

CURRICULUM VITAE

Gary M. Litton, Professor
Department of Civil Engineering
University of the Pacific
Stockton, CA 95211
(209) 946-3070 (w); (209) 601-0076 (c)
glitton@pacific.edu

EDUCATION

Ph.D.	Civil and Environmental Engineering, 1993 UNIVERSITY OF CALIFORNIA, IRVINE
Master of Science	Civil Engineering, 1990 UNIVERSITY OF CALIFORNIA, IRVINE
Bachelor of Science	Civil Engineering, 1980 UNIVERSITY OF CALIFORNIA, IRVINE

AWARDS

San Joaquin Engineers Council, Engineer of the Year Award, 2015
University Distinguished Faculty Award, 2014
Pacific Million Dollar Club (cumulative research funding), 2011
Pacific Faculty Research Lecturer Award, 2009
Eberhardt Teacher/Scholar Award, 2004
Michael A. Minch Award for Excellence in Undergraduate Research, 2003
Outstanding Engineering Faculty Award, 2004 (selected by engineering students)
Hoefler Research Award, 2002
Clair A. Hill Award, 1990

PROFESSIONAL REGISTRATION

California Civil Engineering Registration; Certificate No. 36793
Nevada Civil Engineering Registration; License No. 18218 (inactive)

ADMINISTRATIVE RESPONSIBILITIES

SOECS Graduate Program Director (2016- current)
SOECS Associate Dean (May, 15, 2015 – August 15, 2016)
Civil Engineering Department Chair (August 16, 2010-May 15, 2015)
Prepared Civil Engineering Program Self Study for the 2012 ABET accreditation review, guided visit, and prepared department response to the program evaluation.

TEACHING EXPERIENCE

(1993-1999) Assistant Professor, University of the Pacific
(1999-2006) Associate Professor, University of the Pacific
(2006-Present) Professor, University of the Pacific
Responsible for undergraduate and graduate civil and environmental engineering classroom and laboratory instruction. Courses offered include: Introduction to Environmental Engineering, Water Quality for Environmental Engineers, Groundwater, Water and Environmental Policy, Water and Wastewater Treatment, Civil Engineering Computing, Surface Water Quality Modeling (graduate course), Numerical Methods

(undergraduate and graduate courses), Civil Engineering Graphics and Undergraduate and Graduate Research.

SELECTED RESEARCH EXPERIENCE

- (2016-present) *Yolo Bypass Methyl Mercury Wetlands Investigation*
Currently modeling the fate and transport of mercury in wetland facilities managed by the Department of Fish and Wildlife in the Yolo Bypass.
- (1999-2013) *San Joaquin River Dissolved Oxygen TMDL Investigator*
Currently investigating the algae-zooplankton interactions in the Deep Water Ship Channel of the San Joaquin River. Previous studies explored water quality transformations that occur where the San Joaquin River transitions to an estuary environment, algal productivity in the upper San Joaquin River, sediment investigations to assess settling, resuspension, and the sediment oxygen demand in the Stockton Ship Channel, and rhodamine WT dye investigations to assess mixing and aeration efficiency in the Stockton Deep Water Ship Channel. Served as a member of the Technical Work Group of the San Joaquin River Dissolved Oxygen TMDL Steering Committee.
- (2007-2010) *San Joaquin River Aeration Demonstration Project*
Investigated the efficiency and impacts of a large-scale pure-oxygen aerator at the Port of Stockton. Investigations associated with this project also include field monitoring to assess the effect of flow on dissolved oxygen and plankton community concentration and distribution. This work has supported efforts to remedy low dissolved oxygen concentrations in the San Joaquin River. Planktonic studies have been performed in collaboration with Dr. Mark Brunell of the Pacific Biology Department.

