

Comment Number	Entry Date	First Name	Last Name	Email Address	Phone Number	Mailing Address	GSP Referenced	Comment/Question	Response
1	3-Feb-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.4.2 Minimum Thresholds	Significant and unreasonable effects impacting surface water quality are caused by groundwater conditions throughout portions of the basin. Lowering of groundwater levels reduces surface flows. Reduced surface flows may cause water quality conditions that do not support beneficial uses. Such water quality conditions include lowered dissolved oxygen and increased temperatures. These flow-related impacts are highlighted in various watershed studies including the TMDL for Algae, Eutrophic Conditions, and Nutrients in the Ventura River. Water quality impacts to interconnected surface waters due to groundwater pumping should be addressed within the Groundwater Sustainability Plan. The Draft Sustainable Management Criteria for Degraded Water Quality acknowledges this surface-groundwater interdependence related to nitrate. The GSP should similarly address interdependences related to dissolved oxygen and temperature. Thank you for your consideration.	Effects on aquatic beneficial users related to flow are addressed in the GSP through the development of sustainable management criteria for the depletions of interconnected surface water (see GSP text Section 4.9). It is also noted that the GSP recommends monitoring programs for both the Confluence Aquatic GDE and Foster Park Aquatic GDE that include water quality monitoring, field observations of instream habitat and aquatic species, and in-situ water quality and flow measurements (Section 5.0). The details of the monitoring programs will be decided when the monitoring workplans are developed and approved by the UVRGA Board.
2	18-Jun-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		This memo is a follow up from our conversation regarding development of the Groundwater Sustainability Plan (GSP). The primary concern we discussed is the elimination of large portions of the basin from SGMA oversight through the assumption that surface water is somehow "disconnected" from groundwater. Apart from the fact that there are fundamental flaws in the methodology used to make this determination, the resulting conclusions and management criteria are not consistent with avoiding undesirable results.	As discussed in the responses to several comments below, there is clear evidence from both measured data and numerical modeling that the Ventura River is disconnected from the underlying water table in much of the Robles and Santa Ana Areas most of the time. However, this is not the reason for concluding that riparian vegetation and critical riffles in the Robles and Santa Ana Areas are not significantly and unreasonably impacted by pumping. That conclusion was made based on the lack of material groundwater dependency (in the case of riparian vegetation; Appendix O and GSP text Section 3.2.7.2.1) and the low modeled stream flow depletion rates compared to typical flows (in the case of the critical riffles; Appendix P and Appendix N, and GSP text Sections 3.2.6 and 4.9). The methodologies used are sound and consistent with SGMA requirements (§354.16(f)(g), §354.28(c)(6)).
3	18-Jun-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		The Upper Ventura River Groundwater Basin is a shallow alluvial aquifer integral to the riparian floodplain ecosystem of the main stem Ventura River. Throughout these reaches of the river, groundwater and surface water are connected, and to suggest they are not is to undermine the intent of the Sustainable Groundwater Management Act.	The term interconnected means that the water table is in contact with water in the Ventura River (i.e. no unsaturated sediments exist between the river and the water table). Available data and numerical modeling included in the GSP show that the water table elevation is typically below the Ventura River channel elevation in the Robles and Santa Ana Areas (Section 3.2), which, by definition, means interconnection does not exist at that location. Identifying areas of interconnection and lacking interconnection is a SGMA requirement and does not undermine the intent of SGMA.
4	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		Upon review of the GSP it is clear that the primary Sustainable Management Criteria (SMC) for the Upper Ventura River Groundwater Basin (UVRGB) is the Depletion of Interconnected Surface Water. The analyses presented do not adequately assess the groundwater/surface water interactions within and between the different reaches of the Basin or acknowledge the impact of groundwater pumping on surface flows.	The analysis of Depletion of Interconnected Surface Water (Appendix N and GSP text Sections 3.2.6 and 4.9) meets or exceeds SGMA requirements (§354.28(c)(6)). We encourage the commentator to review the summary of streamflows and streamflow depletions for different reaches of the Ventura River in Table 3.2-01 of the GSP. This table and the corresponding text in Section 3.2.6 of the GSP provides an in-depth assessment of groundwater-surface water interactions and the effects of pumping in the Basin.
5	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		The Riparian Groundwater Dependent Ecosystems Assessment Report characterizes the Robles reach as a "Losing reach with generally disconnected groundwater- surface water." This categorization eliminates the majority of this Groundwater Dependent Ecosystem from consideration under SGMA by assuming that it is "disconnected" and thus has too great a depth to groundwater to support riparian habitat. Other reaches are similarly dismissed.	The categorization of the groundwater-surface water interaction of the Robles reach has no bearing on whether riparian vegetation is or is not classified as a GDE in the GSP. The decision whether to classify riparian vegetation as groundwater dependent or not is based on vegetation biology (including documented maximum rooting depths for plant species within the riparian communities) and groundwater levels, not the nature of the groundwater-surface water interaction in that reach. The approach for assessing and screening potential GDEs is detailed in depth in Section 2.3 of the Riparian Groundwater Dependent Ecosystem Assessment (Appendix O of the GSP).

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6	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		The analysis presented relies heavily on the Nature Conservancy “Natural Communities (NC) Dataset,” using vegetation communities to eliminate GDE polygons from the Upper Ventura River Groundwater Basin. The NC dataset is a statewide geographic computer database that maps vegetation types in all potential GDEs throughout the State of California. The large geographic scope of this map does not accurately represent current on-the-ground conditions, and more robust ground truthing should be undertaken. Even the aerial photos presented tell a different story than is acknowledged in the narrative (i.e. Figure 6 North Robles Habitat Area Photographs, Aquatic GDE Characterization report).	The analysis of groundwater dependency was based on the dominant species indicated for each NCAAG dataset polygon. Biologists on the UVRGA GSP Development Team confirmed the NCAAG dataset classifications are representative of the dominant species throughout the Basin (Appendix O and GSP text Section 3.2.7). UVRGA recognizes that species other than the dominant species are present within the different areas, but concluded that screening based on the dominant species is appropriate for addressing SGMA requirements. As documented through the GDE analysis, it is understood that while riparian communities may exist in certain areas, such as the Robles reach, these communities appear to be dependent on non-groundwater sources of water, and not on material groundwater connection. The aerial photographs in the Aquatic GDE Assessment do show riparian vegetation in the North Robles Reach. However, the assessment of groundwater data, modeling results, and maximum rooting depths indicate that this reach is not groundwater dependent. Modeling results further demonstrate that groundwater pumping has a minimal effect on groundwater elevations in this reach (Appendix L).
7	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		Unfortunately, the UVRGSA analysis does not fully implement the Best Practices for using the NC Dataset guidance provided by the Nature Conservancy, which presents six best practices for using local groundwater data to confirm whether mapped features in the NC dataset are supported by groundwater. (Best Practices for using the NC Dataset, TNC July 2019). According to this guidance: -While depth-to-groundwater levels within 30 feet of the land surface are generally accepted as being a proxy for confirming that polygons in the NC dataset are supported by groundwater, it is highly advised that fluctuations in the groundwater regime be characterized to understand the seasonal and interannual groundwater variability in GDEs. (see Best Practice #2.) -One of the key factors to consider when mapping GDEs is to contour depth-to-groundwater in the aquifer that is supporting the ecosystem (see Best Practice #5).	SGMA requires GSAs to identify groundwater dependent ecosystems within the basin, utilizing data available from the DWR or the best available information (§354.16(g)). The TNC best practices are not adopted by DWR as a regulation or as a best management practice. Having said that, UVRGA endeavored to follow the TNC guidance while identifying and considering GDEs in the GSP. Regarding TNC Best Practice #2, UVRGA did consider groundwater level fluctuations in the riparian GDE screening process by considering high and low groundwater levels during representative wet, normal, and dry years. Thus, the analysis considered the full range of expected groundwater levels. This is explained on page 7 of the Riparian GDE memo. Regarding TNC Best Practice #5, contoured groundwater levels were used in the riparian GDE screening. Modeled groundwater levels were used, which provide gridded groundwater levels throughout the basin, which provides superior coverage compared to solely using observed contours. This is described on page 7 of the memo.
8	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		The GIS Spatial Analysis of Maximum Rooting Depth and Groundwater Level presented in the Riparian GDE document does not present such contour depth-to-groundwater mapping or account for temporal variability	The groundwater level grids (superior to contours) were not depicted in the memo. However, the results of the spatial analysis performed using the grids are described in the memo. UVRGA understands that while the descriptions and approach for analyzing the rooting depth and groundwater level was robust, figures depicting this analysis with modeled groundwater level conditions would aid stakeholder’s understanding. As such, figures depicting modeled groundwater levels throughout the Basin will be included in the Final Riparian GDE Assessment Memo (Appendix O). It should be noted that the actual analysis used grid-based data from the numerical model, which is superior to contours because it provides a continuous distribution of data for analysis. These figures will present the groundwater levels for the 6 hydrologic conditions analyzed in UVRGA’s assessment.

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9	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>Furthermore, TNC guidance acknowledges that: <i>In many situations, the hydrologic connection of NC dataset polygons will not initially be clearly understood if site-specific groundwater monitoring data are not available. If sufficient data are not available in time for the 2020/2022 plan, The Nature Conservancy strongly advises that questionable polygons from the NC dataset be included in the GSP until data gaps are reconciled in the monitoring network. Erring on the side of caution will help minimize inadvertent impacts to GDEs as a result of groundwater use and management actions during SGMA implementation. Many of California's GDEs have adapted to dealing with intermittent periods of water stress, however if these groundwater conditions are prolonged, adverse impacts to GDEs can result.</i></p> <p>Therefore, it is likely that the NC vegetation mapping is representative of conditions in which groundwater levels have been frequently and repeatedly pumped beyond the reach of riparian tree roots. Meanwhile, field observations over the past few wetter years show that the riparian vegetation has rebounded, illustrating how the ecosystem responds with the variation in water years. Receding groundwater levels and corresponding loss of surface flows in the current drought will likely reverse this recent trend, with the potential loss of the many young sycamores.</p>	<p>UVRGA concluded that the plant biology and modeled groundwater levels are sufficient to screen the groundwater dependency of the various dominant vegetation types throughout the Basin. UVRGA concluded that there is compelling evidence to conclude the lack of groundwater dependency in the areas that were not included as GDEs in the GSP.</p> <p>Modeling results indicate that groundwater levels in the Robles and Santa Ana area naturally fluctuate significantly below the rooting depth of the dominant species classified in those areas. UVRGA has modeled the water table elevations (Appendix L) and streamflow absent groundwater pumping and determined that the incremental increase in groundwater levels and streamflow that would occur absent pumping (Appendix N and GSP text Sections 3.2.6 and 4.9) is small and is not the reason sycamores are generally sparse in the Robles and Santa Ana areas. Even absent all pumping in the Basin, UVRGA's biologists do not anticipate widespread recruitment of sycamores in the Robles and Santa Ana Areas, as the difference in groundwater levels does not appear to be particularly meaningful in terms of the water requirements of hardwood species, given the seasonal fluctuation of water availability.</p>
10	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>TNC guidance for determining GDEs recognizes the importance of surface flows; <i>In addition, SGMA requires that significant and undesirable adverse impacts to beneficial users of surface water be avoided. Beneficial users of surface water include environmental users such as plants or animals, which therefore must be considered when developing minimum thresholds for depletions of interconnected surface water.</i></p>	<p>UVRGA has clearly and explicitly considered effects on GDEs in the formulation of the sustainable management criteria for the depletions of interconnected surface water (Section 4.9) and chronic lowering of groundwater levels (Section 4.4).</p>
11	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>The Model Results and SMC Implications Presentation (March 25, 2021) reaches the conclusion that:</p> <ul style="list-style-type: none"> • Basin water budget is dominated by streamflow percolation into the Basin and groundwater discharge to Ventura River • GW pumping averages only ~10% of the GW Budget As low as 4% in wet years Up to 31% in dry years • Basin GW levels will be lower in dry seasons, but Basin will still re-fill in normal to wet years <p>The conclusion that there is no impact from pumping based on the fact that the basin rapidly refills in the wet season points to the likelihood that the surface water is in fact "connected" to groundwater during these periods. Moreover, the fact that pumping represents up to 31% of the budget in the critical dry years raises the question of how these groundwater extractions impact surface flows and groundwater levels.</p>	<p>UVRGA has not concluded that there is no impact from pumping based on the fact that the basin rapidly refills. UVRGA has evaluated the effects of pumping on riparian and aquatic GDEs (Appendix O Figures 4a through 4d; Appendix P Figures 9 through 13; GSP Sections 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and developed sustainable management criteria to prevent significant and unreasonable effects on those beneficial users of groundwater. In addition, biological monitoring programs are included in the GSP.</p>
12	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>The Model Results identify four areas of concentrated pumping, three of which directly impact groundwater levels in the "Robles Reach." This reach is the area with the most storage in the basin, and should be considered as the "primary sub-basin" for water supply. Pumping in this reach directly affects conditions throughout the basin.</p>	<p>UVRGA does not agree with the conclusion that pumping in the "Robles Reach" affects conditions throughout the Basin. Pumping in the "Robles Reach" does not have a significant effect on groundwater/surface water conditions upstream of the "Robles Reach". UVRGA agrees that pumping in the "Robles Reach" affects conditions in downstream areas. In fact, UVRGA has calculated and presented the indirect depletion of surface water in the Foster Park and Confluence areas caused by upstream pumping (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03).</p>

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13	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>The analyses and graphs presented in the Model Results do not provide information on the spacial and temporal surface flow conditions as they relate to groundwater levels. Because the downstream reaches are largely dependent on surface and groundwater flows out of this sub-basin, further analysis is needed to more clearly define the relationship between groundwater levels and surface flows. The analyses should, at a minimum, determine threshold groundwater levels at which surface flows are diminished or eliminated, both in the reach being monitored and downstream. This relationship was established decades ago in the Ventura River Conjunctive Use Report (1978) which states that;</p> <p><i>Flows in the live stretch are affected by both the rate of recharge of the upper part of the Ventura River groundwater basin and by the rate of groundwater extraction from wells in the river.</i></p> <p>Investigations published in the Conjunctive Use Report identified groundwater elevation thresholds in the upper basin at which flows in the live reach will cease;</p> <p><i>when the water level in well 4N23W16C4 falls below Elevation 495, surface flow in much of the live stretch stops although some pools remain. A flow of 1 cfs or more in the live stretch corresponds with a water level in this well of greater than about Elevation 507.</i></p>	<p>UVRGA is aware of the historically developed correlations between groundwater levels and streamflow and reviewed that information during GSP development. However, the relationship between groundwater levels and surface flows is not a SGMA requirement and is not particularly useful for managing depletions of interconnected surface water because UVRGA is not charged with managing the total flow in the river. UVRGA is only responsible for managing depletion, not total flow. The correlations do not differentiate between total flow and depletion. Models, such as the numerical model developed by UVRGA, are needed to calculate depletion rate. UVRGA has calculated depletion rates (Appendix N and GSP text Section 3.2.6, Table 3.2-01) and has developed SMC to avoid significant and unreasonable depletions (Section 4.9), in accordance with SGMA requirements (§354.16(f)(g), §354.28(c)(6)).</p>
14	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>Groundwater levels also affect surface flows in the Robles Reach, which frequently dries up despite constant inflows. Unfortunately, the Aquatic GDE Impact Analysis is quick to dismiss the effect of groundwater elevation on surface flows;</p> <p><i>No monitoring is recommended at either of the critical riffle aquatic GDEs or the Robles Habitat Area, as impacts from pumping in these areas were determined to be minimal or non-existent.</i></p> <p>This conclusion is inconsistent with the guidance provided in Monitoring Networks and Identification of Data Gaps BMP (DWR 2016) which states:</p> <p><i>23 CCR §354.34(c)(6): Depletions of Interconnected Surface Water. Monitor surface water and groundwater, where interconnected surface water conditions exist, to characterize the spatial and temporal exchanges between surface water and groundwater, and to calibrate and apply the tools and methods necessary to calculate depletions of surface water caused by groundwater extractions. The monitoring network shall be able to characterize the following:</i></p> <p><i>(A) Flow conditions including surface water discharge, surface water head, and baseflow contribution.</i></p> <p><i>(B) Identifying the approximate date and location where ephemeral or intermittent flowing streams and rivers cease to flow, if applicable.</i></p> <p><i>(C) Temporal change in conditions due to variations in stream discharge and regional groundwater extraction.</i></p> <p><i>(D) Other factors that may be necessary to identify adverse impacts on beneficial uses of the surface water. DWR guidance provides detailed information on developing a monitoring network to accurately assess these concerns.</i></p> <p>DWR Guidance provides detailed information on developing a monitoring network to accurately assess these concerns.</p>	<p>Depletion of surface water in the "Robles Reach" was estimated using the numerical model. The model was run with and without pumping to determine streamflow depletions (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03). The results indicated that depletion in the Robles Reach was very small compared to surface water flows during the steelhead migration season. Therefore, it was concluded that there are no significant and unreasonable depletions of surface water in the critical riffle areas caused by pumping. UVRGA concludes that detailed monitoring is not necessary in these areas due to the very low modeled depletions and believes that the limited funding available for monitoring should be prioritized in the Confluence and Foster Park Areas, where UVRGA has concluded that significant and unreasonable effects could potentially occur. It is also noted that the DWR BMPs are not binding on GSAs and are not intended to be applied without consideration of Basin-specific conditions and priorities relative to potential undesirable results in the Basin.</p>

