

Rebeca O'Dell
Staff Geologist



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- Expertise**
- Environmental remediation, compliance and permitting
 - Environmental data collection and analysis
 - Technical report preparation

Summary

Ms. O'Dell is a staff licensed geologist with four years of experience supporting environmental investigations, remediation, allocation, and litigation projects. She has experience in reviewing work plans and preparing technical deliverables, including corrective action reports, site Stormwater Pollution Prevention Plans, annual stormwater memorandums, sampling and analysis plans, and health and safety plans. She has conducted historical research in association with allocation and litigation support; identified contaminant sources and pathways; performed environmental assessments and site inspections; and designed, planned, and led remedial investigation sampling activities for industrial and urban properties.

Professional Experience

South Park Marina Remedial Action (2017–Ongoing)
South Park Marina Limited Partnership, Seattle, Washington

TIG Environmental assists the owner of a recreational marina site in the South Park neighborhood of Seattle, Washington. This site is the subject of remedial action under an Ecology-Administered Agreed Order. Soil and groundwater at the site are contaminated with PCBs, petroleum hydrocarbons, volatile organic compounds, pesticides, and metals requiring cleanup under the State of Washington's MTCA. TIG Environmental's work includes investigation of historical sources of contamination both on- and off-site. As a result, TIG Environmental identified and nominated additional potentially liable persons (PLPs) for release(s) of hazardous materials affecting the Site to Ecology. These PLPs are now involved as participants under the Agreed Order. TIG Environmental, on behalf of South Park Marina Limited Partnership, and the other PLPs are working in partnership to oversee the completion of the tasks required to be performed under the Agreed Order: RI work plan, RI field activities, source control evaluation, and RI Report. TIG Environmental has completed several source control, RI, FS, and preliminary engineering design tasks supportive of efforts under the current Agreed Order and/or future formal program designations.

Since 2021, Ms. O'Dell has served on the technical team conducting detailed analysis of site operations and stormwater best management practices (BMPs) to assist the client in adhering to the chemical effluent limitations outlined in the state stormwater pollution prevention permit.

Technical Consultation and Allocation/Litigation Support (2016–Ongoing)
Confidential Client, New Jersey

TIG Environmental provided technical support for environmental liability assessment and cost allocation for an upland Superfund site involving soil and groundwater, on an accelerated schedule. Development of a proposed cost allocation strategy on behalf of the client included evaluation of environmental data and technical reports, witness testimony, and historical records. The effort included research and forensic analysis of potential historical contaminant sources, other PRPs' contaminant contributions, industrial archaeology/chemical processes, and contaminant fate and transport. TIG Environmental used allocation modeling, calculations, and statistical analyses based on the data

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generated from this research to assist the client in decision-making on numerous allocation scenarios among the approximately 60 PRPs. TIG Environmental authored position papers to support the client in both offensive and defensive positions.

In 2021, efforts continued and TIG Environmental developed a comprehensive allocation strategy and supporting expert analyses for sediment and marsh cleanup cost allocation. Anticipated efforts will include developing evaluations and analyses to support mediation efforts.

Since 2021, Ms. O'Dell is a part of the technical team and provides research support to assist in the allocation strategy.

Technical Consultation and Litigation Support (1999–Ongoing)

Confidential Clients, New Jersey

TIG Environmental provides technical and litigation support for environmental liability assessment related to sediment remediation at a large Superfund bay estuary complex, part of the larger New York/New Jersey Harbor Estuary. This is hydraulically connected to the Passaic River Superfund Site and includes portions of the Hackensack River, Arthur Kill, and Kill van Kull. TIG Environmental is performing investigative services including the acquisition of historical records, primary witness testimony, environmental data, and technical reports for identification and assessment of PRPs associated with the site. TIG Environmental is developing information on industrial, manufacturing, commercial, public works, and other potential sources with direct or indirect discharges to the Newark Bay Study Area (NBSA). TIG Environmental is helping its client comply with an Administrative Order on Consent and is compiling and developing information on potential sources and associated outlets of potential concern potentially affecting the NBSA sediments.