SELECTED PROFESSIONAL EXPERIENCE

- (Intermittent) *Expert Witness: San Joaquin County District Attorney*
Provided testimony and physical evidence exhibits in a drowning death and homicide investigation in the San Joaquin River Delta.
- (Summer, 97) *Environmental Engineering Consultant: Knights Ferry Community Services District*
Conducted an evaluation of the Knights Ferry surface water treatment facility. Provided recommendations for upgrading the facility to standards required by the Safe Drinking Water Act and State of California. Conducted tracer experiments to determine the chlorine contact time provided by the facility.
- (8/94-1/97) *Environmental Consultant: BW/IP International, Inc., Long Beach, CA*
Reviewed technical reports and provided oversight for a groundwater contamination investigation and remediation project in San Jose, CA. Also conducted eleven environmental audits of North American manufacturing facilities.
- (1980-1993) *Senior Water Resources Control Engineer, California Regional Water Quality Control Board, Santa Ana Region, Riverside, CA and South Lake Tahoe, CA.*
Supervised sections responsible for permitting, inspection, and monitoring wastewater discharges to water and land, and solid waste disposal sites. Investigated hazardous waste spills and petroleum releases from underground storage tanks. Provided emergency response to hazardous material discharges to surface waters, soils, and groundwaters and administratively prosecuted cases of illegal waste discharges. Developed a geochemical computer model simulating salt transport through unsaturated soil to evaluate the environmental impacts from dairy operations on groundwater aquifers. Provided technical assistance with regional surface water quality modeling. Assisted with the Leviathan Mine Pollution Abatement Project, an acid mine drainage reclamation project. Developed water quality plans for the Truckee and East Carson Rivers. Served as a principal author

of an environmental impact report on water allocation and water rights for the Lake Tahoe Basin. Performed water quality investigations on nutrient loads to Lake Tahoe from urban land disturbance. Administered streambed and wetland restoration projects to reduce nutrient loads to Lake Tahoe.

PUBLICATIONS

Peer Review Papers and Reports

SELECTED PUBLICATIONS

Wesley A. Heim, Peter Weiss-Penzias, Mark Stephenson, John Negrey, Gary Litton, and Kenneth Coale. 2019. Using Polishing Ponds to Lower Monomethylmercury Concentrations in a Seasonally Inundated Wetland Environment: Results of a Large Scale Replicated Field Experiment. Submitted to *Environ. Sci. Technol.*, spring 2019, under revision.

Wesley A. Heim, Gary Litton, Mark Stephenson, John Negrey, Amy Byington, David Feliz, Jeff Stoddard, Levi Sousa, Chris Rocco, and Kenneth Coale. Methyl Mercury Production in Seasonally Managed Wetlands and Methyl Mercury Reduction in Permanent Wetlands in Yolo Wildlife Area, California. Revised draft in preparation for *Environ. Sci. Technol.*, 2018-2019.

C. R. Moon, G.M. Litton, M. S. Brunell, M. Estiandan, W.T. Stringfellow. 2016. The development of a zooplankton grazing rate method in the San Joaquin River, CA. Submitted to *Water Science Tech.*, IWA Publishing, London, 2016. Pending publication.

Stringfellow, W. T., J. Herr, G. Litton, M. Brunell, S. Borglin, J. Hanlon, C. Chen, J. Graham, R. Burks, R. Dahlgren, C. Kendall, R. Brown, and N. Quinn. 2009. Investigation of river eutrophication as part of a low dissolved oxygen TMDL implementation. *Water Science & Technology*, 59.1, International Water Association.

Dahlgren, R., E.V. Nieuwenhuys, and G. Litton, 2004. Transparency tube provides reliable measure of water clarity and suspended solids concentration in California waterways, v. 58, n. 3, *California Agriculture*.

Litton, G.M., 2003. Deposition Rates and Oxygen Demands in the Deep Water Ship Channel of the San Joaquin River during 2001, Final report with responses to peer review comments, University of the Pacific, Stockton, CA, January 31, 2003, p.182.

