## Stefan Wodzicki Project Scientist



#### Education and Credentials

B.S., Environmental Science, Western Washington University, Bellingham, Washington, 1998

# Continuing Education and Training

Basic Offshore Safety Induction and Emergency Training (including Helicopter Underwater Escape Training and Emergency Breathing System) (2017; current)

Hazardous Waste Operations and Emergency Response 40-Hour Certification (1998; refreshers current)

OGUK Medical Certification (current)

IADC RigPass Certification (current)

First Aid and CPR Certified (current)

Transportation Worker Identification Credential (current)

## **Professional Profile**

Mr. Stefan Wodzicki is a scientist with 20 years of experience and a background in environmental assessments, aquatic and terrestrial biological monitoring, sediment profile imaging and plan view (SPI-PV) image collection and analysis, laboratory work in aquatic toxicology, and collection of sediment, water, and biological samples. His project experience includes work on sediment and water quality assessments, groundwater sampling, biota sampling, toxicology testing, stream ecology, and stream habitat surveys. Mr. Wodzicki serves as field lead in numerous field projects for a diverse set of private and governmental clients at industrial sites and municipalities. Since 2010, Mr. Wodzicki has led and co-led scientific research teams in multiple oceanographic cruises in response to the Deepwater Horizon accident and oil spill in the Gulf of Mexico. He was responsible for the implementation of sampling programs for the collection of water column samples, as well as site selection of deep water sediment cores using a remotely operated vehicle. Since 2015, Mr. Wodzicki has been the field lead on numerous SPI-PV surveys, including environmental baseline surveys at offshore oil and gas and wind farm lease areas. He is also responsible for preparing work plans, technical reports, sampling and analysis plans, and health and safety plans; budgeting; and coordinating with consultants, subcontractors, and clients.

#### **Relevant Experience**

Baseline Benthic Seafloor Habitat and Seafloor Characterization Assessment, Wind Energy Lease Area and Cable Routes, Continental Shelf Massachusetts Coast, Confidential Location—Served as field lead for four SPI–PV surveys to document baseline benthic conditions at a proposed offshore wind farm. Managed the collection of SPI–PV images, SPI–PV image analysis, data evaluation and reporting, including benthic habitat classifications in accordance with Coastal and Marine Ecological Classification Standards (CMECS).

Baseline Benthic Seafloor Habitat and Seafloor Characterization Assessment, Floating Wind Energy Lease Area and Cable Route, Maine Coast, Confidential Location—Field lead for the collection of SPI–PV images collected in March 2021 along an export cable route and an offshore floating wind farm test area. Oversaw image

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collection; performed image analysis and data evaluation, including benthic habitat classifications in accordance with CMECS.

Baseline Benthic Seafloor Habitat and Seafloor Characterization Assessment, Wind Energy Lease Area and Cable Routes, Continental Shelf off of New Jersey, Confidential Locations—Field lead for the collection of SPI–PV images collected in July 2020 along two export cable routes and an offshore wind farm lease area. Oversaw image collection; performed image analysis and data evaluation, including benthic habitat classifications in accordance with CMECS.

*Kenmore Navigation Channel Dredged Material Characterization, Kenmore, Washington*—Served as field lead for a project to characterize sediments proposed for dredging in conformance with the Dredged Material Management Program (DMMP) to identify suitable disposal options. For this project, a tiered strategy for biological testing was utilized in which chemical testing was done first. If a dredged material management unit (DMMU) had one or more chemicals exceeding the marine chemical screening levels, then bioassays were performed. Managed the collection and processing of subsurface sediment cores and surface sediment samples and the preparation of daily progress reports to the client.

*Dredged Material Sediment Characterization, Longview, Washington*—Collaborated with a team of scientists to characterize sediment in maintenance dredging areas at facilities on the Columbia River in Longview, Washington. Sampling and reporting procedures were in accordance with the DMMP Dredged Material Evaluation and Disposal Procedures (User Manual). Assisted in the collection and processing of subsurface sediment cores.