TIG Environmental personnel were heavily involved in leading RI/FS activities on the NBSA. Activities focused on technical support as it related to investigation and remediation of the NBSA. TIG Environmental personnel were engaged in the support of NBSA RIs/FSs, particularly regarding identification and characterization of stormwater and combined sewer overflows that have played a role in effects to the NBSA sediments. TIG Environmental also actively acquired and compiled information on publicly owned treatment works (POTWs), including their upstream collection system networks and their role as potential contaminant sources.

Since 2021, Ms. O'Dell has served on the technical team conducting detailed analysis of historical records, primary witness testimony, environmental data, and technical reports. The findings of this research are being summarized in reports that evaluate the potential relationship between activities conducted on sites of interest and contamination in the larger New York/New Jersey Harbor Estuary and the Passaic River Superfund Site.

Technical Support of Cost Allocation (2014–Ongoing)

Confidential Client, Seattle, Washington

TIG Environmental provides expert technical support to a private property owner participating in a Superfund site allocation. The Superfund sediment site consists of five miles of an urban and industrial estuarine waterway. Working with the property owner's attorney, TIG Environmental evaluated

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potential sources of PCB contamination in sediments adjacent to the property and has developed an allocation strategy based on forensic chemistry and sediment transport modeling.

Since 2021, Ms. O'Dell is a part of the technical team and provides research support to assist in the identification of potential sources of PCB contamination, as well as allocation strategy.

Technical Consultation and Allocation/Litigation Support (2015–Ongoing)

Confidential Client, Michigan

TIG Environmental is providing technical support for environmental liability assessment and anticipated cost allocation for a Great Lakes Legacy Act sediment site. TIG Environmental is providing technical support to the client and counsel through position paper development including coordination of specific legal arguments. Evaluation includes research and forensic analysis to determine the nexus to the sediments for each upland PRP (or orphan share) for specific contaminants.

TIG Environmental has completed the development of a proposed cost allocation strategy on behalf of the client, which included retrieval and evaluation of relevant documents, historical records, and environmental data/technical reports. Document retrieval included field research efforts, Freedom of Information Act requests, and investigation of online resources. TIG Environmental identified data gaps for use in allocator-mediated disclosure questionnaires to other PRPs. Site-wide sediment evaluation, conceptual site models, and additional graphics were developed in coordination with the client's accompanying consultants. Internal fact reports were prepared to transmit detailed, referenced research to the client and counsel.

Since 2020, technical support efforts have worked with the client team to develop an allocation strategy. Continuing efforts have included evaluating contributions from individual PRP sites to the river system, analyzing the distribution of contaminants of interest within the river system and specific subareas of the river system targeted for remediation, evaluating the components of the anticipated remedy that drive costs, and conducting forensic and evidentiary evaluations to further the development of contaminant specific arguments to be included in the position paper submitted during the allocation process. Anticipated efforts will include developing evaluations and analyses to support mediation efforts.

Since 2021, Ms. O'Dell is a part of the technical team and provides research support to assist in the allocation strategy.

Graduate Research (2017-2018)

Central Washington University, Ellensburg, WA

Ms. O'Dell assessed the use of tsunami simulations as a tool to predict source magnitudes and locations of paleo-earthquakes in South-Central Chile.

Undergraduate Research (2016)

Central Washington University, Ellensburg, WA

Ms. O'Dell mapped the spatial distribution of and conducted independent thesis research on the origins of sandstone and conglomerate monoliths in the Swauk Watershed of Kittitas County, WA.



Undergraduate Research (2016)

Central Washington University, Ellensburg, WA

Ms. O'Dell conducted independent research on the historic channel flow of a waterway in Elger Bay, Camano Island, WA, using driftwood density analyses.

Undergraduate Research (2015)

Central Washington University, Ellensburg, WA

Ms. O'Dell conducted independent research on the 2014–2015 Sheldon, Nevada earthquake swarm to assign the swarm to a larger-scale regional tectonic structure in the Basin and Range.

