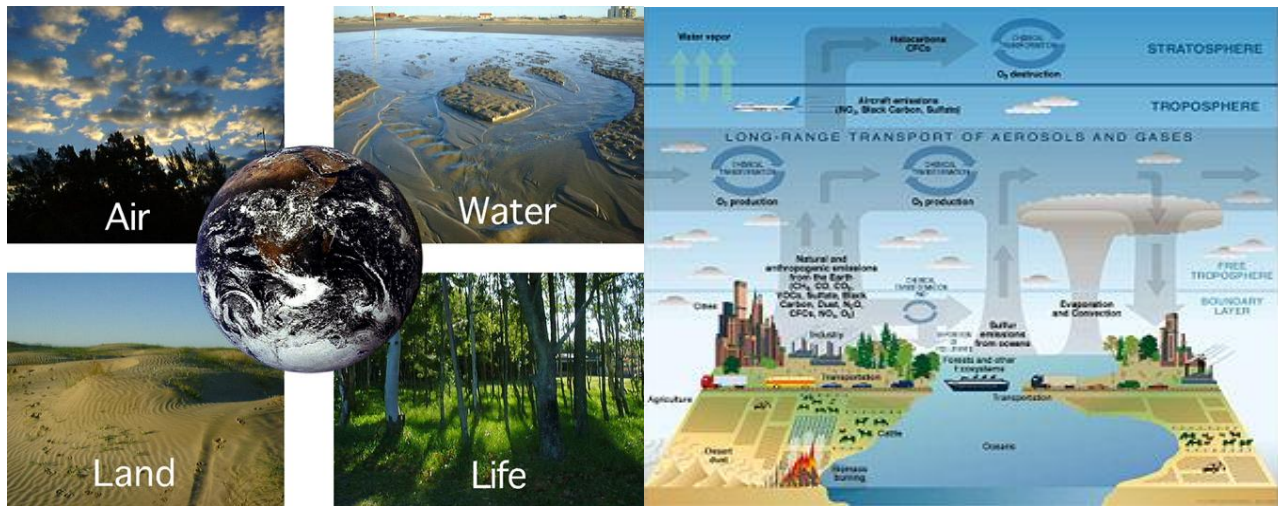


Environmental Modelling Workshop 2013



March 13 and 14, 2013

**University of Alberta, Lister Centre (Maple Room)
Edmonton, Alberta (Canada)**

Workshop Objectives:

1. Promote scientific and technical research for the continuous improvement of environmental modelling in Alberta.
2. Promote collaboration and information exchange between model developers and users.
3. Promote a cumulative effects based approach to modelling where strategic/regional and multi-media modelling efforts are integrated to best achieve environmental management objectives
4. Promote integration of monitoring and energy development scenarios efforts with environmental modelling

Conference Organizing Committee

The organizing committee is proud to host the first Environmental Modelling Workshop in Edmonton, Alberta. It is our hope that registered delegates will leave the workshop with an appreciation of how modelling can provide government and industry with the information and tools to best achieve monitoring, planning, and management objectives. Delegates will learn how modelling is used across government ministries and within industry. National speakers will provide expertise on a myriad of topics including air and water management, cumulative effects, biodiversity management, land-use planning, data integration, and climate variability.

The organizing committee wishes to thank Alberta Environment and Sustainable Resource Development for hosting the 2013 Environmental Modelling Workshop.

Thanks from the committee,

Alberta Environment and Sustainable Resource Development

**Anil Gupta
Ben Arril
Benjamin Adei
Crystal Kushneryk
Deepak Muricken
Edwin Rodriguez
Eric Anderson
Janelle Lane
Jannette Wombold
John Diiwu
Laura Lee Billings
Richa Sharma
Sillah Kargbo
Sunny Cho
Werner Herrera, Chairman**

Ministry of Culture

Terry Vaughan

Workshop Program - MARCH 13TH2013 (DAY 1: Maple Room)

