

# Jason Vanderzwaag, MSc, P.Eng., FEC, LEED AP, PMP

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## OBJECTIVE

I have been an APEGA Councilor for the past six years. I am seeking re-election to continue my involvement in setting the strategic direction for the Association as we continue to address ongoing challenges and pressures that impact our professions and membership. Specifically, I believe that there are improvements that can continue to be made in our CPD program, with a renewed focus on law and ethics awareness (and training) for our members.

## EDUCATION

**M.A.Sc. Pollution Control and Waste Management, Civil Engineering** May 2008

*University of British Columbia*

- Bridge CIHR/MSFHR Strategic Training Fellow
- Thesis title: *“Use and Performance of BioSand Filters in Posoltega, Nicaragua”*

**B.A.Sc. Civil Engineering “with Distinction”** May 2003

*University of British Columbia*

- Participated in Cooperative Education Program and an exchange to the Universidad de Chile.

## PROJECT EXPERIENCE HIGHLIGHTS

**Manager, Fort McMurray Office** 2013 - Present

*Associated Engineering Ltd.* Fort McMurray, AB

- Leading an office of up to thirteen staff to serve Municipal, First Nation and private sector clients for the analysis, planning, design, construction and commissioning of municipal and civil infrastructure projects in the Wood Buffalo region.
- Responsible for business development, client liaison, project execution, Quality Assurance, Project Management Planning, resource and personnel allocation, and staff development.
- Led the Water System Recovery Plan following both the 2020 Ice Jam Flood and the 2016 Wildfire. Coordinated the works of reservoir cleaning and watermain flushing, water sampling and reporting to lift boil water advisories, and ensure the restoration of safe potable water.
- Technical lead for Temporary Flood Mitigation works 2021-Present
- Project Manager and engineering lead for the annual construction of the Fort Chipewyan Winter Road and La Loche Winter Trail.
- Project Manager for various Urban Infrastructure Rehabilitation Program assignments, including Flood and Fire Recovery projects, Urban Infrastructure Rehabilitation Programs, Water Supply Projects, Major Storm and Sanitary trunk upgrades, Permanent Flood Protection works, infrastructure planning and standards development.

- Community development projects for First Nation communities and Rural Hamlets in the Wood Buffalo region. This includes housing and subdivision projects, community facilities including Youth Center and Long-Term Care Facility, community recreational spaces.
- Advisory services to the Regional Municipality of Wood Buffalo Development Services branch, including Engineering Servicing Standards and Offsite Levy reports.
- Emergency flood protection works to prevent bank erosion and property loss during the 2013 Fort McMurray flood events, including creek reconstruction and slope stability works.

**Project Management Partnership** 2010-2012

*Associated Engineering / Regional Municipality of Wood Buffalo* Fort McMurray, AB

- Senior member of “Core Team” embedded in Municipal Engineering Department, with a focus on technical and professional knowledge transfer to RMWB staff, and stakeholder engagement.
- Capital Projects: coordination of pre-design activities for new water supply, distribution and storage projects, wastewater collection and treatment projects, and transportation projects.
- Development Services: Review of Development Permits and Area Structure Plans for new and future growth areas. Update to Engineering Servicing Standards and Developer Charges.
- Infrastructure Planning: Master Planning of Water, Wastewater, Stormwater and Transportation Infrastructure; development of priority ranking system of new projects;
- Asset Management: development of integrated GIS database of municipal assets based on CAD and record drawings; reconciliation with Finance Department for Tangible Capital Assets.

**Community Infrastructure and First Nation Projects** 2008-2010

*Associated Engineering Ltd.* Burnaby, BC

- Detailed design, field inspection and quality management for hydraulic structures and stormwater management infrastructure for the Highway 2000 project in Jamaica.
- Detailed design and project coordination of dykes, reservoir, pump station and irrigation works to mitigate highway impacts to Cranwest Farm along the South Fraser Perimeter Road.
- Project management for the design and construction of water supply systems for residential, commercial and industrial developments for the Lower Nicola Indian Band, Merritt, BC.
- Preliminary and detailed design of community drainage infrastructure works to mitigate housing mold problems at Fort Babine, Tachet and Woyenne IR's for Lake Babine Nation, Burns Lake, BC, and Maaqtusis IR for Ahousaht First Nation, Tofino, BC.
- Detailed design and construction inspection of emergency flood and erosion protection works at Necoslie and Tache First Nation communities near Fort St. James, BC.

