# Prof. Ed McBean, PhD, P.Eng.

Ed McBean is a Former Tier 1 Canada Research Chair in Water Supply Security and now University of Guelph Research Leadership Chair Professor, Water Security. In that context, he relies upon statistical interpretation of data, fate and transport of chemicals and pathogens in the environment, and risk assessment/management, to determine how features of water supply risk may arise. Hence, there are dimensions of a number of features including climate change and fate and transport modeling as applied to water resources phenomena. In addition to the above, Ed also has extensive experience in waste management, and greenhouse gas emissions as contributory to global climate change.

**Education**

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|---|---|
| Ph.D. | Massachusetts Institute of Technology (1973) - Magna Cum Laude |
| C.E. | Massachusetts Institute of Technology (1972) (Civil Engineer's Degree, equiv. to Professional Doctorate) |
| S. M. | Massachusetts Institute of Technology (1970) |
| B.A.Sc. | University of British Columbia (1968) |

**Employment**

University of Guelph

- Professor of Water Resources, School of Engineering, 2003-present
- Canada Research Chair of Water Supply Security (Tier 1), 2003 to 2017
- University of Guelph Research Leadership Chair Professor, Water Security 2017-present
- Executive Director, Centre for Canada Water Technology Exchange 2015-present
- Co-Director of Sino-Canada Joint R&D Centre on Water and the Environment
- Affiliated Member, One Health Institute, University of Guelph
- Affiliated Member, CARE-AI Institute (Centre for Advancing Responsible and Ethical-AI, University of Guelph
- Asst. Dean External Partnerships, College of Physical and Engineering Science, 2010 to 2016
- Asst. Dean Research (Acting), College of Physical and Engineering Science, 2010 to 2012, & 2015

Conestoga-Rovers & Associates

- Vice-President, 1999 - 2003
- Associate, 1995-1999

CRA Engineering Inc., President, 1996 - 2003

University of Waterloo, Department of Civil Engineering

- Professor, Department of Civil Engineering, 1981 - 1991, 1992 - 1995
- Acting Director, Institute for Risk Research, 1993
- Associate Professor, Department of Civil Engineering, July 1977 - 1981
- Assistant Professor, Department of Civil Engineering and School of Urban and Regional Planning, July 1974 - July 1977

University of California at Davis

- Professor of Water Resources, Land, Air and Water Resources, 1991 - 1992

Cornell University

- Water Resources and Marine Sciences Centre, Research Associate, 1973 - 1974

Meta Systems, Inc., Cambridge, Massachusetts, Project Engineer, 1972 - 1974

Acres Consulting Services, Niagara Falls, Canada, Engineer, 1970 - 1971

Massachusetts Institute of Technology, Department of Civil Engineering

- Research Assistant, 1968 - 1970 and 1971 - 1972
- Graduate Assistant, 1972 - 1972
- Visiting Engineer, 1973 - 1974

## Selected publications

### Books

McBean, E., 2019, **Risk Assessment for Environmental Protection: Procedures and Protocols**, John Wiley & Sons Publishing Co., Hoboken, N.J.

McBean, E.A., and Rovers, F.A., 1998, **Statistical Procedures for Analysis of Environmental Monitoring Data and Risk Assessment**, Prentice-Hall Publishing Co. Inc., Englewood Cliffs, New Jersey

McBean, E., Rovers, F., and Farquhar, G., 1995, **Solid Waste Landfill Engineering and Design**, Prentice-Hall Publishing Co. Inc., Englewood Cliffs, New Jersey

### Refereed Papers (total of ~400)

McBean, E., **It is Time to Remove the Pump Handle (Again)**, 2020, Civil Engineering & Technology, accepted October 10 2020.

McBean, E., and Huang, J., 2020. **Water Security Implications in the 21st Century for Coastal Cities – The Imperative Need for Action**, Forum Paper, ASCE Journal of Water Resources Planning and Management, 146(8): 0252003. IF 3.404

McBean, E., Farrow, C., Preston, T., Yang, A., Huiyan, C., Yichen, U., Zhen, L., Zhineng, D., Fu, H, Beauchamp, J., Beutel, R., Huang, G., 2019. **Investigation of Maintenance**

**Impacts on Flow Rates in Ceramic Disc Water Filters**, Journal of Environmental Informatics Letters, 1(2), pp 81-86.

McBean, E., 2019. **Removal of Emerging Contaminants: The Next Water Revolution**, Journal of Environmental Informatics Letters, 1(1), pp. 1-7.

McBean, E., Huang, G., Yang, A., Cheng, H., Wu, Y, Liu, C., Dai, Z., Fu, H., Bhatti, M. 2019. **The Effectiveness of Exfiltration Technology to Support Sponge City Objectives**, Water 11, 723, pp. 1-17

McBean, E., Salsali, H., Bhatti, M., Huang, J., 2018. **Beta-Blockers and Antidepressants: Contributions to Municipal Wastewaters from Hospitals and Residential Areas**, Journal of Environmental Science & Public Health, 2[3] pp. 144-160

McBean, E., Yang, A., Cheng, H., Wu, YiCheng, Liu, Zheng, Liu, Dai, ZhiNeng, Fu, Haiyan, Bhatti, M., 2018. **Adopting a Preparatory Strategy to Respond to Water Security Issues Arising from Geo-Hazards**, Asian Journal of Engineering and Technology (SSN:2321-2462), Vol.6 No.3. August 2018.

McBean, E., and Huang, J., 2017. **Sustainability Risks for Coastal Cities from Climate Change**, The Global Environmental Engineers, Volume 4, No. 1, pp. 1-9.

McBean, E., 2017. **Water Security, The Nexus of Water, Food, Population Growth, and Energy**, The Global Environmental Engineers Journal, Vol. 3, 33-39 E-ISSN 2410-3624/16.

**More information:**

https://www.uoguelph.ca/engineering/emcbean