

Diane Achman

Senior Scientist



Education and Credentials

M.S., Environmental Engineering,
University of Minnesota,
Minneapolis, Minnesota, 1991

B.S., Chemistry, St. Cloud State
University, St. Cloud, Minnesota,
1988

Continuing Education and Training

Professional Certificate in
Renewable and Sustainable
Energy (RSE), University of
Colorado, Boulder, Colorado,
2018

Professional Profile

Ms. Diane Achman is an environmental scientist with 15 years of progressive experience in consulting and university research related to a diverse set of water contaminants. She has proven capabilities in planning and implementing QA/QC and data analysis using multiple tools, and she has demonstrated ownership of top-quality work products that meet internal and external client needs.

Ms. Achman possesses differentiating strengths in communicating complex concepts in technical writing and in-person presentations to audiences with varied technical background. She is skilled at building and maintaining professional relationships and highly adept at collaborating with a diverse set of team members and clients.

Relevant Experience

PCB Source and Fate Characterization

Lower Grasse River, New York—Managed the creation of a GIS database of existing field data on the Grasse River. Performed data analyses aimed at determining PCB sources to the river and the processes governing the fate and transport of PCBs throughout the study area. Compiled and analyzed laboratory data generated from semi-permeable membrane device (SPMD) experiments conducted independently, calculated uptake rates for individual PCB congeners, and applied those rates to field data collected from the Grasse River.

Upper Hudson River, New York—Responsible for updating and managing a GIS database for spatial analyses of PCB measurements. Performed data analyses aimed at determining PCB sources to the river and the processes governing the fate and transport of PCBs throughout the study area. Tasks included assisting in the contaminant modeling effort with model input development, graphical display of data, and analysis of PCB distributions and PCB fate mechanisms within the Upper Hudson River.

Lower Hudson River, New York—Designed, coordinated, and performed two SPMD field studies to determine spatial differences in PCB concentrations with decreasing proximity to the upper river PCB source. Performed extensive data analyses aimed at elucidating the fate of PCBs in the river.



Kalamazoo River, Michigan—Managed data analyses utilizing GIS to evaluate the contribution of PCBs from two paper facilities to the Kalamazoo River. Compiled and analyzed historical data.

Little Mississinewa River, Massachusetts—Managed historical data compilation and analyses utilizing GIS to evaluate the contribution of PCBs from a small motor manufacturing facility to the river. Determined PCB sources through the evaluation of congener-specific PCB patterns.

Former Waste Fuel Storage Facility, New Jersey—Reviewed and evaluated several expert reports and data sets to examine the spatial distribution and composition of PCBs in the soil and groundwater to determine PCB sources.

Water Quality Monitoring Programs

Hudson River, New York—Responsible for construction and maintenance of a database containing QA/QC data generated during PCB analysis of weekly water samples. Performed regular validation of the data to evaluate its usability and produce qualifiers for inclusion into the database. Identified problems in data quality and offered solutions so that data quality objectives could be met.

Hudson River, New York—Managed the development of a quality assurance project plan for a water column and fish sampling program to establish baseline conditions in advance of sediment remediation. Oversaw the development of an automated data validation system.

Modeling

North Sandy Pond, Oswego County, New York—Assisted in the development of a combined watershed/water quality model for North Sandy Pond, located off of Lake Ontario. This project included the implementation and customization of EPA's Better Assessment Science for Point and Non-point Sources Program (BASINS) to simulate the impact of nutrient loadings to the lake. Responsibilities included development of model parameters and loadings and application of the model to the study area.

Southern California Bight, California—Compiled and organized available DDT data in mussels of the Southern California Bight. Performed data analysis using GIS to facilitate spatial analyses to study sources and pathways by which DDE entered the bight.

Androscoggin River, Maine—Reviewed and critiqued a final total maximum daily load (TMDL) document issued by the State of Maine. This study involved the analysis of data to provide a paper manufacturing company with the information necessary to evaluate deficiencies in the TMDL document with regard to the data input into the model. It included the development of direct and rebuttal testimony.

