

## Jason Dittman, Ph.D.

Managing Engineer



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### Expertise

- Providing technical support for environmental remediation and litigation
- Evaluating and assess environmental data for contaminated sediment sites
- Assisting with planning and execution of investigation and remedial activities

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### Summary

Mr. Dittman is a managing engineer with 18 years of environmental work experience. He has completed a Master of Science degree in Environmental Engineering Science and a Ph.D. in Civil Engineering. Throughout his professional career, he has provided strategic and technical representation of client interests at contaminated sediment sites. He is responsible for the management of large-scale sediment remediation projects and for leading strategic litigation support efforts at multi-party potentially responsible party (PRP) sites. As the managing engineer on these projects, he is also responsible for leading the assessment of chemical data and environmental contamination and planning/execution of investigation and remedial activities.

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### Professional Experience

#### **Expert Consultant for Sediment and Uplands Cleanup Cost Allocation (2019–Ongoing)** Confidential Client, New York

TIG Environmental provides litigation support to a private client participating in a Superfund site allocation. The site includes nearly two miles of waterway in a heavily industrialized area of New York state. Contamination at the site includes polychlorinated biphenyls (PCBs) and other chemicals, but PCBs are the primary chemicals of concern. After an initial remedial design phase was completed, regulatory agencies required additional investigation of the study area. Findings from the investigation increased the estimated remedial cost nearly seven-fold. A comprehensive assessment of the watershed is necessary. The client retained TIG Environmental's services for potentially responsible party (PRP) identification and investigation, sampling and data analysis, and expert witness testimony for anticipated cost allocation for remediation of sediments. Since 2019, TIG Environmental evaluated and investigated documents for PRP sites to gather evidence of historical releases related to operations, developed a conceptual site model of the relationships between PRP operations and the contaminated waterway, conducted soil and sediment sampling, and completed forensic data analysis to identify sources of PCB contamination. TIG Environmental also provided and continues to maintain data visualization tools to assist the client in strengthening the connection between contamination in the waterway and adjacent PRPs, identifying PRPs that may not be responsible for contamination, and identifying additional discharge points that may be associated with additional PRPs.

Mr. Dittman is a senior technical lead on the project working with the client and legal team to develop strategies for remediation and allocation of the site and investigation of PRPs at the site.

#### **Technical Consultation and Allocation/Litigation Support (2010–Ongoing)**

Confidential Client, Multnomah County, Oregon

TIG Environmental provides technical expert support for environmental liability assessment and cost allocation for the remediation of sediments in the Portland Harbor Superfund Site, and for the associated Natural Resource Damages claims. The harbor has been the site of numerous industrial and manufacturing operations for more than a century, including shipbuilding, petroleum storage and distribution, metal salvaging, and electrical power generation. Technical support for this project

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includes research, sampling, and forensic analysis to determine the specific contaminants associated with activities or facilities. The project also includes evaluating potential historical contaminant sources, determining contaminant fate and transport, and chemical fingerprinting polycyclic aromatic hydrocarbons (PAHs) and PCBs.

Mr. Dittman is the project manager and senior technical advisor responsible for developing strategic strategies with the client team. He manages a team that prepares technical reports for the client to determine if a potential nexus existed between activities conducted on uplands and contamination found in the sediments adjacent to the upland site. He leads and manages a team responsible for researching PRPs and develops technical opinion reports for allocation support. He also manages field teams responsible for investigation studies at the site..

**Technical Consultation and Allocation/Litigation Support (2012–Ongoing)**

Confidential Client, Seattle, Washington

TIG Environmental provides litigation support to a Washington State agency participating in a Superfund site allocation. The Superfund sediment site consists of five miles of urban and industrial estuarine waterway. The key issues revolve around potential stormwater loads from state-maintained roads, bridges, and properties. TIG Environmental prepared expert reports that evaluate whether there is a potential relationship between the Superfund site sediment contamination and the discharge of hazardous substances from the state-owned facilities, potentially resulting in the need for remedial action and associated response costs. TIG Environmental is developing an allocation strategy based on sampling and statistical analysis of stormwater, historical and scientific research, drainage pathway delineation, and sediment transport modeling. TIG Environmental also assists the state agency with the development of source control plans in accordance with Washington State Department of Ecology's source control strategy.

