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8 **SUPERIOR COURT OF THE STATE OF CALIFORNIA**
9 **FOR THE COUNTY OF LOS ANGELES – CENTRAL DISTRICT**

10
11 Coordination Proceeding
12 Special Title (Rule 1550 (b))

Judicial Council Coordination
Proceeding No. 4408

13 **ANTELOPE VALLEY GROUNDWATER**
14 **CASES**

[Assigned to The Honorable Jack Komar, Judge
Santa Clara County Superior Court, Dept. 17]

Santa Clara Court Case No. 1-05-CV-049053

**PHASE 2 TRIAL BRIEF OF THE PUBLIC
WATER SUPPLIERS AND THE CITY OF
LOS ANGELES**

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I.
INTRODUCTION

The issue for the Phase 2 trial is whether a party can establish areas within the court-determined Adjudication Area that are so hydrologically isolated from the remainder of the Adjudication Area that they must be treated as separate groundwater basins and adjudicated separately. The only parties truly advocating a separate groundwater basin are Tejon Ranch and Copa de Oro, which postulate a groundwater basin in the western part of the Antelope Valley. The evidence, however, shows that their so-called Western Antelope Valley Basin is in fact hydrologically connected to the remainder of the Adjudication Area, and therefore does not constitute a separate groundwater basin.

At a later stage of the case, the Court may approve *management areas* for the purpose of administering a physical solution. But this is a completely separate issue from whether the Adjudication Area should be divided into separate groundwater basins for the purpose of determining water rights. It would be premature to establish management areas at this point, before the Court has determined the nature and extent of the groundwater supply issues and an appropriate physical solution has been developed.

Three other parties, Anaverde, Crystal Organic Farms, and Sheep Creek Water Company, appear to be advocating not so much separate basins but a retrial of the boundary of the Adjudication Area to exclude their properties from the adjudication. The area in which each of their properties lies does not meet the technical criteria for a groundwater basin, and no good cause is shown for the Court to reconsider its previous rulings in the Phase 1 proceedings. The Court has already determined boundary issues in Phase 1, and none of these parties has shown sufficient grounds to overturn the Court’s prior ruling.¹ Based on the evidence and applicable legal authority, the Public Water Suppliers² and the City of Los Angeles respectfully request that the Adjudication Area be adjudicated as a single unit.

¹ No new evidence, distinct from the evidence presented at the Phase 1 trial, has been, or will be, presented to support the revision of those boundaries. Even if there were new evidence, a party would

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II.

THE PARTY CLAIMING A SUB-BASIN HAS THE BURDEN OF PROOF

Evidence Code section 500 places the burden of proof upon the party claiming the existence of a fact which is essential to the claim or relief that party is seeking: “Except as otherwise provided by law, a party has the burden of proof as to each fact the existence or nonexistence of which is essential to the claim for relief or defense he is asserting.” Tejon Ranch, Copa de Oro and only a few others claim the existence of a separate basin or “sub-basin” or that the boundary line be changed. Not only do they bear the burden of proof, but they have the burden of producing evidence establishing the existence of their alleged “Western Antelope Valley (Sub)Basin.” (Evid. Code § 550.)

III.

**AREAS WITH SIGNIFICANT HYDROLOGIC CONNECTION
SHOULD BE ADJUDICATED AS A SINGLE UNIT**

A “*groundwater basin* may be defined as a hydrogeologic unit containing one large aquifer or several connected and interrelated aquifers.” (D.K. Todd (1980) *Groundwater Hydrology* (2d ed.) at p.

have to satisfy Code of Civil Procedure section 1008 and other applicable law to show why the Court should change its previous rulings. Crystal Organic Farms is a subsidiary of Diamond Farming which participated in the Phase 1 boundary proceeding. Sheep Creek was served but did not appear in the Phase 1 proceeding. Anaverde’s interests were represented in the boundary proceedings by other parties advocating the same groundwater boundary along the San Andreas Fault as now argued by Anaverde.

