



## CHRIS BERGER, PWS

### Senior Ecologist

Chris specializes in stream and wetland ecology, Endangered Species Act (ESA) compliance, and natural resources permitting. Chris has 19 years of experience in all phases of project development, including conceptual planning and environmental permitting, restoration design, construction oversight and environmental compliance, post-construction monitoring, and adaptive management. He manages a wide variety of project types, including transportation, infrastructure, residential and commercial development, NEPA/SEPA documentation, habitat studies, and habitat restoration. Chris excels at analyzing potential impacts on the landscape from various land uses and construction methods, translating that to effects on species and their habitats, and developing appropriate mitigation measures. He possesses a superb ability to communicate complex technical information to technical experts, the general public, stakeholder groups, and regulatory authorities alike.

### Representative Projects

**State Route 520 Corridor Improvement and Bridge Replacement Program, WSDOT, Seattle to Redmond, and Grays Harbor, WA.** *ESA, Permitting, Mitigation Task Lead.* Served as a key team member through the NEPA, ESA, mitigation planning, and permitting for the of the \$4.6 billion SR 520 Bridge Replacement Program. Provided technical review and input into the NEPA ecosystems discipline reports and supporting studies. Served as a primary author for the biological assessment and continues to provide ongoing support for ESA compliance, including regular project updates and re-initiations with the federal Services. Provides ongoing management of a complex multi-agency permitting process for the project with the City of Seattle, Washington Department of Fish and Wildlife, Washington Department of Ecology (Ecology), U.S. Army Corps of Engineers (Corps), and U.S. Coast Guard, and has permitted several ancillary prerequisite projects such as studies and exploratory activities. Participated in multiple technical working sessions with technical working sessions with outside experts to investigate the potential project effects on focal species and habitats related to pile driving, juvenile fish migration, lake circulation, and water temperature. Played a lead role in characterizing and assessing impacts to wetlands and aquatic habitats for regulatory purposes and successfully advanced the impact assessment framework through technical work sessions with the relevant regulatory agencies and stakeholders. Facilitated jurisdictional determinations of wetland boundaries and ordinary high water mark determinations. Performed technical review for development of compensatory wetland mitigation proposals, was a primary author for the compensatory aquatic mitigation plan, and serves an advisory role on the final design of compensatory mitigation projects. Participates in the integration of environmental requirements into construction Plans, Specifications, and Estimates. Coordinates environmental compliance with construction activities including environmental monitoring, fish exclusion, and change management with regulatory agencies.

**North Mercer Interceptor & Enatai Interceptor Upgrade Project, King County Wastewater Treatment Division, King County, WA.** *Environmental/Permitting Support.* Chris is involved with the project team working through a multi-stage alternative analyses process. Supports environmental project planning, including these activities: submitting for and obtaining exploratory geotechnical boring permits to refine alternatives; establishing permitting and environmental criteria to use in screening of alternatives; ensuring consistency of all screening criteria with regulatory definitions [e.g., Clean



#### EDUCATION

B.S., Conservation Biology, University of Wisconsin, Madison, WI, 1994  
Certificate, Wetland Science and Management, University of Washington, Seattle, WA, 1998

#### CERTIFICATIONS

Professional Wetland Scientist, #2784, Society of Wetland Scientists, 2017  
Senior Biological Assessment Author, WSDOT, 2006-Present

#### EXPERTISE

Watershed Analysis  
Environmental Planning and Permitting  
Wetland Mitigation  
Fisheries Biology

#### AFFILIATIONS

Society of Wetland Scientists, Member



Water Act 404 (b)(1)] to ensure that alternative screening integrates seamlessly with future permitting efforts; conducting preliminary assessment of environmental conditions associated with the alternatives; and developing a permit acquisition plan identifying a regulatory strategy for permitting and ESA and relative permitting challenges of alternative sites and conveyance corridors.

**In-Water Facility Improvements Permitting, Seattle Iron and Metals, Seattle, WA.** *Senior Biologist/Permitting Lead.* Leading the Endangered Species Act (ESA) consultation, and assisting with the strategy, for the federal permitting process associated with facility improvements. Seattle Iron and Metals, a metal recycling processing facility, proposes to rehabilitate their existing pier and replace an existing outfall on the Lower Duwamish Waterway, a Superfund site. Analyzing the project-related effects of water and sediment quality on ESA-listed fishes, in addition to underwater noise from impact pile driving. Preparing a biological assessment to support formal ESA consultation for the project.

**Waldheim Slide Mitigation Project Fish Exclusion, Snohomish County Public Works, Snohomish County, WA.** *Senior Biologist.* Assisted with fish exclusion activities on mitigation project to improve in-stream fish habitat. The project involved installation of woody debris in the river downstream of slide that occurred in 2010. To avoid detrimental effects to fish, they were removed and excluded from the in-water work area before construction began. After the contractor installed a partial cofferdam, used seine to herd fish out of the partially isolated work area, then installed block net to ensure fish could not reenter. After using dip nets to sweep the isolated area and ensure no more fish remained, contractor installed the final piece of cofferdam to completely isolate the work area.

**Anderson Island Ferry Dock Dolphin Replacement Project, Pierce County Public Works.** *ESA Lead.* Providing technical support for the Endangered Species Act / Essential Fish Habitat consultation and other federal, state, and local regulatory compliance. Prepared Biological Assessment and assisted the County with coordination of ESA consultation through WSDOT Highways and Local Programs / FHWA. The project entails removing eight dolphins consisting of 30 to 50 creosote piles each. Four of the dolphins will be replaced with new double steel pile dolphins. The remaining four dolphins, which are from an original ferry landing that no longer exists, will not be replaced.

**Technical Training Center Hamm Creek Mitigation Planning, Seattle City Light, Seattle, WA.** *Senior Ecologist.* Evaluated project site impacts and helped develop wetland mitigation conceptual design as part of overall site development plan for the Seattle City Light (SCL) Technical Training Center. Located on the Duwamish Waterway, the project involved rehabilitation of historic intertidal marsh and stream habitats to provide integrated salmonid habitat with Hamm Creek and the Duwamish River. Coordinated closely with SCL personnel as well as architectural and civil design team to ensure on-site mitigation could be incorporated into overall site development.

**Irvine Slough Maintenance Dredge Project, City of Stanwood, WA, 2015 – 2016.** *Lead Ecologist.* Led the regulatory compliance tasks, including field investigations and preparation of permit applications for a WDFW Hydraulic Project Approval (HPA), an Army Corps Nationwide Permit 3, and a Department of Ecology Section 401 Letter of Verification. Also prepared a SEPA Checklist and a fish exclusion plan required for the HPA, and a No Effect Letter to satisfy ESA compliance requirements for the Corps permit. Irvine Slough is a drainage channel tributary to, and within the floodplain of, the Stillaguamish River. As part of Stanwood's historic storm drainage system, the slough has required ongoing maintenance to facilitate drainage conveyance. This project will excavate up to 3,000 cubic yards of accumulated sediment and debris from Irvine Slough to maintain sufficient drainage capacity.

**Purchase of Cedar River Elliott Bridge Reach Site for King County In-Lieu Fee (ILF) Mitigation Reserve Program (MRP), WSDOT, King County, WA.** *Technical Lead.* Assisted in the transfer of WSDOT's mitigation proposal for the Elliott Bridge Reach Site of the Cedar River to King County's MRP through an ILF purchase. Conducted the field investigations, technical assessment of impacts and site opportunities, and mitigation credit analysis for this \$5.6 million ILF purchase, which was the first purchase through King County's MRP. Assisted in development of binding inter-agency purchase agreements, mitigation site conceptual design, and technical review of project costs and specifications. One of two lead authors for the ILF purchase plan.