Mr. Dittman is a senior technical lead, responsible for managing a team that prepares technical reports to determine if a potential nexus existed between client owned facilities and contamination found in the sediments. He also develops strategic technical opinions for expert reports for allocation support.

**Upland Site Investigation, Former Petroleum and Chemical Distribution Site (2012)**

Confidential Client, Syracuse, New York

The upland site encompasses approximately 8.2 acres where volatile and semi-volatile organic compounds (VOCs and SVOCs) were detected in groundwater at concentrations above environmental standards. Mr. Dittman served as task manager for completing and submitting biannual periodic review reports detailing current site conditions and led biannual low-flow groundwater sampling at the site. He also assisted with data analysis to determine the nature and extent of VOCs and SVOCs and prepared strategy memos for site closure.

**Data Evaluation Support, Former Chemical Manufacturing Plan (2012)**

Confidential Client, Newark Bay, New Jersey

The study site at Newark Bay, approximately six-miles-long and one-mile-wide, was found to have contaminated sediments. Mr. Dittman coordinated the development and quality assurance and quality control of an Environmental Visualization Systems model. The model is a 3-dimensional simulation of

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the geomorphology of the bay and depicts sediment core locations and chemical concentrations. He also provided technical support to develop a response to federal and state agency comments on the data evaluation and analysis report.

**Supplemental Sediment Investigation Report, Former MGP Site (2012)**

Confidential Client, Poughkeepsie, New York

The upland manufactured gas plant (MGP) site encompasses approximately two acres adjacent to the Hudson River where contaminated sediments have been detected. Sediments were contaminated with non-aqueous phase liquid (NAPL) and PAHs. Mr. Dittman assisted with defining the nature and extent of NAPL and PAHs in sediments adjacent to the site. He also assisted with preparation of the supplemental sediment investigation report that was submitted to the New York Department of Environmental Conservation.

**Remedial Investigation, Former MGP Site (2012)**

Confidential Client, Malone, New York

The upland MGP site includes approximately five acres adjacent to the Salmon River in Malone, NY. Sediments adjacent to the site have been found to be contaminated with NAPL and PAHs. Mr. Dittman established background concentrations for PAHs at the site and delineated the extent of MGP residuals like solidified tar at the river's edge adjacent to the site. He prepared a memo for state agency documenting the results of additional sediment investigation completed in connection with the remedial investigation.

**Remedial Investigation, Kalamazoo River Superfund Site (2011)**

Confidential Client, Kalamazoo, Michigan

The site consists of a large area of sediment and floodplain soils in the Kalamazoo River that have been contaminated with PCBs and other constituents of concern. Mr. Dittman served as task manager for preparing work plans for the remedial investigation and feasibility study for sections of the river. He also completed statistical analysis to compare fish PCB concentrations to state advisories and prepared strategy memos for the site to support other data evaluation needs for the client.

**Sediment Investigation, Former MGP Site (2010–2012)**

Confidential Client, Holyoke, Massachusetts

The site is a former MGP located on the shoreline adjacent to the Connecticut River. Sediments and floodplain soils were found to be contaminated with NAPL and PAHs. Mr. Dittman performed data and statistical analysis to delineate nature and extent of NAPL and PAHs in sediment and floodplain soil adjacent to the site. He also assisted with preparing a Supplemental Massachusetts Contingency Plan Phase II report and assisted with preparing the work plan for supplemental sediment sampling in 2011.

**Remedial Investigation and Feasibility Study, Cedar Creek Superfund Site (2009–2011)**

Confidential Client, Cedarburg, Wisconsin

The site consists of a former industrial site where PCBs have been detected in the uplands and adjacent floodplain soils and sediments in Cedar Creek. Mr. Dittman served as task manager for preparation and submittal of the remedial investigation report and preparation of the draft feasibility

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report, including assisting with research tasks related to delineating the nature and extent of PCBs in sediments and soils. He also assisted with preparation of annual budgets and monthly invoicing.

