



## CURRICULUM VITAE FOR: JOHN M. LAMBIE

### Principal Groundwater Hydrologist

**EDUCATION**      **MS**      Sediment Mechanics, 1984, Massachusetts Institute of Technology, Cambridge, Massachusetts  
**BS**      Earth & Planetary Sciences, 1983, Massachusetts Institute of Technology, Cambridge, Massachusetts

Specialized Training

Groundwater Modeling, 1985, 1987, 1989, 2003, 2005

U.S. EPA Risk Assessment- 1988

Decision Benefit Analysis - 1998

Data Statistics and Interpretation – 2006

Geographic Information Systems – 2009

**REGISTRATIONS**      **Professional Civil Engineer**      California No. C58059  
Oregon No. 72442PE  
Washington No. 40125  
**Certified Engineering Geologist**      California No. EG 1662  
**Professional Geologist**      California (No. 4607)  
**Certified Water Rights Examiner**      Oregon No. 72442WRE

**PROFESSIONAL HISTORY**      E-PUR, Ilc, Portland, Oregon, Principal Groundwater Hydrologist, 2006-present  
S.S. Papadopoulos & Associates, Inc., Portland, Oregon  
Vice President and Principal Groundwater Hydrologist, 2002-2006  
H<sub>2</sub>O Technologies Limited, Portland, Oregon  
Vice President and Environmental Division Manager, 2001-2002  
SECOR International Inc., San Francisco, California  
Vice-President and Principal Hydrologist, 1991-2001  
Levine-Fricke, Oakland, California  
Project to Senior Associate Hydrogeologist, 1986-1991  
Environmental Research & Technology (ERT), Concord, Massachusetts  
Staff Hydrogeologist, 1984-1986

**SUMMARY OF QUALIFICATIONS**

Mr. Lambie’s 30 years of experience includes:

<b>evaluation and modeling of water resources</b>	<b>water rights</b>
<b>groundwater hydrology</b>	<b>engineering-evaluation and design of</b>
<b>subsurface chemical transport</b>	<b>water-resources projects</b>
<b>environmental statistical methods</b>	<b>water supply planning</b>
<b>aquifer and pump testing</b>	<b>water demand and conservation</b>
<b>analytical and numerical models</b>	<b>engineering cost-benefit analysis</b>
<b>project management</b>	<b>decision analysis</b>

Mr. Lambie has taught groundwater modeling and evaluation of remedial design systems for the University of California at Davis and for the University of Wisconsin Extension Program. Also, Mr. Lambie has presented some of his decision analysis techniques to short-course offerings of the American Bar Association.



**JOHN M. LAMBIE**

---

## Principal Groundwater Hydrologist

Page 2

**SUMMARY OF QUALIFICATIONS** — *continued* Mr. Lambie has evaluated and modeled groundwater at the basin scale and site scale for a wide variety of water resource projects. The projects have ranged from municipal and industrial supply planning and evaluation, to water supply for habitat areas. He has applied a variety of innovative approaches for water treatment, numerical modeling, and hydraulic testing.

Mr. Lambie has worked on characterization and remediation of hazardous chemicals in soil and water under the Safe Drinking Water Act, CERLCA, RCRA, NEPA, and correlative state laws. He has provided litigation support services and expert witness testimony on water rights, stormwater flooding, and environmental liability litigation. He has worked on sites involving microbial contamination, chloroform, PCBs, creosote and coal tar, chlorinated solvents, dioxin, pentachlorophenol, heavy metals (especially As, Cr, Cu, Pb, Ur, and Hg), perchlorate, MTBE and other gasoline constituents, pesticides (especially EDB and DBCP), and wastewater loadings of chloride, nitrate, phosphate, and bacteria.

**REPRESENTATIVE PROJECT EXPERIENCE** Examples of Mr. Lambie’s project experience are presented below in the areas of Water Resources Studies, Groundwater and Soil Remediation Projects, Decision Analysis, and Legal Support.

