

LAURA M. FULTON
*Environmental
Consultant*

AREAS OF SPECIALIZATION

- Air Quality Services
- Air Permitting
- AutoCAD
- CEQA-Air element
- Emission Inventories
- GHG Inventories
- OFFROAD, EMFAC
- Air and Water Contaminant Modeling
- AERMOD, SCREEN3, ISC-ST3
- Water Resources
- Water Treatment
- Wastewater Treatment
- Groundwater and Soil Remediation
- Pollution Prevention
- Zero Waste
- Hydraulic Profiling
- Surfer
- Laboratory Analysis
- Human Health Risk Assessment
- Hazardous and Solid Waste Compliance & Permitting
- Environmental Site Investigation

EDUCATION

M.S., Civil and Environmental Engineering, California Polytechnic State University, San Luis Obispo

B.S., Environmental Engineering, California Polytechnic State University, San Luis Obispo

AFFILIATIONS

Air & Waste Management Association

Ms. Fulton is an experienced air quality consultant and engineer. Her recent project experiences and graduate school training have prepared her for some of the most demanding computation, research, and modeling tasks that can be assigned during execution of an air consulting contract.

Ms. Fulton was part of Cal Poly's Zero Waste Initiative, which sought to increase recycling and composting on campus. She worked with Campus Dining to implement compostable packaging and increase composting of both pre- and post-consumer food waste.

Ms. Fulton assisted professors and fellow graduate students in advancing their research by performing wetland soil and water sampling, invertebrate surveying, and high rate pond construction. While performing her thesis research, Ms. Fulton engaged in extensive laboratory work, and coordinated the proper disposal of all the hazardous waste generated in the labs in which she worked.

EXAMPLES OF DIRECTLY RELATED AIR AND ENVIRONMENTAL PROJECTS

Air Quality Emission Calculations and Mitigation Support for an Electric Power Line Project - Sunrise Powerlink Project, San Diego Gas & Electric. Ms. Fulton performed complex detailed research for emission factors for a long list of onroad and offroad vehicles to update GHG and criteria pollutant emissions estimates for a large utility project in Southern California. This included large, medium, and small helicopters, non-conventional construction vehicles, and updated emission factors for offroad engines being upgraded or retrofitted for the project. Ms. Fulton easily modeled the update to better reflect specifics of the project as planned, allowing for significant reduction in EIR/EIS calculated emissions. This detailed work provided documented, defensible, and accurate estimates of the project emissions, putting the client in a position to better negotiate project emission offsets and mitigation measures.

Ms. Fulton is currently in the process of determining emissions from all onroad and offroad equipment involved with construction of the Sunrise Powerlink Project. This includes helicopters, non-conventional construction vehicles, delivery vehicles, and offroad engines being upgraded or retrofitted for the project. ZMassociates will work with contractors to determine emissions compliance, and will submit quarterly reports to the CPUC and the BLM. The Sunrise Powerlink Project is expected to cost \$1.8billion, and will take approximately 18 months to construct.

Hazardous Waste Part B Renewal Application Preparation

For the Lawrence Livermore National Laboratory, Ms. Fulton played a pivotal role in researching and compiling all the specific DTSC requirements to prepare and certify completeness of this large and complex permit application. This application included air quality control device documentation, calculations, and BACT compliance review.

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Human Health Risk Assessment

For Lawrence Livermore National Laboratory, Ms. Fulton is preparing a comprehensive human health risk assessment, following U.S. EPA and California OEHHA guidance and policy. The risk assessment covers the historic operations of the laboratory and focuses on operations of the hazardous waste storage and treatment facilities, which manages upwards of 540 chemical compounds.

Multi-media Environmental Compliance Audit Support

Ms. Fulton was involved in an environmental audit using Dakota software auditing tools to document the environmental compliance status of a Southern California refinery. The product of this work was reported directly to the EPA Region 9 enforcement group.

Air Permitting in Southern California

Ms. Fulton has participated in SCAQMD and BAAQMD air permitting of various new equipment, and permit modifications due to operational and/or rule changes.

Groundwater Monitoring

For Santa Maria Refining Company's groundwater monitoring program, Ms. Fulton collects quarterly groundwater samples for laboratory analysis. These results are reported to DTSC.

Wrongful Death Suit Investigation

For a confidential client, Ms. Fulton provided in-depth research on plaintiff claims, potential chemical exposures, routes of exposure, risk analysis, modeling, and a summary report.

PUBLICATIONS/PRESENTATIONS

Lundquist, T., Woertz, I., Fulton, L., Hutton, M. (2010). *Algal Wastewater Treatment with Biofuel Production*. World Aquaculture Society, Aquaculture 2010. March 3, 2010, San Diego, California.

Fulton, L. (2009). *Nutrient Removal by Algae Grown in CO₂-Enriched Wastewater over a Range of Nitrogen:Phosphorus Ratios*, Master's thesis, Civil and Environmental Engineering Department, California Polytechnic State University, San Luis Obispo.

Woertz, I., Fulton, L., Lundquist, T. (2009). *Nutrient Removal & Greenhouse Gas Abatement with CO₂ Supplemented Algal High Rate Ponds*. Water Environment Federation's Annual Technical Exhibition and Conference 2009. October 19, 2009, Orlando, Florida.

EMPLOYMENT HISTORY

2008-Present: ZMassociates, Inc., Environmental Consultant