EXHIBIT 3

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Los Angeles County Waterworks District No. 40

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Attorneys for Los Angeles County Waterworks District No. 40

EXEMPT FROM FILING FEES UNDER GOVERNMENT CODE SECTION 6103

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES – CENTRAL DISTRICT

ANTELOPE VALLEY GROUNDWATER CASES

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

Los Angeles County Waterworks District No. 40 v. Diamond Farming Co., Superior Court of California, County of Kern, 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. Palmdale Water Dist., Superior Court of California, County of Riverside, Case Nos. RIC 353 840, RIC 344 436, RIC 344 668;

RICHARD WOOD, on behalf of himself and all other similarly situated v. A.V. Materials, Inc., et al., Superior Court of California, County of Los Angeles, Case No. BC509546.

Judicial Council Coordination Proceeding No. 4408

CLASS ACTION

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

PUBLIC WATER SUPPLIERS' NOTICE OF DESIGNATION OF EXPERT WITNESSES; DECLARATION OF JEFFREY V. DUNN

TO ALL PARTIES AND TO THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that pursuant to the provisions of California Code of Civil Procedure § 2034.010, et. seq., Los Angeles County Waterworks District No. 40, Littlerock Creek Irrigation District, Palm Ranch Irrigation District, Desert Lake Community Services District, North Edwards Water District, Llano Del Rio Water Company, Llano Mutual Water Company, Big Rock Mutual Water Company, Rosamond Community Services District, the City of Lancaster, Palmdale Water District, Quartz Hill Water District, the City of Palmdale, and California Water Service Company ("Public Water Suppliers"), by and through their attorneys of record, hereby exchange, the following: (1) a list containing the name and address of each person whose expert opinion testimony that the parties expect to offer at trial, whether orally or by deposition testimony; and (2) an expert witness declaration for each such person pursuant to Code of Civil Procedure Sections 2034.210, subdivision (b), and 2034.260, subdivision (c). Additionally, Public Water Suppliers reserve the right to use previously submitted expert testimony from trial phases I, II, III, and IV.

Public Water Suppliers designate the following expert witnesses based upon the allegations and contentions known to them at this time. Should new allegations and contentions be made, Public Water Suppliers reserve the right to designate and call at the time of trial such other expert witnesses as may be appropriate. The expert witnesses Public Water Suppliers intend to call are as follows:

1. Dennis Williams
   GeoScience Support Services, Inc.
   620 W. Arrow Highway, Suite 2000
   La Verne, California 91750
   Telephone: (909) 451-6650

2. Robert Beeby
   Beeby Engineering, Inc.
   200 Longhorn Lane
   Ojai, California 93023-4203
   Telephone: (805) 646-8652

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Public Water Suppliers reserve the right to call rebuttal expert witnesses once the expert witnesses of other parties have been designated, deposed, or have testified at the time of trial.

Dated: November 18, 2013

BEST BEST & KRIEGER LLP

By: _____
JEFFREY V. DUNN
ERIC L. GARNER
Los Angeles County Waterworks District No. 40

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DECLARATION OF JEFFREY V. DUNN

I, Jeffrey V. Dunn, declare:

1. I have personal knowledge of the facts below, and if called upon to do so, I could testify competently thereto in a court of law.

2. I am an attorney licensed to practice law in the State of California. I am a partner of Best, Best & Krieger LLP, attorneys of record for the Los Angeles County Waterworks District No. 40 ("District No. 40").

3. District No. 40, Littlerock Creek Irrigation District, Palm Ranch Irrigation District, Desert Lake Community Services District, North Edwards Water District, Llano Del Rio Water Company, Llano Mutual Water Company, Big Rock Mutual Water Company, Rosamond Community Services District, the City of Lancaster, Palmdale Water District, Quartz Hill Water District, the City of Palmdale, and California Water Service Company ("Public Water Suppliers") intend to offer at trial, either orally or by deposition testimony the following experts: Dr. Williams and Mr. Beeby.

4. All experts named have agreed to testify as expert witnesses at the Phase 5 trial.

5. Attached to this declaration as Exhibit "1" are the resumes of Dr. Williams and Mr. Beeby.

6. Dr. Williams is the founder and president of GEOSCIENCE Support Services, Inc., and has over 40 years of experience in groundwater hydrology. During that time he has directed geohydrologic investigations domestically and worldwide which includes the design and construction supervision of over 800 deep large-scale municipal and irrigation water supply wells. Dr. Williams has taught graduate level courses in geohydrology and groundwater modeling since 1980 and is currently directing research on groundwater and wells at University of Southern California's geohydrologic laboratory. Dr. Williams is the author of over thirty publications on groundwater and wells and is the principal author of the Handbook of Ground Water Development (John Wiley & Sons, 1990). Dr. Williams is a California Professional Geologist (No. 461), certified California Hydrogeologist (No. 139) and a certified Ground Water Hydrologist (American Institute of Hydrology, No. 355).

7. Dr. Williams may be called to offer testimony concerning return flows, and the characteristics, structure, hydrologic conditions of the groundwater underlying the Basin. Dr. Williams will be available to provide rebuttal testimony.