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15	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>Establishing Minimum Flow Thresholds</p> <p>As described above, the current GSP analysis incorrectly concludes that groundwater pumping has little to no effect on surface flows throughout the majority of the basin. But even for the identified groundwater dependent "Habitat Areas," the development of minimum flow thresholds is inadequate. For example; <i>For the Foster Park Habitat Area, while the City's low flow thresholds are based on only one HSI score evaluated in the Padre study (average thalweg depth), we understand this currently provides the best available information to establish minimum thresholds for the depletion of interconnected surface water sustainability criteria.</i></p> <p>This statement ignores best available science, including the recently published CDFW Draft Instream Flow Recommendations (2021) as well as the NMFS Draft Biological Opinion for Foster Park Wellfield (2005).</p>	<p>SGMA does not require UVRGA to establish minimum surface flow thresholds. Rather, SGMA requires UVRGA to establish minimum thresholds for <u>depletion</u> of surface water flow (§354.16(f)(g), §354.28(c)(6)). That is a very critical distinction because it means UVRGA is not responsible for the total flow in the Ventura River. UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects. For the Confluence Area, it is unclear if depletions cause significant and unreasonable effects and monitoring is proposed to answer that question. For Foster Park, the minimum thresholds are based on the current best available science, which is the site-specific study by Padre (Hopkins 2013). Neither the CDFW flow recommendations nor the NMFS draft BO identify a threshold for significant and unreasonable effects based on groundwater pumping, while such a threshold is established in the Padre study. The CDFW study and BO include surface flow recommendations or requirements, respectively, to maintain beneficial habitat conditions for steelhead, which are not indicative of significant and unreasonable effects. Although the UVRGA agrees that maintaining beneficial surface water habitat conditions is important to the health of aquatic species and their habitats including steelhead, SGMA does not require GSAs to maintain surface water conditions for riverine species, but rather to manage significant and unreasonable effects related to groundwater pumping.</p>
16	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>Implications for the UVR Groundwater Sustainability Plan</p> <p>According to the Brownstein Water Group, the Cuyama Valley Basin and the Paso Robles Area Subbasin GSPs were recently deemed incomplete for deficiencies in their definitions of sustainable management criteria (SMC), including minimum thresholds and undesirable results. Some of the concerns cited by DWR are that the GSP;</p> <ul style="list-style-type: none"> • <i>provides insufficient detail for how it determined that the selected minimum thresholds . . . are consistent with avoiding undesirable results</i> • <i>does not relate different minimum thresholds for different portions of the basin to conditions that could cause undesirable results</i> • <i>does not sufficiently discuss expected impacts and therefore "precludes meaningful disclosure to, and participation by, interested parties and residents in the Basin.</i> <p>It is clear from these recent DWR determinations that much more work is needed to develop and present a clear understanding of the workings of the Upper Ventura River Groundwater Basin, the potential impacts from groundwater pumping, and a plan to better manage the limited resource to ensure future sustainability and a healthy ecosystem.</p>	<p>UVRGA does not agree with the conclusion that shortcomings of other GSAs necessarily means that much more work is needed by UVRGA. UVRGA reviewed the Paso Robles and Cuyama GSPs during its GSP development process and previously identified many of the same issues raised by DWR in its review. UVRGA has been developing the GSP with that understanding in mind and is making every effort to provide sufficient detail for minimum threshold determinations, to clearly relate minimum thresholds to site-specific conditions that might cause undesirable results, and to involve all stakeholders and interested parties in the GSP development process.</p>

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17	18-Jun-21, 08-Oct-21	Paul	Jenkin	pjenkin@surfrider.org		Surfrider Foundation		<p>Recommendation: The primary storage within the Upper Ventura River Groundwater Basin lies beneath the floodplain of the Robles reach of the Ventura River. Further analysis is needed to develop a meaningful assessment of the impact of groundwater pumping on surface flows in the Ventura River. This should include contour mapping as described in the TNC Guidance documents as well as a plan to install monitoring wells to better characterize the depth to groundwater and connectivity throughout the basin, especially through the Robles reach where the majority of pumping takes place. It is clear that this will be necessary to successfully develop the Groundwater Sustainability Plan to a level that satisfies the objectives of the Sustainable Groundwater Management Act (SGMA) in order to gain the support of local stakeholders and approval by the California Department of Water Resources.</p>	<p>UVRGA believes the assessment it has performed for the GSP adequately characterizes the impact of groundwater pumping on surface water flows in the Ventura River. The analysis of Depletion of Interconnected Surface Water (Appendix N and GSP text Sections 3.2.6 and 4.9) meets or exceeds SGMA requirements (§354.28(c)(6)). We encourage the commentor to review the summary of streamflows and streamflow depletions for different reaches of the Ventura River in Table 3.2-01 of the GSP. This table and the corresponding text in Section 3.2.6 of the GSP provides an in-depth assessment of groundwater-surface water interactions and the effects of pumping in the Basin.</p> <p>While the draft Riparian GDE Memo (Appendix O) provides a discussion and results of the depth to water and rooting depth analysis, UVRGA understands that groundwater level contour maps can help the commentor and other readers understand the relationships between the plant rooting depths and depth to groundwater. As such, contour maps based on the UVRGA numerical model outputs for each of the hydrologic conditions analyzed in the Riparian GDE Memo (wet high and low, average high and low, dry high and low) will be included in the Final Riparian GDE Memo.</p>
18	4-Sep-21	Edward	Johnson	-	n/a	n/a	1.0 Introduction	What are the short and long-term mitigation measures that will be applied, if any, to de minimus use (<2 AF/yr) domestic wells owners if/when a maximum or minimum impact standard is reached in the relevant aquifer zone (Santa Ana, Mira Monte/Meiners Oaks, Casitas Springs, etc.)?	UVRGA does not anticipate regulating de minimus wells at this time.
19	8-Oct-21	Jennifer	Tribo	jtribo@cityofventura.ca.gov	n/a	City of Ventura		Various edits	All requested edits were made.
20		Bert	Rapp		n/a	Ventura River Water District		Various edits	All requested edits were made.
21		Bert	Rapp			Ventura River Water District		Is the groundwater quality influenced by leaching nutrients from the Monterey formation?	UVRGA provided additional text in GSP Section 3.1.3.3, "the Monterey formation is a documented source of nitrate (Las Virgenes Water District Nitrate Study < https://www.lvmwd.com/Home/ShowDocument?id=2273 >) and will be further evaluated as needed during GSP implementation."
22		Bert	Rapp	-		Ventura River Water District		Does Ventura County have results from their recent nitrate sampling study?	UVRGA is not aware of the available data from this study, but will continue to seek available data as needed during GSP implementation.
23	5-Oct-21	Erin Steven	Wilson-Olgin Slack	Steven.Slack@wildlife.ca.gov	(858) 467-4201	CDFW 3883 Ruffin Road San Diego, CA 92123	Section 4.1, starting on p. 92	<p>Comment #1: Data Gaps Exist in the Hydrologic Conceptual Model (HCM) Issue: CDFW appreciates the efforts the UVRGA undertook to analyze the Basin's geologic and hydrogeologic characteristics. CDFW also appreciates UVRGA's proposed plans to utilize the updated HCM to fill in the data gaps and deficiencies identified in the Draft GSP. However, CDFW's understanding is that the Draft GSP does not account for the wide range of hydraulic connectivity and transmissivity values across the Basin, nor does it set forth a reasonable pathway to address gaps in the data sets for these values. For example, the draft plans of the HCM for Sections 3.1 and 3.2 stated that some of the aquifer information was obtained from available driller logs and short-term pumping tests, which are not likely to provide a complete and accurate data set for assessing aquifer parameters. Recommendation #1: Accurate hydrogeologic modeling requires an accurate and complete data set. CDFW recommends that the GSA expand the area in which it is assessing hydraulic connectivity and transmissivity values to ensure the model contains representative conditions across the Basin. Furthermore, the GSA should consider well data with adequate construction and accurate aquifer testing information in its analysis to ensure accurate characterization of hydrogeologic conditions. The Draft GSP should also provide specific model details such as hydraulic connectivity and transmissivity values across the Basin to evaluate the accuracy of the results.</p>	<p>UVRGA assessed the entire Basin and considered all available data when characterizing hydrogeologic conditions.</p> <p>Appendix H provides details concerning the numerical model.</p>

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24	5-Oct-21	Erin Steven	Wilson-Olgin Slack	Steven.Slack@wildlife.ca.gov	(858) 467-4201	CDFW 3883 Ruffin Road San Diego, CA 92123	Section 3.2.7.2.1, starting on p. 66 and Appendix O	<p>Comment #2: The GSP Does Not Consider All Riparian Groundwater Dependent Ecosystems in the Basin</p> <p>Issue: the Draft GSP concludes that only two of the mapped iGDE areas are GDEs subject to SGMA requirements and only provides for monitoring of groundwater levels and vegetative health in these two areas. The GSA concludes that iGDEs containing coast live oaks in the Mira Monte/Meiners Oaks and Terrace Areas do not qualify as GDEs.</p> <p>If hydrologic connectivity exists between a terrestrial or aquatic ecosystem and groundwater, then that ecosystem is a potential GDE and must be identified in a GSP. (23 CCR § 354.16 (g).) Therefore, hydrologic connectivity between surface water and groundwater, as well as groundwater accessibility to terrestrial vegetation, must be evaluated carefully. Accurate identification and consideration of GDEs is also essential to assess whether the GSA has complied with the requirement to avoid significant and unreasonable adverse impacts to beneficial uses of surface water, including aquatic ecosystems reliant on interconnected surface water. (Water Code § 10721(x)(6).)</p> <p>Recommendation #2(a): CDFW recommends the final GSP provide a more detailed assessment of the eight areas within the Basin that were mapped as iGDEs to determine whether they qualify as GDEs. Conclusions regarding the presence of GDEs needs to be well supported. CDFW also recommends considering best available GDEs-related data and information when conducting this analysis. Specifically, the GSA should consider the best scientific data on depth to groundwater in its analysis of ISWs, USGS data on mapped springs/seeps, and a comparison of recent groundwater level contours to vegetation root zones. CDFW believes the shallow perched aquifer and shallow alluvial aquifer, although rarely used for water supply, likely support GDEs and should be analyzed further in the Draft GSP. Groundwater within the shallow perched and alluvial aquifers is likely critical to supporting “ecological communities or species” within the Basin. (23 CCR § 351(m).) CDFW recommends using Normalized Difference Vegetation Index (NDVI) and Normalized Difference Moisture Index (NDMI) to assess habitat health for all eight iGDE areas on an annual basis.</p> <p>Recommendation #2(b): If the GSA’s revised analysis indicates that additional iGDEs qualify as GDEs under SGMA, the Draft GSP’s sustainable management criteria should be revised to facilitate appropriate and timely monitoring and management response actions for all beneficial users within or supported by these GDEs. These GDEs should be monitored for groundwater levels and vegetative health to account for and mitigate potential adverse impacts to these GDEs from new production wells or expanded production from existing wells. The Draft GSP states that in non-drought periods, the Basin can fill up on the “order of two out of every three years and significant surface water base flow is sustained by rising groundwater in the southern part of the basin” (p. 31). This “flashy” behavior can provide recharge for the shallow alluvial aquifer and perched zones that may support GDEs. Considering this interconnection, GDEs should be carefully monitored, and groundwater pumping should be responsibly managed to avoid damaging consequences to GDEs.</p>	<p>UVRGA has complied with the GSP Emergency Regulations requirement to identify and consider GDEs. The NCCAG dataset used as a starting point for the GDE analysis includes mapped springs and seeps as iGDEs. Modeled groundwater depths (based on the best available groundwater data for the entire Basin) were compared with maximum rooting depths for dominant plant species within all iGDEs in the Basin. UVRGA carefully considered whether the iGDEs are actual GDEs, and reasons for screening out particular iGDEs are described in detail in the Section 2.3 of the Riparian GDE Memo.</p> <p>Furthermore, SGMA only requires management of groundwater that is affected by pumping within the Basin. Shallow or perched aquifers are not connected to the primary aquifer and are not impacted by pumping.</p>
25	5-Oct-21	Continued from above					Section 3.2.7.2.1, starting on p. 66 and Appendix O	<p>Recommendation #2(c): CDFW does not recommend relying solely on soils information to assess the presence of GDEs. For example, the presence of sandy, dry, and friable soils does not mean that existing plant species do not rely on groundwater for some portion of their life cycle. Capillary fringe associated with root networks from native plants could be accessing groundwater from deeper depths.</p> <p>Recommendation #2(d): CDFW recommends the final GSP develop sustainable management criteria for all areas of ISWs and GDEs within the Upper Ventura River Basin GSP.</p>	<p>UVRGA's GDE evaluation did not rely on soils information to assess the presence of GDEs. This comment does not appear to be applicable to this GSP.</p> <p>The chronic lowering of GW levels SMC apply throughout the entire Basin. SMC for depletion of ISW were developed for the area where UVRGA identified the potential for significant and unreasonable depletion.</p>

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26	5-Oct-21	Erin Steven	Wilson-Olgin Slack	Steven.Slack@wildlife.ca.gov	(858) 467-4201	CDFW 3883 Ruffin Road San Diego, CA 92123	Page – ES-xiv Pg. 129	<p>Comment #4: The GSP Minimum Thresholds and Measurable Objectives for Interconnected Surface Waters Depletion Do Not Account for the Best Available Science</p> <p>Issue: The Draft GSP relies on the Hopkins Study (2013) and Padre Study (2012) to establish minimum thresholds and measurable objectives for the depletion of ISWs in the Foster Park Habitat Area. The Draft GSP indicates that CDFW's Draft Instream Flow Recommendations (2021) (Draft Recommendations) and National Marine Fisheries Service (NMFS) Draft Biological Opinion for Foster Park Wellfield (2007) (Foster Park Draft BO) are not on point for this analysis because they do not identify a threshold for significant and unreasonable effects based on groundwater pumping, but rather contain "surface flow recommendations or requirements to maintain optimal habitat conditions for steelhead." (p.129.)</p> <p>CDFW believes that the Draft GSP mischaracterizes CDFW's Draft Recommendations and the Foster Park Draft BO as protecting only "optimal" conditions for steelhead. CDFW also disagrees that the Draft Recommendations and Foster Park Draft BO are not relevant to determining appropriate sustainability criteria to avoid unreasonable adverse impacts to beneficial users of ISWs. The CDFW Draft Recommendations were designed to protect the federal Endangered Species Act (FESA) listed Southern California steelhead (<i>Oncorhynchus mykiss</i>; Steelhead) passage and habitat for spawning and rearing, as well as supporting ecological function in the lower Ventura River. CDFW's Lower Ventura Draft Recommendations were largely based on direct measurements and modeling of site-specific flow and habitat conditions, particularly in the summer months. Groundwater pumping has the potential to drawdown surface flows, which may lead to inadequate depths for Steelhead passage or reduced habitat for steelhead spawning and rearing. This draw-down may constitute a significant and unreasonable effect on beneficial users, including Steelhead.</p> <p>Recommendation #4(a): CDFW recommends that the Draft GSP utilize the best available information and science to develop appropriate minimum thresholds and measurable objectives for ISW depletion. Specifically, CDFW recommends that the UVRGA account for CDFW's Draft Recommendations and any subsequent updates to this document. CDFW's Draft Recommendations encompass the areas identified in the Draft GSP as Casitas Springs Area (known as Ventura Reaches 3 & 4 in CDFW's Draft Recommendations). CDFW's Draft Recommendations represent the best available science regarding flows needed to support a range of life stage needs for Steelhead, including the following:</p> <ul style="list-style-type: none"> - Passage and habitat during the spawning season from December to May - Low-flow habitat from June to October - Fall pulse flows in October through December and varying peak flows from January through May. Thus, the Draft Recommendations should be used to inform the development of sustainable management criteria needed to avoid ISW depletions that may have significant and unreasonable effects on Steelhead and other beneficial users, as required under SGMA. 	<p>The CDFW instream flow recommendations (CDFW 2021a) and the NMFS Draft BO (NMFS 2007) provide surface flow recommendations and requirements, respectively, to maintain beneficial habitat conditions for steelhead within portions of the Ventura River. While these flows may provide beneficial conditions for steelhead, they do not represent the minimum threshold below which significant and unreasonable impacts to steelhead would occur due to the depletion of ISW due to pumping, as is required by SGMA.</p> <p>The UVRGA agrees with maintaining surface water conditions for the health and survival of aquatic species and their habitats, including steelhead. However, SGMA does not require the UVRGA to maintain surface water conditions for riverine species, but rather to manage significant and unreasonable effects related to groundwater pumping.</p> <p>The UVRGA has taken the CDFW and NMFS recommendations into account but believes that the flow study conducted by Padre (2013) on behalf of the City of Ventura provides the most relevant data for developing thresholds for significant and unreasonable effects of groundwater pumping in the Foster Park Habitat Area, as required by SGMA.</p>
27	5-Oct-21	Continued from above					Page – ES-xiv Pg. 129	<p>Recommendation #4(b): The Foster Park Draft BO recommends a minimum maintenance flow of 11-12 cfs at the Foster Park gage (USGS 1118500) to allow for improved growth and survival of juvenile Steelhead. Although the Foster Park Draft BO has not yet been imposed as a binding regulatory requirement in the Ventura River, its scientific information can still be relevant to understanding current environmental circumstances and conditions. CDFW recommends that the final GSP consider NMFS's recommended minimum maintenance flow of 11-12 cfs at the Foster Park gage when establishing thresholds to avoid significant and unreasonable ISW depletions.</p>	See response to comment 26 above.