Publications

Eisenreich, S.J., K.C. Hornbuckle, and D.R. Achman. 1997. Air-water exchange of semi-volatile organic chemicals (SOCs) in the Great Lakes. In: Atmospheric Deposition of Contaminants to the



Great Lakes and Coastal Water. Proceedings of the SETAC 15th Annual Meeting, October 30–September 3. J.E. Baker (ed). *Society for Environmental Toxicology and Chemistry*.

Achman, D.R., B.J. Brownawell, and L. Zhang. 1996. Exchange of polychlorinated biphenyls between sediment and water in the Hudson River estuary. *Estuaries* 19:950-965.

Cochran, J.K., C. Barnes, D.R. Achman, and D. Hirschberg. 1995. Thorium-234/uranium-238 disequilibrium as an indicator of scavenging rates and particulate organic carbon fluxes in the Northeast Water Polynya, Greenland. *J. Geophys. Res.* 100:4399-4410.

Achman, D.R., K.C. Hornbuckle, and S.J. Eisenreich. 1993. Volatilization of polychlorinated biphenyls from Green Bay, Lake Michigan. *Environ. Sci. Technol.* 27:75-87.

Hornbuckle, K.C., D.R. Achman, and S.J. Eisenreich. 1993. Over-water and over-land polychlorinated biphenyls in Green Bay, Lake Michigan. *Environ. Sci. Technol.* 27:87-98.

Presentations/Posters

Achman, D.R., J.P. Connolly, D. Glaser, and J.G. Haggard. 1999. Examination of PCB sources and fate in the Lower Hudson River using PCB congener spatial patterns. SETAC 20th Annual Meeting, Philadelphia, PA.

Achman, D.R., and B.J. Brownawell. 1993. Partitioning and transport of PCBs in the Hudson River Estuary. 12th Biennial International Estuarine Research Federation Conference, Hilton Head, SC.

Golden, K., S.J. Eisenreich, D.R. Achman, and D.L. Swackhamer. 1993. Accumulation and preliminary inventory of organochlorines and polycyclic aromatic hydrocarbons in Lake Michigan sediments. First International Specialized Conference on Contaminated Aquatic Sediments: Historical Records, Environmental Impact, Remediation, Milwaukee, WI.

Achman, D.R., K.C. Hornbuckle, and S.J. Eisenreich. 1992. Volatilization of PCBs in Green Bay, Lake Michigan. 204th Annual ACS National Meeting, Division of Environmental Chemistry, American Chemical Society, Washington, DC.

Hornbuckle, K.C., D.R. Achman, and S.J. Eisenreich. 1992. Over land and over water concentrations of PCBs in Green Bay, Lake Michigan. 204th Annual ACS National Meeting, Division of Environmental Chemistry, American Chemical Society, Washington, DC.

Achman, D.R., S.J. Eisenreich, and K.C. Hornbuckle. 1991. Volatilization of PCBs from Green Bay, Lake Michigan. 34th Conference of the International Association for Great Lakes Research, Buffalo, NY.

Hornbuckle, K.C., S.J. Eisenreich, R. Hoff and D.R. Achman. 1991. Atmospheric PCBs over Green Bay. 34th Conference of the International Association for Great Lakes Research, Buffalo, NY.



Achman, D.R., S.J. Eisenreich, and K.C. Hornbuckle. 1990. Partitioning of PCBs in Green Bay, Lake Michigan. 13th Annual Midwest Water Chemistry Workshop, Champagne, IL.

Eisenreich, S.J., D.R. Achman, and K.C. Hornbuckle. 1990. Potential Volatilization of PAHs and PCBs from Lake Superior and Green Bay, Lake Michigan. 33rd Conference of the International Association for Great Lakes Research, Windsor, Canada.

Eisenreich, S.J., D.R. Achman, K.C. Hornbuckle, and J.E. Baker. 1990. Volatilization of PCBs and PAHs from the Great Lakes. Second International Symposium on Gas Transfer at Water Surfaces, Minneapolis, MN.

Eisenreich, S.J., D.R. Achman, K.C. Hornbuckle, and J.E. Baker. 1990. Volatilization of PCBs from the Great Lakes. 1990. Proceedings from Air-Water Mass Transfer, Second International Symposium, Minneapolis, MN.

