

Conference Day 1 - Windsor Room B/C - Wednesday Morning

7:45 AM Registration and breakfast in main conference area

8:15 AM Opening remarks

8:30 - 10:10 AM Session 1

8:30 AM Sensitivity analysis of the downstream flooding impacts of stormwater management ponds in the Sawmill River watershed using continuous simulation modeling

Jeff Marvin, CBCL Limited, Halifax, NS, Canada

8:45 AM Evidence-based policy gaps in water resources - Thinking fast and slow on floods and flow

Robert Muir, City of Markham, Markham, ON, Canada

9:00 AM Comparison of watershed-scale hydrological and hydraulics model for Chambéry region in France using 2D and integrated 1D-2D PCSWMM models

Nelly Peyron, HydroPraxis, Montpellier, France and **Karen Finney**, CHI, Guelph, ON, Canada

9:15 AM Automating model builds for sequence optimization of flood mitigation investment phases

Adam Erispaha, CDM Smith, Philadelphia, PA, USA and **Christine Brown**, City of Philadelphia, Philadelphia, PA, USA

9:30 AM Design with nature (revisited): How a rain garden design, construction and post-construction monitoring program promotes eco-literacy in Singapore

K.N. Irvine, National Institute of Education and Nanyang Environment and Water Research Institute, Nanyang Technological University, Singapore, **S.B.K. Tan** and **Lim Hong Yi**, AECOM, Singapore, **O.G. Suat** and **E. Chen**, Public Utilities Board, Singapore

9:45 AM Fort Allen flooding mitigation based on dynamic modeling

Ken Orie, Gibson-Thomas, Latrobe, PA, USA

10:00 AM Group question period

10:10 AM Coffee break

Conference Day 1 - Windsor Room B/C - Wednesday Morning

10:30 - 12:10 PM Session 2

- 10:30 AM Towards rapidly cleaned out permeable interlocking concrete pavers: Initial field tests
William James, CHI, Guelph, ON, Canada, **Harold von Langsdorff**, F. Von Langsdorff LIC. LTD., Caledon, ON, Canada and **Michael McIntyre**, Unilock Group of Companies, Toronto, ON, Canada
- 10:45 AM Center for infrastructure modeling and management
A. Charles Rowney, ACR, LLC, Longwood, FL, USA, **Ben Hodges**, University of Texas at Austin, Austin, TX, USA and **Michael Tryby** and **Robert Janke**, US EPA, Cincinnati, OH, USA
- 11:00 AM Holistic graphs and reports for all Object.h parameters in SWMM 5.1.011 for future data mining and as an aid in increasing our prior knowledge of modeling processes
Robert E. Dickinson, Innovyze, Tampa, FL, USA
- 11:15 AM Watershed assessment and mitigation of urban impacts using continuous simulation
Jim Dumont, Consultant, Salt Spring Island, BC, Canada
- 11:30 AM SWMM5 API extension and PySWMM: A python interfacing wrapper
Bryant E. McDonnell, EmNet LLC, South Bend, IN, USA, **Michael E. Tryby**, US EPA, Cincinnati, OH, USA and **Luis A. Montestruque**, **Ruben Kertesz** and **Fred Myers**, EmNet LLC, South Bend, IN, USA
- 11:45 AM Stormwater modeling, mapping & analysis for Cane Creek watershed Memphis, TN
Kulvir Singh and **Michael Taylor**, AECOM, Atlanta, GA, USA
- 12:00 PM Group question period
- 12:10 PM Lunch break - Please join us in the main conference area for a complimentary lunch buffet

Conference Day 1 - Windsor Room B/C - Wednesday Afternoon

1:10 - 2:50 PM Session 3

- 1:10 PM Green-first approach for wet weather programs
Sam Shamsi, Jacobs Engineering, Pittsburgh, PA, USA
- 1:25 PM Utilizing street trees for sustainable stormwater management
Alison Duffy, Joseph Akunna and **Robert Peter**, University of Abertay Dundee, Scotland and **Jeremy Bailey**, GreenBlue Urban, Woodstock, ON, Canada
- 1:40 PM Modeling and monitoring low impact development (LID) practices at Calgary, Alberta
David Seeliger, Miao Yu and **Joel Thompson**, MPE Engineering, Calgary, AB, Canada, **Natalya Sapova, Bert van Duin**, City of Calgary, Calgary, AB, Canada and **Myles Gray**, Geosyntec, Portland, OR, USA
- 1:55 PM Assessing value of natural assets for stormwater services
Saini Sakshi and **Amanjot Singh**, Credit Valley Conservation Authority, Mississauga, ON, Canada
- 2:10 PM Strategic emplacement of BMPs in an urban drainage system: A case study in the Montreal area
Mauricio Carvallo Aceves, Musandji Fuamba and **Jessica Angui**, Polytechnique Montreal, Montreal, QC, Canada
- 2:25 PM Turcot interchange in Montreal - Urban drainage modeling for multi-purpose analysis
Elsa Sormain, WSP Canada, Montreal, QC, Canada
- 2:40 PM Group question period
- 2:50 PM Coffee break

