## ANTELOPE VALLEY GROUNDWATER CASES Phase 5 Deposition Opinions Dennis E. Williams, Ph.D. 13-Oct-14

- 1. In the southeast portion of the Antelope Valley area of adjudication (AVAA), ground water and surface water flows from the southwest to the northeast across the Los Angeles, San Bernardino County line.
- 2. A portion of the Antelope Valley ground water basin (AVGWB) extends east of the Los Angeles, San Bernardino County line. Based on the State of California Department of Water Resources (DWR) Bulletin 118, the area east of the County line and south of Phelan Community Service District (PPHCSD) Well 11 is 9,725 acres. Based on the AVGWB boundary by Carlson and others (1998), the area east of the County line and south of CSD Well 11 is 7,111 acres.
- 3. Phelan-Pinon Hills CSD Well 14 is producing groundwater within the AVAA boundaries and averaged 1,057 acre-ft/yr (655 gpm) between the calendar years 2010-2013.
- 4. Collectively, Phelan-Pinon Hills CSD Wells 10, 11, 12, and 14 produced 1,302 acre-ft/yr (807 gpm) for the water year 2008-09 and receive a portion of their recharge from aquifers within the AVAA.
- 5. It has not been demonstrated that return flows within the portion of the AVGWB overlain by the PPHCSD are 100% recovered by PPHCSD wells.
- 6. It has not been demonstrated that 100% of pipeline distribution system losses within the portion of the AVGWB overlain by the PPHCSD will recharge the ground water basin.