



#	Commenter Name	Commenter Organization	Comment Received	Subject	Comment	Response
1	Rikki	RG	6/8/2022	Scope	Right now, it looks like the study will only look at releasing water from Sutherland in circumstances where precipitation is predicted, and there is a need to draw down the reservoir to capture the new water. This is a good way to look at reservoir management, but it should not be the only analysis of releases from the reservoir. There is an existing obligation to keep groundwater levels at 20 feet below the ground surface in the eastern part of the Valley. The study needs to look at releases of the water from the reservoir necessary to attain this standard without qualification – not just when precipitation is predicted that creates availability. This means the study should look at a variety of scenarios for releases from the reservoir that would attain that standard.	While we agree that there are many important considerations in considering reservoir levels, this criteria is written in the context of the Sustainable Groundwater Management Act (SGMA). For SMGA purposes, maintaining sustainability means avoiding undesirable results. The San Pasqual Valley Groundwater Sustainability Plan (GSP) has defined "sustained occurrences of groundwater levels and water quality parameters that exceed minimum thresholds in multiple representative monitoring wells" as undesirable. Currently, the Basin is sustainably managed, but projected water budgets suggest a relatively small annual storage deficit. The overall goal of the Surface Water Recharge Evaluation is to determine the benefits and feasibility of implementing potential recharge strategies that will maintain sustainability into the future. Potential strategies having the effect of maintaining groundwater levels at 20 feet in the eastern part of the Valley are not being evaluated as part of this study. That said, we are still working on developing the potential recharge strategies which will be presented in future analysis/workshops.
2	Rikki	RG	6/8/2022	Scope	The water budget for the Basin should not be balanced on the backs of overlying users. The study includes criteria for cost benefit analysis that would mean releases from Sutherland may not occur if there is ongoing drought and/or there is increased demand from the City. If that happens, the GSA should not require pumping cut backs in the Basin to manage groundwater levels.	Water is a shared resource so drought impacts all water users. Local pumping cutbacks will be avoided to the extent practical, but cutbacks must remain as one of the available management strategies to avoid undesirable results in the Basin. As described in the GSP, a Pumping Reduction Plan would only be developed if groundwater levels fell below planning thresholds in five or more representative monitoring wells, substantial stakeholder input would be required for development of a Pumping Reduction Plan, and it is expected to require adoption by the City Council and County Board prior to implementation.
3	Rikki	RG	6/8/2022	Scope	The cost considerations included in the scope have the potential to devalue the environmental benefits of releases from the reservoir and other conservation efforts. The study must adequately assess and award environmental values and benefits. Cost per acre-foot and a comparison to the cost of imported water may not be the best way to capture that	Environmental values and benefits are important considerations, which is why cost is not the only evaluation criterion for this study. Please see Criterion 6, which was proposed to evaluate environmental benefits, specifically the benefits of maintaining groundwater levels at or shallower than the target rooting depths of potential groundwater dependent ecosystems (GDEs) at representative monitoring wells.
4	Peter Quinlan	RG	6/8/2022	Page 7 of the Technical Memorandum Task 1: Development of Evaluation Criteria	The SPV GSP groundwater model will be used to evaluate the feasibility and effectiveness of surface water recharge strategies. The model will be revised to incorporate information from the field studies that will be performed in Task 2. We are glad to see that the GSA team is going to conduct field work to determine the actual conductivity in the stream bed and on the Valley floor.  It is essential that the data collected, and the subsequent changes to the SPV GSP groundwater model and its recalibration be presented to the public in a technical memorandum for review and public comment prior to the model being used in conducting the evaluations outlined in this memo.  In paragraph 2 the GSA team states: "The SPV GSP Model in its current form has monthly stress periods, but the updated version of the SPV GSP Model for use with this recharge evaluation will include selected subperiods with daily stress periods to evaluate the recharge strategy. Because the updated SPV GSP Model will include additional stress periods, model runtimes of several hours to days for each simulation is a possibility"  And then: "After the workflow process is developed and the initial results are reviewed and considered reasonable, it is anticipated the model will be run using the higher-priority recharge strategies that could be adequately assessed using monthly stress periods with up to a 67-year simulation period including WYs 2005 through 2071."  The desire to avoid long run times is understandable; however, the team should run and present the results of at least one set of paired simulations of the same years and conditions using daily and monthly stress periods in order to demonstrate that the results are the same.	We appreciate the continued interest in the model runs and will take this comment under advisement. Task 2 includes delivering a technical memorandum in September 2022 describing the fieldwork results and recommendations for modifying the SPV GSP Model. Task 5 includes delivering a technical memorandum describing results from the recharge evaluation simulations. So, there will be an opportunity for stakeholders to comment on the modeling approach before the modified SPV GSP Model is used to evaluate the recharge strategies developed in Task 4. Much will be learned in the coming months regarding actual model runtimes and comparisons of results with different time-discretization approaches.
5	Peter Quinlan	RG	6/8/2022	Comment on 3.7 Criterion 7: Cost of Implementation and Maintenance	The Technical Memorandum indicates that the cost per acre-foot to implement each of the recharge strategies will be calculated. It is difficult to quantify the environmental benefits of the recharge, but the evaluation of acre-foot cost to implement the strategies should not ignore them.  Additionally, the recharge feasibility study should calculate and consider the economic costs of decreased agricultural production if groundwater production is cut back by the GSA to stay above minimum thresholds in the absence of enhanced groundwater recharge from surface water.	As explained in Response #3, cost is one of several evaluation criterion for this study The GSA will estimate the potential economic benefits of increased agricultural production that may result from increased and more stable groundwater levels in the Basin. Please note that the slight storage deficit that is presented in the GSP is within the uncertainty in the water budget estimate and should not be interpreted as indicating overdraft.
6	Peter Quinlan	RG	6/8/2022	Comment on Power Point Presentation Slide 28 Next Steps - Task 2 Streambed Characteristics	In addition to the double ring infiltrometer testing of stream bed and overbank sediments, the team should also include measuring streambed infiltration by discharging water to the creek from a nearby well for 24 hours.	Thank you for this suggestion. This was not included in the current scope of work. However, the GSA will consider the approach during ongoing GSP implementation.
7	Matt Witman		6/11/2022	Area of stress	As I've stated from the beginning of this process, the east end of the groundwater basin is under stress. Groundwater levels fluctuate the most and the most rapidly. Inflows are still predominately natural and not the result of urban sources, as the west end can be. Salinity in the far east end has been fairly stable over my time.	We agree with this assessment of Basin conditions. Criterion 2 was proposed to evaluate the potential for the recharge strategies to raise groundwater levels across the Basin. Criterion 5 was proposed to evaluate the potential water quality benefits of the recharge strategies.
8	Matt Witman		6/11/2022	Salinity/GWQ	As a result of all of the pumping in the east end, salinity is increasing in the area between the east and west end boundary. This is a result of the groundwater elevation being lower in the east end than the west end. This causes the saltier west end water to migrate underground toward the east end. This has manifested itself in our wells on the west end of our city leases. The salinity is such that it is affecting our avocado grove in the area. This trend has been going on for many years.	Water quality is an important consideration in this process. Criterion 5 was proposed to evaluate the potential water quality benefits of the recharge strategies.
9	Matt Witman		6/11/2022	Thresholds	On the east end of the basin those of us using the groundwater will have reduced our water use long before the minimum levels are reached. The wells simply become less productive as the water levels drop. We are seeing pumping reductions already in our wells, and this will continue.	Please see Response #2. A Pumping Reduction Plan would only be developed if groundwater levels fell below planning thresholds in five or more representative monitoring wells. If that management strategy is implemented, the GSA will consider prior reductions resulting from well operations.
10	Matt Witman		6/11/2022	Baseline conditions	Natural inflows into the east end of the basin have been reduced over time by groundwater use in the watershed east of the basin. Water simply doesn't flow into the valley as frequently as it once did.	We have reported changes in Basin inflows as measured over time by United States Geological Survey (USGS) gage data. Please see Chapter 3 of the GSP.
11	Matt Witman		6/11/2022	Sustainability Strategy	The introduction of additional water on the east end of the basin seems to best solve these problems. This could be either strategic releases of Lake Sutherland water, or the introduction of some other water source into the east end. Artificially raising the groundwater level in the east will also restore the salt balance to the groundwater basin since the natural east to west underground migration of the groundwater will be restored.	Thank you for your insight. The purpose of this study is to evaluate the relative benefits of potential recharge strategies, including both groundwater levels and quality. Many of the recharge strategies developed and evaluated for this study will be located in the eastern portion of the Basin, however our intent was to evaluate a variety of options.
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