Litton, G.M., 2001. Sediment Deposition Rates and Sediment Oxygen Demands in the Deep Water Ship Channel of the San Joaquin River- 2000, Final report with peer review comments and responses, University of the Pacific, Stockton CA, May, 2001

Litton, G.M., 2000. Sediment Oxygen Demand, Sediment Deposition Rates and Biochemical Oxygen Demand Kinetics in the San Joaquin River near Stockton - 1999, California, University of the Pacific, Stockton CA, January.

Litton, G.M. and T.M. Olson, 1996. Particle Size Effects on Colloid Deposition Kinetics: Evidence of Secondary Minimum Deposition, *Colloid Surfaces A*, v. 107, 273-283.

Litton, G.M. and T.M. Olson, 1994. Colloid Deposition Kinetics With Surface-Active Agents: Evidence for Discrete Surface Charge Effects, *J. Colloid Interface Sci.*, v. 165, 522-525.

Litton, G.M. and T.M. Olson, 1994. Anomalous Transport of Latex Microspheres Near the Isoelectric Point of Granular Quartz Beds, *Colloids and Surfaces*, v. 87, 39-48

Litton, G.M. and T.M. Olson, 1993. Colloid Deposition Rates on Silica Bed Media and Artifacts Related to Collector Surface Preparation Methods, *Environ. Sci. Technol.*, v. 27, 185-193.

Litton, G.M. and G.L. Guymon, 1993. Laboratory Experiments Evaluating the Transport and Fate of DBCP in Hanford Sandy Loam, *J. Environmental Quality*, v. 22, 311-325.

Litton, G.M. and T.M. Olson, 1993. Colloid Transport in Packed-Bed Columns with Repulsive Interaction Energy Barriers, chapter in *Concepts in Manipulation of Groundwater Colloids for Environmental Restoration*, Proceedings of Manteo III meeting, Manteo, N.C., Oct. 1990, ed. J.F. McCarthy and F.J. Wobber, Lewis Publishers, Inc., pp 283-287.

Olson, T.M. and G.M. Litton, 1992. Colloid Deposition in Porous Media and an Evaluation of Bed Media Cleaning Techniques, chapter in *Transport and Remediation of Subsurface Contaminants*, ed., D.A. Sabatini and R.C. Knox, ACS Symposium Series 491, American Chemical Society, Washington, D.C., pp. 14-25.

Conference Papers:

Conference Papers/Presentations

Litton, G.M., C.R. Moon, M.S. Brunell, M. Estiandan, W.T. Stringfellow, 2014. Zooplankton Grazing in the San Joaquin River, CA, 13th International Water Association (IWA) Conference on Watershed and River Basin Management Sept 9-12 San Francisco, CA.

C.R. Moon, G.M. Litton, M.S. Brunell, M. Estiandan, W.T. Stringfellow, 2013. Zooplankton-phytoplankton Interactions in the San Joaquin River, CA, Coastal & Estuarine Research Federation (CERF) Conference, Abstract 1830183, Nov. 3-7, 2013, San Diego, CA.

Brunell, M., G. M. Litton, N. W. T. Quinn, W. Stringfellow, 2012. Variable flow effects on phyto- and zooplankton at the river-estuary transition in the San Joaquin River, CA. Presented at the August, 2012 Ecological Society of America Annual Meeting in Portland, CA.

William T. Stringfellow, Jeremy Hanlon, Mark S. Brunell, Chelsea Spier, Carol Kendall, Sharon Borglin and Gary M. Litton, 2012. Direct measurement of phytoplankton growth rate in a eutrophic river reveals phytoplankton response to altered flow regimes, presented at the August, 2012 Ecological Society of America Annual Meeting in Portland, CA.

M. S. Brunell, G. M. Litton, and W. T. Stringfellow. 2012. Spatial, temporal, and tidal effects on the distribution of zooplankton in the Deep Water Ship Channel of the San Joaquin River, CA. Presented at the 7th Biennial Bay-Delta Science Conference, Sacramento Convention Center, 16 – 18 October 2012.

M. S. Brunell, and Litton, G.M. Zooplankton Dynamics in the Non-tidal to Tidal Transition Zone of the San Joaquin River, CALFED Science Conference, Sacramento, October 22-24, 2009.