8. Mr. Beeby is currently the principal of Beeby Engineering, Inc., and has approximately 50 years of engineering experience in project planning and management of water resources for a wide range of clients, including agricultural and urban water purveyors, power providers, federal, state and local governmental agencies. He has served as principal-in-charge and directed technical studies related to the adjudication of groundwater pumping rights of several groundwater basins; served on Technical Expert Committees appointed to develop the factual aspects of groundwater basins under court adjudication; directed studies leading to water management programs/exchanges between agricultural and urban interest; developed regional plans for management of surface and groundwater resources; directed studies relating to technical and economic feasibility of agricultural water projects; and has managed the preliminary design and construction phases of major water resource facilities.

9. Since 1980, Mr. Beeby has provided expert witness testimony in numerous proceedings relating to land, water use, groundwater adjudications and water rights. He has testified before a Special Master appointed by the Supreme Court, the California State Water Resources Control Board, and court groundwater adjudications, such as the Santa Maria Valley Groundwater Cases. Mr. Beeby is a registered civil engineer in California, Arizona, and Washington. Mr. Beeby is also a State of California registered agricultural engineer.

10. Mr. Beeby may be called to offer testimony regarding return flows in the Antelope Valley. Mr. Beeby may be called to offer testimony to rebut testimony of other experts.

11. Dr. Williams and Mr. Beeby are sufficiently familiar with the pending action to submit a meaningful oral deposition concerning their respective testimony, including their expert opinions and the basis of their opinions.

12. Dr. Williams' hourly fee for depositions and trial testimony is $500.00 plus travel time. Mr. Beeby's hourly fee for deposition and trial testimony is $340.00 plus travel time.

I declare under penalty of perjury under the laws of the State of California that the

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foregoing is true and correct. Executed this 18th day of November, 2013 at Irvine, California.

Jeffrey V. Dunn

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EXHIBIT 1

GEOSCIENCE

DENNIS E. WILLIAMS, PH.D, PG, CHG
President/Principal Geohydrologist

Years of Experience: 35+
Years with GEOSCIENCE: 33

Education:
B.S., Geology. University of Redlands
M.S., Ground Water Hydrology. New Mexico Institute of Mining and Technology
Ph. D., Hydrology. New Mexico Institute of Mining and Technology

Professional Registrations:
California Professional Geologist (No. 461)
Certified California Hydrogeologist (No. 139)
Certified Ground Water Hydrologist (American Institute of Hydrology) (No. 355)

Dr. Dennis E. Williams, founder and president of the Southern California based firm GEOSCIENCE Support Services, Inc. has over 40 years of experience in ground water hydrology. During that time he has directed geohydrologic investigations domestically and worldwide which includes the design and supervision of construction of over 800 deep large-scale municipal and irrigation water supply wells. Dr. Williams also pioneered the use of slant wells for desalination feedwater supply. He has been a consultant to the United Nations and several foreign governments and is currently a part-time research professor at the University of Southern California's Civil and Environmental Engineering Department where he has taught graduate level courses in geohydrology and ground water modeling since 1980. Dr. Williams is currently directing research on ground water and wells at USC's geohydrologic laboratory which houses the largest sand-tank model in the world. Dr. Williams is author of over 30 publications on ground water and wells and was the principal author of the Handbook of Ground Water Development (John Wiley & Sons, 1990); the Handbook was awarded Honorable Mention in the Engineering Category of the Fifteenth Annual Awards for Excellence in Professional and Scholarly Publishing by the Association of American Publishers. Dr. Williams was also chief reviewer for the American Society of Civil Engineers (ASCE) Manual of Water Well Design, Construction, Testing and Maintenance and primary author for two chapters, Water Well Construction, and Developing and Testing, and of Appendix Example of Water Well System Design (currently in press). Dr. Williams is a contributor for three entries in the Encyclopedia of Water: "Radial Wells", "Well Tests", and "Well Screens" published by John Wiley and Sons. Dr. Williams is a technical consultant to the American Water Works Association (AWWA) Standards Committee for Wells (ANSI/AWWA A100-04).

Dr. Williams has been involved in and directed all ground water projects conducted by GEOSCIENCE over the past 35 years.

PROFESSIONAL AFFILIATIONS:

American Water Works Association (active member)

- Member of Water Well Technical Committee.
- Technical Consultant to AWWA Standards Committee for Wells (ANSI/AWWA A100-04).

American Society of Civil Engineers (affiliate member)
National Water Well Association (technical member)
Orange County Water Association
Association of Special Districts – San Bernardino County
American Institute of Hydrology
Member Industry Advisory Committee – USC Department of Civil and Environmental Engineering

EXPERT / BLUE RIBBON PANELS / PEER REVIEW:

Independent Advisory Panel – IEUA, Recycled Water Recharge/NWRI
Expert Panel/NWRI/CDPH BDOC - Biodegradable Dissolved Organic Carbon (BDOC) as a suitable alternative surrogate to Total Organic Carbon (TOC) to assess the removal of unregulated wastewater-derived organics from recycled water to be used for groundwater recharge.
Peer Review – Riverside Arlington Ground Water Model-City of Riverside
Peer Review USGS Bunker Hill Basin Ground Water Model - USGS
Peer Review USGS Ground Water Flow Model of Beaumont Storage Unit, BCVWD
Peer Review of flow model developed for the Santa Clara Valley Water District.
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 Orange County Water District Ground Water Model – Irvine Ranch Water District
Peer Review of a Ground Water Surface Model for the 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
Ground Water Replenishment System Expert Panel – Orange County Water District
Member of the Upper Santa Clara River Chloride TMDL Technical Advisory Panel
West Basin Expert Panel – Injection of 100% Recycled Water into the West Coast Basin Barrier
Salinas Valley – White Paper Expert Panel - Monterey County Water Resources Agency
Azusa Landfill Taskforce – Head of MWD's Technical Team

