CURRICULUM VITAE

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Education

Ph. D., Environmental Sciences and Engineering (supporting program: Microbial Physiology and Genetics), University of North Carolina at Chapel Hill, 1994.

M. S., Microbiology (minor: Aquatic Ecology), Virginia Polytechnic Institute and State University, 1984.

B. S., Environmental Health, University of Georgia, 1980.

Professional Experience

2004 to present: University of the Pacific, Ecological Engineering Research Program, School of Engineering & Computer Science, Stockton, CA
Director, EERP & Associate Professor

2003 to present: Lawrence Berkeley National Laboratory, Environmental Measurements Laboratory, Earth Sciences Division, Berkeley, CA
Director, EML

1996 to present: Lawrence Berkeley National Laboratory, Earth Sciences Division, Berkeley, CA
Environmental Engineer

2007 (fall semester): University of California, Berkeley, Department of Civil and Environmental Engineering, Berkeley, CA
Visiting Professor

1994 to 1996: University of California, Berkeley, Department of Civil and Environmental Engineering, Berkeley, CA
Visiting Postdoctoral Researcher

1990 to 1994: University of North Carolina at Chapel Hill, Department of Environmental Sciences and Engineering, Chapel Hill, NC
Graduate Research Assistant

1988 to 1989: Institut Pasteur, Departement d'Ecologie, Paris, France
Stagiaire (Visiting Researcher)

1983 to 1988: Sybron Chemicals, Inc., Salem Research Facility, Salem, Virginia
Senior Research Microbiologist

1981 to 1983: Virginia Polytechnic Institute and State University, Department of Microbiology and the Center for Aquatic Ecology, Blacksburg, Virginia
Graduate Teaching Assistant

1980 to 1981: Ecology and Environment, Inc., Decatur, Georgia
Hazardous Waste Site Investigator

Professional Societies

International Water Association

Association of Environmental Engineering and Science Professors

American Ecological Engineering Society

American Society of Agricultural and Biological Engineers

American Geophysical Union

Society for Environmental Toxicology & Chemistry

Water Environment Federation

Teaching Experience

Visiting Professor, Environmental Microbiology, University of California, Berkeley, Fall 2007

Adjunct Professor, Hydrologic Analysis and Design, University of the Pacific, Fall 2006

Adjunct Professor, Introduction to Environmental Engineering, School of Engineering & Computer Science, University of the Pacific, Spring 2006

Lecturer, Water Resources, Department of Civil & Environmental Engineering, University of California Berkeley, Fall 2005

Lecturer, Microbiology for Engineers, Department of Civil & Environmental Engineering, University of California Berkeley, Spring 2003 and 2004

Graduate Research Advisor, Department of Civil & Environmental Engineering, University of California Berkeley, 1999 to present

Undergraduate Research Advisor, Environmental Sciences Program, University of California Berkeley, 1997 to present

Undergraduate Research Advisor, Center for Science & Engineering Education, US Department of Energy, 1998 to present

Teaching Awards

Outstanding Mentor Award, Lawrence Berkeley National Laboratory, 2001

Outstanding Mentor Award, Department of Energy, 2002

Professional Service

Member, Journal Editorial Board, Clean Technology & Environmental Policy, April 2007 to present

Member, San Joaquin River Non-Point Source Discharge Technical Advisory Committee, November 2005 to present

Member, Real-time Salt and Nutrient Drainage Load Reduction Strategies Technical Advisory Committee, November 2005 to present

Member, San Joaquin River Dissolved Oxygen Total Maximum Daily Load Technical Advisory Committee, October 2000 to present

Member, Earth Sciences Division Environmental Health and Safety Committee, September 1999 to June 2004

Member, Lawrence Berkeley National Laboratory Biological Safety Committee, May 2002 to November 2003

Session Chair, "Bioremediation and Phytoremediation of Other Contaminants," 2001 International Containment and Remediation Technology Conference, Orlando, FL. June 11, 2001

Session Chair, "Natural Attenuation of MTBE," In-Situ and On-Site Bioremediation Sixth International Symposium, San Diego, CA. June 7, 2001

Reviewer, Grant Program, Oregon Sea Grant, 2007 to present

Reviewer, Grant Program, US Army Office of Research, 2006 to present

Reviewer, Science and Technology Program, US Bureau of Reclamation, 2004 to present

Reviewer, Environmental Science and Technology, 2000 to present

Reviewer, Water Environment Research, 1995 to present

Reviewer, Applied Biochemistry and Biotechnology, 2001 to present

Reviewer, Bioremediation Journal, 1998 to present

Reviewer, Waste Management Journal, 2001 to present

Reviewer, Clean Technology & Environmental Policy, 2005 to present

Reviewer, Kuwait Journal of Science & Engineering, 2007 to present

Reviewer, American Geophysical Union Books, 2001 to present

Reviewer, Journal of Environmental Management, 2009 to present

Reader, Ph. D. Thesis, "Microbiological Transformation of Hazardous Waste During Biological Waste Treatment," Institute of Environmental Studies, University of Karachi, Pakistan

Refereed Publications

Young, M., K. McLaughlin, K. Kendall, W. Stringfellow, M. Rollog, K. Elsbury, E. Donald, and A. Paytan. *In press.* Characterizing the oxygen isotopic composition of phosphate sources to aquatic ecosystems. *Environ. Sci. Technol.*

Engelage, S. K., W. T. Stringfellow, and T. Letain. *In press*. Disinfection byproduct formation potentials of wetlands, agricultural drains, and rivers and the effect of biodegradation on trihalomethane precursors. *J. Environ. Quality*.

Rogers, M. R. and W. T. Stringfellow. 2009. Partitioning of chlorpyrifos to soil and plants in vegetated agricultural drainage ditches. *Chemosphere*. 75 (1): 109-114

Stringfellow, W., Herr, J., Litton, G., Brunell, M., Borglin, S., Hanlon, J., Chen, C., Graham, J., Burks, R., Dahlgren, R., Kendall, C., Brown, R. and Quinn, N. 2009. Investigation of river eutrophication as part of a low dissolved oxygen total maximum daily load implementation. *Water Sci. Technol.* 59 (1): 9-14.

Stringfellow, W. T. Ranking methods to set restoration and remediation priorities on a watershed scale. 2008. *Water Sci. Technol.* 58 (10): 2025 – 2030.

Stringfellow, W. T. Ranking tributaries for remediation priorities in a TMDL context. 2008. *Chemosphere* 71 (10): 1895 – 1908.

Stringfellow, W. T., J. S. Hanlon, S. E. Borglin, and N. W. T. Quinn. 2008. Comparison of wetland and agriculture drainage as sources of biochemical oxygen demand in the San Joaquin River, California. *Agricultural Water Management* 95 (5): 527 – 538.

Stringfellow, W., S. Borglin, J. Hanlon, J. Graham, and R. Burks. 2008. Scientific studies supporting development of a dissolved oxygen TMDL. *Water Practice* 2 (1): 1 – 10.

Campbell, C. G., M. M. Mascetti, W. Hoppes, and W. T. Stringfellow. 2007. Measurement reproducibility of the Bioscan^{TM} flow-through respirometer applied as a toxicity-based early warning system for water contamination. *Environmental Practice* 9: 42 – 53.

Campbell, C. G., S. E. Borglin, B. Green, A. Grayson, E. Wozi, and W. T. Stringfellow. 2006. Biologically directed environmental monitoring, fate, and transport of estrogenic endocrine disrupting compounds in water: A review. *Chemosphere* 65: 1265 – 1280.

Stringfellow, W. T., T. Komada, and L.-Y. Chang. 2006. Drip-feed bioreactor for the treatment of concentrated wastes with minimal dilution. *Chemosphere* 65: 141 – 147.