Burr, K. L., G. M. Litton, and M. S. Brunell. 2009. Diatoms of the genus *Thalassiosira* from the tidal San Joaquin River, Stockton, California, U.S.A. Presented at the 20th North American Diatom Symposium, 23-27 September, University of Iowa, Iowa Lakeside Laboratory, Milford, Iowa.

Litton, G.M., M. S. Brunell, J. C. Monroe, N.W.T. Quinn. Modelling algae and zooplankton interactions in the San Joaquin River, CALFED Science Conference, Sacramento, October 22-24, 2009.

Litton, G. M., M. S. Brunell, J. C. Monroe, and N. W. T. Quinn. Algal fate and behavior in the San Joaquin River, California, U.S.A. Outline paper and abstract submitted to the IWA (International Water Association) World Water Congress and Exhibition, Vienna, Austria, 7-12 September, 2008.

Burr, K., M. S. Brunell, and G. M. Litton. 2007. Diatoms of the Lower San Joaquin River in the vicinity of the Stockton Deep Water Ship Channel. A poster presented at the 19th North American Diatom Symposium, 12-16 September, University of Michigan Biological Station.

Brunell, M., G. M. Litton, and N. W. T. Quinn. 2007. Zooplankton abundance and diversity in the lower San Joaquin River above the Stockton Deep Water Ship Channel (San Joaquin Co., California, U.S.A.). Presented 9 Aug 2007 at the Ecological Society of America/Society for Ecological Restoration International Joint Meeting in San Jose, CA.

Stringfellow, W. T., S. Borglin, G. M. Litton, J. Hanlon, and M. S. Brunell. 2006. Combining dynamic assessments with traditional monitoring approaches to improve understanding of NPS pollutant impacts. Presented at the Fifth National Monitoring Conference (National Water Quality Monitoring Council) held in San Jose.

Litton, G. and M. Brunell. 2005. Evidence for modeling nitrification in the San Joaquin River as a two-step process. Presented at the California Water and Environmental Modeling Forum Annual Meeting at Asilomar Conference Center, Monterey, California.

G. M. Litton M. Brunell, 2005. Evidence for Modeling Nitrification in the San Joaquin River as a Two-Step Process, California Water and Environmental Modeling Forum, Pacific Grove, CA, March 1-3.

M. Robinson and G. M. Litton, 2005. Testing the Performance of the Port of Stockton (USACE) Aeration Device, California Water and Environmental Modeling Forum, Pacific Grove, CA, March 1-3.

C. Saviz and G.M. Litton, 2004, Five Mile Creek Water Quality and Dye Studies, Aquatopia Conference, University of the Pacific, June 5-13.

S. Kong, M. Haueter, M. Alvarez and G.M. Litton, 2003. When Aquatic Life Can't Breathe in the San Joaquin River, Nothing Else Matters, Pacific Undergraduate Research Conference, May. (Received the Michael A. Minch Award for Excellence in Undergraduate Research.)

R.A. Dahlgren, Erwin Van Nieuwenhuyse, Zengshou Yu and Gary Litton, 2003. Transparency Tube/Water Quality Relationships in the Central Valley Bay-Delta, Asilomar Water Quality Conference, February 24-28.

Xiaoyi Hu, Jing Yuan, O. David Sparkman, Gary Litton, Patrick R. Jones, 2002. Quantitative analysis of Diazinon and Chlorpyrifos by selected ion monitoring: the improvement of the calibration curve without a deuterium-labeled analog as internal standard. American Society of Mass Spectroscopy National Meeting, June 2 -6, 2002, Orlando, FL.

G. M. Litton, K. Hans, J. Martinez, B. Nakagawa, and E. Stieb, 2002. Transport Characteristics and Oxygen Demands of Phytoplankton and Suspended Particulates in the San Joaquin River. Second Annual Celebrate Research and Creativity Poster Session, April 24.

