

# City of London - Application for Appointment to City of London Community Advisory Committees

## Application

Committee you are interested in serving on: **Ecological Community Advisory Committee**

## Contact Information

Name: **Nicholas Allen**

City: **Ingersoll**

Province: **ON**

Postal Code: **N5C 4G3**

## Experience and Qualifications

If you have experience on a London Advisory Committee, please provide dates and details. (max. 250 characters):

**I have not had the opportunity to serve on a London Advisory Committee.**

What do you hope to contribute or learn as part of a Community Advisory Committee? (max. 250 characters):

**My hope is to use my background as an industry ecologist to contribute a shared language and understanding of the most recent scientifically sound approaches to Species at Risk and general environmental programs. I hope that this communal language will generate productive and meaningful discussions and guidance for projects around the City.**

**What I am most hoping to learn from the Committee is a deeper understanding of what the community is interested and concerned about from an ecological perspective and where Londoners see the city going in the future.**

How will you support the work of a Community Advisory Committee? (max. 250 characters):

**My intent is to provide scientific proficiency for report review and analysis as well as technical skills such as Species at Risk identification and a deep understanding of regulatory requirements at a municipal, provincial, and federal level. I have a very strong background in report writing and am very proficient in the full suite of Office and GIS software that I would look to leverage for the Committee's advantage and efficacy.**

We value the contributions of Londoners with diverse experiences and welcome applications from individuals who share our commitment. Please describe how your work, community or lived experience will enhance these efforts through Community Advisory Committee work. (max. 3000 characters):

**My education began at the University of Waterloo where I completed a Bachelor of Environmental Resource Studies with a Minor in Biology. The overall program was geared towards environmental policy and field identification skills. From there I pursued a Masters in Environmental Science specializing in aquatic Species at Risk at the University of Guelph. Once completed I moved to Ingersoll, splitting the difference between my wife's position as a veterinarian in London and my position as an ecologist in Waterloo.**

**I have had the privilege of working both with regulators at Environment Canada for a couple of short contracts as well as in environmental consulting when I began with a fantastic environmental consulting firm in Waterloo, Natural Resource Solutions Inc. (NRSI). I travelled Ontario extensively completing pre-construction and post-construction monitoring projects related to Species at Risk, renewable energy, and residential development. Through my 6 years with NRSI I found a love for ecology that I have been fortunate enough to share with my co-workers, kids at various event days run by**

Conservation Authorities, and my family. In this role I provided input and co-authored a number of different types of reports but my favorite was always public-facing work as it allowed me to engage with a broader audience than my typical industry peers. After a number of years with NRSI I transitioned to a position here in London with AECOM in their Impact Assessment and Permitting division. Since moving to this position here in London I've been engaged on a number of City of London projects (Southdale Phase 1/2, Wellington Gateway, Col Talbot, Springbank Reservoir, etc.) as well as projects in and around the GTA and Chatham-Kent. I moved into a project management role with a greater focus on client and business development for the renewable energy sector but have retained all of my passion for ecology and public engagement. My intent is to use my experience with the dozens of municipalities I have worked for and with to better assess the scope of concerns and issues here in London and apply some of the alternative approaches I have seen be successful elsewhere. Based on my position there will be times where I need to recuse myself from projects if they are related to my employment as I would not want to jeopardize the independence of the Committee. Hopefully this is an mutually acceptable accommodation from the perspective of the Municipal Council.

Please describe additional experience, training, or community involvement that will help you in your role as a Community Advisory Committee Member. (max. 250 characters):

Through my undergraduate, Masters, and employment I have taken a number of public engagement courses and programs geared towards de-escalation, clear communication, and community trust building. I would hope to utilize these skills in my role.

Attach resume or other document here, if needed: **CV\_Allen\_2024\_04\_05.pdf**

Attach more files here, if needed:

## Confirmations

I declare the following: **I am at least 18 years old.; I am not a City employee or Council member.; I understand that the commitment may be up to 4 hours per month to attend meetings and prepare.; I understand that my application and any attachments will be included on a public agenda that is published on the City website.**

To help inform our outreach activities, please tell us how you heard about this opportunity: (optional): **Social media**

If you selected 'Other', please specify:

Submitted on: **4/30/2024 10:42:18 PM**

# Nicholas Allen, HBES, MES

Senior Ecologist & Project Manager

## Education

Master of Environmental Science University of Guelph, Guelph, Canada

Honours, Co-op, B.E.S., Environmental Resource Studies, University of Waterloo, Waterloo, Canada,

Graduate Certificate Ecosystem Restoration, University of Waterloo, Waterloo, Ontario, Canada

## Years of Experience

With AECOM: 2

With Other Organizations: 8

## Areas of Expertise

Proposal Development

Infrastructure Development & Mitigation Plans

Post-Construction Monitoring

Federal & Provincial Permitting

Freshwater Unionids

## Professional Affiliations

Member – American Fisheries Society, Ontario Chapter

Member – Society of Ecological Restoration

## Training and Certifications

Class 1/2 Electrofishing Certified Equivalence

Reliable Status & Secret II Clearance

Royal Ontario Museum (ROM) and Fisheries and Oceans Canada (DFO) Fish, Minnow, and SAR Identification