Quinn, N. W. T., K. Jacobs, C. W. Chen, and W. T. Stringfellow. 2005. Elements of a decision support system for real-time management of dissolved oxygen in the San Joaquin River Deep Water Ship Channel. *Environ. Model. Soft.* 20 (12):1495 – 1504.

Stringfellow, W. T. and K.-C. Oh. 2005. Comparison of SPME Head Space Analysis to USEPA Method 5030/8260B for MTBE Monitoring. *Groundwater Monit. Remed.* 25 (2):52 – 58.

Stringfellow, W. T., T. Komada, and L.-Y. Chang. 2003. Feasibility of using biological degradation for the on-site treatment of mixed wastes. *In*: V.S. Magar and M.E. Kelley (Eds.), *In Situ and On-Site Bioremediation—2003. Proceedings of the Seventh International In Situ and On-Site Bioremediation Symposium (Orlando, FL; June 2003)*. Battelle Press, Columbus, OH.

Stringfellow, W. T. and K. -C. Oh. 2002. Influence of gasoline hydrocarbons on methyl *tert*-butyl ether biotreatment in fluidized bed bioreactors. *Water Sci. Technol. Water Supp.* 2 (2): 223 – 228.

Stringfellow, W. T. and K. -C. Oh. 2002. Initiation of methyl tert-butyl ether biotreatment in fluidized-bed bioreactors. *J. Environ. Eng.* 128 (9): 852 – 861.

Stringfellow, W. T. 2002. Applying co-metabolic biological reactions for the ex-situ treatment of MTBE contaminated ground water. *In*: A. F. Diaz and D. L. Drogos (Eds.), *Oxygenates in Gasoline: Environmental Aspects*, pp. 243 – 256. ACS Symposium Series 799, American Chemical Society, Washington, DC.

Hu, Q., R. Salve, W. T. Stringfellow, and J. S. Y. Wang. 2001. Field tracer transport tests in unsaturated fractured tuffs. *J. Contam. Hydrol*. 51: 1-12.

Stocking, A. J., R. A. Deeb, A. E. Flores, W. T. Stringfellow, J. Talley, R. Brownell, and M. C. Kavanaugh. 2000. Bioremediation of MTBE: a practical perspective. *Biodegradation* 11: 187 –201.

Stringfellow, W. T., R. D. Hines, D. K. Cockrum, and S. T. Kilkenny. 2000. Factors influencing biological treatment of MTBE in fixed film reactors. In: G. B. Wickramanayake, et al. (Eds.), *Bioremediation and Phytoremediation of Chlorinated and Recalcitrant Compounds*, pg. 175-181. Battelle Press, Columbus, OH.

Stringfellow, W. T. and L. Alvarez-Cohen. 1999. Evaluation of the relationship between sorption of PAHs to bacterial biomass and biodegradation. *Water Res.* 33: 2535-2544.

Aitken, M. D., W. T. Stringfellow, R. D. Nagel, C. Kazunga, and S. -H. Chen. 1998. Characteristics of phenanthrene-degrading bacteria isolated from soils contaminated with polycyclic aromatic hydrocarbons. *Can. J. Microbiol*. 44: 743-752.

Grimberg, S. J., W. T. Stringfellow, and M. D. Aitken. 1996. Quantifying the biodegradation of phenanthrene by *Pseudomonas stutzeri* P16 in the presence of a nonionic surfactant. *Appl. Environ. Microbiol*. 62:2387-2392.

Stringfellow, W. T., S. -H. Chen, and M. D. Aitken. 1995. Induction of PAH degradation in a phenanthrene degrading pseudomonad. In: R. E. Hinchee, C. M.

Vogel, and F. J. Brockman (Eds.), *Microbial Processes for Bioremediation*, pg. 83-89. Battelle Press, Columbus, OH.

Stringfellow, W. T. and M. D. Aitken. 1995. Competitive metabolism of naphthalene, methylnaphthalenes, and fluorene by phenanthrene degrading bacteria. *Appl. Environ. Microbiol*. 61:357-362.

Grimberg, S. J., M. D. Aitken, and W. T. Stringfellow. 1994. The influence of a surfactant on the rate of phenanthrene mass transfer into water. *Water Sci. Technol.* 7:23-30.

Stringfellow, W. T. and M. D. Aitken. 1994. Comparative physiology of phenanthrene degradation by two dissimilar pseudomonads isolated from a creosote contaminated soil. *Can. J. Microbiol*. 40:432 - 438.

Stringfellow, W. T. and M. D. Aitken. 1994. Kinetics of phenanthrene degradation by soil isolates. In: R. E. Hinchee, D. B Anderson, F. B. Metting, Jr. and G. D. Sayles (Eds.), *Applied Biotechnology for Site Remediation*, pg. 310-314. Lewis Publishers, Boca Raton, FL.

Aitken, M. D., P. H. Heck, L. Alvarez-Cohen, S. J. Grimberg, and W. T. Stringfellow. 1993. Activated sludge. *Water Environ. Res*. 65(4): 324-336.

Stringfellow, W. T., K. Mallon, and F. A. DiGiano. 1993. Enumeration and disinfection of bacteria associated with particles released from GAC filter adsorbers. *J. Am. Water Works Assoc*. 85(9): 70 - 80.

DiGiano, F. A., K. Mallon, W. T. Stringfellow, N. Cobb, J. Moore, and J. C. Thompson. 1992. *Microbial Activity on Filter Adsorbers*. 1P-5C-90606-8/92-CM. American Water Works Research Foundation, Denver, CO.

Stringfellow, W. T., B. Dassy, M. Lieb, and J. M. Fournier. 1991. *Staphylococcus aureus* growth and type 5 capsular polysaccharide production in synthetic media. *Appl. Environ. Microbiol*. 57: 618 - 621.

Dassy, B., W. T. Stringfellow, M. Lieb, and J. M. Fournier. 1991. Production of type 5 capsular polysaccharide by *Staphylococcus aureus* grown in a semi-synthetic medium. *J. Gen. Microbiol*. 137: 1155 - 1162.

Stringfellow, W. T., N. R. Connell, C. F. Felin, and W. P. Coleman. 1988. Variables influencing sulfide concentration in a gravity flow collection system. *J. Water Pollution Control Fed*. 60: 2111 - 2114.

Patents

Stringfellow, W. T. and S. T. Kilkenny. Biodegradation of ethers using fatty acid enhanced microbes. February 26, 2002, Patent No. US6350381.

Stringfellow, W. T., C. D. Goldsmith, and L. T. Davis. Use of Bacteria for Control of Algal Bloom in Wastewater, Lagoons, or Ponds. May 6, 1988, Patent No. US1988000191073.

Reports

Stringfellow, William, Sharon Borglin, Jeremy Hanlon, Justin Graham, Randy Dahlgren, Remie Burkes, Chelsea Spier, Tracy Letain, Kathleen Hutchison, and

Arlene Granadosin. 2008 (May). San Joaquin River Up-Stream DO TMDL Project ERP - 02D - P63 Task 4: Monitoring Study Final Task Report. Ecological Engineering Research Program, School of Engineering & Computer Sciences, University of the Pacific, Stockton, CA, Ecology Department Lawrence Berkeley National Laboratory, Berkeley, CA, and Department of Land, Air and Water Resources, University of California, Davis, CA.

