HALLA R. SAHELY, Ph.D., P.Eng

New St., P.O. Box 59
Basseterre, St. Kitts

Phone: (869) 466-2485
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EDUCATION

2006:

- Ph.D. Civil Engineering (Environmental), University of Toronto
  - Thesis work: Urban water systems for sustainable cities
  - Recipient of NSERC Post-Graduate Scholarship and University of Toronto Open Fellowship
  - First author on four scholarly journal publications and presented at numerous conferences

2000:

- M.Sc. Environmental Engineering and Science, Stanford University
  - Recipient of Department of Civil and Environmental Engineering Fellowship

1997:

- B.A.Sc. Civil Engineering (Environmental), Co-operative Education, University of Ottawa
  - Plaque for Highest Standing in Graduating Civil Engineering Class, Summa Cum Laude

RELEVANT AREAS OF EXPERTISE

- **Sustainability Implications of Engineering Activities in the Water Sector**
  Extensive coursework in water resources engineering and management; experience with use of economic tools for program and project evaluation; knowledge of probabilistic and statistical tools for assessing uncertainty and risk.

- **Project/Contract Management and Site Assessment/Remediation**
  Report preparation; control of costs and scheduling; supervision of contractors; assurance of technical quality. Field experience in site assessment and remediation; knowledge of soil and groundwater remediation technologies for site remediation; extensive coursework in water and wastewater treatment.

- **Interpersonal Skills**
  Supervisory and teaching experience; strong written and oral communication skills; self-starter; strong analytical and organizational skills; able to work with minimal supervision and as part of a team; fluently bilingual (English and French).

EMPLOYMENT HISTORY

Jun/07 – Present: *Assistant Water Engineer*
Government of St. Kitts and Nevis
Ministry of Public Works, Utilities, Transport and Posts
Water Services Department

- Reports progress of all field activities to Manager/Water Engineer
- Assists in the planning of water development projects
- Co-ordinates and supervises intersectional field activities
- Supervises all major engineering activities
- Designs and executes engineering works
- Assists in the implementation of the training programme
- Carries out preliminary surveys to obtain information for design work
- Performs other related duties

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Feb/98 – Aug./99: *Field Hydrogeologist*, AQUA TERRE Solutions Inc.

- **Site investigation and assessment**
  Performed historical searches of air photos and fire insurance plans of various sites for environmental assessment purposes, liaison with regulatory bodies, environmental laboratories and contractors; review of applicable regulations.

- **Site remediation and hydrogeology**
  Collected environmental and geological information via soil and groundwater sampling; ensured efficiency of various remediation technologies in the field including water treatment systems, air pollution control units, soil vapour extraction systems and free product recovery components; supervised installation of monitoring wells.

- **Reporting**
  Compiled, analyzed and prepared field data in tables, graphs and figures; prepared reports and proposals; provided technical and marketing assistance to the professional staff.

ACADEMIC EXPERIENCE

2000-2003: *Teaching Assistant*, University of Toronto

- **Teaching Assistant for Ecology and Hydrology/Hydraulics**
  Lead weekly student practical sessions and discussion groups. Marked student papers, quizzes and assignments. Held weekly office hours to aid and counsel students throughout academic year. Designed various student assignments related to course curriculum.

- **Supervisor of 4th year and summer undergraduate students**
  Advised a 4th year undergraduate student in her thesis work. Supervised various summer students in research work related to sustainable urban water systems. Helped students understand the fundamentals of research, technical writing and time management.

ENGINEERING CO-OP WORKTERMS

Sept/96 – Aug/97: *Engineering Assistant*, AQUA TERRE Solutions Inc.

- Collected environmental and geological information as part of projects in the areas of site investigation, hydrogeology and site remediation.
- Compiled, analyzed and prepared field data in tables, graphs and figures

Jan/96 – April/96: *Environmental Officer*, Environment Canada

- Analyzed and reported benzene, aromatics and sulphur levels in fuels for 1995.
- Performed analysis of automobile emissions using EPA modelling program.

May/95 – Aug/95: *Research Assistant*, University of Ottawa

- Performed biochemical oxygen and chemical oxygen demand (BOD,COD), total organic carbon (TOC) and total suspended solids (TSS) analysis on various wastewater effluent samples.

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COMPUTER SKILLS

- MS Word and WordPerfect; Lotus 1-2-3, MS Excel and Quattro Pro; MS Access
- PowerPoint and Presentations; Windows Operating Systems and Internet applications
- Fundamental knowledge of AutoCAD, ArcView, Modflow, EPAnet

MEMBERSHIPS AND EXTRACURRICULAR ACTIVITIES

- Professional Engineer in the province of Ontario, Canada (P.Eng)
- Member of the International Water Resources Association (IWRA)
- Enjoy hiking, travelling, music and reading

JOURNAL PUBLICATIONS

- Sahely, H.R. and C.A. Kennedy (2007) Water Use Model for Quantifying Environmental and Economic Sustainability Indicators. ASCE Journal of Water Resources Planning and Management 133(6): 550-559.

