

PROFESSIONAL EXPERIENCE

2003 - Present: **Assistant Professor, Civil Engineering, University of Texas at Arlington**

- Teach Fundamentals of Air Pollution, Air Pollution Chemistry & Meteorology, Air Pollution Control System Design, Air Quality Modeling, and Transportation & Air Quality
- Conduct research in the areas of emissions measurement, air quality modeling, and air pollution control technologies. Currently supervise students conducting field measurement of on-road emissions, as well as lab research concerning adsorption, photocatalytic oxidation, and biofiltration of air pollutants.

1998 - 2002: **Adjunct Faculty Member, Civil Engineering, University of Texas at Arlington.** Taught Air Pollution Control.

2001 – 2003: **Engineer/Scientist, Alan Plummer Associates, Inc.**

- Primary responsibilities included odor/air quality emission sampling and dispersion modeling. Sample projects included:
 - Odor Modeling and Control Evaluation, Trinity River Authority Central Wastewater Treatment Facility
 - Texas Christian University Chemistry Lab Dispersion Modeling
 - PVI Industries Emissions Inventory
 - Air Quality Regulatory Assistance - permitting electric turbines and an electric generating facility, and emissions banking/trading

1997 - 2001: **Environmental Planner, Environmental Resources Dept., North Central Texas Council of Governments**

- Responsibilities concerning air quality, flood damage reduction, and stormwater management. Sample assignments included:
 - Dallas/Fort Worth Clean Air Plan (State Implementation Plan) development. Recommended Voluntary Mobile Emission Reduction Program measures. Researched information about technologies for reducing nitrogen oxide emissions from heavy-duty diesel non-road vehicles. Conducted an inventory of nitrogen oxide emissions from construction equipment operating at landfills.
 - Dallas/Fort Worth Regional Emissions Inventory. Under contract to the Texas Natural Resource Conservation Commission, served as Project Coordinator and Project Manager for the Periodic and Episodic Inventories, respectively, of construction equipment, recreational marine vehicles, refueling stations, and lawn mowers for a 37-county area in North Central Texas.
 - Texas Community Development Program. Managed TCDP for North Central Texas, which annually awarded over \$4 million for water/wastewater system improvements in small communities.
 - Trinity River Floodplain Management. Managed the Corridor Development Certificate process, which ensures that development in the

Trinity River 100-year floodplain meets hydraulic criteria to avoid exacerbating flooding. Provided staff support for the Trinity River Common Vision Multiple Objective Management Program.

- Storm Water Management. Provided assistance to North Central Texas cities in reducing storm water pollution from new development under the National Pollutant Discharge Elimination System (NPDES). Wrote “Green Growth,” a guide for cities to design development that is storm water friendly.

1996 - 1997: **Environmental Intern, North Central Texas Council of Governments**

1990 - 1996: **Teaching Assistant and Research Assistant, Environmental and Water Resources Engineering Department, University of Texas at Austin**