PROFESSIONAL RECOGNITION – AWARDS:

Mathematics (Pi Mu Epsilon)
Earth Sciences (Sigma Gamma Epsilon)
2008 National Ground Water Association's Outstanding Ground Water Project Award for the Beaumont Cherry Valley Water District Recharge and Recreation Facility Project
2004 Research Achievement Award from the California Water Environment Association (Desert and Mountain Section) for the pilot scale artificial recharge testing of the Big Bear Area Regional Wastewater Agency's Recycled Water Artificial Recharge and Recovery Study
The Association of American Publishers' Honorable Mention in the Engineering Category of the Fifteenth Annual Awards for Excellence in Professional and Scholarly Publishing awarded to Dr. Williams in 1991 for his authorship of the Handbook of Ground Water Development (John Wiley & Sons, 1990)

TRAINING SEMINARS:

Well Design, Training Seminar for Webb Associates, September 2011
City of

Well Design, California Water Service Company Employees, San Jose, California. April 18 19, 2002 and June 8-9 2005.

Basic Geohydrology, Los Angeles Regional Water Quality Control Board. July 30, 1997.
Ground Water Development, Government of Vietnam, Hanoi. March 14-16, 1996.

PROFESSIONAL EXPERIENCE:

1978 to Present - Founder and President, GEOSCIENCE Support Services, Inc.
2001 to Present - Part-time Research Professor in Civil and Environmental Engineering Department, University of Southern California
1980 to 2001 - 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
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

PROFESSIONAL PUBLICATIONS:

- Design of Slant and Vertical Wells for Desalination Feedwater Supply, IDA, Perth, AUS, Sep 2011
- Understanding Well Efficiency, AWWA, Nov 2010
- Is now the time and is it worth it – Well Rehab, AWWA, Nov 2010
- Slant Well Application for Desalination Intake, AWWA, Mar 2010
- Subsurface Intake Feasibility, USTDA-Chilean Govmt, Mar 2010
- Well Rehabilitation: Is It Time? Is It Worth It? Paper presented at American Ground Water Trust, Lakewood, CA, 2-Oct-08. Presentation on why and when well rehabilitation should be considered.
- Well Siting and Design, University of California at Riverside, Extension Geology Continuing Education Series Groundwater and Related Issues, March 10, 2007
- Results of Drilling, Construction, Development and Testing of Dana Point Ocean Desalination Project Test Slant Well. Article, NGWA Horizontal Wells Newsletter, Jan 2007
- Use of Wells to Provide Water for Seawater Desalination Systems. Paper presented at 15th annual GRA meeting San Diego, CA, 22-Sep-06.

- Well Rehabilitation: Is It Time? Is It Worth It? Paper presented at AWWA CA-NV, May 17, 2005 in Lakewood, California. Presentation on why and when well rehabilitation should be considered.
- The Encyclopedia of Water. Contributor for three entries in the Encyclopedia, Radial Wells, Well Tests, and Well Screens. To be published by John Wiley and Sons in 2005.
- Dealing with Emerging Ground Water Contaminants: An Engineer's Perspective. Presented at Confirming Legal Education for Water Law Professionals, sponsored by the Association of California Water Agencies, September 22-23, 2004.
- Chief Reviewer and author for the American Society of Civil Engineers International Manual on Well Hydraulics. Primary author for two chapters, Water Well Construction, and Developing and Testing, and of Appendix in Example of Water Well System Design. In Press.
- Pilot Study to Determine the Feasibility of Artificial Recharge of Recycled Water in Surface Spreading Basins. Paper 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
- Author Groundwater Pumping Methods in the Encyclopedia of Water Science. July 2003.
- 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 Ground Water 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.
- 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.
- 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.

PROFESSIONAL PRESENTATIONS AND TRAINING SEMINARS:

- Well Siting and the Prediction of Well Performance. Ground Water Wells and Pumping Efficiency Workshop, California-Nevada Section AWWA, November 4, 2009.
- Subsurface Intake System Feasibility. Alden Desalination Intake/Outfall Workshop. El Segundo, California. October 15, 2009.
- Slant Wells and Other New Techniques in Well Design. Association of San Bernardino County Special District. September 28, 2009.
- Use of Slant Water for Desalination Feedwater Supply – Case Study Dana Point. Pre-Conference Membranes for Water Treatment: Federal and State Research Advances. American Membrane Technology Association Conference. July 13, 2009.
- Well Design Construction, Development and Testing Training Seminar. City of Torrance, Engineering Division, Public Works Department. February 25, 2009.
- Overview of the Dana Point Desalination Project, GRA Southern Branch, San Juan Capistrano, CA, May 14, 2008
- Impacts of Implementing the Proposed SARWQCB Resolution on Conjunctive Use in the San Bernardino Basin Area, 2006 Water Policy & Law Briefing, July 20, 2006
- Well Design Training Seminar. Conducted a 1½ day Well Design Seminar for California Water Service Company employees that operate wells throughout the State of California. June 8-9 2005. San Jose, California.
- 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 that 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 Ground Water 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 Ground Water 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.
- 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.
- 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.
- In 1997, Dr. Williams 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. Dr. Williams 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.
- 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).