Undergraduate Research (2014)

Centralia College, Centralia, WA

Ms. O'Dell conducted independent research involving the analysis of tree rings in ancient subfossil trees in Kapowsin Lake near Electron, WA. The lake had been dammed by a volcanic mudflow from Mount Rainier circa 500 years BP. Ms. O'Dell participated in fieldwork as well as the preparation and analysis of the wood samples and presented her research progress at the 2nd Annual Capstone STEM Undergraduate Research Conference at Centralia College.

**Academic
Qualifications**

- M.S. Geological Sciences, Central Washington University, 2018
- B.S. Geological Sciences, Central Washington University, 2016
- A.A. & A.S. Geology, Centralia College, 2014

**Professional
Training**

- 40-Hour OSHA Hazardous Waste Operations (HAZWOPER) Safety Training
- Licensed Geologist (L.G.) for the state of WA
- CPR, First Aid, and AED Training

**Publications,
Presentations
and Posters¹**

Sadowski, Andrew; Becerra, R. I.; Toth, C. L.; Polenz, Michael; Anderson, M. L.; Lau, T. R.; Nesbitt, Elizabeth; Tepper, J. H.; DuFrane, S. A., 2019, Geologic map of the Adna 7.5-minute quadrangle, Lewis County, Washington: Washington Geological Survey Map Series 2019-01, 1 sheet, scale 1:24,000. [http://www.dnr.wa.gov/publications/ger_ms2019-01_geol_map_adna_24k.zip]

Polenz, Michael; Toth, C. L.; Samson, Catherine; Becerra, R. I.; Lau, T. R.; Anderson, M. L.; Nesbitt, Elizabeth; Tepper, J. H.; DuFrane, S. A.; Legorreta Paulin, G., 2019, Geologic map of the Rochester 7.5-minute quadrangle, Thurston and Lewis Counties, Washington: Washington Geological Survey Map Series 2019-02, 1 sheet, scale 1:24,000. [http://www.dnr.wa.gov/publications/ger_ms2019-02_geol_map_rochester_24k.zip]

Anderson, M. L., Lau, T., von Dassow, W., Reedy, T., Staisch, L., Cakir, R., Sadowski, A., Polenz, M., Becerra, R., Toth, C., Steely, A., Walsh, T., Norman, D., Sherrod, B., 2018, The Doty fault network: 3-D regional deformation applied to seismic hazard characterization in the forearc of Washington State, Fall Meeting, AGU, Washington, D.C., December 10-14, Abstract T131-0356 (Poster).

¹ Name changed from Rebeca Becerra to Rebeca O'Dell in 2019.

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- Lau, T., Anderson, M. L., Polenz, M. Sadowski, A., Becerra, R., Toth, C., Cakir, R., von Dassow, W., Reedy, T., Staisch, L., Steely, A., Walsh, T., Norman, D., Sherrod, B., 2018, Integrated geophysical investigation and 3-D fault characterization of the Rochester and Adna 7.5' quadrangles, Thurston and Lewis counties, Washington, Fall Meeting, AGU, Washington, D.C., December 10-14, Abstract T13I-0355 (Poster).
- Becerra, R., Ely, L., and MacInnes, B., 2017, Applications of tsunami modeling: assessing the validity of matching on-land observations to earthquake source scenarios, south-central Chile: Geological Society of America Annual Meeting (Seattle), Abstracts with Programs, v. 49, n. 6. doi: 10.1130/abs/2017AM-304339 (Poster).
- Becerra, R., O'Dell, D., and Lillquist, K., 2016, The Spatial Distribution and Origins of Sandstone Monoliths in the Swauk Watershed, Kittitas County, WA (Poster).
- Becerra, R., Bates, J., Delavergne, C., and MacInnes, B., 2016, Channel Flow Studies Using Driftwood Density Analysis in Elger Bay, Camano Island, WA (Poster).
- Becerra, R., and Szeliga, W., 2015, Relocating Seismicity in the 2014–2015 Sheldon, Nevada Earthquake Swarm (Poster).
- Pringle, P. and Becerra, R., 2014, Was Circa AD 1500 Lake Kapowsin created by the Electron Mudflow from Mount Rainier? Using Tree Rings to Investigate a Drowned Forest (Poster).