Stringfellow, William T. , Jeremy S. Hanlon, Karl A. K. Stromayer, Sharon E. Borglin, Samantha K. Engelage, Justin Graham, Kenneth Griggs, Remie Burks, Richard Albers, and Robert Parris. 2008 (March). Evaluating the Drinking Water Impacts of Wetland Derived Organic Carbon (Final Report). Proposition 50 CALFED Drinking Water Quality Program, State Water Resources Control Board Agreement No. 04-174-555-0. Environmental Engineering Research Program, School of Engineering & Computer Science, University of the Pacific, Stockton, CA., U.S. Fish and Wildlife Service, Los Banos, CA, & Ecology Department, Earth Sciences Division, Lawrence Berkeley National Laboratory, Berkeley, CA

Stringfellow, W. T., J. S. Hanlon, K. A. K. Stromayer, S. E. Borglin, S. K. Engelage, J. M. Graham, and R. D. Burks. 2007. Annual Report Evaluating the Drinking Water Impacts of Wetland Derived Organic Carbon (State Water Resources Control Board Agreement No. 04-174-555-0). August 24, 2007. Environmental Engineering Research Program, School of Engineering & Computer Science, University of the Pacific, Stockton, CA.

Stringfellow, W., R. Brown, R. Dahlgren, M. Goudy, J. LaBay, G. Litton, S. Siegel and B. Marcotte. 2007. Low Dissolved Oxygen Conceptual Model Delta Regional Ecosystem Restoration Implementation Plan, Peer Review Draft, June 8, 2007. CALFED Bay Delta Program, Sacramento, CA.

Stringfellow, W. T., S. E. Borglin, R. Dahlgren, J. S. Hanlon, J. Graham, R. Burkes, and K. Hutchinson. 2007. San Joaquin River Up-Stream DO TMDL Project (ERP - 02D - P63) Task 4: Monitoring Study Interim Task Report # 3 March 31. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-63243. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. 2006. Evaluating the Drinking Water Impacts of Wetland Derived Organic Carbon (State Water Resources Control Board Agreement No. 04-174-555-0) 2006 Annual Report. October 31. Environmental Engineering Research Program, School of Engineering & Computer Science, University of the Pacific, Stockton, CA.

Stringfellow, W. T., S. E. Borglin, and J. S. Hanlon. 2006. Measurement and Modeling of Algal Biokinetics in Highly Eutrophic Waters. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-59961. Berkeley National Laboratory, Berkeley, CA.

Borglin, S. E., W. T. Stringfellow, and J. S. Hanlon. 2006. Standard Operation Procedures for the Up-Stream Dissolved Oxygen TMDL Project. Ernest Orlando Lawrence Berkeley National Laboratory Report No. LBNL/PUB-937. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. 2005. Up-Stream Dissolved Oxygen TMDL Project Quality Assurance Project Plan. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-59937. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T., T. Komada, and L.-Y. Chang. 2004. Biological Treatment of Concentrated Hazardous, Toxic, and Radionuclide Mixed Wastes Without Dilution. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-55928. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. and K. C. Oh. 2003. Determination of Methyl tert-Butyl Ether and tert-Butyl Alcohol in Water by Solid-Phase Microextraction/Head Space Analysis in Comparison to EPA Method 5030/8260B. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-53866. Berkeley National Laboratory, Berkeley, CA.

Chang, L.- Y., A. Proctor, and W. T. Stringfellow. 2002. Kinetic Parameters for the Biological Treatment of Mixed Wastes Containing Acetonitrile and Methanol. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBID-2433. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. and N. W. T. Quinn. 2002. Discriminating Between West-Side Sources of Nutrients and Organic Carbon Contributing to Algal Growth and Oxygen Demand in the San Joaquin River. CALFED Bay-Delta Program, Sacramento, CA. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-51166. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. 2001. Biological Up-Grading of Heavy Oil for Viscosity Reduction. Chevron Research and Technology Company, Richmond CA and Texaco Exploration and Production Technology Department, Houston, TX.

Stringfellow, W. T., R. D. Hines, Jr., D. K. Cockrum, and S. T. Kilkenny. 2001. Factors Influencing Biological Treatment of MTBE Contaminated Ground Water. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-48941. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. 2001. SJR DO TAC Field Trip to Rough and Ready Island, July 27, 2001. San Joaquin River Dissolved Oxygen Technical Advisory Committee, Sacramento, CA.

Stringfellow, W. T., Q. Hu, R. Terberg, and G. M. Castro. 1999. Simultaneous Analysis of Fluorobenzoate Tracers in the Presence of Interfering Compounds. Ernest Orlando Lawrence Berkeley National Laboratory Formal Report No. LBNL-46976. Berkeley National Laboratory, Berkeley, CA.

Stringfellow, W. T. and L. Alvarez-Cohen. 1997. Biological Transformation of Polynuclear Aromatic Hydrocarbons. Chevron Research and Technology Company, Richmond CA.

Aitken, M. D., S. J. Grimberg, J. Nagel, R. D. Nagel, and W. T. Stringfellow. 1996. Bacterial Biodegradation of Polycyclic Aromatic Hydrocarbons (PAH) and Potential Effects of Surfactants on PAH Bioavailability. Report no. 299, Water Resources Research Institute of the University of North Carolina, North Carolina State University, Raleigh, NC.

Stringfellow, W. T. 1989. Biological Treatment of Concentrated Grease and Septic Wastes. Biokinetic analysis and Recommendations for Operation of a Full Scale Disposal Facility. Sybron Chimie France, S.A. and La Societe Francaise pour la Distribution d'Eau, Rueil Malmaison, France.

Stringfellow, W. T. and A. Wong. 1989. Predicting the On-Set of Nitrification Using Commercially Available Nitrifying Cultures. Sybron Chimie France, S.A., Rueil Malmaison, France.

Stringfellow, W. T. 1989. Wastewater Treatment Microbiology Training Manual. Gamlen Industries, Vernon, France.

Stringfellow, W. T. 1988. Simple Modeling of Variables Influencing Sulfide Concentration in the Worcester County Collection System. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. and W. P. Coleman. 1988. Field Test of *Thiobacillus neapolitanus* at Worcester County, Maryland. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1987. Control of Hydrogen Sulfide with Bacteria: Evaluation of Current BI-CHEM Products and Development of New Treatment Technologies. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1987. Analysis of Fermentation Processes Used for the Production of 450L Base Product and Recommendations for Improvement. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. and W. P. Coleman. 1986. Preliminary Report on Summer Sulfide Control for Worcester County Sanitation District, Ocean City, MD. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1986. Analysis of Current Conditions and Recommendations for Changes in Plant Operating Parameters for the Erving Paper Co. Wastewater Treatment Plant. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1986. Sampling and Site Evaluation Protocol for Soils and Groundwater Contaminated with Gasoline. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. and A. L. Kopecky. 1986. Biological Treatability of a Dinitro-*ortho*-Creosol Containing Wastewater from CPS Chemicals. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1986. Study Proposal for the Evaluation of the Use of Bacteria for the Control of Odors in Sewage Collection lines, City of Charlotte Utilities Authority. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1985. Determination of Root Causes of Plant Upsets at the Menominee Michigan Wastewater Treatment Plant. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. and Kopecky, A. L. 1985. Use of BI-CHEM Bacteria for the Degradation of Cyanide. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1985. Application of BI-CHEM Products for Improved Operation of a Sanitary Wastewater Treatment Plant. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. and R. Jack. 1985. Biological Treatment of Coal Coking Wastewaters, Bethlehem Steel Project. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1985. Degradation of Hydrocarbon Oils With and Without Emulsan. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1984. Waste-Stream Detoxification at Armco Steel and Coking, Ashland, Kentucky. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. 1984. Evaluation of Biological Treatment Plant Operating Conditions at the Allied Chemicals Asphalt Manufacturing Plant. Sybron Chemicals Inc., Salem, VA.

Stringfellow, W. T. and C. H. Wilson. 1981. Regency Dunes Landfarm Investigation Report, Jacksonville, Florida. Task Report to the Environmental Protection Agency. TDD # F4-8008-03.