*Port Gardner Nondispersive Dredge Material Disposal Site SPI–PV Survey, Everett, Washington*— Field lead for a SPI–PV survey at a nondispersive dredge material disposal site to evaluate current site conditions on behalf of USACE. Analyzed plan view images, interpreted results, and prepared data report.

*Enhanced Natural Recovery/Activated Carbon Pilot Study, Lower Duwamish Waterway, Seattle, Washington*—Field lead for a multiyear SPI–PV investigation to collect semiquantitative information on the stability of materials used in enhanced natural recovery (ENR) and ENR amended with activated carbon for sediment remediation. Analyzed SPI–PV images and assisted in the interpretation of results.

*Deepwater Horizon Natural Resource Damage Assessment (NRDA), Gulf of Mexico, U.S.*—Served as science lead in several oceanographic cruises and worked in conjunction with NRDA team responding to Deepwater Horizon accident and oil spill in the Gulf of Mexico on behalf of BP Exploration and Production Inc. Worked collaboratively with other research scientists. Oversaw the collection of deep sea (>1,500 m) water column samples using CTD/GO-FLO rosette sampler equipped with fluorometer, and the collection of sediment and water samples using a remotely operated vehicle.



*Environmental Baseline Study: Perdido Basin Block 2, Gulf of Mexico, Mexico*—Served as science lead for the collection of deep sea (>2,000 m) SPI–PV images. Worked collaboratively with other research scientists in the collection of sediment, benthic infauna, water, and plankton samples. Analyzed SPI–PV images and assisted in the completion of the final data report.

*Environmental Baseline Studies: Sureste Basin Block 6, Cuenca Salinas Basin Block 22, Tampico Misantla Veracruz Blocks 16 and 17, and Southeastern Basin Block 30, Gulf of Mexico, Mexico*—Served as science lead for the collection of SPI–PV images. Worked collaboratively with other research scientists in the collection of sediment, water, benthic infauna, demersal fish, and plankton samples. Analyzed SPI–PV images and assisted in the completion of final data reports.

Standardized and Cost-Effective Benthic Habitat Mapping Tools for Marine and Hydrokinetic Site Environmental Assessments, U.S. Department of Energy—Serves in a supporting and field lead role for a 3-year study to standardize and automate seafloor mapping technologies for rapidly characterizing benthic habitat conditions across a range of environments. The concept is to integrate SPI–PV technology with well-established geophysical mapping techniques (e.g., multibeam and acoustic backscatter) to develop effective and low-cost benthic habitat mapping protocols. Responsibilities include SPI–PV image collection, image analysis, and reporting.

**Douglas Harbor Maintenance Dredging: Sediment and Water Quality Monitoring, Juneau, Alaska**—Served as field lead and in a support role for SPI–PV image collection and surface sediment and water quality monitoring before, during, and after each phase of a dredging and capping project. Analyzed SPI–PV images and assisted in completion of progress reports and final data report.

*Palmer Volcanogenic Massive Sulfide Project—Baseline Water Quality Monitoring, Haines, Alaska*—Serves as field lead for baseline water quality monitoring in a remote mountainous area, utilizing helicopter transport for accessing sample locations. Responsibilities include surface water sample collection, stream flow monitoring using manual and acoustic Doppler techniques, GPS navigation, field documentation, sample equipment procurement, sample event planning, and logistics. Provides technical guidance for development of sampling strategies, data quality assurance reviews, and progress report preparation.

*Slip 4 Long-Term Monitoring, Seattle, Washington*—Served as field team lead for the Year 1 long-term monitoring fieldwork, and contributed to data reporting tasks and the final data report to the City of Seattle. Responsibilities included surface sediment sample collection and GPS navigation. Led and participated in post-remedial confirmation sampling field efforts.