### **WATER RESOURCE STUDIES**

- ***Sustainable Groundwater Supply Analyses, Mojave Desert, California*** — Performed multi-modal data analysis to establish the reliable groundwater supply available in a sub-basin of the Antelope Valley Adjudication Area. Existing groundwater production wells were instrumented with electronic pressure transducers and flow meters. The data were telemetered to remote offices in Oregon and Minnesota during long term groundwater extraction and utilization. Seasonal variability was recorded along with climatic signals of weather and plant evapotranspiration to enable firm quantification of water resource quantity, quality and sustainability. Testified at the water rights adjudication as to the quantity of water in the sub-basin and its connection to the broader area of adjudication.
- ***Analysis of the Effects of Municipal and Agricultural Water Use on Groundwater, Merced, California*** — Developed and calibrated a 42-year transient groundwater model of the regional area encompassing the City of Merced, California and much of the Merced Irrigation District. Geologic information was derived from hundreds of groundwater supply well records and placed into a sedimentary texture model of a 256 square mile area using well vetted U.S. Geological Survey (USGS) binary textural analysis techniques developed for the USGS Central Valley Hydrologic Model (CVHM) and earlier studies. Generalized hydrogeologic layering from the USGS CVHM was localized to a 144 square mile area. The groundwater model then utilized the geologic textures to identify areas of projected higher and lower aquifer transmissivity for calibration. Detailed estimates of percolation recharge from agricultural canal works and impoundments aided a precise calibration using PEST of actual vs. projected groundwater elevations for a 7-year period from 1996 to 2002. The calibrated model was then used to evaluate likely groundwater elevations and flow directions to hydraulic capture areas for drinking-water supply wells from 1961 to 2002.
- ***Groundwater Storage and Recovery Evaluation for Groundwater Banking, Stockton East Water District, Stockton, California*** — Developed three-dimensional geologic textural analysis of 24 mile by 7 mile area from existing groundwater supply well records. A U.S. Geological Survey binary soil texture classification was applied to data from a 250 square mile

## Principal Groundwater Hydrologist

Page 3

**REPRESENTATIVE**

**PROJECT**

**EXPERIENCE**

— *continued*

area. Advanced geostatistics were then applied to identify areas most suitable for percolation of surface water into the underlying aquifer. Those areas deemed most suitable for percolation are to be field tested to develop engineering approaches to conjunctive management of surface water to a groundwater bank for seasonal supply needs for both municipal supply and agriculture in and around the District.

- ***Managed Aquifer Recharge (MAR) Site Analysis, Stockton East Water District (SEWD), Stockton, California*** — Developed local three dimensional geologic sedimentary-texture analysis using geostatistics modeling for areas beneath and adjoining the SEWD Water Treatment Plant (WTP). The existing three-dimensional geologic textural analysis of the 170 square mile regional area was localized with existing groundwater supply well and exploratory borehole records. Additional soil borings were advanced on the adjoining 230-acre parcel for potential MAR. Reviewed detailed reporting and operational issues of Farmington Project for prepared by the U.S. Army Corps of Engineers and its consultants. Evaluated 35-acre and 230-acre additions to SEWD WTP area for improved percolation of surface water for groundwater storage.
- ***Analysis of Orange County Water District (OCWD) Managed Aquifer Recharge (MAR), Orange County, California Washington*** — Analyzed infiltration data from percolation ponds and weired segments of the Santa Ana River utilized by OCWD for managed aquifer recharge. Data analysis included stable isotope studies, conservative tracer studies (Xenon gas) and other means used to evaluate time of travel and fate of recharged groundwaters. Empirical data analytics were used utilizing non-linear drift kriging for geospatial analysis of aquifer response to percolation areas and water-supply production pumping. Developed methods for data correlation on water level response changes using a variety of statistical techniques, results were incorporate to groundwater elevation mapping for flow directions over a 6 year period.
- ***Analysis of Central Valley Decision Support System Models for Water Quality, Quantity and Availability, Central and South Delta Water Agencies, San Joaquin County, California*** — Analyzed California Department of Water Resources CalSimII Decision Support System (DSS) model and related submodels for their ability to accurately project quantity, quality, and availability of surface water for meeting competing needs in the Sacramento River and San Joaquin River Delta. Work is on-going in evaluating needs related to Programmatic EIRs being prepared by the CalFed program and the Delta Stewardship Council on behalf of the two agricultural water agencies.
- ***Water Quantity and Quality Study for Groundwater in the Russian River Valley, Healdsburg, California*** — Evaluated quantity of flow reaching Russian River from percolation ponds made from sand and gravel aggregate mines in the river floodplain. Changes in the groundwater and surface-water interaction were evaluated and placed into a numerical model of the sub-portion of the basin. Evaluated water flowpaths infiltrating to groundwater and the increase in discharge conditions to the Russian River for summer baseflow. Reviewed existing groundwater models for the area and refined one in MODFLOW. Further utilized MT3D to evaluate the infiltration paths to groundwater from surface water ponds using naturally present chloride as a conservative tracer.

