



**Kelly A. Galloway, P.Eng.
President, Principal Engineer**



EDUCATION

Diploma in Technology Management and Entrepreneurship - 1998
University of New Brunswick, Fredericton, NB.

B.Sc. Civil Engineering (First Division Standing) - 1991
University of New Brunswick, Fredericton, NB.

PROFESSIONAL EXPERIENCE

1996 - present:

Engineering Technologies Canada Ltd.
Charlottetown, PEI

As President of Engineering Technologies Canada Ltd. Ms. Galloway assumes overall responsibility for the management and direction of the Environmental Division of the company. Her professional fields of specialization include: rural water and wastewater management, on-site sewage treatment and land-based effluent dispersal system design, soils and site assessments and comprehensive community water and wastewater servicing plans. Clients include municipal, provincial and the federal governments, private industry and developers throughout the Maritime provinces.

1991 - 1996:

Marenco Consulting and Testing (formerly Marenco Engineering Ltd),
Charlottetown, PEI

Geo-environmental Engineer, was responsible for conducting all geotechnical investigations (test pit and drilling investigations), Phase I & II Environmental Site Assessments for the company.

Supervised the firm's material testing laboratories and civil technicians providing a full range of services to the private sector including aggregates (sieve analysis, blending designs, soundness testing), geotechnical testing and classification of soils, concrete and asphalt mix designs and construction quality control testing. Developed several new customized spreadsheets and other computerized forms to ensure consistency and quality control in the testing laboratory.

Responsible for all on-site sewage disposal investigations and designs for a variety of facilities and developments including residential, commercial, recreational and institutional facilities.

Marine engineering and corrosion studies and projects involving bridges, steel sheet pile wharfs, causeways, etc.

DISTINCTIONS AND AWARDS

February 2011: *Federation of Canadian Municipalities Sustainable Communities Award* (Water Category). Co-recipient with the Community of Victoria for the “Victoria Water and Wastewater Infrastructure Project”.

November 2009: *Award for Engineering Achievement* from Engineers PEI for “Excellence in Engineering” for work on the “Victoria Water and Wastewater Infrastructure Project”.

November 2001: *Young Engineer Achievement Award* from Engineers PEI for outstanding achievement in the practice of engineering.

PROFESSIONAL ASSOCIATIONS AND AFFILIATIONS

CSA B65 Technical Committee on Decentralized Wastewater Systems, *voting member and Chair, Soil Absorption Systems Task Force*.

Founding Warden of Camp 27 (Charlottetown) of the Corporation of the Seven Wardens (conducts the Obligation Ceremony for the *Ritual of the Calling of an Engineer*).

Association of Professional Engineers of Prince Edward Island (Engineers PEI), *registered member*.

AREAS OF SPECIALIZATION

RURAL & DECENTRALIZED WASTEWATER MANAGEMENT

Ms. Galloway specializes in decentralized and rural wastewater planning and design with a focus on appropriate and affordable wastewater strategies and systems for rural communities and developments. Ms. Galloway’s innovative “green” solutions for on-site wastewater management have resulted in national and international recognition and awards for environmental stewardship and sustainable design.

Ms. Galloway was the Prime Consultant on the national-award-winning, *Victoria Water and Wastewater Infrastructure Project*. She was successful in implementing this highly innovative pilot project, which included several complex technical hurdles and incorporated alternative sewage collection, treatment and land-based effluent dispersal systems.

Ms. Galloway is widely respected for her expertise in the areas of site evaluation, decentralized wastewater treatment systems and land-based effluent dispersal systems. Kelly is a ***voting member of the CAN/CSA B65-12 Technical Committee*** responsible for the creation of a new national standard for Decentralized Wastewater Systems, and Chaired the *Soil Absorption System Task Force*.

Kelly has consulted on technical and policy aspects of the NB Technical Guidelines and the BC Standard Practice Manual. She has also provided expert opinion and peer review services to the NB Dept. of Health and the private sector. Kelly has also delivered training courses and seminars to installers, regulators and engineers on soils and site evaluations, and septic system sizing and design.