*Terminal 117, Seattle, Washington*—Served as field team lead for the streets and residential yards portion of the Terminal 117 early action engineering evaluation and cost analysis (EE/CA) and remedial design investigation. This site is part of the Lower Duwamish Waterway CERCLA site (Ecology is co-lead under the Washington State Model Toxics Control Act [MTCA]). The Terminal 117 uplands are potential sources of petroleum, PCBs, and dioxins to sediments in the



Lower Duwamish Waterway. The Port of Seattle and the City of Seattle are coordinating on the cleanup of this complex site, using MTCA as the driving regulation. The field investigation included collection of soil borings, discrete soil samples, and multi-increment sampling techniques. Responsibilities included providing technical guidance for development of the work plans, collecting samples, and assisting in report preparation/coordination associated with the data reports.

*Remedial Investigation and Feasibility Study Field Investigation, Delaware River, Delaware* — Served as field team lead for a study to investigate potential presence of contaminants. The project included the collection of mid-column water samples and surface and subsurface sediment samples. Responsibilities included team management, collection of samples, and progress report preparation.

*Feasibility Study Field Investigation, Big River, Missouri*—Served as field team lead for a study of a 50-mile reach of mining-impacted river. The project included the collection of beach material, soil, tissue data, and a visual survey of eroding riverbank material to support development of site-specific preliminary remediation goals. Responsibilities included field team management, collecting samples, and report preparation.

*San Jacinto River Waste Pits RI/FS, Harris County, Texas*—Worked in supporting and lead roles for the field activities associated with the San Jacinto River Waste Pits site. The site is a closed facility that formerly served as a storage facility for bleached kraft pulp mill waste in the 1960s. The wastes contain dioxins and furans; potentially affected environments include estuary, riparian areas, and adjacent uplands. Assisted and led multiple field efforts to collect surface and subsurface sediment, and fish and crab tissue samples used to assess the nature and extent of contamination and used for ecological and human health risk assessments.

*Upper Columbia River, Washington*—Assisted field lead in the collection of beach sediment samples at 34 beaches extending over 150 miles of river. Assisted with the collection and processing of several species of fish in the Upper Columbia River. Assisted in the development of standard operating procedures, health and safety plans, field sampling plans, data analysis, and reporting.

*Portland Harbor CERCLA RI/FS, Portland, Oregon*—Provided field support for the Round 3 collection and processing of surface water during a low flow event. Field lead during the Round 3 collection and processing of surface water during a storm event. Surface water effort involved the use of an Infiltrex 3000 equipped to collect high-volume (100 to 500 L) samples and determine low concentrations of organic compounds present in the water column along multiple river transects and at stationary locations. Led field effort during Round 3 collection of surface and subsurface sediment samples and during Round 3 collection of biota samples. Part of a common consultant team to collect stormwater samples from 23 upland facilities within the initial study area.

*Ward Cove Long-Term Monitoring, Ketchikan, Alaska*—Assisted in the collection and processing of surface sediment samples for chemical analysis and benthic fauna.



*Bald Eagle Nest Monitoring, Whidbey Island, Washington*—Assisted in the design and implementation of a controlled field study to monitor the effects of naval base construction activities on nesting bald eagles. Performed field observations of eagle behavior throughout eagle nesting season.

*Focused Site Characterization, Pavilion Donation Project, Boulevard Park, Bellingham, Washington*—Assisted in the collection of soil borings and processing of soil samples for chemical and geotechnical analyses. The purpose of the site characterization was to evaluate soil quality and physical characteristics in support of designing a pavilion with foundation on the park site. Composed letter report detailing laboratory results to client.

*West Illinois Street and Timpson Way Expansion Project, Bellingham, Washington*—Assisted in preparing draft work plans and sampling and analysis plan, and provided field support for environmental sampling events that included hollow stem borehole drilling and shallow hand auger soil sampling.