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28	5-Oct-21	Erin Steven	Wilson-Olgin Slack	Steven.Slack@wildlife.ca.gov	(858) 467-4201	CDFW 3883 Ruffin Road San Diego, CA 92123		<p>Comment #5: Evaluation of Multiple Minimum Thresholds Issue: According to UVRGA, the Evaluation of Multiple Minimum Thresholds (23 CCR §354.26(c)) is not applicable because only one minimum threshold is established for the ISW depletions sustainability indicator. CDFW disagrees with this conclusion. Because multiple areas within the Basin have ISWs, it is appropriate to have more than one minimum threshold for the ISW sustainability indicator. Areas of ISWs that overlap with GDEs support various fish and wildlife resources. The Upper Ventura River is designated critical habitat for Steelhead and contains important Steelhead spawning and rearing habitat in Southern California. Species including Steelhead, the FESA-listed and California Endangered Species Act (CESA) listed least Bell's vireo (<i>Vireo bellii pusillus</i>), and the FESA- and CESA-listed southwestern willow flycatcher (<i>Empidonax traillii extimus</i>) utilize the various habitats identified in the draft GSP as wetland and riverine features. Steelhead have a range of life cycle needs that require multiple minimum thresholds. Excessively high-water temperatures in the spring, summer, and early fall reduce available juvenile Steelhead rearing habitat. Low flows in the fall and winter can delay adult Steelhead passage to critical spawning areas. Steelhead also need passage flows during the spawning season of December-May, ecological baseflows for the low flow months of June-October, and Steelhead habitat optimum flows for the transition month of November. Multiple minimums thresholds throughout the year are needed to provide monthly flows to support Steelhead. Recommendation #5(a): CDFW proposes that the final GSP incorporate Recommendations #4(a) and #4(b).</p>	See responses to comment 26 above.
29	5-Oct-21	Continued from above						<p>Recommendation #5(b): The NMFS 2007 BO for the Robles Diversion Fish Passage Facility (Robles Diversion BO) states that during the fish passage augmentation season (January 1-June 30), bypass flows of at least 30 cfs are required at the Robles Diversion. The Robles Diversion BO also states that "the minimum flow rate providing successful steelhead migration through the lower river is 50 cfs. Therefore, downstream released flows at the diversion must be maintained at or above 50 cfs during the first 10 days of each migratory storm event (i.e., storms generating flows 150 cfs or greater, as measured at the Robles Diversion)" (p. 7). To augment these stream flows, "storm events during the months of January through June are considered potential migration events if the resulting peak discharge rate (a) exceeds 149 cfs as measured at the Robles Diversion, and (b) results in at least double the flow of any of the three days preceding the storm peak" (p. 6). Steelhead take is not anticipated with the minimum 30-50 cfs recommended by NMFS. CDFW recommends the GSA consider NMFS's recommendation of minimum flows of 30-50 cfs at the Robles Diversion Facility when developing minimum thresholds and measurable objectives to avoid ISW depletions that would have significant and unreasonable adverse impacts on Steelhead and other beneficial users of surface water.</p>	Depletion of streamflow during migration was estimated using the numerical model. The estimated depletions of flow due to pumping during and following storm events are so small as to not be considered significant and unreasonable. Median depletion rates modeled by the UVRGA numerical model were less than 0.5 cfs for the majority of the year at the Robles Habitat Area (located downstream of the Robles Diversion). The requirements of the BO will be met through continued implementation of the necessary bypass flows by Casitas Municipal Water District.
30	5-Oct-21	Continued from above						<p>Recommendation #5(c): On August 31, 2021, the State Water Resources Control Board (SWRCB) released a Preliminary Draft version of the Groundwater-Surface Water Model of the Ventura River Watershed. This integrated groundwater-surface water model quantifies the relationship between surface flow, subsurface flow, and instream flow requirements in the Ventura River, including areas within the Basin. CDFW recommends incorporating the model's data and simulation results into the final GSP.</p>	The SWRCB model was not available for consideration during GSP development. UVRGA created a higher resolution numerical model of the Basin which was used for GSP development. UVRGA considers its model the best available science for GSP development. Having said that, UVRGA intends to evaluate the utility of using both models together for future GSP assessments and updates (the SWRCB Board model for regional inputs the UVRGA model for improved resolution along the Ventura River). This approach will take advantage of the strengths of each model.

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31	5-Oct-21	Erin Steven	Wilson- Olgin Slack	Steven.Slack@wildlife.ca.gov	(858) 467-4201	CDFW 3883 Ruffin Road San Diego, CA 92123		<p>Comment #6: Additional Sensitive Species and Habitats Proper management of both shallow and deep groundwater pumping combined with reduced surface water pumping and diverting would ensure that beneficial users in the Basin are not negatively impacted. Unsustainable use of groundwater can impact the shallow aquifers and ISWs on which species and GDEs rely, potentially resulting in adverse impacts to fish and wildlife. Determining the relationship between groundwater levels and surface water flows in the Basin will inform how the groundwater levels may be associated with the health and abundance of riparian vegetation. Poorly managed groundwater pumping and ISW flows have the potential to reduce the abundance and quality of riparian vegetation, reducing the amount of shade provided by the vegetation, and ultimately leading to increased water temperatures in the Basin. Additionally, shallow groundwater levels near interconnected surface waters should be monitored to ensure that groundwater use is not depleting ISWs and adversely affecting fish and wildlife resources in the Basin.</p> <p>Recommendation #6(a): CDFW proposes that the final GSP incorporate Recommendation 2(a), 2(b), 2(c), and 2(d) to ensure these species would have their habitats protected into the future. CDFW believes shallow perched aquifers, intermittent surface flows and shallow alluvial aquifers, although rarely used for consumptive water supply, are extremely important to the ecological communities or species that depend on groundwater emerging from all aquifers or from groundwater occurring near the surface within the Basin.</p>	See responses to comment 26 above.
32	5-Oct-21	Continued from above						<p>Recommendation #6(b): CDFW recommends that the UVRGA commit to Arundo (Arundo donax) removal in the Upper Ventura River within the Basin to improve groundwater supply and enhance habitat quality for nesting birds. Arundo removal is one example of a project and management action to minimize groundwater overdraft. If groundwater depletion results in reduced streamflow due to ISWs, the nesting and foraging success of the SSC yellow warbler (<i>Dendroica petechia</i>), the SSC yellow breasted chat (<i>Icteria virens</i>), least Bell's vireo, southwestern willow flycatcher, and other bird species may be diminished due to reduced nesting habitat and food availability.</p>	Arundo removal will be considered in the feasibility analysis for addressing indirect depletion of ISW. Please see Section 6.4 Actions to Address Indirect Depletion of Interconnected Surface Water.
33	5-Oct-21	Erin Steven	Wilson- Olgin Slack	Steven.Slack@wildlife.ca.gov	(858) 467-4201	CDFW 3883 Ruffin Road San Diego, CA 92123		<p>CONCLUSION: CDFW appreciates the opportunity to provide input on the Draft GSP for you to consider as it continues to revise the document. As set forth above, the Draft GSP does not yet comply with the aspects of SGMA statutes and regulations related to fish and wildlife beneficial uses and users of groundwater and interconnected surface waters. CDFW has concerns about data gaps in the HCM, identification and consideration of riparian GDEs, and consideration of CDFW's draft flow recommendations released in February 2021 for the Lower Ventura River. CDFW recommends the UVRGA plan for and engage in responsible groundwater management that minimizes or avoids these impacts to the maximum extent feasible as required under applicable provisions of SGMA and the Public Trust Doctrine, and that the UVRGA address the above comments to avoid a potential 'incomplete' or 'inadequate' GSP determination, as assessed by the Department of Water Resources, for the following reasons derived from regulatory criteria for GSP evaluation:</p> <ol style="list-style-type: none"> 1. The assumptions, criteria, findings, and objectives, including the sustainability goal, undesirable results, minimum thresholds, measurable objectives, and interim milestones are not reasonable and/or not supported by the best available information and best available science. (CCR § 355.4(b)(1).) (See Comments # 1, 2, 3, 4, and 5); 2. The Draft GSP does not identify reasonable measures and schedules to eliminate data gaps (CCR § 355.4(b)(2).) (See Comments # 1, 2, and 3); 3. The sustainable management criteria and projects and management actions are not commensurate with the level of understanding of the basin setting, based on the level of uncertainty, as reflected in the Draft GSP. (CCR § 355.4(b)(3).) (See Comments # 3, 4 and 5); and, 4. The interests of the beneficial uses that are potentially affected by the use of groundwater in the basin, have not been considered. (CCR § 355.4(b)(4).) (See all comments); 	For the reasons stated in the responses to other CDFW comments, UVRGA does not agree with the conclusion that the GSP does not comply with SGMA statutes and regulations. Please see responses to comment 26 above.

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34	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		Based on our review, we have significant concerns regarding the treatment of key beneficial users in the Draft GSP and consider the GSP to be insufficient under SGMA. We highlight the following findings: 1. Beneficial uses and users are not sufficiently considered in GSP development. a. Human Right to Water considerations are not sufficiently incorporated. b. Public trust resources are not sufficiently considered. c. Impacts of Minimum Thresholds, Measurable Objectives and Undesirable Results on beneficial uses and users are not sufficiently analyzed. 2. Climate change is not sufficiently considered. 3. Data gaps are not sufficiently identified and the GSP needs additional plans to eliminate them. 4. Projects and Management Actions do not sufficiently consider potential impacts or benefits to beneficial uses and users.	UVRGA does not agree with the conclusion that the GSP is insufficient under SGMA. In response to: 1a) This comment is relevant to Assembly Bill 685 and applies to DWR: §350.4(g) states, "The Department shall consider the state policy regarding the human right to water when implementing these regulations". 1b) The following text has been added to the GSP on pages ES-iv, ES-xvi, 26, 103, 104, 120, and 128: "UVRGA has considered public trust resources in development of this GSP by considering the impacts to riparian and aquatic groundwater dependent ecosystems, including endangered species therein, and by setting minimum thresholds designed to prevent undesirable results under SGMA." 1c) please see responses to comment numbers 40 and 41 below. 2) please see response to comment number 45 below. 3) please see responses to comments 46 and 47 below. 4) please see response to comment 48 below.
35	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		Disadvantaged Communities and Drinking Water Users The identification of Disadvantaged Communities (DACs) and drinking water users is insufficient. RECOMMENDATIONS • Provide a map of the boundaries of the recognized DAC in the basin. Provide the population of the DAC. • Provide a map of tribal lands within the basin. • Include a map showing domestic well locations and average well depth across the basin. • Identify the sources of drinking water for DAC members, including an estimate of how many people rely on groundwater (e.g., domestic wells, state small water systems, and public water systems).	DACs areas were added to Figure 2.2-02 and 3.1-37. There are no tribal trust lands located within the basin. (Section 2.2.1). It is noted that the commenter's own maps provided in Appendix E of the comment letter demonstrate this fact. Domestic wells are shown on Figure 3.1-37. Text was added to Section 2.3.1 describing the source of drinking water in the DAC areas and estimated population that rely on groundwater.
36	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		Interconnected Surface Waters The identification of Interconnected Surface Waters (ISWs) is insufficient, due to lack of supporting information provided for the ISW analysis. RECOMMENDATIONS • Describe the legend labels used on Figure 3.2-11 in the GSP text to make clear which stream segments are retained as ISWs or potential ISWs in the GSP. • Further describe the groundwater elevation data and stream flow data used in the ISW analysis. Ensure depth-to-groundwater data from multiple seasons and water year types (e.g., wet, dry, average, drought) are used to determine the range of depth and capture the variability in environmental conditions inherent in California's climate. • Overlay the stream reaches shown on Figure 3.2-11 with depth-to-groundwater contour maps to illustrate groundwater depths and the groundwater gradient near the stream reaches. Show the location of groundwater wells used in the analysis. • For the depth-to-groundwater contour maps, use the best practices presented in Attachment D. Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a Digital Elevation Model (DEM) to estimate depth-to-groundwater contours across the landscape. This will provide accurate contours of depth to groundwater along streams and other land surface depressions where GDEs are commonly found. • Describe data gaps for the ISW analysis in the ISW section, in addition to the discussion in Sections 3.1.4 (Data Gaps and Uncertainty). On Figure 3.2-11, include reaches with data gaps as potential ISWs.	UVRGA does not agree with the conclusion that identification of interconnected surface waters (ISWs) is insufficient. The first sentence of Section 4.6 states that "the Ventura River is considered an interconnected stream system in the Basin, within complex surface water and groundwater interactions that vary significantly with time and location in the Basin." This statement means that UVRGA treats the entire river within the Basin as ISW. The analysis performed in support of ISW SMC development evaluated potential depletion impacts along the entire reach of the Ventura River within the Basin (Appendix N, and GSP text Sections 3.2.6 and 4.9) regardless of the classifications shown on Figure 3.2-11. The classifications shown on Figure 3.2-11 are conceptual and provided for descriptive purposes and reader context. No management decisions within the GSP are based on those classifications. The recommendations in the comment appear to be intended to provide justification for the classifications shown on Figure 3.2-11. UVRGA finds this unnecessary and not required by SGMA because the classifications are for background information only.

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37	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>Groundwater Dependent Ecosystems The identification of Groundwater Dependent Ecosystems (GDEs) is insufficient. The GSP took initial steps to identify and map GDEs using the Natural Communities Commonly Associated with Groundwater dataset (NC dataset) and other sources. However, we found that mapped features in the NC dataset were improperly disregarded, as described below.</p> <ul style="list-style-type: none"> • NC dataset polygons were incorrectly removed based on the assumption that they are supported by the shallow, perched water table. However, shallow aquifers that have the potential to support well development, support ecosystems, or provide baseflow to streams are principal aquifers, even if the majority of the basin's pumping is occurring in deeper principal aquifers. If there are no data to characterize groundwater conditions in the shallow principal aquifer, then the GDE should be retained as a potential GDE and data gaps reconciled in the Monitoring Network section of the GSP. • NC dataset polygons were incorrectly removed in areas adjacent to irrigated fields due to the presence of surface water. However, this removal criteria is flawed since GDEs, in addition to groundwater, can rely on multiple water sources – including shallow groundwater receiving inputs from irrigation return flow from nearby irrigated fields – simultaneously and at different temporal/spatial scales. NC dataset polygons adjacent to irrigated land can still potentially be reliant on shallow groundwater aquifers, and therefore should not be removed solely based on their proximity to irrigated fields. <p>RECOMMENDATIONS</p> <ul style="list-style-type: none"> • Describe a systematic approach for analyzing the basin's GDEs. For example, provide a map of the NC Dataset. On the map, label polygons retained, removed, or added to/from the NC dataset (include the removal reason if polygons are not considered potential GDEs, or include the data source if polygons are added). Discuss how local groundwater data was used to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer. Refer to Attachment D of this letter for best practices for using local groundwater data to verify whether polygons in the NC Dataset are supported by groundwater in an aquifer. • Refer to Attachment B for more information on TNC's plant rooting depth database. Deeper thresholds are necessary for plants that have reported maximum root depths that exceed the averaged 30-ft threshold, such as valley oak (<i>Quercus lobata</i>). We recommend that the reported max rooting depth for these deeper-rooted plants be used. For example, a depth-to-groundwater threshold of 80 feet should be used instead of the 30-ft threshold, when verifying whether valley oak polygons from the NC Dataset are connected to groundwater. It is important to re-emphasize that actual rooting depth data are limited and will depend on the plant species and site-specific conditions such as soil and aquifer types, and availability to other water sources. • Provide depth-to-groundwater contour maps, noting the best practices presented in Attachment D. Specifically, ensure that the first step is contouring groundwater elevations, and then subtracting this layer from land surface elevations from a digital elevation model (DEM) to estimate depth-to-groundwater contours across the landscape. • If insufficient data are available to describe groundwater conditions within or near polygons from the NC dataset, include those polygons as "Potential GDEs" in the GSP until data gaps are reconciled in the monitoring network. 	<p>UVRGA does not agree with the conclusion that the identification of GDEs is insufficient. UVRGA performed a comprehensive characterization of potential GDEs and analysis to determine which vegetation communities within the Basin are materially dependent on groundwater for consideration in the GSP.</p> <p>Regarding perched water, potential GDEs were screened out in areas where water is perched on bedrock above the regional water table. UVRGA believes it is appropriate to screen out potential GDEs in these areas because the water is not encountered within the alluvial aquifer of the Basin, which contains the groundwater that is being managed under the GSP.</p> <p>Regarding screening out vegetation in areas adjacent to irrigated fields, UVRGA believes the visual evidence from aerial imagery clearly and convincingly demonstrates that certain potential GDE areas exist where they do because water from irrigation is available for them to utilize. UVRGA concludes that these plants are dependent on the irrigation water as their primary source of water for transpiration. Conversations with UVRGA's Agricultural Director provide further evidence for this. The Agricultural Director reported that she observed oaks near an orchard die after the orchard was abandoned and irrigation stopped. Furthermore, maximum rooting depths and groundwater levels were compared for vegetation communities in these areas and this analysis was also used when screening out potential GDEs.</p> <p>The first recommendation does not appear to be applicable to this GSP. A map of the NC Dataset (iGDEs), as well as a map of potential GDEs, within the Basin are included in the Riparian GDE Assessment Memo.</p> <p>Data from TNCs rooting depth database, modeled groundwater depths, aerial imagery, and other data sources were used to make determinations of groundwater dependence for communities within the Basin, as described in Section 2.3 of the Riparian GDE Memo. Maximum rooting depths provided in the TNC database were used for each potential GDE within the Basin. None of the maximum rooting depths for the iGDEs mapped within the Basin exceed 30.0 feet. UVRGA understands that rooting depths for individual species and communities vary widely due to site-specific conditions but has utilized values from the TNC Rooting Depth Database, as it represents the best available data.</p> <p>Regarding depth-to-groundwater contour maps, these will be added to the Riparian GDE Assessment Memo so the reader can see a presentation of the groundwater level data used to screen the potential GDEs. However, it should be noted that the actual analysis used grid-based data from the numerical model, which is superior to contours because it provides a continuous distribution of data for analysis.</p>
38	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>Native Vegetation and Managed Wetlands Native vegetation and managed wetlands are water use sectors that are required to be included in the water budget. The integration of native vegetation into the water budget is sufficient. We commend the GSA for including the groundwater demands of this ecosystem in the historical, current and projected water budgets. Managed wetlands are not mentioned in the GSP, so it is not known whether or not they are present in the basin.</p> <p>RECOMMENDATION</p> <ul style="list-style-type: none"> • State whether or not there are managed wetlands in the basin. If there are, ensure that their groundwater demands are included as separate line items in the historical, current, and projected water budgets. 	UVRGA is not aware of any managed wetlands in the Basin.

