

JUNE ANN OBERDORFER
Senior Advisor, EnviroComp Consulting, Inc.

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San Jose, California 95129
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Education:

Ph.D., Geology and Geophysics, May 1983
University of Hawaii, Honolulu, Hawaii
Dissertation: "Wastewater Injection: Near-well
Processes and Their Relationship to Clogging"

Fil. Kand., Geology, June 1977
University of Stockholm, Sweden

B.A., English and American Literature, June 1970
Brown University, Providence, Rhode Island

Registration:

Registered Geologist, State of California, Number: 6103
Certified Hydrogeologist, State of California, Number: 100

Professional Experience:

San Jose State University, Department of Geology, San Jose, California
Assistant Professor, August 1983 to July 1986
Associate Professor, August 1986 to July 1991
Professor, August 1991 to present

Duties: Develop hydrogeology program within the department. Teaching of introductory (senior level) and advanced (graduate level) groundwater courses plus an introductory course in environmental geology for non-majors. Develop an experimental course in groundwater contamination (Spring 1985). Develop a portion of a team-taught course with the College of Engineering on hazardous wastes. Taught four graduate seminars related to contaminant hydrogeology.

Lawrence Livermore National Laboratory
Consultant to Environmental Protection Division
Site 300, Pit 7 Complex Contamination Study and other Operable Unit Investigations
October 1984 to February 2001

Duties: Advise on monitoring installation (vadose and saturated zone), aquifer testing, and data interpretation for a study on a landfill and firing table contaminant plumes consisting of radioactive elements and solvents in porous media and fractured rock aquifers at CERCLA site. Model plume movement and transformations.

EnviroComp Consulting, Inc., Fremont, California
Consultant on Multiple Projects

April 2007 to present

Duties: Evaluate emissions to air from soil and groundwater contamination, litigation support

EarthTech/RUST E & I/ Wahler Associates, San Jose, California
Consultant on Multiple Projects

August 1992 to January 1996, June 1999 to present

Duties: Formulation of hydrogeologic conceptual models, analytical and numerical modeling of landfill sites and contaminant sites for risk assessment and remedial action planning, aquifer test analysis, water resource evaluation, litigation support.

TRC/Lowney Associates, Mountain View, California
Consultant on Multiple Projects

February 2001 to present

Duties: Aquifer testing, including under tidally-influenced and stream-influenced conditions. Numerical modeling of water development to evaluate potential impacts as part of an EIR.

U.S. EPA – Region 9, San Francisco, CA
Instructor for Multiple Short Courses

September 2002 to December 2005

Duties: Taught short courses to EPA professionals on hydrogeology, numerical modeling, well installation, aquifer testing, and vadose zone monitoring and transport.

On-Site Technologies, Inc., Campbell, CA
Consultant on Multiple Projects

June 1989 to May 1997

Duties: Hydrogeologic evaluation of contaminant sites, particularly related to petroleum hydrocarbon releases but also including two major solvent cases, remedial action modeling, performed and analyzed numerous aquifer tests and soil vapor tests.

Lee Gardner and Associates, Sunnyvale, California
Consultant to the Navajo Nation on Uranium Mill Tailing Sites

May 1995 to May 2001

Duties: Document review of hydrogeology and contaminant transport at four former uranium mills, confirmation modeling of site remediation and landfill leachate migration.

Leland R. Gardner and Associates, Palo Alto, California
Consultant to Plumas County Dept. of Public Works

June 1998 to March 1999

Duties: Synthesize conceptual model of ground water movement in the vicinity of Lake Davis, CA and estimate potential migration rates and pathways for fish toxins in a fractured, granitic aquifer.

California State Board of Registration for Geologists and Geophysicists
Volunteer Consultant to Certified Hydrogeology Evaluation

November 1998 to February 1999

Duties: Development of a list of tasks and knowledge base for hydrogeologists as part of the formulation of the examination for Certified Hydrogeologists.