PROFESSIONAL EXPERIENCE – DETAILED:

GEOSCIENCE Support Services, Inc., Claremont, 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.

UNIVERSITY OF SOUTHERN CALIFORNIA, Civil and Environmental Engineering Department, Los Angeles, California
August 2001 to Present. Part-Time Research Professor. Currently teaching graduate-level class in geohydrology and directing research at USC's geohydrology laboratory related to well design and rehabilitation.

UNIVERSITY OF SOUTHERN CALIFORNIA, Los Angeles, California
Civil and Environmental Engineering and Earth Sciences Departments
1980 to August 2001. Part-time Instructor. Taught graduate-level classes in geohydrology and ground water modeling.

UNITED NATIONS DEVELOPMENT PROGRAMME, India
November 1979 to November 1980 - 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).

UNITED NATIONS DEVELOPMENT PROGRAMME, India
September 1977 to October 1978. 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.

CONSULTANT TO THE GOVERNMENT OF IRAN, Iran
March 1976 to March 1978. 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.

AGRO-WATER CONSULTING ENGINEERS, Tehran, Iran
July 1973 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.

LOUIS BERGER INTERNATIONAL INC., Tehran, Iran
July 1971 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.

UNITED NATIONS DEVELOPMENT PROGRAMME, India
October 1972 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.

LOS ANGELES DEPARTMENT OF WATER AND POWER, Los Angeles, California
July 1968 to July 1971. 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).

CALIFORNIA STATE POLYTECHNIC UNIVERSITY Pomona, California
January to June 1970
Instructor in Civil Engineering Department. Part-time instructor in Hydraulic Engineering, Water Supply Engineering, Engineering Hydrology and Water Quality.

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY (NMIMT), Socorro, New Mexico
September 1966 to July 1968. 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.

LOS ANGELES DEPARTMENT OF WATER AND POWER, Los Angeles, California
June 1965 to September 1966. 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.

NEW MEXICO INSTITUTE OF MINING AND TECHNOLOGY, Socorro, New Mexico
June 1962 to June 1965. 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.

ROBERT G. BEEBY, P. E.
B.S., Irrigation Science, University of California, Davis (1964)
Registered Civil Engineer, California #20997, Arizona #12047, New Mexico #8082 (Retired), South Dakota #3663(Retired) and Washington #40199
Registered Agricultural Engineer, California #24
Work Summary

Mr. Beeby has over 40 years of engineering experience in project planning and management of water resources for a wide range of clients, including agricultural and urban water purveyors, power providers, law firms and federal, state and local governmental agencies. He has served as Principal-in-Charge and directed technical studies related to the adjudication of pumping rights of several ground water basins, served on Technical Expert Committees appointed to develop the factual aspects of ground water basins under adjudication, directed the studies leading to water management programs/exchanges between agricultural and urban interests, developed water supply plans to provide cooling water for power plants, developed regional plans for management of surface and ground water resources, directed studies relating to technical and economic feasibility of agricultural water projects and has managed the preliminary design and construction phases of major water resource facilities. Mr. Beeby has provided expert witness testimony since 1980 in numerous proceedings relating to land, water use, groundwater adjudications and water rights. He has testified before a Special Master appointed by the Supreme Court in Arizona v. California (1980), before the California State Water Resources Control Board, California Regional Water Quality Control Boards, California Energy Commission and other judicial or quasi-judicial bodies.
Representative Professional Experience

Beeby Engineering, Inc., Principal (2009- Present)

Beeby Engineering, Inc. was formed in July 2009 to continue to provide professional services in the field of water resources. Services range from technical studies to evaluate the current and future relationship between water supplies and water demands, conceptual design of facilities to increase reliability of existing water resources, evaluations of current and projected water demands of agricultural and urban areas, preparation of regional hydrologic inventories and water balances, evaluations of the water resource aspects of required environmental documentation for proposed projects that may affect the water resources of an area and litigation support related to water resources such as groundwater basin adjudications, flood damages and water rights.
Science Applications International Corporation, Principal Engineer (1998 to 2009)

Mr. Beeby served as Vice President, Engineering Services, with SAIC Engineering, Inc. and a member of the Board of Directors. He served as Program Manager with the parent company, Science Applications International Corporation (SAIC). He was Principal-in-Charge and the Business Area Leader for Water Resource Engineering in the firm's Environmental Sciences and Planning Division and was primarily responsible for the SAIC's consulting engineering activities related to water resources.
Mr. Beeby was responsible for the SAIC engineering activities associated with the planning and management of water resources in the west. His responsibilities included the management and technical direction of the engineering and technical support staff involved in regional water

resource planning, technical studies related to water supply reliability, environmental documentation and water-related litigation support. Specific activities included, but were not limited to, evaluation and implementation of water banking projects, development of exchange and transfer programs, evaluations of agricultural land and water use, irrigation practices, preparation of hydrologic inventories, analyses of unit water use values for various crops and urban development, analyses of historical hydrologic records of stream flow and diversions, evaluation of geohydrologic data to assess ground water production, analyses of water quality as a constraint on use and economic and financial analyses to assess project feasibility. Many of the water resource investigations directed by Mr. Beeby included the development of the institutional arrangements necessary for project implementation. Mr. Beeby was also responsible for client contact and has presented expert witness testimony in the fields of water rights, water use, surface and ground water hydrology and the technical and economic feasibility of irrigation projects.

