DRAFT 2018 SGMA BASIN PRIORITIZATION

FILLMORE & PIRU SUBBASINS COMMENTS

JUNE 2018

On behalf of the Fillmore and Piru Basins Groundwater Sustainability Agency (FPBGSA), the following comments are offered:

Fillmore Subbasin (4-004.05) and Piru Subbasin (4-004.06) are two of the series of alluvial groundwater subbasins located along the Santa Clara River Valley in Ventura County, California. They lie within the Santa Clara River Watershed and fully within Ventura County. The connected subbasins are part of the larger groundwater system of the Santa Clara River Valley.

California CASGEM and Groundwater Sustainability Basin Prioritization - Versions June 2014 and January 2015 identified Fillmore Subbasin as "Medium" priority and Piru Subbasin as "High" priority. Neither subbasin is considered in "Critical Overdraft". Following the release of the 2016 Basin Boundary Modifications, DWR began the 2018 SGMA prioritization of California's 517 groundwater basins. The Draft 2018 Basin Prioritization changes Fillmore Subbasin's priority from "Medium" to "High" priority. Piru Subbain's priority was unchanged by the 2018 prioritization and remains a "High" priority subbasin.

Fillmore and Piru Subbasins were apparently scored adversely for seawater intrusion, resulting in Fillmore Subbasin's change in priority. The DWR Comment (C7_Impacts_Salt_Intrusion) available from the 2018 SGMA Basin Prioritization Dashboard contains the same comment for Fillmore and Piru Subbasins: "1) Water purveyors in the Piru, Fillmore, Santa Paula, Mound, and Oxnard subbasins include United Water Conservation District and Ventura County. United Water Conservation District operates surface water facilities to encourage groundwater protection through conjunctive use (UWCD 2012). Groundwater issues within the United Water Conservation District service area (which includes all of the basin) include overdraft conditions, sea water intrusion, and high nitrate concentrations."

United Water Conservation District (United) is a public agency whose 334 square-mile service area includes much of the Ventura County portion of the Santa Clara River Valley and the greater Oxnard Plain. United's service area includes all or part of seven groundwater basins or subbasins as mapped in the 2016 DWR Bulletin 118 GW Basins.

The Oxnard Subbasin (4-004.02) is the subbasin within United's service area that is recognized to be experiencing seawater intrusion. This is a contributing factor to the Subbasin's priority as "Critically Overdrafted". The Fillmore and Piru Subbasins, although hydrologically connected to the Oxnard Subbasin, are over seven miles up-gradient of the Oxnard Subbasin. Water levels in the most down-gradient portion of the Fillmore Subbasin never decline below elevations of 200 feet above sea level even in the extreme drought conditions that Ventura County has experienced over the past six years.

The northeast portion of the Oxnard Subbasin is locally known as the Oxnard Forebay although this designation is not officially recognized in DWR's Bulletin 118 GW Basins. It is in United's service area within the Oxnard Forebay where high nitrate concentrations periodically exist when groundwater levels are low in the Oxnard Forebay. Nitrate concentrations are not considered to be a major problem in the Fillmore or Piru Subbasins although concentrations do exceed the MCL for drinking water is some wells. See Figure 34 from the "2014/15 Piru and Fillmore Basins Biennial Groundwater Conditions Report" (link below at the end of the comment letter).

Fillmore and Piru Subbasins were also apparently scored adversely for lack of data on subsidence. The DWR Comment (C7_Impacts_Subsidence) available through the 2018 SGMA Basin Prioritization Dashboard is the same comment for Fillmore and Piru Subbasins: "1) Section 2.8 (2013); Figure 2.8 shows subsidence zones based on best available data (1973). Subsidence zones not updated due to lack of geodetic survey data." For additional data, see Appendix A from DWR's 2014 Technical Memorandum: "Summary of Recent, Historical, and Estimated Potential for Future Land Subsidence in California" (link below at the end of the comment letter).

The principal causes of subsidence are aquifer-system compaction, drainage of organic soils, underground mining, hydrocompaction, natural compaction, and sinkholes. The main cause of subsidence in Ventura County is aquifer-system compaction. It is the fine-grained materials (aquitards) that compact (and not the sands/gravels that comprise the aquifers) when water levels decline to a point where these fine-grained materials release stored water. Subsidence in alluvial aquifer-systems occurs when groundwater levels drop below historic lows for an extended period of time. Therefore, as long as the Fillmore and Piru Subbasins maintain water levels above historic lows, subsidence is unlikely to become a significant concern in these subbasins. For historic water levels in Fillmore and Piru Subbasins see Figure 18 from the "2014/15 Piru and Fillmore Basins Biennial Groundwater Conditions Report" (link below at the end of the comment letter).

Historically stakeholders have not been very concerned with subsidence in Fillmore and Piru Subbasins as groundwater-level declines historically have been small compared to other down-gradient basins. These subbasins have readily recharged large volumes of water in wet years, so water levels tend to rebound quickly after droughts. Also, the Fillmore and Piru Subbasins

are considered unconfined basins and do not contain extensive, fine-grained confining layers (clays/silts) like some of the down-gradient basins. None of the groundwater basins in United's service area have reported substantial damage as a result of subsidence during past periods of record-setting low groundwater elevations in the 1960s, 1990s, or 2010s. Nor has excessive inelastic subsidence occurred that can be definitively linked to groundwater withdrawals. Based on the geologic and hydrologic conditions summarized above, the Fillmore and Piru basins seem to be the least likely places to expect subsidence issues in the future within United's service area.

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United Water Conservation District, 2016, 2014 and 2015 Piru and Fillmore Basins Biennial Groundwater Conditions Report, United Water Conservation District Open-File Report 2016-01. https://www.unitedwater.org/images/stories/reports/GW-Conditions-Reports/2015/2014-2015%20Piru%20%20Fillmore%20basins%20Biennial%20GW%20Cond%20Rpt%20FINAL.pdf

California Department of Water Resources, Summary of Recent, Historical, and Estimated Potential for Future Land Subsidence in California, Technical Memorandum, 2014. https://www.water.ca.gov/LegacyFiles/groundwater/docs/Summary_of_Recent_Historical_Potential_Subsidence_in_CA_Final_with_Appendix.pdf