Flood Control & Water Conservation District

Review Form Shasta Groundwater Sustainability Plan

Dear Reviewer,

Per SGMA requirements, a Groundwater Sustainability Plan (GSP) has been developed for the Shasta Valley groundwater basin. The GSA has released a complete draft GSP and has initiated a 45-day public review and comment period and seeks input from all beneficial users of groundwater.

REVIEWER INSTRUCTIONS:

Given the large number of reviewers, accommodating track changes or other editing options within the original draft sections distributed to all committee members is not possible. Please consider using this reviewer form with the following instructions:

- Use the form below to provide comments. Feel free to add additional lines to the form as needed.
- For suggested text changes, please copy and paste the text you wish to change and place your suggested edits in track changes or strikethrough features in this document. What's important is that technical staff can see *both* the original draft text and your distinct suggestions.
- Note the Chapter, Page, Section, and line number—from the <u>PDF version</u> of the draft GSP section—where your comment, question or suggested text edit begins.
- Examples of how to provide feedback are listed in the review form below. <u>These examples</u> are not actual comments and are made up to show how the table should be used. Feel free to delete these examples with your submission, and only include your feedback.
- To comment on a figure or table, in the line number column on the reviewer form note the figure number *and* the page number and type your comment in the text section to the right.

Please email comments directly to (<u>sgma@co.siskiyou.ca.us</u>). Include in the subject line the basin you are commenting on. If you are making comments on multiple basins, send as separate comments.

Please send your comments no later than end of day <u>September 26, 2021</u>. Comments will not be accepter on or after September 27th, 2021.

Please use the following file nomenclature in saving your review document: ShastaGSP_PublicReviewDRAFT_[Your name]_date

Thanks for contributing to the draft Groundwater Sustainability Plan for the Shasta Valley Groundwater Basin

Flood Control & Water Conservation District

<u>Reviewer name</u>: Scott Valley and Shasta Valley Watermaster District <u>Submission date</u>: September 26, 2021 <u>GSP sections reviewed</u>:

Chapter	Page	Section	Line/Table/Figure #	Comment (please delete example text below once you submit)
2	14	2.1.2.2	Line 233	Recommend: Amend to specify that "during dry seasons, groundwater springs in the Big Springs Complex provide an estimated 95 percent of baseflow to the lower Shasta River via the Big Springs Creek tributary" (Nichols et al, 2010).
2	19-20	2.1.2.12	449	Recommend: list BSID and MWCD separately, to identify them as the only irrigation districts that divert groundwater. Comment: If the descriptions of SWRA and GID are to remain in the plan, need to make clear that these are adjudicated surface water users that are not subject to SGMA.
2	20	2.1.2.12	450	Correction Needed: BSID abandoned 25 of 30 cfs priority 24 from Big Springs Lake in a letter dated 6/18/1987 to DWR. BSID then abandoned the remaining 5cfs in a letter dated 12/17/1996 to DWR. Therefore, BSID has no active water rights from Big Springs Lake.
2	20	2.1.2.12	451	Question: what entity will manage SSWE BSID's groundwater diversion?

2	20	2.1.2.12	454	Correction needed: Please clarify that BSID does not divert surface water. Is the "surface water management" described here referring to their delivery system?
2	20	2.1.2.12	456-462	Correction needed: Please clarify that GID has surface water rights via the Shasta River Decree that are not subject to SGMA. Question: how/why will GID surface water management be incorporated into the GSP?
2	20	2.1.2.12	472-476	Correction needed: Please clarify that SWRA has surface water rights via the Shasta River Decree that are not subject to SGMA. Question: SSWD-007 how/why will SWRA surface water management be incorporated into the GSP?
2	23	2.1.2.16	519-530	Comment: Thank you for editing this section from the previous draft. Lines 519-530 are now largely duplicative to lines 531-566, and could be deleted.
2	24	2.1.2.16	567-568	Comment: SSWD may be prohibited from providing this level of diversion detail due to privacy regulations. SSWD-009 However, we can consult with legal counsel as to what type of aggregate data we could provide.

2	78	2.2.1.5	1466-1468	Comment: This statement is not accurate. Please provide supporting SSWD-010
2	107	2.2.2.6	2087	documentation for the Willis source. Recommend: Since Big Springs
2	107	2.2.2.0	2087	accounts for 95% of lower Shasta
				River baseflow during the irrigation SSWD-011
				season, please pursue research to
				address this data gap first, rather than
				the current research focus along the
				Little Shasta River.
2	116	2.2.2.6	2209	Correction needed: No surface SSWD-012
				irrigation diversions were occurring
				at the time of this study. Please edit
				this sentence to reflect this fact.
3	6	3.3	All	Comment: SSWD can assist in
				collecting data that will inform the SSWD-013
				"Depletions of Interconnected
				Surface Water (ISW)" component of
				the GSP. SSWD has a particular
				interest in addressing the SGMA
				undesirable result of "depletions of
				interconnected surface water that
				have significant and unreasonable
				adverse impacts on beneficial uses of
				the surface water" <i>Wat. Code</i> § $10721(y(t)) = 02.66$
				10721(x)(1) - 93 (6).
3	14-17	3.3	Table 1	Recommend: Highly recommend
-	111/	5.5		adding ISW monitoring sites near
				known groundwater pumping SSWD-014
				locations.

