

Nottawasaga Inn Resort & Convention Centre • Alliston, Ontario

# Veathering Change

Navigating a New Climate



2015 Preliminary Program







 Morning, Tuesday, November 17, 2015
 Blair Feltmate • Associate Professor, Program Director Sustainability Practice - University of Waterloo; Chair Climate Change Adaptation Project Canada

Dr. Feltmate is Associate Professor, Faculty of Environment, University of Waterloo, where he teaches the Master of Environment and Business program. His primary professional focus is to de-risk Canada relative to climate change and associated extreme weather events. Positions he holds include: Intact Financial Chair, Climate Change Adaptation, Canada; Senior Advisor, Sustainable Electricity Program, Canadian Electricity Association; Board Member, CLEAResult; Senior Advisor, Corporate Knights Magazine.

Dr. Feltmate was previously Vice President, Sustainable Development, Bank of Montreal, and Director Sustainable Development, Ontario Power Generation. He helped to establish the Sustainable Electricity Program, Canadian Electricity Association, which he has been involved with for 9 years. Dr. Feltmate has developed the sustainable development programs for two dozen multi-national companies and industry associations. He has written scores of publications, and he has published two textbooks: Aquatic Insects and Sustainable Banking.

Lunch, Wednesday, November 18, 2015
 James Raffan • Speaker, Author and Adventurer

Dr. James Raffan is a prolific writer, speaker, geographer and Kickass Canadian who has a long association with the Canadian Canoe Museum in Peterborough, Ontario. Over the years he has produced a number of bestselling books, including his most recent work, Circling the Midnight Sun:Culture and change in the invisible Arctic, which was a finalist for the 2015 BC National Non-Fiction Book Prize and named a "best book" of 2014 by the Globe and Mail. He has also written for media outlets including Canadian Geographic, National

Geographic, Explore, The Globe and Mail, as well as for CBC Radio and The Discovery Channel. James is a Fellow International of the Explorers Club, Past Chair of the Arctic Institute of North America as well as a Fellow and Past Governor of the Royal Canadian Geographical Society, service for which he was awarded the Queen's Golden Jubilee Medal in 2002, the RCGS Camsell Medal in 2009, and the Queen's Diamond Jubilee Medal in 2012. In 2015 James received an honorary doctorate from the College of Biological Sciences at Guelph University and was named by Canadian Geographic magazine as one of Canada's Top 100 Explorers. Born on the banks of the 'mighty' Speed River in Guelph, he now lives with his wife, Gail Simmons, on the shores of Cranberry Lake in Eastern Ontario.



Lunch, Thursday, November 19, 2015

Lapo Calamai • Director, Catastrophe Risk and Economic Analysis - Insurance Bureau of Canada

Lapo Calamai has several years of economic and public policy experience in the public, private and non-profit sectors. His expertise spans across several industry areas and lines of business, including insurance and reinsurance tax, solvency capital, prudential regulation, corporate governance and adaptation to climate change.

He has served as an economist and policy advisor to industry leaders, ministers and government executives in federal and provincial governments in the United Kingdom and Canada. He has contributed to federal and provincial budgets on a wide spectrum of regulatory and policy issues including financial services regulation, state and private pension policy, capital planning and public finance, public-private partnerships and infrastructure investment.

Having joined IBC in 2012, Lapo leads research, analytics and policy development to address some of the industry's most pressing financial, regulatory and commercial challenges. He also leads IBC's catastrophe risk management practice, working with governments and insurance executives across Canada to promote sound disaster risk management by leveraging risk transfer and catastrophe insurance and reinsurance solutions.

A published author on emerging economic policy issues, Lapo holds an undergraduate degree in economics and a master's degree from the London School of Economics and Political Science.

Afternoon, Thursday, November 19, 2015
 Bill McKibben • Leading Environmental Speaker, Founder of 350.org

Over the past three decades, **Bill McKibben** has shaped public perception – and public action – on climate change, alternative energy, and the need for localized economies. An environmental activist, bestselling author, and "the planet's best green journalist" (TIME), McKibben is the founder of 350.org – the massive grassroots climate change initiative.

McKibben is an author and environmentalist who in 2014 was awarded the Right Livelihood Prize. His 1989 book The End of Nature is regarded as the first book for a general audience about climate change, and has appeared in 24 languages; he's gone on to write a dozen more books. The Schumann Distinguished Scholar in Environmental Studies at Middlebury College and a fellow of the American Academy of Arts and Sciences, he was the 2013 winner of the Gandhi Prize and the Thomas Merton Prize, and holds honorary degrees from 18 colleges and universities. Foreign Policy named him to their inaugural list of the world's 100 most important global thinkers, and the Boston Globe said he was "probably America's most important environmentalist."

A former staff writer for the New Yorker, he writes frequently for a wide variety of publications around the world, including the New York Review of Books, National Geographic, and Rolling Stone. In 2014, biologists honored him by naming a new species of woodland gnat—Megophthalmidia mckibbeni—in his honor.

# Day one

Watershed Management

Natural Heritage

Show and Tell

Driving Change

T1A ROOM 1

#### T1B ROOM 7

#### T1C ROOM 8

## T1D ROOM 9

#### Lessons Learned from Long-term Development Monitoring

Pre-, during- and post-development monitoring programs face significant challenges, such as differentiating the impacts between natural climatic variability and development-related changes. This session illustrates practical lessons learned from multiple long-term monitoring programs for subwatershed planning, stormwater facilities, and restoration projects to address those challenges associated with long-term development monitoring.

#### City of Waterloo Water Resources Monitoring Program

Jessica Kellerman (City of Waterloo)

The Evolution of Stormwater Management Monitoring in Kitchener

Melissa Ryan (City of Kitchener)

#### Upper Blair Creek Subwatershed Monitoring

Janet Ivey (Grand River Conservation Authority)

#### **Protecting Habitat**

Habitat loss, fragmentation and degradation are considered the primary threat to biodiversity in Ontario. Building roads and changing water levels can reduce a species' chances of survival. This session will discuss how species at risk habitat is protected in Ontario and two case studies that address habitat loss.

#### Habitat Protection for Species at Risk

Sarah Robicheau (Environmental Commissioner of Ontario)

#### Turtle Road Mortality: Preliminary Results of Barrier Wall Mitigation

Sheila Ziman (Haliburton Highlands Land Trust) and Paul Heaven (Glenside Ecological Services Limited)

Hydrogeological and Geochemical Evaluation of the Eastern Minesing Wetland in Support of the Hine's Emerald Dragonfly

Ryan Post (Nottawasaga Valley Conservation Authority)

#### There's an App for That: Real-time Data Collection and Use via Customized Mobile Applications

It has been said that information is the "new natural resource". If so, the manner in which we collect and use this information determines the value we receive from it. This session explores various mobile data applications for both collecting and sharing information efficiently.

## Real-time Field Data Collection Tool -Collector

Kamal Paudel (Credit Valley Conservation)

#### Map Cloud: Instant/ Widescale Data Collection Through the Air

Andrew Avsec (Haliburton Forest)

Smart Technology, Smart Solutions - EDGEauditor for Parks and Trails

Sean Rowe (GEOaudit Inc.)

