

1 DOUGLAS J. EVERTZ, SBN 123066
LUCE, FORWARD, HAMILTON & SCRIPPS LLP
2 2050 Main Street, Suite 600
Irvine, California 92614
3 Telephone: (949) 732-3700
Fax: (949) 732-3739
4 Attorneys for Defendant/Cross-Complainant and
Cross-Defendant CITY OF LANCASTER

Exempt from filing fee
Government Code § 6103

5
6 ERIC L. GARNER, SBN 130665
JEFFREY V. DUNN, SBN 13926
STEFANIE D. HEDLUND, SBN 239787
7 BEST BEST & KRIEGER LLP
5 Park Plaza, Suite 1500
8 Irvine, California 92614
Telephone: (949) 263-2600
9 Fax: (949) 260-0972
Attorneys for Cross-Complainants
10 ROSAMOND COMMUNITY SERVICES
DISTRICT and LOS ANGELES COUNTY
11 WATER WORKS DISTRICT NO. 40

12 *[See Next Page for Additional Counsel]*

13 SUPERIOR COURT OF THE STATE OF CALIFORNIA

14 FOR THE COUNTY OF LOS ANGELES

15 **ANTELOPE VALLEY GROUNDWATER**
16 **CASES**

17 Included Actions:

18 Los Angeles County Waterworks District
No. 40 v. Diamond Farming Co.
Superior Court of California, County of
19 Los Angeles, Case No. BC325201;

20 Los Angeles County Waterworks District
No. 40 v. Diamond Farming Co.
21 Superior Court of California, County of Kern,
Case No. S-1500-CV-254-348

22 Wm. Bolthouse Farms, Inc. v. City of
23 Lancaster, Diamond Farming Co. v. City of
Lancaster, Diamond Farming Co. v. Palmdale
24 Water Dist., Superior Court of California
County of Riverside, consolidated actions; Case
25 Nos. RIC 353 840, RIC 344 436, RIC 344 668.

Judicial Council Coordination
Proceeding No. 4408

Santa Clara Case No. 1-05-CV 049053
Assigned to The Honorable Jack Komar

**EXPERT WITNESS DESIGNATION OF
LOS ANGELES COUNTY WATER
WORKS DISTRICT NO. 40, ROSAMOND
COMMUNITY SERVICES DISTRICT,
CITY OF LANCASTER, PALMDALE
WATER DISTRICT, QUARTZ HILL
WATER DISTRICT, CALIFORNIA
WATER SERVICE COMPANY AND
LITTLEROCK CREEK IRRIGATION
DISTRICT, et al.**

Trial Date: October 6, 2008

1 [Additional counsel - as follows]

2 Raymond G. Fortner, Jr., SBN 42230
County Counsel
3 Frederick W. Pfaeffle, SBN 145742
Principal Deputy County Counsel
4 OFFICE OF COUNTY COUNSEL
COUNTY OF LOS ANGELES
5 500 West Temple Street
Los Angeles, California 90012
6 Telephone: (213) 974-1951
Fax: (213) 458-4020
7 Attorneys for Cross-Complainant LOS ANGELES
COUNTY WATER WORKS DISTRICT NO. 40

8 Thomas Bunn III, SBN 89502
9 LAGERLOF SENEAL GOSNEY & KRUSE
301 North Lake Avenue, 10th Floor
10 Pasadena, CA 91101-4108
Telephone: (626) 793-9400
11 Fax: (626) 793-5900
Attorneys for PALMDALE WATER DISTRICT
12 AND QUARTZ HILL WATER DISTRICT

13 John Tootle, SBN 181822
CALIFORNIA WATER SERVICE COMPANY
14 2632 West 237th Street
Torrance, California 90505
15 Telephone: (310) 257-1488
Fax: (310) 325-4605
16 Attorney for CALIFORNIA WATER SERVICE COMPANY

17 WAYNE K. LEMIEUX (SBN 43501)
W. KEITH LEMIEUX (SBN 161850)
18 LEMIEUX & O'NEILL
2393 Townsgate Road, Suite 201
19 Westlake Village, California 91361
Telephone: (805) 495-4770
20 Facsimile: (805) 495-2787
Attorneys for Defendants/Cross-Complainants
21 LITTLEROCK CREEK IRRIGATION DISTRICT, PALM RANCH IRRIGATION DISTRICT
And Cross-Defendants, NORTH EDWARDS WATER DISTRICT and DESERT LAKES
22 COMMUNITY SERVICES DISTRICT, LLANO DEL-RIO WATER CO., LLANO MUTUAL
WATER CO., BIG ROCK MUTUAL WATER CO., and LITTLE BALDY WATER CO.

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1 **TO: ALL PARTIES HEREIN, AND TO THEIR ATTORNEYS OF RECORD:**

2 Pursuant to Code of Civil Procedure section 2034.210 *et seq.*, Los Angeles County Water
3 Works District No. 40, Rosamond Community Services District, City of Lancaster, Palmdale Water
4 District, Quartz Hill Water District, California Water Service Company and Littlerock Creek
5 Irrigation District, et al.¹ (collectively, "Designating Parties") hereby submit their designation of
6 experts, whose expert opinion testimony the Designating Parties anticipate offering into evidence at
7 the next phase of trial of the within action, as follows:

- 8
- 9 1. Joseph C. Scalmanini
10 Luhdorff and Scalmanini Consulting Engineers
11 500 1st Street
12 Woodland, California 95695
- 13 2. Kenneth Utley
14 Luhdorff and Scalmanini Consulting Engineers
15 500 1st Street
16 Woodland, California 95695
- 17 3. Dennis E. Williams, Ph.D.
18 Geosciences
19 P.O. Box 220
20 Claremont, California. 91711

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22 The Designating Parties expressly reserve each and all of the following rights with respect
23 to this Expert Designation:

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27 ¹ Littlerock Creek Irrigation District, Palm Ranch Irrigation District And Cross-Defendants, North Edwards Water
28 District And Desert Lakes Community Services District, Llano Del-Rio Water Co., Llano Mutual Water Co., Big
 Rock Mutual Water Co., and Little Baldy Water Co. (collectively "Littlerock Creek Irrigation District, et al.")