National Academy of Science

Volunteer Member of Committee to Review Specific Scientific and Technical Safety
Issues Related to the Ward Valley, California Low-Level Radioactive Waste Site

May 1994 to March 1995

Duties: Evaluate the potential for vadose zone and ground water transport of radionuclides for a proposed landfill in the eastern Mojave Desert, CA

Purcell, Rhoades, & Associates, Hayward, California

Consultant on Proposed Municipal Landfill Site

May 1987 to March 1988

Duties: Evaluate site hydrogeology (including aquifer testing and water chemistry) and potential for offsite leachate transport in a fractured granitic rock, canyon site.

Science Applications International Corporation

Pleasanton, California Office

Consultant on Environmental Impact Report

February to July 1986

Duties: Write description of site hydrogeology and evaluate present and future effects of site activities on soil and groundwater quality for a major environmental impact report for Lawrence Livermore National Laboratory, Site 300

Lawrence Livermore National Laboratory

Consultant to Earth Sciences Division

Nuclear Waste Package Project

June to December 1983

Duties: Review existing studies on the hydrogeology of a proposed high level nuclear waste repository site and advise on further relevant studies.

Australian Institute of Marine Science
Townsville, Queensland, Australia

Visiting Researcher, January to March 1983

Duties: Plan, execute and interpret data for a project to study water movement and geochemistry through a submerged reef in the Great Barrier Reef.

University of Hawaii

Research Assistant, Water Resources Research Center

January 1980 to September 1982

Duties: Plan, execute and interpret data for a project studying the clogging effects of wastewater on injection wells. Field work included pumping tests, tracer tests, and water quality sampling.

Teaching Assistant, Department of Geology and Geophysics

January 1979 to January 1980

Duties: Teach general geology labs and a lab in structural geology.

Professional Organizations:

American Geophysical Union

National Ground Water Association

Languages:

English, Spanish, Swedish, Portuguese, French

Publications:

Oberdorfer, J.A., Charette, M., Allen, M., Martin, J.B., Cable, J.E., 2007. Hydrogeology and geochemistry of near-shore submarine groundwater discharge at Flamengo Bay, Ubatuba, Brazil. *Estuarine, Coastal and Shelf Science*, Vol. 76, No. 3, p. 457-465, February 10, 2008.

W.C. Burnett, Aggarwal, P.K., Bokuniewicz, H., Cable, J.E., Charette, M.A., Kontar, E., Krupa, S., Kulkarni, K.M., Loveless, A., Moore, W.S., Oberdorfer, J.A., Oliveira, J., Ozyurt, N., Povinec, P., Prvitera, A.M.G., Rajar, R., Ramessur, R.T., Scholten, J., Stieglitz, T., Taniguchi, M., Turner, J.V., Quantifying Submarine Groundwater Discharge in the Coastal Zone via Multiple Methods, *Science of the Total Environment*, Vol. 367, No. 2-3, p. 498-543, August 21, 2006.

E. Kakouros, Kharaka, Y.K., and Oberdorfer, J.A., Leaching rates and forms of selenium in cores from an agricultural area in Middle Green River Basin, Utah, USA: *Earth Science Frontier*, Beijing, China, Vol.13, No 1, p. 86-97, 2006.

June A. Oberdorfer, Hydrogeologic Modeling of Submarine Groundwater Discharge: Comparison to

other Quantitative Methods, Biogeochemistry, Vol. 66, No. 1-2, p. 159-169, November 2003.

William C. Burnett, Makoto Taniguchi, and June Oberdorfer, Measurement and significance of the direct discharge of groundwater into the coastal zone, *Journal of Sea Research*, Vol. 46, No. 2, p. 109-116, 2001.

June A. Oberdorfer, Water Use and Water Recycling in Silicon Valley, Proceedings of the 3rd International Hydrology and Water Resources Symposium, Hydro 2000, The Institution of Engineers, Australia, Perth Australia, November 2000.

Robert W. Buddemeier and June A. Oberdorfer, Hydrogeology of Enewetak Atoll, in Geology and Hydrogeology of Carbonate Islands, H.L. Vacher and T. Quinn, eds., Elsevier, Amsterdam, p.667-692, 1997.

Michael J. Taffet, Laurene K. Green-Horner, Richard J. Woodward, and June A. Oberdorfer, Draft Engineering Evaluation/Cost Analysis for the Building 850/Pits 3 and 5 Operable Unit, Lawrence Livermore National Laboratory, Site 300, UCRL-AR-126368 DR, May 1997.