Ms. Galloway has gained a reputation for her pioneering approach to water and wastewater feasibility studies and introduced the concept of the **comprehensive, lot-by-lot, needs assessment** to Atlantic Canada. She has completed wastewater needs assessments and/or water and wastewater management plans for several Maritime communities including: Cornwall, Stratford, Victoria, Miltonvale Park, Brackley, Bedeque/Central Bedeque and the Community of North Shore, Prince Edward Island, and Caissie Cape and Belledune, New Brunswick.

Kelly has personally completed or overseen more than one hundred site suitability evaluations for subdivision developments across PEI. She has also carried out subsurface evaluations and provided recommendations for on-site system designs for several hundred residential lots. She is well-versed in both the CSSC/USDA and Unified (geotechnical engineering) systems of soil classification.

ALTERNATIVE SEWAGE TREATMENT, COLLECTION & DISPERSAL

Ms. Galloway has developed significant expertise and successfully introduced several new **recirculating, packed-bed, biofilter** sewage treatment technologies to eastern Canada. Her designs have utilized such diverse filter mediums as sand, gravel, peat moss, geotextile fabric, and absorbent, plastic foam. She also has considerable experience in the treatment of high-strength, commercial wastewater.

Ms. Galloway has also been a pioneer in the area of **alternative sewer collection systems**. She has designed innovative septic tank effluent gravity (STEG) sewers and septic tank effluent pump (STEP) systems for several cluster system projects. Ms. Galloway has also designed innovative **high rate, land-based effluent dispersal (LBED)** systems for single family residential, commercial, and small community sewage treatment projects. These systems were designed to overcome such challenging site conditions as slowly permeable soils, high groundwater tables, shallow bedrock, poor drainage and small lot sizes.

PRESENTATIONS AND TRAINING

2020 SEPTIC-CON, Washington Onsite Wastewater Association, Tacoma, WA. Invited speaker, gave three presentations: (1) *SMART SEPTICS: How AI, Advanced Sensors & the "Internet of Things" Will Change the Onsite Sewage Industry*, (2) *THE PROOF IS IN THE PONDING: Detailed Real-Time Drain Field Level Data Case Study*, *MODERNIZING THE PERC TEST: Use of Constant Head Permeameters to Determine Soil Permeability*

2019 Michigan On-site Wastewater Association Conference, Lansing, MI. Keynote Presentation: *Smart Septics - How AI, advanced sensors & the IoT will change the decentralized wastewater industry.*

2018 OOWA Conference, Huntsville, ON. Presentation: *Convincing system owners to take action.*

2018 NOWRA Conference, Minneapolis, MN. Presentation: *On-site Insights - How detailed time series, liquid level data can inform proactive decision making.*

2017 WWETT Conference, Indianapolis, IN. Presentation: *Seeing is Believing – How having data can help convince system owners to take action.*

2017 OOWA Conference, Niagara Falls, ON. Presentation: *Assessment of soil permeability using constant head well permeameters compared to percolation (T) time.*

2016 *Soils & Site Assessments*, Charlottetown, PE. Developed and presented a 3-day short course attended by licensed septic installers, site assessors and PEI government regulators.

2015 *Contour Septic Disposal Systems and Soil Assessments*, Fredericton, NB. Developed and presented a 3-day short course attended by NB licensed septic installers, provincial government regulators and federal government personnel. Course was recognized by the NB Dept. of Health and Public Safety.

2015 NOWRA Conference, Virginia Beach, VA. Presentation: *Assessment of soil permeability using constant head well permeameters.*

2014 NOWRA Conference, Denver, CO. Presentation: *Smart On-site Sewage Systems.*

2012 ACWWA Conference, Charlottetown, PE. Presentation: *Comprehensive Wastewater Needs Assessments & Integrated Wastewater Management.*

2003 WWNS Annual Conference, Truro, NS. Keynote Presentation: *Reflections of an On-site Wastewater Professional.*

PATENTS

US 8100006 B2, Liquid level measurement device and installation incorporating the same. Jan 24, 2012

US 7735509, Distribution valve monitor and distribution valve incorporating same. Jun 15, 2010.