#### Navigating in a New Climate: LID Tools to Weather the Storm

This session summarizes anticipated changes in phosphorous loadings from urban areas based on projected climate changes, and presents practical tips on how to get working LID projects in the ground to mitigate these risks. Finally, a working case study is presented which showcases LID innovation.

## Risk of Increasing P Loads

Brad Bass (Environment Canada)

#### The Simple Formula For Successful LID Demo Projects!

Patrick Gilbride (REEP Green Solutions)

LID on Regional Roads to Accommodate Climate Change and Habitat Protection

Bill Trenouth (Credit Valley Conservation)

## TUESDAY • November 17, 2015

Environment, Economy and Health

Water

Protect, Restore and Enhance

Lake Simcoe Science Forum

#### T1E ROOM 2

#### T1F ROOM 11

#### **T1G** ROOM 18

#### **T1H** ROOM 15

#### Connecting Watershed Ecosystems to Human Health

\*This session can also be watched live,

This session will look at the connections between watershed ecosystems and human health in order to plan and deliver programs that recognize the connection between both. The session will look at flooding from a public health perspective, as well as explore a new tool to use indicators and GIS in order to develop management and restoration strategies that support human health.

Public Health Adaptation to Extreme Precipitation and Flooding in the Context of Climate Change: Lessons from Four Canadian Case Studies

Karen Morrison (York University) and Donna Churipuy (Peterborough County City Health Unit)

Connecting Ecosystem Health with Human Health in the Credit Valley Watershed

Mike Puddister (Credit Valley Conservation) and Martin Bunch (York University)

#### On The Rocks, What Will Change About Our Ice?

What will the impacts of climate change be on the ice in our rivers and streams? What will change about our ice cover: thicker, thinner, earlier, later...and how will our management of ice change with our changing climate?

Influence of Dynamic Ice Cover on River Hydraulics and Sediment Transport

Soheil Zare (University of Ottawa)

River Ice in a Changing Climate - Ice Management on the Credit River

David Arseneau (Ecosystem Recovery Inc.) and Jeff Wong (Credit Valley Conservation)

Lower Spencer Creek Frazil Ice Flooding: A Case Study

Soheil Kashi (AECOM)

#### What's in Your E&S Plan? Achieving Successful Erosion Control Through Proper Soil and Water Management

Improvement of effective construction site erosion and sediment control can be achieved by better understanding which techniques work and which are most difficult to maintain. Learn the challenges of managing soil and water on construction sites and the strategies for successful control.

## Designing Effective ESC Plans

Maria Parish (Toronto and Region Conservation)

Innovative Technologies for Erosion Control & Vegetative Establishment

Steve Zwilling (Quality Seeds Ltd.)

Working with the Contractor - An Ingredient to Any Successful ESC Plan

Jill Attwood and Robin McKillop (Palmer Environmental Consulting Group)

#### The State of Lake Simcoe and Its Watershed

Session sets the stage about Lake Simcoe and its watershed, providing background and current information on the state of stressors and their influence

Lake Simcoe Protection Plan and Progress to Date

Carolyn Switzer (Ministry of the Environment and Climate Change)

State of Lake Simcoe and the Watershed

Joelle Young (Ministry of the Environment and Climate Change)

Natural Heritage and Terrestrial Monitoring - Why Does It Matter

Danijela Puric-Mladenovic (Ministry of Natural Resources and Forestry)

# Day one

Watershed Management

Natural Heritage

Show and Tell

**Driving Change** 

T2A ROOM 1

T2B ROOM 7

T2C ROOM 8

T2D ROOM 9

## Development + Watershed = Impacts → Monitor → Effects

Areas undergoing development face concerns regarding a variety of cumulative impacts. This session covers lessons learned from watershed impact monitoring programs, and cumulative effects on water quantity, quality and stream health.

Collaborative
Monitoring for
Cumulative Effects
Assessment in
Six Canadian
Watersheds: Key
Learnings and
Implications

Janice Levangie (Canadian Water Network)

Impacts of a Changing Landscape on Water Quality in Rural-Urban Watersheds

Andrea Kirkwood (University of Ontario Institute of Technology)

Macroinvertebrates: A Phasing Tool Ensuring Environmental Protection Through the Development Process

Renthic

lan Ockenden (Nottawasaga Valley Conservation Authority)

#### Emerging Models for Conservation of Farmland and Associated Natural Heritage in Ontario

The session will showcase new and emerging models to support sustainable agriculture on farmlands held by conservation authorities, land trusts and government, as well as innovative approaches to supporting the protection and management of Ontario farmland conservation easements on private lands

Introduction of New and Emerging Models for Farmland Conservation

Barb Davies (The Regional Municipality of York)

Marrying Species at Risk and Farmland Conservation

Ron Reid (Couchiching Conservancy)

Learnings from Ontario's First Farmland Conservation Easements

Matt Setzkorn (Ontario Farmland Trust)

#### Linking Data with Decision-Makers

Getting a key piece of information in the hands of the right person at the right time is crucial to making a good decision. From tailored data collection to customized applications for querying, sharing and reporting information. this session will explore practical applications for managing data for decision-making.

Building a Watershed Monitoring Application

David Krupicz and Dan Moore (Central Lake Ontario Conservation Authority)

Great Lakes Aquatic Habitat Framework - A Framework Database and Tool for Aquatic Habitat Management in the Great Lakes Basin

Catherine Riseng (University of Michigan) and Kevin Wehrly (Michigan Department of Natural Resources)

Best Practice, Best Location: GIS and Creek Walks Identify Locations for Conservation Technologies and Practices

Tracey McPherson (Ausable Bayfield Conservation Authority)

#### The Environmental Bill of Rights: A Versatile Toolkit for a Changing Climate

Ontario's

Environmental Bill of Rights (EBR) is a powerful toolkit for public engagement and building resilience. In this interactive session. learn how citizens have used the EBR to nudge along climate adaptation; consider the Environmental Commissioner's update on carbon emission trends, and help discuss climate data needs for adaptation work.

Building Resilience Using the Environmental Bill of Rights

Jessica Isaac (Environmental Commissioner of Ontario)

Feeling the Heat; Ontario's Progress on Greenhouse Gas Reductions

Ellen Schwartzel (Environmental Commissioner of Ontario)

The Need for Reliable Climate Data for Adaptation Work

Dana Krechowicz (Environmental Commissioner of Ontario)

### TUESDAY • November 17, 2015

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Water

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#### T2E ROOM 2

#### T2F ROOM 11

#### T2G ROOM 18

#### T2H ROOM 15

#### Addressing Climate Change Impacts on Human Health

\*This session can also be watched live, online.

This session will look at ways to increase our adaptive capacity to address the impacts of climate change on people. It will look specifically at techniques and tools used by public health units as well as specifically address issues around urban heat islands.

Climate Change and Health Vulnerability Assessments from a Public Health Perspective

Helen Doyle (York Region Public Health), Carol Mee (Toronto Public Health), and Marina Whelan (Simcoe-Muskoka District Health Unit)

## Assessing Urban Heat Islands in York Region

Mira Shnabel (York Region Public Health)

#### State-of-the-art Tools to Manage Low Flow Conditions

Low flows impact our ecosystem functions and our water supplies. This session examines several dynamic tools to address low flow conditions including water management technical and decision frameworks, improved estimations of channel coefficients, and water efficiency best practices.