**Sediment Investigation, Former Petroleum Distribution Terminal (2009–2011)**

Confidential Client, Charleston, South Carolina

The upland site is a former petroleum distribution terminal located in Charleston, South Carolina. Petroleum products have been identified in the sediments and soils adjacent to the former distribution terminal. Mr. Dittman assisted with preparation of the work plan describing the technical approach and methods for conducting soil, sediment, surface water, and groundwater sampling activities. He analyzed data from sampling activities and assisted with delineating the nature and extent of petroleum product impact to plan future remedial scenarios for the client.

**Litigation Support, Onondaga Lake Superfund Site (2009–2011)**

Confidential Client, Syracuse, New York

The upland site consists of a former electronics service facility shop located in the Onondaga Lake Watershed. Mr. Dittman assisted with determining the client's potential chemical contribution to Onondaga Lake and potential liability associated with remediation of the lake. He served as task manager for the project and was responsible for budgeting, preparing scope of works, and monthly invoicing.

**Corrective Measures Study, Housatonic River Superfund Site (2009–2010)**

Confidential Client, Pittsfield, Massachusetts

The Housatonic River Superfund Site is a large-scale sediment remediation site where PCBs have been identified in sediments and floodplain soils. Mr. Dittman assisted with the preparation of a corrective measures study. He also assisted with evaluating potential remediation options and recommended alternatives. He was responsible for preparing scopes of work, budgets, and monthly invoicing.

**Research Technician, Anacostia River and Potomac River Watersheds (2002–2003)**

Metropolitan Washington Council of Governments (MWCOG), Washington, DC

Mr. Dittman collected and identified benthic invertebrate and fish samples (electro-fishing surveys) from the Anacostia River and smaller tributaries in the Potomac River Watershed. He performed bank slope surveys and collected surface water samples for chemical analyses. He also conducted baseline and high flow sampling at tributary streams to the Potomac River and assisted with data analysis and preparation of baseline stream assessment reports for the United States Geological Survey.

**Research Technician, Anacostia River and Potomac River Watersheds (2001–2002)**

University of Maryland, College Park, Maryland

Mr. Dittman collected surface water samples for chemical analyses and benthic invertebrate samples from 25 streams in Howard & Montgomery Counties, MD. He conducted nitrogen (N) and phosphorus (P) cycling experiments in the same 25 streams. He also analyzed water samples in the laboratory to measure N&P concentrations and identified benthic invertebrate samples.