June A. Oberdorfer, "Numerical Modeling of Coastal Discharge: Predicting the Effects of Climate Change," Groundwater Discharge in the Coastal Zone, Proceedings of an International Symposium, LOICZ Reports and Studies, No. 8, p. 85-91, 1996.

Committee to Review Specific Scientific and Technical Safety Issues Related to the Ward Valley, California Low-Level Radioactive Waste Site, Ward Valley, An Examination of Seven Issues in Earth Sciences and Ecology, National Academy Press, Washington, D.C., 1995.

George Cook, June Oberdorfer, and Stephen Orloff, "Remediation of a Gasoline Spill by Soil Vapor Extraction, Lawrence Livermore National Laboratory, Livermore, CA," National Ground Water Assoc. Petroleum Hydrocarbon Conf. Proceedings, November 1991.

Michael Taffet, Albert Lamarre, and June Oberdorfer, "Performance of a Mixed-Waste Landfill Amid Geologic Uncertainty -- Learning from a Case Study: Altamont Hills, California, USA," Environmental Geologic Water Science, Vol. 18, No. 3, p. 185-194.

June A. Oberdorfer, Patrick H. Hogan, Robert W. Buddemeier, "Atoll Island Hydrogeology: Flow and Freshwater Occurrence in a Tidally Dominated System," Journal of Hydrology, Vol. 120, 1990.

Michael Taffet, June Oberdorfer, Tina Carlsen, William Dugan, and Robert Mateik, "Remedial Investigation of the Building 850 and East Firing Areas, Lawrence Livermore National Laboratory Site 300," Environmental Restoration Division, UCRL-ID-104355, September, 1990.

- June A. Oberdorfer, Michael J. Valentino, and Stephen V. Smith, "Groundwater Contribution to the Nutrient Budget of Tomales Bay, California," Biogeochemistry, Vol. 10, No. 3, August 1990.
- June A. Oberdorfer, John W. Williams, and Mark G. Smelser, "Lottery Proceeds in California Pay for Installation of a Ground-Water Monitoring System," Journal of Geological Education," Vol. 38, No. 1, January 1990.
- Michael Taffet, June Oberdorfer, and William McIlvride, "Remedial Investigation and Feasibility Study for the Lawrence Livermore National Laboratory Site 300 Pit 7 Complex", Environmental Restoration Division, LLNL, UCID-21685, 1989.
- Robert W. Buddemeier and June A. Oberdorfer, "Climate Change and Island Groundwater Resources" in: Studies and Reviews of Greenhouse Related Climate Change Impacts on Pacific Islands, for United Nations Environmental Programme, 1989.
- Robert W. Buddemeier and June A. Oberdorfer, "Hydrogeology and Hydrodynamics of Coral Reef Pore Waters," Proceedings of the Sixth International Coral Reef Congress, Australia, August 1988.
- June A. Oberdorfer and Robert W. Buddemeier, "Climate Change: Effects on Reef Island Resources", Proceedings of the Sixth International Coral Reef Congress, Australia, August 1988.
- Robert W. Buddemeier, Michael R. Ruggieri, and June A. Oberdorfer, "Tritium in Groundwater at Site 300," Lawrence Livermore National Laboratory, UCID-21031, April 1987.
- June A. Oberdorfer and Robert W. Buddemeier, "Coral Reef Hydrology: Field Studies of Water Movement within a Barrier Reef", Coral Reefs, Vol. 5, May 1986.
- Robert W. Buddemeier and June A. Oberdorfer, "Internal Hydrology and Geochemistry of Coral Reefs and Atoll Islands: Key to Diagenetic Variations," in Coral Reef Diagenesis, J. Schroeder and B. Purser, ed., Springer-Verlag, 1986.
- June A. Oberdorfer and Frank L. Peterson, "Wastewater Injection: Geochemical and Biogeochemical Processes and Their Relationship to Clogging," Groundwater, Vol. 23, No. 6, November-December 1985.
- June A. Oberdorfer and Robert W. Buddemeier, "Coral Reef Hydrogeology," Proceedings of the Fifth International Coral Reef Congress, Tahiti, May 1985.
- Frank L. Peterson and June A. Oberdorfer, "Uses and Abuses of Wastewater Injection Wells in Hawaii," Pacific Science, Vol. 39, No. 2, March-April 1985

Frank L. Peterson and June A. Oberdorfer, "Wastewater Injection Well Clogging Problems," Proceedings, International Conference on Groundwater and Man, Sydney, Australia, December 1983.