Development of a Guide for Environmental Flow Regime Design in Ontario

Sam Bellamy (Matrix Solutions Inc.)

#### Whitemans Creek Water Budget: Balancing the Needs of Water Users

James Etienne (Grand River Conservation Authority)

Low Flow Manning's "N" Calibration for Reach of the North Branch of the Thames River

Dr. Imtiaz Shah (Upper Thames River Conservation Authority) and Nooshin Dadgar (Western University)

#### Beyond Digging a Ditch: Integrating Ecological Restoration with Agricultural Drainage

Attend this session and learn how to integrate ecological restoration opportunities into the design and maintenance of municipal drains. Three drainage experts will share their perspectives in using the Ontario Drainage Act to enhance local watercourses while ensuring landowners continue to have access to adequate drainage.

#### The New (Old) Drainage Act

Sid VanderVeen (Ministry of Agriculture, Food and Rural Affairs)

#### Beaver Creek Municipal Drain

Brett Ruck (Drainage Investment Group)

#### **Municipal Drain BMPs**

Davin Heinbuck (Ausable Bayfield Conservation Authority)

#### Managing the Lake Simcoe Watershed (Part 1)

Session discusses what we are doing and what can be done to manage the Lake Simcoe watershed in light of projected population increase and reducing phosphorus.

#### **Managing Growth**

Eric Miller (Consulting Economist)

Managing Our Urban Footprint: Implementing LID in the Lake Simcoe Watershed

Ben Longstaff (Lake Simcoe Region Conservation Authority)

#### Phosphorusoffsetting in Lake Simcoe

Mike Walters (Lake Simcoe Region Conservation Authority)

# Day one

Watershed Management

Natural Heritage

Show and Tell

Driving Change

T3A ROOM 1

T3B ROOM 7

T3C ROOM 8

T3D W3I\*

#### How to Evaluate the Health of Our Water Bodies

Watershed biomonitoring contributes to an improved understanding of aquatic health in water bodies. This session will cover optimizing biomonitorina methods for public consumption watershed reporting, evaluating biological indicators as measures of cumulative effects and comparing and contrasting wetland health indicators.

Coarse or Detailed ID? Determining the Best Approach to Benthic Invertebrate Identification for Biomonitoring

Erin McGauley (Otonabee Conservation) and Brett Tregunno (Kawartha Conservation)

Biomonitoring Insights from the Muskoka River Watershed: Indicators and Cumulative Effects

Chris Jones (Ministry of the Environment and Climate Change)

Setting Targets for Wetland Health Using Long-Term Monitoring Data

Dan Moore and Heather Pankhurst (Central Lake Ontario Conservation Authority)

#### Biodiversity in a Changing Climate: Resilience, Adaptation and the State of Ontario's Biodiversity

The World Economic Forum's Global Risks 2015 report identifies failure to adapt to climate change and biodiversity loss as among the top 10 risks facing the world. This panel will discuss climate threats to Ontario's biodiversity and how we can work with nature to enhance climate resilience.

#### Biodiversity in a Changing Climate

Steve Hounsell (Moderator) (Ontario Biodiversity Council)

The State of Ontario's Biodiversity 2015 Report's Climate Change Indicators Amelia Argue (Ministry of Natural

Resources and Forestry)

Using Vulnerability Assessments to Enhance Ecosystem Resilience in a Changing Climate

Jenny Gleeson (Ministry of Natural Resources and Forestry)

Understanding the Role of Wetlands to Mitigate Flooding in Southern Ontario

Alexandra Service (Ducks Unlimited Canada)

Enhancing Ecosystem Services: Working with Nature

Dr. Blair Feltmate (University of Waterloo)

#### From a Distance: Remote Sensing Technologies

An intimate

understanding of the natural environment is necessary in order to navigate our changing climate. This understanding often comes to us through the analysis of data collected from a number of sources. When the collection of data becomes difficult, costly or dangerous, we rely on remote sensing - the science of obtaining information about objects or areas from a distance. This session will examine various remote sensing technologies and their applications.

The Use of Drones in Bathymetric Survey/ Mapping

Brock Kingston (Cansel)

The Use of GeoSAR in Elevation Mapping

Joe Jones (Fugro Geospatial, Inc.)

Bringing LiDAR
Data into Focus:
Transforming the
Way We Map

Steve McArdle (4DM Inc.)

# Smart Urban Planning and Development – What's the Key to Saving the Greenbelt? [Panel]

How is the GTA going to manage three million more people by 2040 without threatening the ecological, cultural and economic functions of the Greenbelt that are essential to the prosperity of the region? Hear from a panel of experts on how urban planning and development will be the trenches of the battle to save the Greenbelt.

Moderator:

Andrew Craig (Royal Bank of Canada)

How Intensification Can Help Protect the Greenbelt

Cherise Burda (Ryerson City Building Institute)

The Future of Ontario's Greenbelt following Ten Years of Success

Burkhard Mausberg (Friends of the Greenbelt Foundation)

The Promise and Challenge of Managing Growth to Protect the Greenbelt

Arvin Prasad (Region of Peel)

Agriculture in the Greenbelt: Preservation or Perseverance?

Keith Currie (Ontario Federation of Agriculture / Farmer)

\*Please note session T3D has been moved and now takes place on Wednesday from 2:00 PM until 3:30 PM. The session is now known as W3I.

## TUESDAY • November 17, 2015

Environment, Economy and Health

Water

Protect, Restore and Enhance

Lake Simcoe Science Forum

T3E ROOM 2

T3F ROOM 9

**T3G** ROOM 18

T3H ROOM 15

Building Resiliency with Rural Communities to Adapt to the Impacts of Climate Change

\*This session can also be watched live, online.

This session will review new research that explores the relationship between climate change and rural populations as well as review practices and tools that can be used to build greater resiliency in rural communities for the benefit of residents.

Healthy Rural Communities: Coping with Change and Building Strategies to Improve Public Health

Wayne Caldwell (University of Guelph) and Helen Doyle (York Region Public Health)

Using Green Infrastructure as a Means to Combat Climate Change and Assist in Building Rural Community Resilience

Paul Kraehling and Jaime Dubyna (University of Guelph) Going Coastal -Changing Approaches to Best Management of Coastal Shorelines

Coastal Shorelines are on the front lines of Climate Change. How can we strengthen the resilience of the shoreline and reduce present and future hazards in these areas of high economic development pressure? Coastal experts will outline the work they are undertaking with Municipality's and CA's and discuss approaches available to better identify and map coastal hazards.

Joint Shoreline Management Plan for Elgin County to Strengthen Coastal Resilience

Pete Zuzek (Baird and Associates)

Coastal Hazards and Wave Runup/ Overtopping

Mike Davies (Coldwater Consulting Ltd.)

Shoreline Hazard Assessment – Changing Methodology with Changes in Technology

Alison Seidler (St. Clair Region Conservation Authority) Restoration in Action - Case Studies

Ecological restoration is a valuable tool for resource managers. Countless projects have resulted in improvements across the provincial landscape. This collection of case studies will showcase a broad range of rehabilitation and restoration challenges and actions to implement solutions.