- Sahely, H.R., MacLean, H.L, Monteith, H.D. and D.M. Bagley (2006) Comparison of On-site and Upstream Greenhouse Gas Emissions from Canadian Municipal Wastewater Treatment Facilities. Journal of Environmental Engineering and Science 5: 405-415.

- Sahely, H.R., Adams, B.J., and C.A. Kennedy (2005) Developing Sustainability Criteria for Urban Infrastructure Systems. Canadian Journal of Civil Engineering 32:72-85.

- Monteith, H.D. , Sahely, H.R., MacLean, H. and D.M. Bagley (2005) A Rational Procedure for Estimation of Greenhouse Gas Emissions from Municipal Wastewater Treatment Plants. Water Environment Research 77(4): 390-403.

- Sahely, H.R., Dudding, S. and C. Kennedy (2003) Estimating the Urban Metabolism of Canadian Cities: GTA Case Study. Canadian Journal of Civil Engineering 30:468-483.

- Cunningham, J.A., Rahme, H., Hopkins, G.D., Lebron, C. and M. Reinhard (2001) Enhanced In Situ Bioremediation of BTEX-Contaminated Groundwater by Combined Injection of Nitrate and Sulfate. Environmental Science and Technology 35:1663-1670.

CONFERENCE PAPERS/PRESENTATIONS

- Kennedy, C., Sahely, H., Racoviceanu, A., Filion, Y. and B. Karney (2005) Enhancing the Sustainability of Urban Water Infrastructure Using Life Cycle Approaches. SETAC 26th Annual Meeting in North America, Baltimore, Maryland, USA. November 13-17, 2005.

- Sahely, H.R. and C.A. Kennedy (2004) Decision Support Tool for Sustainable Urban Water Management in the City of Toronto. Poster presentation at Canadian Water Network Annual Symposium. Ottawa, Ontario, Canada. June 2004.

- Kennedy, C.A. and H.R. Sahely (2003) Sustainable Urban Water Management in the City of Toronto. Ecological Engineering for Integrated Water Management: Designing Industrial and Urban Watersheds. Harvard Graduate School of Design, Cambridge, Massachusetts, USA. November 2003.

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- Sahely, H.R. and C.A. Kennedy (2003) Developing a Decision Support Tool for Sustainable Urban Water Management. XI IWRA World Water Congress. Madrid, Spain. October 2003.

- Monteith, H., Sahely, H.R., MacLean, H., and D. Bagley (2003) A Life Cycle Approach for Estimation of Greenhouse Gas Emissions from Canadian Wastewater Treatment Plants. WEFTEC 2003. Los Angeles, California, USA. October 2003.

- Sahely, H.R., MacLean, H., Monteith, H., and D. Bagley (2003) Life-Cycle Based Greenhouse Gas Emissions Inventory of Canadian Wastewater Treatment Facilities. International Society of Industrial Ecology Second International Conference. Ann Arbor, Michigan, USA. July 2003.

- Kennedy, C.A., Sahely, H.R., M. Fung (2003) Impacts of Transporation on the Urban Metabolism. International Society of Industrial Ecology Second International Conference. Ann Arbor, Michigan, USA. July 2003.

- MacLean, H., Sahely, H.R., Monteith, H. and D. Bagley (2003) Estimation of Greenhouse Gas Emissions from Canadian Municipal Wastewater Treatment Plants. Water Environment Association of Ontario (WEAO) Annual Conference. Toronto, Ontario, Canada. April 2003.

- Sahely, H.R., Kennedy, C. and B.J. Adams (2002) Developing Sustainability Criteria for Civil Engineering Systems. 30th CSCE Annual Conference, Montreal, Quebec, Canada. June 2002.

- Kennedy, C. and H. Rahme (2001) Urban Systems Modeling as a Tool for the Development of Sustainable Infrastructure. 29th CSCE Annual Conference, Victoria, B.C, Canada. June 2001.

- Cunningham, J.A., Hopkins G.D., Reinhard M., Rahme H. and C. Lebron (2000) Enhanced Anaerobic I*n Situ* Bioremediation of Fuel Hydrocarbons in Groundwater at Seal Beach, California. Poster presentation at *Groundwater 2000*, International Conference on Groundwater Research. Copenhagen, Denmark. June 6-8, 2000.

ACADEMIC AWARDS AND SCHOLARSHIPS

- IDRC Doctoral Research Award 2003
- Alexander Drummond Ontario Graduate Scholarship in Science and Technology 2003-2004
- NSERC Postgraduate Graduate Scholarship B 2001-2003
- University of Toronto Open Fellowship 2000-2004
- NSERC Postgraduate Graduate Scholarship A 1999-2001
- Internship Grant: Canadian Council for Human Resources in the Environment Industry 1999
- Ottawa Chapter – Professional Engineers of Ontario: Annual Student Papers (2nd place) 1997
- University of Ottawa Merit Scholarship 1998, 1996; Admission Scholarship 1993
- Gesmec Stanley Award (for highest standing in 3rd year civil engineering class) 1997
- NSERC Undergraduate Student Summer Research Award 1995