DFO Mussel Course

Ontario Benthos Biomonitoring Network Certified

First Aid with CPR A Certified

## Summary

**Nicholas Allen, HBES, MES**, is a Project Manager and Ecologist in the London office with ten years of experience in the environmental field. He specializes in executing or managing large, multi-faceted, environmental programs ranging from 1- to 10-years in length and from \$10,000 to \$2,000,000 in scope with overall project budgets in exceedance of \$160 million. He has managed projects locally and in remote Northern Ontario related to post-construction monitoring, existing conditions assessments, and critical issues analyses for new and developing renewable energy sources. As an ecologist he specializes in freshwater unionids, fish community monitoring, water quality and sediment monitoring, and coordinating and executing multi-disciplinary monitoring programs in support of major infrastructure projects. Nicholas' typical field work includes SAR mussel and fish relocations, fish community assessments, aquatic habitat assessments, Species at Risk (SAR) screenings, and construction monitoring of aquatic environment control measures and best management practices. Nicholas has authored and provided technical input to environmental monitoring reports, Existing Conditions (EC) reports, Environmental Impact Study (EIS) reports, and Environmental Assessments (EAs). He specializes in developing and executing annual monitoring programs for environmental and regulatory agencies in association with environmental approvals and permits for large infrastructure projects including hydroelectric, wind, and solar developments. Nicholas is experienced and knowledgeable in provincial and federal legislation and associated regulations including: *Conservation Authorities Act, 1990*, *Fish and Wildlife Conservation Act, 1997*, *Endangered Species Act, 2007*, *Fisheries Act, 1985*, and *Species at Risk Act, 2002*. He has prepared and submitted permits and received approvals under these regulations with an emphasis on Fisheries and Oceans Canada (DFO) Request for Review Applications and *Fisheries Act* Authorizations. He has used his extensive experience with consulting the DFO, MNDMNR, and MECP regarding Letters of Advice (LOA), Authorizations, and SAR permits to streamline the approvals process for his clients. Before entering consulting Nicholas worked with Environment and Climate Change Canada (ECCC) on developing modernized methane emission regulations, improving and updating the Single Window Information Management (SWIM) program, and for Nasittuq, an indigenous-owned federal contractor, developing site-specific policy advice relating to wildlife for buildings and projects in the Arctic.

## Species at Risk Experience

**London Bus Rapid Transit - Wellington-Gateway, City of London, Ontario.** Coordinated and led field investigations to support the Environmental Impact Study, DFO Request for Review and Application for Authorization, MECP Information Gathering Form, and UTRCA Section 28 permitting for 5 Species at Risk. This entailed completing habitat assessments, reporting, and several rounds of meetings and negotiations with permitting agencies. Submitted Fisheries Act Authorization documents and Endangered Species Overall Benefit Form with drafted offsetting measures for approval. (02/2022 - )

**Victoria Street Bridge Construction, City of London, London Ontario.** Completed the permitting requirements under the Fisheries Act and Endangered Species Act approvals obtained for the construction of the Victoria Street Bridge for 4 Species at

Risk. This entailed SAR mussel and fish relocation and reporting as well as ESC and wildlife exclusion fence monitoring immediately after storm events. (03/2022 – )

**Argyle Street Bridge, Caledonia Ontario\***. Aquatic Ecologist aiding in proposal development and acting as technical coordinator and site lead. Performed largest mussel relocation in Ontario, moving 180,000+ mussels over 120 days. Led a crew of 40 staff performing excavation, assessment and recording, and relocation of SAR and non-SAR Unionid mussels. Carried out 1-month and 1-year monitoring using visible and RFID tagging techniques. (07/2020 – 10/2021)

**McCurdy Street Bridge, Brant-Elderslie Ontario\***. Aquatic Ecologist conducting mussel relocation for then-listed SAR Rainbow mussels as required by DFO Fisheries Act Authorization in support of bridge development over the Saugeen with two piers and shoreline abutment alterations. Performed annual monitoring of mussel population, recolonization efforts, and habitat erosion monitoring of developed mussel habitat. (06/2018 – 08/2021)

**Highway 6 Bridge Replacement, Teeswater Ontario\***. Aquatic Ecologist conducting a SAR mussel and fish relocation to support the installation of the replacement bridge over the Teeswater River. Responsibilities included contractor coordination, backpack electrofishing, seine netting, mussel collection and identification, and associated permitting and reporting to the client and relevant agencies (06/2021 – 07/2021)

**Pelee Island SAR Mussel Drain Cleanout, Pelee Island Ontario\***. Aquatic Ecologist leading a mussel salvage on Pelee island for Lilliput mussels that would be impacted by the required agricultural drain cleanouts. Responsibilities included SAR mussel collection and relocation, construction monitoring for adverse effects, sediment spoils sifting, and daily reporting to the client and relevant agencies. (07/2020 – 12/2020)

