Hilary R. Hafner

Principal Scientist
Quality Assurance Manager

At Sonoma Technology since 1989, Ms. Hafner is a Principal Scientist and Quality Assurance (QA) Manager. She served as the company's Chief Operating Officer from 2018-2024. Her technical responsibilities include supporting and overseeing data analysis and field projects to meet clients' objectives and needs. She serves as Principal Investigator, Senior Advisor, or Project Manager on projects involving monitoring air quality and meteorology in support of facility permits, testing and deployment of low-cost sensors, developing QA project plans, and providing community monitoring guidance on sensor use. Her research interests include air quality data validation, data analysis, data visualization, and training covering hydrocarbons (from programs such as the Photochemical Assessment Monitoring Stations [PAMS]), hazardous air pollutants (HAPs), and criteria pollutants.

U.S. EPA Support. Ms. Hafner has been Principal Investigator on more than 30 U.S. Environmental Protection Agency (EPA) support contract work orders, including national analysis of HAPs; air quality instrument standard operating procedure development; guidance document development; tool development to facilitate exceptional events demonstrations; and air quality monitoring network assessments.

Education

- MS, Chemical Engineering, University of California, Los Angeles
- BS, Chemical Engineering, Oregon State University

For a list of publications, see **sonomatech.com/ResPub/HRHpub.pdf**.

Guidance Documents and Training. Ms. Hafner has led several projects to develop guidance documents on air quality topics including operational data review, near-roadway air pollutant monitoring, air quality data validation and analysis, monitoring network assessments, preparing buildings for smoke impacts from wildfires, and best practices for developers and users of low-cost sensors.

Ms. Hafner is actively involved in training other air quality professionals in data validation, analysis, and interpretation. She is also involved in outreach work with low-cost air quality sensors, including developing a Sensor Guidebook and videos to aid communities seeking to better understand local air quality. She had a principal role in planning, developing, and presenting training workshops for EPA and state air agencies, including (1) planning a successful HAPs monitoring project, (2) HAPs data analysis, (3) PAMS and $PM_{2.5}$ data analysis, (4) monitoring network assessment techniques, and (5) criteria pollutant, PAMS, and HAPs data validation. Ms. Hafner has also co-conducted HAPs emissions inventory development, source apportionment, and statistical software training.

Data Analysis. Ms. Hafner has played a major role in numerous topical projects, including demonstrating exceptional events for PM_{10}, $PM_{2.5}$, and ozone, and assisting Jiangsu Province, China in developing an air quality management plan for $PM_{2.5}$ for the U.S. Trade Development Association's Feasibility Study for the China Air Quality Management Program. She has led projects that involve developing, managing, and validating air quality data sets; integrating air quality and meteorology; and documenting and presenting analysis results. Ms. Hafner also leads efforts to communicate complex technical problems to broad audiences.

Expert Participation. Ms. Hafner was selected to participate in a team of experts to inform the U.S. Government Accountability Office in a technology assessment of air quality sensors and policy options to help address implementation challenges. Policy options include enhancing sensor performance transparency, improving access to guidance, and clarifying the level of QA needed to spur action.

Prior to graduate school, Ms. Hafner was a research engineer with Chevron Research Company in the Engineering Research and Development Division's Environmental Group, performing emergency response modeling of sudden releases of hazardous chemicals and testing ground water clean-up methodologies.

Ms. Hafner is actively involved in U.S. Masters swimming.

1450 N. McDowell Blvd., Suite 200
Petaluma, CA 94954 • 707-665-9900