Benefitting
Pollinators and
Biodiversity:
Utilizing Native
Herbaceous Species in
Afforestation Projects

Kathryn Arthur (Essex Region Conservation Authority)

Reservoir to Wetlands: Restoring Biodiversity at Taquanyah

Crystal Allan (Grand River Conservation Authority)

Restoring a Concrete Channel in Filsinger Park

Melissa Ryan (City of Kitchener) Managing the Lake Simcoe Watershed (Part 2)

This session continues discussion of what we are doing and what can be done, such as climate change, fisheries and restoring natural heritage.

Successes in Managing the Lake Simcoe Fishery

Adam Challice and Gabrielle Liddle (Ministry of Natural Resources and Forestry)

Lake Simcoe Shoreline Management Strategy

Elizabeth Stanley (Ministry of Natural Resources and Forestry)

Preventing New Invasive Species

Brook Schryer (Ontario Federation of Anglers and Hunters) and Carolyn Hann (Ministry of Natural Resources and Forestry)

# Day two

Watershed Management

Natural Heritage

Show and Tell

Driving Change

W1A ROOM 1

#### **W1B** ROOM 18

#### W1C ROOM 11

#### W1D ROOM 9

## The Evolution of Source Protection

This session will explore the Source Protection Process and those stakeholders involved, highlight the development of risk management tools used to manage drinking water threats and provide an overview of risk management plan implementation at a municipal level.

Developmental Justice: Analysis of the Drinking Water Source Protection Process In Ontario

Dr. John E. FitzGibbon (University of Guelph)

#### Developing a Site-Specific Risk Management Planning Tool

Dr. Hugh Simpson (University of Guelph / Ministry of Agriculture, Food and Rural Affairs)

#### Risk Management Plans - A Municipal Perspective

Tanya Kampherm Martin (York Region)

#### Species at Risk in a Changing Climate: Defining the Problem (Part 1)

This session is part 1 of a 2 part panel discussion series on climate change and species at risk that will bring together experts from the government, non-government and academic sectors to discuss the threats and proposed strategies to address climate change impacts to various Species at Risk. This first session will feature presentations on pollinators, amphibians, reptiles and polar bears followed by a facilitated panel discussion to identify common threads as well as differences across taxa and sectors.

## Panel Introduction & Moderator

Dr. Anne Bell (Ontario Nature)

## How Native Pollinators are Feeling the Heat

Dr. Sheila Colla (York University)

#### Cool Amphibians and Hot Reptiles

Tanya Pulfer (Ontario Nature)

#### The Tipping Point for Polar Bears

Dr. Marty Obbard (Ministry of Natural Resources and Forestry)

## New Thinking; New Possibilities

Every so often someone challenges us to think differently about a problem or to use a new tool or evaluation process. In this session we will hear how our presenters developed and used a new methodology that opens new possibilities for how we carry out our work.

#### Forensecolgy: Towards a Diagnostic Framework for Multiple Ecosystem Stressors

Michelle Bowman (Forensecology)

#### Demonstrating the Value of Social-Ecological Inventories

Susan Evans (WWF Canada)

Understanding Organizational Identity to Better Inform Change Processes in Conservation Authorities: A Case Study of the TRCA

Alexandrina Shannon (University of Waterloo)

#### The Farmer's Decision: Navigating a New Business Climate

A changing economy and a changing climate present new challenges and opportunities for farmers in Ontario. This session will consider how these changes affect how farmers manage their businesses.

#### Measuring Sustainability in Ontario Agriculture

Harold Rudy (Ontario Soil and Crop Improvement Association)

Agricultural Decision Support for Best Management Practices

Ian Nichols (Weather INnovations Consulting)

Moving the Needle on Phosphorus Losses through Pay-for-Performance Conservation

Jon Winsten (Winrock International)

## WEDNESDAY • November 18, 2015

Environment, Economy and Health

Water

Protect, Restore and Enhance Ontario Climate Consortium

#### W1E ROOM 2

#### W1F ROOM 8

#### W1G ROOM 15

#### W1H ROOM 7

#### EcoHealth -Understanding 'Human Ecology' (Part 1)

#### \*This session can also be watched live, online.

Humans are fundamentally dependant on ecosystems for survival, yet our awareness and understanding of this crucial connection is fragmented. Current and future challenges due to the decline of rural and urban ecosystems require proactive leadership and engagement from across the spectrum of Ontario stakeholders. This first session looks at new research that clearly connects degrading environmental conditions to human health.

## The What and Why of EcoHealth Ontario

Pegeen Walsh (Ontario Public Health Association) and Mike Puddister (Credit Valley Conservation)

#### Green Space, Health and Well-Being: A Review

Marianne Kingsley (Toronto Public Health)

#### Green Space, Air Quality and Heat: A Review

Tara Zupancic (David Suzuki Foundation)

#### Hydrology and Climate Change: What Do We Actually Know?

Do we have the right tools to predict flooding in a world undergoing climate change? Historical hydrologic data is widely used to understand climate trends and flood forecasting models incorporate this data to help us understand watershed processes. Is this still a valid approach?

#### Empirical Trends in Hydrology with Urbanization in the Greater Toronto Region

Mary Trudeau (Carleton University)

#### Automatic Discretization and Parameterization of Multi-land use Watersheds

Karen Finney (Computational Hydraulics International [CHI])

#### Deep Uncertainty and Climate Change: The Need for Alternative Approaches to Impact Assessment and Decision-Making

Scott MacRitchie (Ministry of the Environment and Climate Change)

#### Natural Channels -Design, Construction and Maintenance Considerations in a Changing Climate (Part 1)

These presentations will focus on the fundamentals of the function of natural channel systems, explain how the concept of natural channel design has evolved in Ontario and delve into considerations for urban systems and steps to consider for construction.

#### Moderator

Hazel Breton (City of Toronto)

#### Fundamentals of the Function of Natural Channel Systems

Dr. Bryan D. Neff (Western University)

#### How the Concept of Natural Channel Design has Evolved in Ontario

Jack G. Imhof (Trout Unlimited Canada)

## Design Considerations in Urban Systems

Dr. Bill Snodgrass (City of Toronto)

#### Steps to Consider in the Construction of Natural Channels

Harry Reinders (R&M Construction)

#### Identifying the Climate Change Science, Tools and Expertise Needed by Watershed Practitioners in Ontario (Part 1)

This workshop will provide participants with enhanced understanding of available climate data and assessment tools, highlight recent advances in applied climate research, and present local examples of climate change adaptation planning in Ontario.

#### **Setting the Context**

Christine Tu (Toronto and Region Conservation / OCC)

Panel: What Data, Research and Tools Are Currently Available to Support Climate Adaptation Planning in Ontario Watersheds, and How Are These Being Applied by Practitioners?