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39	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>Stakeholder Engagement during GSP development Stakeholder engagement during GSP development is insufficient. SGMA's requirement for public notice and engagement of stakeholders is not fully met by the description in the Stakeholder Engagement Plan of the GSP (Appendix E). The GSP describes outreach to DAC members and environmental stakeholders in the basin. Outreach to these members includes representation of DAC and environmental stakeholders on the GSA's Board of Directors, reserving seats on the Stakeholder Advisory Committee for domestic well owners, newsletters and emails to the interested parties list, social media posts, telephone communications with stakeholders, updates given to the Ventura River Watershed Council, public notices, newspaper articles, and direct outreach to DAC members of the Casitas Springs community. An Ad Hoc Stakeholder Engagement Committee was also formed throughout the GSP process to actively seek input across stakeholders. However, we note the following deficiency with the overall stakeholder engagement process. While tribal stakeholders are mentioned, there is no documentation of tribal consultation to ensure participation in GSP development and implementation processes.</p> <p>RECOMMENDATION</p> <ul style="list-style-type: none"> • In the Stakeholder Engagement Plan, describe active and targeted consultation with tribal governments within the basin during the remainder of the GSP development process and throughout the GSP implementation phase. Refer to Attachment B for guidance on how to consult with tribal governments. 	This comment does not appear to be applicable to this GSP. There are no tribal trust lands located within the Basin. (Section 2.2.1). It is noted that the commenter's own maps provided in Appendix E of the comment letter demonstrate this fact.
40	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>The consideration of beneficial uses and users when establishing sustainable management criteria (SMC) is insufficient. The consideration of potential impacts on all beneficial users of groundwater in the basin are required when defining undesirable results and establishing 4 minimum thresholds^{5,6}</p> <p>Disadvantaged Communities and Drinking Water Users</p> <p>For chronic lowering of groundwater levels, the GSP mentions impacts to drinking water users when defining undesirable results. The GSP does not, however, analyze direct and indirect impacts on DACs or tribes when defining undesirable results, or evaluate the cumulative or indirect impacts of proposed minimum thresholds on these stakeholders.</p> <p>The GSP starts the degraded water quality SMC section of the GSP with the statement (p. 112): "Significant changes to the degraded water quality SMC are expected before GSP Adoption." The GSP identifies constituents of concern (COCs) in the basin as the following: nitrate, TDS, sulfate, chloride, and boron. The GSP states (p. 116): "The minimum thresholds [Table 4.7-01] were selected to be consistent with protection of human health (MCL for nitrate), the Upper Consumer Acceptance Levels (TDS and sulfate), and concentrations that are considered to represent toxicity thresholds for agricultural beneficial uses (chloride and boron)."</p> <p>The GSP only includes a very general discussion of impacts to drinking water users when defining undesirable results and evaluating the cumulative or indirect impacts of proposed minimum thresholds. The GSP does not, however, mention or discuss direct and indirect impacts on DACs or tribes when defining undesirable results for degraded water quality, nor does it evaluate the cumulative or indirect impacts of proposed minimum thresholds on these stakeholders.</p>	<p>UVRGA does not agree the consideration of beneficial uses and users in the SMC formulation is insufficient.</p> <p>The chronic lowering of groundwater levels minimum thresholds were selected specifically to protect all wells, including domestic wells in DAC areas. The discussion of water quality impacts includes discussion of domestic wells, which includes wells in the DAC area.</p> <p>There are no tribal trust lands located in the Basin; so, this part of the comment is not applicable. It is noted that the commenter's own maps provided in Appendix E of the comment letter demonstrate this fact.</p>
41	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>RECOMMENDATIONS</p> <p>Chronic Lowering of Groundwater Levels</p> <ul style="list-style-type: none"> • Describe direct and indirect impacts on DACs, drinking water users, and tribes when describing undesirable results for chronic lowering of groundwater levels. • Consider and evaluate the impacts of selected minimum thresholds and measurable objectives on DACs, drinking water users, and tribes within the basin. Further describe the impact of passing the minimum threshold for these users. For example, provide the number of domestic wells that would be de-watered at the minimum threshold. 	<p>The potential impacts are described in Section 4.4.1. Impacts described for domestic wells are inclusive of wells in DAC areas.</p> <p>The impact of the minimum thresholds is presented in Section 4.4.2.4 for all wells, which is inclusive of wells in DAC areas.</p>

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42	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>Degraded Water Quality</p> <ul style="list-style-type: none"> • Provide an updated Section 4.7 (Degraded Water Quality) for public comment before GSP adoption. • Describe direct and indirect impacts on DACs, drinking water users, and tribes when defining undesirable results for degraded water quality. For specific guidance on how to consider these users, refer to “Guide to Protecting Water Quality Under the Sustainable Groundwater Management Act.”⁷ • Evaluate the cumulative or indirect impacts of proposed minimum thresholds for degraded water quality on DACs, drinking water users, and tribes. 	<p>The updated section 4.7 was provided for review prior to GSP adoption.</p> <p>The potential impacts are described in Section 4.7.1. Impacts described for domestic wells are inclusive of wells in DAC areas.</p> <p>The impact of the minimum thresholds is presented in Section 4.7.2.4 for all wells, which is inclusive of wells in DAC areas</p>
43	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>Groundwater Dependent Ecosystems and Interconnected Surface Waters</p> <p>Despite acknowledging the impacts of drought-level groundwater elevations on GDEs, the GSP appears to disregard these impacts when setting the minimum thresholds to the historical low groundwater levels at the representative monitoring sites.</p> <p>RECOMMENDATIONS</p> <ul style="list-style-type: none"> • Reevaluate the minimum thresholds for impacts to GDEs for the chronic lowering of groundwater level SMC. Set minimum thresholds to levels that avoid ‘significant and unreasonable’ effects on beneficial users. Potential impacts on environmental beneficial uses and users need to be considered when defining undesirable results⁸ in the basin. Defining undesirable results is the crucial first step before the minimum thresholds⁹ can be determined. 	<p>The GSP does not ignore the impacts of drought-level groundwater elevation on GDEs. The UVRGA considered those impacts based on historical data, including NDVI/NDMI data, groundwater level data, and aerial imagery. While NDVI/NDMI values fell during periods with drought-level groundwater elevations, those indices also rebounded following subsequent wet years when groundwater elevations rose. Thus, the UVRGA determined that impacts to vegetative growth during periods of historically low groundwater levels were not significant and unreasonable. The chronic lowering of groundwater level minimum thresholds are set at historical low based on the understanding that no significant and unreasonable effects were observed at historical low groundwater levels and that drawing groundwater levels below historical low levels may lead to undesirable results.</p>
44	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>Groundwater Dependent Ecosystems and Interconnected Surface Waters</p> <p>Two aquatic habitat areas were identified for consideration in the development of depletion of interconnected surface water SMC, Confluence Aquatic Habitat Area and Foster Park Aquatic Habitat Area. The GSP states (p. 131): “[T]here is insufficient information to assess whether depletion effects in the Confluence Aquatic Habitat Area are significant and unreasonable. SMC for the Confluence Aquatic Habitat Area cannot be evaluated until these data gaps have been addressed. The Confluence Aquatic Habitat Area will be revisited prior to the first five-year GSP assessment after addressing the data gaps.” However, preliminary SMC should be established now (instead of at the five-year update) using the best available science to avoid significant and unreasonable effects on surface water beneficial users in the basin.</p> <p>RECOMMENDATIONS</p> <ul style="list-style-type: none"> • Establish preliminary SMC for depletion of interconnected surface water for the Confluence Aquatic Habitat Area, instead of waiting for the five-year GSP update. 	<p>As discussed in the GSP, there are insufficient data to determine whether significant and unreasonable effects related to ISW depletion are occurring or may potential occur in the Confluence Aquatic Habitat Area. The potential for significant and unreasonable effects must be established prior to establishing any SMC. As such, there is no basis for SMC at this time. The GSP lays out a clear path for data collection and revisiting this issue based on review of the collected data.</p>

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45	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>2. Climate Change</p> <p>The SGMA statute identifies climate change as a significant threat to groundwater resources and one that must be examined and incorporated in the GSPs. The GSP Regulations¹⁰ require integration of climate change into the projected water budget to ensure that projects and management actions sufficiently account for the range of potential climate futures.</p> <p>The integration of climate change into the projected water budget is insufficient. The GSP does incorporate climate change into the projected water budget using DWR change factors for 2030 and 2070. However, the GSP does not consider multiple climate scenarios (e.g., the 2070 extremely wet and extremely dry climate scenarios) in the projected water budget. The GSP should clearly and transparently incorporate the extremely wet and dry scenarios provided by DWR into projected water budgets or select more appropriate extreme scenarios for their basins. While these extreme scenarios may have a lower likelihood of occurring, their consequences could be significant, therefore they should be included in groundwater planning.</p> <p>We acknowledge and commend the inclusion of climate change into key inputs (e.g., precipitation, evaporation, and surface water flow) of the projected water budget. The sustainable yield is calculated based on the projected pumping with climate change incorporated. However, if the water budgets are incomplete, including the omission of extremely wet and dry scenarios, then there is increased uncertainty in virtually every subsequent calculation used to plan for projects, derive measurable objectives, and set minimum thresholds. Plans that do not adequately include climate change projections may underestimate future impacts on vulnerable beneficial users of groundwater such as ecosystems, DACs, and domestic well owners.</p> <p>RECOMMENDATIONS</p> <ul style="list-style-type: none"> • Integrate climate change, including extremely wet and dry scenarios, into all elements of the projected water budget to form the basis for development of sustainable management criteria and projects and management actions. • Incorporate climate change scenarios into projects and management actions. 	<p>SGMA regulations §354.18(c)(3)(A),(d)(3),(e) are covered in the Water Budget section 3.3 which provides climate change impacts for historical, current, and projected quantities. The extremely dry/wet climate change scenarios are "recommended", but not "required" per SGMA regulations and BMP (Climate Change Guidance) and the Draft GSP included the DWR-provided scenarios (see Section 3.3). Furthermore, the relative insensitivity of the calculated water budget components to the climate change scenarios (e.g., the 2070 scenario) included in the Draft GSP indicates that a similar insensitivity would be observed under the extremely dry/wet scenarios and would therefore not be informative. UVRGA will assess the need for additional uncertainty analysis for climate change impacts every 5 years.</p>
46	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>3. Data Gaps</p> <p>The consideration of beneficial users when establishing monitoring networks is insufficient, due to lack of specific plans to increase the Representative Monitoring Sites (RMSs) in the monitoring network that represent groundwater quality around DACs and domestic wells in the basin. The GSP states (p. 161): "No representative monitoring sites have been identified for the degraded water quality sustainability indicator. However, it is noted for clarification that four well groups have been established to address the four sets of closely spaced wells in the groundwater quality monitoring network (Table 5.6-01 and Figure 5.6-01). These sets of closely spaced wells are grouped (i.e., treated as a single well) for the purposes of implementing the measurable objectives and minimum thresholds for the degraded water quality sustainability indicator, as discussed in Section 4.7.1." The GSP does not explain how the use of a well group to represent a RMS will satisfy the reporting requirements of SGMA, however. Figure 5.6-01 (Existing and Planned Water Quality Monitoring Network) shows that no monitoring wells are located across portions of the basin near DACs and domestic wells (see maps provided in Attachment E). Beneficial users of groundwater may remain unprotected by the GSP without adequate monitoring and identification of data gaps in the shallow aquifer. The Plan therefore fails to meet SGMA's requirements for the monitoring network¹¹.</p> <p>RECOMMENDATIONS</p> <ul style="list-style-type: none"> • Provide maps that overlay monitoring well locations with the locations of DACs and domestic wells to clearly identify potentially impacted areas. Increase the number of representative monitoring sites (RMSs) in the shallow aquifer across the basin for the groundwater quality condition indicator. Prioritize proximity to DACs and drinking water users when identifying new RMSs. • Choose single wells for water quality RMSs, instead of using well groups. If well groups are used, explain how the reporting requirements of SGMA will be met. 	<p>UVRGA does not agree with the conclusion that consideration of beneficial users in the monitoring networks is insufficient. The commenter claims that "no monitoring wells are located across portions of the basin near DACs and domestic wells." The commenter's own maps provided with the comments show that this is not the case. There is adequate coverage in the Casitas Springs Area, including Well Group 4 that addresses the DAC area. There is adequate monitoring in the Kennedy Area. Proposed Monitoring Site E will address the current lack of monitoring in the Santa Ana Area (Section 5.3.4). It is noted that the monitoring network does not include monitoring sites in the Terraces Area and eastern portion of the Mira Monte / Meiners Oaks Area because wells in these areas are believed to be screened in bedrock formations beneath the basin (Section 5.3.1). UVRGA is required to assess the monitoring networks as part of GSP implementation and the required periodic GSP assessment process. Information developed from implementation of the Section 6.2 Domestic Well Survey management action will be used to further assess potential effects and monitoring needs for domestic wells, including wells in DAC areas. The first five-year GSP assessment will consider this information and the GSP will be updated as appropriate, including potential modifications to the monitoring networks. DACs areas were added to Figure 5.6-01. Concerning the comments about well groups, UVRGA believes the GSP text adequately describes how the well group approach will meet SGMA requirements (§354.34(c)(4); §354.36(a),(c)). The text in Section 5.9 has been enhanced to further demonstrate the SGMA requirements are met.</p>

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47	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>3. Data Gaps The consideration of beneficial users when establishing monitoring networks is insufficient, due to lack of specific plans to increase the Representative Monitoring Sites (RMSs) in the monitoring network that represent groundwater quality around DACs and domestic wells in the basin. The GSP provides discussion of data gaps for GDEs and ISWs in Section 5.3.4 of the GSP (Assessment and Improvement of Monitoring Network) and provides planned monitoring well locations on Figure 5.3-01 (Existing and Planned Groundwater Level Monitoring Wells). The GSP could be improved by describing the aquatic GDE monitoring programs for the Foster Park and Confluence Aquatic Habitat Areas (p. 159) and how they will be used to assess the potential for significant and unreasonable impacts to GDEs and ISWs due to groundwater conditions in the basin. RECOMMENDATIONS</p> <ul style="list-style-type: none"> • Further describe the biological monitoring that can be used to assess the potential for significant and unreasonable impacts to GDEs or ISWs due to groundwater conditions in the basin. The aquatic GDE monitoring programs for the Foster Park and Confluence Aquatic Habitat Areas are mentioned on p. 159 but no further details are provided. 	As stated in the applicable sections, study plans / monitoring plans will be developed for these monitoring programs during GSP implementation.
48	8-Oct-21	Ngodoo	Atume	ngos.sgma@gmail.com		NGO Consortium		<p>4. Addressing Beneficial Users in Projects and Management Actions The consideration of beneficial users when developing projects and management actions is insufficient, due to the failure to identify benefits or impacts of identified projects and management actions to beneficial users of groundwater such as DACs and tribes. The GSP includes two projects and management actions with explicit benefits to the environment (Foster Park Protocols to Address Direct Depletion of Interconnected Surface Water and Actions to Address Indirect Depletion of Interconnected Surface Water). The only other project included in the GSP is a Domestic Well Survey to collect more information about domestic wells in the basin. The GSP does not discuss the manner in which DACs and tribes may be benefitted or impacted by projects and management actions identified in the GSP, nor does the GSP discuss the potential water quality impacts from groundwater management in the basin. Potential project and management actions may not protect these beneficial users. Groundwater sustainability under SGMA is defined not just by sustainable yield, but by the avoidance of undesirable results for all beneficial users. RECOMMENDATIONS</p> <ul style="list-style-type: none"> • For DACs and domestic well owners, include a drinking water well impact mitigation program to proactively monitor and protect drinking water wells through GSP implementation. Refer to Attachment B for specific recommendations on how to implement a drinking water well mitigation program. • For DACs, domestic well owners, and tribes, include a discussion of whether potential impacts to water quality from projects and management actions could occur and how the GSA plans to mitigate such impacts. • Recharge ponds, reservoirs, and facilities for managed stormwater recharge can be designed as multiple-benefit projects to include elements that act functionally as wetlands and provide a benefit for wildlife and aquatic species. For guidance on how to integrate multi-benefit recharge projects into your GSP, refer to the "Multi-Benefit Recharge Project Methodology Guidance Document"12. • Develop management actions that incorporate climate and water delivery uncertainties to address future water demand and prevent future undesirable results. 	<p>UVRGA does not agree that the consideration of beneficial users with respect to projects and management actions is insufficient. The commenter claims that UVRGA has failed to identify benefits and impacts of the projects and management actions to beneficial users such as DACs and tribes. The GSP Emergency Regulations do not specifically require GSAs to identify benefits or impacts for beneficial users, let alone specific beneficial user categories. In fact, the regulations do not require discussion of impacts at all. The regulations require GSA to identify which measurable objectives will benefit (§354.44(b)(1)) and the benefits in general (§354.44(b)(5)). These requirements have been met for each project or management action included in Section 6 of the GSP.</p> <p>As stated in prior responses, there are no tribal trust lands with the Basin and the commenter's own maps show this.</p>
49	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page ES-xi	A table such as Table 3.3.03 would be helpful to summarize demands and supplies and to provide a usage order of magnitude. It would also be helpful to provide a brief discussion of climate change assumptions (order of magnitude / %changes in precipitation / ET, etc.).	Table 3.3-03 and additional explanation of climate change uncertainty was added to the ES.
50	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page ES-xii, Table ES-01	An explanation should be provided as to why the surface water historical total in/out (48,025-AFY) is lower than the current/projected in out (86,241/96,474-AFY).	Additional text describing the noted differences was included in the ES.

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51	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page ES-xiv	The well on which the groundwater levels in the hydrograph shown in Fig. ES-11 should be identified.	Well name added to chart.
52	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page ES-xxii	The Municipal and Industrial (M&I) and Agricultural (Ag) water use efficiency and Casitas Municipal Water District (CMWD) proposed projects to bridge the 5,160-AFY yield gap should be added as described in Section 6.	This comment is not consistent with the text on page ES-xxii. Therefore, the comment is unclear and cannot be addressed.
53	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 2.2.1	Section 2.2.1 lists the source types of water for municipal and industrial, agricultural, and domestic uses. Are there any significant stream, channel or surface water diversions contributing to water supplies (aside from the Robles Diversion and the privately owned agricultural diversion mentioned in Sections 3.1.1.2 and 4.9.1)? The Draft only lists diversions reported by the State Water Resources Control Board (SWRCB).	A SWRCB permit or license is required to divert surface water in the State of California. Therefore, it is appropriate to identify surface water sources of supply via SWRCB records. UVRGA did not attempt to identify illicit diversions that may or may not exist within the Basin.
54	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 2.2.2.2	Should be revised to reflect that the CMWD's 2020 Urban Water Management Plan update was completed and formally adopted.	This subject content was revised by Casitas MWD. UVRGA defers to Casitas MWD's edits.
55	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 2.2.2.2	Have there been any recent updates to the Regional Water Quality Control Board (RWQCB) total maximum daily loads (TMDLs) for the Ventura River and its tributaries? If so, these updates should be referenced in the text.	The GSP references the most current TMDLs.
56	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 2.2.3.2	It may be useful to state that that the California Well Standards Bulletins are undergoing a technical advisory committee review at the time of the GSP was prepared.	Comment noted.
57	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 2.3.1	A statement should be included in Section 2.3.1 that CMWD's Mira Monte well pumps less than 1% of the water supplied by CMWD.	Subject text added with 'approximate' caveat.
58	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Sections 3.1, 3.1.3.1.3 and 3.1.3.2	Despite the lower hydraulic conductivity of the Ojai Conglomerate, could this formation potentially connect any portions of the water-bearing alluvial sediments of the Upper Ventura River Valley Basin and the Ojai Valley Basin? If so, the Ojai Valley Basin could act as a source of groundwater recharge in Section 3.1.3.2.	Potential hydraulic communication between the Upper Ventura River Basin and Ojai Basin theoretically exists via the Ojai Conglomerate. However, this potential connection is considered very small due to the low hydraulic conductivity of the formation, the limited area of this formation along the boundary, and the presence of Sespe Formation at shallow depths along the basin boundary (as indicated by Sespe Formation outcrops along the basin boundary). For these reasons, the potential flow of groundwater between the basins is considered to likely be very small. Text was added to the GSP in Section 3.1.3.2 to clarify this.
59	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Appendix H	In general, there are references throughout the text to the groundwater model in Appendix H. It would be helpful to include a summary of the model in GSP text.	A summary paragraph was added to Section 3.3 Water Budget – Water Budget Overview to introduce and summarize the numerical model.
60	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 3.1.1.3	Section 3.1.1.3 states that water is not imported to the Ventura River Watershed. It may be appropriate to note the planned CMWD interconnect project with Carpinteria Valley Water.	Comment noted. The UVRGA Board discussed this and decided it is not appropriate to include this project in the GSP at this time based on the current status.
61	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Sections 3.1.3.3, 3.2.4 and 4.7	Sections 3.1.3.3, 3.2.4 and 4.7 discuss the elevated concentrations of nitrates in the Mira Monte/Meiners Oaks Area. It should be noted that Ventura County discretionary planning reviews consider the RWQCB Basin Plan groundwater quality objectives and groundwater beneficial uses as pertains to potential development and proposed projects.	This is now noted in Section 3.2.4.