## Principal Groundwater Hydrologist

Page 4

- REPRESENTATIVE PROJECT EXPERIENCE**  
— *continued*
- ***Water Rights Compliance Support, City of Gearhart, Gearhart, Oregon*** — Reviewed water rights permit conditions for City water right with Oregon Water Resources Department (OWRD). Set up on line secure database using project portal site for client and project team access. Supervised uploading and review of data with QA protocols. Met with client and OWRD staff to review data and methodologies for establishing permit benchmark conditions. Demonstrated City's compliance with their water rights permit and gained OWRD acceptance of water quality background concentrations for permit benchmarks.
  - ***City Wellfield Assessment for Dry Cleaner and Industrial Solvents, Lodi, California*** — Evaluated the distribution of chemicals in soil and groundwater around a dry cleaning facility near affected City drinking-water supply wells. Identified the origin of contamination as the City sanitary sewer system based upon the chemistry detected and the locations in groundwater. The lateral and vertical extent of PCE and other constituents such as nitrates were characterized and modeled. A prospective remediation approach was devised by Mr. Lambie and implemented by others to ensure waste constituents did not reach the nearby municipal water supply wells.
  - ***Evaluation of City Water Supply Well Field and Stormwater Program, Modesto, California*** — Modeled groundwater flow in the subbasin that surrounds and underlies Modesto, California to evaluate the regional and local flow patterns in response to extraction over the 20th century in Modesto. Localized enhanced recharge from the City's use of dry wells for storm-water runoff was evaluated for both the quantity of recharge made available and the risks to City water-supply wells from urban runoff. Numerical simulations were performed for both groundwater flow and contaminant transport using MODFLOW and MT3D to identify City wells at risk of impact from chemical release points such as the dry wells and sewer overflows, and industrial sources such as auto shops and dry cleaners. In addition the effects of two rivers within the City were evaluated for the quantity of flow into or out of the river and the effect upon the river and groundwater quality. Project identified risks to city water-supply wells from storm-water control measures, potential sewer releases, and liberation of naturally occurring radioactive materials (NORM).
  - ***Water Supply Study, USF&W Lower Klamath National Wildlife Refuge, Klamath Basin of Oregon and California*** — Developed an overall water budget for the Tule Lake sub-basin of the Upper Klamath Basin on behalf of the U.S. Fish & Wildlife Service (USF&W) in light of the Klamath Basin adjudication. Built and calibrated a 3,600 square mile steady-state groundwater model of the surface and groundwater system of the entire Tule Lake sub-basin. Evaluated the feasibility of long-term groundwater supply to augment seasonal wetlands in the USF&W Refuges. Gathered data from U.S. Geological Survey and water resource agencies from Oregon and California on water demands in the area, irrigated acreage, hydrogeology, and groundwater elevations. Developed novel method for calculating net recharge from rainfall in a closed basin using published watershed techniques. Water rights adjudication is pending along with further analysis of alternate supply option(s).
  - ***Spring Source Evaluation, Mount Shasta City, California*** — Investigated multiple locations for borehole interception of spring water. Study involved installation of a number of shallow and deep wells to map fracture and structure patterns to geology that produced springs and then to determine areas that were supplying flow to springs. Drilled spring borehole on property over 500 feet from spring emergence and established adjacency under California

## Principal Groundwater Hydrologist

Page 5

### REPRESENTATIVE

### PROJECT

### EXPERIENCE

— *continued*

Department of Health Services spring water criteria. Performed dye tracer studies, stable isotope evaluations of water provenance, and withdrawal tests on sustainable borehole/spring yield.

