

## Big Valley GSP Comment Matrix (Chapter 6)

Document	Packet Page	Page & Line Number	Comment	Date	Response
Public Draft Ch 6, Water Budget	11	Figure 6-2, page 6-2	Why is the atmospheric system not incorporated into the water budget	Nov. 4	Inputs from the atmospheric system appear as precipitation, which is about 12' - 15" per year. The water budget accounts for precipitation as either falling onto land or onto water bodies.
Public Draft Ch 6, Water Budget	13	Figure 6-4, page 6-4	If inflow were to equal outflow, that would represent a balanced system. There are some streams that have crazy flows during periods of high precipitation.	Nov. 4	Yes, which is why it's important to recharge groundwater during high flows - so that stored groundwater can be used during dry periods.
Public Draft Ch 6, Water Budget	13	Section 6.2, page 6-4 and elsewhere	There are no naturally occurring lakes in the basin. Any standing bodies of water are reservoirs.	Nov. 4	All references to lakes were changed to reservoirs.
Public Draft Ch 6, Water Budget	15	Footnote 1, page 6-6	What is the definition of long-term (e.g. long-term sustainability)?	Nov. 4	By 2042, mechanisms should be in place to manage water from year to year. When it comes to setting thresholds, those levels should provide room so as to stay in compliance during periods of variation or fluctuation. It may be that, during the next 20 years, conditions might get worse before it gets better.
Public Draft Ch 6, Water Budget	15	Figure 6-8, page 6-6; and PPT slide #15	Double-check the lines calculated by excel.	Nov. 4	The results were checked to see if they were reasonable.
Public Draft Ch 6, Water Budget	18	Appendix 6-A, Land System, Line 1	How are inflows from areas outside the basin boundaries represented? [Note: This is paraphrased from a question by Aaron asking if calculations can be provided to support future requests for boundary modifications.]	Nov. 4	An assessment of subsurface inflow through Barber Ridge (from Round Valley) was performed and determined to be on the order of <1 Acre-foot per year. Assessment of subsurface inflow elsewhere in the Basin may be
Public Draft Ch 6, Water Budget	12	Page 6-3, Line 49	Has the data from the CIMIS station in McArthur been adjusted for Bieber?	Nov. 4	That is being adjusted for. Also, Steve Orloff has a paper on percent application of water, in terms of ET, for alfalfa in Scott Valley - which may be a helpful estimate. In the updated water budget adjustments were
Public Draft Ch 6, Water Budget	26, 28	Appendix 6-B, (multiple locations)	Why is Managed Aquifer Recharge set at zero?	Nov. 4	Managed Aquifer Recharge refers to actions where the primary objective is recharge (e.g., as opposed to reservoirs, where surface water storage is the primary objective, with recharge is a secondary result). Projects such as flooding for habitat might quantify as Managed Aquifer Recharge. It would be necessary to state that groundwater recharge is an intended benefit from the flooding.
Public Draft Ch 6, Water Budget	13	Figure 6-4, page 6-4	Question from the public: you mentioned approximately 100K error in stream outflow out of the basin. Also, you said that we know that more water actually flows into the basin than out. (Fig 6-4) Does this explain the approximately 80K difference between the estimated and actual groundwater budget? (not sure of slide #)	Nov. 4	There are many pieces to the water budget. These two factors are not necessarily related.
Public Draft Ch 6, Water Budget	18	Appendix 6A Land System, line 2, assumptions	Ag is not the only user of surface water: surface water is also used by loggers, fire-fighters, Caltrans, illegal marijuana grows, wildlife, etc.	Nov. 4	There is no quantification of other surface water uses.
Public Draft Ch 6, Water Budget	18	Appendix 6A Land System, line 2, data needs	Ash Creek Wildlife Area and Groundwater Pumping: (someone) retired and had maintained a lot of data on groundwater pumping.	Nov. 4	Laura can work to coordinate data transfer.

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Public Draft Ch 6, Water Budget	18	Appendix 6A Land System, line 3, data source	Population source shows Bieber - there are other communities as well.	Nov. 4	Bieber has a municipal system, which is different from domestic extractions. Adin will be added in as a public water supply which is a non-municipal use.
Public Draft Ch 6, Water Budget	31	Appendix 6C Land System chart	Do inflows on the Land System bar chart include surface water sources from outside the basin what provide water for irrigation uses within the basin? (e.g., Roberts Reservoir, Silva Flat, etc.)	Nov. 4	Those reservoirs outside the basin are not per se considered here. The flows out of the reservoir are included in the category of the watershed that are ungaged. While flow out of the reservoir is measured, there is not access to a long-term record of that. It is shown as an inflow coming in as stream flow. The diversion of the stream flow to application to the field or ditch is represented as a surface water delivery. (40% of applied water is from surface water.)
Public Draft Ch 6, Water Budget	13-14	6-4 and 6-5, Section 6.2	How is it possible that inflow exceeds outflow?	Oct. 30	While inflow and outflow may be more equal during certain seasons, outflow may exceed inflow during other seasons. This data represents the total annual inflow and outflow. Inflow exceeds outflow overall because of water use in the Basin, primarily evapotranspiration from ag and wetlands.
Public Draft Ch 6, Water Budget	15	pg. 6-5, Figures 6-5, 6-6, 6-7	A better explanation of "Between Systems" is needed.	Oct. 30	Flow between systems is depicted in Figure 6-2 (pg. 6-2) and will be further explained during 11/4/20 BVAC meeting.
Public Draft Ch 6, Water Budget	18	Appendix 6A, Land System, items 2 & 3	Need clarification on where assumption of 40% surface water and 60% groundwater used for irrigation comes from.	Oct. 30	An assessment of surface water and groundwater use was performed using information provided by stakeholders, surface water right places of use, well drilling records, and aerial imagery. Section 6-2 discusses this
Public Draft Ch 6, Water Budget	18	Appendix 6A, Land System, items 7 & 8	Need clarification on percentages under "Assumptions" column; change "groundwater" to "groundwater".	Oct. 30	Irrigation efficiency of 85% was used based on input from the NRCS of typical practices in the region.
Public Draft Ch 6, Water Budget	20	Appendix 6A, GW System item 27	Is it true that no subsurface inflow occurs in the basin?	Oct. 30	An assessment of subsurface inflow through Barber Ridge (from Round Valley) was performed and determined to be on the order of <1 Acre-foot per year. Assessment of subsurface inflow elsewhere in the Basin may be
Public Draft Ch 6, Water Budget	30	Appendix 6C, Total Basin bar chart	Stream inflow and outflow are even during some parts of the year but not others; it would be helpful to see exact number of acre-feet on Appendix 6C bar charts	Oct. 30	The exact numbers could be placed on the bar charts, but that would make them cluttered and not as readable. The exact numbers are available in Appendix 6B.
Public Draft Ch 6, Water Budget	32	Appendix 6C, Surface Water bar chart	Explanation is needed for Surface Water Delivery as an outflow. If a percentage used for irrigation goes to the plants, is the percentage that goes back to the groundwater captured in one of the categories on the inflow side of the chart?	Oct. 30	Surface water delivery is an outflow from the Surface Water System to the Land System. It is not an outflow from the Basin. The associated outflow from the Basin would be represented by Evapotranspiration
Public Draft Ch 6, Water Budget	33	Appendix 6C, Groundwater bar chart	Because the colors are similar, it appears that there is a small amount of subsurface inflow on the bar	Oct. 30	Subsurface inflow of about 1 Acre-foot per year was added in the refined version of the water budget.