**15 Line Bridge Repairs, Avonbank Ontario\***. Aquatic Ecologist leading a SAR mussel and fish relocation to support the repairs to the 15 Line bridge abutments. Responsibilities included contractor coordination, backpack electrofishing, seine netting, mussel collection and identification, and associated permitting and reporting to the client and relevant agencies. (09/2020 – 11/2020)

**Township Road 12 Bridge Replacement, Blandford-Blenheim Ontario\***. Aquatic Ecologist conducting a SAR mussel and fish relocation to support the installation of the replacement bridge over the Nith River. Responsibilities included contractor coordination, backpack electrofishing, seine netting, mussel collection and identification, and associated permitting and reporting to the client and relevant agencies (07/2019 – 08/2019)

**Kitchener Wastewater Treatment Plant Upgrade, Kitchener Ontario\***. Aquatic Ecologist conducting fish and mussel salvage operations for the installation of a new effluent outflow pipe and subsequent rehabilitation in the Grand River. Responsibilities included backpack electrofishing for fish community assessment and implementation of the DFO mussel relocation protocol for SAR mussels during construction and post-construction monitoring of relocated mussels and streambed/bank remediation. (07/2017 – 08/2018)

**Guelph Wastewater Treatment Plant Outflow Assessment, Guelph Ontario\***. Aquatic Ecologist conducting a SAR mussel assessment to determine the scope and scale of impacts to mussels and fish associated with the outflows from the Guelph WWTP. Responsibilities included mussel collection and identification, backpack electrofishing, and associated permitting and reporting to the client and relevant agencies. (09/2020 – 11/2020).

**Bayfield River Bridge Assessment, Clinton Ontario\***. Aquatic Ecologist conducting a preliminary survey of a bridge replacement to determine the scope and scale of impact to SAR mussels and fish. Responsibilities included mussel valve collection and identification, backpack electrofishing, and associated permitting and reporting to the client and relevant agencies. (09/2019 – 11/2019)

**Clegg Line Mussel Assessment, Wingham Ontario\***. Aquatic Ecologist conducting a preliminary survey of a bridge replacement to determine the scope and scale of impact to mussels and fish. Responsibilities included mussel collection and identification, backpack electrofishing, and associated permitting and reporting to the client and relevant agencies. (06/2019 – 07/2019)

**Jefferson Salamander Monitoring, Kitchener Ontario\***. Aquatic Ecologist completing an in-depth population assessment focused on hybrid and purebred Jefferson Salamanders at a private property in support of their development proposal. Responsibilities included identification, handling, and colour-coded (VIE) tagging of SAR amphibians as well as daily reporting and photo log submission to the project lead (06/2017 – 08/2019)

#### **Infrastructure Operation, Maintenance, Monitoring, & Construction Support**

**APK & Lorne Park Water Treatment Facility Upgrades, Region of Peel, Ontario**. Aquatic Ecologist co-ordinating the acquisition of federal and provincial permitting to extend the water intake footprint within the lake to accommodate a new Lake Ontario monitoring system to detect potential water contamination prior to intake into the facility. This involved engagement with federal and provincial regulatory agencies regarding the likelihood of presence based on underwater videography. (10/2023 - )

**Coniston & Stinson GS Redevelopment Program, Ontario Power Generation, Sudbury, Ontario.** Environmental Team lead coordinating the execution and invoicing of \$460,000 in permitting and reporting to support the redevelopment of two hydroelectric generating stations owned by OPG. Total project budget in excess of \$160 million with critical schedule milestones contingent on permit delivery. Environmental scope included DFO, MECP, MNRF, GSCA, MCM, and Transport Canada permitting as well as field investigations to confirm SAR and non-SAR habitat on-site. (07/2023 – 12/2023)

**Macassa Mines Critical Issues Analysis, AgnicoEagle/KLG, Kirkland Lake, Ontario.** Project Manager and Aquatic Ecologist completing project management tasks and reporting for the pre-development consideration of a mine expansion in Central Ontario. The work considered impacts under different legislations at all levels of government as well as potential for permitting to cause cost and schedule variance in the near- and long-term (04/2023 – 11/2023).

**Halton Structures, Region of Halton, Halton Hills, Ontario.** Aquatic Ecologist completing fish and fish habitat assessments for permit acquisition to support 24 unique roadway projects throughout the region. The activities occurred in 12 Species at Risk watercourses requiring permitting, registration, or mitigation measures to avoid contravention of federal and provincial regulations. The information was compiled in a series of Project Description Reports that coincided with the various completion percentages (30%, 60%, 90%, 100%). (11/2022 - )

**Highway 413 Transportation Corridor Route Planning and Environmental Assessment, MTO, Halton Hills, Ontario:** Scoped and drafted aquatic components for the project and then coordinated and conducted watercourse crossing assessments and fish community assessments through the extent of the proposed road alignment. Wrote and provided inputs and editing towards the development of the Initial Project Description for submission to IAAC in relation to SAR present within the proposed road alignment. (02/2022 - )