1 A. The right to name and call different or additional experts, and to amend their expert
2 witness declaration with respect to the general substance of the testimony that the expert designated
3 above is expected to give, pursuant to Code of Civil Procedure section 2034.610 *et seq.*

4 B. The right to consult with and obtain the services of additional expert witnesses to
5 testify on the Designating Parties' behalf at trial in additional areas or for purposes of impeachment,
6 pursuant to Code of Civil Procedure section 2034.310.

7 C. The right to call any experts listed on behalf of any other party to this action, regardless
8 of whether such party remains a party to this action at the time of trial. Therefore, the Designating
9 Parties incorporate herein, as though fully set forth, all information supplied by each other party herein
10 with respect to each such party's designation of experts, and any supplemental designation of experts
11 hereafter served by each such party.

12
13 DATED: August 14, 2008

LUCE, FORWARD, HAMILTON & SCRIPPS LLP

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15 By: 

Douglas J. Evertz, Attorneys for Defendant/
Cross-Complainant and Cross-Defendant
CITY OF LANCASTER

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movement of groundwater, and on the physical effects of groundwater extraction.

(3) The existence, if any, of subbasins within the AVAA.

(b) Kenneth Utley. Mr. Utley is a Registered Geologist and Certified Engineering Geologist, and Senior Geologist with Luhdorff and Scalmanini, Consulting Engineers. A true and correct copy of Mr. Utley's resume is attached hereto as Exhibit "B". Mr. Utley's anticipated testimony will address the following substantive areas:

(1) The general geology of the area and the occurrence of groundwater in the AVAA, including his opinions regarding the nature of geologic formations and aquifer materials, and the effects of geologic features on the occurrence and movement of groundwater.

(c) Dr. Dennis Williams. Dr. Williams is a registered geologist and California certified hydro geologist with experience in groundwater development and management. Dr. Williams will render opinions concerning the work of other experts engaged by the public water suppliers on the characteristics, structure, hydrologic conditions of the groundwater underlying the geographic area. He has agreed to testify and will be sufficiently familiar with the pending action to submit to a meaningful oral deposition concerning his specific testimony, after the work of other experts engaged by the public purveyors is completed. Additional information regarding Dr. Williams is attached hereto as Exhibit "C." Dr. Williams may also be called to offer testimony to rebut the testimony of other experts.

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4. The above experts have agreed to testify at trial. They will be sufficiently familiar with the pending action to submit to meaningful depositions concerning their expert opinions and the basis thereof. Mr. Scalmanini charges \$460 per hour for deposition and trial testimony. Mr. Utley charges \$284 per hour for deposition and trial testimony. Mr. Williams charges \$500 per hour for deposition and trial testimony.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

Executed this 14th day of August, 2008, at Irvine, California.


DOUGLAS J. EVERTZ

EXHIBIT A

RESUME

Joseph C. Scalmanini

Specialization:

Forty years of practice in groundwater development and management, and oil and gas production. Assessments of groundwater resources and implementation of groundwater basin management in various areas of California; groundwater development and management encompassing well design, construction, operation, and maintenance; groundwater monitoring as part of basin management and as part of groundwater contamination investigations; artificial groundwater recharge facilities and practices; injection of industrial waste water; utilization of brackish ground water for industrial water supply and cooling applications.

Professional Registration:

Registered Civil Engineer, California, CE 28233

Academic Degrees:

M.E. Civil Engineering, University of California, Davis, CA	1984
B.S. Mechanical Engineering, University of Santa Clara, Santa Clara, CA	1967

Professional Experience:

Luhdorff and Scalmanini, Consulting Engineers, Woodland, CA	
President	2004 - Present
Principal Partner	1989 - 2004
Partner	1980 - 1989
University of California, Davis, Davis, CA	1973 - 1979
Associate Development Engineer	
Shell Oil Company	1967 - 1973
Mechanical and Facilities Engineer	

Representative Professional Assignments:

Consultant to water districts and utilities, municipalities, corporate and individual farming interests, corporate and private industry, and other engineering firms on groundwater development, utilization and management, including preparation and implementation of AB 3030 and other groundwater management plans, and plans for supplemental water supply and conjunctive use management. Consultation with public agencies, corporate and private concerns regarding groundwater contamination, its identification, monitoring, and management. Consultation with legal profession on technical aspects of groundwater development and utilization, including all aspects of groundwater basin yield and management, well design and construction, and application of pumping equipment.

Mr. Scalmanini directed and conducted a ground-water basin assessment in the Santa Maria Valley, including developing plans for conjunctive use of imported SWP water, recaptured return flows and increased artificial recharge of natural stream flow. He directed the development of an alternative basin management plan for diversion of stream flow to replace coastal groundwater pumping and halt historical seawater intrusion in the Salinas Valley. He worked on developing a ground-water substitution program for Natomas Central Mutual Water Company on 50,000 acres of primarily agricultural land in Sacramento and Sutter Counties, and authored a Ground-Water Management Plan for that area.

Mr. Scalmanini serves as the court-appointed technical advisor to the Special Referee in the Chino Basin for development and implementation of an Optimum Basin Management Program to preserve and potentially increase the safe yield of the aquifer system, incorporate conjunctive use within storage limits in the aquifer, and make beneficial use of degraded water quality in the lower end of the basin by desalting ground water for future domestic water supply.

Mr. Scalmanini is directing ongoing engineering and hydrogeological analyses of local groundwater and imported State Water Project water supplies in the Upper Santa Clara River Area (Santa Clarita Valley) in Los Angeles County, including the preparation of annual water reports over the last eight years. As part of that work, Mr. Scalmanini has recently developed a cooperative technical program to integrate water resource analysis with the adjacent downstream basins, and is the primary author of the AB3030 Ground-Water Management Plan that has been adopted for the basin. He also prepared the amended Urban Water Management Plan for the State Water Contractor and all the water purveyors in the Valley to specifically address the adequacy of groundwater supplies in the wake of perchlorate contamination and plans to contain contaminant migration while restoring contaminated wells to water supply service through the installation of wellhead treatment.

