October 13, 2021

Brian Bondy, Executive Director
Upper Ventura River Groundwater Sustainability Agency

Sent via email to bbondy@uvrgroundwater.org

Subject: Comments on the UVRGSA Draft Groundwater Sustainability Plan

Dear Mr. Bondy:

Thank you in advance for accepting these comments and allowing for Casitas' Board of Directors review prior to submittal to the Upper Ventura River Groundwater Sustainability Agency (UVRGSA). Casitas Municipal Water District (Casitas) has the following comments on the UVRGSA's Draft Groundwater Sustainability Plan (Draft GSP) published August 2021. In general, the comments are clarifications and updates to descriptive text relating to water supplies and facilities managed by Casitas.

Page ES-iv, and Pages 9-10
Please revise the language to be based on most recent planning documents as follows.

> *Current Draft GSP Language:*
> *CMWD operates Lake Casitas, which provides approximately ⅔ of the water supply in the Basin. CMWD operates Lake Casitas pursuant to its combined 2015 Urban Water Management Plan (UWMP) and Agricultural Water Management Plan (2020 update of UWMP in progress).*
>
> *CMWD is also currently working on a Comprehensive Water Resources Plan (draft as of June 2020) that identifies the safe demand for its water supplies and identifies projects to address the gap between supply and demand for implementation over the next 10 years. Implementation of this plan is expected to address CMWD's anticipated supply gap, thereby preventing increased reliance on groundwater supply which would otherwise potentially impact UVRGB operational flexibility.*
>
> *Revised Language:*
> *CMWD operates Lake Casitas, which provides approximately ⅔ of the water supply in the Basin. CMWD's 2020 Urban Water Management Plan (UWMP) is a long-term planning document comparing supplies and demands over the next 20 years. The 2020 UWMP outlines reliability of existing and planned water sources, demand management measures, progress toward meeting the State's demand reduction goals, and water shortage contingency plans. During droughts, Casitas manages its supplies with its Water*

Efficiency and Allocation Program (WEAP), which uses a water allocation system to manage demands based on water supply conditions.

Page 33-34

Please revise the language as follows, reflecting that the dry reach begins upstream of the Robles Diversion based on Casitas' observations and mapping shown in Figure 3.2-12 of the Draft GSP.

Current Draft GSP Language:

Just past the Robles Diversion (at Gage 607) the Ventura River has very low flows (and is often dry) in the summer and early fall months. These dry conditions are typical in the Robles and Santa Ana Areas, except during stormflows in much of the Ventura River. In general, flows are generally highest in the months of January to March and are generally lowest August through October.

Revised Language:

Beginning just upstream of the Robles Diversion and at Gage 607 (located just past the Robles diversion), the Ventura River has very low flows (and is often dry) in the summer and early fall months. These dry conditions are typical in the Robles and Santa Ana Areas, except during stormflows in much of the Ventura River. In general, flows are generally highest in the months of January to March and are generally lowest August through October.

Page 35

Please revise the language as follows:

Current Draft GSP Language:

Casitas Reservoir is the largest reservoir within the watershed. The Casitas Dam was constructed in 1959 by the United States Bureau of Reclamation (USBR), providing a maximum storage capacity of 254,000 AF (Entrix, 2001) with a long-term average demand of 17,500 AF (VRWC, 2015). Water is diverted from the Ventura River via the Robles Diversion and delivered to the reservoir through the Robles Diversion Canal, a concrete-lined 5.4-mile canal (EDAW, 1978). The diversion works consist of a cutoff wall, forebay basin, spillway, fish passage structures, and diversion canal to Casitas Reservoir (CMWD, 2005). Typically, a little less than half of the reservoir supply comes from the Ventura River. Runoff from Coyote and Santa Ana sub-watersheds provides the remainder of its supply (Entrix, 2001). Diversions from Ventura River to Casitas Reservoir are typically from January to March when the river flows are sufficient to meet certain operational regulatory requirements designed to address upstream steelhead migration impediments between the diversion works and just north of the Santa Ana Boulevard bridge. The diversion system has a nominal capacity of 500 cfs (CMWD, 2021). Environmental considerations and physical operating conditions govern operation of the diversion structure under different hydrologic situations. The Biological Opinion (BO) from the National Marine Fisheries Service (adopted in 2004) modified previous requirements for passage of flows for fish habitat. This was further modified during the recent drought to allow increased diversions to the Lake when storage levels in the Lake are low (CMWD,

2021). Within the Migration Period (Jan. 1st to June 30th) outlined in the BO, available flows above 30 cfs up to 500 cfs can be diverted down the Robles Canal, with flows at or below 30 cfs, bypassing the diversion structure and flowing downstream. Additional diversion rules are applied to maintain flows during and after stormflow events within the fish migration season. Outside of the migration period (July 1 to December 31), available flows over 20 cfs up to 500 cfs can be diverted down the Robles Canal.