Moderator: Ontario Climate Consortium (OCC) Staff

#### What Practitioners Should Know About Climate Data in Ontario and Research Highlights

Ryan Ness (Toronto and Region Conservation / OCC)

#### Tools Available to Support Adaptation Planning in Ontario Ewa Jackson

Ewa Jackson (ICLEI Canada)

#### Overview of the Synthesis Report of Climate Change Vulnerability in Peel

Mark Pajot (Region of Peel)

#### Climate Adaptation Planning in Essex Region

John Henderson (Essex Region Conservation Authority)

# Day two

Watershed Management

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Show and Tell

Driving Change

#### W2A ROOM 1

#### W2B ROOM 18

#### W2C ROOM 9

#### W2D ROOM 8

#### Salt – A Tricky Compound to Balance

This session is dedicated to the issue of the increasing levels of chloride seen in many watercourses and lakes in southern Ontario. Increasing chloride levels are associated with the use of salt to maintain roads and parking lots in winter, which creates a challenge of balancing public safety with environmental health.

## Sources and Trends in Chloride in Lake Simcoe's Tributaries

David Lembcke (Lake Simcoe Region Conservation Authority)

#### Mapping Salt Vulnerable Areas in the Lake Simcoe Watershed

Bill Thompson (Lake Simcoe Region Conservation Authority)

Smart About Salt: A Training and Certification Program for Contractors and Facility Managers

Nichole Ashton (Smart About Salt Council)

#### Species at Risk in a Changing Climate: Exploring Options (Part 2)

This session is part 2 of a 2 part panel discussion series on climate change and species at risk that will bring together experts from the government, non-government and academic sectors to discuss the threats and proposed strategies to address climate change impacts to various Species at Risk. This second session will feature proposed strategies from federal, provincial and nongovernment agencies. A facilitated panel discussion will follow to identify common threads as well as differences across taxa and sectors with respect to emerging policy responses and management recommendations.

#### Panel Introduction & Moderator

Dr. Anne Bell (Ontario Nature)

#### The Climate Change Wild Card: Hedging Our Bets for Species at Risk

Graham Bryan (Environment Canada)

#### Habitat, Community and Distributions: Documented Climate Change Impacts on Fishes

Dr. Cindy Chu (Ministry of Natural Resources and Forestry)

## Greenways to the Rescue

Joshua Wise (Ontario Nature)

#### Fundraising: A Funders Perspective

Come and listen to 3 different funders describe the programs and their impact, what's new, what they are looking for and how to make your best application. There will be an opportunity to discuss the opportunities, but there will be no on the spot grants approved!

#### RBC Bluewater Project

Cameron Miller and Shannon Robertson (Royal Bank of Canada)

#### Investing for Impact: Ontario Trillium Foundation's New Investment Strategy

Thea Silver (Ontario Trillium Foundation)

#### Great Lakes Guardian Community Fund

Faith Sayavong (Ministry of the Environment and Climate Change)

#### Weathering Change: The Farmland Health Check-Up and Linking Soil Health and Watershed Health

The Farmland
Health Check-Up
identifies Best
Management
Practices that
farmers can adopt
to improve the
health of their soils.

The Farmland Health Check-Up: A New Tool for OMAFRA's Great Lakes Agricultural Stewardship Initiative

Adam Hayes (Ministry of Agriculture, Food and Rural Affairs)

#### The Farmland Health Check-Up: Delivery by the Ontario Soil and Crop Improvement Association

Karen Jacobs (Ontario Soil and Crop Improvement Association)

# The Farmland Health Check-Up: Certified Crop Advisors at the Kitchen Table and in

Chad Anderson (Anderson Agronomy Services)

## WEDNESDAY • November 18, 2015

Environment, Economy and Health

Wate

Protect, Restore and Enhance Ontario Climate Consortium

W2E ROOM 2

W2F ROOM 11

W2G ROOM 15 W

W2H ROOM 7

#### EcoHealth -Understanding 'Human Ecology' (Part 2)

#### \*This session can also be watched live, online.

Building on the growing research linking our health and wellbeing to the natural environment (as demonstrated in Part 1), this session explores the practice of ecohealth. The panel will provide a wide range of perspectives on the challenges and opportunities that agencies face in putting the science into practice and what new initiatives are being developed.

#### Moderator

#### Kim Gavine

(Conservation Ontario)

#### Bill Kilburn (Back to Nature Network)

#### Helen Doyle (York Region Public Health)

#### Paul Ronan (Ontario Parks Association)

#### Mark Pajot (Region of Peel)

Deanna Cheriton (EcoHealth Ontario / Toronto and Region Conservation)

#### Weather on Steroids: Burlington's Nightmare

Learn about
Conservation Halton's
foray into forensic
investigation in
analyzing the storm
of August 2014,
the impact of the
aftermath on the City
of Burlington, and
Amec Foster Wheeler's
assistance in
Burlington's on-going
journey to be climate
ready.

#### Weathering the Storm: Burlington's Story

Amy Mayes (Conservation Halton), Cary Clark (City of Burlington) and Aaron Brouwers (Amec Foster Wheeler)

#### Natural Channels -Design, Construction and Maintenance Considerations in a Changing Climate (Part 2)

This session will continue to present the essential considerations with a presentation for developing and implementing a maintenance plan following construction. A panel of experts will then discuss and take questions on the pitfalls, perils and successes of implementing a natural channels project.

#### Moderator

Hazel Breton (City of Toronto)

#### Panel Discussion on the Pitfalls, Perils and Successes of Implementing a Natural Channels Project

Dr. John Beebe (Geoprocess Research)

## Mariëtte Pushkar (Ecosystem Recovery)

Harry Reinders (R&M Construction)

Jack G. Imhof (Trout Unlimited Canada)

Dr. Bill Snodgrass (City of Toronto)

Dr. Bryan D. Neff (Western University)

#### Identifying the Climate Change Science, Tools and Expertise Needed by Watershed Practitioners in Ontario (Part 2)

Building on the information from Session W1H, this workshop will leverage participants experience and insights to provide a key contribution for the development of a research agenda to support watershed planning in Ontario in the context of climate change.

#### From Research to Practice: How Important Is the Question We Ask of the Experts?

Jim MacLellan (University of Toronto)

#### Workshop: Developing a Research Agenda to Support Watershed Planning in the Context of Climate Change

A facilitated discussion, World Café Style, with workshop participants to identify key research themes and questions

# Day two

Watershed Management

Natural Heritage

Show and Tell

W3C ROOM 7

Driving Change

W3D LOBBY

#### W3A LOBBY

#### Balancing Public Safety and the Environment - Salt Operations Tour

This tour will provide an introduction to some of the operational issues related to the use of salt on roads and parking lots. With site visits to a City of Barrie Operations Centre and a multi-use property managed by the Simcoe County District School Board, operators will provide an overview of the issues they need to consider in the application of salt to remove ice and snow, as well as the equipment they use, and their approach to balancing public safety with environmental protection.

#### Bill Thompson and David Lembcke (Lake Simcoe Region Conservation Authority)

. . .

#### W3B ROOM 2

# Get Adapting! Linking Climate Change Vulnerability Assessment to Adaptation Strategies in the Great Lakes Basin

Hosted by the Ministry of Natural Resources and Forestry, the first part of this workshop will include presentations on climate change vulnerability work in Great Lakes ecosystems. The second part will challenge participants to review a custom adaptation plan and discuss implementation. A final presentation will be given highlighting barriers and successes with advancing climate change action.