Presentations and Abstracts

Graham, J., C. Spier, K. Nguyen, M. Brunell, and W. Stringfellow. 2009. Assessment of the California Rapid Assessment Method for Wetlands on agricultural riparian buffer zones along the San Joaquin River. American Ecological Engineering Society 9th Annual Meeting, Oregon State University, Corvallis, OR, June 24-26.

Hanlon, J. S., T. Letain, and W. T. Stringfellow. 2009. Changes in crop type influence water use efficiency in California's San Joaquin Valley. American Ecological Engineering Society Annual Meeting, Oregon State University, Corvallis, OR, June 24-26.

Spier, C., J. Hanlon, J. Graham, K. Nguyen, S. Borglin, and W. Stringfellow. 2009. The potential for a riparian corridor in California's San Joaquin Valley. American Ecological Engineering Society Annual Meeting, Oregon State University, Corvallis, OR, June 24-26.

Hanlon, J. S., J. Graham, C. Spier, and W. T. Stringfellow. 2009. Rapid Assessment of Water Quality Changes in Wetlands Receiving Agricultural Drainage. American Ecological Engineering Society Annual Meeting, Oregon State University, Corvallis, OR, June 24-26.

Stringfellow, W., J. Graham, M. Rogers, S. Borglin, M. Brunell, J. Hanlon, C. Spier, and K. Nguyen. Water quality changes occurring in agricultural drains of varying riparian function. American Ecological Engineering Society Annual Meeting, Oregon State University, Corvallis, OR, June 24-26.

Stringfellow, W., J. Hanlon, S. Borglin, M. Rogers, J. Markel, C. Linneman, and P. Klassen. 2009. Evaluation of Riparian Areas, Ponds, and Wetlands as BMPs for Mitigating the Water Quality Impacts of Irrigated Agriculture in the San Joaquin Valley. American Society of Agricultural and Biological Engineers Annual Meeting, Reno, NV, June 22-24.

Borglin, S., W. Stringfellow, J. Hanlon, J. Graham, and C. Spier. 2009. Manipulation of Riparian Zones for Mitigation of Agricultural Water Quality Impacts in the Central Valley of California. American Society of Agricultural and Biological Engineers Annual Meeting, Reno, NV, June 22-24.

Stringfellow, W. T. 2009. (Invited Presentation). Use of Normalized Rank Mean (NRM) Analysis to Set Remediation Priorities (Plenary Presentation). Sixth Symposium on Environmental Pollution and Environmental Priorities, Gebze Institute of Technology , Gebze, Kocaeli, Turkey, May 28.

Stringfellow, W. T. 2009. (Invited Presentation). Integration of Engineered Wetlands into the Agricultural Landscape to Mitigate Water Quality Impacts (Invited). Council of Civil and Environmental Engineering Department Heads for Turkish Universities (Annual Meeting), Istanbul Technical University, Istanbul, Turkey, May 27.

Stringfellow, W. T. 2009. (Invited Presentation). The San Joaquin River: Breadbasket and Basket Case (Invited). California Water Institute, Fresno State University, Fresno, CA, March 18.

Borglin, S, W. Stringfellow, and J. Hanlon. 2008. Use of PLFA to provide source tracking of algae seed on the San Joaquin River, California. American Geophysical Union Fall Meeting, San Francisco, CA. December 15-19.

Kendall, C., S. R. Silva, M. B. Young, E. C. Volkmar, R. A. Dahlgren, S. E. Borglin, and W. T. Stringfellow. 2008. (Invited Presentation). Potential effect of algal productivity in the San Joaquin River on nitrate concentrations and isotope ratios. American Geophysical Union Fall Meeting, San Francisco, CA. December 15-19.

Kendall, C, M. B. Young, S. R. Silva, R. A. Dahlgren, and W. T. Stringfellow. 2008. A multi-isotope investigation of sources and cycling of nitrate and organic matter in the San Joaquin River, Delta, and northern San Francisco Bay. American Geophysical Union Fall Meeting, San Francisco, CA. December 15-19.

Young, M. B., C. Kendall, S. R. Silva, R. A. Dahlgren, W. T. Stringfellow. 2008. A Multi-isotope tracer approach linking land use with carbon and nitrogen cycling in the San Joaquin River System. American Geophysical Union Fall Meeting, San Francisco, CA. December 15-19.

Silva, S. R., M. B. Young, C. Kendall, R.A. Dahlgren, W. T. Stringfellow. 2008. Isotopic responses to processes related to oxygen cycling during diel studies in the San Joaquin River, California. American Geophysical Union Fall Meeting, San Francisco, CA. December 15-19.

Stringfellow, W., 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. 2008. Investigation of river eutrophication as part of a low dissolved oxygen TMDL implementation. International Water Association World Water Congress, Vienna, September 7-12.

Stringfellow, W. T. 2008. Ranking methods to set restoration and remediation priorities on a watershed scale. Eleventh International Specialized Conference on Watershed & River Basin Management, International Water Association, Budapest, Hungary, September 4-6.

Stringfellow, W., 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. 2008. Investigation of river eutrophication as part of a low dissolved oxygen TMDL

implementation: Three years of science in fifteen minutes. CALFED Science Conference, Sacramento, CA, October 22-24.

Silva, S.R., Kendall, C., Young, M. B., and Stringfellow, W. T., 2008. A refined assessment of spatial and temporal dynamics of algal occurrence in the San Joaquin River, California, from data collected 2005 to 2007. CALFED Science Conference, Sacramento, CA, October 22-24.

Young, M. B., Kendall, C., Stringfellow, W. T., Hanlon, J., and Silva, S.R., 2008. Linking land use with stable isotope source signatures of nutrients and particulate organic matter in San Joaquin River tributaries. CALFED Science Conference, Sacramento, CA, October 22-24.

Kendall, C., Borglin, S.E., Silva, S.R., Young, M. B., and Stringfellow, W. T., 2008. A POM-classification scheme developed using stable isotope, algal pigment, and BOD measurements. CALFED Science Conference, Sacramento, CA, October 22-24.

Kendall., C., Young, M. B., Silva, S. R., Kratzer, C. R., Dahlgren, R. A., and Stringfellow, W. T., 2008. Synthesis of stable isotope data for tracing sources of nitrate and organic matter to the San Joaquin River. CALFED Science Conference, Sacramento, CA, October 22-24.

Kendall., C., Young, M. B., Silva, S. R., Kratzer, C. R., Pellerin, B. A., Bergamaschi, B. A., and Stringfellow, W. T., 2008. Evaluating temporal and spatial changes in DOC sources using stable isotope techniques. CALFED Science Conference, Sacramento, CA, October 22-24.

Hanlon, J. S. and W. T. Stringfellow. 2008. A method of determining wetland pond flow paths using water quality measurements and GIS. Sixth National Monitoring Conference, Atlantic City, NJ, May 18-22.

Stringfellow, W. T. and T. Komada. 2008. Drip-Feed Bioreactor for the Treatment of Concentrated Wastes. Fourth Sequencing Batch Reactor Conference, International Water Association, Rome, Italy, April 7-10.

Stringfellow, W. T., J. Hanlon, J. Herr and S. Borglin. 2008. Using continuous monitoring in coordination with grab sampling to study river eutrophication as part of a dissolved oxygen TMDL. North American Environmental Field Conference and Exposition, Tampa, FL, January 14 – 16.

Stringfellow, W., J. Hanlon, S. Borglin, M. Rogers, J. Markle, C. Linneman, and P. Klassen. 2007. Evaluation of vegetated ditches, ponds, and wetlands as BMPs for mitigating the water quality impact of irrigated agriculture in the San Joaquin Valley. National Conference on Agriculture and the Environment, Monterrey, CA, November 7-9.

Stringfellow, W. T. 2007. Using TMDL monitoring data to set restoration and remediation priorities on a watershed scale. National Conference on Agriculture and the Environment, Monterrey, CA, November 7-9.