07:15	08:15	Networking Breakfast/Registration (In front of the Maple Leaf room)		
08:15	08:40	Welcoming & Opening Remarks	Heather von Hauff	AESRD
08:40	09:00	Opening Keynote Address - CMO Introduction	Anil Gupta	AESRD
Session 1			Chair: TBD	
09:00	09:20	The Use of Mechanistic Models for Water Quality Management	Tim Wool	USEPA
09:20	09:40	Modelling Coupled Natural/Human Systems for Environmental Resource Management	Danielle Marceau	U. of Calgary
09:40	10:00	Application of Lagrangian Modelling In Urban Areas	Richard Leduc	AirMet Science Inc.
10:00	10:20	Networking & Refreshment Break		
10:20	10:40	Water Resources Management Using Coupled Models in Alberta and the U.S.	Andrew Parker	Tetra Tech Inc.
10:40	11:00	The Art of Water Management Modelling; Applying Science to Inform Value Based Decisions	Dan Sheer	Hydrologics
11:00	11:30	A Vision of Enterprise Spatial System for Supporting Environmental Modelling	Chiadih Chang	AESRD
Panel Discussion I (11:30 ~ 12:15)				
12:15	13:15	Lunch		
Session 2			Chair: TBD	
13:15	13:35	Simulating Hydrological Behavior under Environmental Change in Alberta	Stefan Kienzle	U. of Lethbridge
13:35	13:55	Linking Air Quality and Watershed Models	Krish Vijayaraghavan	ENVIRON
13:55	14:15	Southern Region Modelling Initiatives	Tom Tang & Kent Berg	AESRD
14:15	14:35	Networking & Refreshment Break		
14:35	14:55	Discovering the Possible: Tools for Collaborative Learning and Improved Outcomes	David Hill	U. of Lethbridge
14:55	15:15	The Importance of Modelling for Bringing Biodiversity into Land-use Planning	Hugh Norris	AESRD
15:15	15:35	Conjunctive Optimization of Demand and Supply in Integrated River Basin Management Models	Nesa Ilich	Optimal Solutions Ltd
Panel Discussion II (15:35 ~ 16:05)				
16:05	17:30	Poster Viewing / Cash Bar (Aurora Room)		
17:30	19:00	Networking - Mixer & Dinner (Key Presentation over Dinner – Prof. John Pomeroy, U. of Saskatchewan) Multi-scale Modelling Of Mountain, Forest and Prairie Basin Hydrology in Alberta Using the Cold Regions Hydrological Model		

Workshop Program - MARCH 14TH2013 (DAY 2: Maple Room)