Mr. Beeby directed the activities of the firm in the development of long-term water supply planning strategies for the City of Palmdale, California. Specific activities included serving on the Technical Committee for the Antelope Valley Groundwater Basin Litigation, participation in the evaluation of water supplies and demands within the Antelope Valley Groundwater Basin, direction of the engineering activities associated with the development of a ground water recharge project for the City, and serving as the technical representative of the City in the preparation of the Integrated Regional Water Management Plan for the Antelope Valley.

Mr. Beeby directed the activities of the firm in evaluations of the water supplies and demands of the Nipomo Community Services District, a hydrologic subarea of the Santa Maria Valley groundwater basin in California. Specific activities included participation in the Technical Group formed to develop the hydrologic monitoring program and annual reports to the Court on the water conditions of the Nipomo Mesa Management Area, development of water supply shortage criteria for NCSD, evaluation of existing hydrogeologic information, including historical groundwater levels, preparation of urban and agricultural water demands and preparation of hydrologic inventories.

Mr. Beeby directed the activities of the firm in the preparation of a report on the water resources within a portion of the Mojave Water Agency that might be developed for power plant cooling. Development of available water supplies must be consistent with the Mojave Basin Area Adjudication and rules and regulations established by the Court-appointed Watermaster.

Mr. Beeby directed the activities of the firm in evaluating the surface water hydrology of the upper Santa Ana River on behalf of the San Bernardino Valley Municipal Water District and the Western Municipal Water District of Riverside County, both located in Southern California. The findings of recent investigations were used to advance an application filed with the California State Water Resource Control Board by both districts to appropriate water conserved by Seven Oaks Dam, constructed by the U. S. Corps of Engineers, for flood control. The study was initiated to evaluate the potential for utilizing a portion of the inflow to the reservoir after the flood season. Specific activities included, studies related to surface water hydrology of the Santa Ana River system, analyses of the senior water right claimants, analyses of effects of Project implementation on environmental issues, evaluation of a water conservation objective, studies of reservoir operation alternatives, estimates of the amount of flow that might be put to beneficial use, and appearances before the California State Water Resources Control Board.

Mr. Beeby directed the activities of the firm in preparation of an evaluation of the water resources and development potential for a private landowner in San Diego County, California.

Specific activities included the preparation of a hydrologic inventory of the available natural water supplies, potential water demands under full development conditions and conduct of assessment of environmental resources to be addressed in the environmental documentation prior to project implementation.

Mr. Beeby directed the activities of the firm for the City of Corona, California in the evaluation of the effects of a well constructed in the Coldwater Basin outside of the boundaries established by mutual agreement on nearby production wells. Specific activities included an evaluation of the geohydrologic conditions of the basin in order to develop operational procedures so both competing entities could sustainably operate the basin. Negotiations are underway.

Mr. Beeby directed the activities of the firm for the City of Rancho Cucamonga in the hydrologic evaluation of a flood event in the City. Specific activities included an evaluation of historical rainfall/runoff relationships and for the specific storm event, effects of land development over time on runoff conditions and the adequacy of the storm water drainage system operated by the City and the private landowner whose property was damaged.

Mr. Beeby directed the activities of the firm in providing technical consulting services to the Friant Water Users Authority (FWUA), a joint powers agency that operates the Friant Division of the federal Central Valley Project (CVP). The Friant Division of the CVP includes roughly 25 water districts, encompassing about one million acres of agricultural land, generally located on the east side of the San Joaquin Valley, California. Water deliveries are about 1.2 million acre-feet annually. SAIC provided technical assistance to FWUA on a number of wide-ranging projects; some of the projects would help to resolve environmental concerns related to the operation of the Friant Division; others relate to improving the water supply reliability. SAIC staff also assisted FWUA staff in the management of consultants retained.

A separate portion of FWUA work directed by Mr. Beeby included an evaluation of a water management partnership with the Metropolitan Water District of Southern California which has the objective of improving the water supply reliability for the 25 FWUA Member Districts and improving the quality of the imported water supply delivered to Metropolitan. Studies included evaluations of additional surface and ground water storage facilities, potential for conjunctive use of surface and ground water supplies, effects of water quality on agricultural production, conveyance facilities to accomplish transfers or exchanges. Specific assignments relate to an appraisal-level evaluation of the potential for increasing the storage capacity of the Mammoth Pool Reservoir and a systems operations study of the entire Friant system and other conveyance facilities located in the San Joaquin Valley to evaluate scenarios to improve operational flexibility.

Mr. Beeby directed the activities of the firm in an evaluation of water rights of the Kern River, located in the southern end of the San Joaquin Valley in California. The specific issue addressed related to the forfeiture of a senior water right to a junior. Specific analyses included the evaluation of over 100 years of hydrologic flow and diversion data. Mr. Beeby provided expert testimony connected with this work.

Mr. Beeby directed and provided senior review for the investigation of the Practicably Irrigable Area (PIA) of a portion of the Lummi Reservation in Northwest Washington. SAIC's client was the State of Washington, Department of Ecology and the State Attorney General. In another PIA investigation, Mr. Beeby was retained as a consultant to the Metropolitan Water District of Southern California to provide historical background and technical advice relating to the continuation of Arizona v. California in which he provided expert testimony related to practicably irrigable areas in 1980.