Conference Day 1 - Windsor Room B/C - Wednesday Afternoon

3:10 - 5:00 PM Session 4

- 3:10 PM Stormwater pumping station operation scheme analysis for discharging dry weather stored water ahead of storm event
Li Shuping, Jiang Xiaodong, Shen Jiong, Yang Chao, Hou Yudong and **Zou Jun**, College of Environmental Science and Engineering, Tongji University, Shanghai, China
- 3:25 PM Simulating head losses in hydraulic drop structures in SWMM, with a little help from CFD
Peter Klaver and **Jason Rutyna**, LimnoTech, Ann Arbor, MI, USA, **Dave Collins**, David J. Collins Engineering, Portland, OR, USA and **Kurt Robinson**, City of Portland, Portland, OR, USA
- 3:40 PM Empowering SWMM to capture waterhammer pressures in sewer flow pipe systems
Ahmad Malekpour, HydraTek & Associates, Vaughan, ON, Canada, **Bryan Karney**, University of Toronto, Toronto, ON, Canada and **Djordje Radulj**, HydraTek & Associates, Vaughan, ON, Canada
- 3:55 PM Conestoga College South Campus stormwater management system long-term monitoring wrap-up
Brian Verspagen and **Caroline Charbonneau**, WalterFedy, Kitchener, ON, Canada
- 4:10 PM Intelligent unmanned aerial vehicle for city flooding monitoring
Z. J. Zhu and **A. Z. Jiang**, University of Guelph, Guelph, ON, Canada, **J. Lai**, Nanjing University of Aeronautics and Astronautics (NUAA), China and **Y. Xiang, B. Baird** and **E. McBean**, University of Guelph, Guelph, ON, Canada
- 4:25 PM Use SWMM modeling to evaluate hydraulic and operation control measures of wetland, wastewater treatment plant and wet weather treatment
Suibing Liu, CH2M Hill, Cincinnati, OH, USA
- 4:40 PM Group question period
- 4:50 PM Closing remarks
- 5:30 PM Poster session - Meet and talk to our poster presenters in the back of Windsor room B
- 6:30 PM Gala dinner in Windsor Room A (cash bar)

Conference Day 2 - Windsor Room B/C - Thursday Morning

7:45 AM Registration and breakfast in main conference area

8:15 AM Opening remarks

8:30 - 10:10 AM Session 5

8:30 AM Defining appropriate design conditions for transient analysis of filling stormwater storage tunnels

Steven J. Wright, University of Michigan, Ann Arbor, MI, USA and **Jose G. Vasconcelos**, Auburn University, Auburn, AL, USA

8:45 AM Ten years of stochastic water supply modeling of Lower Colorado River Authority of Texas

Ronald E. Anderson and **David Walker**, Lower Colorado River Authority, Austin, TX, USA

9:00 AM Manhole lid displacements created by the release of entrapped air pockets

Jue Wang and **Jose G. Vasconcelos**, Auburn University, Auburn, AL, USA

9:15 AM A new approach to resiliency analysis in water distribution systems

Ehsan Roshani and **Fabian Papa**, HydraTek & Associates, Vaughan, ON, Canada

9:30 AM Comparative analysis of the hydraulic performance of an urban drainage system between conventional solutions and sustainable techniques within a case study in Quito-Ecuador

Diego Mendez, EPMAPS, Quito-Ecuador

9:45 AM Stealing from the market: A novel application of market based principles for real time collection system coordination

Ruben Kertesz, **Bryant E. McDonnell** and **Luis A. Montestruque**, EmNet LLC, South Bend, IN, USA