- ***Water Supply Master Plan for the Town of Windsor, California*** — In partnership with RMC Water and Environment developed a staged approach to supplemental groundwater supply wells for Town of Windsor’s Water Master Plan. The hydrogeology of the area surrounding the town was evaluated along with the engineering analysis of locations of greatest need in the water distribution system to develop recommended locations for well siting and an approach to staged evaluation of aquifer storage & recovery (ASR) of water.
- ***Water Supply Aquifer Test Analyses in Faribault, Northfield, and Janesville, Minnesota*** — In partnership with Summit Envirosolutions evaluated large long term aquifer tests to support water rights applications to Minnesota Dept. of Natural Resources for industrial uses. Tests involved monitoring of numerous nearby domestic and municipal water supply wells using realtime processing of groundwater elevation data from pressure transducers in the operating wellfields to evaluate local and background water level influences. Extraction rates ranged from 1,000 to 2,000 gpm over periods of 2 weeks or more. Hydraulic parameters for the bedrock aquifers were estimated along with estimates of projected drawdown and capture area for planned long term operation.
- ***Evaluation of Background Arsenic Concentrations in Groundwater and Threat to Groundwater Supply Wells, Snohomish, Washington*** — Analyzed background arsenic concentrations in groundwater aquifer (Vashon Outwash) and then analyzed the complex groundwater flow system in area of Cross Valley Water District with water supply wells operating and not operating. Developed Washington State Model Toxics Control Act (MTCA) evaluation of arsenic bearing soils at former industrial property to assess potential for past and future leaching of arsenic. Complex evaluation of arsenic speciation and chemistry for client was developed for approval by the Dept. of Ecology.

### GROUNDWATER, SEDIMENT AND SOIL REMEDIATION PROJECTS

- ***Analysis of Empirical Natural Attenuation Rates of Contaminant Transport Toward Drinking Water Supply Wells, Orange County, California*** — Developed method and directed implementation of a mathematical model fit to empirical chemical concentration data that defined the actual in-field natural-attenuation rate and in-situ degradation rates for chlorinated solvents and 1,4-dioxane in a drinking water supply aquifer. Reviewed scientific literature in support of the calculated degradation rates for each of the chemicals. Reviewed detailed analysis by staff of groundwater flow directions from seasonal changes and extraction well induced changes in groundwater flow directions. Created and utilized a large geospatial database to evaluate spatial changes in chemical concentration along stable flow paths to define both the spatial attenuation rates and chemical degradation rates for PCE, TCE, 1,1-DCE and 1,4-dioxane. Cross-checked work using univariate statistics.
- ***Klamath River Dam Removal Evaluations, Siskiyou County, California*** — Reviewed state and federal sediment testing for the estimated 20 million cubic yards of sediment in the reservoir impoundments behind the four lower dams currently scheduled for removal. Sediment transport issues post removal as well as sediment quality data and data collection programs have been reviewed. Sediment testing for heavy metals, dioxins, wood

## Principal Groundwater Hydrologist

Page 6

**REPRESENTATIVE**

**PROJECT**

**EXPERIENCE**

— *continued*

treating chemicals, and other semi-volatile and volatile organic chemicals are being done under the Sediment Evaluation Framework (SEF) for the Pacific Northwest derived from the Puget Sound Dredged Disposal Analysis (PSDDA) and other federal sources such as the U.S. Army Corps of Engineers Dredged Materials Management Plan.