Young, M. B, Kendall, C., Silva, S. R., Stringfellow, W. T., Dahlgren, R. A., 2007. Tracing seasonal nitrate sources and loads in the San Joaquin River using nitrogen and oxygen stable isotopes. American Geophysical Union Fall Meeting, San Francisco, CA. December 14-18.

Silva, S R, Kendall, C., Young, M. B., Stringfellow, W. T., Borglin, SE, Kratzer, CR, Dahlgren, R. A, Schimdt, C, Rollog, ME, 2007. Isotopic evidence of nitrate sources and its relationship to algae in the San Joaquin River, California. American Geophysical Union Fall Meeting, San Francisco, CA. December 14-18.

Stringfellow, W. T. 2007. Scientific studies supporting dissolved oxygen TMDL development. Water Environment Federation TMDL 2007, Bellevue, WA, June 24 – 27.

Stringfellow, W. T. and S. W. Siegel. 2007. Presentation of the Low Dissolved Oxygen Conceptual Model Delta Regional Ecosystem Restoration Implementation Plan (DRERIP). DRERIP Technical Review Panel, Sacramento, CA. June 13.

Young, M., K. McLaughlin, E. Donald, W. Stringfellow, A. Paytan, and C. Kendall. 2007. The oxygen isotopic composition of phosphate: a tool for tracing nutrient sources in aquatic ecosystems. Groundwater Resources Association of California Applications of Isotope Tools to Groundwater Studies Symposium, Concord, CA, March 29.

Kendall, C., Silva, S.R.,Young, M.B., Stringfellow, W.T., Borglin, S., Dahlgren, R.A., Volkmar, E., Kratzer, C.R., Bergamaschi, B.A., 2007. Progress with tracing organic matter and nutrient sources using isotopic techniques, DO TMDL PI meeting, Stockton, CA, November 11.

Young, M., K. McLaughlin, E. Donald, W. Stringfellow, C. Kendall, and A. Paytan. 2006. Tracing the sources of phosphate into the San Joaquin River using oxygen isotope signatures. American Geophysical Union, San Francisco, CA, December 11 – 15.

Kendall, C., Silva, S.R., Doctor, D.H., Wankel, S.D., Chang, C.C.Y., Bergamaschi, B.A., Pellerin, B.A., Kratzer, C.R., Stringfellow, W.T., Fleenor, W., Dahlgren, R.A., Paytan, A., McLaughlin, K., 2006. Progress with tracing organic matter and nutrient sources using isotopic techniques. DO TMDL TWG meeting, Sacramento, CA, March 6.

Kendall, C., Silva, S.R., Young, M.B., Bergamaschi, B.A., Kratzer, C.R., Stringfellow, W.T., Fleenor, W., Dahlgren, R.A., Paytan, A., 2006. Progress with tracing organic matter and nutrient sources using isotopic techniques, DO TMDL PI meeting talk, 8/06.

Kendall, C., Silva, S.R., Young, M.B., Stringfellow, W.T., Kratzer, C.R., Bergamaschi, B.A., Pellerin, B.A., Dahlgren, R.A., Fleenor, W. 2006, Isotopic and chemical mass balance approaches to characterize and differentiate sources of organic matter and nutrients from different land uses in the SJR. CALFED Drinking Water Program meeting, Rancho Cordova, CA, October 10.

Silva, S.R., Kendall, C., Young, M.B., Rollog, M.E., Chang, C.C.Y., Bergamaschi, B.A., Kratzer, C.R., Stringfellow, W.T., Fleenor, W., Dahlgren, R.A., Paytan, A., 2006. Progress with tracing organic matter and nutrient sources using isotopic techniques, CWI talk, 10/06.

Kendall, C., Silva, S.R., Young, M.B., Stringfellow, W.T., Kratzer, C.R., Bergamaschi, B.A., Dahlgren, R.A., Fleenor, W., 2006. Distinguishing between

sources of nitrate, water, and organic matter to the San Joaquin River using new isotopic techniques, USGS Outreach meeting, Modesto, CA, October 2.

Stringfellow, W. T., J. Hanlon, S. E. Borglin, and R. A. Dahlgren. 2006. Large scale ecosystem study of algae biokinetics as a function of non-point source discharge. CALFED Science Conference, Sacramento, CA, October 23 – 25.

S. E. Borglin, W. T. Stringfellow, and J. Hanlon. 2006. Use of PLFA biomarkers to study algal dynamics in the upper San Joaquin River. CALFED Science Conference, Sacramento, CA, October 23 – 25.

Young, M., Kendall, C., Paytan, A., K. McLaughlin, Stringfellow, W. 2006. Tracing Phosphate Sources in Aquatic Ecosystems Using the Oxygen Isotopic Composition of Phosphate, CALFED Science Conference, Sacramento, CA, October 23 – 25.

Kendall, C, Silva, S.R., Doctor, D.H., Young, M.B., Rollog, M.E., Stringfellow, W.T., Borglin, S., 2006. Seasonal and Spatial Changes in Organic Matter and Nitrate Sources in the San Joaquin River, CALFED Science Conference, Sacramento, CA, October 23 – 25.

Herr, J. W., W. T. Stringfellow, N. W. T. Quinn, J. McGahan, R. Brown, and C. Chen. 2006. Modeling the sources of oxygen demand impairment in the San Joaquin River Deep Water Ship Channel. CALFED Science Conference, Sacramento, CA, October 23 – 25.

Stringfellow, W. T., J. Hanlon, S. E. Borglin, and G. M. Litton. 2006. Large scale ecosystem study of algae biokinetics as a function of non-point source discharge in California's Central Valley. International Conference on the Future of Agriculture, Sacramento, CA, August 6 – 9.

Stringfellow, W. T., S. E. Borglin, G. M. Litton, J. Hanlon, and M. S. Brunell. 2006. Combining dynamic assessments with traditional monitoring approaches to improve understanding of NPS pollution impacts. Fifth National Monitoring Conference, San Jose, CA, May 7 – 11.

Stringfellow, W. T., J. Hanlon, S. E. Borglin, M. Rogers, and N. W. T. Quinn. 2004. Rapid evaluation of algal blooms in agricultural drains for meeting dissolved oxygen requirements. California Bay Delta Authority Science Conference, Sacramento, CA, October 4 – 6.

Stringfellow, W. T. 2004. (Invited Presentation). Agricultural non-point source discharge impacts in an highly engineered river. Fresno State University, Fresno, CA, November 30.

Stringfellow, W. T. 2004. (Invited Presentation). Unfavorable MTBE biokinetics dominate environmental fate processes. Second European MTBE Conference, Barcelona, Spain, November 4 – 5.

Stringfellow, W. T. 2004. (Invited Presentation). Characterization of algae growth and biomass production as a function of non-point source discharge in an impacted river. University of California, Riverside, CA, October 15.

Stringfellow, W. T., T. Komada, and L.-Y. Chang. 2003. Feasibility of using biological degradation for the on-site treatment of mixed wastes. In-Situ and On-

Site Bioremediation, the Seventh International Symposium, Orlando, FL, June 2 – 5.

Stringfellow, W. T. and K.-S. Ju. 2003. Importance of co-metabolic interactions to predicting the fate of MTBE in soil and groundwater. In-Situ and On-Site Bioremediation, the Seventh International Symposium, Orlando, FL, June 2 – 5.

K.-S. Ju and W. T. Stringfellow. 2003. Physiological Characterization of MTBE Metabolism by a New Bacterial Isolate. Abstracts of the 103rd Annual Meeting of the American Society for Microbiology, Washington, DC, May 18-22.

Stringfellow, W. T. 2002. (Invited presentation). Cometabolic biodegradation of petroleum compounds. Ninth International Petroleum Environmental Conference, Albuquerque, NM, October 22 – 25.

