



Cory Warnock | CONSULTANT

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PROFILE FERC relicensing and compliance • License article coordination and development • Fish behavior impacts related to hydroelectric facilities • Hydroacoustic and entrainment investigations • Native salmonid habitat suitability evaluations and preference curve development • Instream flow studies • Anadromous and resident salmonid presence and abundance evaluations • Limnological studies • Experience collaborating with and presenting to federal and state agencies

EXPERIENCE Fisheries Resource Consultant to Pend Oreille Public Utility District's Box Canyon Hydroelectric Project, Compliance Study Development and Implementation, Newport, Washington

Strategic and technical support related to the aquatic aspects of Box Canyon's new FERC Project license implementation – Managed aspects of a comprehensive implementation effort for Pend Oreille PUD's Box Canyon Hydroelectric Project. Responsible for a hydroacoustic analysis related to the design of upstream and downstream native fish passage facilities at Box Canyon Dam. Developed a model that documents fish by size, range and incremental depth categories. Model includes a GIS component allowing the user to access site specific data in both a map and tabular/chart style format. Worked with engineers to select the appropriate locations for upstream and downstream facilities and the appropriate design criteria for the facilities to ensure a high level of passage efficiency. Other duties included management of a reservoir stranding study, native salmonid tagging and tracking, aquatic predator/prey interaction investigation, development of aforementioned study plans and constant coordination with requisite federal and state agencies. 2005-Ongoing.

Client references and contacts: Pat Buckley, Natural Resources Manager (509) 447-3137
Scott Jungblom, Senior Fisheries Biologist (509) 447-3137

Fisheries Resource Consultant to Energy Northwest's Packwood Hydroelectric Project, Relicensing Team, Packwood, Washington

Strategic and technical support related to all aquatic components of the ILP relicensing process for the Packwood Hydroelectric Project – Managed a set of specific ILP fisheries studies for the duration of the four year FERC relicensing process. Duties included developing and writing portions of the Pre-Application Document (PAD) along with study plans and reports, client and agency consultation and presentation duties, conducting field work, managing field crews, and data analysis. Played an integral role in relicensing negotiations, collaborative license article development and Final License Application (FLA) submittal. The breadth of aquatic studies included anadromous and resident salmonid barrier analyses, habitat availability and quantification, spawning investigations, entrainment studies, instream flow analyses and limnological investigations. Energy Northwest is expecting their new license in late 2011 or early 2012. 2004-2009.

Client references and contacts: Dan Ross, Project Manager (509) 377-8581



Bernice Kasko, Project Coordinator

(509) 377-4473

EXPERIENCE (cont.) Aquatic Resource Consultant to Avista Utilities' Spokane River Project, Implementation Team, Spokane, Washington

Study development and technical support associated with impact investigations for native salmonids in the Spokane River – Project coordinator for multi-year ramping rate and aesthetic flow/entrainment investigations in support of Avista's new operating license. The resource focus of both investigations was to document the impact, if any, from project operations to native redband rainbow trout at all life stages. Both studies fall under adaptive management practices and based on their results, modifications to the existing license may occur. Primary responsibilities included negotiations with requisite state agencies related to appropriate study methodology, study plan development, logistical and technical study preparation, field work and study report development. 2009-Ongoing.

Client reference and contact: Tim Vore, Fisheries Lead

(509) 495-8612

Fisheries Resource Consultant to Chelan County's Wenatchee River Watershed Instream Flow Assessment and Bull Trout Habitat Preference Investigation, Wenatchee, Washington

Study development, technical support and agency negotiation related to instream flows and bull trout habitat suitability criteria in the Wenatchee River Basin – Participated in all facets of comprehensive instream flow studies on the Wenatchee River and Peshastin Creek. Primary duties included habitat mapping, transect weighting and selection, calibration flow measurements and surveying, data analysis and study report and presentation preparation. A study was conducted in conjunction with the Wenatchee IFIM in an effort to add to the state habitat suitability database for spawning and rearing bull trout. Site selection included assessing large areas for quality spawning and rearing habitat. Collected field data, developed all HSI curves for the project and worked closely with WDFW staff to finalize the curves. To date, this project has more than doubled the amount of bull trout HSI data available in the Washington State database. 2005-2007.

Client reference and contact: Mary Jo Sanborn, Planning Unit Coordinator

(509) 667-6532

Aquatic Resource Consultant to Douglas County Public Utility District No. 1's Wells Dam Hydroelectric Project, Relicensing Support, East Wenatchee, Washington

Study and report development and technical support - Assistant project manager for a comprehensive limnological investigation conducted on the Wells pool of the Columbia River for Douglas County PUD's FERC relicensing efforts. Primary responsibilities included study design, data collection, data analysis and report preparation. Played an integral role in the analysis and preparation of the 2007 Total Dissolved Gas Technical Memo. 2005-2007.

Client reference and contact: Bao Le, Senior Aquatic Resource Biologist

(503) 309-9423



EXPERIENCE Fisheries/Instream Flow Biologist, Devine Tarbell & Associates, Bellingham, Washington

(cont.) Duties included conducting the field aspects of a series of multi-year fisheries studies associated with the FERC relicensing efforts for Chelan County Public Utility District No. 1's Lake Chelan Hydroelectric Project. Participated in all aspects of a series of instream flow studies in California for Sacramento Municipal Utility District (Upper American River), North Carolina for Duke Power (Catawba and Bonas Defeat Rivers) and Georgia for Crisp County Power (Flint River). All projects were in support of FERC relicensing efforts for the respective Hydroelectric Projects. Duties included habitat mapping, transect weighting and selection, calibration flow measurements and surveying, data analysis and study report and presentation preparation.

Client references and contacts: Jeff Osborne, Fisheries Biologist (509) 663-8121
Michael Barclay, Instream Flow Biologist (360) 671-1150

EDUCATION *B.S., Biological Sciences.* University of Idaho, Moscow, Idaho