- ***Site Characterization and Remediation of former Industrial Manufacturing Site, San Diego, California*** — Participated in full site characterization and remediation efforts at this 44 acre aircraft and defense equipment manufacturing site in response to a Cleanup and Abatement Order from California EPA. The characterization work involved identification and characterization of off-site impacts to sediments in nearby Convair Lagoon from PCBs and heavy metals from upland contributors. Site Conceptual Models were developed to explain the data findings for recontamination of sediments in the lagoon, to identify data gaps, and to develop characterization approaches to identify tributary sources of affected sediments to the lagoon. A cost allocation approach was produced in expert testimony for the Federal trial.
- ***Analysis of Shallow Aquifer and Principal Aquifer Hydrogeology in Orange County Water District's (OCWD) Forebay Region for Managed Aquifer Recharge, Orange County, California*** — Developed and compared a geologic sequence of formations to a fine-resolution sediment texture model of the Forebay region in the OCWD. Developed the geologic model from extensive review of the geologic literature of the structural history of the Orange County sedimentary basin and its sediment accretionary history or genesis. Created a sediment texture model from binary classification of 745 well logs classified by the OCWD as to sediment characteristics. Comparison of models was done using both cross-sectional slices through the four-dimensional sediment-texture model that were aligned with manual cross sections constructed from specific well logs that had been interpreted to the local geologic formations (e.g. San Pedro Formation and Talbert Aquifer). Evaluated potential for chlorinated solvents, nitrate, perchlorate, pesticides (i.e. 1,2,3-trichloropropane) and 1,4-dioxane to migrate from the Shallow Aquifer into the drinking water supply aquifer. Utilized a large database of groundwater elevation and concentration data to evaluate groundwater flow paths and spatial changes in chemical concentration to validate findings.
- ***Middlefield Ellis Whisman (MEW) Superfund Site, Mountain View, California*** — Designed and implemented soil and groundwater remediation system for chlorinated solvent release at a former semiconductor manufacturing facility within this multi-party regional Superfund site. Conducted analytical groundwater capture analysis to develop control strategy for the specific client's site and evaluated influence of nearby site and regional remedies. Participated in EPA responsible party meetings to coordinate progress and provide input on remedy selection process.
- ***Plessey Microsciences Site, Mountain View, California*** — Managed all aspects of remediation review for large chlorinated release site. Existing remedial systems using UV/oxidation technologies were expensive and unreliable. Step-wise evaluation and re-design of the remediation process yielded immediate and long-term benefits. Logic circuit diagrams were analyzed for flaws, and decision ladders were rebuilt to improve system uptime. After additional characterization of source areas for metals and solvents, a change in remedial technologies was implemented to better remediate known areas and to lower system costs. Over \$1 million in savings were recorded in 4 years of project operation by switching to low

## Principal Groundwater Hydrologist

Page 7

### REPRESENTATIVE

profile tray air strippers and reducing system shutdowns.

### PROJECT

### EXPERIENCE

— *continued*

- ***Hillview-Porter Site Soil and Groundwater Remediation, Palo Alto, California*** — Evaluated two of nine sites involved in this large regional groundwater contamination investigation that involved RI/FS reports and a Remedial Action Plan. Each site was characterized using innovative techniques such as the BAT discrete-sampling technique and installation of multi-port monitoring wells. Developed a complex series of groundwater and surface-water flow numerical models to evaluate sustainable flows and complex discharge patterns to surface water induced by structural deformation of the subsurface. Developed a site-specific groundwater remediation plan for each of the two sites based primarily on the numerical modeling evaluations in MODFLOW and PATH3D. Participated in lengthy public review process with highly active citizens group.
  
- ***Teledyne/Spectra-Physics Superfund Site, Mountain View, California*** — Managed and oversaw performance of all aspects of the CERCLA compliance program for Spectra-Physics. Conducted extensive investigations of soil and groundwater affected by chlorinated solvents. Fate and transport analysis of chlorinated solvents and their degradation products revealed a variety of sources in the area including sewer lines. Applied groundwater numerical and soil chemical transport models to establish remediation alternatives for on-site and off-site areas. Project involved complex interactions and negotiations with municipal, state, and private parties to obtain access for off-site remediation in newly redeveloped residential area.
  