Stringfellow, W. T. 2002. (Invited presentation). MTBE biodegradation by *iso*-pentane degrading bacteria. Groundwater Resources Association MTBE Symposium, San Jose, CA, October 17.

Stringfellow, W. T. 2002. (Invited presentation). Cometabolism: a sophisticated tool for enhancing bioremediation. Joint Department of Energy/ Petroleum Environmental Research Forum Workshop on Bioremediation, Houston, TX, May 30.

Oh, K.-C., K.-S. Ju, and W. T. Stringfellow. 2002. Biodegradation of methyl *tert*-butyl ether by iso-pentane degrading mixed and pure cultures. Abstracts of the 102nd Annual Meeting of the American Society for Microbiology, Salt Lake City, UT, May 19-23.

Chang, L.-Y., A. Proctor, C. Than, P. Williams, and W. T. Stringfellow. 2002. Biotreatment of Tritiated Mixed Wastes. Abstracts of the 102nd Annual Meeting of the American Society for Microbiology, Salt Lake City, UT, May 19 – 23.

Letain, T. E., R. J. Silva, R. Knopp, T. C. Hazen, W T. Stringfellow, and H. Nitsche. 2002. Defining the Interactions Between Microbial Cell Surfaces and Uranium(VI) in Aerobic Conditions. Abstracts of the 102nd Annual Meeting of the American Society for Microbiology, Salt Lake City, UT, May 19 – 23.

Stringfellow, W. T., L. –Y. Chang, and A. Proctor. 2002. Biological treatment of concentrated solvents in a mixed waste to meet land disposal requirements. International Water Association Third World Water Congress, Melbourne, Australia, April 7 – 12.

Oh, K. -C. and W. T. Stringfellow. 2002. Effective treatment strategy in biological removal of MTBE from contaminated groundwater using up-flow fluidized bed bioreactors. International Water Association Third World Water Congress, Melbourne, Australia, April 7 – 12.

Stringfellow, W. T., J. Rodriguez, and G. M. Castro. 2001. Partial transformation products as indicators of microbial hydrocarbon degradation in soils. American Geophysical Union 2001 Fall Meeting, San Francisco, CA, December 10 – 14.

Stringfellow, W. T. 2001. (Invited presentation). Environmental applications for alkane oxidizing bacteria. Institut fur Biotechnologie, Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland, October 19.

Stringfellow, W. T and K. C. Oh. 2001. Improving the reliability of MTBE biological treatment by manipulation of co-metabolic processes. International Water Association Biennial World Water Congress, Berlin, Germany, October 15 – 19.

Stringfellow, W. T, K. -C. Oh, and K. -S. Ju. 2001. (Invited presentation). Ex-situ biological treatment of MTBE contaminated groundwater. Fall 2001 Petroleum Environmental Research Forum Meeting, Brea, CA Oct 4 – 5.

Ju, K. -S. and W. T. Stringfellow. 2001. Evaluating MTBE biodegradation by alkane-enriched bacterial cultures. Air and Waste Management Conference 94th Annual Conference, Orlando, FL, June 24 – 28.

Stringfellow, W. T. 2001. Resolving problems associated with the biological treatment of MTBE contaminated ground water. 2001 International Containment and Remediation Technology Conference and Exhibition, Orlando, FL, June 10 – 13.

Chang, L. Y., A. Proctor, W. T. Stringfellow, H. Morimoto, C. Than, and P. Williams. 2001. Biological treatment of a tritiated HPLC waste to meet RCRA requirements. 2001 International Containment and Remediation Technology Conference and Exhibition, Orlando, FL, June 10 – 13.

Stringfellow, W. T., R. D. Hines, D. K. Cockrum, and S. T. Kilkenny. 2001. Operational and environmental factors controlling the biological treatment of MTBE contaminated ground water. The Sixth International Symposium on In-Situ and On-Site Bioremediation, San Diego, CA, June 4 – 7.

Oh, K. C. and W. T. Stringfellow. 2001. Treatment of MTBE in a Fluidized bed bioreactor using *iso*-pentane as a co-substrate. The Sixth International Symposium on In-Situ and On-Site Bioremediation, San Diego, CA, June 4 – 7.

Rychel, E. H., K. S. Ju, and W. T. Stringfellow. 2001. Evaluating MTBE degradation by alkane-oxidizing cultures. 101st Annual Meeting of the American Society for Microbiology, Orlando, FL, May 20 - 24.

Stringfellow, W. T., S. Smriga, K. C. Oh, and T. Letain. 2001. Evaluating novel alkane-oxidizing bacteria for the biological up-grading of crude oil. 101st Annual Meeting of the American Society for Microbiology, Orlando, FL, May 20 - 24.

Stringfellow, W. T., S. Smriga, K. C. Oh, and T. Letain. 2001. Evaluation of metabolic diversity among potential bacterial catalysts. 23rd Symposium on Biotechnology for Fuels and Chemicals, Breckenridge, CO, May 6 – 9.

Stringfellow, W. T. 2001. Evaluation of bacterial biocatalysts for terminal alkane oxidation. 221st American Chemical Society National Meeting, San Diego, CA, April 1 – 5.

Oh, K. –C., C. Don, and W. T. Stringfellow. 2001. Enhanced Treatment of MTBE using iso-pentane as a co-substrate in an up-flow fluidized bed bioreactor. Eleventh Annual West Coast Conference on Contaminated Soils and Water. Mission Valley, San Diego, CA. March 19 – 22.

Stringfellow, W. T., R. D. Hines, and S. T. Kilkenny. 2000. Factors influencing biological treatment of MTBE in fixed film reactors. Second International Conference on Remediation of Chlorinated and Recalcitrant Compounds, Monterey, CA. May 22 – 25.

Stringfellow, W. T. and E. H. Rychel. 2000. Assay of MTBE biodegradation potential in subsurface soils. 100th Annual Meeting of the American Society for Microbiology, Los Angeles, CA, May 21 - 25.

Stringfellow, W. T., R. D. Hines, and S. T. Kilkenny. 2000. Applying co-metabolic biological reactions for the ex-situ treatment of MTBE contaminated ground water. American Chemical Society National Meeting, San Francisco, CA March 26 – 30.

Stringfellow, W. T. 2000. (Invited presentation). Using *iso*-pentane to stimulate MTBE biodegradation in ground water treatment systems. United States Environmental Protection Agency MTBE Biodegradation Workshop. Cincinnati, OH. February 1 – 3.

Stringfellow, W. T. and G. M. Castro. 1999. Using bacterial metabolite production to monitor the natural attenuation of PAHs in contaminated soils. Fifteenth Annual Conference on Contaminated Soils & Water, Amherst, MA. Oct. 18-21.

Conrad, M. E., W. T. Stringfellow, and G. M. Lamble, 1999, Uptake and precipitation of metals from basalt by the lichen *Stereocaulon volcanii*: Geol. Soc. Am., Abst. with Prog. 31, no. 7, A393.

Stringfellow, W. T. and F. N. Syed. 1999. Measurement of MTBE and MTBE biodegradation products using automated solid phase microextraction. American Chemical Society Western Regional Meeting, Ontario, CA. Oct. 6 – 8.

Hakem, N. , I. AlMahamid, and W. T. Stringfellow. 1999. Plutonium behavior in the environment. American Chemical Society National Meeting, Anaheim, CA, March.

Kerr, J. B., F. Rabbi, W. T. Stringfellow, R. Lagemann, and R. Clarke. 1998. Electrokinetic acceleration of bioremediation of metal ion and organic pollutants in soil. American Chemical Society National Meeting, Boston, MA, August.