Mr. Beeby provided senior review and direction for an appraisal-level investigation of a project that would include construction of a desalting facility on the Colorado River Aqueduct, two hydroelectric power generating facilities, penstocks and appurtenances. The overall project objectives are to reduce the total dissolved solids content of the water delivered to the Metropolitan Water District of Southern California from the Colorado River, to generate power as the reject stream is discharged to the Salton Sea and to assist in efforts underway to stabilize water levels and salinity of the Salton Sea.

Mr. Beeby directed the activities of the firm in the preparation of an evaluation of the effects of continuing the implementation of the Physical Solution adopted by the Superior Court, Riverside County, to resolve the overdraft situation in the Mojave River Basin and presented expert testimony. Specific activities included projections of the amount of imported water required to bring the five subareas of the Mojave River Basin into hydrologic balance, preparation of estimates of the number of agricultural interests that would be affected and the estimated cost. He also directed the activities of the firm in the preparation of an evaluation of technical reports relating to analyses of the effects of pumping and recharge on native vegetation.

Mr. Beeby directed the activities of the firm and provided engineering and technical assistance to the Tejon Ranch Company in support of their water rights applications submitted to the California State Water Resources Control Board to appropriate water from several local watersheds located at the southern end of the San Joaquin Valley. Analyses included preparation of estimates of historical water demands, evaluation of the amounts of water that might be captured for beneficial use, diversion amounts, design of measuring facilities and development of a management and documentation program for surface water resources available to the Ranch.

Mr. Beeby directed the activities of the firm in the preparation of an evaluation of a groundwater banking and extraction project for the Wheeler Ridge-Maricopa Water Storage District, located in the southern end of the San Joaquin Valley, California. Specific activities included evaluations of the general subsurface geology, selection of the recharge areas, analyses of the reliability of the imported water supply, preliminary system layouts, estimates of probable construction costs and estimates of projected annual costs. These data were compiled to derive the unit cost of water in dollars per acre-foot.

Mr. Beeby directed the activities of the firm in the preparation of the water plan and evaluation of the water resource aspects of a proposed expansion of High Desert Power Project I, located in the vicinity of Victorville, California and within the Service Area of the Mojave Water Agency. The task was to develop a reliable water supply for power plant cooling when water is not available from the California State Water Project. Specific activities include the direction of the hydrogeologic studies related to the effects of groundwater recharge and extraction for Project purposes on nearby wells, preliminary engineering layouts of the proposed well field and conveyance pipelines, evaluations of the use of existing water conveyance facilities and cost estimates thereof.

Bookman-Edmonston, Engineering, Inc., Principal Executive Engineer (1966 to 1998)

Mr. Beeby directed the preparation of the water plan and evaluation of the water resource aspects of the proposed High Desert Power Project to be located in the vicinity of Victorville, California. Specific activities included the direction of the hydrogeologic studies related to the effects of groundwater extractions for the Project on nearby wells, preliminary engineering layouts of the proposed well field and conveyance pipelines and cost estimates thereof. Activities also included appearances before the California Energy Commission and the Boards of Directors of local water purveyors to discuss the water supply aspects of the Project.

Mr. Beeby was responsible for preparation of a regional water management plan for the Mojave Water Agency, which encompasses about 5,000 square miles and includes communities from Hesperia to Barstow along the Mojave River in the high desert area of California. Activities included preparation of hydrologic inventories of historical conditions, estimates of future demands, identification of water marketing strategies for the imported supplies from the California Aqueduct and responsible for the technical aspects of the public involvement program. He also provided technical input to the development of the principles of the adjudication of rights to pump groundwater within that portion of the Agency that drains to the Mojave River and appeared as an expert witness and as a rebuttal witness in the trial held in Superior Court of the State of California in and for the County of Riverside.

Mr. Beeby directed the preliminary planning of the $50 million Mojave River Aqueduct Project for the Mojave Water Agency located in the high desert area of California. Specific activities included investigations to determine the size of the conveyance and groundwater recharge facilities, conceptual development of the financial program, preparation of the preliminary design, engineering report and cost estimates. He assisted the Agency staff and Board in preparation of documentation to secure federal assistance in project funding.

Mr. Beeby was responsible for studies to establish "Zones of Benefit" for the Mojave Water Agency. Activities included evaluation of imported surface and groundwater resources quality and quantity and estimated impacts of proposed recharge program.

Mr. Beeby was responsible for operational studies of a water exchange and conjunctive use program between the Metropolitan Water District of Southern California and the Arvin-Edison Water Storage District, located in Kern County, California. Activities included evaluation of capacities of joint use facilities, agricultural water demands, energy requirements, and costs associated with groundwater extraction and surface water deliveries. He also provided input data to the environmental documentation. He also provided technical assistance in developing the final agreement between the two parties and developed the groundwater operating criteria that was incorporated in the Agreement.

Mr. Beeby directed preliminary design and cost estimating for an additional 5,000 acres of irrigation service area for the Arvin-Edison Water Storage District and an additional 20,000 acres of irrigation service area to the Semitropic Water Storage District, in connection with water exchange and banking programs. He also directed the preparation of a computer model of A-E operations to evaluate the effects of the proposed program on groundwater levels.