June A. Oberdorfer and Frank L. Peterson, "Wastewater Injection Well Problems, Processes and Standards," Water Resources Research Center, University of Hawaii, Technical Report No. 146, December 1982.

Abstracts Published:

Stieglitz T, Bokuniewicz H, Burnett WC, Cable J, Charette M, Kontar E, Martin J, Moore WS, Oberdorfer J, Peterson R, Povinec PP, de Oliveira J, Taniguchi M, 2008. Submarine Groundwater Discharge From a Fractured Rock Aquifer on the Ubatuba Coastline, Brazil: an Overview of the IAEA-UNESC Project. *Eos Trans. AGU*, 89(23), *West. Pac. Geophys. Meet. Suppl. Abstract H25B-05*.

June A. Oberdorfer, "Modeling of Submarine Groundwater Discharge," Association of Engineering Geologists 43rd Annual Meeting, September 2000.

June A. Oberdorfer, "Water Use and Reuse in Silicon Valley," Stockholm Water Symposium, Stockholm, Sweden, August 1999.

David K. Wood and June A. Oberdorfer, "Observing Particle Movement in a Wellbore Using the Variable-focus Colloidal Borescope," American Geophysical Union Fall Meeting, December 1998.

V. Madrid, Z. Demir, M. Taffet, R. Woodward, F. Hoffman, and J. Oberdorfer, "Shallow Ground Water Response to El Nino Storm Events and Its Impact on Total Tritium Activity in Ground Water beneath the Pit 7 Complex, Lawrence Livermore National Laboratory (LLNL), Site 300," Groundwater Resource Association Convention, October 1998.

R. Woodward, V. Madrid, L. Green-Horner, M. Taffet, and J. Oberdorfer, "Relative Contribution Of Plume Migration, Source Impact and Radioactive Decay in the Attenuation of Two Tritium Ground Water Plumes at Lawrence Livermore National Laboratory Site 300, AAPG Pacific Section Convention, April 1998.

June A. Oberdorfer and Michael J. Taffet, "Modeling of Ground Water Elevation Control at a Landfill Site," Association of Engineering Geologists 40th Annual Meeting, October 1997.

Michael J. Taffet and June A. Oberdorfer, "Ground Water Radionuclide Migration and Remediation at an Explosive Test Site in the Northern California Coast Range," Association of Engineering Geologists 40th Annual Meeting, October 1997.

David K. Wood and June A. Oberdorfer, "Optimizing Well Locations Using the Variable-focus Colloidal Borescope, an Instrument Providing Direct Reading of Groundwater Flow," Association of Engineering Geologists 40th Annual Meeting, October 1997.

June A. Oberdorfer, "Numerical Modeling of Coastal Discharge: Predicting the Effects of Climate Change," International Symposium on Groundwater Discharge to the Coastal Zone, Russian Academy of Sciences, Moscow, Russia, July 1996.

June A. Oberdorfer and Robert W. Buddemeier, "Climate Vulnerability Assessment of Atoll Island Groundwater Resources," Geological Society of America Annual Meeting, November 1995.

M. Taffet, T. Carlsen, A. Volpe, V. Madrid, L. Green-Horner, G. Mecham, and J. Oberdorfer, "Characterization of natural and Depleted Uranium in Sedimentary Rocks and Ground Water at Lawrence Livermore National Laboratory (LLNL) site 300, Coast Ranges, Northern California," Geological Society of America Annual Meeting, November 1995.

June Oberdorfer, Eve Huggins, Antonio Buangan, and Marc Yalom, "Hydrogeology of a Land Treatment Facility for Petroleum Waste, Coalinga, California," Association of Engineering Geologists Annual Meeting, October 1995.