#### Workshop Facilitator

Al Douglas (Ontario Centre for Climate Impacts and Adaptation Resources)

#### Aquatic Invasive Species

Tim Johnson (Ministry of Natural Resources and Forestry)

#### Aquatic Ecosystem Habitat

Dr. Cindy Chu (Ministry of Natural Resources and Forestry)

#### Wildlife Impacts and Terrestrial Connectivity

Jeff Bowman (Ministry of Natural Resources and Forestry)

#### Implementing Climate Change Action

Mark Pajot (Peel Region)

## Multivariate

#### Statistics 101: Ordination and Clustering

This introductory

course will provide participants that have limited experience using multivariate statistics with the information and experience needed to perform analyses on biological, chemical and physical data. Participants will use ordination (e.g., PCA) and cluster analyses for summarizing habitat and biological community data as well as multivariate methods to relate habitat and biological patterns. The importance of the number of variables and their correlations in choosing the best multivariate models will also be explored using example datasets.

## Michelle Bowman (Forensecology)

#### Agricultural Water Quality: From Soil Health to Controlled Drainage [Tour]

This field tour will stop at sites in and around the Holland Marsh to highlight research projects that examine how water quality can be addressed in cropland. Dress appropriately.

#### Exploring Benefits and Feasibility of Controlled Drainage Jacqui Empson

Laporte (Ministry of Agriculture, Food and Rural Affairs [OMAFRA])

#### Controlled Drainage Research in the Holland Marsh

Andrew Jamieson (OMAFRA)

#### Healthy Soil for Healthy Watersheds Adam Hayes (OMAFRA)

Cover Crops for Healthy Soil

Anne Verhallen

(OMAFRA)

Innovations in Erosion Control to Manage Soil Loss and Establish Cover Cathy Wall (Quality Seeds Ltd.)

## WEDNESDAY • November 18, 2015

Environment, Economy and Health

Water

Protect, Restore and Enhance

Show and Tell

W3E ROOM 15

#### W3F ROOM 9

#### W3G LOBBY

#### W3H ROOM 11

## The Economics of Climate Change

This session will look at the economic implications of climate change impacts and how to address these impacts through various economic-based mechanisms and strategies.

#### Using Market Mechanisms to Help Protect Ontario's Fresh Water

Natalija Fisher (Environmental Defence)

#### Municipal Risk Assessment Tool: A Tool to Help Guide Spending

Sally Turney (Insurance Bureau of Canada)

## Cap-and-Trade and the Carbon Markets

Anthony D'Agostino (Royal Bank of Canada)

\*Full session description for W3I can be found in the Day 1 Tuesday 4:00 PM -5:30 PM time slot (listed under T3D). However, please note W3I does takes place on Day 2 Wednesday from 2:00 PM -3:30 PM.

## 1D vs 2D Modeling - When, Why and How?

There is an increasing need to consider two dimensional hydraulic models for complex modeling applications. But which model works for which context? This session will present some of the reasons for twodimensional modeling, and provide some details on a variety of available models, their pros and cons, as well as some case studies.

#### Part 1 – Why 2D Models?

Introduction on 2D Modeling Needs and Uses Ferdous Ahmed (Rideau Valley Conservation

## Authority) PC-SWMM

Rob James (Computational Hydraulics International [CHI])

Introduction to integrated 1D and 2D Hydraulic Modelling of Riverine and Urban Flooding Pat Delaney (DHI)

SMS Intro, and Dam Break and Flood Hazard Analysis using SMS 2D modeling in NVCA Case Study

Dr. Bahar SM (AHYDTECH Geomorphic Ltd.)

#### Part 2 - Case Studies

HEC-RAS-2D Intro & Case Study on Speed River Ning Pan (University of Guelph)

Delft3D Intro, and Case Study on the Lower Don Alex Brunton (Baird & Associates)

#### Mike Flood in Cobourg

Christie Peacock (Ganaraska River Conservation Authority)

Spring Creek 2D Model Update: Model Development & Tools for Characterisation of Flood Conditions

Dilnesaw Chekol and Robert Chan (Toronto and Region Conservation)

#### Healthy Connections: Restoration at Scanlon Creek Conservation Area [Tour]

In March 2015, LSRCA completed a major restoration project at Scanlon Creek Conservation Area in Bradford, bypassing a dam that was constructed in the early 1970's and reconnecting the creek to over 8km of its upstream reach. Learn how the restoration project was undertaken, its beneficial outcomes and how cost-saving methods integrated into the project helped to facilitate its completion. Also hear about how the project's connections to placebased Educational programming and the Friends of Scanlon Creek are providing returns for more than just the fish.

#### **Tour Guides**

Phil Davies, Christa Sharp & Kevin Brygidyr (Lake Simcoe Region Conservation Authority)

Ken Vogan (Friends of Scanlon Creek)

Brook Piotrowski (Toronto and Region Conservation)

#### Navigating the Weather: CANWARN Storm Spotter Training

CANWARN is a program of **Environment Canada** meteorologists to train individuals interested in assisting with storm weather monitoring. As severe weather becomes more frequent we owe it to ourselves and our staff to learn how to spot it before it comes. CANWARN members are everyday people located across Ontario who volunteer to provide real-time observations of severe weather to Environment Canada's Ontario Storm Prediction Centre in Toronto. The best and most useful training you will take all year!

Geoff Coulson (Environment Canada)

Driving Change

#### W3I

Smart Urban Planning and Development – What's the Key to Saving the Greenbelt? [Panel]

Andrew Craig (Royal Bank of Canada)
Cherise Burda (Ryerson City Building Institute)
Burkhard Mausberg (Friends of the Greenbelt Foundation)
Arvin Prasad (Region of Peel)
Keith Currie (Ontario Federation of Agriculture / Farmer)

# Day three

Watershed Management

Natural Heritage

Show and Tell

**Driving Change** 

#### TH1A ROOM 1

#### TH1B ROOM 7

#### TH1C ROOM 8

#### TH1D ROOM 9

## How Resilient is Your Watershed?

Watershed Management is undergoing transformation to build resilience in response to a number of key stressors that include climate change, growth and aging infrastructure. This session will cover a number of innovative and holistic watershed assessments currently being undertaken across Ontario.

#### Building Resilience for Climate Change in Rural Watersheds

Chris Van Esbroeck (Maitland Valley Conservation Authority)

#### Assumptions and Limitations using Climate Model Information in Adaptation Planning: Port Credit Case Study

#### Glenn Milner (Toronto and Region Conservation / Ontario Climate Consortium [OCC])

Watershed Resiliency in a Changing Climate: Grand River Water Management Plan

Stephanie Shifflett (Grand River Conservation Authority)

#### Status of Brook Trout and Prospects for Resiliency in a Changing Climate

Climate Change may induce broad changes to brook trout habitat, populations, and distribution across the watersheds of the Great Lakes. This session will include presentations and a panel discussion on the current status of brook trout and a road map for future management.

