



Memo

To: Marie Lummiss, Ontario Waterpower Association

From: Phil Anderson

Date: June 23, 2014

Re: Fish Sampling Expert Request for Qualification

Marie

In order to support our existing clients and OWA members I would like to apply for the OWA Roster of Fish Sampling Expert. I have included the short summary of my experience and relevant information as per the criteria identified.

- 1) Individual - Phil Anderson
Aquatic Biologist

- 2) Employer: Natural Resource Solutions Inc.
Active Member of the Ontario Waterpower Association.

3) Description of Expertise and Experience

I have extensive experience with multi-species fish sampling on numerous types of waterbodies from small streams to lakes and large rivers. My expertise has come from 17 years of sampling with multiple gear types including, backpack and boat electrofishing, index netting, trap and fyke netting, hoop netting, larval drift netting and minnow traps. I have conducted multiple tagging programs which include VIE tagging, Pit Tagging, radio telemetry tagging, and external tagging. Phil is the project manager and co-ordinator for the Michipicoten River lake sturgeon monitoring program which includes netting, radio telemetry, egg matting, larval drift netting and migration surveys.

4) Expertise and Experience In the Hydroelectric Sector

In partnership with MNR and Brookfield Renewable Energy Group I assisted with the development and implementation of the Michipicoten River lake sturgeon monitoring program to assess baseline conditions and status of the Michipicoten River Lake Sturgeon population. This

included fish collection and sampling, surgery to implant tags and monitoring. I have extensive experience as field coordinator and lead field biologist for 8 hydro development projects on 6 rivers throughout Ontario conducting fish community assessments and spawning surveys on multiple rivers utilizing standard protocols and practices. These include RIN netting, index netting, trap netting, electrofishing and tagging, and mark recapture studies.



**PHIL ANDERSON, F.W.T.
AQUATIC BIOLOGIST**

EDUCATION / CERTIFICATIONS

- Fish and Wildlife Technologist (1999), Sir Sandford Fleming College, Lindsay, Ontario
- Electrofishing Crew Leader Class I (boat/backpack), 2012
- Species at Risk Fish Identification Certificate, Royal Ontario Museum, 2008
- Species at Risk Reptile and Amphibian training, Scensational Snakes, 2007
- MTO Fisheries Protocol Training, 2006
- Fish Identification Certificate, Royal Ontario Museum with Erling Holmes, 2001

PROFESSIONAL EXPERIENCE

Phil is an Aquatic Biologist with 14 years of diverse experience in providing technical expertise in developing, reviewing, implementing and monitoring inventory processes. He specializes in fish habitat surveys and mapping, fish community, and population assessment, has been involved in numerous hydropower development studies from the EA stage through to post construction monitoring and effectiveness studies. He has acted as coordinator and crew lead for multiple scientific studies on the impacts of flow modifications on aquatic biota.

- Field coordinator and lead for 8 hydro development projects on 6 rivers throughout Ontario.
- Field crew leader for over 40 fish sampling and habitat assessment studies on 15 hydro projects throughout Ontario.
- Currently co-ordinator and crew lead for Lake Sturgeon population assessment and spawning survey on the Michipicoten River in Wawa Ontario. This study involves XL Gill netting to collect lake sturgeon, implementation of PIT tags, external tags, and internal radio telemetry tagging, tracking movements during the spawning period, egg matting surveys, larval drift netting and juvenile lake sturgeon sampling. (Client: Brookfield Renewable Power, Wawa Hydro Operations)
- Conducted a multiyear mark recapture population assessment with the use Visual Implant Elastomer Tags (VIE) and boat electrofishing on the Shikwamkwa River as part of the Shikwamkwa dam replacement (Client: Brookfield Renewable Power, Wawa Hydro Operations)
- Crew lead for spawning surveys of walleye, smallmouth bass, and lake whitefish for the Wasdell Falls Dam hydro development retrofit on the Black Severn River. Surveys include netting, egg matting, visual surveys (Client: Wasdell Falls Power Corporation)
- Crew lead for spawning surveys of walleye, and lake sturgeon, in support of the Class



Environmental Assessment for this hydroelectric development. (Client: Hydromega)

- Crew Lead for walleye spawning surveys, lake sturgeon spawning surveys, four rivers. Survey included XL gill netting, baited Trot Lines, DNA sampling, PIT tagging, external tagging, and egg matting, (Client: Xeneca)
- Crew lead for numerous fish relocations utilizing electrofishing, gill netting, trap netting, lead lines for 4 Hydro Developments during construction (Clients: Kiewit, Hydromega)

EMPLOYMENT HISTORY

Aquatic Biologist

Natural Resource Solutions Inc. Kitchener, Ontario

2002 to Present

Aquatic Resource Technician

Grand River Conservation Authority, Cambridge, Ontario

June 2000 to February 2002

