

**Stantec**

**BROOKE-ALVINSTON WIND FARM  
WATER REPORT**

## **Appendix D**

### **Curricula Vitae**

Marc Faiella's experience has included industry and development sector projects. He has conducted field investigations, liaised with representatives of government agencies, regulators and worked with First Nations, synthesized data and produced reports. Marc's specific areas of expertise include Environmental Effects Monitoring (EEM), Environmental Impact Studies (EIS) and Fish Habitat Assessments. He has assessed potential impacts to aquatic habitats at a number of mining and development-related sites, such as metal mines, quarries, pulp and paper mills, subdivisions and city drainage systems. Marc's technical experience has focused mainly on aquatic habitats. He has conducted fisheries inventories and Species at Risk project surveys based on provincial protocols, trout spawning surveys, collected benthic invertebrate samples, and collected water, sediment and non-lethal and lethal fish tissue samples for mercury. Marc has gained practical experience with all construction phases of DFO applied work sites. In addition, Marc has on-site experience at remote northern sites where access is gained via helicopter, ATV, boat and hiking.

## EDUCATION

Tech. Dipl., Sir Sanford Fleming College / Ecosystem Management, Lindsay, Ontario, 2005

Training Certificate, Class 1 Electrofishing Certificate, MNR, Ministry of Natural Resources, Ontario, 2007

Training Certificate, Royal Ontario Museum Fish Identification Workshop, Royal Ontario Museum, Ontario, 2006

Certificate, St. John Ambulance / First Aid and CPR, Guelph, Ontario, 2010

Certificate, MTO/DFO/OMNR Protocol, Toronto, Ontario, 2006

P.A.L. and Firearms, Brampton, Ontario, 2005

Certificate, Pleasure Craft Operator, Toronto, Ontario, 2005

Sir Sanford Fleming College / Short Wave Radio, Lindsay, Ontario, 2004

Sir Sanford Fleming College / Chainsaw Operator, Lindsay, Ontario, 2004

## PROFESSIONAL ASSOCIATIONS

Canadian Environmental Practitioner In Training (CEPIT), Canadian Environmental Certification Approvals Board

## PROJECT EXPERIENCE

### Power

Yellow Falls Hydroelectric Project, Smooth Rock Falls, Ontario (Aquatic Technician)

*Crew member responsible for extensive fish, benthic, water and habitat surveys along the Matagami River. Fish surveys included setting and retrieving gillnets, electrofishing, identification of fish species, retrieving age indicators from fish, characteristic measurements and collecting non-lethal samples for mercury analysis. Collected benthic invertebrates using various sampling techniques for later sorting and identification. Collected water samples and substrate samples using various sampling techniques and equipment for lab testing. Worked closely with a First Nations crew member for the duration of the project and, upon completion of the field surveys, performed data analysis and report writing.*

**Biological Monitoring for the Shekak-Nagagami  
Generating Station, Hearst, Ontario (Field Crew Lead)**

*Responsible for compiling appropriate field gear to complete the Year-13 monitoring study along the Shekak and Nagagami Rivers in the vicinity of a hydroelectric dam. Participated in surveys, which included: fish inventories through electrofishing, fish tissue collection via gillnets, benthic sampling and water quality and sediment quality collection through several collection techniques. Performed data analysis and completion of the report. Worked closely with Brookfield Power, the MNR and Hearst employees to obtain necessary information and data to complete the project.*

**Hydro One Series Capacitor Station, Huntsville, Ontario  
(Project Management / Crew Leader)**

*Undertook a fisheries sampling survey to determine the presence or absence of fish species near a proposed capacitor station. Duties included securing fisheries permits from related agencies, compilation of maps to assist with surveys, assembly of staff, planned and implemented the field program and prepare report for internal and external circulation.*

**Environmental Assessments**

**Bruce to Milton Transmission Reinforcement Project,  
Multiple Sites, Ontario (Crew Lead)**

*Key member of the study team for the proposed hydro corridor expansion from Bruce Nuclear to a Milton, Ontario. Liaised with several Ministry of Natural Resources offices to coordinate issuance of permits and processing of historical fisheries data requests. Worked directly with the project manager to complete a work plan to safely and efficiently complete spring and summer fisheries surveys along the approximate 180 km corridor. Led a 2-person crew to conduct stream cross section surveys used to determine appropriate sizing of culverts. Coordinated production of detailed mapping and figures upon completion of the surveys, in tandem with Stantec's in-house GIS / graphics department, and was key in production of the independent Class EA report.*