Nikaido, J. and G.M. Litton, 2001. Algal Growth and Decay in the San Joaquin River and Stockton Deep Water Ship Channel, ASCE Environmental Engineering Conference, Bridging the Gap: Improving the flow of environmentally sound solutions, Orlando, FL. May 20-24. (Received 2nd place award for Best Student Paper.)

Nikaido, J. and G.M. Litton, 2001. Algal Growth and Decay in the San Joaquin River, Pacific Undergraduate Research Conference, May.

D. P. Kasser and G.M. Litton, 1999. The Sharing and Integration of Art and Environmental Science in Photography and Environmental Engineering Course Curricula. Second International Conference of Art Culture Nature, Seattle, WA, July 9-11.

Litton, G.M., 1998. Integrating Design in an Environmental Engineering Curriculum Using Field Exercises, NSF-CCD workshop, ASEE National Conference, Seattle, WA, June 28-30, 1998.

Litton, G.M., 1997. Integrating Multiple Disciplines in an Environmental Engineering Curriculum with Field Exercises, IEEE, Frontiers in Engineering Education, NSF showcase presentation, Pittsburgh, PA, Nov. 5-8, 1997.

Litton, G.M., 1997. A Comprehensive Laboratory Program for an Environmental Engineering Curriculum, NSF-ILI presentation, ASEE National Conference, Milwaukee, WI, June 15-18, 1997.

Antypas, D.A. and G.M. Litton, 1996. Surface Chemistry Effects on the Aggregation Rates of Latex Microspheres with Sodium Dodecyl Sulfate, Abstract submitted July, 1996 and accepted for the 32nd Annual Pacific Conference, American Chemical Society, San Francisco, CA, Oct 29- Nov 1, 1996.

Litton, G.M. and T.M. Olson, 1995. Particle Size Effects: Evidence for Discrete Surface Charge Effects on Colloid Deposition Kinetics with Sodium Dodecyl Sulfate, Proceedings of the ACS Spring Mtg, Physical and Chemical Process Controlling Contaminant Mobility in Aquatic Environments, Anaheim, CA, April 2-6, 1995.

Litton, G.M., 1994. Site Characterization: An Aquatic Chemistry Laboratory for Environmental Engineering Students, ASEE Annual Mtg., Pacific Southwest Section, Sacramento, CA, October 6,7 1994.

Litton, G.M. and T.M. Olson, 1994. Indirect Evidence for Discrete Surface Charge Effects on Colloid Deposition Kinetics with Sodium Dodecyl Sulfate, ACS Spring Mtg, Physical and Chemical Process Controlling Contaminant Mobility in Aquatic Environments, San Diego, CA, March, 1994. *Awarded a Certificate of Merit, Division of Environmental Chemistry.*

Litton, G.M. and T.M. Olson, 1992. Colloid Transport in Porous Media and Approaches to Examine the Importance of Surface Heterogeneity, EOS Transactions, Vol. 73, No. 43, AGU Fall Meeting, San Francisco.

Litton, G.M. and T.M. Olson, 1991. Colloid Transport in Porous Media With Repulsive Interaction Energy Barriers, EOS Transactions, Vol. 72, No. 44, AGU Fall Meeting, San Francisco.

Olson, T.M., G.M. Litton, and A. Amirbahman, 1991, Colloid Transport in Porous Media With Repulsive Energy Barriers, ACS 65th Colloid and Surface Science Symposium, Norman, OK, June, 1991.

Olson, T.M., G.M. Litton, and A. Amirbahman, 1991. Colloid-Porous Media Interactions With Repulsive Energy Barriers, International Conference: Interfacial Phenomena in the Environment, EAWAG/ETH, Davos, Switzerland, Oct. 1991.

Litton, G.M. and T.M. Olson, 1991. Colloid Transport in Packed-Bed Columns With Repulsive Energy Barriers, American Society of Civil Engineers, Environmental Engineering Division Specialty Conference, Reno, Nevada, July 1991.