**Highway 410 Queen to Bovaird, MTO, Toronto Ontario.** Coordinated and conducted watercourse crossing assessments and fish community assessments through the extent of the proposed roadworks. Completed the appropriate MTO Documentation as required by the Fish Guide and provided input to the design team for aquatic specific components. (07/2022 – )

**Highway 401 Victoria Park to Neilson, MTO, Toronto Ontario.** Coordinated and conducted watercourse crossing and fish community assessments through the extent of the proposed roadworks. Completed the appropriate MTO Documentation as required by the Fish Guide and provided input to the design team for aquatic specific components. (06/2022 – )

**Panhandle Regional Expansion Project, Enbridge, Essex County, Ontario.** Coordinated and conducted 40+ watercourse crossing assessments and fish community assessments through the extent of the proposed pipeline route for both SAR and non-SAR watercourses. Wrote and finalized the aquatic components for the Environmental Report and submitted to the client as well as submission of permitting under the ESA and Fisheries Act to their respective agencies. (02/2022 - )

**Colonel Talbot Road, City of London, London Ontario.** Coordinated and led aquatic field investigations to support the Environmental Impact Study, potential DFO Request for Review, and UTRCA Section 28 permitting. This entailed completing aquatic habitat assessments, reporting, and determination of compliance with existing DFO CoPs and BMPs. Once the fieldwork was completed led meetings and discussions with the client to consider various options and their impacts to existing DFO Habitat Banking credits located in adjacent watercourses. (04/2022 – )

**VIA High Frequency Rail Corridor, VIA, Ontario.** Coordinated and completed 55 watercourse crossing assessments through the extent of Segment 7 of the proposed rail corridor expansion. Compiled and proofed the collected data and developed the survey protocols for the subsequent detailed watercourse assessments which include mussel, benthic, and fish community assessments as well as trophic linkage determinations. (07/2022 – )

**Dingman Drive Improvements, City of London, London, Ontario.** Coordinated and conducted watercourse crossing assessment and fish community assessment for the newly proposed stormwater outfall into Dingman Creek. Wrote and finalized the aquatic components for the Environmental Report and submitted to the client as well as submission of permitting under the Fisheries Act. (02/2022 – )

**Newmarket Crossings 24.57 & 24.60, Metrolinx, King Ontario.** Coordinated and led aquatic field investigations to support the DFO, MECP, and CA Section 28 permitting. This entailed completing aquatic habitat assessments, reporting, determination of compliance with existing DFO CoPs and BMPs and submission of a Request for Review and Information Gathering Form. (04/2022 - 01/2023)

**Murray Street Rehabilitation, Municipality of Chatham-Kent, Wallaceburg Ontario.** Coordinated the Endangered Species Act Activity Registration associated with the roadworks at 100 Murray Street. The work had the potential to impact 15 aquatic species and 1 bird species. (03/2022 – 09/2022)

**City of Toronto Stormwater Outfall Retrofit, Toronto Ontario\*.** Aquatic Ecologist leading the fish community sampling, fish relocation, and associated DFO permitting for three stormwater outfalls retrofits as identified by the City of Toronto. Responsibilities included relevant permits and approvals, coordinating site isolation and dewatering efforts, backpack electrofishing, and contractor and agency reporting. (06/2020 – 12/2021)

**Port Stanley Harbour Dredging Monitoring, Port Stanley Ontario\***. Project Manager and Aquatic Ecologist providing construction monitoring and post-construction monitoring to support the collection and storage of dredged sediment considered hazardous waste. Responsibilities included monitoring of the installation of fish habitats such as log tangles, gravel shoals, and developed wetlands as well. Post-construction responsibilities included multiple trips per year to monitor the fish community, water quality parameters and assess the stability of the installed structures as well as annual reports to the relevant agencies and municipality. (06/2016 – 12/2020)

**Simcoe Aquifer Pump Testing, Simcoe County Ontario\***. Project Manager and Aquatic Ecologist conducting daily pump test monitoring in support of the development of a new municipal water pump for the municipality of Simcoe to determine the impacts on the surface waters adjacent and directly above the accessed aquifer. Responsibilities included pre-, during, and post-pumping test monitoring of the adjacent watercourse and wetland, all associated permitting and final reporting to the groundwater engineer, municipality, and relevant agencies. (10/2020 – 02/2021)

**Mitchell Dam Reservoir Monitoring, Mitchell Ontario\***. Project Manager and Aquatic Ecologist leading emergency monitoring on the Mitchell Reservoir in support of the UTRCA's plan to reflood the reservoir after two years dry due to construction on the Henry Street bridge without harming the Silver Shiner habitat downstream. Responsibilities included leading negotiations with DFO relating to the reflood plan, installing automated remote monitoring to assess the risks of hypoxia, reporting and public outreach to the municipality of Mitchell and DFO. (04/2021 – 09/2021)

**Big Creek Boat Launch Design, Long Point Ontario\***. Project Manager and Aquatic Ecologist leading the fish community sampling, fish relocation, and associated DFO permitting for the intended installation of a concrete slab boat launch within Big Creek National Area as requested by ECCC. Responsibilities included relevant permitting and approvals, design input regarding site isolation and construction methods, and final reporting to identify the steps towards development. (01/2021 – 04/2021)