**Port Alma Wind Power Project, Port Alma, Ontario  
(Field Crew / Data Analyst)**

*Exclusively responsible for conducting background topography research. Performed tree measurements for entire survey area, identified and mapped tree species locations using aerial photo base. Constructed tests for future heights (software) and produced reports detailing results. These results had significant bearing on wind turbine selection and placement.*

**Natural Sciences & Heritage Resources**

**Melancthon Wind Energy Project Tree Surveys,  
Melancthon, Ontario (Aquatic Technician)**

*Measured tree heights and the species identified with use of a laser-sighted measuring device. Performed a desktop exercise, whereby heights were projected over a 20 year period. These projections were then synthesized on aerial photos, showing potential hazards to turbines, thus assisting with selection of wind turbine placement and selection of site-appropriate turbine models.*

**Mining**

**Environmental Effects Monitoring (EEM) Program:  
Focused Monitoring Phase, Hudson Bay Mining and  
Smelting, 2009, Snow Lake, Manitoba (Aquatic  
Technician)**

*One of a 2-person crew stationed in Snow Lake for metal mine EEM Focused Monitoring phase, involving fisheries and benthic invertebrate surveys. Collected benthic and water samples in the field as well as fish, using multiple collection techniques. Completed habitat assessments, plume measurements and fish necropsies. Upon completion of field work, performed data analysis and reporting for the final EEM report.*

**Environmental Effects Monitoring (EEM) Program:  
Focused Monitoring Phase, Hudson Bay Mining and  
Smelting, 2009, Flin Flon, Manitoba (Aquatic  
Technician)**

*Participated in metal mine EEM Focused Monitoring phase, involving fisheries and benthic invertebrate surveys. Collected benthic and water samples in the field as well as fish, using various collection techniques. Completed habitat assessments, plume measurements and fish necropsies. Upon completion of field work, performed data analysis and reporting for the final EEM report.*

**Environmental Effects Monitoring (EEM) Program:  
Periodic Monitoring Phase, Hudson Bay Mining and  
Smelting, 2007, Snow Lake, Manitoba (Aquatic  
Technician)**

*One of a 2-person crew stationed in Snow Lake for metal mine EEM Periodic Monitoring phase, involving fisheries and benthic invertebrate surveys. Collected benthic and water samples in the field as well as fish, using various collection techniques. Completed habitat assessments, plume measurements and fish necropsies. Upon completion of field work, performed data analysis and reporting for the EEM report.*

**Environmental Effects Monitoring (EEM) Program:  
Periodic Monitoring Phase, Hudson Bay Mining and  
Smelting, 2007, Flin Flon, Manitoba (Aquatic  
Technician)**

*Participated in metal mine EEM Periodic Monitoring phase, involving fisheries and benthic invertebrate surveys. Collected benthic and water samples in the field as well as fish, using various collection techniques. Completed habitat assessments, plume measurements and fish necropsies. Upon completion of field work, performed data analysis and reporting for the EEM report.*

**Environmental Site Management**

**Randall Drain Branch A Restoration, Environment  
Inspection and Post-construction Monitoring, Waterloo,  
Ontario (Environmental Inspector)**

*Responsible for overseeing that approved plans to remediate a damaged watercourse on the City of Waterloo's airport property, as outlined by The Department of Fisheries and Oceans, Grand River Conservation Authority and Stantec Consulting Ltd., were carried out accordingly. Works included properly diverting flow downstream, efficiently dewatering the damaged area and relocating any stranded aquatic species downstream. Worked closely with the construction crew to ensure all remediation phases met Fisheries Act requirements. Prepared final report.*

Roxanne is an ecologist with 7 years of experience in both aquatic and terrestrial natural environments. She has conducted field work in urban and remote wilderness areas, on both land and water. Roxanne's experience includes aquatic habitat assessments, electrofishing, fish necropsies, and the handling and identification of fish species. Her field experience also includes benthic invertebrate sampling and identification, as well as the collection of soil, surface water and ground water samples through field investigations. She has conducted field trapping and identification of reptilian species. Roxanne is skilled in the identification of both aquatic and terrestrial vegetation. Through her varied roles in a diverse range of projects, Roxanne provides well-rounded practical experience with many elements of intensive field programs, laboratory analysis and the collection, management and analysis of data.

