

ERIN K. POLLARD
Atmospheric Modeler



Educational Background

M.S., Geosciences, University of Nebraska
B.S., Soil and Atmospheric Sciences, University of Missouri

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Professional Experience

Mrs. Pollard joined STI's Emissions Assessment Group in 2006. Her primary responsibilities include emissions inventory development and improvement, emissions data analysis, and emissions modeling. Mrs. Pollard's contributions to emissions inventory improvements have included performing a comparison between ambient monitoring data and gridded emissions estimates in the San Joaquin Valley and assessing the methods used to develop area source emissions inventories for the Central Regional Air Planning Association (CENRAP). Mrs. Pollard has also contributed to the development of an ammonia inventory for the San Francisco Bay Area and emissions inputs for an ozone modeling study in the southwestern United States. For the latter project, she developed new source code to model the vertical distribution of wildfire emissions.

In addition, Mrs. Pollard has extensive experience applying GIS technology to air quality issues. She has used GIS tools to analyze and quality-assure emissions-related data and to develop spatial surrogates for the spatial allocation of county-level emissions estimates. Recently, Mrs. Pollard updated the spatial surrogate data used for ozone modeling in central California and for air toxics modeling in the San Francisco Bay Area. She is also an experienced user of a range software programs including the Microsoft Office suite, the Sparse Matrix Operator Kernel Emissions Modeling System (SMOKE), the BlueSky Smoke Modeling Framework, and SYSTAT.

Before joining STI, Mrs. Pollard worked as a teaching assistant at the University of Nebraska, Lincoln. She taught the laboratory session for a physical meteorology class in which students completed assignments that combined their understanding of meteorological processes and FORTRAN source code. In addition, she taught a laboratory section for the introductory meteorology class, which introduced students to paper and electronic meteorological data visualization/analysis tools. As part of her master's research at the University of Nebraska, Mrs. Pollard investigated cumulus parameterization schemes in the Weather Research and Forecasting (WRF) model and how they represent idealized and real-time simulations of supercells. Through her research, Mrs. Pollard gained knowledge of a wide range of software programs and specific graphic languages such as NCL, Grads, and GEMPAK.

Memberships

American Meteorological Society
American Geophysical Union