

**22<sup>nd</sup> Eastern Canadian Symposium on Water Quality Research**  
**– Montreal, November 3rd, 2006**  
**22<sup>e</sup> Symposium de l'Est du Canada de recherche sur la qualité de l'eau,**  
**qui aura lieu à Montréal, le 3 novembre, 2006**

**CHALLENGE FOR THE EASTERN CANADA: CLEAN WATER**  
*Défi pour l'Est du Canada: l'eau propre*

**Preliminary Program/ Programme préliminaire**

<b>Thursday, November 2<sup>nd</sup> / jeudi le 2 novembre</b>	
5pm – 7pm	Registration/ <i>Inscription</i> Location: first floor/ <i>Lieu: rez-de-chaussée</i> Computer Science and Visual Arts Complex (EV), Concordia University, 1515 Ste Catherine
6pm	CAWQ Board Meeting/ <i>Réunion du Conseil de l'ACQE</i> Location/ <i>Lieu: EV 2.184</i>

<b>Friday, November 3<sup>rd</sup> / vendredi le 3 novembre</b>	
7:30am – 5pm	On-site Registration/ <i>Inscription</i> Location: first floor / <i>Lieu: rez-de-chaussée</i> Computer Science and Visual Arts Complex, Concordia University, 1515 Ste Catherine
7:30am – 9:00am	Poster Set-up / <i>Préparation de la séance d'affichage</i> Location/ <i>Lieu: EV 2.184</i>

8:30am – 9:00am	Opening Ceremony/ <i>Allocution d'ouverture</i> Head Table/ <i>Table d'honneur</i> : Dr. Y. Comeau, CAWQ President/Président de l'ACQE Dr. J.A. Nicell, Eastern Canada Vice-President of CAWQ, Vice-président de la région de l'Est du Canada de l'ACQE Dr. N. Esmail, Dean, Faculty of Engineering and Computer Science Mr. G. Milton, Director, Office of Research Dr. S. Alkass, Chair, Dept of Building, Civil and Environmental Eng. Dr. K. Lee, Keynote Speaker, Director/Directeur, DFO Dr. M. Elektorowicz, Chair /Présidente du Symposium Dr. Z. Chen, Symposium Technical Chair/ Président du comité technique Location/ <i>Lieu</i> : EV 2.260
9:00am – 9:45am	Keynote Speech/ <i>Conférence invitée</i> Dr. Kenneth Lee Director, Centre for Offshore Oil and Gas Environmental Research (COOGER), Fisheries and Oceans Canada (DFO) Location/ <i>Lieu</i> : EV 2.260
9:45am – 10:00am	Coffee Break/ <i>Pause santé</i> Location: Poster Room/ <i>Lieu: Séance d'affichage</i> EV 2.184

<b>Friday, November 3<sup>rd</sup> / vendredi le 3 novembre</b>			
	Technical Program in Morning Sessions 10 am – 12pm / <i>Séances matinales de 10 à 12</i>		
	Wastewater Management/ <i>Gestion des eaux usées</i>	Water Quality/ <i>Qualité de l'eau</i>	Wetlands and Ponds/ <i>Marais et réservoirs</i>
	Room/salle: EV 2.260	Room/salle: EV 2.238	Room/salle: EV 2.204
	Session Chair/Président: <b>R. Droste</b>	Session Chair/Président: <b>N. Tufenkji</b>	Session Chair/Président: <b>R. Galvez-Cloutier</b>
10:00 am	Enzyme-catalysed oxidation of 17- $\beta$ estradiol using immobilized laccase from <i>T. Versicolor</i> <i>C. Cardinal-Watkins</i> & <i>J. Nicell</i>	Isolation of alkaline protease producing bacterial strains from lakes and rivers <i>J. Bezawada, M. Drouin &amp; R.D. Tyagi</i>	Inactivation of <i>Escherichia coli</i> in Nova Scotia Farm Ponds <i>M. Murphy, R.C. Jamieson, R.J. Gordon, G. Stratton &amp; A. Madani</i>
10:20 am	Profil de concentration en azote à l'intérieur d'un biofiltre traitant du lisier de porc <i>G. Aubry, P. Lessard, Y. Gilbert, Y. Lebihan &amp; G. Buelna</i>	Surface and subsurface phosphorous losses from agricultural fields in Quebec <i>M. Eastman, C.A. Madramootoo, N. Stampfli &amp; M. Chikhaoui</i>	Efficiency of small constructed wetland in Southern Quebec for treatment of agricultural runoff waters <i>A.C. Kroeger, C. Madramootoo, P. Enright, &amp; C. Laflamme</i>
10:40 am	Induction of Chitinases production for enhancement the entomotoxicity of <i>Bacillus thuringiensis</i> based biopesticides using starch industry wastewater as raw material <i>K. Dang Vu, R.D. Tyagi, J.R. Valero &amp; R.Y. Surampall</i>	Relevance of non-toxicogenic strains as surrogates for bacterial pathogens in evaluating groundwater contamination potential <i>F. Castro &amp; N. Tufenkji</i>	Constructed wetlands for agricultural wastewater treatment: wetland hydraulics and <i>E. coli</i> transport <i>L. Boutilier</i>
11:00 am	Biodegradation of 17- $\alpha$ ethinylestradiol <i>D.O'Grady &amp; V. Yargeau</i>	Enhanced and optimized ultrafiltration: a technology for lead removal from groundwater <i>M. A. M. El Zeftawy &amp; C. N. Mulligan</i>	Régénération de l'alun avec le drainage minier acide <i>O. Ghazarian &amp; R. Leduc</i>
11:20 am	Pushing the limits of nutrient removal from wastewater: recent case studies <i>J. A. Oleszkiewicz</i>	Grouted containments as a remedy for groundwater protection <i>H. M. Emon, M. Elektorowicz &amp; A. Hanna</i>	Effect of humic acid on arsenic mobilization from mine tailings <i>S. L. Wang &amp; C. N. Mulligan</i>
11:40 am	Rétention du phosphore des eaux usées par un mélange ternaire de scories d'aciérie, apatites sédimentaires et calcaires <i>F. Chazarenc, M. Filiatrault &amp; Y. Comeau</i>	Épuration d'un effluent piscicole par l'irrigation intensive d'une plantation d'arbres à croissance rapide <i>M. Fillion, J. Brisson &amp; M. Labrecque</i>	Influence de l'espèce de plante sur la densité et l'activité microbienne en marais filtrant artificiel <i>V. Gagnon, F. Chazarenc, Y. Comeau &amp; J. Brisson</i>
12:00 pm	Lunch/Déjeuner: room/salle EV 2.184		
12:30 -1:40 pm	Poster Session/Séance d'affichage		