Water from the Lake Casitas Reservoir is the primary water supply for many users in the Basin. Lake Casitas' water is also blended with poorer quality groundwater to improve water quality and extend supplies (VRWC, 2015). The reservoir is carefully managed to maintain supplies during a dry period equivalent to the historical 21-year dry period from 1945 to 1965, the longest dry period on record. While the lake has not yet been put to a "21-year dry period test," it has been a reliable source of water in many multi-year dry periods when numerous wells were dry and there was little flow in the Ventura River (VRWC, 2015).

Revised Language:

Lake Casitas is the largest storage reservoir within the watershed. Casitas Dam was constructed in 1959 by the United States Bureau of Reclamation (USBR), with a current maximum storage capacity of 238,000 AF. Water is diverted from the Ventura River via the Robles Diversion and delivered to the reservoir through the Robles Diversion Canal, a concrete-lined 5.4-mile canal (EDAW, 1978). The diversion works consist of a cutoff wall, forebay basin, spillway, fish passage structures, and diversion canal to Lake Casitas (CMWD, 2005). Typically, a little less than half of the reservoir supply comes from the Ventura River. Runoff from Coyote and Santa Ana sub-watersheds provides the remainder of its supply (Entrix, 2001). Diversions from Ventura River to Lake Casitas are typically from January to March when the river flows are sufficient to meet certain operational regulatory requirements designed to address upstream steelhead migration impediments between the diversion works and just north of the Santa Ana Boulevard bridge. The diversion system has a nominal capacity of 500 cfs (CMWD, 2021). Environmental considerations and physical operating conditions govern operation of the diversion structure under different hydrologic situations. The Biological Opinion (BO) from the National Marine Fisheries Service (adopted in 2004) modified previous requirements for passage of flows for fish habitat. This was further modified during the recent drought to allow increased diversions to Lake Casitas when storage levels are low (CMWD, 2021). Within the steelhead migration season (Jan. 1st to June 30th) outlined in the BO, available flows above 30 cfs up to 500 cfs can be diverted down the Robles Canal, with flows at or below 30 cfs, bypassing the diversion structure and flowing downstream. Additional release rules are applied to maintain flows during and after stormflow events with downstream releases of up to 171 cfs.. Outside of the migration season (July 1 to December 31), available flows over 20 cfs up to 500 cfs can be diverted down the Robles Canal.

Water from the Lake Casitas Reservoir is the primary water supply for many users in the Basin. Lake Casitas' water is also blended with poorer quality groundwater to improve water quality and extend supplies (VRWC, 2015). The reservoir is carefully managed to maintain supplies during a an extended dry period, and planned operations are based on hydrologic modeling that incorporates a historic 21-year dry period, future climate change

impacts, and the National Marine Fisheries Service 2003 non-jeopardy Steelhead Trout Biological Opinion for the Robles Diversion and Fish Passage Facility. Lake Casitas has been a reliable source of water in many multi-year dry periods when numerous wells were dry and there was little flow in the Ventura River (VRWC, 2015).

Page 52

Regarding the language below describing availability of gage 607 data, please note that the data is now available through 2020 on Casitas' website: https://www.casitaswater.org/for-customers/fisheries-program.

Streamflow data along the Ventura River are available at the 607 gage (located just downgradient of the Robles Diversion) and the Foster Park station (gage 608). While continuous and recent streamflow data is available from the Foster Park station, data from gage 607 was not available past 2017 due to delays in reporting by CMWD. This is not considered a significant data gap or uncertainty. These data will be incorporated into the modeling when CMWD publishes.

Page 64

Please revise the language as follows, reflecting that the dry reach begins upstream of the Robles Diversion based on Casitas' observations and mapping shown in Figure 3.2-12 of the Draft GSP.

Draft GSP Language:

The Ventura River within the Robles Area is mostly dry south of the Robles Diversion, except under stormflow conditions, when flows in the Ventura River exceed the infiltration rate along the riverbed.