**Hopewell Creek Monitoring, Waterloo Ontario\***. Aquatic Ecologist leading fish community assessments in support of the development of the Hopewell Crossing Community. Responsibilities included coordination with contractors, backpack electrofishing, relocation of fish and wildlife, and contractor and agency reporting (06/2018 – 07/2020)

**Lismer Lane Development Construction Monitoring, London Ontario\***. Aquatic Ecologist support the construction of a residential development by completing erosion and sediment control monitoring during the construction phase of the project. Responsibilities included identifying insufficient ESC measures, reporting on the status of installed control devices, and daily reporting to the client. (01/2020 – 02/2020)

**Metrolinx West Highland Creek Crossings, Toronto Ontario\***. Aquatic Ecologist leading fish relocations in support of the repairs to the existing rail lines. Responsibilities included backpack electrofishing, fish community and aquatic habitat assessments, GO Safety completion, and reporting to the contractor and relevant agencies. (10/2020 – 02/2021)

**Highway 7 Reconstruction and Widening, Markham Ontario\***. Aquatic Ecologist leading fish community assessments and fish relocations in support of the reconstruction and widening of Highway 7 at Markham Road. Responsibilities included backpack electrofishing, fish community and habitat assessments, and daily reporting to the contractor. (08/2018 – 09/2018)

**City of Brampton Stormwater Management Facility Retrofit, Brampton, Ontario\***. Aquatic Ecologist providing environmental monitoring during dewatering operations and fish salvage services to support sediment clean out and expansion of several stormwater management facilities. Responsibilities included turbidity monitoring of pump outflow water into known Species at Risk habitat, boat and backpack electrofishing for fish rescue and relocation, and daily data logging and progress reporting. (06/2016 – 08/2016).

**City of Guelph SWMFs, Guelph Ontario\***. Aquatic Ecologist leading fish and wildlife salvages for City of Guelph managed stormwater management facility to support existing housing development. Responsibilities included coordination with contractors on dewatering schedule, temporary aquadam placement and appropriate ESC measures, conducting boat electrofishing, backpack electrofishing, and seine netting for fish relocation, and agency reporting in addition to hoop-net utilization for turtle relocations. (06/2018 – 08/2019)

**Port Bruce Pier Repairs, Malahide Ontario\***. Aquatic Ecologist leading ecological surveys and bathymetric work associated with the installation of the Port Bruce in-water barrier and pilings. Responsibilities included boat navigation, side-scan sonar use, and photo logging. (08/2019)

**Great Lakes Shoreline Inventory, Ontario\***. Aquatic Ecologist leading shoreline inventory work across Ontario for inclusion into Environment and Climate Change Canada's climate change modelling. Responsibilities included establishing base stations for GIS, extensive boating, aquatic vegetation collection, and significant data management. (05/2018 – 09/2019)

**Dufferin Road 109 Widening, Grand Valley Ontario\***. Aquatic Ecologist leading fish and wildlife relocation in support of road widening and culvert upsizing. Responsibilities included backpack electrofishing, seine netting, and reporting to the contractor and relevant agencies. (09/2017)

**Assorted SWMF Projects, Ontario\***. Aquatic Ecologist leading fish and wildlife salvage operations in support of stormwater management facility cleanouts, repairs, retrofits, or upgrades. Responsibilities included proposal and costing development, obtaining relevant provincial permits and approvals, coordinating dewatering operations with the contractor, boat and backpack electrofishing, seine netting, hoop trapping, and dewatering monitoring.

- City of London 4 SWMF
- College Manor SWMF
- Suncor NatureWay SWMF
- Keats Way SWMF
- Bloomsbury Ave SWMF
- Masterson Circle SWMF
- Wythe Court SWMF
- Ireland Drive SWMF
- Taunton Road E SWMF
- Belmeade Court SWMF
- Ptarmigan Drive SWMF
- Southgate Drive SWMF
- Watson Road N SWMF
- Ingram Drive SWMF
- Bleams Road SWMF
- Juliana Drive SWMF

### **Environmental Studies**

**Kensington Bridge EA, City of London, London Ontario.** Aquatic Ecologist leading the aquatic habitat assessments in support of the Environmental A associated with the repairs and rehabilitation of Kensington Bridge over the Thames River. Activities included watercourse crossing assessments, floodplain characterization, and inputs and edits to the final report. (02/2022 – 01/2023)

**Southdale Phase 2 EIS, City of London, London Ontario.** Coordinated and led aquatic field investigations to support the Environmental Impact Study and UTRCA Section 28 permitting. This entailed completing aquatic habitat assessments, reporting, determination of compliance with existing DFO CoPs and BMPs. (04/2022 – 11/2022)

**Chatham-Kent Water Distribution EA, Municipality of Chatham-Kent, Chatham Ontario.** Coordinated and conducted 20+ watercourse crossing assessments through the extent of the proposed watermain routes. Wrote and finalized the aquatic components for the EA and reviewed impacts and obligations under the Fisheries Act for future project consideration. (02/2022 – 10/2022)

**Peterborough North End Class EA, Trent University, Peterborough Ontario.** Completed the aquatic text inputs for the previously completed aquatic habitat assessments and fish community assessments associated with the expansion of two roadways as well as potential new developments. (02/2022 – 05/2022).