Mr. Scalmanini also currently serves as Chairman of the Ground-Water Committee that is developing and analyzing the potential for development of additional ground water throughout the Sacramento Valley as part of the Settlement Agreement reached in Phase 8 of the SWRCB Bay-Delta Water Rights Hearings.

Professional Affiliations:

American Society of Civil Engineers

- Ground Water Committee, Irrigation and Drainage Division
- Water Resources Planning Committee, Water Resources Planning and Management Division

National Ground Water Association

- Association of Ground Water Scientists and Engineers

American Water Works Association

National Society of Professional Engineers

California Groundwater Association

Groundwater Resources Association of California

Public Service:

- **Yolo County Aggregate Resources Committee (1975-79)**, Alternate delegate, hydrologist - analysis of impacts and development of management plans for extraction of aggregate from Cache Creek basin.
- **California Tenth Biennial Conference on Ground Water (1975)**, Member, Planning Committee
- **Chancellor's Campus (Univ. of Calif., Davis) Water Committee (1976-78)**, Staff Engineer - analysis of water supplies and uses, projection of requirements, development of conservation and management plans.

- **City of Davis Water Planning and Conservation Committee (1977-79)**, Chairman - analysis of water supplies and uses, projection of requirements, consideration of alternative supplies, development of conservation and management plans.
- **Yolo County Water Resources Task Force (1979)**, Member - development of county-wide master water plan.
- **Pacific Gas and Electric Co. ACT² Irrigation Pumping Demonstration Project (1992)**, Technical Advisor
- **Association of California Water Agencies (1994-1996)**, Member - Groundwater Committee
- **Cache Creek Conservancy, (2000-2002)**, Director

Teaching Activities:

Course Coordinator and Instructor University Extension Courses, University of California, Davis:

Concepts of Ground Water Management (1974, 1976, 1978, 1981)
Legal and Policy Considerations in Ground Water Management (1975, 1976, 1980)
Water Supply Wells and Pumps (1977, 1978, 1981, 1983, 1985, 1986)
Groundwater Law, Hydrology and Management (2001, 2002, 2003, 2004, 2005, 2006)

Instructor, University of California, Davis, Water Science 198, Introductory Hydraulics (1977, 1978, 1979)

Lecturer, University of California, Davis, Water Science 2, 140, 160; Ecology 230; Civil Engineering / Geology 175 (1975 - 1979)

Lecturer on Aquifer Characteristics, Well Hydraulics, and Groundwater Development, in Technical Training Classes at the U.S. Army Corps of Engineers' Hydraulic Engineering Center, Davis, CA.

Publications and Presentations:

Scott, V.H. and J.C. Scalmanini, **Water Wells and Pumps: Their Design, Construction, Operation, and Maintenance**, University of California Division of Agricultural Sciences Bulletin No. 1889, 1977.

Helweg, O.J., Scott, V.H., and J.C. Scalmanini, **Improving Well and Pump Efficiency**, American Water Works Association, 1983.

Scalmanini, J.C., and Scott V.H., **Design and Operational Criteria for Artificial Groundwater Recharge Facilities**, Water Science and Engineering Paper No. 2009, University of California, Davis, 1979.

Scalmanini, J.C., Scott, V.H., and O.J. Helweg, **Energy and Efficiency in Wells and Pumps**, presented at Twelfth Biennial Ground Water Conference, 1979.

Scalmanini, J.C., Johnson Jr., R.M., and E.E. Luhdorff Jr., **Development of a Groundwater Monitoring Program as a Basis for Coastal Groundwater Basin Management**, presented at the Fall Conference, American Water Works Association, CA-NV Section, 1983.

Scalmanini, J.C., **3030 Hindsight and 2020 Foresight, Actual Groundwater Management Experience Over the Last 15 Years, Soquel Creek Water District**, presented at the Association of California Water Agencies' Groundwater Management Conference, March 1994.

Scalmanini, J.C., **Legal and Technical Issues Related to Surface Water and Groundwater Interaction**, presented at the Groundwater Resources Association's California Ground Water & Efficient Usage for the Year 2000 and Beyond, October 1998.

Scalmanini, J.C., A. Schneider, and V. Cahill (panel presentation), **Groundwater Classification: Is the State Water Resources Control Board's Jurisdiction Over Ground Water Changing?**, presented at the Water Education Foundation's 2000 Update on Water Law and Policy, July 2000.

Scalmanini, J.C., **What the Heck's a Sub-Basin? Defining Basins and Sub-Basins**, presented at the Association of California Water Agencies' Groundwater Management: Will CalFed Help or Hinder Workshop, November 2000.

Scalmanini, J.C., **"Groundwater Law, Policy and Science: What can Be Done About The Disconnect"**, presented at the Water Education Foundation's 2005 Water Law and Policy Briefing, San Diego, July 2005.

EXHIBIT B

RESUME

Kenneth W. Utley

Specialization:

Thirty-one years of experience in engineering geology including definition of geologic and lithologic features in ground-water basins; and investigation and definition of areal and vertical extent of aquifers. Development of geologic and lithologic descriptions from formation samples and geophysical logs for ground-water development and ground-water contamination studies. Investigation of erosional processes, landslides, and stream hydrology; and design and implementation of erosion-control projects on steep mountainous terrain. Detailed soil and sedimentary mapping for seismic safety.