*Little Squalicum Park RI/FS, Bellingham, Washington*—Played a supporting role in all aspects of field collection, including surface water sampling, groundwater sampling, and soil collection via hand auger and hollow-stem auger.

*Georgetown Steam Plant, Seattle, Washington*—Played a supporting role and led field effort in all aspects of field collection, including groundwater sampling and soil collection with a hollow-stem auger. Prepared quarterly monitoring report.

*Long-Term Ecological Monitoring of Alpine Lakes, Mt. Rainier National Park, Washington*—As the technical field manager, responsible for planning and coordinating all aspects related to the collection of macroinvertebrates in alpine lakes. This project was carried out to assess water quality trends, establish ecological benchmarks, and determine the ecological health of alpine lakes using indices of biological integrity derived from aquatic macroinvertebrate communities. The work involved describing habitat characteristics of shorelines and collecting, preserving, sorting, and identifying to the family level of the aquatic macroinvertebrates.

*Distribution of Amphibians in North Cascades National Park, Washington*—Led field activities for a North Cascade National Park amphibian distribution survey in streams and rivers. The project involved planning and coordinating all aspects of the field collection effort. Measured habitat units, stream flow, canopy cover, bankfull width, and substrate type. Also supervised a crew of two biological science technicians. Transferred project-developed field data into a park-wide database.

*National Park Service Protocols for Monitoring of Stream-Resident Fish, North Cascades National Park, Washington*—Assisted in the development of National Park Service protocols for monitoring and inventory of stream-resident fish populations in North Cascades, Mount Rainier, and Olympic National Park. Conducted stream surveys using a combination of U.S. Forest Service



Level II (Hankin and Reeves) and Timber Fish and Wildlife Level III stream survey methods to assess fisheries habitat.

Stream Habitat Conditions in North Cascades National Park and Mount Baker Snoqualmie Forest, Washington—Assessed stream habitat conditions and evaluated stream restoration projects. Conducted fieldwork consisting of identifying, measuring, and classifying stream habitat types; surveying stream channel cross section and profile; determining stream gradient; identifying bankfull and flood-prone width; mapping riparian vegetation; and measuring stream discharge.

*Small Carnivore Distribution Survey, North Cascades National Park, Washington*—Participated in a study to determine distribution of small carnivores in North Cascades National Park. Was responsible for installing infrared and motion sensors connected to cameras and in the collection of habitat data. Upon completion of this 2-year project, responsible for transferring field collected data into a park-wide database and identifying species of carnivore from slides.

*Development of Site-Specific Trace Metals Criteria for the South Fork Coeur d'Alene River, Idaho*—Conducted toxicity tests in site water using resident species of fish and aquatic benthic macroinvertebrates to develop metals criteria specific to the environment, chemistry, and biota of the South Fork Coeur d'Alene River. Participated in the conceptual design, construction, and implementation of chronic and acute toxicity tests. Supervised three staff members at the onsite laboratory.

*Grand Calumet River/Indiana Harbor Ship Canal NRDA, Indiana*—Collected surface sediment and benthos samples for general characterization of chemical distributions and for toxicity testing.

*Sediment Characterization for Port of Seattle's Terminal 5 and 18, Washington*—Conducted extensive surface sediment and biota sampling under Puget Sound Dredged Material Management Program protocols for toxicity testing.

*Maury Island Puget Sound, Washington*—Performed a sediment characterization study, collecting physical, chemical, and benthic samples and taking photographs using a sediment profile imaging camera.

*West Waterway Sediment Operable Unit: Human Health Risk Assessment, Puget Sound, Washington*—Conducted fish surveys to study bioaccumulation of benthic fish species using trawling methods.

#### **Presentations/Posters**

Hennessy, D., F. Dillon, and S. Wodzicki. 2001. Co-presented a poster on the acclimation of juvenile trout to differing water hardness and their sensitivity to metals. Regional Society of Environmental Toxicology and Chemistry (SETAC) meeting, April 2001, Coeur d'Alene, ID.