- ***Iron and Steel Foundry, Berkeley, California*** — Evaluated chromate contamination and other metals releases from small iron foundry. Obtained historical information on uses of adjacent property to demonstrate off-site sources for hexavalent chrome. Developed control and abatement plan for in-situ chromate reduction.
  
- ***Phone Wire and Phone Manufacturing Plant, Kearny, New Jersey*** — Performed extensive testing for facility closure under ISRA rules. Developed a statistically based approach for sampling soil and groundwater for this large (~100-acre) facility to improve data reliability. Directed the analysis of anomalous patterns of background detections for lead, copper, chromium, and other constituents using statistical filtering techniques. Off-site atmospheric sources from surficial contamination by metals were found for some of the metals, and the negotiated cleanup levels were adjusted accordingly. Characterized and remediated PCB-affected areas associated with rail yard operations. Conducted aquifer tests to define extent of small plume of cleaning solvents discovered within the rail yard area. A shallow interception drain was used to capture and remove the affected groundwater.

### DECISION ANALYSIS SUPPORT

- ***Puente Valley Superfund Site, California*** — Evaluated impacts of chlorinated solvent releases on groundwater. Assisted in numerical model analysis using MODFLOW and MT3D of potential impacts to water supply wells. The basin-wide model included evaluation of some 50 separate source sites using inverse source-fitting solutions. Alternative remediation approaches were evaluated, and recommendations regarding compliance and cost-allocation were provided to the client and legal counsel.
  
- ***Merced, California*** — Provided litigation support to group of dry cleaners sued by the City of Merced, California for potential impacts to water supply wells. Evaluated groundwater

## Principal Groundwater Hydrologist

Page 8

### REPRESENTATIVE

### PROJECT

### EXPERIENCE

— *continued*

impacts and modeled potential outcomes technically and financially. Assisted client in successful resolution of lawsuit using remediation cost-cap insurance criteria.

- ***Acme Solvent Superfund Site, Rockford, Illinois*** — Performed detailed groundwater fate and transport modeling for a wide range of chemicals at this waste disposal site in support of a human health risk assessment (nearby resident water supplies were affected and the decision to replace currently unaffected supply wells was pressing). Completed the Conceptual Site Model for exposure pathways supported by numerical modeling. Used detailed numerical forecasting and probabilistic techniques to estimate likelihood of impact to other residential wells and the nearby Rock River.
- ***Chlorinated Solvent Contamination, Spartanburg, South Carolina*** — Developed decision analysis structure for project midway through problem characterization. The decision model guided investigations to complete Conceptual Site Model and to fill in missing information necessary to develop appropriate conceptual remedies for a site that had limited access.
- ***Phone Manufacturing Facility, Shreveport, Louisiana*** — Developed decision-tree structure to evaluate pilot testing of competing technologies for remediating a chlorinated solvents plume. Potential cost outcomes for overall remediation were evaluated using @RISK™ to identify the most promising technologies for long-term cost reduction. A staged approach for testing of technologies was used to prioritize the lowest expected cost outcomes from the decision analysis framework.
- ***Napa River Flood Control Improvement Project, Napa, California*** — Using RemedyDefender™, modeled the costs for a large-scale excavation and treatment of oil-contaminated soil. Cost increases for scope enlargement were correlated with lower unit cost of performance to demonstrate that project had reasonable cost stability enabling the client to move forward.
- ***Natural-Gas-Processing Sites, Central United States*** — Evaluated remedial costs for purchaser of 18 large natural-gas processing plants from Texas through Wyoming and Utah. PortfolioDefender™ was used to model the cost growth expected with scope uncertainties, the probable timing of facility closure, and required conformance to environmental standards. Project was successful in controlling risk using remediation cost-cap insurance on this \$1.4 billion acquisition.