## Introduction / Moderator

Rob Wilson (Lake Simcoe Region Conservation Authority)

#### Brook Trout Monitoring and Declines in Credit Watershed

Phil Bird (Credit Valley Conservation)

#### Brook Trout Life History

Brian Morrison (Ganaraska Conservation)

#### Brook Trout Responses to Climate Change (Past, Present and Future)

Dr. Chris Wilson (Ministry of Natural Resources and Forestry)

#### How Small Can Isolated Brook Trout Populations Become and Still Respond to Environmental Change?

Dylan Fraser (Concordia University)

#### Panel Discussion / Moderator

Jack Imhof (Trout Unlimited Canada) Latornell Mentorship Program 2015 -What's Next? Career Strategies in the Age of Chaos and Anxiety

The work world today is filled with chaos and anxiety. Individuals of all ages are struggling to find their way. In this participatory workshop, you will be exposed to kev strategies that will help you to manage in these challenging times. Emphasis will be placed on building career resiliency and practical next steps. This material is especially helpful for those early in their career as well as individuals involved in career coaching and mentoring relationships.

#### Rob Straby (Straby.com)

#### The Bald Eagle Stayed All Winter: Local Adaptive Strategies for a Global Issue

Climate change is a global issue being felt at a local level. Adaptive strategies need to take into consideration each communities understanding of the world and day to day reality. This session will explore the Ontario Centre for Climate Impacts and Adaptation Resources (OCCIAR) work with the Chippewas of Georgina Island taking into consideration traditional and cultural knowledge to develop adaptive actions.

#### Communicating Climate Change to Support Mitigation and Adaptation in the Great Lakes Basin

#### Al Douglas (Ontario Centre for Climate Impacts and Adaptation Resources

[OCCIAR])

Climate Change Adaptation Planning with the Chippewas of Georgina Island First Nation

Kerry-Ann Charles (Georgina Island First Nation) and Jacqueline Richard (Ontario Centre for Climate Impacts and Adaptation Resources

[OCCIAR])

## THURSDAY • November 19, 2015

Communications and the Community

Water

Protect, Restore and Enhance

#### TH1E ROOM 2

#### TH1F ROOM 15

#### TH1G ROOM 18

#### **Building Relationships**

We can increase our ability to adapt to climate change by working together. But Ontario has a very diverse population of people and organizations. How can we come together to take action? Connecting with a variety of audiences that includes partners, stakeholders, municipalities and residents will be key to communicating climate change messages and inspiring action.

#### Building Relationships and Sharing Knowledge

Kyle Davis (Wellington Source Water Protection) and Bronwynne Wilton (Synthesis Agri-Food Network)

#### **Sharing Our Forests**

Rob Keen (Forests Ontario)

## Friends and Neighbours (FANS)

Jen Davidson (Conservation Sudbury)

#### Changing Climate, Changing Storage, Where Will We Put the Water?

We rely on the storage of lakes, wetlands, and stormwater management ponds, for floodplain protection, ecological flow augmentation, recreation and navigation, and municipal water intakes. What changes in storage can we expect with changing climate? Will our operations have to change, our design volumes, our reliance on storage for augmentation of downstream flows? Can we adapt?

#### Wetlands and Flood Mitigation in Ontario: Natural Adaptation to a Changing Climate

Alexandra Service (Ducks Unlimited Canada) and Mason Marchildon (Conservation Authorities Moraine Coalition)

## Hutton Marsh: What Climate Change Means?

Ferdous Ahmed (Rideau Valley Conservation Authority)

#### Reservoir Operations Assessment Under Evolving Climate Projections

Paul Lehman (Mississippi Valley Conservation Authority)

#### Habitat: It's for the Birds!

Not all habitats are created equally and different species of birds require different types of natural habitat. Habitat loss and fragmentation are some of the threats that need to be addressed to reverse bird declines and maintain healthy populations. This session will present ideas for identifying, conserving, and monitoring essential habitat for bird populations.

Important Bird Areas in Ontario – Do Conservation Authorities Have a Role to Play?

Ted Cheskey (Nature Canada)

#### Citizen Science: Partnering Farmers, Scientists and Birds

Hayley Paquette (Ontario Soil and Crop Improvement Association)

The Habitat Squeeze for Migratory Songbirds in Southern Ontario: Identifying the Stressors, Winners and Losers

Dr. Erica Nol (Trent University)

# Day three

Watershed Management

Natural Heritage

Show and Tell

**Driving Change** 

#### TH2A ROOM 1

#### TH2B ROOM 2

#### TH2C ROOM 11

#### TH2D ROOM 7

## How Resilient is Your Watershed?

Watershed Management is undergoing transformation to build resilience in response to a number of key stressors that include climate change, growth and aging infrastructure. This session will cover a number of innovative and holistic watershed assessments currently being undertaken across

Participation in session TH1A is not required to attend session TH2A.

From Theory to Practice: Adapting to a Changing Climate in the Mississippi-Rideau Region

Jacqueline Oblak (Mississippi Valley Conservation Authority)

Implementation of Low Impact Development in the Upper Thames River Watershed

Dr. Imtiaz Shah (Upper Thames River Conservation Authority) and Xing Chai (Western University)

Making LID Inspection and Maintenance Cheaper and Easier By Design

Dean Young (Toronto and Region Conservation)

## Urban Nature in a Changing Climate

Natural areas provide innumerable benefits to our cities and towns. However, natural areas in urban centers are under stress from a number of factors (e.g., invasive species and climate change). This session will discuss the state of urban forests and the management of urban novel ecosystems.

State of North America's Urban Forests

Eric Davies (University of Toronto)

Ontario's Urban Forests: A Call to Action and Provincial Engagement

Michelle Sawka (Toronto and Region Conservation)

Management of Urban Novel Ecosystems in the City of Kitchener

Joshua Shea (City of Kitchener)

#### Latornell Mentoring: Getting Started on Your Career

How do you find the right job opportunity and when you do, how do you make sure your resume gets to the top of the pile? Once you have an interview, how do you prepare and seal the deal?! In this session, a number of Latornell Mentors and others who specialize in hiring will outline ideas and tips to enhance your success.

Finding the Job You Want

Yes Pile Resumes Interview to Offer

#### Moderator:

Deborah Martin-Downs (Credit Valley Conservation)

#### Panel:

Peter Dudka (Toronto and Region Conservation)

Andrew Kett,
Annabelle Krupp and
Marlene Ferriera
(Credit Valley
Conservation)

Darryl Finnigan (Ministry of Agriculture, Food and Rural Affairs)

Gayle Wood (Nottawasaga Valley Conservation Authority)

Michael Wynia (Skelton, Brumwell and Associates Inc.)

#### Engaging Private Landowners in Conservation and Stewardship

Private landowners play a critical role in conservation and environmental protection. This session will detail innovative ways of connecting people to their local environment. This session will explore a new online discussion forum, an outreach and marketing campaign to secure green space and other creative ways to unite and connect landowners in conservation

Facilitating Landowner Engagement and Knowledge Sharing: The Launch of an Online Discussion Forum

Shannon Lem (Credit Valley Conservation)

Landowner Contact: Engaging the Community for Conservation

Kate Potter (Orland Conservation)

Old Myths, New Myths: Creating a Freshwater Narrative

Lindsay Telfer (Canadian Freshwater Alliance)

## THURSDAY • November 19, 2015

Communications and the Community

Wate

Protect, Restore and Enhance

#### TH2E ROOM 8

#### TH2F ROOM 9

#### TH2G ROOM 18

#### Adapting Your Communications in a New Climate [Workshop]

This session will cover the way you communicate climate change messages to your online audience—without their eyes glazing over—by changing the way you plan, write and present your online content. By understanding how websites and online audiences have evolved, you can meet audience expectations and help them understand, accept, and act on your climate change messages.