Professional Registration:

Certified Engineering Geologist, California, C.E.G. 1268
Registered Geologist, California, R.G. 3940

Academic Degrees:

M.S. Geology, Arizona State University, Tempe, AZ	1981
B.S. Geology, State University of New York, College at Oneonta, NY	1974

Professional Experience:

Luhdorff and Scalmanini, Consulting Engineers, Woodland, CA Senior Engineering Geologist	1985 to Present
Redwood National Park, U.S. Department of Interior Resource Management Division Supervisory Management Geologist	1981 - 1985
Redwood National Park, U.S. Department of Interior Resource Management Division Management Geologist	1980 - 1981
Fugro, Consulting Engineers & Geologists, Phoenix, AZ Staff Geologist	1976 - 1979

Representative Professional Assignments:

- Conduct geologic investigations for ground-water development, utilization, and management. Definition of geologic, stratigraphic, structural, and lithologic features of ground-water basins. Delineation of areal and vertical extent and nature of aquifers. Construct geologic cross-sections, fence diagrams, isopach maps, and other derivative maps of aquifers. Interpretation of depositional environments, facies relationships and evolution of sedimentary deposits in groundwater basins. Evaluate locations for test holes and production well sites. Contract with drilling companies to conduct drilling programs. Evaluate geologic samples from drilling operations and geophysical logs. Design monitoring wells and production wells for ground-water evaluation, utilization, and contamination investigations.

Representative Professional Assignments (Continued):

- Supervised Engineering Geology section of Erosion-Control Program of three to four project level geologists, and up to eight assistant geologists. Planned, budgeted, and coordinated annual work on four to six projects. Prepared and oversaw contract specifications and evaluated subordinates' technical proposals. Coordinated heavy equipment selection and utilization between projects. Supervised and edited summary reports on erosion-control work completed. Performed tasks of project management geologist in supervising individual erosion control project. Prepared reports for other divisions on engineering geologic problems. Provided lectures and field trips to upper level management, visiting dignitaries, and interested public.
- Performed engineering geology projects to control accelerated erosion on steep, mountainous terrain from previous logging and road-construction land use activity. Detailed field mapping of erosional features such as gullies and landslides, air photo interpretation, and evaluation of future erosion and erosional processes. Planned, designed and implemented erosion-control work, including road removal, landslide treatments, and channel protection devices. Supervised heavy equipment and labor crews in construction of erosion-control work. Wrote summary reports and cost analysis of work performed.
- Performed engineering geology at nuclear power plant site examining plant excavations for evidence of faulting. Included detailed mapping of sedimentary stratigraphy and soils; and examination, description, and documentation of geology in shallow trenches and deep foundation excavations. Logged geologic boreholes for detailed site characterization. Supervised one to three staff geologists and up to three field assistants. Documented findings in maps, cross-sections, and reports, and presented results to regulatory agencies.

Professional Affiliations:

Geological Society of America (1974-present)

Society of Economic Paleontologists and Mineralogists (1976-1996)

Pacific Section - Society of Economic Paleontologists and Mineralogists

EXHIBIT C

DENNIS E. WILLIAMS

President / Principal Geohydrologist

Dennis E. Williams, founder and president of GEOSCIENCE Support Services, Inc. has over 30 years of experience in ground water hydrology. He has directed hydrogeologic studies in the Owens and Mono Basins for the City of Los Angeles Department of Water and Power, and spent seven years in the Middle and Far East working on large-scale ground water development and conjunctive use projects.

In 1978, Dr. Williams established GEOSCIENCE to provide advanced technology consulting to the ground water industry. He has been a consultant to the United Nations and several foreign governments; a professor at the University of Southern California, where he has taught graduate level courses in geohydrology and ground water modeling since 1980; author of numerous publications on ground water issues; and was the principal author of the *Handbook of Ground Water Development* (John Wiley & Sons, 1990).

EDUCATION

- ▼ B.S., Geology. University of Redlands, 1962
- ▼ M.S., Ground Water Hydrology. New Mexico Institute of Mining and Technology, 1965
- ▼ Ph. D., Hydrology. New Mexico Institute of Mining and Technology, 1969

PROFESSIONAL REGISTRATIONS

- ▼ Certified California Hydrogeologist (No. 139)
- ▼ Registered California Geologist (No. 461)
- ▼ Certified Ground Water Hydrologist (American Institute of Hydrology) (No. 355)

PROFESSIONAL AFFILIATIONS

- ▼ American Water Works Association (active member)
- ▼ National Water Well Association (technical member)
- ▼ Orange County Water Association
- ▼ Association of Special Districts – San Bernardino County
- ▼ American Institute of Hydrology
- ▼ American Water Works Association
- ▼ Member Water Well Technology Committee
- ▼ Member Industry Advisory Committee – USC Department of Civil and Environmental Engineering

PROFESSIONAL RECOGNITION

- ▼ Mathematics (Pi Mu Epsilon)
- ▼ Earth Sciences (Sigma Gamma Epsilon)

DENNIS E. WILLIAMS

President / Principal Geohydrologist

TRAINING SEMINARS

- ▼ *Well Design*, California Water Service Company Employees, San Jose, California. April 18-19, 2002.
- ▼ *Basic Geohydrology*, Los Angeles Regional Water Quality Control Board. July 30, 1997.
- ▼ *Ground Water Development*, Government of Vietnam, Hanoi. March 14-16, 1996.

EXPERT / BLUE RIBBON PANELS / PEER REVIEW

- ▼ Peer Review Orange County Water District Ground Water Model – Irvine Ranch Water District
- ▼ Ground Water Replenishment System Expert Panel – Orange County Water District
- ▼ West Basin Expert Panel – Injection of 100% Recycled Water into the West Coast Basin Barrier
- ▼ Peer Review USGS Bunker Hill Basin Ground Water Model - USGS
- ▼ Salinas Valley -- White Paper Expert Panel - Monterey County Water Resources Agency
- ▼ Peer Review of Tetra Tech/Coachella Valley Water District and the Imperial Valley Irrigation District Salton Sea Ground Water Model
- ▼ Head of Taskforce for a Ground Water Model which included input from the USGS, Stetson Engineers, Rancho California Water District, the United States Marines at Camp Pendleton, and the Riverside County Watermaster.
- ▼ Peer Review of a Ground Water Surface Model for the Monterey County Water Resources Agency.
- ▼ Peer Review of flow model developed for the Santa Clara Valley Water District.
- ▼ Azusa Landfill Taskforce – Head of MWD's Technical Team