Dougherty, D.E. and G.M. Litton, 1989. Unsaturated Flow in Porous Media by Optimal Test Functions, *7th International Conference on Finite Element Methods in Flow Problems*, UAH Press, Huntsville, AL, pp. 1343-1354.

Technical Reports:

Litton, G.M. and C.R. Moon, 2014. Model Verification Field Results, In support of the Temperature Study Mountain House Wastewater Treatment Plant, Prepared for the Mountain House Sanitary District, August, 43p.

Brunell M., G.M. Litton, W. Stringfellow, 2013. Zooplankton Distribution in the SJR Estuary, Annual Report for the CALFED Ecosystem Restoration Program Project ERP-08D-SO3, March 30, 2013. 109p.

Litton, G.M., R Brown, 2013, Ironhouse Sanitary District Wastewater Treatment Plant Mixing Zone Validation Study, prepared for Robertson-Bryan, Inc. and the Ironhouse Sanitary District, March, 61p.

Brunell M., G.M. Litton, W. Stringfellow, 2012. Zooplankton Distribution in the SJR Estuary, CALFED Ecosystem Restoration Program Project ERP-08D-SO3, March 30, 2012. 62p.

Litton, G.M., M. Brunell, J. Monroe, 2010. Effects of the Head of the Old River Barrier on Flow and Water Quality in the San Joaquin River and the Stockton Deep Water Ship Channel, March , 2010. Final report submitted to the California Dept. of Water Resources.

Litton, G.M. and M. Lemmon, 2010. Mixing and Dilution of Treated Wastewater Effluent in the Sacramento River, City of Redding. Submitted May, 2010, final draft completed Sept, 2010. 29p.

ICF International. 2010. Stockton Deep Water Ship Channel Demonstration Dissolved Oxygen Aeration Facility Project. December. (ICF 00902.10). Sacramento, CA. 144p.
Prepared with ICF International for: California Department of Water Resources, Sacramento, CA.

ICF International. 2010. California Department of Water Resources Demonstration Dissolved Oxygen Aeration Facility 2008 Operations Performance Report. April. (ICF 00902.08). Sacramento, CA.
Prepared with ICF International for: California Department of Water Resources, Sacramento, CA. 89p.

Litton, G.M., M. Brunell, and N.W. Quinn, 2008. Linking the San Joaquin River to the Stockton Deep Water Ship Channel, California Bay-Delta Authority, CALFED Ecosystem Restoration Program Project ERP-02D-P63, June 15, 2008. Draft report submitted during 2007-2008 academic year, Final report completed in 2008-2009 academic year.

M. Brunell and G.M. Litton, 2008. Algal Grazing in the San Joaquin River, CALFED Ecosystem Restoration Program Project ERP-02D-P63, June 15, 2008. Draft report submitted during 2007-2008 academic year, Final report completed in 2008-2009 academic year.

Litton, G.M., J.C. Monroe and N.W. Quinn, 2008. Installation of a New Real-Time Water Quality Monitoring Station for the San Joaquin River, California Bay-Delta Authority, CALFED Ecosystem Restoration Program Project ERP-02D-P63, June 15, 2008. Draft report submitted during 2007-2008 academic year, Final report completed in 2008-2009 academic year.

Litton, G.M., M. Brunell, and N.W. Quinn, 2005. Linking the San Joaquin River to the Stockton Deep Water Ship Channel, California Bay-Delta Authority, CALFED Ecosystem Restoration Program Project ERP-02D-P63, Sept, 26 p.

M. Brunell and G.M. Litton, 2005. Algal Grazing in the San Joaquin River, CALFED Ecosystem Restoration Program Project ERP-02D-P63, Sept, 22 p.

Litton, G.M. and N.W. Quinn, 2005. Installation of a New Real-Time Water Quality Monitoring Station for the San Joaquin River, California Bay-Delta Authority, CALFED Ecosystem Restoration Program Project ERP-02D-P63, Sept, 16 p.

Litton, G.M., 2005. Ammonia Leak Detection Calibration Report, prepared for CALAMCO, April.