² The Public Water Suppliers include California Water Service Co.; City of Palmdale; City of Lancaster; Los Angeles County Water Works District No. 40; Palm Ranch Water District; Palmdale Water District; Quartz Hill Water District; Littlerock Creek Irrigation District; and Rosamond Community Services District.

1 45.) While a number of physical, hydraulic and political boundaries might be used to define a
2 groundwater basin, the greater the probability for groundwater flow across a potential boundary, the less
3 likely the feature is truly a basin boundary. The most desirable basin boundaries are those with no
4 appreciable groundwater flow across the boundary. (See Richter (1974) *California Ground Water*
5 *Geology*, in University of California, Davis Extension, *Concepts of Ground Water Management*.)

6 In this case, the evidence will show that there are no separate groundwater basins within the
7 Adjudication Area. The entire area represents a single hydrologic system. Historically, various
8 researchers divided the Antelope Valley groundwater basin into sub-basins based on features that were
9 thought to impede or restrict groundwater flow; however, none of these features presented such a
10 substantial barrier to flow as to be considered a groundwater basin boundary. In fact, the evidence will
11 show that significant groundwater flow occurs across these features.

12 The few reported cases that have discussed whether certain areas of a groundwater basin were so
13 hydrologically isolated to justify separate water rights determinations have been highly fact-dependent.
14 Those cases were determined on the unique facts and basin characteristics present in each case. For
15 example, in *Wright v. Goleta Water Dist.* (1985) 174 Cal.App.3d 74, the court described the Goleta
16 Groundwater Basin as consisting of four sub-basins, known as the Central, North, East and West sub-
17 basins. The Central and North sub-basins were hydrologically interconnected, but the East and West
18 sub-basins were hydrologically separate and independent. The Central and North sub-basins were
19 adjudicated as a single unit because of their hydrologic connection. (*Id.* at 743-44.)

20 Virtually all natural recharge to the Antelope Valley groundwater basin comes from the San
21 Gabriel and Tehachapi mountains. Any division of the Adjudication Area for purposes of water rights
22 will necessarily result in an interruption of the flow of recharge to the entire Adjudication Area.

23 There is no compelling reason to divide the Adjudication Area into areas requiring separate
24 adjudications of water rights. While parties' experts have substantially completed the work necessary to
25 arrive at overall conclusions regarding safe yield and overdraft, much of that work would have to be
26 redone for separate subareas, which would not only add expense but also delay the next phase of trial
27 significantly. Further, while municipal and industrial pumping is largely metered, agricultural pumping
28 is not. Some of the estimates of historical agricultural pumping used by the experts to derive safe yield

1 estimates were made on a valley-wide or county-wide basis, and would be difficult to allocate between
2 subareas.

3 If the Adjudication Area were to be divided into separately adjudicated subareas, there would be
4 significant difficulties in assessing whether a particular subarea were in overdraft. Overdraft typically
5 would be based on the water budget for the subarea, by comparing inflows to outflows. If the long-term
6 outflows exceed the long-term inflows, an overdraft exists. However, because of the historical flow of
7 recharge across the boundaries of the proposed subareas, the budget for a particular subarea would
8 depend on the adjudicated flow obligation from one subarea to another. The question of overdraft within
9 individual subareas could not be answered without first determining that flow obligation.

10 Thus, based on the facts of this case, there are no separate groundwater basins within the
11 Adjudication Area, and there are good reasons to adjudicate the entire area as a single unit.

12 13 **IV.**

14 **THE AREAS ASSERTED BY OTHER PARTIES ARE** 15 **NOT SEPARATE GROUNDWATER BASINS**

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17 In addition to these general principles that support the conclusion that the Adjudication Area is a
18 single basin for the adjudication of water rights, the evidence at trial will address the claims of the
19 parties asserting separate groundwater basins. This evidence is summarized below.