PROFESSIONAL EXPERIENCE

- ▼ 1978 to Present: *Founder and President*, Geoscience Support Services, Inc
- ▼ 1980 to Present: *Research Professor, and Part-time Instructor* in Civil and Environmental Engineering and Earth Sciences Departments, University of Southern California, Los Angeles, California
- ▼ 1977 to 1980 *Consultant to the United Nations UNDP*, United Nations Development Programme, India
- ▼ 1976 to 1978 *Special Advisor to the Ministry of Energy, Government of Iran*, Iran
- ▼ 1973 to 1978 *Chief Hydrologist / General Manager*, Agro-Water Consulting Engineers, Iran
- ▼ 1971 to 1973 *Project Manager*, Louis Berger International Inc., Iran
- ▼ 1972 to 1974 *Special Consultant to the United Nations UNDP*, United Nations Development Programme, India

DENNIS E. WILLIAMS

President / Principal Geohydrologist

- ▼ 1968 to 1971 *Engineering Geologist / Hydrologist, Los Angeles Department of Water and Power, Los Angeles, California*
- ▼ 1970 *Instructor in Civil Engineering Department.
Part-time Instructor in Hydraulic Engineering, Water Supply Engineering,
Engineering Hydrology and Water Quality, California State Polytechnic
University, Pomona, California*
- ▼ 1966 to 1968 *Graduate Research Assistant, New Mexico Institute of Mining and Technology,
Socorro, New Mexico*
- ▼ 1965 to 1966 *Civil Engineering Assistant, Los Angeles Department of Water and Power,
Los Angeles, California*
- ▼ 1962 to 1965 *Graduate Research Assistant, New Mexico Institute of Mining and Technology,
Socorro, New Mexico*

DENNIS E. WILLIAMS

President / Principal Geohydrologist

DETAILED EXPERIENCE

GEOSCIENCE Support Services, Inc.

Upland, California

January 1978 to Present

Founder and President of GEOSCIENCE Support Services Inc., a California Corporation specializing in geohydrologic studies leading to development and management of ground water resources. GEOSCIENCE's client list includes most of the major Water Districts and agencies in the Southern California area, as well as clients in South America, Europe, and the Middle and Far East). Dr. Williams has also served as an expert witness on numerous legal issues (including arbitration, mediation, and court trials) for both domestic and international clients.

August 2001
to Present

**UNIVERSITY OF SOUTHERN CALIFORNIA,
Civil and Environmental Engineering Department**

Los Angeles, California

Research Professor. Currently teaching graduate-level class in geohydrology and directing research at USC's geohydrology laboratory related to well design and rehabilitation.

1980
to August 2001

**UNIVERSITY OF SOUTHERN CALIFORNIA,
Engineering and Earth Sciences Departments**

**Civil and Environmental
Los Angeles, California**

Part-time Instructor. Taught graduate-level classes in geohydrology and ground water modeling.

November 1979
to November 1980

UNITED NATIONS DEVELOPMENT PROGRAMME

India

Consultant to the United Nations (UNDP). Expert member of a UNDP team sent to Madras, India to develop a conjunctive use water supply plan designed to meet the needs of the City of Madras until the year 1990 (population: 8 million).

September 1977
to October 1978

UNITED NATIONS DEVELOPMENT PROGRAMME

India

Consultant to the United Nations Development Programme (UNDP). Retained as a ground water modeling expert on a team of UNDP experts conducting a feasibility study on the Ghaggar River Basin (Northwest India). Project responsibilities included evaluation of raw data and direction of local Indian Government personnel in the gathering, reduction and organization of data necessary to construct a digital computer ground water model of the Ghaggar River Basin.

March 1976
to March 1978

CONSULTANT TO THE GOVERNMENT OF IRAN

Iran

Special advisor to the Ministry of Energy, Government of Iran on hydrological problems involving water resources evaluation and development. Directed teams of Iranian government personnel in the conduct of feasibility investigations of various basins for purposes of total water resources development. Also provided guidance in development of a computer database for the collection, organization, storage and retrieval of hydrologic data.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

July 1973

AGRO-WATER CONSULTING ENGINEERS

Tehran, Iran

to November 1978

Chief Hydrologist/General Manager. In charge of managing the activities of a consulting engineering firm specializing in planning, design and supervision of construction of large-scale irrigation project development. Specific duties included technical and administrative duties for feasibility, final design and supervision of construction and management for irrigation development projects in Iran. Set up a complete mini-computer center for engineering and management computer programs. Directly supervised 30 civil engineers and various other technical personnel as required on various irrigation projects (geologists, hydrologists, soil mechanics experts, surveyors, agronomists and planners).

Designed an advanced supervisory control system for the Dashte-Naz Project incorporating modern telemetering/telecontrol equipment to monitor and control surface and ground water resources of a 6,000-acre irrigation project in Northern Iran.

Incorporated into this project was the first ground water barrier project in Iran, a pilot project that prevented salt-water encroachment by means of a ground water pressure ridge.

Planned and supervised ground water development projects in Karstic limestone areas of Northern and Western Iran. Planned and supervised teams involved in the ground water exploration and development of the limestone formations for municipal and agricultural supplies in Southwest Iran.

July 1971

LOUIS BERGER INTERNATIONAL INC.

Tehran, Iran

to July 1973

Project Manager in charge of project management and supervision for the Gorgan area project, a one million acre irrigation project in Northeast Iran. Work involved coordinating and supervising the efforts of geologists, civil engineers, hydro-agronomists, economists, and various other scientific and technical personnel. Specifically, the project was oriented toward producing feasibility designs upon which the government could economically justify funds for large-scale agriculture and animal husbandry development (surface and ground water), optimized using modern computer techniques for maximum development of irrigated agriculture, animal husbandry and agro-business.