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62	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 70, last paragraph	Climate change is anticipated to change the timing and duration of precipitation events and could influence the year-to-year surface and groundwater budgets. It is suggested to rephrase or acknowledge what is anticipated from climate change, but note that there is a large level of uncertainty.	Climate change effects are discussed in detail in Section 3.3.3.3.
63	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 77 and Table 3.3-03	While estimated Municipal and Industrial (M&I) demands have decreased over time, Agricultural (Ag) demands have stayed constant and therefore start to represent a larger portion of total demand. Discussion should be included about how this is addressed in the future water demands.	Section 3.3.3.2 describes how future agricultural water demands were projected.
64	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Table 3.3-03	Table 3.3-03 shows annual Ag demands at 505 AFY, while Table 3.3-06 has a more specific Ag pumping demand. Is the difference due to Ag surface water deliveries? This should be clarified.	505 AFY in Table 3.3-03 is the estimated agricultural irrigation demand within the Basin, which is met by a combination of groundwater and surface water. The 276 AFY in Table 3.3-06 is the estimated agricultural pumping in the Basin. Note that some of the agricultural pumped groundwater is used outside of the Basin. Footnotes will be added to the subject tables.
65	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 78	Reliability of Historic Surface Water Deliveries, information should be added on how CMWD estimates planned deliveries. Regarding the following text: "The surface water supply was deemed reliable because demands were less than projected for much of the historical period and the surface water supply was less than the safe yield of the reservoir, as it was understood at the time" and "the reservoir safe yield has been re-assessed to be 10,660 AF/yr for Lake Casitas (now called "safe demand"), as discussed in Sections 3.3.2 and 3.3.3.2." 1. The first sentence above is not necessarily accurate since not all of Lake Casitas water is delivered to the Upper Ventura River (UVR). If the other CMWD demands increase, UVR deliveries could potentially decrease. 2. Did the "Safe Demand" estimate incorporate the climate change effects as outlined in this Draft? What is the estimated portion to be delivered to the UVR if the supply is limited to the "Safe Demand"?	This subject content was revised by Casitas MWD. UVRGA defers to Casitas MWD's edits.
66	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 79, second paragraph	Clarify if stream outflows from individual streams make up 83% of the total groundwater model domain inflows.	UVRGA does not understand the comment.
67	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 82	Average 2006-2016 "M&I GW Supplies" of 845 AFY in Table 3.3-03 "Estimated Historical Demands and Supplies in the UVRGB by Category and Source" are much less than the average 2006-2016 "M&I Pumping" of 4,707 AFY in Table 3.3-06 "UVRGB Groundwater Inflows and Outflows by Water Year, Historical and Current Period." Is this due to M&I exports out of the basin? If so, there should be a note on Table 3.3-03 similar to the note on Ag groundwater exports. Otherwise, this discrepancy needs to be explained.	City of Ventura pumping is exported to the City of Ventura. This is discussed in Section 3.3.1.1. A footnote was added to Table 3.3-06.
68	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Pages 87-88, per Table 3.3-03	Are M&I demands appropriately estimated, given the likelihood of multiple-dry year conditions?	UVRGA does not understand the question. The question references pages 87-88, which discuss projected supplies and demands in relation to Table 3.3-03, which presents historical estimated supplies and demands.
69	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 88, in the last paragraph	There is a significant gap between the CMWD safe demand and project demand. What portion of the gap applies to UVR? Is the schedule to close this gap within the next 10 years overly optimistic?	This subject content was revised by Casitas MWD. UVRGA defers to Casitas MWD's edits.
70	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 90	Page 90 relates the conclusions from Baseline vs Climate Change. What is the frequency of ENSO/PDO events? Can it be stated that the size of the basin and its responsiveness to changes in precipitation/runoff such that the higher rain fall events of ENSO/PDO rapidly refill the basin?	The Basin is demonstrated to refill in years when Ventura River flows are approximately equal to or greater than 50% of the average annual flow (Section 4.4.3.1 and Figure 4.4-01). Therefore, higher rainfall events associated with ENSO/PDO events are not required to refill the Basin.
71	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 102, top paragraph	The statement "Modeling projections for the GSP suggest that the proposed minimum thresholds may be occasionally exceeded at some monitoring locations (Appendix Q). However, the criterion for undesirable results is not predicted to be triggered during the 50-year GSP implementation period" seems contradictory and potentially weakens the selection of MTs.	There is no contradiction. The GSP Emergency Regulations Section §354.26(b)(2) requires GSAs to define undesirable results as a combination of minimum threshold exceedances.

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72	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 115, second Paragraph,	"...and UVRGA determines that exceedances are caused by groundwater pumping." The criteria for making this determination should be identified.	The criteria will be developed as part of the annual reporting and/or 5-yr GSP assessment process.
73	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 4.7.2.4	Section 4.7.2.4 discusses the increased costs for treatment of groundwater to meet water quality objectives for municipal beneficial users. This is an important issue, especially within the Meiners Oaks Water District's pumping areas.	Comment noted.
74	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 132, top paragraph	Consider using groundwater levels for measuring this SMC (in addition to flows). Measurement may be implied with the addition of new wells, but it is not sufficiently described in this section.	The SMC are consistent with GSP Emergency Regulations §354.28(c)(6), which states "The minimum threshold for depletions of interconnected surface water shall be the rate or volume of surface water depletions caused by groundwater use that has adverse impacts on beneficial uses of the surface water and may lead to undesirable results. "
75	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Page 142, Section 5.3	Additional detail would be helpful regarding the spatial and temporal extent of the monitoring network. Although the GSP network may meet the DWR BMP guidance for well density, the Miramonte/Meiners Oaks area is lacking in monitoring locations. This could be a data gap with an additional well being needed to be identified in this area.	The spatial and temporal aspects of the groundwater levels monitoring network are presented on Figure 5.3-01 and in Table 5.3-01.
76	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 5.2	Does the Draft address amending the Plan at the five-year assessment to reflect any revisions or modifications made to the RWQCB Water Quality Objectives (Section 5.2)? The Draft discusses potential modification to monitoring networks if there are significant changes in pumping patterns or groundwater quality.	Potential changes to RWQCB WQOs is one of many factors that will be reviewed during GSP assessments. UVRGA believes this is implied in the assessment requirements.
77	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 6.2	Section 6.2 states the UVRGA will attempt to survey domestic well owners in the Basin. The survey will be designed to collect information from the well owners about well status, construction, usage, etc. VCPWA-WP oversees compliance with the County Well Ordinance (No. 4468). UVRGA should notify VCPWA-WP if a well is surveyed and does not comply with the County Well Ordinance.	Comment noted.
78	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 6.2	No mention is made of the CMWD proposed projects to increase water conservation and new water supply to bridge the 5,160 AFY gap in the loss of yield from Lake Casitas. The magnitude of impact of the 5,160-AFY to the UVR should also be documented.	This subject content was revised by Casitas MWD. UVRGA defers to Casitas MWD's edits.
79	8-Oct-21	Kimball James	Loeb Maxwell	kim.loeb@ventura.org james.maxwell@ventura.org	(805) 650-4083 (805) 654-5164	Ventura County 800 S. Victoria Avenue, Ventura, CA 93009	Section 7.1.6	The Draft does not discuss any anticipated effects on the Basin from the future removal of the Matilija Dam. It might be beneficial to discuss the impacts to the Basin after execution and completion of the project, likely to occur during the 20-year measurable objectives achievement period (Section 7.1.6).	The potential removal of Matilija Dam will be addressed in future GSP updates, as appropriate, based on actual progress toward project execution.
80	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.4 Chronic Lowering of Groundwater Levels	Chronic Lowering of Groundwater Levels The GSP used the lowest recorded historical groundwater level outlier as the groundwater level and storage minimum threshold. The stated purpose of establishing this threshold is to prevent significant and unreasonable effects that include causing municipal, domestic, or agricultural beneficial users to be unable to meet basic water supply needs with groundwater or alternative supplies, or permanent or prolonged impacts to riparian GDEs. We note that the ability to pump groundwater from the Robles reach is routinely disrupted during drought for many water rights holders in the basin including the existing municipal water districts. These purveyors rely significantly if not entirely during drought years on alternative supply from Lake Casitas. Lake Casitas is currently critically reduced in capacity. In light of these circumstances and the risk of increased frequency of drought due to climate change, we find the selection of the lowest recorded historical groundwater level in appropriate as a minimum threshold to prevent undesirable effects to water supplies related to chronic lowering of groundwater levels.	UVRGA does not agree with the conclusion that the minimum thresholds for chronic lowering of groundwater levels are inappropriate. As discussed in Section 4.4.1, the availability of surface water supplies from Lake Casitas is a key factor in UVRGA concluding that there have not been significant and unreasonable effects even during periods of low groundwater levels. UVRGA considers increased use of surface water supplies from Lake Casitas during dry periods a form of conjunctive use (see Section 2.2.2.3) as opposed to a significant and unreasonable effect. UVRGA will consider the availability of Lake Casitas surface water during each 5-year GSP assessment.

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81	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	Foster Park Flow Protocols The “Foster Park Flow Protocols” are not based on the best available science. Santa Barbara Channelkeeper negotiated the protocols with the City of Ventura as a means to provide “life support” for the lower reaches until a final outcome is reached with the Ventura River Watershed Adjudication. The State Water Board’s groundwater and surface water model was not available when the protocols were developed. The California Department of Fish and Wildlife’s instream flow recommendations for the Ventura River were not available when the protocols were developed. Based on current implementation of the protocols in 2021, extractions at Foster Park continued to take place even though river flows in the reach dropped below 2 CFS for prolonged periods of time. 2 CFS was identified by the City of Ventura’s own 2013 Hydrology Study as a critical threshold below which is detrimental to critical habitat conditions. The “Foster Park Flow Protocols” do not have the endorsement of State and Federal resource agencies. For these reasons, the GSP should not rely on long-term implementation of the “Foster Park Flow Protocols” to ensure that undesirable results do not occur.	SGMA requires UVRGA to establish minimum thresholds for depletion of surface water flow. Minimum thresholds for Foster Park are based on the current best available science, which UVRGA believes is the site-specific study by Hopkins (2013). The CDFW flow recommendations do not identify a threshold for significant and unreasonable effects based on groundwater pumping as the Padre study included in Hopkins (2013) does. The CDFW study includes surface flow recommendations to maintain beneficial habitat conditions for steelhead. Although the UVRGA agrees that maintaining surface water conditions is important to the health of aquatic species and their habitats, including steelhead, SGMA does not require GSA to maintain optimal surface water conditions for riverine species, but rather to manage significant and unreasonable effects related to groundwater pumping. Additionally, UVRGA recommends a monitoring program to address uncertainties of impacts to the Foster Park Aquatic GDE that could be related to depletions of interconnected surface water. UVRGA proposes a study comprised of continuous water quality monitoring, field observations of instream habitat and aquatic species, and in-situ water quality and flow measurements. Data collected through these monitoring efforts will inform future minimum threshold determinations.
82	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	GDE Analysis The GSP has not adequately demonstrated that permanent and prolonged impacts to GDEs have not already occurred in the Robles reach due to historic groundwater extractions. Rather, the GSP essentially asserts that the Robles reach is not a GDE because certain riparian vegetation communities were not identified in the GSA’s recent analysis. Significant groundwater extractions, however, have been occurring for many decades. Such extractions and any related depletions of surface water would likely have significant impact on any riparian vegetation that may have been present during the period analyzed during GSP development.	Modeling results indicate that groundwater levels in the Robles and Santa Ana area naturally fluctuate significantly below the rooting depth of the dominant species classified in those areas (i.e., scalebroom and alluvial scrub). UVRGA has modeled the water table elevations (Appendix L) and streamflow absent groundwater pumping and determined that the incremental increase in groundwater levels and streamflow that would occur absent pumping (Appendix N and GSP text Sections 3.2.6 and 4.9) is small. Even absent all pumping in the Basin, UVRGA’s biologists do not anticipate widespread recruitment of riparian vegetation in the Robles and Santa Ana Areas, as the difference in groundwater levels does not appear to be particularly meaningful in terms of the water requirements of riparian species, given the seasonal fluctuation of water availability.
83	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	Channelkeeper echoes comments submitted by the Surfrider Foundation, Ventura Chapter as they related to the GDE analysis included in the draft GSP. These comments are reiterated below: “The Riparian Groundwater Dependent Ecosystems Assessment Report characterizes the Robles reach as a “Losing reach with generally disconnected groundwater- surface water.” This categorization eliminates the majority of this Groundwater Dependent Ecosystem from consideration under SGMA by assuming that it is “disconnected” and thus has too great a depth to groundwater to support riparian habitat. Other reaches are similarly dismissed.	Please see response to comment 5 above.
84	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	The analysis presented relies heavily on the Nature Conservancy “Natural Communities (NC) Dataset,” using vegetation communities to eliminate GDE polygons from the Upper Ventura River Groundwater Basin. The NC dataset is a statewide geographic computer database that maps vegetation types in all potential GDEs throughout the State of California. The large geographic scope of this map does not accurately represent current on-the-ground conditions, and more robust ground truthing should be undertaken. Even the aerial photos presented tell a different story than is acknowledged in the narrative.	Please see response to comment 6 above.

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85	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	Unfortunately, the UVRGSA analysis does not fully implement the Best Practices for using the NC Dataset guidance provided by the Nature Conservancy, which presents six best practices for using local groundwater data to confirm whether mapped features in the NC dataset are supported by groundwater. (Best Practices for using the NC Dataset, TNC July 2019). According to this guidance: -While depth-to-groundwater levels within 30 feet of the land surface are generally accepted as being a proxy for confirming that polygons in the NC dataset are supported by groundwater, it is highly advised that fluctuations in the groundwater regime be characterized to understand the seasonal and interannual groundwater variability in GDEs. (see Best Practice #2.) -One of the key factors to consider when mapping GDEs is to contour depth-to groundwater in the aquifer that is supporting the ecosystem (see Best Practice #5). The GIS Spatial Analysis of Maximum Rooting Depth and Groundwater Level presented in the Riparian GDE document does not present such contour depth-to-groundwater mapping or account for temporal variability	Please see response to comment 7 above.
86	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	Furthermore, TNC guidance acknowledges that; In many situations, the hydrologic connection of NC dataset polygons will not initially be clearly understood if site-specific groundwater monitoring data are not available. If sufficient data are not available in time for the 2020/2022 plan, The Nature Conservancy strongly advises that questionable polygons from the NC dataset be included in the GSP until data gaps are reconciled in the monitoring network. Erring on the side of caution will help minimize inadvertent impacts to GDEs as a result of groundwater use and management actions during SGMA implementation. Many of California's GDEs have adapted to dealing with intermittent periods of water stress, however if these groundwater conditions are prolonged, adverse impacts to GDEs can result. Therefore, it is likely that the NC vegetation mapping is representative of conditions in which groundwater levels have been frequently and repeatedly pumped beyond the reach of riparian tree roots. Meanwhile, field observations over the past few wetter years show that the riparian vegetation has rebounded, illustrating how the ecosystem responds with the variation in water years. Receding groundwater levels and corresponding loss of surface flows in the current drought will likely reverse this recent trend, with the potential loss of the many young sycamores and other riparian vegetation.	Please see response to comment 9 above.
87	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	Determining Groundwater/Surface water interactions TNC guidance for determining GDEs recognizes the importance of surface flows; In addition, SGMA requires that significant and undesirable adverse impacts to beneficial users of surface water be avoided. Beneficial users of surface water include environmental users such as plants or animals, which therefore must be considered when developing minimum thresholds for depletions of interconnected surface water. The Model Results and SMC Implications Presentation (March 25, 2021) reaches the conclusion that: • Basin water budget is dominated by streamflow percolation into the Basin and groundwater discharge to Ventura River • GW pumping averages only ~10% of the GW Budget As low as 4% in wet years Up to 31% in dry years • Basin GW levels will be lower in dry seasons, but Basin will still re-fill in normal to wet years The conclusion that there is no impact from pumping based on the fact that the basin rapidly refills in the wet season points to the likelihood that the surface water is in fact "connected" to groundwater during these periods. Moreover, the fact that pumping represents up to 31% of the budget in critical dry years raises the question of how groundwater extractions impact surface flows and groundwater levels.	Please see response to comments 10 and 11 above.
88	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	The Model Results identify four areas of concentrated pumping, three of which directly impact groundwater levels in the "Robles Reach." This reach is the area with the most storage in the Basin, and should be considered as the "primary sub-Basin" for water supply. The three areas of concentrated pumping in this reach are likely to affect conditions throughout the Basin.	See response to comment 12 above.