June Oberdorfer, "Hydrogeology of the Santa Teresa Sub-basin, Santa Clara County, California," Pacific Section Meeting of the Society of Economic Paleontologists and Mineralogists, May 1995.

Eve Huggins, Antonio Buangan, June Oberdorfer, and Marc Yalom, "Hydrogeology of a Petroleum Waste Land Treatment Facility, Fresno County, California," Pacific Section Meeting of the Society of Economic Paleontologists and Mineralogists, May 1995.

George Cook and June Oberdorfer, "Remediation of a Gasoline Spill by Soil Vapor Extraction," Conference on Petroleum Hydrocarbons and Organic Chemicals in Groundwater, National Groundwater Association, November 1991.

George Cook, June Oberdorfer, E. Folsom, and S. Orloff, "Characterization and Monitoring of a Gasoline Spill Using Multipoint Vadose Zone Monitoring Devices," EOS, Vol. 72, pp. 183-184, 1991.

Vorst, R., D. Bishop, D. Rice, B. Viani, D. Peifer, and J. Oberdorfer, "Role of Mineralogy in Determining Transport of Halogenated Hydrocarbons in Organic-Poor Ground Water Systems," EOS, Vol. 71, No. 44, December, 1990.

Michael J. Taffet, Albert Lamarre, and June Oberdorfer, "Landfill Performance Amid Geologic Uncertainty - Learning from a Case Study," Geological Society of America Annual Meeting, October 1990.

Carrie Cummings and June Oberdorfer, "Computer Modeling of Slug and Bail Tests," EOS, Vol. 70, No. 45, 1989.

June A. Oberdorfer and Michael J. Valentino, "Groundwater Contribution to the Nutrient Budget of Tomales Bay, California", EOS, Vol. 69, No.44, 1988.

June A. Oberdorfer and Robert W. Buddemeier, "Climatic Effects on Reef Island Resources," Sixth International Coral Reef Symposium, August 1988.

Robert W. Buddemeier and June A. Oberdorfer, "Hydrogeology and Hydrodynamics of Coral Reef Pore Waters," Sixth International Coral Reef Symposium, August 1988.

Patrick Hogan and June Oberdorfer, "Modeling of an Atoll Island: Freshwater-saltwater Interaction from Tidally Induced Flow," EOS, Vol. 68, No. 44, 1987.

June A. Oberdorfer and Kenneth Toney, "Water Transport in the Vadose Zone Beneath a Drainage Retention Basin," EOS, Vol. 67, No. 45, 1986.

Kenneth Toney and June Oberdorfer, "Quantifying Groundwater Recharge from a Drainage Retention Basin," EOS, Vol. 67, No. 45, 1986.

Douglas Young and June Oberdorfer, "Hydrogeology of the Northwest Portion of Lawrence Livermore National Laboratory, Site 300," Association of Engineering Geologists 29th Annual Meeting, San Francisco, October 1986.

June A. Oberdorfer, "An Overview of Vadose Zone Transport and Monitoring," Annual Meeting of Association of Engineering Geologists, Winston-Salem, October 1985.

June A. Oberdorfer and Robert W. Buddemeier, "Atoll Island Groundwater Contamination: Rapid Recovery from Saltwater Intrusion," 27th Annual Meeting of Association of Engineering Geologists, Boston, October 1984.

June A. Oberdorfer and Robert W. Buddemeier, "Hydrogeology of a Great Barrier Reef: Implications for Groundwater in Reef and Atoll Islands," EOS, Vol.64, No. 45, 1983.

Frank L. Peterson and June A. Oberdorfer, "Wastewater Injection Well Clogging Problems," International Conference on Groundwater and Man, Sydney, Australia, December 1983

June A. Oberdorfer and Frank L. Peterson, "Wastewater Injection: Near Well Processes and Their Relationship to Clogging," 26th Annual Meeting of Association of Engineering Geologists, San Diego, October 1983.

June A. Oberdorfer, "Waste Injection Practices and Problems in Coastal Environments," 15th Pacific Science Congress, Dunedin, New Zealand, February 1983.

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June A. Oberdorfer and Frank L. Peterson, "Near Well Effects of Treated Sewage Injection," EOS,
Vol. 62, No. 45, 1981.