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## SUPERIOR COURT OF THE STATE OF CALIFORNIA

 COUNTY OF LOS ANGELES - CENTRAL DISTRICTCoordinated Proceedings
Special Title \{Rule 1550 (b) \}
ANTELOPE VALLEY GROUNDWATER CASES

Included Actions:
Los Angeles County Waterworks District No. 40 v . Diamond Farming Co.
Los Angeles County Superior Court Case No. BC 325201

Los Angeles County Waterworks District No. 40 v. Diamond Farming Co.
Kern County Superior Court
Case No. S-1500-CV-254-348
Wm. Bolthouse Farms, Inc., v. City of Lancaster; Diamond Farming Co. v. City of Lancaster; Diamond Farming Co. v. City of Palmdale Water District.
Riverside County Superior Court
Consolidated Action Nos. RIC 344 840, RIC 344 436, RIC 344668

AND RELATED CROSS-ACTIONS

Judicial Council Coordination Proceeding No. 4408

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

## DECLARATION OF ALI SHAHROODY IN SUPPORT OF WATER USE ON BLUM TRUST LANDS IN ANTELOPE VALLEY, CALIFORNIA

I, Ali Shahroody, declare as follows:

1. I am a professional water resources engineer and agricultural engineer, licensed as an agricultural and civil engineer in the State of California and as a civil engineer in the States of Arizona and Nevada. I am the President of Stetson Engineers Inc., and have been retained as a consultant by Sheldon R. Blum on matters pertaining to the irrigation water use on the Blum Trust lands near Lancaster in Antelope Valley, California. A true and correct copy of my Curriculum Vitae is attached as Exhibit 1.
2. I have testified as an expert witness in Federal District Courts in Nevada, Arizona and California, United States Court of Claims, California Superior Court, and California State Water Resources Control Board as described briefly in Exhibit 1, attached.
3. Blum Trust lands used for irrigated agriculture in the Antelope Valley consist of two contiguous parcels (Assessor's Parcel Numbers 3384-09-01 and 06) totaling approximately 120 acres (see Request for Judicial Notice, Exhibit "A"). Exhibit 2 (attached) shows the location of the parcels on the U.S. Geological Survey Maps for the Antelope Valley, California.
4. The designated Blum Trust lands overlie the Antelope Valley Groundwater Basin which is under adjudication. According to the California Department of Water Resources Well Index Cards, two water wells with State Well Nos. 07N/11W-24C01 and 07N/11W-24F01 were constructed on the Blum property. The approximate well depths were reported as 210 and 585 feet, respectively (see Request for Judicial Notice, Exhibit "B"). Apparently, the Well Index Card for a third well is not available. However, according to Exhibit " 2 " (see Exhibit List), the approximate location of a third well was shown on the Blum property. The approximate location of these three wells are shown on Exhibit 2, attached.
5. In 2001, the Blum Trust lands (approximately 120 acres) were leased to William Bolthouse Farms (lessee) for a period of 24 consecutive months, from January 1, 2002 to December 31, 2003, and the lease was subsequently extended through 2009 (see Exhibit List, Exhibit " 1 "). The lease was for the purpose of producing carrots and/or onions and applying water for the irrigation of those crops as reasonably necessary. The lease also provided for the lessee to perform well tests at the property (Blum Trust lands). However, water for irrigation of crops on the Blum property was supplied from wells on the adjacent property owned or leased by Bolthouse Farms (see Exhibit List, Exhibit " 3 ", " 4 " and " 5 ").
6. Blum Trust lands were irrigated for production of carrots and onions in 2002 through 2009 (8 years) with the exception of 2006 when the property was kept in fallow. This is based on the Bolthouse Properties Exhibit "P-1" (see Request for Judicial Notice, Exhibit "C" and "D") setting forth acreages of cultivated crops for each field (farming unit) and crop types (crop rotation) farmed by Bolthouse in the Antelope Valley for the period 2001 through 2012.