**Evaluation and Implementation of BioSand Filters** 2005-2008

*M.A.Sc. Thesis, University of British Columbia* Posoltega, Nicaragua

- Evaluation of the long-term use and performance of household water treatment technology (BioSand Filters) using household interviews and field microbial water quality testing methods.
- Provided training to local filter technicians and community health promoters to improve project implementation. Developed research partnerships with local NGO's and academic institution

<b>Social and Environmental Assessment (SEA) – “Fenix” Project</b>	2006
<i>Klohn Crippen Berger Ltd.</i>	<i>Vancouver, BC / Guatemala</i>
• Prepared Socioeconomic Baseline documents based on community consultation research for submission to the International Financing Corporation (IFC) for a proposed nickel mine in El Estor, Guatemala.	
 <b>Hydrogeology and Community Development Projects</b>	2004-2005
<i>Central American Water Resource Management Network</i>	<i>Calgary, AB / Guatemala</i>
• Collaborated with University of Calgary and Guatemalan Masters students on groundwater exploration and community development projects in the Municipality of Pachalam, Quiche and the Finca Sabana Grande.	
 <b>Water Resources Projects</b>	2003-2004, 2005
<i>Associated Engineering Ltd.</i>	<i>Burnaby, BC</i>
• Developed a hydraulic model of Sea Island drainage basin for Vancouver International Airport.	
• Detailed design of storm ponds and control structures for Stoney Trail extension, Calgary, AB.	
• Performed hydrodynamic modeling as part of watershed studies for the Government of Bermuda, the City of Prince George, the Township of Langley, and the City of Abbotsford.	
• Detailed design of drainage infrastructure for the Sea-to-Sky Highway improvements.	
• Performed hydrologic and hydraulic analysis of temporary bridges for the forestry industry.	
 <b>Co-operative Education Program Student Positions</b>	2002-2004
<i>Fisheries and Oceans Canada, Habitat Enhancement Branch</i>	<i>New Westminster, BC</i>
<i>Habitat for Humanity, International Collaborator</i>	<i>Costa Rica</i>
<i>Progressive Engineering Ltd., Field Inspector</i>	<i>Calgary, AB</i>
<i>Corporation of Delta, Engineering Assistant</i>	<i>Delta, BC</i>

## APEGA EXPERIENCE

- APEGA Council 2017 - Present
  - Audit Committee Chair, CEA Liaison, Governance and Policy / Standards Committees
- Legislative Review Champions Collaborative 2015 – 2017
- Mentoring Program 2015 – 2017
- Fort McMurray Executive Branch (Outreach Coordinator, Vice Chair, Chair) 2012-2017
- National Professional Practice Exam Proctor 2013-2015

## VOLUNTEERISM, ACTIVITIES AND INTERESTS

- International development experience includes internships, research and volunteer work.
- Fluent in English and Spanish
- Past Board Member and youth coach for Ptarmigan Nordic Ski Club in Fort McMurray
- Board Member for “The Crossings” condominium corporation in Fort McMurray.
- Other interests: cross-country skiing, trail running, cycling, hiking, camping, salsa dancing, SCUBA diving, property management, and international travel (Goal achieved of 40 countries by age 40)

## ACADEMIC PUBLICATIONS

**Vanderzwaag JC**, et al (2009) “*Field Evaluation of Long-term Performance and Use of Biosand Filters in Posoltega, Nicaragua*” & “*Evaluation of Field Water Quality Testing Techniques Used in a Biosand Filter Study in Posoltega, Nicaragua*”. Water Quality Research Journal of Canada. Volume 44, No. 2

**Vanderzwaag JC** (2008). *Use and Performance of BioSand Filters in Posoltega, Nicaragua*. Masters’ Thesis, Department of Civil Engineering, University of British Columbia. Available online: <http://hdl.handle.net/2429/738>.

## PROFESSIONAL AWARDS AND ACADEMIC SCHOLARSHIPS

• Canadian Consulting Engineering Award of Excellence	2020
• Consulting Engineers of Alberta – Awards of Excellence	2017
• UBC Bridge CIHR/MSFHR Strategic Training Fellowship	2005-2007
• IDRC Latin American-Caribbean Research Exchange Grant	2007
• School of Occupational and Environmental Hygiene Joel Bert Award	2007
• Canadian Association of Water Quality Philip H. Jones Award	2007
• UMA Scholarship in Civil Engineering	2007
• N.M. Skalbania Ltd. Scholarship in Civil Engineering	2006
• Canadian Water and Wastewater Association Steve Bonk Scholarship	2002
• Hugh M. Brock Education Abroad Scholarship	2001
• UBC Outstanding Student Initiative Scholarship	1998-2000
• Alexander Rutherford Scholarship	1998