982 greater than the presented record.
Frank Konyon	Konyon Dairy	1/23/2020 email	TPR Meeting #2	Basin definition	I believe that at the last TPR meeting you threw out an opportunity for anyone to send in comments after the meeting if they had any. As a second generation resident and leaseholder in this valley, I am concerned by the overt bias that [] is exerting on the TPR committee. Up until the last meeting everything had seemed very fair and level for all parties involved. I was proud of the team that had been assembled to dissect this GSP. Then, at the last meeting, [], a specific representative of the Rancho Guejito, began throwing around words like "legal counsel released this...." Or "I would need to consult with council." Is Peter here as a hydrology engineer with an intent to provide unbiased professional opinion, or is he an extension of the legal arm of the Rancho Guejito? It appears that [] was trying very hard to have the wells of the Rancho Guejito excluded from the GSP, however he was not providing any supporting evidence of those particular wells to justify that opinion. I believe John warned the group that if solid evidence of well construction, and testing of hypothesis were not present in the final report, it would most likely be rejected by DWR. I believe that John also said that the burden of proof should lie on the party requesting such exemption. As someone who sits on the Advisory Committee, and has also attended all of the Technical Peer Review meetings, I would like to voice my concern regarding []'s conduct. Although I admit I am not a geologist, water that is in the bedrock needs to begin its journey there from somewhere, and I believe that water usually moves in a downward direction. Why can there not be areas with very little residuum in that area of the Valley that would allow water to move into fractures from the alluvium above? Just as easily as water can move through small rock fractures, why can water not move through areas surrounding well casings into bedrock from areas above? Unless the Rancho Guejito is prepared to provide studies proving there is no connection between the alluvium water and the bedrock water, I feel it would be safer for the committee to view this bias as a water grab from a single landowner and continue with the majority consensus that until proven otherwise there may be a connection between the alluvium and the fractured bedrock.
Frank Konyon	Konyon Dairy	1/23/2020 email	TPR Meeting #2	Basin definition	I would also like to further express my concern that if [] is acting on the defense of the Rancho Guejito now, he may just as likely become offensive in attacking other water users in the Valley in the future as part of that same defense of the Rancho Guejito. I repeat that actions such as this will not yield a workable plan that proves itself through its implementation.
Frank Konyon	Konyon Dairy	1/23/2020 email	TPR Meeting #2	Basin definition	Any decent minded farmer that drills for water is not going to seal off large sections of a well reducing the possible inflows into that well unless it is strictly for purposes of shutting off poorer quality waters. The area of the basin that Peter is referring to does not seem to have those types of poorer quality waters in my opinion. Further, as a student of "Old Timers with more experience than me," I have heard that efforts to drill deeper wells in other parts of the Valley and shut off the top alluvium portion, only work as a temporary fix. This is indicating that "old timers" felt that water from the alluvium eventually replaced the fractured bed rock water that was being removed. One of those "old timers" would have been the very man that sold the portion of land to Rancho Guejito that now make Rancho Guejito a land owner in the basin.
Frank Konyon	Konyon Dairy	1/23/2020 email	TPR Meeting #2	Basin definition	As you will recall, I installed a City suggested water meter on my own dime, and you have access to all of the information it provides. Actions like this are going to help everyone come together to create a fair workable plan for all stakeholders. Water grabs for the purposes of exporting to areas outside of the basin boundary will not achieve a workable plan for all stakeholders.
Matt Witman	Witman Ranch	1/22/2020 email	TPR Meeting #2	Basin definition	The purpose of my email is to express some concerns that I have with what I observed at the most recent TPR meeting that I attended. It is clear to me that the consultant hired by Guejito Ranch has a different opinion than the other TPR consultants regarding the connectivity of the bedrock under the groundwater basin. The Guejito consultant believes that there is no connectivity between the two zones. The other consultants believe that there may or may not be, it needs to be studied. It is imperative that this be determined. The Guejito Ranch consultant said that he was leaving it up to the lawyers as to whether or not well drilling reports that they have are released. The fact that they are withholding this information would appear to support the case that there is some evidence of connectivity in their possession. The county of San Diego should also have these drilling reports. Their inability to find them causes suspicion of their motives in the Sustainable Groundwater Plan. This deep well information needs to be found, or in its' absence, there needs be an assumption of connectivity in order to protect the basin from being overpumped.
Matt Witman	Witman Ranch	1/22/2020 email	TPR Meeting #2	Basin definition	As a leaseholder in the San Pasqual Valley it has long been a worry the Guejito Ranch has the ability to remove large amounts of water from the groundwater basin and export them to their properties upstream of the basin. If connectivity between the alluvium and bedrock exist, their pumping will reduce the available water in the groundwater basin for city agricultural use. This would damage the leaseholders and diminish the value of the city of San Diego's investment in the San Pasqual Valley. It is conflicts of interest such as this that caused me to want to observe and be part of the process of crafting the GSP.
Matt Witman	Witman Ranch	1/22/2020 email	TPR Meeting #2	Basin definition	As a long term lessee of the city I have been very transparent with our activities and have provided the necessary drilling reports. We have allowed for water meters to be installed on our wells. This information has to be provided by all users in the groundwater basin, not just city lessees.
Matt Witman	Witman Ranch	1/22/2020 email	TPR Meeting #2	Basin definition	In the coming months we will begin to talk about water budgets and the actual data that will need to be collected in order to make the groundwater basin sustainable. Without the necessary background information, any decisions on future allowable water use will be making assumptions that would not need to be made if the proper background information was made available.
Matt Witman	Witman Ranch	1/22/2020 email	TPR Meeting #2	Basin definition	I strongly urge you to proceed with the assumption of connectivity between the alluvium and the bedrock if new information is not presented that proves that the connectivity does not exist.

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Peter Quinlan	Dudek, Rancho Guejito	3/9/2020 call to County	Aquifer Testing	N/A	<p>Peter Quinlan reached out this morning and stated Rancho Guejito (RG) wants to cooperate with the City's request but needs clarification. Peter is requesting advanced notice and coordination for water level monitoring of RG wells during any aquifer testing Kleinfelder is planning to do offsite of RG. This will require RG to shut off their irrigation wells ahead of Kleinfelder's aquifer test. Coordination with RG is needed so that they can top off their storage tanks to have adequate water to irrigate during the aquifer testing. The request to perform an aquifer test on the RG site using MW-3 or other well needs clarification. Please provide the following:</p> <ol style="list-style-type: none"> 1.The rationale for another well test on the RG site that would provide any data needed for the GSP above and beyond what has already been collected. RG has already performed two aquifer tests in the immediate vicinity of well MW-3. Aquifer testing of MW-3 or another nearby well may be redundant to previous efforts. 2.Detail what is needed for an aquifer test on their property. This may require outfitting the well with a sounding tube, pump, discharge piping, and power source may be needed...if it's not already outfitted. They'd also have to account for where to put the pumped water. These tests are typically over a 24-hour period plus recovery time so they'd have to be onsite overnight. The consultant would also need to do a step test for a few hours the week before so they'd know what rate to run the test and then let the well recover before the longer test.