Mr. Beeby participated in an investigation of flood damage to landowners on behalf of the Arvin-Edison Water Storage District, California. He served as construction inspector and office engineer responsible for evaluations of construction quantities and contractor pay requests.

Mr. Beeby directed the evaluation of irrigation systems in Sinaloa and Sonora Provinces of Mexico. The objective of the assignment was to recommend both structural and nonstructural improvements for rehabilitation of the conveyance and distribution systems that were constructed in the 1940s. Specific activities included field surveys, interviews with irrigation system managers, evaluations of on-farm irrigation efficiency, evaluations of system efficiencies, preparation of preliminary cost estimates and review of farm economics.

Mr. Beeby developed the water resource section of the scope of work for a proposed project in Oman for USAID. Specific activities included inspection of the existing falaj system in the project area and preliminary evaluations of hydrogeologic conditions for groundwater recharge using reclaimed wastewater and use of spreading ponds or injection wells to mitigate the effects of seawater intrusion.

Mr. Beeby was responsible for the preliminary planning and engineering studies for a 445,000-acre irrigation project, to be funded by the Inter-American Development Bank, in the Guanacaste Province of Costa Rica. Activities included forecasts of cropping patterns, estimates of water supply and demands, evaluation of surface and subsurface drainage problems and solutions, and preparation of feasibility-level designs and cost estimates of project works, including irrigation and drainage facilities, transportation network, power supply, and community development. He was also responsible for the preparation of feasibility reports and plans and specifications for project design and the development of a 2,000-acre demonstration area.

Mr. Beeby directed the evaluation of the physical and economic impacts of importation of California State Water Project water for the Wheeler Ridge-Maricopa Water Storage District. The District includes nearly 147,000 acres, of which over 88,000 acres receive imported water for irrigation. Specific activities undertaken on behalf of the District include the preparation of hydrologic inventories to determine the change in groundwater storage underlying the District and evaluation of the aquifer characteristics to determine the changes in pumping depths since Project inception in the early 1970s. These physical changes were evaluated to estimate the resulting economic impacts under historical and projected non-project conditions.

Mr. Beeby conducted studies for proposed commercial, residential and recreational developments in southern San Joaquin Valley for the Tejon Ranch Company, Kern County, and along the southern California coast. Activities included projections of future water demands for various development scenarios, evaluation of surface and groundwater supplies, and preparation of cost estimates of alternative water supply facilities.

Mr. Beeby directed the evaluation of standards established by the Arizona Department of Water Resources for Second Management Period of the Arizona Groundwater Management Act. Specific activities included evaluation of maximum conservation standards, on-farm irrigation efficiency, crop unit consumptive use values, leaching requirements, and economic studies to determine if proposed standards were consistent with prudent long-term management practices. He was appointed by the Director of the Arizona Department of Water Resources to serve on the Agricultural Technical Advisory Committee and served as Co-chairman of the Economic Subcommittee.

Mr. Beeby participated in the preparation of a feasibility study for the groundwater banking and extraction program for the Semitropic Water Storage District, Kern County, California.

Mr. Beeby investigated water use practices of the Imperial Irrigation District, located near the Salton Sea in southern California. Specific activities included evaluation of consumptive use within the District and analyses of the effects of District policies on water use efficiencies. He presented expert witness testimony before the State Water Resources Control Board, California.

Mr. Beeby directed the activities of the firm in the evaluation of historical water levels of the Salton Sea, California for the Imperial Irrigation District. Shoreline property owners claimed flooding to their holdings was due to inefficient water management practices. Specific activities related to the hydrology of the inflow to the Sea, land ownership and parcel identification and expert testimony.

Mr. Beeby conducted reconnaissance-level investigations of landowner repayment capabilities associated with the CENDAK Project, a proposed 500,000-acre irrigation project in South Dakota. Specific activities included preparation of projected farm and crop budgets and evaluation of irrigation requirements for various crop patterns.

Mr. Beeby conducted a study for the states of Arizona, California, and Nevada to evaluate claims for additional water rights made by and on behalf of five Indian reservations located along the

Lower Colorado River. Activities included classification of land for irrigated agriculture, determination of crop suitability, evaluation of agricultural production costs and returns, irrigation distribution system layout and cost estimates, and evaluation of on-farm irrigation practices. Mr. Beeby qualified as an expert witness in this case and presented testimony before a Special Master appointed by the Supreme Court of the United States in connection with the reopening of the case of Arizona v. California in 1980. .

Mr. Beeby conducted a study for the Salt River Project to determine the development potential and associated water requirements of six Indian reservations in central Arizona, encompassing a total area of approximately 3.5 million acres. Activities included evaluation of agricultural, mineral, timber, and recreational developments, evaluation of water requirements and availability of local and imported water supplies, preparation of cost estimates of water supply facilities, determination of financial feasibility and economic impact, and evaluation of the effects of upstream developments on downstream water quality.

Mr. Beeby conducted water resource evaluations of proposed agricultural development on Indian reservations located in San Diego County. Studies included investigation of Indian water rights, Practicably Irrigable Area, available surface water supplies and groundwater supplies from the Pala-Pauma groundwater basins, and water demands for irrigation, recreational, municipal, and industrial use.

