Andrew J. Halmstad, E.I.T.
Consultant

Education and Credentials

M.S.C.E.E., Water Resource Engineering, Portland State University, Portland, Oregon, 2011

B.A., Physics, Lewis & Clark College, Portland, Oregon, 2007

Engineer in Training, Oregon (License No. 85089EI)

Continuing Education and Training

DOT Hazardous Materials Transportation and Security Awareness Training (2013)

Hazardous Waste Operations and Emergency Response 40-Hour Certification (2012; refreshers 2013–current)

Hazardous Waste Operations and Emergency Response Site Supervisor (2013)

Mine Safety Health Administration Training (2012)

First Aid/CPR/AED Certified (2014, 2016)

Professional Profile

Mr. Andrew Halmstad is an engineer with 7 years of consulting experience focusing on environmental remediation and cost allocation of contaminated sediments, groundwater, and soils. His specific skills include reviewing and summarizing results of ongoing environmental investigations, supporting source control and remedial design activities, and data analysis for site characterization and remedial activities. Mr. Halmstad has supported and led numerous field operations, including site investigations, *in situ* remedial treatment application, aquifer testing, remediation system operations maintenance and monitoring, and sampling of soil, groundwater, and stormwater. He also has experience planning, managing, and conducting environmental investigations; analyzing remedial alternatives; conducting feasibility studies; and providing oversight of remedial measures.

Relevant Experience

Support for Remediation System Operations Maintenance and Management

Soil and Groundwater Remediation Support at a Chemical Distribution Facility, Santa Ana, California—Project manager for multimedia chlorinated solvent remediation project with several active remediation components. Responsible for leading multiple ongoing project components including oversight of operations and maintenance of a multiphase groundwater treatment program at a chemical distribution facility; data analysis and review in support of ongoing remediation reporting at the facility; and preparation of semiannual groundwater monitoring and remediation reports summarizing periodic sampling and analysis of resulting data. Recent work included preparation of an agency-approved remedial action plan for accelerated treatment of soil and groundwater to achieve site closure and implementation of initial phases of the plan.

Operations and Maintenance, Engineering, and Technical Support, Steel Mill, Portland, Oregon—Supporting the Principal-in-Charge for a multiyear source control and remedial investigation and feasibility study at an active steel mill. Work includes site characterization, risk management, and implementation of remedial actions to prevent soil, sediment, and stormwater impacted with PCBs and metals from adversely affecting the Portland Harbor

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Superfund site. Supported pilot testing–level implementation of a proposed stormwater treatment system including field support, data analysis, and evaluation to support full-scale design and implementation.

Former Chemical Manufacturing Facility, Portland, Oregon—Provided technical support in implementation of project plans and specifications for construction of stormwater source control measures, including capping of areas of known contamination, decommissioning of the current site stormwater collection system, and construction of drainage channels, detention basin, and sand filter prior to discharge to the river. Provided construction oversight, including coordination with contractor, client, and onsite facility personnel. Currently assisting with monitoring of the implemented stormwater measures to assess performance, optimize treatment efficiencies, and conduct ongoing operations and maintenance activities. Duties include routine site visits for operations maintenance and management of the existing system, periodic sampling, and data collection.

Superfund Remediation Process Optimization, La Marque, Texas—Supported the lead project engineer with evaluation of an existing groundwater treatment system to develop recommendations for streamlined unit processes. Supported migration of an aging programmable logic controller system to a modern system. Developed a robust network setup that allows for controlled local and remote access by multiple users. Currently supporting the evaluation of enhanced separation of dense nonaqueous-phase liquid for reduced operations and maintenance time/cost.

Environmental Site Assessment and Litigation Support

Litigation and Technical Support for a Chemical Distribution Facility, Santa Ana, California—Reviewed reports and provided litigation support including preparation of material to assist with deposition of both plaintiff and defendant experts. Provided oversight of ongoing operations and maintenance work at the facility. Provided data analysis and review in support of ongoing remediation reporting at the facility. Prepared semiannual groundwater monitoring and remediation reports summarizing periodic sampling and analysis of resulting data.