Stringfellow, W. T., I. AlMahamid, N. Hakem, and J. Hunter-Ceverra. 1998. Biosorption of plutonium by bacteria growing on components of mixed wastes. 98th Annual Meeting of the American Society for Microbiology, Atlanta, GA, May 17 - 21.

Stringfellow, W. T. 1998. Biodegradation of methyl *tert*-butyl ether by microorganisms found in a groundwater treatment system. 98th Annual Meeting of the American Society for Microbiology, Atlanta, GA, May 17 - 21.

AlMahamid, I., N. Hakem, W. T. Stringfellow, and J. Hunter-Ceverra. 1997. Effect of biosorption on actinide migration in the subsurface. Migration '97, Sendai, Japan, October 26 - 31.

Stringfellow, W. T. and M. D. Aitken. 1994. Competition between polynuclear aromatic hydrocarbon substrates as evidence of co-metabolism in pseudomonads. 93rd Annual Meeting of the American Society for Microbiology, Las Vegas, NV, May 23 - 27.

Nagel, R. D., W. T. Stringfellow, and M. D. Aitken. 1994. Characteristics of phenanthrene degrading bacteria isolated form various PAH contaminated soils. 93rd Annual Meeting of the American Society for Microbiology, Las Vegas, NV, May 23 - 27.

Stringfellow, W. T. and M. D. Aitken. 1993. Comparative physiology of phenanthrene degrading pseudomonads isolated from a creosote contaminated soil. 92nd Annual Meeting of the American Society for Microbiology, Atlanta, GA, May 16 - 20.

Stringfellow, W. T., K. Mallon, and F. A. DiGiano. 1991. Enumeration and disinfection of bacteria associated with particles released from GAC filter adsorbers. Annual Conference of the American Water Works Association, Philadelphia, PA, June 23 - 27, p. 757 - 777.

Aitken, M. D. and W. T. Stringfellow. 1992. Mechanisms of pollutant transformation by microorganisms. Am. Institute of Chem. Engineers Summer National Meeting, Minneapolis, MN, August.

DiGiano, F. A., K. Mallon, W. T. Stringfellow, N. Cobb, and J. Thompson. 1990. Potential for release of carbon fines and bacteria from filter adsorbers. Annual Conference of the American Water Works Association, Cincinnati, OH, June 17 - 21, Part 1, p. 129 - 152.

Stringfellow, W. T. and J. R. Pratt. 1988. Inhibition of algal growth by pigmented *Pseudomonas*. 88th Annual Meeting of the American Society for Microbiology, Miami Beach, FL, May 8 - 13.

Stringfellow, W. T. 1987. Biodegradation of a phenoxyacetate wastewater in laboratory and full scale batch treatment. 87th Annual Meeting of the American Society for Microbiology, Atlanta, GA, March 2 - 6.

Stringfellow, W. T., A. L. Kopecky and L. T. Davis. 1986. Treatment of a high strength cyanide/sulfide waste stream using commercially available bacterial cultures. 86th Annual Meeting of the American Society for Microbiology, Washington, D.C. 3 - 7 March.

Stringfellow, W. T. and S. G. Hornor. 1984. The effect of phenol dosage on parameters of microbial activity in sediments. 84th Annual Meeting of the American Society for Microbiology, St. Louis, MO, March 4 - 9.

Stringfellow, W. T. and S. G. Hornor. 1983. The impact on phenol on microbial decomposition of organic carbon and phosphatase enzyme activity in freshwater sediments. 4th Annual Meeting of the Society for Environmental Toxicology and Chemistry Arlington, VA, November 6 - 9.

Grants

Lead Scientist and Principal Investigator for "San Joaquin River Dissolved Oxygen Total Maximum Daily Load Project (SJR DO TMDL Project)" California Department of Fish and Game Ecosystem Restoration Program. $2,992,933. 10/09 – 7/11.

Principal Investigator for "Water Quality Survey in Support of the Vernalis Adaptive Management Plan (VAMP)." San Joaquin River Group Authority, Sacramento, CA. $70,000. 4/08 – 10/08.

Lead Scientist and Principal Investigator for "Fiscalini Farms Renewable Energy Power Generation Project." US Department of Energy Industrial Technologies Program, National Energy Technology Program. $779,300. 8/09 – 7/11.

Principal Investigator for "Water Quality Survey in Support of the Vernalis Adaptive Management Plan (VAMP)." San Joaquin River Group Authority, Sacramento, CA. $70,000. 4/08 – 10/08.

Principal Investigator for "Assessment of Riparian Wetlands as Buffer Zones for Water Quality in the San Joaquin River." California Department of Water Resources Watershed Grant Program, Sacramento, CA. $399,980. 6/06 – 6/09.

Lead Scientist and Principal Investigator for "Agricultural Discharge Management Program Monitoring and Evaluation – West Stanislaus County." State Water Resources Control Board 2003 Consolidated Grants Program, Sacramento, CA. $1,400,000. 8/05 – 7/08.

Principal Investigator for "Evaluating the Drinking Water Impact of Wetland Derived Organic Carbon." State Water Resources Control Board 2003 Consolidated Grants Program, Sacramento, CA. $465,750. 7/05 – 5/08.

Chief Principal Investigator for "CALFED Directed Action Proposal For Monitoring and Investigation of the San Joaquin River and Tributaries Related to Dissolved Oxygen." CALFED Ecosystem Restoration Program, Sacramento, CA. $6,886,960. 10/04 –7/08.

Principal Investigator for "San Luis Drain Algal and TOC Control Project." CALFED Drinking Water Quality Program, Sacramento, CA. $145,680. 5/04 – 3/06.

Principal Investigator for "Biocatalytic Alkane Transformation for Viscosity Reduction." Natural Gas & Oil Technology Partnership, Downstream Environmental Technology Program, Department of Energy. $300,000. 03/02 - 03/05.

Principal Investigator for "Discriminating Between Westside Sources of Nutrients and Organic Carbon Contributing to Algal Growth and Oxygen Demand in the San Joaquin River." CALFED Bay-Delta Program, Sacramento, CA. $176,411. 6/01 – 6/02.

Principal Investigator for "Biodegradation of Tritiated Organic Mixed Waste." Office of Science and Technology, EM50-Mixed Waste Focus Area, Department of Energy. $240,000. 3/01 – 3/03

Principal Investigator for "Biodegradation of Organic Chemicals in the HPLC Mixed Waste Stream." Environmental Health and Safety Division, Lawrence Berkeley National Laboratory, Department of Energy. $95,000. 10/00 – 10/01

Principal Investigator for "Fundamental Investigation of Methyl *tert*-Butyl Ether Biodegradation." Kinder Morgan Energy Partners, Orange, CA. $271,656. 12/98 - 12/00.

Principal Investigator for "Biological Upgrading of Heavy Oils for Viscosity Reduction." Natural Gas & Oil Technology Partnership, Downstream Environmental Technology Program, Department. of Energy. $535,000. 11/98 - 11/01.

Principle Investigator for "Investigation of the Aerobic Biodegradation of Methyl *tert*-Butyl Ether." Vista Canyon Group, Orange, CA. $112,980. 1/98 - 1/01.

Principle Investigator for "Development of Mixed Waste Bioremediation: Biodegradation of Complexing Agent, Ketone, and Heavy Metal Mixtures." Laboratory Directed Research and Development Program, Department. of Energy. $415,000. 10/96 - 9/99.

Co-author of proposal "Biological Transformations of Polynuclear Aromatic Hydrocarbons." Chevron Research and Technology Company, Richmond, CA. $120,000. 6/94 - 12/96.

Co-author of proposal "Role of Biosurfactants in the Biodegradation of Hydrophobic Pollutants by Indigenous Microorganisms in Soil." United States Geological Survey and Univ. of North Carolina Water Resources Research Institute. $348,631. 8/91 - 1/95.