20 21 **A. Tejon Ranch and Copa de Oro**

22
23 Tejon Ranch and Copa de Oro assert a separate groundwater basin, separated from the main
24 basin by a partially buried bedrock ridge. This bedrock ridge has not been identified as a basin boundary
25 or sub-basin boundary in the existing technical literature. The bedrock ridge does not qualify as a basin
26 boundary. Above the buried ridge for most of its length (except where it comes to the surface at
27 Antelope Buttes and Little Buttes) are hundreds of feet of saturated, unconsolidated aquifer material,
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1 through which groundwater can and does flow, and through which the effect of groundwater pumping
2 can freely propagate. Thus, the bedrock ridge is not a substantial barrier to groundwater flow.

3 Tejon Ranch and Copa de Oro will likely rely upon *City of Los Angeles v. City of San Fernando*
4 (1975) 14 Cal.3d 199 (*San Fernando*), which involved an adjudication of water rights in the Upper Los
5 Angeles River Area. The California Supreme Court held that substantial evidence supported the trial
6 court’s factual findings that the Sylmar and Verdugo subareas were groundwater basins separate from
7 the San Fernando groundwater basin. (*Id.* at 249-50 & n. 39.) The Supreme Court, however, did not list
8 all the evidence in support of this conclusion, but listed various factors that supported the trial court’s
9 determination of the separate Sylmar and Verdugo basins. Those factors included: (i) that groundwater
10 flow between the separate basins was “substantially blocked by underground formations or barriers” (*id.*
11 at 213); (ii) that the areas contained “separate underground reservoirs or basins with no significant
12 amount of underground flow between them” (*id.* at 247); (iii) that “the extractions of water in the
13 respective basins affect the other water users within that basin but do not significantly or materially
14 affect the ground water levels in any of the other basins” (*id.* at 221); and (iv) that the Sylmar and
15 Verdugo basins were “hydrologically independent from the area of the bed of the river to which the
16 pueblo right attaches” (*id.* at 251).

17 Another point the Supreme Court emphasized was that the plaintiff City of Los Angeles had
18 never relied on the flows from the Sylmar and Verdugo basins. In fact, in earlier cases, Los Angeles had
19 sought to protect its pueblo right against diversions by the San Fernando Mission from the Los Angeles
20 River, but not against the mission’s simultaneous use of water from the Sylmar basin, and had expressly
21 excluded the Verdugo basin from the judgment. (*Id.* at 249-51.)

22 Contrary to the arguments by Tejon Ranch and Copa de Oro, each of those factors is missing in
23 this case. The evidence will show (i) there are **not** “separate underground reservoirs or basins with no
24 significant amount of underground flow between them;” (ii) extractions from the alleged West Antelope
25 Valley basin **do** significantly or materially affect the groundwater levels in the main basin; and (iii) the
26 purported sub-basin is **not** hydrologically independent from the main Antelope Valley basin. Thus, the
27 factors considered by the Supreme Court in *San Fernando* are **not** present here, and the evidence does
28 not support an independent “West Antelope Valley Basin (or sub-basin).”

1 Tejon Ranch and Copa de Oro claim there is but little flow across their proposed basin boundary.
2 They erroneously claim “flat” groundwater contours as evidence of a boundary barrier. Even if there
3 were a flat groundwater contour, that is not a basis for establishing a basin boundary.

4 The recharge from the San Gabriel Mountains and the Tehachapi Mountains to the so-called
5 Western Antelope Valley basin forms a significant part of the overall recharge to the Adjudication Area.
6 Prior to water well development, this recharge flowed eastward across the buried ridge, toward
7 Rosamond and Rogers dry lakes. Tejon Ranch and Copa de Oro acknowledge this fact, but argue the
8 recharge is now intercepted by pumping near the ridge. They try to draw an analogy to the facts in *San*
9 *Fernando, supra.* in which the plaintiff (City of Los Angeles) contended that in a state of nature with no
10 extractions from the Sylmar and Verdugo basins, the basins would have overflowed into the San
11 Fernando basin and thus supported the flow of the Los Angeles River. Los Angeles sought to enjoin all
12 extractions from the Sylmar and Verdugo basins as an interference with its pueblo right. The court
13 declined to do so on the grounds that the basins were “hydrologically independent” and Los Angeles had
14 never relied on the flows from the Sylmar and Verdugo basins. (14 Cal.3d at 249-51.) This analogy fails
15 for at least two reasons. First, it is the reverse or opposite of the facts in this case. In *San Fernando*, the
16 court found separate groundwater basins and then discussed pre-development flow. Here, Tejon Ranch
17 and Copa de Oro want to do the reverse, and use the interception of recharge as a justification for
18 treating their area as a separate basin. Second, *San Fernando* never said that historical or native flow
19 was not a factor in determining groundwater basins. It simply said that in that case, it did not justify
20 extending the pueblo right.