Source Control and Sediment Cleanup Multiparty Allocation Support, Portland, Oregon—Project manager overseeing multiple active tasks and providing technical support related to source control activities and allocation of CERCLA cleanup and natural resource damage costs. Researched historical records, conveyance system maps, industrial operations, soil and sediment chemistry, and fate and transport. Researched other nearby properties. Managed development of memoranda and research tasks, including operational and drainage history, sediment transport modeling, and forensic evaluations. Compiled and synthesized relevant information to respond to disclosure questionnaires and supplemental information requests. Evaluated natural resource damage settlement offers relative to sediment chemistry, sources, and operational history, and prepared associated documentation. Communicated findings to facility staff and attorneys, and participated in a collaborative team with attorneys.

Multiparty Allocation Related Expert Report and Rebuttal Support, San Francisco, California—Support the potentially responsible party group in developing a detailed historical understanding of a combined sewer network and its connection to a contaminated slough in San Francisco, ultimately resulting in preparation of an expert report. Project work involves the review of historical construction schematics and previous environmental site assessments (sediment investigation and contaminant transport, including PCBs), development of a timeline of combined sewer conveyance routes, and mass loading calculations to support a mass balance–based allocation approach.

Permitting and Hydrologic Assessment of an Exploratory Large Open-Pit Gold Mine, Nevada—Supported a comprehensive hydrologic assessment of a property in an advanced stage of mineral exploration. Provided background data research and compilation, logistical planning, and fieldwork assistance for a multistage hydrologic test program. The results from the hydrologic assessment were used to evaluate project risk and support additional data collection efforts to reduce risk uncertainty.

Field Sampling and Remedial Action Implementation

Former Vapor Cleaners, Monterey, California—Project manager for ongoing remediation and monitoring of volatile organic compound (VOC) contamination at a former dry cleaner site. Provided field oversight of an *in situ* enhanced bioremediation injection program targeting VOCs in a shallow, sandy, coastal aquifer.

Mission Bay Ferry Landing Project, San Francisco, California—Project manager for design of an engineered cap to address contaminated sediments at a ferry terminal. Responsible for modeling breakthrough in the cap, engineering, drawings, specifications, costing, and close coordination with the dredging and ferry terminal designers.

Yosemite Slough Remedial Design, San Francisco, California—Provide direct support to the engineer of record for an EPA non-time-critical removal action of lead- and PCB-contaminated sediments at the Yosemite Slough Superfund site. Project elements include sediment dredging, capping, and natural attenuation. The design includes multiple proof-of-concept studies, as well as development of plans and specifications for construction.

Soil Sampling Support at a Former Zinc Smelter Site, Blackwell, Oklahoma—Provided field support for drilling and soil sampling activities to characterize subsurface conditions at the site.

Intermodal Container Storage and Repair Facility, Portland, Oregon—Ongoing compliance support consisting of monthly stormwater inspections, NPDES reporting assistance, and review of best management practices.

Former Gasoline Fueling and Service Stations, Oregon—Project manager for an ongoing, multisite project involving ongoing remedial activities at former fueling and service stations throughout the state of Oregon. Project work has involved groundwater monitoring, well decommissioning, and contractor oversight at both current and former fueling stations.

Publications

Halmstad, A., M.R. Najafi, and H. Moradkhani. 2013. Analysis of precipitation extremes with the assessment of regional climate models over the Willamette River Basin, USA. *Hydrol. Process.* 27(18):2579–2590.

Presentations / Posters

Halmstad, A. 2018. Approaching total suspended solids (TSS) treatment. Platform Presentation. Northwest Environmental Business Council 2018 Managing Stormwater in Oregon Conference, Salem, OR. June 21.

Halmstad, A., A. Frankel, D. Moser, T. Wotan, and C. Sandefur. 2018. Lessons learned from ERD implementation at a CVOC contaminated site in Monterey, CA. Platform Presentation. 27th International Conference on Soil, Water, Energy and Air, San Diego, CA. March 19–22.

Halmstad, A., M.R. Najafi, and H. Moradkhani. 2011. Extreme precipitation variability over the Willamette River Basin as simulated by dynamically downscaled climate scenarios. 2nd Annual Pacific Northwest Climate Science Conference, Seattle, WA.

Halmstad, A., M.R. Najafi, and H. Moradkhani. 2011. Assessment of climate change impacts over the Willamette River basin using NARCCAP dynamically downscaled datasets. The Oregon Water Conference 2011, Corvallis, OR.