## Alysha Dominico (Tangible Communications)

#### How We Measure up to Water Quality Improvement Goals

The journey to achieving the goals of water quality improvement regulations, agreements, and common best practices, is not always a straight path. The periodic examination of whether these are reaching their mark is necessary, as you'll find out in this session.

Science Supporting the Great Lakes Water Quality Agreement: Groundwater and Climate Change Information Needs and Gaps

#### Scott MacRitchie

(Ministry of the Environment and Climate Change)

Regulated Private Water and Waste Water Systems in Ontario: Water Quality Improvement, Opportunity or Liability

Dr. John E. FitzGibbon (University of Guelph)

Severity, Biological Thresholds and Potential Impacts of Freshwater Stream Salinization Due to Road Salt in Toronto, Canada

Raymond Biastoch (Toronto and Region Conservation)

#### Extracting the Benefits: Rehabilitating Ontario's Pits and Quarries

A wide range of opportunities exist for the aggregate industry to contribute to the conservation and enhancement of Ontario's biodiversity. This session explores approaches and innovative ideas that the industry is developing to rehabilitate former aggregate sites. Join industry representatives in this 90-minute session to learn more about extracting the biodiversity benefits from aggregate rehabilitation.

#### Bioregional Design for Multiple Aggregate Extraction Site Rehabilitation

Heather Schibli (University of Guelph / Ontario Stone Sand & Gravel Association)

Aquaculture as a Tool to Enhance Aquatic Productivity and Diversity after Gravel Mining

Stephen May (CBM St Marys Cement)

Biodiversity Offsets: Planning for the Future, Protecting for the Present

Nicholas Schulz (Cornerstone Standards Council)

# Day three

Watershed Management

Natural Heritage

Show and Tell

Driving Change

#### TH3A ROOM 1

#### TH3B ROOM 11

#### TH3C ROOM 7

#### TH3D ROOM 8

#### Watershed Modeling - A Tool for Decision Making

The application of water quality models at various scales is presented in this session. Applicability to various land uses and land operations is tested to assess impacts from climate change, non-point source pollution and the use of best management practices.

## Watershed Modeling of Great Lakes Basin

Tirupati Bolisetti (University of Windsor)

Modelling
Watershed-Derived
Nutrients for Lake
Ontario Inflow
Considering Typical
Land Operations in
Southern Ontario

Masoud Asadzadeh (University of Manitoba)

Place-based Modelling for Assessing Water Quantity Effects of Agricultural Management Practices

Yongbo Liu and Wanhong Yang (University of Guelph)

#### Lesson Learned at Ostrander Point: A Recent Victory for Habitat Protection

Recently, the Prince **Edward County Field** Naturalists (PECFN) and Nature Canada defended an appeal to halt a proposed wind project in an Important Bird Area and Species at Risk habitat at Ostrander Point. This session will discuss lessons learned while outlining the environmental and legal aspects of the case.

#### Introduction to Ostrander Point Development Opposition

Myrna Wood (Prince Edward County Field Naturalists) and Cheryl Anderson (Prince Edward Point Bird Observatory / Prince Edward County Field Naturalists)

#### Ostrander Point: The Legal Perspective

Eric Gillespie (Gillespie Law)

When is Significant Significant Enough? Birds vs. Wind Turbines – Lessons Learned During Ostrander Hearings

Ted Cheskey (Nature Canada)

## Construction 101 This session will

provide project managers the fundamental information they need to undertake construction projects in conjunction with general and specialized contractors. An overview of how to interpret and read blueprints will be made followed by tendering and procurement considerations. The session will conclude by providing a basic understanding of key construction laws as they pertain to the management and administration of contracts.

#### **Blueprint Reading**

John Parish (Parish Geomorphic Ltd.)

Tendering/ Procurement of Contracts and Construction Management Administration

James Dickie (Toronto and Region Conservation)

#### From Theory to Change: Engaging Communities to Make a Difference

A Little bit of education goes a long way. In this session we explore adult learning in theory and practice with a focus on education as a tool for change, including a case study focused on the Great Lakes.

Great Lakes Partnership with School Boards: A 4 Part Vision to Engage Teachers with Their Great Lakes

Nancy McGee (Toronto and Region Conservation)

#### Adult Education, Conservation, and Social Change

Andrew Kett (Credit Valley Conservation)

Becoming Undomesticated: Engaging "Regular" People to Create Change

Lea Ann Mallett (Coaching for an Extraordinary Life)

## THURSDAY • November 19, 2015

Communications and the Community

Water

Protect, Restore and Enhance

#### TH3E ROOM 2

#### TH3F ROOM 9

#### TH3G ROOM 18

#### Tools and Channels for Effective Communications

Adapting to the impacts of climate change and extreme weather events can be a complex and daunting task. This session will explore a variety of technological tools to support communications efforts surrounding climate change messaging. Learn more about apps for heat and air quality, powering up your PowerPoint presentations, a board game aimed at communicating climate change scenarios and social network analysis for assessing knowledge and encouraging mobilization.

#### WeatherActive - An App for Communicating Heat and Air Quality Alerts

Rich Whate (Toronto Public Health)

#### Optimizing Knowledge Mobilization Using Social Network Analysis

Dr. Hugh Simpson (University of Guelph)

#### Innovative (but Traditional) Ways to Engage Diverse Communities in Climate Change Policies

Dave Bray (Ministry of Agriculture, Food and Rural Affairs)

#### Power Up Your PowerPoint

Ken Neale
[True North Communication]

#### Surface and Groundwater Monitoring and Its Importance in a Changing Climate

Presenters will discuss lessons learned and best practices in retrofitting PGMN groundwater wells, recent enhancements to the PGMN improving the monitoring of groundwater, drought and climate change, and monitoring flows of the Mattagami River which has produced new ways to share information and support decision making arising from changing river conditions.

## Telemetrizing Groundwater in Ontario – Lessons Learned

Sheldon Foisy (FTS Inc.)

#### Enhancement of the Provincial Groundwater Monitoring Network for Drought and Climate Change Monitoring

Scott MacRitchie (Ministry of the Environment and Climate Change)

Enabling River Forecasting Systems within the CGDI Framework for Community and Inter-Agency Content Dissemination and Integration for the Mattagami River Basin

Steve McArdle (4DM Inc.)

## A Changing Climate for Biodiversity

There is ample evidence that climate change affects biodiversity. Conservation and restoration of degraded ecosystems will play a key role in reducing the adverse effects of climate change along with habitat and species management strategies. This session will further explore the linkages between biodiversity and climate change and the actions needed to protect, restore and enhance our natural resources.

#### The Trouble Restoring Regionally Rare Plants in Light of Climate Change

Stefan Weber (St. Williams Nursery & Ecology Centre)

#### Climate Change and Recreational Fisheries

Dr. John Casselman (Queen's University)

#### A Summary of Ontario's Early Efforts to Culture at Risk Mussel Species

Christopher Wilson (Ministry of Natural Resources and Forestry)