### LEGAL SUPPORT

- ***Expert Witness Testimony*** — Mr. Lambie has been retained as an expert on a variety of legal cases. He has testified on cases before both state and federal courts which resulted in some landmark decisions. In addition to courtroom testimony, he has provided written opinions and had his deposition taken on a number of matters that settled before trial. The specific cases are listed in a subsequent section of this C.V.
- ***Mediated Settlements*** — Mr. Lambie has been retained by individual PRPs and large PRP groups in large basin-scale releases to evaluate the technical, factual, and economic legal liability to help effect settlement. These have been conducted in the following Superfund Site Operable Units: Burbank, California; North Glendale, California; South Glendale, California; Baldwin Park, California; Puente Valley, California; Wichita, Kansas; and the Hillview-Porter





**JOHN M. LAMBIE**

Principal Groundwater Hydrologist

Page 9

State of California Superfund Site.

- **Neutral Technical Expert** — Mr. Lambie has been retained as a neutral technical expert to assist mediation by listening to the factual technical arguments and rendering non-binding opinions to facilitate the mediation process. This has included review of water-rights adjudications to evaluated water supply planning efforts.

**PROFESSIONAL SOCIETIES**

Association of Groundwater Scientists and Engineers (AGWSE in NGWA)  
American Society of Civil Engineers (ASCE)  
American Water Works Association (AWWA)  
Groundwater Resources Association of California (GRAC)

**DEPOSITIONS AND TRIAL TESTIMONY**

- 2012 Deposition with Expert Testimony. **Orange County Water District v. Northrop Grumman et al., Defendants**, Superior Court of the State of California in and for the County of Orange, Case No. 04CC00715, Depositions March 6-7, April 3-4, June 12, and June 27. Trial testimony August 6-10, 2012
- 2010 Deposition and Expert Report. **Abarca Raul Valencia, et al., Plaintiffs, v. Merck & Co., Inc., et al., Defendants**, United States District Court, Eastern District of California, Fresno Division (Case No. 1:07-CV-0388 OWW DLB)
- 2008 Deposition and Testimony, **Antelope Valley Consolidated Groundwater Cases**, Los Angeles County Court, Case No. 1-05-CV-049053, (JCCP 4408)., October and November
- 2007 : Deposition. **Unified Port District of San Diego vs. TDY Industries Inc. et al.**, United States District Court, Southern District of California, Case No. 03 CV 1146-B (POR), January.
- 2006 : Deposition. **Carla Clarke et al. vs. City of Santa Rosa, et al.**, Sonoma County Superior Court, Case No. SCV 227896, March 21, 2006
- 2004: Deposition. **SS&G, LLC vs. Riebes Automotive Supply et al.** United States District Court, Eastern District of California, Sacramento. March 30.
- 2003-2004: Deposition. **City of Modesto vs. Dow Chemical et al.**, San Francisco County Court, November 13 and 14, and December 9 and 10, 2003, and January 23, 2004.
- 2003: Deposition. **TDY Industries vs. Unified Port District of San Diego**, San Diego County Court, September 23.
- 2003: Deposition. **City of Lodi vs. M&P Investments**, United States District Court, Eastern District of California, Sacramento, May.
- 2003: Deposition and Testimony. **Northern California River Watch vs. City of Healdsburg, California**, United States District Court, Northern District of California, Deposition in August and Trial Testimony in December.
- 1999: Deposition. **Placer Ranch Partners vs. Placer County**, Sacramento County Court.



**JOHN M. LAMBIE**

---

Principal Groundwater Hydrologist

Page 10

1999: Deposition. **Advanced Micro Devices vs. National Semiconductor and United Technologies Corporation**, U.S. District Court, Northern District of California, Case No. 97-20797 MRW, September 7.

1998: Deposition. **City of Burbank vs. Lockheed**.

1996: Deposition. **Property Owner vs. Syntex**, Mountain View, California.

1996: Deposition. **Property Owner vs. Nixon-Egli**, Santa Fe Springs, California.

1996: Deposition and Testimony. **Property Owner vs. Kaiser Aerospace**, Alameda County Court.

1994: Deposition and Testimony. **Favero vs. Gotthold et al.**, Sacramento County Court.

