David.Langseth@gradientcorp.com

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Areas of Expertise

- Contaminant Fate & Transport
- Surface & Groundwater Hydrology
- Water Quality Evaluation
- Site Remediation Strategy
- Environmental Liability Evaluation
- Cost Allocation

Education

- Sc.D., Civil Engineering, Massachusetts Institute of Technology
- S.M., Civil Engineering, Massachusetts Institute of Technology
- B.C.E., Civil Engineering, University of Minnesota
- B.A., Mathematics, University of Minnesota

David E. Langseth, Sc.D., PE, D. WRE

Advising Principal

Dr. Langseth is a registered professional engineer with 40 years of domestic and international experience in consulting and academic settings. He has led investigations, feasibility studies, risk assessments, and remedial actions at NPL and RCRA sites and for mergers and acquisitions. He has evaluated facilities such as chemical/petrochemical, mineral mining/processing, manufactured gas, and waste disposal. Dr. Langseth has dealt with a wide variety of contaminants, including mercury and other heavy metals, chlorinated solvents, pesticides, PCBs, dioxins, and hydrocarbons. He has also performed water supply planning and environmental impact studies. Dr. Langseth has provided expert support and testimony for litigation issues surrounding chemical fate and transport, groundwater supply and contamination, remediation programs, and water quality management. Additionally, he has supported cost allocations and performed numerous environmental audits and environmental management system assessments for major industrial corporations.

Selected Projects

Chemical Manufacturing Plant: Provided expert testimony related to the sources, transport, and fate of chemicals alleged to have caused property damage and personal injury.

Municipal Water Utility: Provided expert testimony in an interstate dispute over a major regional aquifer. Evaluated aquifer data, prior reports, flow directions and rates, and water budgets. Prepared a 3-D numerical flow model.

Mercury Processing Facility: Developed and successfully negotiated a site management strategy, evaluated contaminant fate and transport, and managed the investigation at a mercury processing facility on an estuary in New Jersey. Provided expert testimony.

Agricultural Chemicals Plant Decommissioning: Provided guidance, work plan review, and field oversight for the decommissioning of an agricultural chemicals plant in Bhopal, India.

Sediment Remediation Cost Allocation: Evaluated the relative contributions of various sources in support of a cost allocation mediation. Integrated available plant data, historical literature, site investigation data, and chemical fate/transport into a comprehensive analysis.

Industrial Discharge Permitting: Led efforts, including field studies, to develop a NPDES permitting approach for mercury in chemical plant discharge to a major river. Dealt with several state regulatory agencies and an interstate regulatory agency.

Natural Gas Pipeline Systems: Evaluated historical waste management practices, site characterization, and remediation cost estimates for three natural gas pipeline systems. Key contaminants of interest included PCBs, mercury, and petroleum hydrocarbons. Supported settlement negotiations and provided expert testimony.

Multi-site Remediation Program: For US EPA, led RI/FS, remediation criteria development, remedy design, remedy cost analysis, and remedy implementation activities at 14 NPL sites.

Selected Publications

Langseth, DE; Brown, N. 2011. "Risk-based margins of safety for phosphorus TMDLs in lakes." *J. Water Resour. Plann. Manag.* 137(3):276-283.

Langseth, DE. 2009. "Remedial cost allocation cash out valuation under uncertainty." *Environ. Claims J.* 21(1):62-72.

Langseth, DE. 2008. "Valuing environmental remediation liability transfers." *Environ. Claims J.* 20(1):2-22.

Langseth, DE; Smyth, AH; May, J. 2004. "A method for evaluating horizontal well pumping tests." *Ground Water* 42(5):689-699.