Flood Control & Water Conservation District

3	26	3.3.4.1	436	STRONGLY RECOMMEND: Need
				to evaluate groundwater SSWD-015
				contributions to the Shasta River
				year-round, or at least before, during,
				and after irrigation season.
3	29	3.3.4.1	474	Recommend: SPU gage has value as
				indicator of surface water depletions,
				particularly immediately before and
				after the majority of groundwater SSWD-016
				pumps turn on in the spring.
3	30	3.3.4.2	504	Recommend: SPU is currently
				maintained by DWR and has been SSWD-017
				since 2013. Please include the data
				from this gage.
3	31	3.3.4.3	513	Recommend: Monitoring needs to
				occur prior to groundwater pumps
				turning on in the spring, in order to
				capture data to help determine how
				much groundwater pumping is SSWD-018
				depleting surface flows in the lower
				Shasta River.
3	31	3.3.4.3	522	Recommend: If groundwater level
				sampling only occurs twice per year,
				it should be done pre and post SSWD-019
				irrigation season.
3	42	3.4.3.2	791	Question: What are the identified
				reaches for ISW? Again, any useful
				ISW measurements need to be taken
				prior to, during, and after irrigation SSWD-020
				season.
3	42	3.4.3.2	807-812	Comment: Computing baseflows at
				SRM using this formula for gaging

 \downarrow

Flood Control & Water Conservation District

minimum thresholds during the irrigation season on a real-time basis can be very cumbersome and inaccurate due to all the variables involved including the large number of adjudicated and riparian surface water diversions between Dwinnell Reservoir and SRM, unknown surface and subsurface return flows from irrigation as well as the large flow travel time between these two sites which is estimated at about 18 hours at lower flows. For this method to be reliable, the flow at the upstream and downstream gages and the surface water and ground water diversions would have to be in a steady state at least 18 hours before the measurements as well as during the measurements. The watermaster would also need permission from the riparian diverters to measure their diversions along with the adjudicated diversions within a given day. Even so, this method does not account for the depletion of surface water due to ground water diversions.

Given all the variables involved, SSWD recommends that minimum thresholds be determined for SPU and real-time baseflows be computed

SSWD-021 contd.

Flood Control & Water Conservation District

 \uparrow

				using the SPU gage instead of SRM.
				When baseflows are approaching
				minimum thresholds, only a few
				surface water diversions will be SSWD-021
				occurring between Dwinnell contd.
				Reservoir and SPU, no riparian
				diversions exist, the flow travel time
				is only about 6 hours and as the
				available flow data for SPU
				indicates, the baseflow at this gage
				equals near 100% of the inflow to the
				Lower Shasta during low flow
				periods and the actual flow at this
				gage would be close to the baseflow.
3	43	3.4.3.2	Table 7	Correction needed: The SRM mean
				daily flow values for 2016 and 2017
				in Table 7 do not agree with the
				USGS final data. These values
				should be 40.6, 48.8, 65.6, 67.4, 71.4
				and 75.0 cfs, respectively. The flow
				values for $2018 - 2020$ agree with
				the final data. Also, it appears that SSWD-022
				the terms "Baseflow" and
				"Groundwater Contributions" as used
				in Table 7 and Figure 10 are the same
				values, but this is confusing.
3	45	3.4.3.4	Table 8	Recommend: SSWD recommends
				that the preliminary minimum SSWD-023
				threshold for baseflow be set at 115
				cfs instead of 100 cfs and a trigger be
				Ť

		Flood Control 8	& Water Conservation I	District
				set at 130 cfs instead of 115 cfs at SRM and that these values do not change depending on the year type.
3	45	3.4.3.3	849	Recommend: using 115 as the minimum threshold. This is consistent with the recent SWB Emergency Drought Regulation. If the SGMA process doesn't address drought conditions, the SWB likely will. Note: The recent SWB Emergency Drought Regulation included a schedule of water right priorities for both surface water and groundwater users. It would behoove the SGMA Team to include this in the GSP.
3	47	3.4.3.6	932	Recommend: CDFW will be installing a stream gage in Big Springs Creek, which is a major ISW area. Recommend including this gage into the monitoring network to provide real-time continuous flow data.
4	6	4.1	Table 4.1	Correction needed: on Watermaster Tier 1: Please add first sentence: SSWD-026 "Implements Shasta River Decree." Then, please replace "enforce" with "assists in managing."
4	10	4.1	Table 4.1	Recommend: adding Tier 3 project titled "Coordinated Shasta Valley Irrigation Management," as a voluntary locally-led initiative
				Ψ

				\wedge
				amongst all water users to rotate diversions and employ other tools to keep more water instream and avoid additional regulations. Potentially led by SSWD or RCD.
4	11	4.2	304	Recommend: For new well permits, add a restriction of how close to surface water the well can be placed, based on modeling of if surface water will be depleted by well pumping.
4	19	4.2	501	Same recommendation as above. SSWD-029