

Lorien J. Fono

Education

PhD Environmental Engineering, University of California, Berkeley, 2006

MS Environmental Engineering, University of California, Berkeley, 2001

BS Chemistry, University of Toronto, Canada, 1996

Licenses

Engineer-in-Training, California

Professional Affiliations

National Groundwater Association

Water Environment Federation

California Water Environment Association

Dr. Fono joined Carollo in 2006. Her previous experience includes wastewater treatment planning, research in the occurrence fate and transport of emerging wastewater-derived contaminants as well as other water and air quality issues, and policy and communication regarding issues surrounding emerging wastewater-derived contaminants.

- Assisted in preparing the Viable Project Alternatives screening reports as part of the Los Osos Wastewater Development Project for San Luis Obispo County, California.
- Assisted in preparing the “Final List of Contaminants of Concern” and the “Comprehensive Evaluation” for Best Practicable Treatment or Control as part of the the Fresno-Clovis Regional Water Reclamation Facility Master Plan Update prepared for the City of Fresno, California.
- Studied the occurrence, fate and transport of emerging wastewater-derived contaminants in surface waters, resulting in Doctoral Dissertation entitled “The Use of Chemical Tracers to Assess the Impact of Unintentional Water Reuse.” Engaged in field and wastewater treatment facility sampling, processing samples and performing instrumental analyses to detect pharmaceuticals and other wastewater-derived contaminants in wastewater and surface waters. Collaborated on large projects with other research groups, consulting firms and utilities and coordinated data from these groups for report. Wrote proposals to obtain funding and wrote progress reports to funding agencies.
- Wrote regulatory chapter exploring permitting issues for the Castle Airport Wastewater Treatment Plant Feasibility Study in Merced County, California.
- Doctoral dissertation examined emerging contaminants from wastewater in the environment.
- Contributing engineer who helped create Carollo Engineers’ proprietary software to estimate removal of emerging contaminants in wastewater treatment processes.
- Contributor to Water Environment Federation literature reviews and white papers about chemicals of potential concern.
- Undergraduate researcher at Environmental Chemistry Laboratory University of Toronto, Canada. Investigated biodegradation of halogenated pollutants.
- Undergraduate researcher in Atmospheric Chemistry Laboratory University of Toronto, Canada. Investigated ultraviolet spectrum of pernitric acid as a contributor to urban smog.
- Undergraduate researcher in Organic Chemistry Laboratory University of Toronto, Canada. Synthesized starting materials for resident post-doctoral fellow’s organometallics project.
- Graduate student instructor for Introductory Chemistry and Introduction to Environmental Engineering classes at the University of California at Berkeley, California.
- Supervised undergraduate researchers in the Department of Civil and Environmental Engineering, University of California at Berkeley, California.
- Instructed students in remedial and enrichment programs at Sylvan Learning Centers, Toronto, Canada, grades 1-13, all subjects.
- Contributed to Health/Environment Canada workshop to advise policymakers about monitoring and regulating pharmaceuticals and personal care products in the environment: “Assessment and Management of Pharmaceuticals and Personal Care Products in the Canadian Environment,” Niagara-on-the-Lake, Canada.

Publications/Presentations

Fono, L.J., E.P. Kolodziej, and D.L. Sedlak. 2006. The Attenuation of Wastewater-Derived Contaminants in an Effluent-Dominated River. *Environmental Science & Technology* 40(23):7257-7262.

Fono, L.J., D.L. Sedlak, B. Brooks, K. Chambliss, M. Mattaleb, A. Ramirez, B. Jordan. 2006. Attenuation of Wastewater-Derived Contaminants in an Effluent-Dominated River. Paper presented at the National Groundwater Association 5th International Conference on Pharmaceuticals and Endocrine Disrupting Compounds in Water. Costa Mesa, CA, March 13-15.

Fono, L.J., and D.L. Sedlak. 2005. Use of the Chiral Pharmaceutical Propranolol to Identify Sewage Discharges into Surface Waters. *Environmental Science & Technology* 39(23):9244-9252.

Fono, L.J., and D.L. Sedlak. 2005. Wastewater-Derived Contaminants as Tracers of Raw Sewage in Surface Waters. Paper presented at the American Chemical Society National meeting. Washington D.C., August 28-September 1.

Fono, L.J., and D.L. Sedlak. 2005. Wastewater-Derived Chemical Contaminants as Tracers of Raw Sewage in Surface Waters. Paper presented at the Northern California Society for Environmental Science and Technology Annual Meeting. Berkeley, CA, May 3-4.

Fono, L.J., and D.L. Sedlak. 2005. Wastewater-Derived Chemical Contaminants as Tracers of Raw Sewage in Surface Waters. Paper presented at the California Water Environment Association Student Night, Oakland, CA.

Fono, L.J., and D.L. Sedlak. 2004. The Use of a Chiral Pharmaceutical as a Tracer of Wet-Weather Discharges of Wastewater-Derived Contaminants in to Surface Waters. Poster presented at the Gordon Research Conference, Environmental Sciences: Water. Plymouth, NH, June 27-July 2.

Fono, L.J., and D.L. Sedlak. 2002. Removal of Chiral Pharmaceuticals in Engineered Wetlands. Poster presented at the Society for Environmental Science and Technology 23rd Annual Meeting. Salt Lake City, UT, November 16-20.

Fono, L.J., D.J. Donaldson, R.J. Proos, et al. 1999. OH Overtone Spectra and Intensities of Pernitric Acid. *Chemical Physics Letters* 311(3-4):131-138.