07:15	08:15	Networking Breakfast /Registration (In front of the Maple Leaf room)		
08:15	08:30	Opening & Keynote Address	Bob Barraclough	ADM, Monitoring Agency
Session 3			Chair: TBD	
08:30	08:50	A Quick Look at Current Air Quality Modelling Being Undertaken By AESRD in the Context of Cumulative Effects Management	Sunny Cho & David Lyder	AESRD
08:50	09:10	Prototyping A Tool for Integrating Regional CEMS Data, Information and Quantifying Effects	Robert Magai	AESRD
09:10	09:30	Numerical Modelling In Support Of Provincial Groundwater Inventory Program (PGIP)	Amandeep Singh	Energy Resources Conservation Board
09:30	09:50	Air Quality Modelling For Multimedia Assessments and Associated Challenges	Mervyn Davies	Stantec
09:50	10:10	Networking & Refreshment Break		
10:10	10:30	Cumulative Effects Modelling in the South Athabasca Oil Sands Area	Sarah Depoe	AESRD
10:30	10:50	Groundwater Flow Model Development for Cumulative Effects Management within the Athabasca Oil Sands	Margaret Scott	WorleyParsons Canada Ltd.
Panel Discussion III (10:50 ~ 11:20)				
Small Group Discussion (11:20 ~ 12:15)				
<ul style="list-style-type: none"> • What are priority issues/opportunities for integrated environmental modelling in Alberta? • What are the needs of integrated environmental modelling in Alberta in order to enable the implementation of cumulative effects management for sustainable development in the province? • What are the major contributions from integrated environmental modelling in the development of and implementation of regional plans in the province? • What role can the AESRD, academia, and the private sector play in enhancing integrated environmental modelling for cumulative effects management in the province, and what are their needs from AESRD? 				
12:15	13:15	Lunch & Talk Presentation(Starting at 12:50)	Edwin Welles	Deltares USA Inc.
Session 4			Chair: TBD	
13:15	13:35	EFDC_DSI/EFDC Explorer Modeling System - Use and Applications for Alberta	Paul Craig	DSI
13:35	13:55	An Overview of Evaluations to Support Contaminant Load Management for the North Saskatchewan River	Darcy McDonald	AESRD
13:55	14:15	Simulating the Responses of Ecological Indicators to Past, Current and Future Land Use with ALCES, ALCES Mapper and Web-Based ALCES	Brad Stelfox	ALCES Group
14:15	14:35	Networking & Refreshment Break		
14:35	14:55	Integrated Watershed Hydrology Modelling Using MIKE SHE: Recent Advances to Support Cold Climate Hydrology and Integrated Land-Use Planning	Patrick Delaney	DHI
14:55	15:15	Modelling For Climate Variability	David Sauchyn	U. of Regina
15:15	15:35	Impacts of Climate and Vegetation Changes on Streamflow and Water Balance on Headwater Stream in Southern Alberta	Vinod Mahat	U of Alberta/Foothills Research Institute
Panel Discussion IV (15:35 ~ 16:10)				
Conference Wrap-up (16:10 ~ 16:20)				
<ul style="list-style-type: none"> • Summary of recommendations & actions from the outcomes of the conference, identification of issues and challenges 				
16:20	ADJOURN			

Accommodations

The following hotel information has been provided for your reference, should you wish to make accommodations to stay overnight in Edmonton.

University of Alberta Lister Centre Guest Room (connected to conference room)

87 Avenue & 116 Street, Edmonton, AB
(780) 492-6056

Campus Tower Suites Hotel

11145 87 Avenue Northwest Edmonton, AB
(780) 439-6060

Matrix Hotel

10640 100 Avenue Northwest Edmonton, AB
(780) 429-2861

Holiday Inn Express Hotel Edmonton Downtown

10010 104th Street
Edmonton, AB
(780) 423-2450

Crown Plaza Hotel Edmonton-Chateau Lacombe

10111 Bellamy Hill
Edmonton, AB
(780) 428-6611

Coast Edmonton Plaza Hotel

10155 105 St Edmonton, AB
(780) 423-4811

Map for Direction and Parking

University of Alberta Lister Centre

87 Ave And 116 Street Edmonton Alberta (Lister Hall is Located West of the Jubilee Auditorium).



Driving Direction

DIRECTIONS FROM SOUTH OF EDMONTON (FROM THE AIRPORT): Take Highway #2 north heading into Edmonton (changes to Gateway Boulevard). Follow Gateway Boulevard for approximately 15 minutes to Whyte Avenue (82nd Avenue). Turn left on Whyte Avenue and follow it to 112th Street. Turn right on 112th Street and follow it to 87th Avenue. Turn left on 87th Avenue. Continue for approximately 4 blocks and Lister Centre is located on your left at the corner of 116th Street and 87th Avenue.

Directions From downtown (Jasper Avenue): From Jasper Avenue, take 109 St. NW south. Stay on 109 St and cross the high-level bridge. Turn right at 87 Ave. NW just after the Garneau Theater and head west. Keep on 87 Avenue and turn left just after passing the butter dome.

Parking

Limited Parking is available directly outside Lister Centre (Tickets are available from coin dispenser). Closest additional parking is available at the Jubilee Car Park. Other potential parking available is the Stadium Car Park located directly down 116 ST NW; and the Education Car Park located east of Lister on 114 ST NW. Purchase your tickets from the attendee at these lots.