On behalf of the Los Angeles Department of Water and Power, Mr. Beeby directed the evaluation of the possible Indian water rights in the Owens Valley, California. Studies of Practicably Irrigable Area included evaluations of climate and soil characteristics for crop production, crop yields and production costs, ground water supplies, capital cost estimates of on-farm irrigation systems and wells, annual costs of those facilities.

Mr. Beeby participated in an evaluation for the City of Escondido of potential for increased power generation and utilization of local water supplies that could result from revised operating procedures. He directed the technical aspects of the evaluation of the effects of operational changes on the utilization of local water supplies.

Mr. Beeby participated in the planning of projects to supply water to Castaic Lake Water Agency, Santa Barbara County Water Agency, City of Escondido, Vista Irrigation District, and other clients.

Mr. Beeby evaluated the feasibility of proposed major water distribution projects in the southern San Joaquin Valley for Arvin-Edison, Semitropic, and Wheeler Ridge-Maricopa Water Storage Districts. Activities included evaluations of the ability of farmers to pay for irrigation water from irrigation projects.

Mr. Beeby was the Construction Supervisor responsible for construction inspection and contract administration for the construction of an 11-mile, 570 cubic-feet per second, unlined canal for the Buttonwillow Improvement District, Kern County, California.

Mr. Beeby directed an assessment survey for the City and County of Yuma, Arizona, relating to management of their available supplies over the next 100 years. Water supplies, water rights, and water demands were evaluated and estimated as part of the investigation.

Mr. Beeby was responsible for the technical direction of a study performed for the U.S. Bureau of Reclamation involving the determination of salt loading to the Colorado River from the Palo Verde Irrigation District, located in Blythe, California.

Mr. Beeby conducted a hydrologic inventory and prepared input data for the conservation element of the revised general plan for Santa Barbara County, California.

Mr. Beeby evaluated water resources availability to a proposed recreational development in Cambria, California. Possible sources included both groundwater and surface supplies to be impounded by a dam.
Mr. Beeby conducted an inventory of the physical properties and assets of the Escondido Mutual Water Company, located in southern California.
Mr. Beeby participated in the investigation of the flood hazard for California State University, located in Bakersfield, California.
Mr. Beeby evaluated the surface and groundwater resources of the Tulare Lake Basin of central California. Studies included the evaluation of the quantity of surface runoff from ephemeral streams located in the San Joaquin Valley, in connection with the 5D basin studies prepared for the State Water Resources Control Board.
Mr. Beeby prepared estimates and evaluated records relating to reconstructed full natural flow for the San Luis Rey River in San Diego County, California.
Rancho Sespe, Ranch Engineer (1964 to 1966)

Mr. Beeby served as Ranch Engineer and performed irrigation efficiency studies on sprinkler-irrigated lemons and made recommendations to reduce the water application rate; assisted in design and field layout of new groves; and supervised various orchard maintenance crews for a citrus ranch in Fillmore, California.
Libby, McNeil & Libby, Agriculturist (1964)

As an agriculturalist, Mr. Beeby advised Libby, McNeil and Libby and consulted with and advised growers in Europe on irrigation methods, scheduling, and most efficient means of irrigating deciduous and citrus fruit orchards and vegetable crops.
University of California, Davis, Laboratory Assistant (1961 to 1963)

Mr. Beeby was involved in agricultural water use studies and irrigation scheduling as a laboratory assistant for the Department of Water Science and Engineering, University of California, Davis.
Gage Canal Company, Engineering Assistant (1962)

Mr. Beeby organized the pump and well testing program and collected data from local citrus farmers to be used in scheduling water deliveries for the Gage Canal Company, Riverside, California.
Specialized Training

- Seminars on hydrology and hydrologic methodologies
- Seminars on water rights in California

Professional Affiliations

- Life Member - American Society of Civil Engineers
- U.S. Committee on Irrigation and Drainage
- Colorado River Water Users Association

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IRVINE, CALIFORNIA 92612

PROOF OF SERVICE

I, Kerry V. Keefe, declare:

I am a resident of the State of California and over the age of eighteen years, and not a party to the within action; my business address is Best Best & Krieger LLP, 5 Park Plaza, Suite 1500, Irvine, California, 92614. On November 18, 2013, I served the within document(s):

PUBLIC WATER SUPPLIERS' NOTICE OF DESIGNATION OF EXPERT WITNESSES; DECLARATION OF JEFFREY V. DUNN

☒ by posting the document(s) listed above to the Santa Clara County Superior Court website in regard to the Antelope Valley Groundwater matter.

☐ by placing the document(s) listed above in a sealed envelope with postage thereon fully prepaid, in the United States mail at Irvine, California addressed as set forth below.

☐ by causing personal delivery by ASAP Corporate Services of the document(s) listed above to the person(s) at the address(es) set forth below.

☐ by personally delivering the document(s) listed above to the person(s) at the address(es) set forth below.

☐ I caused such envelope to be delivered via overnight delivery addressed as indicated on the attached service list. Such envelope was deposited for delivery by Federal Express following the firm's ordinary business practices.

I am readily familiar with the firm's practice of collection and processing correspondence for mailing. Under that practice it would be deposited with the U.S. Postal Service on that same day with postage thereon fully prepaid in the ordinary course of business. I am aware that on motion of the party served, service is presumed invalid if postal cancellation date or postage meter date is more than one day after date of deposit for mailing in affidavit.

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

Executed on November 18, 2013, at Irvine, California.

Kerry V. Keefe