Industrial & Municipal Waste Treatment Consulting Experience Summary

Company	Problem area
Allied Chemicals, KY	COD, oil & grease
Applied Process Technology, CA	Post-oxidation biotreatment
Aquenymco, Cormano, Italy	Nitrification
Armco Steel Corp., KY	Cyanides, sulfides, ammonia
Bethlehem Steel Corp., PA	Sulfide, phenol, cyanide, ammonia
Cambrai Municipal Plant, France	Bulking, grease, food industry wastes
Caudry Municipal Plant, France	Slaughterhouse wastes, settling
Chevron Corporation, CA	MTBE contaminated ground water
City of Charlotte Utilities Authority, NC	Odor control in collection systems
Como Municipal Treatment Works, Italy	Textile wastes, nitrification
Company General d'Eau, Bourdon, France	Grease treatment
Cytoculture, CA	MTBE contaminated ground water
Department of the Haught Sine, France	BOD, grease in collection system
Erving Paper Co., MA	BOD and COD removal
Gamlen Industries, S. A., France	Technical sales staff training
Goodyear Chemicals, Le Havre, France	Phenols, nitrification, start-up
Industria Acqua Siracusana, Sicily	Mixed industrial, refinery, and municipal wastes
La Station de Villeneuve-Tolosane, France	Bulking sludge
La Station Muret, France	Slaughterhouse waste, fecal coliforms
Lyonnaise des Eaux, Le Pecq, France	Sludge reduction, aerobic digestion
Menominee Wastewater Plant, MI	COD removal
Niagara County Sanitation District, NY	Pharmaceutical waste
Salisbury County Sanitation District, MD	BOD, odor control
Scientific Hatcheries, CA	MTBE contaminated ground water
Secor International, Inc., CA	MTBE contaminated ground water
SFDE Arnouville Les Gonesse, France	Grease trap waste treatment
Texaco Refining, MD	Nitrification
Worcester County Sanitation District, MD	Odor control, aerobic sludge digestion

List of Graduate Students and Projects

Graduate Students	University	Dates	Project
Ekrem Karpuzcu Ph.D. Environmental Engineering	University of California, Berkeley	June. 1, 2006 to Present	Wetland organic carbon processing
Mathew Rogers Ph.D. Environmental Engineering	University of California, Berkeley	Aug. 14, 2003 to Present	Impact of agricultural BMPs on pesticide runoff control
Samantha Engelage Masters Environmental Engineering	University of California, Berkeley	June. 1, 2006 to Aug. 14, 2007	Factors limiting algal growth rates in agriculturally impacted rivers
Natasha Sokolovskaya Masters Environmental Engineering	University of California, Berkeley	Sept. 15, 2004 to June 23, 2006	Biokinetics of algal growth in rivers impacted by agricultural non-point source pollution
Antoine Richard Masters Mechanical Engineering	National Engineering School of St. Etienne, France	June 22, 2004 to Aug. 5, 2004	Use of automated sensors to measure light penetration and toxicity in agricultural drainage
Tatsu Komada Masters Environmental Engineering	University of California, Berkeley	Oct. 1, 2001 to June 30, 2003	Biological treatment of tritiated mixed wastes
Erin Rychel Masters Environmental Engineering	University of California, Berkeley	Sept. 14, 1999 to Feb. 23, 2001	Biodegradation and biotreatment of MTBE

List of Undergraduate Students and Projects

Undergraduate Students	University	Dates	Project
Jolene Mattson Sophmore Chemistry	Laney College Oakland, CA	June 15, 2007 to June 6, 2008	Phosphate desorption from wetland sediments
Richard Hunt Senior Environmental Sciences	University of California, Berkeley	Nov. 21, 2005 to Present	Effect of Triclocarban and Triclosan on the growth of *Scenedesmus obliquus*.
Ana Fernandez Senior Chemical Engineering	University of Florida, Gainesville, FL	June 7, 2004 to Aug. 13, 2004	Characterization of microbial communities in bioreactors using DNA microarray technology.
Kathleen Hutchison Junior Chemistry	University of Rochester, Rochester, NY	June 7, 2004 to Aug. 13, 2004	Characterization of nutrient and algal biomass sources in agricultural drains
Susan Repon Junior Biology	University of Washington, Seattle, WA	June 7, 2004 to Aug. 13, 2004	Relationship between chlorophyll concentration and algal biomass as a function of growth rate
Eric Amaro Sophomore Life Sciences	Miami College, Miami, FL	June 9, 2003 to Aug. 15, 2003	Biokinetics of algal growth in agricultural drainage
Oliver Paradis Junior Biology	Laney College, Oakland, CA	June 8, 2002 to Aug. 14, 2002	Wetland drainage as a source of organic carbon to the San Joaquin River
Deepak Malhorta Sophomore Chemistry	Laney College, Oakland, CA	June 8, 2002 to Aug. 14, 2002	Bacterial metabolism of MTBE in the presence of competing substrates
Nick Kordesch Senior Environmental Sciences	University of California, Berkeley, CA	Oct. 23, 2001 to present	Biological treatment of MTBE and TBA in fluidized-bed bioreactors
Jeremy Hanlon Senior Molecular & Cell Biology	University of California, Berkeley, CA	Apr. 7, 2000 to Dec. 6, 2001	Influence of wetland and agricultural return flows on water quality in the Central Valley, CA

Undergraduate Students	University	Dates	Project
Kou-San Ju Senior Environmental Sciences	University of California, Berkeley, CA	Aug. 16, 2000 to Dec. 6, 2001	Biokinetics of MTBE degradation by alkane degrading bacteria
Angela Proctor Junior Biology	Southern Utah University	Jan. 10, 2001 to May 11, 2001	Biodegradation of acetonitrile and methanol as components of tritiated mixed wastes
Steven Smirga Senior Microbiology	University of Madison, Wisconsin	Jan. 10, 2001 to Aug. 23, 2001	Metabolic diversity among alkane degrading bacteria
Nicole Portley Sophomore Biochemistry	Boston College	June 3, 2000 to Sept. 7, 2000	Isolation and characterization of alkane degrading bacteria
Junior Biochemistry	McGill University, Montreal	June 6, 2001 to Sept. 10, 2001	Metabolic diversity among alkane degrading bacteria
Ruscena Wiederholt Sophomore Biology	University of California, Berkeley	June 5, 2000 to May 11, 2001	Isolation and characterization of alkane degrading bacteria
Juan Rodriguez Senior Natural Sciences	Universidad del Turabo, Gurabo, Puerto Rico	June 5, 2000 to Aug. 31, 2000	Using bacterial metabolite production to monitor the natural attenuation of PAH in soils
Andre Adams Senior Chemistry	Grambling State, Louisiana	Aug. 18, 1999 to Dec. 18, 1999	Analysis of MTBE by microfiber solid phase extraction
Samir Davila-Lopez Senior Chemistry	University of Puerto Rico, Cayey	June 5, 1999 to Aug. 23, 1999	Using bacterial metabolite production to monitor the natural attenuation of PAH in soils
Fareeha Syed Senior Chemistry	University of California, Berkeley	June 5, 1999 to Aug. 23, 1999	Analysis of MTBE by microfiber solid phase extraction
Stephanie Cheng Sophomore Chemical Engineering	Massachusetts Institute of Technology	June 8, 1998 to Aug. 14, 1998	MTBE biodegradation kinetics

Undergraduate Students	University	Dates	Project
Sherry Lee Junior Biology	University of California, Berkeley	Sept. 1, 1997 to Oct., 30, 1998	Biological treatment of REDOX plutonium processing wastes
Joyce Bautista Sophomore Integrative Biology	University of California, Berkeley	June 9, 1997 to Aug. 15, 1997	Toxicity of metal chelates found in mixed wastes to ketone degrading bacteria