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89	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	The analyses and graphs presented in the Model Results do not provide information on the spacial and temporal surface flow conditions as they relate to groundwater levels. Because the downstream reaches are largely dependent on surface and groundwater flows out of this sub-Basin, further analysis is needed to more clearly define the relationship between groundwater levels and surface flows. The analyses should, at a minimum, determine threshold groundwater levels at which surface flows are diminished or eliminated, both in the reach being monitored and downstream. This relationship was established decades ago in the Ventura River Conjunctive Use Report (1978) which states that; Flows in the live stretch are affected by both the rate of recharge of the upper part of the Ventura River groundwater Basin and by the rate of groundwater extraction from wells in the river. Investigations published in the Conjunctive Use Report identified groundwater elevation thresholds in the upper Basin at which flows in the live reach will cease; when the water level in well 4N23WI6C4 falls below Elevation 495, surface flow in much of the live stretch stops although some pools remain. A flow of 1 cfs or more in the live stretch corresponds with a water level in this well of greater than about Elevation 507.	See response to comment 13 above.
90	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	Groundwater levels also affect surface flows in the Robles Reach, which frequently dries up despite constant inflows. Unfortunately, the Aquatic GDE Impact Analysis is quick to dismiss the effect of groundwater elevation on surface flows; No monitoring is recommended at either of the critical riffle aquatic GDEs or the Robles Habitat Area, as impacts from pumping in these areas were determined to be minimal or non-existent. This conclusion is inconsistent with the guidance provided in Monitoring Networks and Identification of Data Gaps BMP (DWR 2016) which states: 23 CCR §354.34(c)(6).	See response to comment 14 above.
91	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	The Draft GSP accurately identifies the Confluence Area as a GDE. The GSP, however, falls short in its determination that more years of study are necessary to determine if surface flow depletions caused by upstream pumping are significant and unreasonable. The confluence area is critical habitat for federally endangered Southern California steelhead trout. Steelhead have been observed over-summering in pools within this reach by state and local resource agencies. Surface water habitat and water quality conditions degrade significantly (to the point of complete dewatering) in this reach due to depletions of interconnected groundwater in the Robles reaches. The numeric model utilized to determine the effect of pumping on surface flows in the Confluence Area is not based on the best available science, which includes the State Water Resource Control Board's Groundwater and Surface Water model, currently well under development.	UVRGA recognizes that the Confluence Area provides important habitat for steelhead and other aquatic species, as outlined in the Aquatic GDE Memo. For the Confluence Area, it is unclear if depletions cause significant and unreasonable effects and monitoring is proposed to answer that question. The GSP recommends a monitoring program for the Confluence Habitat Area Aquatic GDE that may include water quality monitoring, field observations of instream habitat and aquatic species, and in-situ water quality and flow measurements. The details of the monitoring programs will be decided when the monitoring workplans are developed and approved by the UVRGA Board. The SWRCB model was not available for consideration during GSP development. However, based on review of the SWRCB model, UVRGA's numerical model provides a higher resolution of the Basin. UVRGA considers its model the best available science for GSP development. Having said that, UVRGA intends to evaluate the utility of using both models together for future GSP assessments and updates (the SWRCB Board model for regional inputs and the UVRGA model for improved resolution along the Ventura River). This approach will take advantage of the strengths of each model.

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92	8-Oct-21	Benjamin	Pitterle	ben@sbck.org	805-636-6189	Santa Barbara Channelkeeper 714 Bond Avenue Santa Barbara, CA 93103	4.9 Depletions of Interconnected Surface Water	<p>“Direct” Depletions of Surface Water The GSP defines the terms “direct” and “indirect” depletion with regard to depletion of interconnected surface waters. Direct depletion is defined as surface water depletion caused by a cone of depression from pumping wells near the Ventura River. The GSP, however, then continues to identify only the Foster Park Well field as a facility causing direct depletion. Multiple, major water extraction facilities are located in the Robles reach of the Upper Ventura River Basin. These facilities utilize wells located in direct proximity of the Ventura River. Pumping from these wells has the potential to create a cone of depression that could deplete surface flows. The Robles Reach historically receives perennial inflows from the upper Ventura River and its Matilija Creek and North Fork Matilija Creek tributaries. These inflows persist even during prolonged periods of drought. The GSP has not provided adequate evidence to support its assertion that most groundwater in the Basin “naturally” drains out of the Basin at a rate greater than inflows. In any case, pumping from wells located within the Basin and within immediate proximity of the Ventura River clearly have the capacity to produce cone of depression effects that can reduce and eliminate surface flows earlier than may naturally occur absent pumping. Such reduction in flows could have significant effects on riparian habitat and aquatic communities within the Robles Reach and downstream.</p>	Depletion of surface water in the Robles Reach was estimated using the numerical model. The model was run with and without pumping to determine streamflow depletions. The results indicated that depletion in the Robles Reach was very small compared to surface water flows during the steelhead migration season. Therefore, it was concluded that there are no significant and unreasonable depletions of surface water in the critical riffle areas caused by pumping. UVRGA concludes that detailed monitoring is not necessary in these areas due to the very small and insignificant modeled depletions and that the limited funding available for monitoring should be prioritized in the Confluence and Foster Park Areas, where UVRGA has concluded that significant and unreasonable effects could potentially occur.
93	13-Oct-21	Michael	Flood	mflood@casitaswater.com	805-649-2251	Casitas MWD 1055 N. Ventura Ave. Oak View, CA 93022		Various edits	All requested edits were made.
94	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802		<p>As explained more fully in the enclosure, the Draft GSP does not, but should, adequately address the recognized instream beneficial uses of the Upper Ventura River Groundwater Basin, as well as other GDE, potentially affected by the management of groundwater within the subject basin. Additionally, the Draft GSP should also recognize the important relationship between the extensive groundwater extractions and water diversion and storage within the basin (including the Robles and Foster Park diversion facilities) and its potential adverse effects on the amount and extent of surface flows and other water dependent habitat features utilized by the federally listed endangered southern California steelhead (<i>Oncorhynchus mykiss</i>).</p>	<p>Please see the “Environmental users of groundwater” bullet in section 2.3.1 where GDEs and instream beneficial uses are listed. Surface water beneficial uses are further detailed in Section 4.9.1. Appendix O and P provide the background on all potential GDEs (both riparian and aquatic) considered in the GSP.</p> <p>Specifically, aquatic GDEs (instream beneficial uses) were identified and considered in the GSP, as required by SGMA. Appendix P details the identification and assessment of aquatic GDEs, which are addressed in the sustainable management criteria for the depletions of interconnected surface water sustainability indicator (GSP Section 4.9).</p> <p>The numerical modeling analysis performed for the GSP accounts for Robles Diversion operations, Foster Park operations, and other groundwater extractions from the Basin, as described in Appendix H and Sections 3.3 and 4.9.</p>
95	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802		<p>The development and operation of groundwater supply facilities throughout the Basin are integral in the management of the water resources of the Ventura River. Facilities such as Robles Diversion and Foster Park Diversion (along with Matilija and Casitas dams) have profoundly altered the natural surface flow and groundwater recharge patterns in the Ventura River watershed, from the headwaters to the Pacific Ocean (e.g., NMFS 2003, 2007). Unless the Draft GSP is revised to reflect the operation of these integral components of the groundwater management program for the Ventura River, the future adopted GSP is unlikely to meet the requirement of SGMA to effectively provide for the protection of habitats, including those recognized instream beneficial uses that are dependent on groundwater such as fish migration, spawning and rearing, as well as other GDE within the Basin.</p>	<p>The numerical modeling analysis performed for the GSP accounts for Robles Diversion operations, Foster Park operations, and other groundwater extractions from the Basin, as described in Appendix H and Sections 3.3 and 4.9.</p> <p>UVRGA is unaware of any requirements under SGMA for the GSP “to provide for the protection of habitats, including those recognized instream beneficial uses that are dependent on groundwater such as fish migration, spawning and rearing, as well as other GDE within the Basin.” Rather, SGMA requires the GSA to avoid significant and unreasonable effects as determined by the GSA with stakeholder input. Although UVRGA agrees that protecting habitats is important to the health of aquatic species, including steelhead, SGMA does not require GSA to maintain optimal conditions for riverine species, but rather to manage to prevent significant and unreasonable effects related to groundwater extractions within 20 years. The GSP seeks to avoid significant and unreasonable effects by implementing minimum thresholds for depletion of interconnected surface water that seek to prevent substantial stress and/or potential mortality for steelhead related to groundwater extractions, based on best available science. The minimum thresholds do not preclude other actions that may be taken by other entities to enhance conditions for steelhead, which could optionally be incorporated into a future GSP update.</p>

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96	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802		When analyzing impacts on steelhead or other aquatic organisms resulting from groundwater and related streamflow diversions, identifying flow levels that effectively support essential life functions of this organism is critical (Barlow and Leake 2012). Specifically, it is essential to determine what flows adequately supports steelhead migration during the winter and spring, and juvenile rearing year round. Without an understanding of these hydrologic/biotic relationships, a GSP cannot ensure that significant and unreasonable adverse impacts from groundwater depletion (and in the case of the Ventura River, the integrally related surface water diversion/groundwater extraction program) are avoided (Heath 1983, California Department of Water Resources 2016, Belin 2018, CDFW 2019).	The GSP includes minimum thresholds for depletion of interconnected surface that are based on the best available science for hydrologic/biotic relationships. The GSP includes biological monitoring activities that will expand the understanding of site-specific hydrologic/biotic relationships (see Section 5.8). UVRGA will review and consider new data and information concerning hydrologic/biotic relationships during each GSP review/update.
97	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Pages ES-iii-iv	The Draft Plan states: "The beneficial uses of groundwater extracted from the Basin include municipal, industrial, and agricultural water supply." p. ES-iii The listed beneficial uses extracted from the boundaries of the Basin include only out-of-stream beneficial uses, and largely ignores the instream beneficial uses, including those linked to GDE. The Draft GSP should be revised to explicitly acknowledge the instream beneficial uses supported by the Basin, including the GDE associated with the upper Ventura River, as well as those affected by groundwater extraction from the Basin, including the lower Ventura River and the Ventura River Estuary. The recognized instream beneficial uses for the portion of the upper Ventura River within the Basin include: warm freshwater habitat, cold freshwater habitat, wildlife habitat, habitat for rare, threatened and endangered species, fish migration, and wetland habitat. Ventura River Estuary instream beneficial uses include: estuarine habitat, marine habitat, wildlife habitat, habitat for rare, threatened and endangered species, fish migration, spawning habitat, and wetland habitat.	Please see the "Environmental users of groundwater" bullet in section 2.3.1 where GDEs and instream beneficial uses are listed. Surface water beneficial uses are further detailed in Section 4.9.1. Appendix O and P provide further background on all potential GDEs considered in the GSP (both riparian and aquatic). Specifically, aquatic GDEs (instream beneficial uses) were identified and considered in the GSP, as required by SGMA. Appendix P details the identification and assessment of aquatic GDEs, which are addressed in the sustainable management criteria for the depletions of interconnected surface water sustainability indicator (GSP Section 4.9). The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.
98	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Pages ES-iii-iv	The Draft GSP recognized only two GDE areas within the Basin: 1) Confluence Aquatic Habitat Area, and 2) Foster Park Aquatic Habitat Area. This recognition of GDE underrepresents the known function and value of the river reach within the Basin for adult and juvenile endangered southern California steelhead. Steelhead use the entire reach of the Ventura River within the Basin for completing their life-cycle. See Figures 1 and 2 for a depiction of the designated steelhead critical habitat and intrinsic potential habitat within the Ventura River watershed, including the Basin B. See additional comments below regarding the GDE areas identified in the Basin.	UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects.
99	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	ES-3 Regional Water Management Framework Page ES-iv	<i>Casitas Municipal Water District Water Supply Management:</i> It should also be recognized that the Casitas Municipal Water District (CMWS) manages the Matilija Dam conjunctively with the Robles Diversion and Casitas Dam.	Comment noted.

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100	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	ES-4 Basin Setting and Groundwater Conditions Page ES-vii	<p>The Draft GSP notes that: "Groundwater extractions are secondary to spring discharge to the Ventura River except during dry periods when spring flows decrease substantially due to low Ventura River stream flow entering the northern end of the Basin" p. ES-vii</p> <p>The Ventura River watershed encompasses a system of connected groundwater and surface water that may become disconnected when groundwater levels are very low during drought and heavy groundwater extractions (or surface diversions), but this condition is anomalous, and does not represent the natural functioning of the system under unimpaired conditions. The SWRCB groundwater-surface flow study of the Ventura River (which includes the tributary groundwater basins) clearly demonstrates the connections between groundwater levels and surface flow (SWRCB 2021). The regulations governing SGMA do not stipulate that the provisions of SGMA cover only "principal aquifers" as the Draft GSP appears to presume. The regulations define interconnected surface water as "surface water that is hydraulically connected at any point by a continuous saturated zone to the underlying aquifer and the overlying surface water . . ." (23 CCR Section 351(0)). Significantly, "continuous" refers specifically to hydrologic connection, not a continuous temporal connection.</p> <p>The Draft GSP does not adequately recognize the potential role of groundwater in the Basin, including the lower Ventura River and Ventura River Estuary, for ensuring suitable surface water in habitat for supporting different life-history phases of steelhead. Further, because groundwater-management activities within the Ventura River watershed involve the CMCD diversion operations at the Robles Diversion, the relationship between these diversion activities and groundwater elevations along the affected portion of the Ventura River (and estuary) should be addressed in the revised Draft GSP.</p> <p>See additional comments below on interconnected groundwater and surface flows water surface elevations in Confluence Aquatic Habitat Area GDE and Foster Park Aquatic Habitat Area GDE within the Basin.</p>	<p>The GSP more than adequately characterizes the role of groundwater in the Basin. The numerical modeling performed for the GSP provides a comprehensive quantitative assessment and accounting of the relationship between groundwater and the Ventura River.</p> <p>The numerical modeling analysis performed for the GSP accounts for Robles Diversion operations, as described in Appendix H.</p> <p>SGMA does not require GSAs to manage basins to achieve unimpaired conditions.</p> <p>The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.</p>
101	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	ES-4 Water Budget Pages ES-x-xiii	<p>The Draft GSP notes that: "It was concluded that these factors [i.e., land use changes and population growth] are not anticipated to have a material impact on future water demand and the water budgets for the Basin because of land use policies and ordinances that greatly limit the potential for material growth in the basin" p. ES-x</p> <p>This statement is misleading because it does not recognize that groundwater resources of the Basin are used outside the Basin; for example, a substantial amount of groundwater extracted from the City of Ventura's groundwater wells in the vicinity of the Foster Park Aquatic Habitat Area GDE are used outside of the Basin to support development in eastern of Ventura, the fastest growing portion of the City of Ventura. The revised Draft GSP should acknowledge that future land use development and population growth outside of the Basin has the potential to affect the groundwater budget within the Basin.</p>	<p>Based on the 2020 Urban Water Management Plan for the City of Ventura (Kennedy/Jenks, 2021), production from the Upper Ventura River Basin is limited by infrastructure, the settlement with Santa Barbara Channelkeeper, and low-flow hydrology (Also, see description of the "Foster Park Protocols" in GSP Sections ES-8, 2.2.2.2, and 4.9.1, and 6.3). In addition, the forecasted estimated supply from the Upper Ventura River Basin is not projected to increase in the City of Ventura UWMP (Kennedy/Jenks, 2021).</p>

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102	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Overdraft Assessment Pages xi-xii	<p>The Draft GSP concludes that: “The water budget results do not indicate an overdraft condition in the Basin currently or in the future. Groundwater level have not been observed to decline over a period of years without fully recovering. Numerical model result for the project water budget indicate that groundwater levels will continue to fully recovery following droughts.” p. xii</p> <p>Several aspects of this statement are problematic. First, the years of record used for this assement include extensive periods of drought, and represent a groundwater/surface water system substantially impacted by past and currently unregulated groundwater extractions. Therefore, it is not surprising that an overdraft condition was not indicated.</p> <p>Second, relying on an assessment that is influenced by an extensive drought period and unregulated groundwater pumping is not likely to inform a proper environmental baseline for determining the true effects of a proposed groundwater-withdrawal program on GDE, including those supporting endangered steelhead.</p> <p>Third, using a degraded environmental baseline as the comparative barometer has the potential to perpetuate a degraded environmental baseline into the future.</p> <p>Fourth, the assessment appears to relate primarily to providing groundwater for traditional out-of-stream beneficial uses such a municipal and industrial supply, not instream beneficial uses, including use of ground and related surface waters by the federally endangered southern California steelhead, as well as other GDE.</p> <p>We would also note while more frequent and prolonged depression groundwater levels can sometimes be offset with water storage systems, or temporary water conservation use, to ensure out-of-stream uses of water demands, GDEs do not function in the same way. Even though a groundwater basin may “fully recover” its groundwater levels, the species depending upon an adequate supply of water do not respond or recovery in the same way as the physical system can. The revised GSP should recommend this fundamental difference in the role of groundwater supplies in supporting out-of-stream and instream beneficial uses, and the related GDE.</p>	<p>This commenter incorrectly considers the water budgets presented in the GSP to constitute an environmental baseline. The water budgets are not intended to serve as an environmental baseline; rather, the water budgets are included to meet the GSP Emergency Regulations requirements for quantification of surface water and groundwater inflows and outflows to/from the Basin under historical, current, and projected future conditions.</p> <p>Please see the “Environmental users of groundwater” bullet in section 2.3.1 where GDEs and instream beneficial uses are listed. Surface water beneficial uses are further detailed in Section 4.9.1. Appendix O and P provide further background on all potential GDEs considered in the GSP (both riparian and aquatic).</p>
103	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Sustainable Yield Pages xii-xiii	<p>The Draft GSP concludes: “In summary the concept of a sustainable yield over a long-term average period is not relevant to management of the UVRGB.” P. xii</p> <p>While expression of groundwater conditions in term of long-term averages conditions may have limited utility (particularly with respect to GDE) in a highly variable rainfall and run-off pattern, a long-term water budget is relevant. See comments above regarding the overdraft assessment.</p>	Please see response to above comment.
104	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	ES-6 Sustainable Management Criteria Pages ES-xiii-x	<p>The sustainable criteria are expressed explicitly and in terms of groundwater levels, storage water quality and depletion of interconnected surface waters, and do not clearly relate to the habitat conditions necessary to support steelhead during incubation and rearing phases of their life-cycle.</p>	The sustainable management criteria for the depletion of interconnected surface water considered the effects on aquatic GDEs, which include steelhead (See section 4.9.1).
105	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Chronic Lowering of Groundwater Levels and Reduction of Groundwater Storage Page xiv-xv	<p>While the Draft GSP recognizes potential significant and unreasonable effects from groundwater extractions, the minimum thresholds identified to address this is are based on historical low groundwater levels in the representative groundwater level monitoring wells. Using this standard, which includes significant periods of drought and unregulated groundwater extraction, is not likely to provide long-term protection for all the recognized beneficial uses of the Basin. Specifically, the exceedances caused by groundwater extraction and the related measurable objectives for groundwater storage do not adequately recognize the needs of the federally endangered southern California steelhead, or other GDE. The proposed standards appear aimed at seasonally refilling the Basin for the purposes of protecting existing groundwater extractions for traditional out-of-stream beneficial uses, and not for the protection of GDE. See additional comments below.</p>	The sustainable management criteria for the chronic lowering of groundwater levels water considered the effects on riparian GDEs (See section 4.4.1). The sustainable management criteria for the depletion of interconnected surface water considered the effects on aquatic GDEs, which include the habitat for steelhead (See section 4.9.1).