**Dundas Street West Bridge Repairs Scoped EIS, Toronto Ontario\***. Aquatic Ecologist leading aquatic habitat assessments in support of the design input towards the Dundas Street West bridge repairs. Responsibilities included watercourse mapping, aquatic habitat assessments, wetland delineation, and hazard identification. (03/2021 – 05/2021)

**5184 East Road EIS, Port Stanley Ontario\***. Aquatic Ecologist leading habitat assessments and fish community assessments to support the EIS associated with the development of the residential property into a multi-residential development. Responsibilities included aquatic habitat assessments, fish community assessments, watercourse mapping, and input into the report. (06/2021 – 09/2021)

**Woolwich Street Development Scoped EIS, Breslau Ontario\***. Aquatic Ecologist leading habitat assessments and fish community assessments to support the EIS associated with the development of the agricultural property into a multi-residential development. Responsibilities included aquatic habitat assessments, fish community assessments, watercourse mapping, and input into the report. (08/2021 – 09/2021)

**Region of Waterloo Airport Scoped EIS, Waterloo Ontario\***. Aquatic Ecologist leading habitat assessments and fish community assessments to support the EIS associated with the extension of the airport runway and new runway development. Responsibilities included aquatic habitat assessments, fish community assessments, watercourse mapping, and input into the report. (06/2021 – 09/2021)

**Washington Street Scoped EIA, Paris Ontario\***. Aquatic Ecologist leading aquatic habitat assessments to support the EIS associated with the potential residential development of the wooded multi-unit property. Responsibilities included aquatic habitat assessments, watercourse mapping, and input into the report. (06/2021 – 09/2021)

**2004 Hamilton Road EIS, London Ontario\***. Aquatic Ecologist leading assorted surveys to inform the EIS related to the development of the abandoned residential property. Responsibilities included calling anuran surveys, snake board surveys, basking surveys, backpack electrofishing for fish community assessment, aquatic habitat assessments, and input into the reporting. (04/2021 – 09/2021)

**Glancaster Golf Club EIS, Ancaster Ontario\***. Aquatic Ecologist leading aquatic habitat assessments and fish community assessments to support the EIS associated with the development of the existing golf course into residential housing. Responsibilities included aquatic habitat assessments, fish community assessments, watercourse mapping, and input into the report. (10/2020 – 01/2021)

**Grimsby Hospital EIS, Grimsby Ontario\***. Aquatic Ecologist leading aquatic habitat assessments and fish community assessments to support the EIS associated with the demolition and development of the existing Grimsby Hospital. Responsibilities included aquatic habitat assessments, watercourse mapping, and input into the report. (09/2020 – 10/2020)

**Berlett's Corners Residential Development EIA, Berlett's Corners Ontario\***. Aquatic Ecologist supporting the development of two residences on a wooded parcel with wetland implications. Responsibilities included assisting in wetland delineation, aquatic habitat assessments, and reporting input relating to the wetland and watercourses. (04/2020 – 07/2020)

**Northgate & Erbsville Kartway Subdivisions EIS, Waterloo Ontario\***. Aquatic Ecologist leading fish community assessments in support of development of the subject property. Responsibilities included backpack electrofishing, benthic invertebrate collection and analysis, and report drafting. (06/2017 – 06/2020)

**Fort Erie International Academy EIS, Fort Erie Ontario\***. Aquatic Ecologist conducting aquatic habitat assessments and fish community assessments to support the EIS associated with the development of the property. Responsibilities included backpack electrofishing, watercourse measurements, relevant agency correspondence, and input into the report. (08/2019 – 02/2020).

**St. Elizabeth Mills Ecological Characterization Report, Hamilton Ontario\***. Aquatic Ecologist leading fish community assessments in six ponds to support the redevelopment of the existing facility. Responsibilities included boat and backpack electrofishing, fish community assessments, aquatic habitat assessments, and contributing to the final report. (06/2018 – 06/2019)

**500 Green Mountain Road EIS, Hamilton Ontario\***. Aquatic Ecologist conducting aquatic habitat assessments and fish community assessments to support the EIS associated with the development of the property. Responsibilities included backpack electrofishing, water quality parameter measurements, relevant agency correspondence, and input into the report. (07/2019 – 08/2019).