Revised Language:

The Ventura River within the Robles Area is mostly dry starting just upstream of the Robles Diversion, except under stormflow conditions, when flows in the Ventura River exceed the infiltration rate along the riverbed.

Page 78

Please revise the language as follows:

Draft GSP Language:

A 2004 Water Supply and Use Report (CMWD, 2004) quantified the safe yield for the reservoir to be 20,540 AF/yr based on a 21-year critically dry period – down from the original 28,000 AF/yr safe yield planned by the USBR in 1954. The 20,540 AF/yr safe yield was used in the 2005, 2010, and 2015 urban water management plans. As the drought beginning in 2012 progressed, demands decreased due to voluntary and mandatory conservation measures implemented by CMWD and its retail purveyors. These measures were implemented proactively to extend the supplies of Lake Casitas. More recently, 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.

Revised Language:
A 2004 Water Supply and Use Report (CMWD, 2004) quantified the safe yield for the reservoir to be 20,540 AF/yr based on a 21-year critically dry period – down from the original 28,000 AF/yr safe yield planned by the USBR in 1954. The 20,540 AF/yr safe yield was used in the 2005, 2010, and 2015 urban water management plans. As the drought beginning in 2012 progressed, demands decreased due to voluntary and mandatory conservation measures implemented by CMWD and its retail purveyors. These measures were implemented proactively to extend the supplies of Lake Casitas.

More recently, the Lake Casitas yield model was updated to include:

- *Extended hydrologic period of record of 1945-2018 (from previous of 1945-1999)*
- *Incorporated results of recent Lake Casitas bathymetric survey – reduced maximum storage capacity from 254,000 AF to 237,761 AF*
- *Added function to compute reservoir spills*
- *Incorporated Robles Diversion operations based on 2003 Biological Opinion requirements and 2018 Critical Drought Protection Measures*
- *Reduced modeled Robles diversions based on a diversion efficiency of 70 percent, consistent with operational data since the Fish Passage Facility was constructed*
- *Improved method of calculating monthly net evaporation loss*

On April 21, 2021, the Board of Director adopted a planned Casitas System operational yield of 15,010 AF/yr. The new operational yield is based on the updated modeling results, a -4.3 percent climate change adjustment based on the anticipated changes to precipitation, and a -15 percent supply safety factor to account for uncertainty in modeling assumptions. This updated yield was incorporated into CMWD's 2020 Urban Water Management Plan.

Page 82
Please revise the language as follows:

Draft GSP Language:
The current safe yield (also referred to as "safe demand") for Lake Casitas is 10,660 AF/yr. Average CMWD deliveries for the current period are close to the 10,660 AF/yr safe demand. Consistent with the historical evaluation (Section 3.3.1.1), 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.

Revised Language
The current operational yield for the Casitas System is 15,010 AF/yr. Average CMWD deliveries for the current period (2017 through 2019) were approximately 11,000 AF/yr. Consistent with the historical evaluation (Section 3.3.1.1), the surface water supply was deemed reliable for purposes of this GSP because water demands were less than projected for much of the historical period and water demands has stayed within the planned operational yield of the reservoir.

Page 88
Please revise the language as follows:

Draft GSP Language:
As discussed in Section 3.3.2, Lake Casitas current "safe demand" is estimated to be 10,660 AF/yr (CWRP report). The CMWD CWRP indicates a 5,160 AF supply gap between the reservoir safe demand and projected demands for the overall CMWD service area. However, CMWD's draft CWRP includes projects planned for implementation over the next decade to bridge the gap between "safe demand" and projected demands for Lake Casitas surface water supplies. This includes conservation measures to reduce future demands and projects to generate new water supplies. As such, with the planned future projects and conservation measures in CMWD's CWRP, surface-water deliveries to UVRGB are anticipated to be reliable through the 20-year GSP implementation period.

Revised Language
As discussed in Section 3.3.2, the current operational yield of the Casitas System is estimated to be 15,010 AF/yr (CMWD 2020 UWMP). The CMWD 2020 UWMP is a water supply planning document that projects demands and supplies over the next 20 years. This includes demand management measures as well as projects to generate additional water supplies. For purposes of this analysis, with the planned supplies and conservation measures in CMWD's 2020 UWMP, long-term surface-water deliveries to UVRGB are anticipated to be reliable through the 20-year GSP implementation.

If there are any questions in this regard, please do not hesitate to contact me at mflood@casitaswater.com or 805.649.2251, Ext. 111.

Sincerely,

Michael Flood
General Manager

c: