



Bao Le | SENIOR CONSULTANT

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PROFILE Federal, utility and consulting experience • FERC relicensing and compliance
• Hydroelectric impact assessment of fish and aquatic resources • Endangered species recovery planning and management • Fisheries and water quality assessments • Instream flow studies • Facilitation and settlement processes • Knowledge of federal and state statutes relating to hydropower and natural resources management

EXPERIENCE Fish and Aquatic Resources Consultant to Public Utility District No. 1's Wells Hydroelectric Project, FERC Relicensing Team, East Wenatchee, Washington

Technical and process support associated with fish and aquatic resource components of relicensing—Ongoing assistance with coordination and implementation of fish and aquatic studies in support of the Wells Hydroelectric Project relicensing. Management of Pacific lamprey, total dissolved gas numerical model development, temperature modeling, tributary toxins and dissolved oxygen and pH monitoring studies. Provide technical and process support for current license water quality compliance activities and aquatic settlement processes. Other activities include contributing to and reviewing relicensing documents, including the Initial Study Report (ISR) and Draft License Application (DLA); providing support for a multi-agency and stakeholder fish and aquatic working group; coordinating with consultants conducting fish and aquatic studies for Douglas PUD's Fish and Aquatic Technical Lead and Relicensing Team. 2008ongoing.

Client references and contacts: Shane Bickford, Relicensing Supervisor (509) 884-7191
Josh Murauskas, Senior Aquatic Biologist (509) 884-7191

Fish and Aquatic Resources Consultant to Seattle City Light's (SCL) Boundary Project, FERC Relicensing Team, Seattle, Washington

Technical and process support associated with fish and aquatic resource components of relicensing—Ongoing assistance with coordination of fish and aquatic activities. Coordination with fish and aquatic resource technical consultants, including field scientists and modelers. Project management of fish and aquatic resources associated with fish distribution, timing and abundance, recreational fisheries, and tributary productivity. Project support associated with fish entrainment and connectivity, and hydraulic modeling to assess fish trapping and stranding and habitat impacts. Other activities include synthesis and interpretation of existing information; tracking progress of studies; contributing to and reviewing relicensing documents, including the Updated Study Report (USR); providing support for a multi-agency and stakeholder Fish and Aquatics Workgroup; coordinating with consultants conducting fish and aquatic studies for the SCL Fish and Aquatic Technical Lead and Relicensing Team; provide project support for Integrated Resource Analysis (IRA). 2008ongoing.

Client references and contacts: Barbara Greene, Project Manager (206) 615-1091
Al Solonsky, Fish and Aquatics Lead (206) 386-4580



EXPERIENCE **Senior Aquatic Resources Biologist, Environmental and Regulatory Services for the Public Utility District No.1 of Douglas County, East Wenatchee, Washington**
(cont.)

Aquatic Resources Lead, Wells Hydroelectric Project Relicensing Team—Managed aquatic resources program activities associated with FERC Project relicensing and Clean Water Act Section 401 Water Quality Certification. Implementation of studies associated with hydroelectric impacts to Pacific lamprey, resident fish species, aquatic plants, invasive species, and water quality (dissolved oxygen, pH, toxins, and total dissolved gas and temperature modeling). Aquatic resources lead in the development of a comprehensive aquatic resources settlement agreement in support of the Wells Hydroelectric Project Relicensing. Managed projects associated with the District’s environmental compliance of the current FERC license, and state and federal laws and regulations for aquatic resources (i.e., water quality, ESA-listed bull trout, aquatic invasive species). District representative on various regional and transboundary multi-agency and tribal technical and policy working groups. 2004–2008.

Client reference and contact: Shane Bickford, Relicensing Supervisor (509) 884-7191

Supervisory Fish Biologist, Habitat and Natural Production Team for the U.S. Fish and Wildlife Service, Vancouver, Washington

Project Lead—Evaluated habitat use and population dynamics of Pacific and Western Brook lamprey in Cedar Creek, Washington. Responsibilities included all aspects of project operations (design, implementation, coordination, budget monitoring, staff supervision and training, permitting, data analysis, reporting). Maintained secure funding sources for continued project success (prepare statements of work, proposals, and track funding opportunities). Service representative for the Columbia River Basin Lamprey Technical Workgroup. 2003–2004.

Client reference and contact: Sam Lohr, Supervisory Fish Biologist (360) 604-2500

Fish Biologist, Conservation Assessment Team, U.S. Fish and Wildlife Service, Vancouver, Washington

Assisted in the design and implementation of Instream Flow Incremental Methodology (IFIM) and 2-dimensional hydraulic simulation studies associated with hydropower project operations and its potential impacts (redd dewatering and fish entrapment) on ESA listed chum salmon in the Lower Columbia River and fall Chinook in the Mid-Columbia River. Conducted IFIM studies in the Walla Walla River basin to assess habitat and passage conditions necessary for bull trout recovery. Assisted in the development of the Federal Columbia River Power System Bull Trout Biological Opinion. Gas Bubble Trauma monitoring of outmigrating juvenile salmonids at various hydroelectric facilities in the Lower Columbia River. Implementation of Habitat Evaluation Procedures to assess wildlife habitat functionality on Federal lands. Provided GIS cartographic services and spatial analyses as needed to support various environmental assessments. 2000–2003.

Client reference and contact: Tim Cummings, Supervisory Fish Biologist (360) 604-2500



EXPERIENCE **Fishery Biologist, U.S. Fish and Wildlife Service, Various locations**

(cont.) Implementation of IFIM and Physical Habitat Simulation System (PHABSIM) methodologies to evaluate impacts by Klamath River Hydroelectric Project operations on agriculture and cattle ranching to aquatic habitat, water quality (dissolved oxygen, temperature, and total dissolved gas), and ESA listed salmon stocks in the Klamath River basin (Arcata, CA). Evaluated fish health at National Fish Hatcheries in Washington State to support production compliance with Federal, and tribal fishery harvest obligations (Olympia, WA). Implemented fish culture practices at the Little White Salmon National Fish Hatchery to comply with Federal and tribal fish harvest obligations (Cook, WA). 1999–2000.

Client references and contacts: Ray Brunson, Fish Health Director (360) 753-9046
Speros Doulos, Hatchery Complex Manager (509) 538-2755

EDUCATION *B.A., Biological Sciences.* University of California, Santa Barbara, Goleta, California
M.S., Zoology. University of Maine, Orono, Maine