**Paris Grand Subdivision EIS Addendum, Paris Ontario\***. Aquatic Ecologist conducting aquatic habitat assessment and developing habitat restoration to incorporate into GSP Groups design for the subdivision. Responsibilities included backpack electrofishing, fish community assessment, and reporting input. (10/2018 – 01/2019)

**Roseville & Blenheim Road Expansion EIA, Cambridge Ontario\***. Aquatic Ecologist conducting evening wildlife mortality surveys in support of a road expansion by the City of Cambridge. Responsibilities included wildlife identification, recording, and daily reporting of mortalities. (05/2017 – 06/2017)

**Correctional Services Canada Ecological Inventory, Ontario\***. Aquatic Ecologist conducting aquatic habitat assessments and fish community analysis in support of a Correctional Services Canada (CSC) initiative to identify all fish and wildlife habitat on their properties across Ontario. Responsibilities included completing specialized CSC-led training for operations in secure facilities, backpack electrofishing, seine netting, and associated reporting to CSC and provincial government agencies. (07/2015 – 09/2015)

## **Wind Energy**

**Henvey Inlet Wind Energy Centre, Henvey Inlet First Nation near Parry Sound Ontario\***. Environmental monitor ensuring compliance with federal regulations and Species at Risk Act permits pre- and post-construction of a wind energy project on the Henvey Inlet First Nation. Responsibilities for pre-construction included monitoring and reporting on ESC development and implementation, SAR bat telemetry tracking, and monitoring equipment installation and maintenance. Post-construction responsibilities included avian and bat mortality monitoring, herpetofauna mortality monitoring, wildlife camera installation and analysis, and offsetting SAR habitat usage. (09/2018 – 08/2020)

**Grey Highlands Clean Energy Wind, Grey Highlands Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Capstone Infrastructure. Responsibilities included avian and bat mortality monitoring, searcher efficiency testing, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (06/2019 – 07/2019)

**Summerhaven Wind Energy Centre, Haldimand County Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Capstone Infrastructure. Responsibilities included raptor mortality monitoring, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (06/2019 – 07/2019)

**Dufferin Wind Farm, Redecville Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Longyuan Canada Renewables Ltd. Responsibilities included avian and bat mortality monitoring, searcher efficiency testing, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (05/2018 – 08/2018)

**Prince Wind Farm, Sault-Ste. Marie Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for end of the post-construction monitoring of a wind energy project developed for Brookfield Power. Responsibilities



included avian and bat mortality monitoring, aquatic and terrestrial habitat mapping, and nightly calling anuran surveys. (05/2015 – 06/2015)

**Pointes-Aux-Roches Wind Farm, Belle River Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Engie. Responsibilities included avian and bat mortality monitoring, searcher efficiency testing, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (05/2014 – 07/2014)

**South Kent Wind Farm, Chatham-Kent Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Samsung and Pattern Energy. Responsibilities included avian and bat mortality monitoring, searcher efficiency testing, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (05/2014 – 07/2014)

**Oxley Wind Farm, Oxley Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Verhoeven. Responsibilities included avian and bat mortality monitoring, searcher efficiency testing, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (05/2014 – 07/2014)

**Romney Wind Project, Wheatley Ontario\***. Environmental monitor ensuring compliance with federal regulations and permits for the post-construction monitoring of a wind energy project developed for Verhoeven. Responsibilities included avian and bat mortality monitoring, searcher efficiency testing, habitat mapping, and daily reporting requirements to relevant agencies and contractors. (05/2014 – 07/2014)

**Research Thesis, University of Waterloo Ontario\***. Lead author on a research study regarding the drivers to resistance and development of wind projects in Southern Ontario. Vetted by the University of Waterloo's Research Ethics Committee, the survey and subsequent report investigated the experiences and social implications of communities surrounding the development of private wind power projects. (07/2015 – 04/2016)

#### **Solar Energy**

**Loyalist Solar Facility, Stone Mills Ontario\***. Environmental monitor ensuring compliance with federal regulations and Species at Risk Act permits during construction of solar energy project developed by BluEarth Renewable and Mohawks of the Bay of Quinte First Nation. Responsibilities included monitoring and reporting on ESC measures condition, SAR monitoring and relocations, and daily reporting requirements to the contractor and agencies. (04/2018 – 08/2019)

#### **Hydroelectric Power**

**Yellow Falls Generating Station, Smooth Rock Falls Ontario\***. Aquatic Ecologist completing a post-construction monitoring program at a new hydroelectric facility along the Mattagami River. Responsibilities included developing and coordinating the monitoring program, walleye and lake sturgeon spawning surveys, aquatic habitat assessment, vegetation surveys, fish community monitoring and analysis, water and sediment analysis and reporting to DFO, MECP, and Boralex (04/2019 – 12/2021)

**Little Long Dam Safety Project, Kapuskasing Ontario\***. Aquatic Ecologist leading daily SAR fish relocations to support the dewatering efforts involved in a major hydroelectric dam retrofit. Responsibilities included boat electrofishing, gill netting, SAR fish handling, installation of FLOY and RFID tags, and reporting to the client and relevant agencies (06/2020 – 08/2021).