10:00 AM Group question period

10:10 AM Coffee break

Conference Day 2 - Windsor Room B/C - Thursday Morning

10:30 - 12:10 PM Session 6

- 10:30 AM The critical need to completely protect headwaters
Mike Wilton, Algonquin Eco Watch, Spring Bay, ON, Canada
- 10:45 AM Minimizing assumptions and overcoming challenges of watershed modeling in the Pacific Northwest Region
Bryce Whitehouse, David Zabil and **Shayna Scott**, Kerr Wood Leidal Consulting Engineers, Burnaby, BC, Canada
- 11:00 AM Stormwater pollutant process analysis with long-term online monitoring data at micro scale sites
D. Leutnant, D. Muschalla and **M. Uhl**, Graz University of Technology, Graz, Austria
- 11:15 AM Modeling catchbasins and inlets in SWMM
Matt Senior, Ron Scheckenberger and **Brian Bishop**, Amec Foster Wheeler, Burlington, ON, Canada
- 11:30 AM Urban fate and transport modeling of contaminants: The unique needs of emergency response and the potential for adapting existing models
Anne Mikelonis, Timothy Boe, Worth Calfee and **Sang Don Lee**, US EPA, Research Triangle Park, NC, USA
- 11:45 AM Case study for Chicago River watershed: Physical modeling vs. data driven modeling for an urban watershed
Naila Mahdi, Texas A&M University at Qatar, Doha, Qatar
- 12:00 PM Group question period
- 12:10 PM Lunch break - Please join us in the main conference area for a complimentary lunch buffet

Conference Day 2 - Windsor Room B/C - Thursday Afternoon

1:10 - 2:50 PM Session 7

- 1:10 PM Jonglei canal project under the potential developments in Upper Nile States
Mariam Allam, Hesham Bekhit, Alaa Elzawahry and **Mohamed Allam**, Cario University, Egypt
- 1:25 PM Spatial patterns of heavy metals in the deposited sediments at the Cha-Am municipality wastewater treatment ponds system
Vicko Andreas, Mahidol University, Thailand, **K.N. Irvine**, National Institute of Education and Nanyang Environment and Water Research Institute, Nanyang Technological University, Singapore and **Ranjna Jindal** and **Romanee Thongdara**, Mahidol University, Thailand
- 1:40 PM Greywater quality changes in laboratory scale vegetative biofiltration prototypes
Rezaul Chowdhury and **Jameelu S. Abaya**, United Arab Emirates University, Al Ain, UAE
- 1:55 PM Basin peak flood prediction using nonlinear hysteresis model of basin water storage: A case study of the Koshi-Ganges basin
Pennan Chinnasamy, Nanyang Technological University, Singapore
- 2:10 PM A new concept to calibrate and evaluate hydrological model based on functional data analysis
Samah Larabi, Andre St-Hilaire and **Fateh Chebana**, Institute National de la Recherche Scientifique - Centre Eau Terre Environnement, Quebec City, QC, Canada
- 2:25 PM Assessment of future water supply and demand in a river basin using water evaluation and planning (weap) system: Case study in South Africa
Yali E. Woyessa and **A.S. Ayele**, Central University of Technology, Bloemfontein, South Africa
- 2:40 PM Group question period
- 2:50 PM Coffee break

Conference Day 2 - Windsor Room B/C - Thursday Afternoon

3:10 - 5:00 PM Session 8

- 3:10 PM Evaluation of stream gauge density and concept of virtual gauges in Northern Ontario watersheds for hydrologic and hydraulic modeling
Elizabeth Philip and **Jim McLaughlin**, Ministry of Natural Resources and Forestry, Peterborough, ON, Canada
- 3:25 PM Study of the effect of water management practices on the trend of the river flow and groundwater level for flooding and drought conditions in a highly-managed watershed
Salam. A. Abbas and **Yunqing Xuan**, Swansea University, Swansea, United Kingdom and **Ryan Bailey**, Colorado State University, Fort Collins, CO, USA
- 3:40 PM Development of an innovative approach on the basis of model of environmental-economic balance to the management of sewage in Ukraine
Svitlana Karvan and **Sergiy Goriashchenko**, Khmelnytsky National University, Ukraine, **Sergiy Petya**, Car Wash Vodogray, Khmelnytsky, Ukraine and **Oleg Demchuk**, LLC Agency for Sustainable Development, Khmelnytsky, Ukraine
- 3:55 PM GIS based urban surface runoff sub-model generation method
Guohan Zhao, **Thomas Balstrom** and **Marina Bergen Jensen**, University of Copenhagen, Denmark
- 4:10 PM Risk assessment of flooding - the German and European approach
Jan Tecklenburg and **Lothar Fuchs**, itwh GmbH, Hanover, Germany
- 4:25 PM Detention pond implementation feasibility analysis in a challenging barrier island environment affected by surface hydrology, hydrogeology and climate change: Miami Beach green infrastructure case study
Bruce A. Mowry, **Carlos Tamayo** and **Elizabeth Wheaton**, City of Miami Beach, FL, USA
- 4:40 PM Group question period
- 4:50 PM Awards and conference closure