According to Exhibit "P-1", the Blum Trust lands, referred to as "Blum 24-1", were irrigated and in crop production on 118 acres in 2002 through 2005 and 90 acres in 2007 through 2009. Exhibit 2 (attached) shows the acreage and crops cultivated on the Blum Trust lands in 2002 through 2009.
7. The amounts of water use on the Blum Trust lands for the period 2002-2009 are determined based on the irrigated acreage, type of crops cultivated, and applied crop water duties in the Antelope Valley area. The applied water duties, in acre-feet per acre per year, for various crops cultivated in the Antelope Valley are identified in the Summary Expert Report, Appendix D.3: Table 4, and included in the Leggio amended declaration as Exhibit "M". The same crop water duties are also in the Scalmanini Exhibit " 58 ". I am informed and believe that the Summary of Applied Crop Water Duties in the Antelope Valley Adjudication was admitted into evidence during the Phase 3 Trial as Exhibit " 58 ", through the testimony of Public Water Suppliers' expert witness Mr. Joseph Scalmanini. I am also informed that the same chart under the title of Appendix D-3: Table 4 "Applied Crop Duties and Irrigation Efficiency Values" was used in Phase 4 Trial Discovery, which appears as Exhibit "M" to Mr. Anthony Leggio's Decalaration in Lieu of Deposition Testimony for Phase 4 Trial dated May 29, 2013.

Based on the above information, I determined the amounts of water used for irrigation on the Blum Trust lands for the period from 2002 through 2009 by multiplying the irrigated acreage by applied crop water duty in acre-feet per acre and they are shown on Exhibit 3, attached.
8. As shown on Exhibit 3, the maximum amount of water used by the Blum Trust lands for production of irrigated crops was 531 acre-feet in 2004, as well as 2005, over the eight year period (2002-2009). Based on the result of calculations shown in Exhibit 3, the 120-acre Blum property is entitled to an annual supply of 531 acre-feet from the Antelope Valley Groundwater Basin. With the confirmation of the annual entitlement (531 acre-feet) through the Court, Blum Trust intents to resume its irrigated farming on the property.
9. The overlying right is an attribute of land and it is attached to the land overlying a groundwater basin. Similar to riparian rights to a surface stream, an overlying right is entitled to
use the water extracted from the groundwater basin on his or her parcel of land within the basin (see Slater, California Water Law and Policy, Volume 1, 2008). In exercising riparian rights, the point of diversion from a surface stream is not necessarily on the riparian parcel. Usually, water is diverted further upstream and conveyed to the riparian land. Similarly, the point of diversion (point of extraction) from a groundwater basin may not be on the overlying parcel where the water is put to beneficial use. It is an attribute of an overlying land (beneficial use) which entitles it to receive water, not the point of diversion. This is also similar to decreed lands where water allocations from a steam are administered under a court decree in a basin. Water is usually conveyed via canals and ditches to decreed lands. Some of these lands may be located a few miles away from the stream itself. For example, under the Orr-Ditch Decree ${ }^{1}$, Truckee River water is served to decreed lands with points of diversion mostly away from the place of use. A similar situation exists on the Carson River under the Alpine Decree ${ }^{2}$. The decreed rights are tied to the land (place of use), not necessarily to points of diversion. Points of diversion could change by merging canals or transfering water right from one parcel to another served by another canal within the basin.
10. The point of diversion for the irrigation of crops on the Blum Trust lands was on adjacent property (Bolthouse Farms) during the period 2002-2009. Water was put to beneficial use on the Blum property with an overlying right to the Antelope Valley Groundwater Basin. Based on my determination of water use set forth in Exhibit 3, the Blum Trust lands are entitled to 531 acrefeet per year of the perennial yield of the Antelope Valley Groundwater Basin.

I declare under penalty of perjury that the foregoing is true and correct. Signed the of October 2014, in San Rafael, California.


[^0]DECLARATION OF ALI SHAHROODY IN SUPPORT OF WATER USE ON BLUM TRUST LANDS IN ANTELOPE VALLEY, CALIFORNIA - 4


[^0]:    1 United States of America v. Orr Water Ditch Company, et. al., in Equity, Docket No. A3, dated September 8, 1944
    2 United States of America v. Alpine Land and Reservoir Company, Civil No. D-183 BRT, dated December 18, 1980