Litton, G.M. 2004. A Tracer Investigation of Aerated Water Dispersion and Tidal Exchange in the San Joaquin River and Stockton Ship Channel, University of the Pacific, Stockton, CA, Oct, 32p.

Litton, G.M. 2004. Tracer Studies of Stormwater Dispersion and Tidal Exchange in Smith Canal and the Calaveras River, University of the Pacific, Stockton, CA, Oct, 48 p.

Litton, G.M., 2002. Dye Tracer Dispersion Associated with MOBI Aeration in the Stockton Ship Channel, Final report, University of the Pacific, Stockton, CA, December 24, 26 p.

Litton, G.M. and J. Nikaido, 2001. Sediment Deposition Rates and Associated Oxygen Demands in the Deep Water Ship Channel of the San Joaquin River- 2000, University of the Pacific, Stockton CA, August, 8p.

Litton, G.M., 2001. Stockton Channel Water Quality Improvements: Nutrient Data and Impacts Associated with Algal Productivity, University of the Pacific, Stockton CA May.

Litton, G.M., 1999. The Influence of Algal Photosynthesis on Port of Stockton Wine Slip pH. University of the Pacific, Stockton CA, November.

Litton, G.M. and J. Nikaido, 1998. Water Quality Impact Report: White Slough Water Pollution Control Facility, University of the Pacific, Stockton CA, September. 55 p.

Litton, G.M. and G.L. Guymon, 1990. Experimental Study Exploring the Behavior of TCE and DBCP in Hanford Sandy Loam, Report No. WREE 90-5, University of California, Irvine, 189 p.

Litton, G.M. and J. Shami, 1990. The Effectiveness of Shipyard Waste Treatment Technologies and the Spatial Distributions of Cu, Hg, Pb, and Zn in Newport Bay and Huntington Harbour Sediments. Prepared for the Santa Ana Regional Water Quality Control Board, 85 p.

Litton, G.M. and G.L. Guymon, 1989. Literature Review of the Fate of TCE and DBCP, Report No. WE89-01, University of California, Irvine, 89 p.

Successful Proposals:

Temperature Study Work Plan and Schedule for the Mountain House Wastewater Treatment Plant. Prepared for the Mountain House Community Services District, funded October, 2013, \$25,311.

A field investigation approach for characterizing wastewater mixing for the Ironhouse Sanitary District in the San Joaquin River. Prepared for the Ironhouse Sanitary District, funded July, 2012, \$45,000.

Mixing and Dilution of Treated Wastewater Effluent in the Sacramento River, City of Redding. Funded January 15, 2010, \$19,700.

Water Quality Effects on Food Web Structure in the Non-Tidal to Tidal Transition Zone of the San Joaquin River Estuary. Co-PIs Mark Brunell and Stacy Luthy. Submitted to the Rose Foundation. Project Award: \$28,000. January, 2009.

San Joaquin River Aerator Evaluation Investigation Proposal. Prepared for the Department of Water Resources, Project Award: \$160,000, January, 2008.

Head of Old River Barrier Impact Study. Prepared for the Department of Water Resources, Project Award \$50,000, Co-PI Mark Brunell, August, 2007.

Port of Stockton Aeration Turbidity Proposal, Project Award: \$9,800. January, 2007

City of Stockton Wastewater Effluent Dilution Study. Project award \$22,449.50. August 25, 2005.

Evaluation of the Potential of Free Radical Formation in the San Joaquin River. CALFED Bay-Delta Program. Project award: \$9985, June 6, 2005.

A Comprehensive Analysis of Algae Dynamics and Nitrification Kinetics in the Stockton Deep Water Ship Channel. CALFED Bay-Delta Program. Co-PI Mark Brunell. Project award \$209,531.73, April 27, 2005.

Algal decomposition kinetics laboratory using an in situ pheophytin a sensor, Education Grant provided by Ocean Optics, Inc. to the Society of Women Engineers Team Tech. Award: \$2400. March 15, 2005. Co-PI: Doug Modlin, CytoFlow, Inc.

Mountain House Community Service District Wastewater Dilution Investigation. Project award \$24,000, May, 2004.

An Investigation of the Decay and Productivity of Algae Entering the Stockton Deep Water Ship Channel, A three-year multiple agency/university proposal awarded by the California Bay Delta Authority, Overall funding awarded: \$6.1 M, award to Pacific: \$624,491, Dec 12, 2003. Study years: 2005-2008.

City of Stockton Stormwater Dye Investigation. Project award \$28,000, July, 2003.

Investigation of the Causes of the San Joaquin River Hypoxia During the Winter of 2003. Central Valley Regional Water Quality Control Board. Project award: \$84,015. April 8, 2003.

Sediment Deposition Rates and Associated Oxygen Demand in the Stockton Deep Water Ship Channel, a collaborative proposal submitted to CALFED, study duration June 2001- May 2002. Overall funding awarded: \$2,100,000, award to UOP: \$112,000.

Determination of the Causes of Dissolved Oxygen Depletion in the San Joaquin River, a collaborative proposal submitted to CALFED, study duration June 2000- May 2001. Overall funding awarded: \$866,408, award to UOP: \$75,454.

The Influence of Light Intensity on Algal Productivity in the Stockton Ship Channel, July , 2000, project award \$23,000.

Stockton Total Mass Daily Loading Investigation, City of Stockton, August, 1999, project award \$15,746.

Biochemical Oxygen Demand Kinetic Rate Study, City of Stockton, August, 1999, project award \$8,100.

Calamco Water Quality Investigation in the Stockton Ship Channel, August, 1999, project award \$7,615.

Outfall Relocation Impact Study, White Slough Water Pollution Control Facility, City of Lodi, June, 1999, project award: \$20,948.

Calaveras River Water Quality Study, Funding provided by DeltaKeeper, project award: \$35,000.

Water Quality Impact Investigation, White Slough Water Pollution Control Facility, City of Lodi, January-July, 1998, project award: \$19,850.

An Integrated Course Series in Environmental Chemistry, Microbiology, and Industrial Waste Treatment Technology, National Science Foundation Instrumentation and Laboratory Improvement. August, 1995, award: \$36,186.00.

Environmental Engineering Laboratory Instrumentation, School of Engineering, October 15, 1993. Proposal funded: \$1,300.

Ph.D. Dissertation:

Colloid Transport in Packed-Beds With Repulsive Interaction Energy Barriers. U.C. Irvine, Irvine, CA, 1993.

Master of Science Thesis:

Experimental Study Exploring the Behavior of TCE and DBCP in Hanford Sandy Loam, U.C. Irvine, Irvine, CA, 1990.

SOCIETY MEMBERSHIPS/ PROFESSIONAL SERVICE

American Society of Civil Engineers

American Society for Engineering Education

Tahoe-Baikal Institute, Board of Directors member (organization inactive)

Yolo Bypass Methylmercury Technical Work Group

Society of Hispanic Professional Engineers: faculty advisor for Pacific student chapter

BIOSKETCH:

Gary M. Litton, Ph.D., PE
Civil Engineering Department
University of the Pacific

Gary Litton is a professor in the Civil Engineering Department at the University of the Pacific where he teaches courses and conducts research in environmental engineering. Dr. Litton has over 30 years of water quality experience with specialization in water quality investigations. The first six years of his career were spent with the Lahontan Regional Water Quality Control Board, where he worked on water rights and quality projects in the Lake Tahoe Basin. As a researcher and professional engineer he has been responsible for water quality monitoring and modeling investigations, water quality planning, pollution impact studies, and subsurface remediation efforts. Recently, Dr. Litton was a principal investigator of two studies focused on understanding the algae-induced depletion of dissolved oxygen in the San Joaquin River Delta. Current research includes evaluating wetland ponds for methylmercury removal in the Yolo Bypass Wildlife Area.