21 Tejon Ranch and Copa de Oro used a groundwater model to attempt to show that pumping in
22 their so-called “Western Antelope Valley Basin” has no effect on the remainder of the Adjudication
23 Area. They do this by simulating pumping in the extreme western portion of their area, miles away from
24 the bedrock ridge. Their model shows that effects of this pumping do not reach as far as the bedrock
25 ridge. But this is a function of distance, not of any barrier. Accepting for the sake of argument that the
26 model accurately predicts changes in groundwater levels based on changes in pumping, running the
27 same model with the pumping close to the bedrock ridge shows that the effects propagate freely across
28 the ridge.

1 Finally, Tejon Ranch and Copa de Oro argue that it takes a very long time for groundwater to
2 travel from the so-called Western Antelope Valley basin to Lancaster. They say as a matter of “common
3 sense,” this means the area must be divided into separate basins. This is a non sequitur. Again, the long
4 travel time is merely a function of distance and does not indicate any sort of a basin boundary.
5 Furthermore, while a molecule of water would take a very long time to move such a distance, the effect
6 of pumping on water levels propagates much faster.

7 The groundwater in both the asserted basins constitutes a common supply. Groundwater can and
8 does flow across the asserted boundary. The Public Water Suppliers in the eastern area rely upon the
9 recharge from the western area. The two areas should be adjudicated as a single unit.
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11 **B. Crystal Organic Farms**

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13 Crystal Organic Farms, a sister company to Diamond Farming, pumps groundwater from north
14 of the Willow Springs fault; and asserts that the Willow Springs fault is a groundwater basin boundary.
15 They make the same argument made in the Phase 1 proceeding, and they base the argument on the same
16 evidence that was offered by the Public Water Suppliers in the Phase 1 trial. Considerable time was
17 devoted to this issue in the Phase 1 trial. The court ultimately decided to use the basin boundaries
18 advanced by the California Department of Water Resources in its Bulletin 118-2003. Nothing has
19 changed since that time, and Crystal Organic Farms has not identified any expert witness (except Joe
20 Scalmanini, whose testimony will not change from Phase 1) or exhibits that it proposes to present in the
21 Phase 2 trial. Crystal Organic Farms will not offer any new facts or law; it will merely reargue the issue
22 that this Court has already decided.
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24 **C. Anaverde**

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26 The same is true for Anaverde. It wants to use the San Andreas Fault/Rift Zone as a groundwater
27 basin boundary. While there may be some evidentiary support for this, the Anaverde area southerly of
28 the San Andreas Fault does not meet the criteria for a groundwater basin. There will be evidence, as

1 well, that recharge does flow from the Anaverde area across the San Andreas Fault into the main part of
2 the Adjudication Area. Again, Anaverde is simply seeking to redetermine the boundary line already
3 determined by this court.
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5 **D. Sheep Creek Water Company**
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7 Our experts have not completed an analysis of Sheep Creek Water Company's motion. Pursuant
8 to an agreement with Sheep Creek's counsel, we respectfully request the opportunity to supplement this
9 trial brief, if necessary, when our experts have reached conclusions regarding Sheep Creek Water
10 Company's claims.
11

12 **IV.**
13 **CONCLUSION**

14 The Antelope Valley Adjudication Area is a single hydrologic system constituting a common
15 water supply. Substantial problems would arise in attempting to adjudicate the areas separately.
16 Accordingly, the court should adjudicate the entire Adjudication Area as a single unit.
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18 Dated: October 1, 2008

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20 By: _____

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