**Kapusksing River Environmental Monitoring Program, Kapuskasing, Ontario\***. Deputy Project Manager and aquatic ecologist responsible for the \$1.4 million post-construction environmental monitoring of a series of hydro dams on the Kapuskasing River. DPM responsibilities included field coordination, report drafting and proofing, invoice creation and review as well as client communication. Ecological responsibilities included electrofishing and gill netting for community inventories and tissue samples, benthic macroinvertebrate biomonitoring for water quality assessment, exuvial odonate sampling for assessment of a globally rare species, and walleye spawning surveys to assess the efficacy of compensation spawning habitat. (05/2014 – 02/2020)

**Caribou Falls Generating Station Fish Salvage, Caribou Falls Ontario\***. Aquatic Ecologist providing emergency fish relocation services to a hydroelectric station to support their planned repairs to the gates. Responsibilities included boat and backpack electrofishing, seine netting, purse seining, angling, trot lining, and emergency permit application and completion to relevant agencies (11/2019 – 12/2019)

**Michipicoten River Lake Sturgeon Impact Assessment, Michipicoten First Nation Territory / Wawa Ontario\***. Aquatic Ecologist performing a multi-year impact study of a Lake Sturgeon population in a hydroelectric dam regulated system. Responsibilities included boat electrofishing and gill netting for Lake Sturgeon, tagging and surgically implanting radio telemetry tracking devices, egg matting and larval drift netting, and identification of impacts and opportunities for mitigation and compensation for hydroelectric dam altered flow conditions on migration and reproduction. (05/2015 – 08/2019)

**Magpie River Ramping Study, Wawa, Ontario\***. Aquatic Ecologist conducting field investigations and collecting fish population and community data for a joint government-industry long-term adaptive management experiment on the ecological benefits of regulating hydro dam ramping rates. Responsibilities included permit applications, leading backpack electrofishing crews, data collection and management, and final reporting to the client. (07/2014 – 08/2017)

**French River Hydro Development Fish Salvage, Dokis First Nation Ontario\***. Aquatic Ecologist offering construction support for a large-scale hydro dam construction project. Responsibilities included boat and backpack electrofishing for fish salvage and relocation outside of the project area during dewatering operations and consultation and planning with contractors and local First Nations stakeholders. (06/2017 – 08/2017).

### **Restoration & Environmental Work**

**Gerdau Recycling Facility, Whitby Ontario\***. Field lead for environmental restoration at a recycling facility designed to prevent the loss of materials to the air and provide a visual and audible barrier to the lakeshore trail. Responsibilities included vegetation selection, planting, and seeding of earth confined long-term materials storage. (05/2016 – 07/2020)

**Fifty Point Conservation Area Fish Community Assessment, Hamilton Ontario\***. Project Manager and Aquatic Ecologist leading a fish community assessment to determine the viability of developing a self-sustaining trout fishery within Fifty Point Conservation Area waters. Responsibilities included project costing, coordination, boat electrofishing, gill netting, bathymetric mapping, and reporting to the Conservation Authority and other appropriate government agencies. (08/2019 – 03/2020)

**Fish Community Assessment for Lake Margaret, St. Thomas Ontario**. Project Manager and Aquatic Ecologist leading a fish community assessment for Lake Margaret to determine if the lake could support a recreational bass fishery. Responsibilities included proposal development, gill netting, boat electrofishing, and reporting to the Kettle Creek Conservation Authority and city of St. Thomas. (10/2018 – 01/2019).

**Little River Remediation, Windsor Ontario\***. Deputy Project Manager and Aquatic Ecologist leading the aquatic habitat assessment and fish community assessment components of the Little River Restoration to determine what improvements can and should be made to the system to support improved biodiversity. Responsibilities included fish community assessments, aquatic habitat assessments, water quality parameter collection and analysis, and final reporting to the client, agencies, and municipality. (03/2021 – 09/2021)

**Windermere Basin Remediation, Hamilton Ontario\***. Aquatic Ecologist leading fish community assessment and relocation from within the remediated Windermere basin to allow native fish to establish without the pressure of non-native and invasive fish. Responsibilities included boat and backpack electrofishing and seine netting. (05/2018 – 06/2021)

**Cooksville Creek Remediation, Toronto Ontario\***. Aquatic Ecologist supporting the remediation of Cooksville Creek south of the QEW through in-water fish and wildlife relocation as well as associated permitting. Responsibilities included backpack electrofishing, permitting correspondence with relevant agencies, and reporting. (01/2021 – 03/2021)

**Red Hill Creek Remediation, Hamilton Ontario\***. Project Manager and Aquatic Ecologist supporting the remediation of Red Hill Creek in association with the Woodward Wastewater Treatment Plant through input into the design, fish and wildlife relocation, and permitting. Responsibilities included boat and backpack electrofishing, permitting correspondence with DFO, and reporting. (12/2019 – 03/2020)

**Don River West Branch Remediation, York Ontario\***. Aquatic Ecologist supporting the remediation of the Don River West Branch at Mill Street through input into the design, fish and wildlife relocation, and permitting. Responsibilities included backpack electrofishing, permitting correspondence with DFO, and reporting input (11/2019 – 01/2020).

**Randle Reef Restoration, Hamilton Ontario\***. Aquatic Ecologist leading fish relocation from within the confines of Randle Reef, the largest and most contaminated Area of Concern in Canada. Responsibilities included gillnetting, trot lining, angling, boat electrofishing, and input into reporting. (07/2018 – 08/2018)