October 1972

UNITED NATIONS DEVELOPMENT PROGRAMME

India

to September 1974

Special consultant to the United Nations Development Programme (UNDP). UNDP Expert responsible for direction and coordination of work by United Nations and local personnel in India in connection with development and testing of a digital computer model of the Gujarat ground water reservoir.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

July 1968

LOS ANGELES DEPARTMENT OF WATER AND POWER

to July 1971

Los Angeles, California

Engineering Geologist/Hydrologist. Planned and directed geologic and hydrologic studies in the Los Angeles and Owens Valley areas with regard to the amount and disposition of surface and ground water resources available for supply to the City of Los Angeles. Supervised engineering personnel and various construction and technical personnel in geologic and hydrologic investigations. Initiated and coordinated programs involving well drilling, aquifer testing and analysis, and ground water quality monitoring and cleanup.

Developed master plan for optimum basin development and management in the Owens Valley area involving digital computer model simulation. Applied analytical methods to evaluate ground water quantity and quality problems in the Los Angeles area.

Conducted various engineering geology studies including slope stability analyses, foundation and site studies and various tunnel investigations.

Designed injection well barrier for control of a gasoline contaminated ground water reservoir near Los Angeles. Built a model of the system to test analytical and field results of the two-fluid flow regime (gasoline and water).

January 1970

CALIFORNIA STATE POLYTECHNIC UNIVERSITY

Pomona, California

to June, 1970

Instructor in Civil Engineering Department. Part-time instructor in Hydraulic Engineering, Water Supply Engineering, Engineering Hydrology and Water Quality.

September 1966

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY (NMIMT)

to July, 1968

Socorro, New Mexico

Graduate Research Assistant. Worked for the Research and Development Division of NMIMT while attending graduate school. Involved on both model and field-testing of using air injection into ground water reservoirs as an effective means of combating salt-water encroachment. Built viscous-flow model of the system. Field-tested theory using a compressor-tank system into wells drilled by students with school rotary drilling rigs.

Involved in complete water resources study of the Pecos Basin of Southwest New Mexico.

Developed and tested an automatic water-level recording device based on a strain gage transducer coupled to a simple bridge circuit and displayed on a strip chart recorder. Also participated in the design of an experimental borehole-sampling gun powered by an explosive charge designed to take fast, undisturbed samples in the bottom of a well.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

June 1965

LOS ANGELES DEPARTMENT OF WATER AND POWER

to September 1966

Los Angeles, California

Civil Engineering Assistant. Initiated and planned exploration program for water resources development in the Owens Valley area. Supervised drilling and testing operations of exploratory wells in conjunction with development of a supplemental ground water supply to the Los Angeles Aqueduct System. Worked on ground water management models in the Los Angeles area involving well drilling, aquifer testing and data analysis. Assisted in water quality investigations in the Los Angeles area. Worked on bank storage problems in many of the city reservoirs. Helped formulate operational regimens incorporating flood routing.

June 1962

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY

to June 1965

Socorro, New Mexico

Graduate Research Assistant. Half-time work for Research and Development Division. Involved in thermal water studies of New Mexico. Constructed various models (sand, viscous flow), of complex hydrologic systems. Conducted aquifer tests and geologic field mapping in Central New Mexico.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

PROFESSIONAL PUBLICATIONS

- Pilot Study to Determine the Feasibility of Artificial Recharge of Recycled Water in Surface Spreading Basins. Paper to be presented at the 11th Biennial Symposium on Ground Water Recharge, Arizona Hydrological Society, Salt River Project, U.S. Water Conservation Laboratory and Arizona Department of Water Resources, June 5-7, 2003, Tempe, Arizona
 - Chief reviewer for the American Society of Civil Engineers (ASCE) *Manual of Water Well Design, Construction, Testing and Maintenance*. Also, primary author on Chapter, "Well Construction, Development and Testing", to be published 2003.
 - Author "Groundwater Pumping Methods" in the *Encyclopedia of Water Science*. To be published 2002.
 - Natural Recharge in the Cadiz Area, San Bernardino County, California. Paper presented at and published in the Symposium Proceedings of the Natural Recharge of Groundwater Symposium, sponsored by the Arizona Hydrological Society, Arizona Department of Water Resources, Salt River Project, U.S. Water Conservation Laboratory of USDA-ARS, and U.S. Geological Survey. June 2000, Tempe, Arizona. Presentation on the methods used to determine a range of recharge estimates for the Fenner Basin.
 - The Cadiz Groundwater Storage and Dry-Year Supply Program.
 - Paper presented at the Annual Fall Conference California-Nevada Section of the AWWA. October 1999, San Diego, California.
 - Paper presented at the Innovations in Artificial Recharge Conference, Association of Ground Water Agencies, American Ground Water Trust. May 2000, Ontario, California.
- Presentation of Pilot Recharge test results of the Cadiz project, a Metropolitan Water District Recharge and Recovery Program involving storage and retrieval of up to 150,000 acre-ft/yr via a 30-mile pipeline from the Colorado River Aqueduct.
- Field and Laboratory Research on Well Rehabilitation. Paper presented at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section of the AWWA. May 1999.
 - Well Rehabilitation: Is It Time? Is It Worth It? Paper presented at AWWA CA-NV, May 26, 1999 in Lakewood, California (also at AWWA Stockton May 1998). Presentation on the many facets of water well rehabilitation and an overview of why rehabilitation should be considered, what types of rehabilitation methods are available, and how to decide if rehabilitation is an appropriate step in any given situation.
 - Corrosion Field Test of Steels Commonly Used in Well Casing and Screen. Paper presented at AWWA CA-NV. May 27, 1999. Lakewood, California.
 - Training Seminar on Basic Geohydrology. Presented to the Los Angeles Regional Water Quality Control Board. July 1997.
 - Modern Techniques in Ground Water Management. Paper presented at the AWWA Annual Conference. 1997. Atlanta, Georgia.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

