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April 1, 2021

Anthony Emmert
Executive Director
Fillmore and Piru Basins Groundwater Sustainability Agency

Subject: UWCD Comments on 2021 Feb Stillwater Sciences draft GDE Technical Memo

Dear Tony:

United Water Conservation District (United) appreciates the opportunity to provide comments on the draft Stillwater Sciences Technical Memorandum (Tech Memo) titled *Assessment of Groundwater Dependent Ecosystems for the Fillmore and Piru Basins Groundwater Sustainability Plan*, dated 2021 February.

United compliments the authors for a thorough documentation of riparian plant communities in the Piru and Fillmore basin, their varied extent and health over time, and a detailed inventory of the species those riparian plant communities support. We do however recommend removal of the California Condor, as known condor habitats are not associated valley floor riparian areas. As noted by the authors, the Tech Memo also includes multiple incorrect references to Pacific lamprey occurrence in the Santa Clara River upstream of Sespe Creek and in lower Piru Creek. Please remove those inaccurate references.

The authors appear to presuppose that all riparian habitats in the Piru and Fillmore basins are Groundwater Dependent Ecosystems (GDEs). The documents consistently refers to all riparian communities as "GDE Units." Simply "riparian plant communities" or "*potential* GDE Units" would be a much better working reference throughout the document. Consistent use of the GDE Unit term applied to areas that are finally determined to *not* be GDEs provides ample opportunity for inaccurate or misleading citations or references to the Tech Memo. Notable, the authors drop the GDE Unit tag in Section 5.4.3 when three Riparian Complexes are identified as important GDEs for consideration in the Groundwater Sustainability Plans (GSPs) for the Piru and Fillmore basins.

The Tech Memo lacks a clear definition of what distinguishes a GDE from other riparian communities sustained by surface water flows, soil moisture, or shallow local/perched groundwater occurrence that is not subject to significant influence from pumping from the main aquifers of the basins. It would be helpful if these definitions were included early in the document.

Discussion of the hydrology associated with the Del Valle Riparian Complex could be much improved. United's understanding is that rising groundwater primarily occurs in the upper portions of this complex in the western portion of the Eastern basin (in Los Angeles County). Less than a mile downstream of the county line (the rather arbitrary head of the Piru basin), the abandoned Blue Cut gaging station is located on a bedrock high. From this point downstream to the Las Brisas bridge, surface flow is thought to be stable, and sustained by the rising water and recycled water discharges in Los Angeles County. The river transitions to a losing reach near the Las Brisas bridge, the current location of the USGS stream gage. A



shallow water table commonly exists in this area, but is clearly sustained by the surface water flows from upstream areas. Please take care to describe this area in more detail and note that the occurrence of rising water in this area is not influenced by any known groundwater pumping in the Fillmore basin.

Please take care when referencing United's groundwater elevation contours. Noting a shallow depth to water in a single year near the western margins of Santa Clara River Riparian Shrubland habitats in the Piru and Fillmore basins should not suggest that United believes shallow groundwater is common across those habitats.

United agrees with Stillwater's assessment that Tributary Riparian areas are not likely to be "connected to groundwater."

Well 03N20W08A01S may be a poor choice to represent shallow groundwater elevations in the East Grove Riparian Complex. Water level records from this well appear to show a confined aquifer response from deeper production zones. One would expect shallow groundwater levels to be much more stable in this area known to commonly have groundwater discharge to the channel of the Santa Clara River.

United agrees with Stillwater's conclusion that the Cienega and East Grove Riparian Complexes are important GDEs to be considered in the GSPs for the Piru and Fillmore basins. Regarding the Del Valle Riparian Complex, surface water flow in the first mile of the Santa Clara River within the Piru basin likely includes groundwater inputs, but below Blue Cut the river is stable or losing. Care should be taken to appropriately characterize how or if groundwater production in the Piru basin would significantly influence the health or extent of the Del Valle Riparian Complex.

If you have any questions or would like to discuss these comments, please do not hesitate to contact me at 805-525-4431. Looking forward to seeing the final version of this important document.

Sincerely,

A handwritten signature in blue ink that reads "Dan Detmer".

Dan Detmer, PG, CHG
Supervising Hydrogeologist
United Water Conservation District

cc: Tony Morgan, DBS&A
Bruce Orr, Stillwater Sciences