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106	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Degraded Water Quality Page xvi-xvii	The Draft GSP does adequately recognize the important relationship between groundwater levels and the surface flows (particularly base flows) or water quality parameters (such as temperature, dissolved oxygen, etc.) that contribute to the maintenance of GDE within the Basin (including the lower Ventura River and the Ventura River Estuary).	<p>The numerical modeling performed for the GSP provides a comprehensive quantitative assessment and accounting of the relationship between groundwater and the Ventura River.</p> <p>The depletion of interconnected surface water sustainable management criteria are based on a site-specific study that established a relationship between flow and potential significant and unreasonable effects on steelhead.</p> <p>The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.</p>
107	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Depletions of Interconnected Surface Water Page xvii-xix	As noted above, the Draft GSP recognized only two GDE areas within the Basin: 1) Confluence Aquatic Habitat Area and 2) Foster Park Aquatic Habitat Area. This limited recognition of the actual extent of GDE within the Basin does not accurately reflect the use of the river reach within the Basin by endangered southern California steelhead. Steelhead use the entire reach of the Ventura River within the Basin in completing their life-cycle. See Figures 1 and 2 for a depiction of the designated critical habitat and intrinsic potential habitat within the Ventura River watershed, including the Basin.	UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects.

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108	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Depletions of Interconnected Surface Water Page xvii-xix	<p>The Draft GSP indicates that the sustainable management criteria for interconnected surface waters in the Foster Park Aquatic Habitat Area GDE relied on a field study performed by Hopkins (2013). This study, which the Draft GSP characterized as “the best available science for the Foster Park Aquatic Habitat Area”, identified a flow of 2 cfs measured at the USGS Foster Park gauge (1118500) as adequate to prevent significant and unreasonable effects on steelhead. This claim warrants a couple of comments:</p> <p>First, the base flows are difficult to accurately measure in alluvial river settings that are characterized by shifting channel, and where and groundwater and hyporheic flows constitute an important component of the surface flow conditions. We would note in this regard that there are reported discrepancies between the Hopkins and USGS gauge measurements, as well the City of Ventura’s gauge measurements, and those done by other groups such as Santa Barbara Channel Keeper as part of their water quality monitoring pursuant to the State Water Board’s Quality Assurance Plan (USGS Station 11118500 Ventura R NR Ventura nwis.waterdata.usgs.gov/nwis, Foster Park gauge reporting website https://www.picovale.com).</p> <p>Second, NMFS has conducted an analysis of the effects of the groundwater extractions of the City of Ventura’s well field in the Foster Park area and concluded that the groundwater extractions would have significant effects of rearing steelhead in wet, average and dry hydrologic conditions, and has identified a minimum flow (11-12 cfs) that is considerably larger than that proposed in the Hopkins study (NMFS 2007). In its analysis, NMFS noted that the rate of pumping during wet years analyzed groundwater extractions from the Foster Park well field varied between 1 cfs and 20 cfs, and most commonly ranged between 9 to 12 cfs. These well pumping rates reduced surface flow in the Foster Park area by more than 50%, from about 15 cfs to less than 5 cfs in during the summer or fall in 1992, 1993, and 2001 when juvenile rearing would be expected to utilize the habitat. During average hydrologic conditions, the maximum and minimum flows in the lower Ventura River were reduced by well field withdrawals. The range of well field withdrawals during average rainfall years was also from about 2 cfs to 20 cfs, and ranged between 8 and 10 cfs. The reduction of surface flows from the Foster Park well field operations would result in extremely low surface flow levels (< 2 cfs), and would occur earlier in the year, compared to wet hydrologic conditions. Flow records during average rainfall years show that flows dropped to levels at or near zero due to the Foster Park well field extractions during the summer and fall rearing period in almost all average rainfall year (NMFS 2007, pp. 24-25).</p> <p>Based on this analysis, and an assessment of the effects of groundwater extractions in the Foster Park area, NMFS identified a limit on groundwater extractions that would prevent a reduction of surface flow in the Foster Park area below 11 to 12 cfs (measured at the USGS Foster Park gauge 11118500), a level significantly higher than that identified by Hopkins, and adopted by the Draft GSP.</p>	<p>For Foster Park, the minimum thresholds are based on the current best available science, which is the site-specific study by Padre (Hopkins 2013). Neither the CDFW flow recommendations nor the NMFS draft BO identify a threshold for significant and unreasonable effects based on groundwater pumping, while such a threshold is established in the Padre study. The CDFW study and BO include surface flow recommendations or requirements, respectively, to maintain beneficial habitat conditions for steelhead, which are not indicative of significant and unreasonable effects. Although the UVRGA agrees that maintaining beneficial surface water habitat conditions is important to the health of aquatic species and their habitats including steelhead, SGMA does not require GSAs to maintain surface water conditions for riverine species, but rather to manage significant and unreasonable effects related to groundwater pumping. The minimum thresholds do not preclude other actions that may be taken by other entities to enhance conditions for steelhead, which could optionally be incorporated into a future GSP update.</p>
109	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	ES-7 Monitoring Networks Pages x-xii	<p>The proposed monitoring is aimed primarily at addressing the limited Sustainable Management Criteria for only two GDE. There is little in the monitoring program that specifically addresses the potential effects of groundwater extractions on other GDE, including, but not limited to, the upper reaches of Basin, as well as the lower Ventura River and the Ventura River Estuary. As noted above, the Draft GSP recognized only two GDE areas within the Basin: 1) Confluence Aquatic Habitat Area and 2) Foster Park Aquatic Habitat Area. This limited recognition of GDE does not accurately affect the use of the reaches of the Ventura River within the Basin made by the endangered southern California steelhead, as well as other reaches and which may be affected by groundwater extractions from the Basin.</p>	<p>UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects.</p> <p>The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.</p>

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110	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	ES-8 Projects and Management Actions Page xxii-xxiii	Regarding the Foster Park Protocols, see comments above. The Draft GSP should also recognize the potential changes to water supply operations associated with the Matilija Dam Removal and Ecosystem Restoration Project (e.g., the retro-fitting of the Robles Diversion and fish passage facilities).	Potential effects that may result following Matilija dam removal will be monitored and considered in future GSP assessments/updates.
111	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	2.2. Description of the Plan Area Page 8	In addition to the agencies listed, we would note that a considerable amount land area is owned and managed by the Ojai Valley Land Conservancy (including land within the Confluence Aquatic Habitat Area GDE).	The Ojai Valley Land Conservancy is introduced in Sections 4.4.2 and 4.9.1, and an addition description has been added to Section 2.2: "The Ojai Valley Land Conservancy (OVLC) manages the Ventura River Preserve, located adjacent to the communities of Meiners Oaks, Rancho Matilija and Mira Monte. The OVLC work to protect and restore open space, wildlife habitat, watersheds, and views of the Ojai Valley for current and future generations."
112	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	2.2.2.2 Existing Water Resource Management Programs Pages 9-11	One of the largest and most significant water-resource-management programs within the Ventura River watershed, the CMWD's water development program, consists of the combined facilities of the Robles Divers (and conjunctively operated Matilija Dam) and Casitas Dam and Reservoir This program and its related facilities should be included in this section because it affects the natural recharge to the other groundwater basins in upper lower Ventura River, as well as the lower Ventura River basin and the Ventura River Estuary (NMFS 2003).	CMWD's Lake Casitas and Robles diversion operations are described in Section 2.2.2.2 and provided in Table 2.2-02.
113	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	2.2.2.3 Conjunctive Use Programs Page 12	The City of Ventura's water supply includes groundwater extractions (as well as surface diversions) and this fact should be noted in the revised GSP. See comment above	The City of Ventura's facilities consist of a subsurface dam and collector system and a series of wells, as described in Section 3.1.1.2.
114	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	2.2.3.1 Land Use/General Plans Pages 13-20	The Draft GSP should also include NMFS' Southern California Steelhead Recovery Plan (2012) which includes essential actions for the recovery of this species that pertain to existing land-use and water management policies. See comments above regarding the relevant policies from NMFS' Southern California Steelhead Recovery Plan.	SGMA requires the GSA to avoid significant and unreasonable effects as determined by the GSA with stakeholder input. Although UVRGA agrees that protecting habitats is important to the health of aquatic species, including steelhead, SGMA does not require GSA to maintain optimal conditions for riverine species, but rather to manage to prevent significant and unreasonable effects related to groundwater extractions within 20 years. The GSP seeks to avoid significant and unreasonable effects by implementing minimum thresholds for depletion of interconnected surface water that seek to prevent substantial stress and/or potential mortality for steelhead related to groundwater extractions, based on best available science. The minimum thresholds do not preclude other actions that may be taken by other entities to enhance conditions for steelhead, which could optionally be incorporated into a future GSP update.
115	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	2.3 Notice and Communication Pages 22-24	The Draft GSP is focused on out-of-stream users of the Basin and does not adequately recognize the public trust natural resources that may be affected by the extractions of groundwater from the Basin. The GSP is therefore be of interest to state and federal natural resource regulatory agencies such as NMFS, U.,S. Fish and Wildlife Service, and the California Department of Fish and Wildlife, and the California Department of Parks and Recreation (which owns a portion of the Ventura River Estuary).	The following text has been added to the GSP in several places: "UVRGA has considered public trust resources in development of this GSP by considering the impacts to riparian and aquatic groundwater dependent ecosystems, including endangered species therein, and by setting minimum thresholds designed to prevent undesirable results under SGMA."
116	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	2.3.1 Beneficial Uses and Users Pages 23-26	See comments above regarding instream beneficial uses within the Ventura River watershed, including the Basin.	Please see associated responses to above comments.

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117	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.1. Hydrogeologic Conception Model Page 30	I In addition to the older alluvium that is generally elevated above the groundwater table directly underlying the alluvial aquifer between the banks of the Ventura River, a large, perhaps a majority of the groundwater collected in the alluvium originates from the upslope portions of the watershed. In effect, the area of the percolation lens that feeds the Basin is more extensive than the two areas identified in the Draft GSP (i.e., alluvial aquifer and the older alluvium). Significantly, not all the wells in the upper Ventura River are located and drilled into the shallow aquifer directly underlying the river channel that is most directly recharged by surface flows in the Ventura River. The GSP should explicitly address these groundwater extractions from the Basin.	The boundaries of the UVRGB have been defined based on SGMA regulations and are described in Section 3.1.3.1.1.
118	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.1.2.2 Surface Water Bodies Page 33	In addition to groundwater discharge, hyporheic flows are an important component of surface flows, particularly base flows. These conditions create an interrupted surface flow regime during a large portion of the year in the middle reaches of the Ventura River (from approximately the Robles Diversion down to the confluence of San Antonio Creek), and can be significantly affected by groundwater extractions, particularly from shallow wells.	Hyporheic flows are accounted for in the GSP. At locations and times where/when the water table is connected to the streambed, hyporheic flows are implicitly modeled as groundwater flow. At locations and times where/when the water table is disconnected from the streambed, hyporheic flows are implicitly modeled as surface water flow.
119	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Page 34 & 35	Springs along the Ventura River are generally associated with east-west trending faults that run perpendicular to the mainstem. These faults have been mapped, though the production of the springs associated with them have not been measured (Ventura River Watershed Council 2015). Water from Casitas Reservoir is also used in the west end of the City of Ventura that lies outside the Basin (Ventura River Watershed Council 2015). See comment above	Comment noted. The VRWC 2015 reference was considered and reviewed by UVRGA – note, the referenced report was not prepared by a CA licensed professional engineer or geologist.
120	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.1.3.2 Groundwater Recharge and Discharge Areas Pages 46-47	See comments above regarding the extent of the groundwater recharge area in the Ventura River watershed.	Please see associated responses to above comments.
121	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.1.4 Data Gaps and Uncertainty Page 52	One of the largest data gaps is the rate of surface flow under base flow conditions, including the diurnal changes. Because of their relatively small size and dependence on groundwater and hyporheic flows and groundwater levels, these flows measured in a way that records their seasonal and diurnal fluctuations, and should be a major focus of current and future modeling efforts.	Comment noted. The proposed additional monitoring wells and stream gauges for the monitoring network (Sections 5.3 and 5.8) may provide additional data to assess the diurnal relationship between groundwater and surface water if it is determined to be relevant to management of the Basin.
122	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.1.4.4 Primary Beneficial Uses Pages 50-52	See comments above regarding beneficial uses of the groundwater resource of the Basin, and interconnected surface waters.	Please see associated responses to above comments.
123	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2 Groundwater Conditions Pages 54-69	The Draft GSP notes that: "Vertical gradients may exist between the alluvium and the bedrock, but no paired wells screened in the bedrock and alluvial exist to estimate this gradient." p. 55 The Draft GSP does not, but should, provide details regarding the well construction showing the intervals of the well through which groundwater enters the wells. In addition, the revised GSP should clarify whether "sanitary plugs" are installed in the wells that retard or prevent flow through shallow and deep aquifers. See comment above regarding the assertion that "No data gaps or significant uncertainties were identified."	Well construction details are provided in Table 5.3-01.
124	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2.1 Groundwater Elevations Page 55-56	The Draft GSP acknowledges that: "The Basin groundwater level and storage trends closely mimic surface water flows, with groundwater levels and storage exhibiting large and rapid fluctuation relative to the total started thickness and total groundwater storage – more so than perhaps any other groundwater basin in the State." p 56 We would note that base surface flows closely mimic groundwater levels, making the management of groundwater extraction particularly importance in the maintenance of GDE, including habitat for the endangered southern California steelhead.	Comment noted.

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125	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2.2 Change in Storage Page 57	See comments above regarding groundwater elevations	Please see associated responses to above comments.
126	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2.3 Seawater Intrusion Page 58	The Draft GSP notes that: "The UVRGB is an inland groundwater basin, with no connection to the ocean." p. 62 The analysis appears to be focused on the effects of seawater intrusion on the Basin, but does not address the effects of groundwater extraction from the Basin on the lower Ventura River or the estuary. The GSP should address the issue of reducing groundwater levels underlying the lower reaches that are hydrologically connected to the Basin.	The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.
127	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.3.4 Groundwater Quality Impacts Pages 58-60	See comments above regarding water quality	Please see associated responses to above comments.
128	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2.6 Interconnected Surface Water Systems Pages 63-65	See comments above regarding interconnected surface waters	Please see associated responses to above comments.
129	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2.7 Groundwater-Dependent Ecosystems Pages 66-69	The Draft GSP relies heavily on the Nature Conservancy's (TNC) guidance for GDE analysis (TNC 2019, 2020). According to this guidance, GDE are defined on their dependence on groundwater for all or a portion of their water needs. The method used by TNC in identifying GDE is based on statewide data on "vegetation known to use groundwater", and therefore does not adequately reflect the uses made of groundwater by other biological resources, such as seasonal migration of fishes, or other organisms such as invertebrates that have differing life-cycles and environmental requirements than plants (TNC 2019, 2020). In addition to supplying water to the root zone of plants, groundwater can also contribute to surface flows, influencing the timing, duration, and magnitude of surface flows, particularly base flows. These base flows provide essential support to aquatic invertebrates, avian fauna, and fish species, including native resident and anadromous fishes. In addition, groundwater that only seasonally supports surface flows can contribute to the life-cycle of migratory fishes, such as steelhead, that can make use of intermittent flows for both migration, spawning and rearing (Erman and Hawthorne 1976, Boughton et al. 2006, 2009). The methodology used in the Draft GSP focuses almost exclusively on vegetation known to use groundwater and, therefore, ignores the seasonal variation in the groundwater levels in the reach of the Ventura River underlain by the Basin that can periodically (seasonally, or intra-annually) exhibit surface flows by affecting their timing magnitude, and duration.	Aquatic GDEs were identified and considered in the GSP, as required by SGMA. Appendix P details the identification and assessment of aquatic GDEs, which are addressed the sustainable management criteria for the depletions of interconnected surface water sustainability indicator (GSP Section 4.9).
130	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.2.7 Groundwater-Dependent Ecosystems Pages 66-69	As a result, the Draft GSP only identified 5 potential GDE and included only two for further consideration in the formulation of sustainable management criteria: 1) Confluence Aquatic Habitat Area and 2) Foster Park Aquatic Habitat Area. This limited view of the GDE does not accurately reflect the use of the river reach within the Basin by endangered southern California steelhead. Steelhead use the entire reach of the Ventura River within the Basin for completing their life-cycle. The GSP should be revised to recognize the role that groundwater plays in supporting base flows that support other GDE, including those used by steelhead	UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects.

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131	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.3 Water Budget Pages 70-75	See comments above regarding the water budget for the Basin	Please see associated responses to above comments.
132	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.3.1 Historical Water Budget Pages 76-82	The Draft GSP notes that: "The SGMA Regulations require that the historical surface water and groundwater budget be based on a minimum of 10 years of historical data." p. 79 The Draft GSP does not refer to or account for the effects of the operation of the CMWD's Robles Diversion on the Upper Ventura River, which supplies on average 45% of the total amount of water diverted and stored in the Casitas reservoir acre-feet per year from the main stem of the Ventura River (NMFS 2003, Ventura River Watershed Council 2015). This diversion operation affects recharge to all of the Ventura River groundwater basins, not just the Basin, including the shallow alluvial aquifer and the other deeper aquifers within Basin. These operations have the potential to impact endangered adult and juvenile steelhead in the upper Ventura River and estuary (NMFS 2003, 2007). The Draft GSP should therefore include as part of its water-budget analysis the operations of the Robles Diversion. Specifically, the relationship of groundwater management activities (including both recharge and groundwater extraction activities) and the effects of the related Robles Diversion on surface flows below the diversion and the maintenance of surface flows supported by groundwater should be explicitly addressed a in the revised GSP.	The numerical modeling analysis performed for the GSP and resulting water budgets account for Robles Diversion operations, as described in Appendix H and Section 3.3. It is noted that SGMA does not require GSAs to analyze the effects of surface water diversions on beneficial users and users of water and the GSA has no regulatory authority over surface water diversions.
133	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.3.2 Current Water Budget Pages 84-86	As noted above, the Draft GSP does not refer to or account for the effects of the operation of the CMWD's Robles Diversion on the upper Ventura River, but should as part of its current water budget. See comments above regarding the CMWD's Robles Diversion.	Please see response to above comment.
134	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.3.3 Projected Water Budget Pages 84-91	As noted above, the Draft GSP does not refer to or account for the effects of the operation of the CMWD's Robles Diversion on the upper Ventura River, but should be included as part of its projected water budget. See comments above regarding the CMWD's Robles Diversion.	Please see response to above comment.
135	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	3.3.4.1 Overdraft Assessment Page 91	The Draft GSP notes that: "The water budget result do not indicate an overdraft condition in the Basin currently or in the future. Numerical model results for the projected water budge indicate the groundwater level will continue to fully recovery following droughts." p. 91 As noted above, this analysis does not take into account the effects of either the protracted drought or the past unregulated extraction of groundwater, or the differing effects of temporary drawn of the groundwater table on traditional out-of-stream beneficial uses and instream beneficial uses of the waters of the Ventura River watershed.	The GSP complies with the SGMA requirements for water budgets contained in the GSP Emergency Regulations.

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136	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	The Draft GSP states, in part, that: "The goal of this Groundwater Sustainability Plan (GSP) is to sustainably manage the groundwater resources of the Upper Ventura River Basin for the benefit of current and anticipated future beneficial users of groundwater, including the environment and the welfare of the general public who rely directly or indirectly on groundwater. Sustainable groundwater management will ensure the long-term reliability of the Upper Ventura River Basin groundwater resources by avoiding undesirable results pursuant to the Sustainable Groundwater Management Act (SGMA) no later than 20 years from Plan adoption and through implementation of a data-driven and performance-based adaptive management framework." p. 94 Nothing in the language of the goal specifically refers to the protection of instream beneficial uses associated with the GDE of the Basin, such as the upper Ventura River or the downstream reaches of the Ventura River, including the Ventura River Estuary. This appears to be the result, in part, of not fully recognizing interconnected surface waters or GDE within the boundaries of the Basin. However, as noted above, the Basin contains interconnected surface water and GDE beyond the two that are identified for sustainable management criteria. See comments above, and Figures 1 and 2, regarding the extent of steelhead habitat within the Ventura River watershed, including within the boundaries of the Basin.	The goal states, "including the environment . . . who rely directly or indirectly on groundwater", which includes instream beneficial uses. .
137	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	See comments above regarding groundwater Basin dynamics	Please see associated responses to above comments.
138	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	The discussion in this section is focused on out-of-stream beneficial uses of the groundwater resources of the Basin. It does not directly address the instream beneficial uses of interest to state and federal natural resource regulatory agencies such as NMFS, U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife, and the California Department of Parks and Recreation. These would include, but are not limited to, the GDE associated with the upper Ventura River, lower Ventura and the Ventura River Estuary. The causes that could lead to undesirable results should include the operations of CMWD's Robles Diversion on the upper Ventura River. See comments above, particularly regarding GDE.	Please see response to comment 136. It is also noted that surface water beneficial uses are detailed in Section 4.9.1 and aquatic GDEs were identified and considered in the GSP, as required by SGMA. Appendix P details the identification and assessment of aquatic GDEs, which are addressed the sustainable management criteria for the depletions of interconnected surface water sustainability indicator (GSP Section 4.9). The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.
139	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	None of the minimum thresholds in the Draft GSP addresses specifically the endangered southern California steelhead (other than the Foster Park Aquatic Habitat Area GDE). As noted, this standard is not supported by the best available science. This is a significant omission from the Draft GSP that should be addressed in the revised Draft GSP for the Basin.	The sustainable management criteria for the depletion of interconnected surface water considered the effects on aquatic GDEs, which include steelhead (See section 4.9.1). Streamflow depletion was assessed using the numerical groundwater model, which was calibrated to measured streamflow and groundwater levels in the Basin (Appendix H) and follows SGMA requirements. UVRGA used the numerical model to quantify depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects.

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140	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	See comments above regarding the interest of state and federal natural resource regulatory agencies such as NMFS, U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife, and the California Department of Parks and Recreation (which owns a portion of the Ventura River Estuary).	The following text has been added to the GSP in several places: "UVRGA has considered public trust resources in development of this GSP by considering the impacts to riparian and aquatic groundwater dependent ecosystems, including endangered species therein, and by setting minimum thresholds designed to prevent undesirable results under SGMA."
141	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	The Draft GSP states that: "UVRG is unaware of any federal, state, or local standards for chronic lowering of groundwater levels." P. 104 While there is no general numeric standards for chronic lowering of groundwater levels, this statement fails to recognize the over-arching standards established by SGMA, particularly those intended to protect GDE.	This statement is included in the GSP to comply with CCR §354.28(b)(5).
142	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	The Draft GSP indicates that: "Groundwater elevations will be directly measured to determine their relation to minimum thresholds. Groundwater level monitoring will be conducted in accordance with the monitoring plan outlined in Section 5." P. 111 The groundwater-monitoring plan only provides for annual monitoring. A more appropriate approach would be to monitor seasonally to account for the strong effect of seasonal changes in hydrologic and hydraulic conditions that are of significant to GDE, including, but not limited to, those associated with the Basin. For example, monitoring towards the end of summer or beginning of fall, as well as the beginning of spring each year could help inform groundwater and other natural resource managers of the effects of both recharge (natural and artificial) as well as groundwater pumping patterns on GDE within the Basin. Without shallow groundwater wells that would provide specific data on the relationship between groundwater levels and surface flows, a reliable assessment of the effects of extracting groundwater from these areas on GDE is not possible. This is a significant data gap that could be addressed by the installation of shallow groundwater wells (or piezometers) to better describe these relationships. Additionally, data gathered from groundwater well monitoring should be correlated with stream flow in the upper Ventura River. This can and should be accomplished by added a stream flow gauges capable of monitoring base flows in the upper Ventura	The groundwater monitoring program includes quarterly manual measurements in addition to transducer data (see Table 5.3-01), which is a continuous measurement. The GSP complies with CCR §354.34(b).
143	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	The Draft GSP indicates that: "The chronic lowering of groundwater levels measurable objectives were developed by applying the concept of providing a reasonable margin of operational flexibility under adverse conditions." P. 105 This strategy is more suitable for managing traditional out-of-stream beneficial uses that instream beneficial uses associated with GDE, including river flows for the endangered southern California steelhead. See additional comments above.	Instream beneficial uses are addressed by the sustainable management criteria for depletions of interconnected surface water sustainability indicator, Section 4.9.
144	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.2 Sustainability Goal Pages 90-100	The Draft GSP states that: "The evaluation of potential effects on beneficial uses and users, and property interests for the reduction of groundwater storage sustainability indicate is the same as for chronic lowering of groundwater levels and depletions of interconnected surface water sustainability criteria and its incorporated by reference" p. 108 As noted previously, the Draft GSP should be revised to explicitly acknowledge all the instream beneficial uses supported by the Basin. The recognized instream beneficial uses for the portion of the upper Ventura River include: warm freshwater habitat, cold freshwater habitat, wildlife habitat, habitat for rare, threatened and endangered species, fish migration, and wetland habitat. See comments above, and Figures 1 and 2, regarding the extent of steelhead habitats within the Ventura River Watershed, including the Basin.	Instream beneficial uses are addressed by the sustainable management criteria for depletions of interconnected surface water sustainability indicator, Section 4.9.

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145	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.5.1 Undesirable Results Page 108	The Draft GSP states that: "The criteria used to define undesirable results for the reduction of groundwater storage sustainability indicator are based on the qualitative description of undesirable results, which is causing other sustainability indicators to have undesirable results. As explained in Section 4.5.2, groundwater levels will be used as a proxy for the reduction of groundwater storage sustainability indicator minimum thresholds. Based on the foregoing, the combination of minimum threshold exceedances that is deemed to cause significant and unreasonable effects in the basin for the reduction of groundwater storage sustainability indicator is the same as the combinations deemed to cause undesirable results for the chronic lowering of the groundwater levels sustainability indicator (Table 4.1-01)." p. 108 While groundwater levels are an important indicator of the general condition of the Basin, there are other more meaningful metrics specifically aimed at informing management of the Basin for the protection of instream beneficial uses associated with GDE (e.g., base flow rates, pool depth, stream width, depth across riffles, etc.) Specifically, the current approach is based on criteria that do not, but should, address whether there may be significant stream flow depletion or lowered water surface elevation (from a biological perspective) caused by groundwater pumping within the Basin.	Instream beneficial uses are addressed by the sustainable management criteria for depletions of interconnected surface water sustainability indicator, Section 4.9.
146	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.5.2.3 Relationships Between Minimum Thresholds and Sustainability Indicators Page 110	The Draft GSP indicates that: "The relationships between the minimum thresholds for the reduction of groundwater storage sustainability indicator and other sustainability indicators are the same as the potential effects of the minimum thresholds for the chronic lowering of groundwater levels on the other sustainability indicators . . ." p. 110 This approach and analysis may be appropriate when considering groundwater supplies for out-of-stream beneficial uses for which there may be alternatives. However, it does not take into account the adverse effects of periodic reduction of groundwater on GDE, including the use by migrating, spawning or rearing steelhead. The effects of periodic groundwater reductions on out-of-stream beneficial uses (e.g., domestic or agricultural water supplies) may be addressed with alternative water sources. However, instream uses such as GDE are more vulnerable to periodic groundwater reductions, because there is generally no alternative water source to sustain the GDE, and even a short-term depletion or limitation of stream flow or water surface elevation can be lethal to aquatic species	Instream beneficial uses are addressed by the sustainable management criteria for depletions of interconnected surface water sustainability indicator, Section 4.9.
147	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.5.2.5 Impact of Minimum Thresholds on Beneficial Uses and Users Page 110	See comment above regarding the relationship between Minimum Thresholds and Sustainability Indicators.	Please see response to above comment.
148	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.5.2.6 Current Standards Relevant to Sustainability Indicator Page 110	As noted above, while there are no numeric standards, this statement does not appear to recognize the standards that are established by SGMA, particularly regarding GDE.	Please see response to above comment #141
149	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.5.2.7 Measurement of Minimum Thresholds Page 111	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.

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150	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.5.3 Measurable Objectives and Interim Milestones Page 111	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
151	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.6 Seawater Intrusion Page 112	See comment above regarding the seawater intrusion.	There is no comment above regarding the seawater intrusion.
152	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Criteria Used to Define Undesirable Results Page 114	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
153	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.6.2.1 Information and Criteria to Define Minimum Thresholds Page 115	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
154	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.7.2.2 Relationships Between Minimum Thresholds and Sustainability Indicators Page 119	As noted above, the groundwater extraction from the Basin can affect recharge of the groundwater basin underlying the lower Ventura River and Ventura River Estuary.	The lower Ventura River and Ventura River Estuary are located in the Lower Ventura River Basin, which is not subject to SGMA due to its very low priority status. UVRGA is unaware of any specific concerns downstream of the Upper Ventura River Basin that would be related to groundwater management of the Upper Ventura River Basin and no specific concerns were raised by stakeholders during the GSP development process for consideration.
155	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.7.2.3 Minimum Thresholds in Relation to Adjacent Basins Page 119	See comment above.	Please see associated responses to above comments.
156	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.7.2.4 Impact of Minimum Thresholds on Beneficial Uses and Users Page 120	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
157	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.7.2.5 Current Standards Relevant to Sustainability Indicator Page 120	As noted, the Draft GSP does not appear to recognize the broad standards that that are established by SGMA.	Please see response to above comment #141

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158	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.6.2.6 Measurement of Minimum Thresholds Page 121	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
159	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.7.3 Measurable Objectives and Interim Milestones Page 121	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
160	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.9 Depletion of Interconnected Surface Water Pages 123-124	See comments above regarding interconnected surface water and GDE.	Please see associated responses to above comments.
161	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Process and Criteria for Defining Undesirable Results Page 124	See comments above regarding the interest of state and federal natural resource regulatory agencies such as NMFS, U.S. Fish and Wildlife Service, and the California Department of Fish and Wildlife, and the California Department of Parks and Recreation (which owns a portion of the Ventura River Estuary).	Please see associated responses to above comments.
162	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Evaluation of Potential Effects on Beneficial Uses and Users, Land Uses, and Property Interests Page 125	As noted previously, the Draft GSP should be revised to explicitly acknowledge the instream beneficial uses supported by the Basin, including the GDE associated with the upper reaches and middle of Ventura River. See comment above regarding "Process and Criteria for Defining Undesirable Results."	The identification and assessment of GDEs are thoroughly documented in Appendices O and P. Further, UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects. Instream beneficial uses are addressed by the sustainable management criteria for depletions of interconnected surface water, Section 4.9.
163	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Effects on Surface Water Diversions Page 126	See the discussion above regarding the City of Ventura's Foster Park well field and the CMWD's Robles Diversion.	The numerical modeling analysis performed for the GSP accounts for Robles Diversion and Foster Park operations, as described in Appendix H and Sections 3.3 and 4.9.
164	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Effects on Aquatic GDEs Page 127	The Draft GSP only identified 5 potential GDE and included only two for further consideration in the formulation of sustainable management criteria: 1) Confluence Aquatic Habitat Area and 2) Foster Park Aquatic Habitat Area. This limited recognition of GDE does not accurately reflect the use of the river reach within the Basin by endangered steelhead. Steelhead use the entire reach of the Ventura River within the Basin for completing their life-cycle. See Figures 1 and 2 for a depiction of the designated critical habitat and intrinsic potential habitat within the Ventura River watershed, including the Basin.	UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects.

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165	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Confluence Habitat Area Page 127	The Draft GSP's assertion that because the Basin has 20 years to achieve sustainable management, there is ample time available to implement appropriate management of the groundwater levels associated with the Confluence Habitat Area does not appropriately recognize the endangered status of the steelhead that utilize and occupy the Ventura River, including the area the Confluence Habitat Area. This statement reflects the same perspective that was expressed in the assertion that the periodic depletion of the Basin is acceptable or reasonable because the Basin has the ability to refill rapidly. As noted above, instream beneficial uses such as GDE are more vulnerable to periodic groundwater reductions, because there is generally no alternative water source to sustain the GDE during periodic periods of groundwater depletion. Even a short-term depletion or limitation of stream flow or water surface elevation can be lethal to aquatic species.	The GSP, including the timing of actions to meet the SGMA mandate to achieve sustainable groundwater management within 20-years of GSP adoption, are compliant with SGMA regulations. The GSP does not preclude other actions that may be taken by other entities to enhance conditions for steelhead, which could optionally be incorporated into a future GSP update.
166	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	Foster Park Habitat Area Page 128	See the discussion above regarding the City of Ventura's Foster Park well field, as well as the discussion below under Section 6.0., Project and Management Actions.	Please see associated responses to above comments.
167	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.9.2 Minimum Thresholds Page 131	See the comments above regarding "Minimum Thresholds", "Criteria Used to Define Undesirable Results" and "Relationship Between Minimum Thresholds and Sustainability Indicators."	Please see associated responses to above comments.
168	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	4.10 Measurable Objectives and Interim Milestones for Additional Plan Elements Page 136	The Draft GSP indicates that "No additional plan elements that have measurable objectives are include in the GSP". P. 136. See the comments above regarding the Confluence Habitat Area, Foster Park Habitat Area, and other GDE within the Basin, which are not adequately addressed.	The cited language is included in the GSP to address GSP Emergency Regulations §354.30(f). The comment is not applicable to GSP Emergency Regulations §354.30(f).
169	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	5.0 Monitoring Networks Pages 137-154	As noted above, the monitoring proposed is aimed at addressing the limited Sustainable Management Criteria. There is nothing identified in the monitoring program that addresses the potential effects of groundwater extractions on GDE (with the exceptions of the Confluence Habitat Area and the Foster Park Habitat Area) within the Basin. Shallow groundwater wells within the alluvial overlaying the Basin would provide specific data on relationship between groundwater levels and surface flows. This appears to be a significant data gap that should be addressed by the installation of shallow groundwater wells (or piezometers) to better described these relationships.	UVRGA has quantified depletion of surface water throughout the Basin (Appendix N; GSP Section 3.2.6 and 4.9, Table 3.2-01, Figures 4.9-01 and 4.9-03) and has concluded that depletions are small relative to typical surface flows upstream of the Confluence area. SMC are not required for those areas because UVRGA has concluded that the small depletions do not cause significant and unreasonable effects. For these reasons, monitoring is not a priority in these areas. The GSP describes the plan to add 5 monitoring wells and 3 stream gages to the existing monitoring network (Sections 5.3 and 5.8), with the purpose of correlating groundwater levels with streamflow and updating the numerical groundwater model to enhance the calculation of streamflow depletion. The installation of the monitoring network additions is included in the final GSP as projects in Section 6. As discussed in the GSP, monitoring is prioritized in areas where the greatest potential for significant and unreasonable effects exists.

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170	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	6.3 Foster Park Protocols to Address Direct Depletion of Interconnected Surface Water Pages 163-173	It should be recognized that NMFS was not a party to the settlement agreement between Santa Barbara Channel Keep and the State Water Resources Control Board and the City of San Buenaventura, and has not reviewed or endorsed that settlement agreement which uses a different (lower) minimum flow standard recommended by NMFS for the operation of the City's Foster Park well field. See the comments above regarding the City of Ventura's Foster Park Well Field.	Comment noted.
171	8-Dec-21	Anthony Mark	Spina Capelli	mark.capelli@noaa.gov	805-963-6478	National Marine Fisheries Service West Coast Region 501 West Ocean Boulevard, Suite 4200 Long Beach, CA, 90802	7.0 GSP Implementation Pages 174-183	See comment above regarding "Projects and Management Actions".	Please see associated responses to above comments.

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