- International Study On Relining. 84 Case Studies. 1997. Paper prepared for court testimony in international arbitration. Unpublished until case is resolved.
- Seminar on Ground Water Development. Presented to the Government of Vietnam. Hanoi, Vietnam. March 1996.
- Pilot-Scale Field Test to Determine Pathogen Removal Beneath an Artificial Recharge Basin. Paper ASCE International Symposium On Artificial Recharge Of Ground Water. July 17-22, 1994.
- Sea-Water Intrusion into Pleistocene Aquifers in the Dominguez Gap Area of Southern California. South Coast Geological Society. Fall 1992.
- Author of five chapters *Handbook of Ground Water Development*. Published by John Wiley and Sons, New York. January 1990. (Author of Chapters: Ground Water Movement, Hydraulics of Wells, Well and Aquifer Evaluation from Pumping Tests, Ground Water Management, and Artificial Recharge).
- Ground Water Modeling in the Orange County Area. Geological Society of America Guidebook. Hydrogeology of Southern California, Cordilleran Section, 82nd Annual Meeting. March 25-28, 1986.
- Modern Techniques in Water Well Design. *Journal of the AWWA*. September 1985.
- Computer Assisted Ground Water Management in Orange County, California. Presented at the American Society of Civil Engineers National Conference on Environmental Engineering. June 25-27, 1984. Los Angeles, California.
- Conjunctive Use and Ground Water Management in Orange County California. Paper presented at the NWWA Western Regional Ground Water Management Conference. October 24, 1983.
- The Well/Aquifer Model-Initial Test Results. Published by the Roscoe Moss Company. 1981. Los Angeles, California.
- The Dashte-Naz Ground Water Barrier and Recharge Project. Presented at the Third National Ground Water Quality Symposium. Las Vegas, Nevada. September 1976. Also published in *Ground Water*. January-February 1977.
- Digital Computer Models and Ground Water Basin Management. Presented at the International Symposium on Development of Ground Water Resources, sponsored by I.H.D. November 1973. Madras, India.
- Gasoline Pollution of a Ground Water Reservoir. A paper presented at the First National Ground Water Quality Symposium. August 1971. Also published in *Ground Water*. Nov-Dec 1971.
- Modern Techniques in Ground Water Studies. A paper presented at the 91st Annual Conference of the AWWA. June 1971. Also published in the *Journal of the AWWA*. July 1971.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

- Ground Water Development and Management in the Owens Valley. Presented at the 90th Annual Conference of the AWWA. October 1970.
- Ground Water Basin Management. A paper presented at the California Section Meeting AWWA. September 1970. (Consulting Engineers Panel).
- Use of Alluvial Faults in the Storage and Retention of Ground Water. A paper presented at the Annual Fall Meeting of the AGU. December 1969. Also published in *Ground Water*. September-October 1970.
- Management of Gasoline Leaks - A Positive Outlook. A paper presented at the NWWA Seventh National Ground Water Quality Symposium. Sep 27, 1984. Las Vegas, Nevada.
- *Geohydrologic Investigation of the Owens Valley Ground Water Reservoir.* Ph.D. Dissertation. New Mexico Institute of Mining and Technology. June 1969.
- Viscous-Model Study of Ground Water Flow in a Wedge-Shaped Aquifer. *Water Resources Research*, Volume 2, Third Quarter 1966.
- Cenozoic Rocks of Socorro Valley and Vicinity. *New Mexico Geologic Society Guidebook*. 1963.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

PROFESSIONAL PRESENTATIONS AND TRAINING SEMINARS

- *Pumping Tests and Data Analysis.* Paper presented at the America Water Works Association California – Nevada Section Well Design & Construction Seminar. May 1, 2002. Lakewood, California.
- *Well Design Training Seminar.* Conducted a two-day Well Design Seminar for California Water Service Company employees which operate wells throughout the State of California. April 18-19, 2002. San Jose, California.
- *Natural Recharge in the Cadiz Area, San Bernardino County, California.* Paper presented at and published in the Symposium Proceedings of the Natural Recharge of Groundwater Symposium, sponsored by the Arizona Hydrological Society, Arizona Department of Water Resources, Salt River Project, U.S. Water Conservation Laboratory of USDA-ARS, and U.S. Geological Survey. June 2, 2000. Tempe, Arizona. Presentation on the methods used to determine a range of recharge estimates for the Fenner Basin.
- *The Cadiz Groundwater Storage and Dry-Year Supply Program.*
 - Paper presented at the Innovations in Artificial Recharge Conference, Association of Ground Water Agencies and the American Ground Water Trust. May 4-5, 2000. Ontario, California.
 - Paper presented at the Annual Fall Conference California-Nevada Section of the AWWA. October 27, 1999. San Diego, California.

Presentation of Pilot Recharge test results of the Cadiz Project, a Metropolitan Water District Recharge and Recovery Program involving storage and retrieval of up to 150,000 acre-ft/yr via a 30-mile pipeline from the Colorado River Aqueduct.

- Paper presented at the Innovations in Artificial Recharge Conference, Association of Ground Water Agencies and the American Ground Water Trust. May 4-5, 2000. Ontario, California.
- Paper presented at the Annual Fall Conference California-Nevada Section of the AWWA. October 27, 1999. San Diego, California.
- *Field and Laboratory Research on Well Rehabilitation.* Paper presented at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section of the AWWA. May 27, 1999.
- Dr. Williams was the keynote speaker at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section, American Water Works Association in May 1998 (AWWA in Stockton) and May 1999 Workshop (AWWA in Lakewood), and presented the paper entitled “*Well Rehabilitation: Is It Time? Is It Worth It?*” The presentation discussed the many facets of water well rehabilitation including an overview of why rehabilitation should be considered, what types of rehabilitation methods are available, and how to decide if rehabilitation is an appropriate step in a given situation.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

