



September 30, 2013

VIA E-MAIL

Mr. Colin Hoag
Policy Advisor
Ontario Waterpower Association
380 Armour Road, Suite 264
Peterborough, Ontario K9H 7L7
CANADA

Qualifications Statement for Jesse Waldrip
Species Expertise – Regulation 242/08 – Endangered Species Act

Dear Mr. Hoag:

I present this statement of qualifications to the Ontario Waterpower Association for consideration as a subject matter expert for both the American Eel and Lake Sturgeon relevant to Ontario Regulation 242/08.

I joined Kleinschmidt Associates (Kleinschmidt) in 2002 and currently hold the position of Fish Passage Team Leader. Over the past 10 years, I have routinely worked closely with hydro licensees and state and federal fishery agencies on all stages of fish passage projects from conceptual design to construction and testing. Kleinschmidt is a member of the Ontario Waterpower Association.

EXPERTISE / EXPERIENCE RELEVANT TO THE AMERICAN EEL

- Feasibility, engineering, and costing assessments of downstream eel passage facilities;
- Inspection of the existing R.H. Saunders eel ladder;
- Design of the new eel ladder extension/pipeline at the R.H. Saunders Generating Station; and,
- Design of an eel trap and transport facilities in both tailwater and spillways.

EXPERTISE / EXPERIENCE RELEVANT TO THE LAKE STURGEON

- Biological design and evaluation of upstream and downstream lake sturgeon passage facilities on the Wisconsin and Menominee Rivers;
- Feasibility, engineering, and costing assessments of upstream and downstream passage facilities for Lake Sturgeon at hydroelectric projects; and,
- Design of fish protection, downstream passage, and upstream passage for shortnose sturgeon.

EXPERTISE/EXPERIENCE IN DEVELOPMENT AND IMPLEMENTATION OF MITIGATION, EFFECTS MONITORING, AND EFFECTIVENESS MONITORING

I have designed new fishways and also provided enhancements to existing fishways in order for them to meet mitigation requirements. These designs have incorporated components to allow for effectiveness monitoring using features such as viewing windows, PIT tag systems, video, and counting devices. I have also participated in resource agency consultation to both understand fish passage goals and educate all parties regarding site specific complexities of fish passage.

EXPERTISE/EXPERIENCE IN HYDROELECTRIC SECTOR

I have been working on upstream and downstream fish passage projects at hydroelectric facilities for more than 10 years. Success of these projects has required coordination of the biological aspects of the target species and operational requirements of the hydroelectric projects to allow for an effective engineering design. As such, I have sound knowledge of the operations, maintenance, regulatory obligations and complexity of hydroelectric facilities.

Please see attached for my resume of direct relevance to the above mentioned criteria.

Please contact me at 803.462.5620 or at jesse.waldrip@kleinschmidtusa.com should you have any questions or require additional information.

Sincerely,

KLEINSCHMIDT ASSOCIATES



Jesse E. Waldrip, P.E.
Fish Passage Team Leader

JEW:FHW
Attachment: Resume

BACKGROUND

Jesse Waldrip joined Kleinschmidt as a Civil/Structural Engineer in July 2002. He earned his B.S. degree in Civil Engineering from Auburn University in Alabama. He is a registered Professional Engineer in Maine, Wisconsin, Tennessee, and Alabama. Prior to joining Kleinschmidt, Mr. Waldrip worked for Tindall Corporation in Atlanta, GA where he was a design engineer for precast/prestressed concrete structures such as parking decks, industrial buildings, and bridges.

At Kleinschmidt, Mr. Waldrip is the Fish Passage Team Leader. He has managed and participated in many fish passage design projects, feasibility studies, and site inspections. Mr. Waldrip routinely works closely with hydro licensees and state and federal fishery agencies on all stages of fish passage projects from conceptual design to construction and testing. His engineering expertise includes the design, inspection, evaluation, and rehabilitation of steel, concrete, and wood structures primarily relating to fish passage and protection. He has received specialized training from the University of Wisconsin - Madison in Design of Fish Passage at Dams and Road Crossings, and Design of Nature-like Fishways. Mr. Waldrip has been involved in the agency consultation, costing, design, construction, and testing of numerous fishway projects including steep pass fishways, denil ladder fishways, vertical slot fishways, fish elevators, natural fishways, eel ladders, and downstream fish passage facilities.

PROJECT EXPERIENCE

R.H. Saunders Eel Passage Monitoring Ontario Power Generation - Cornwall, ON

Project engineer responsible for seasonal start-up and technical questions relating to the operations and maintenance of the upstream eel passage system at R.H. Saunders Generating Station on the St. Lawrence River.

Performed project management, engineering design and construction monitoring of an extension to the existing eel ladder at R.H. Saunders Generating Station on the St. Lawrence River. The existing facility discharged eels into the headpond adjacent to the hydro units resulting in unwanted fallback of eels through the units. The new facility utilizes a system of tanks, pumps, and pipes to allow eels to swim upstream 300 meters prior to being discharged into the headpond.

Menominee River Fish Passage Feasibility Study

U.S. Army Corps of Engineers – Detroit, MI

Senior Project Engineer for this fish passage feasibility study for the five hydroelectric projects on the Menominee River in Michigan and Wisconsin. The focus of this study is to review alternatives for upstream and downstream passage of lake sturgeon. Responsibilities include alternatives analysis, preparation of conceptual design drawings, preparation of cost opinions, and preparation of operations and maintenance reports.

Menominee Dam Fish Lift Design

NEW Hydro – Neshkoro, WI

Project Manager and Senior Engineer responsible for the final design of a fish lift and fish sorting facility for lake sturgeon at the Menominee Hydroelectric Project on the Menominee River in Michigan.

Prairie du Sac Fish Passage

Alliant Energy – Madison, WI

Senior Engineer involved with agency consultation and preliminary design of an upstream fish elevator, sorting facility, and downstream fish passage system for Lake Sturgeon on the Wisconsin River. Currently providing engineering review and oversight of layout and functionality for the final design of these fish passage facilities.

Roanoke Rapids Tailrace Eel Trap & Spillway Eel Transport System, Dominion Power - Richmond, VA

Performed conceptual and detailed design for the installation of a ramp type structure for trapping upstream migrating American eel in the tailrace of the Roanoke Rapids Hydroelectric Project on the Roanoke River. Project engineer for the detailed design of an eel collection facility for trapping upstream migrating American eel in the spillway of the Roanoke Rapids Hydroelectric Project on the Roanoke River in North Carolina. The facility consists of two ramp type eel ladder structures with collection tanks, removable pump systems, and attraction water siphon systems. When the system was started up in 2010 it collected approximately 300,000 American eels which were studied and then transported upstream into the impoundment.

St. George Downstream Fish Passage Study Implementation, St. George Power - St. George, NB

Project Manager responsible for study facilitation, stakeholder collaboration, data analysis, and technical reporting for downstream salmon smolt passage effectiveness studies.