## EDUCATION

B.Sc., University of Guelph / Biological Science,  
Guelph, Ontario, 2006

General Arts and Science Diploma, Fanshawe College,  
London, Ontario, 1996

Certificate, Royal Ontario Museum Fish Identification  
Workshop, Toronto, Ontario, 2008

MTO/DFO/OMNR Fisheries Protocol Course, Toronto,  
Ontario, 2010

Certificate, St. Johns Ambulance / First Aid and CPR,  
Level 3, Guelph, Ontario, 2010

Canadian Firearms Safety Course, Guelph, Ontario,  
2006

## PROJECT EXPERIENCE

### Power

Bruce to Milton Transmission Reinforcement Project,  
Southern Ontario (Aquatic Ecologist)

*Key member of the team involved in the field component of a 180 km long study area. Completed aquatic habitat assessments and electrofishing surveys for watercourses in the study area. Surveyed topographic cross-sections for watercourses which would be crossed by the transmission line access roads.*

Melancthon Wind Plant - 45 Turbines, 67.5MW,  
Melancthon and Amaranth Townships, Ontario  
(Ecologist)

*Completion of post-construction monitoring program to assess direct mortality to birds and bats within the wind power facility.*

### Mining

Cycle III Environmental Effects Monitoring (EEM),  
Hudson Bay Mining and Smelting Co. Limited, Flin Flon,  
Manitoba (Aquatic Ecologist)

*Field manager for four metal mine EEM projects in 2009 involving fisheries and benthic invertebrate surveys. Collection of fish, benthos and water samples in the field using various collection techniques was completed. Aquatic habitat assessments, plume measurements and fish necropsies, as well as data analysis and final reporting for the four EEMs were also completed.*

Cycle II Environmental Effects Monitoring (EEM), Hudson  
Bay Mining and Smelting Co. Limited, Flin Flon,  
Manitoba (Environmental Scientist)

*Field-crew leader for four metal mine EEMs in 2007 involving fisheries and benthic invertebrate surveys. Collection of benthos, fish and water samples in the field using various collection techniques was completed. Aquatic habitat assessments, plume measurements and fish necropsies, as well as benthic invertebrate identification, data analysis and final reporting for the four EEMs were also completed.*

\* denotes projects completed with other firms

**Roxanne Dibbley** B.Sc., Tech. Dip.  
Aquatic Ecologist

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**Human Health Risk Assessment Study, Hudson Bay Mining and Smelting Co. Limited, Flin Flon, Manitoba (Field Technician)**

*Organization and implementation of the environmental risk assessment field program, and member of the two-person crew that conducted fisheries surveys and collected water and sediment from 11 lakes in and around Flin Flon, using various collection techniques. Completion of the report for submission to the client and government agencies.*

**Aquatic Assessment Study of Florin Lake, Teck Cominco Limited, Red Lake, Ontario (Environmental Scientist)**

*Field-crew leader for this 2007 study, which involved benthic site selection, plume measurements and habitat characterizations as well as water and benthic sampling.*

**Site De Poirier Post-Remediation Biomonitoring Study, BHP Billiton, Joutel, Quebec (Environmental Scientist)**

*Field technician for a post-remediation biomonitoring study in 2007, which included water, benthic and fish collections. Conducted identification of benthic invertebrates in the laboratory from sediment samples taken in the field.*

**Roadways**

**Natural Sciences Services, Multiple Cities, Ontario (Field Technician)**

*Roxanne was part of a crew that conducted numerous fisheries presence / absence surveys along a number of Ontario roads slated for culvert modifications or replacement. In addition, she collected vital aquatic information to complement the electrofishing surveys. She helped prepare and complete the final reports that play major roles in determining proper construction methods and procedures.*