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<b>Academic Qualifications</b>	PhD in Civil Engineering, Syracuse University, 2010 MS in Environmental Engineering Science, Syracuse University, 2006 BA in Environmental Studies, Allegheny College, 1998
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<b>Professional Affiliations</b>	Western Dredging Association
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<b>Professional Training</b>	<ul style="list-style-type: none"><li>• 40 Hour HAZWOPER</li><li>• 8 Hour Supervisor HAZWOPER</li></ul>
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<b>Publications</b>	<p>Dittman, J.A., J.B. Shanley, C.T. Driscoll, G.R. Aiken, A.T. Chalmers, J.E. Towse, and P. Selvendiran. "Mercury dynamics in relation to DOC quality during high flow events in three northeastern streams." <i>Water Resources Research</i> 46 (2010): W07522. doi 10.1029/2009WR008351.</p> <p>Dittman, J.A., J.B. Shanley, C.T. Driscoll, G.R. Aiken, A.T. Chalmers, and J.E. Towse. "Ultraviolet absorbance as a proxy for total dissolved mercury in three northeastern forest streams." <i>Environmental Pollution</i> 157 (2009): 1953–1956.</p> <p>Dittman, J.A. and C.T. Driscoll. "Factors influencing changes in mercury concentrations in lake water and yellow perch (<i>Perca flavescens</i>) in Adirondack lakes." <i>Biogeochemistry</i> 93 (2009): 179–196.</p> <p>Dittman, J.A. C.T. Driscoll, P.M. Groffman, and T.J. Fahey. "Dynamics of nitrogen and dissolved organic carbon at the Hubbard Brook Experimental Forest." <i>Ecology</i> 88 (2007): 1153–1166.</p> <p>Trieu, P., J. Galli, J. Dittman, and M. Smith. 2003. "Pope Branch Subwatershed Restoration: 2002 Baseline Stream Assessment Study – Physical, Chemical, and Biological Conditions." Prepared for District of Columbia Department of Health/Environmental Health Administration Watershed Protection Division. Prepared by Metropolitan Washington Council of Governments. Available at: <a href="http://www.anacostia.net/Archives/download/Pope_Branch.pdf">http://www.anacostia.net/Archives/download/Pope_Branch.pdf</a>.</p>
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<b>Presentations</b>	<p>Dittman, J. and P. Spadaro. "Cleanup of Contaminated Sediment – 'How Much Will It Cost?' and 'Who Should Pay?'" Presentation, Western Dredging Association, Waves of Change: Oceans of Opportunity, Chicago, IL, June 2019.</p> <p>Dittman, J. and P. Spadaro. "Who Should Pay for Sediment Cleanup?" Paper/presentation, Eighth International Smart Rivers Conference, Pittsburgh, Pennsylvania, September 18–21, 2017.</p> <p>Dittman, J., M. Hayes, D. Profusek, B. Romagnoli, and P. Spadaro. "CERCLA Sediment Remediation – Managing Cost Risk and Uncertainty." Paper/presentation, Ninth International Conference on Remediation and Management of Contaminated Sediments, New Orleans, Louisiana, January 9–12, 2017.</p> <p>Dittman, J. "CERCLA Sediment Remediation – Analysis of Project Cost from Completed and Planned Projects." World Organization of Dredging Association (WODCON), Miami, FL. June 2016.</p>
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Dittman, J. Short Course: Methods for Evaluating the Impact of Urban Stormwater on Sediment Quality. Battelle – Eighth International Conference on Remediation and Management of Contaminated Sediments. October 2014.

Dittman, J. “Mercury dynamics in fish and lakes in the Adirondack Park.” Great Lakes Research Consortium, Syracuse, NY. March 2008.

Dittman, J. “The Influence of Wetland Cover and Dissolved Organic Carbon on Mercury Export in Forest Landscapes, Northeastern USA.” American Geophysics Union, San Francisco, CA. December 2007.

Dittman, J. “Response of Yellow Perch in Adirondack Lakes to Changes in Atmospheric Deposition of Mercury and Strong Acids.” New York State Energy Research and Development Authority – Environmental Monitoring, Evaluation, and Protection in New York: Linking Science and Policy. November 2007

Dittman, J. “Yellow Perch Mercury Concentrations in Adirondack Lakes.” Ecological Society of America Annual Meeting, San Jose, CA. August 2007.

Dittman, J. “Mercury Flux in Relation to DOC Quality in Upland Landscapes.” Hubbard Brook Cooperators Meeting, West Thornton, NH. July 2007.

Dittman, J. “Mercury Dynamics in Adirondack Lakes.” Alliance for Graduate Education and the Professoriate, Academic Excellence Symposium, Syracuse University, Syracuse, NY. June 2007.

Dittman, J. “Mercury and Fish in the Adirondack Park.” Great Lakes Research Consortium, Syracuse, NY. March 2007.

Dittman, J. “Response of Yellow Perch in Adirondack Lakes to Changes in Atmospheric Deposition of Mercury.” Nunan Research Day Lecture Series, Syracuse University, Syracuse, NY. March 2007.

Dittman, J. “Response of Yellow Perch in Adirondack Lakes to Changes in Atmospheric Deposition of Mercury.” 8th International Conference on Mercury as a Global Pollutant, Madison, WI. August 2006.

Dittman, J. “Nitrogen Dynamics in a Northeast Forest Ecosystem.” American Geophysics Union, New Orleans, LA. May 2005.

Dittman, J. “Patterns of Nitrogen Dynamics in Reference Watershed 6 (1992–2003).” Hubbard Brook Cooperators Meeting, West Thornton, NH. July 2004.