1992: Deposition June 3, 10, and 11, and Testimony. **Mangini vs. Aerojet General Corporation and Cordova Chemical Company**, Sacramento County Superior Court, Case No. 500170.

1989: Deposition and Testimony. **Park McKee Homeowners Association vs. Bingo Oil**, Alameda County Superior Court.

1989: Deposition and Testimony. **Dunnigan Truck Stop vs. Insurance Carrier**, Sacramento County Superior Court.

#### **PUBLICATIONS AND PRESENTATIONS**

**Lambie, J., D. Dahl, M. Tonkin, M. Karanovic**, 2013. **Automated Quasi-Real-Time Assessment of Water Movement from Managed Aquifer Recharge (MAR) Facilities**, (Poster) Groundwater Resources Association, Managed Aquifer Recharge in the Urban Environment Symposium, May 22-23, 2013, Burlingame, California.

**Moore, G. J. Lambie, K. Kauffman**, 2012. **Sedimentary Texture Analysis for Optimal Siting of Managed Aquifer Recharge Basins, Northern and Eastern San Joaquin County, California**, Abstract Published for Presentation at 2012 Groundwater Symposium for the International Association for Hydro-Environment Engineering and Research (IAHR), hosted by the Kuwait Institute for Scientific Research, November 19-21, 2012 Safat, Kuwait.

**Lambie, J. and J. Dustman**, 2009. **Numerical Analysis of Ground Water and Surface Water Using Real Time Data**, National Groundwater Association Annual Symposium, April 20-22, 2009, Tucson, Arizona.

**Lambie, J.**, 2009. **Application of Real-Time Imaging of Groundwater Data from Sensors to Improve Water-Resource Utilization of Groundwater Aquifers**, January 26, 2009, American Water Works Water Resources Symposium, Portland, Oregon.

**Lambie, J. and M. Harrington**, 2007. **A Re-examination of Groundwater Flow in Stratified Aquifers Induced by Vertical Recirculation Wells** (Abstract and Presentation). Washington Hydrogeology Symposium, May 1-3, 2007, Tacoma, Washington.

**Agostinho, A. M, Sturman, P.; Lambie, J.; Camper, A.; Pulcini, E.; James, G.**, 2007. **Removal and control of biofilms in dental unit waterlines using electrolyzed water**, (Poster) American Society on Microbiology (ASM), Biofilms 2007 Conference March 25-29, Quebec City, Quebec, Canada, Poster A289, Topic: Prevention and Treatment of Biofilms.

Principal Groundwater Hydrologist

Page 11

Lambie, J., J. Orolin, T. Buschek, R. Benkosky, and R. Cochran, 2001. **Remediation of MTBE and Petroleum Hydrocarbons in Groundwater at a Fuel Storage Terminal.** *Contaminated Soil Sediment and Water*, December 2001, pp. 6-10.

Lambie, J., J. Orolin, T. Buschek, R. Benkosky, and R. Cochran, 2001, **Remediation of MTBE and Petroleum Hydrocarbons in Groundwater at a Chevron Fuel Terminal Using Iso-Gen In-Situ Dissolved Oxygen Technology.** *Proceedings of the Petroleum Hydrocarbons and Organic Chemicals in Ground Water: Prevention, Detection, and Remediation*, 2001 Conference and Exposition, November 14-16, 2001, Houston, Texas, pp. 133-137.

Orolin, J., and J. Lambie, 2001, **In-Situ Remediation of MTBE and Other Petroleum Hydrocarbons by Introduction of Dissolved Oxygen** (Abstract). Focus Conference: *MTBE in Ground Water: Assessment, Remediation Technologies, and Public Policy*, June 4-5, 2001, Baltimore, Maryland, p. 88.

Southard, J.B., J. Lambie, D.C. Federico, H.T. Pile, and C. R. Weidman, 1990, Experiments on Bed Configurations in Fine Sands Under Bidirectional Purely Oscillatory Flow, and the Origin of Hummocky Cross-Stratification. *Journal of Sedimentary Petrology*, v. 60, no. 1, pp. 1-17.