- *Corrosion Field Test of Steels Commonly Used in Well Casing and Screen.* Paper presented at the Water Well Maintenance and Rehabilitation Seminar, California-Nevada Section, American Water Works Association. May 27, 1999. Lakewood, California.
- In 1997, GEOSCIENCE conducted an International Study on Relining. Eighty-four case studies were gathered and analyzed. A paper was prepared for court testimony in international arbitration, aimed at educating the Tribunal in methods of rehabilitation for large-capacity water wells. The paper remains unpublished until the case is resolved. The case involved 126 wells in northern Africa, 60 of which have failed due to corrosion. GEOSCIENCE also prepared a rehabilitation plan for the entire well field.
- *Training Seminar on Basic Geohydrology.* Presented to the Los Angeles Regional Water Quality Control Board. July 30, 1997.
- *Modern Techniques in Ground Water Management.* Paper presented at the Annual Conference, American Water Works Association. June 19, 1997. Atlanta, Georgia.
- *A Case Study of Unprecedented Well Failures and Rehabilitation Efforts.* Paper presented at the Well Construction, Operation, and Rehabilitation Seminar, American Water Works Association. September 20, 1996.
- *Seminar on Ground Water Development.* Presented to the Government of Vietnam. March 14-16, 1996. Hanoi, Vietnam.
- *Aquifer Pump Tests and Data Analysis.* Presented at the California-Nevada Section Water Well Construction Workshop, American Water Works Association. March 22, 1995.
- *Pilot-Scale Field Test to Determine Pathogen Removal Beneath an Artificial Recharge Basin.* Presented at the Second International Symposium on Artificial Recharge of Ground Water, American Society of Civil Engineers. July 17-22, 1994.
- *Seawater Intrusion into Pleistocene Aquifers in the Dominguez Gap Area of Southern California.* Paper presented to the South Coast Geological Society. August 1992.
- *Ground Water Modeling in the Orange County Area.* Paper presented at the Cordilleran Section, 82nd Annual Meeting, Geological Society of America Guidebook. Hydrogeology of Southern California. March 25-28, 1986.
- *Management of Gasoline Leaks - A Positive Outlook.* A paper presented at the NWWA Seventh National Ground Water Quality Symposium. September 27, 1984. Las Vegas, Nevada.
- *Computer Assisted Ground Water Management in Orange County, California.* Presented at the National Conference on Environmental Engineering, American Society of Civil Engineers. June 25-27, 1984. Los Angeles, California.
- *Conjunctive Use and Ground Water Management in Orange County, California.* Paper presented at the Western Regional Ground Water Management Conference, National Water Works Association. October 24, 1983.

DENNIS E. WILLIAMS

President / Principal Geohydrologist

- *Seminar on Ground Water Development.* Presented to the Asian Institute of Technology. Bangkok, Thailand. 1980.
- *The Dashte-Naz Ground Water Barrier and Recharge Project.* Presented at the Third National Ground Water Quality Symposium. September, 1976. Las Vegas, Nevada. Also published in *Ground Water*. January-February 1977.
- *Digital Computer Models and Ground Water Basin Management.* Presented at the International Symposium on Development of Ground Water Resources, sponsored by I.H.D. November 1973. Madras, India.
- *Gasoline Pollution of a Ground Water Reservoir.* A paper presented at the First National Ground Water Quality Symposium. August 1971. Also published in *Ground Water*. November-December 1971.
- *Modern Techniques in Ground Water Studies.* A paper presented at the 91st Annual Conference, American Water Works Association. June 15, 1971. Also published in *Journal of the American Water Works Association*. July 1971.
- *Ground Water Development and Management in the Owens Valley.* Presented at the 90th Annual Conference, American Water Works Association. October 1, 1970.
- *Use of Alluvial Faults in the Storage and Retention of Ground Water.* A paper presented at American Geophysical Union National Fall Meeting. December 15-18, 1969. Also published in *Ground Water*, Vol. 8, No. 5. September-October 1970.
- *Ground Water Basin Management.* A paper presented at the California Section Meeting AWWA. September 1970. (Consulting Engineers Panel).

1 **PROOF OF SERVICE**

2 **ANTELOPE VALLEY GROUNDWATER CASES**

Judicial Council Coordination, Proceeding No. 4408

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

4 Assigned to the Honorable Jack Komar

5 Los Angeles County Superior Court, Central, Dept. 1

6 I am a resident of the State of California, over 18 years of age and not a party to this action. I
7 am employed in the County of Orange, State of California. My business address is 2050 Main Street,
Suite 600, Irvine, California 92614. On August 15, 2008, I served the within document(s):

8 **EXPERT WITNESS DESIGNATION OF LOS ANGELES COUNTY WATER WORKS**
9 **DISTRICT NO. 40, ROSAMOND COMMUNITY SERVICES DISTRICT, CITY OF**
10 **LANCASTER, PALMDALE WATER DISTRICT, QUARTZ HILL WATER DISTRICT,**
11 **CALIFORNIA WATER SERVICE COMPANY AND LITTLEROCK CREEK**
12 **IRRIGATION DISTRICT, et al.**

13 ☒ by posting the document(s) listed above to the website <http://www.scefiling.org>, a
14 dedicated link to the Antelope Valley Groundwater Cases; Santa Clara Case
15 No. 1-05-CV 049053, Assigned to the Honorable Jack Komar, said document(s) is
16 electronically served/distributed therewith.

17 ☐ By transmitting via e-mail the document(s) listed above to the e-mail address(es) and/or
18 fax number(s) set forth below on this date.

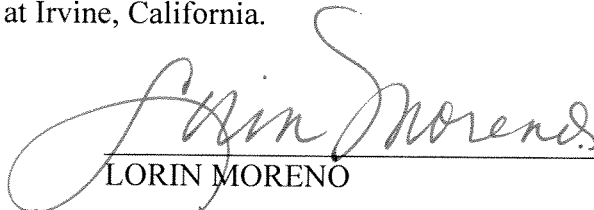
19 ☐ by placing the document(s) listed above in a sealed Overnight Express envelope/package for
20 overnight delivery at Irvine, California addressed as set forth below.

21 ☐ by causing personal delivery by Nationwide Legal of the document(s) listed above, to the
22 person(s) at the address(es) set forth below.

23 I am readily familiar with Luce, Forward, Hamilton & Scripps LLP's practice for collecting and
24 processing correspondence for mailing. Under that practice it would be deposited with the U.S.
25 Postal Service on the same day that the correspondence is placed for collection and mailing, it is
26 deposited in the ordinary course of business with the United States Postal Service, in a sealed
27 envelope with postage fully prepaid.

28 I declare under penalty of perjury under the laws of the State of California that the foregoing is
true and correct.

Executed on August 15, 2008, at Irvine, California.


LORIN MORENO