Afternoon Sessions – I 1:40pm – 3:20pm/Séances de 13:40 à 15:20			
	Modeling of Environmental Systems/ <i>Modélisation des systèmes environnementaux</i>	Sludge and Biosolids/ <i>Boues</i>	Coastal Water Protection and Environmental Monitoring/ <i>Eaux littorales et monitoring</i>
	Room/ <i>salle</i> : EV 2.238	Room/ <i>salle</i> : EV 2.260	Room/ <i>salle</i> : EV 2.204
	Session Chair/ <i>Président</i> : <b>A. Ramamurthy</b>	Session Chair/ <i>Président</i> : <b>J. Oleszkiewicz</b>	Session Chair/ <i>Président</i> : <b>T. Husain</b>
1:40 pm	Évaluation de la performance hydrologique du modèle SWAT pour de petits bassins versants agricoles au Québec <b><u>Lévesque, E.</u>, F. Ancil, A. van Griensven, L. Lamontagne et N. Beauchamp</b>	Biotechnological hydrogen production from sludge <b><u>E.S. Takhtefouladi</u></b>	Inhibition de la déphosphatation biologique dénitrifiante en milieu marin dans un réacteur séquentiel à lit mobile <b><u>B. Vallet</u>, S. Bigras, S. Parent &amp; Y. Comeau</b>
2:00 pm	Application of The HYDRUS-NICA model to simulate phosphorus Transport <b><u>J. A. Nohra</u>, C. A. Madramootoo &amp; W. H. Hendershot</b>	Evaluation of biofloculants produced by sludge microorganisms for sludge settling and dewatering <b><u>S. Bala. Subramanian</u>, S. Yan, R.D. Tyagi &amp; R.Y. Surampalli.</b>	Effectiveness of Peraclean Ocean for ballast water treatment; first onboard ship evaluation in very cold temperatures <b><u>S. P. Despatie</u> &amp; Y. D. Lafontaine</b>
2:20 pm	Role of natural organic matter on the transport of anthropogenic nanomaterials in a model subsurface system <b><u>A. Pelley</u> &amp; N. Tufenkji</b>	Isolation of bioplastics accumulation bacterial strains from municipal waste water sludge <b><u>S. Yan</u>, S. Bala Subramanian, R. D. Tyagi &amp; R.Y. Surampalli</b>	Water quality monitoring using autonomous underwater vehicles (AUVs) <b><u>H.B. Niu</u>, T. Husain, B. Veitch, N. Bose, &amp; K. Lee</b>
2:40 pm	Development of a fuzzy-set enhanced environmental multimedia modelling system <b><u>R.R. Zhang</u> &amp; Z. Chen</b>	Response of various aerobic and anaerobic sludge to the dewatering using electrokinetic system (EK) <b><u>J. Huang</u>, M. Elektorowicz &amp; J. Oleszkiewicz</b>	Accumulation of marine debris on an intertidal beach in an urban park (Halifax Harbour, Nova Scotia) <b><u>T. Walker</u>, J. Grant, &amp; M-C. Archambault</b>
3:00 pm	Fuzzy classification of heavy metal contaminated soils for environmental decision making <b><u>A. Amid</u> &amp; M. Elektorowicz</b>	Procédé en aval des bouillons fermentés de <i>Bacillus thuringiensis</i> à partir des eaux usées et boues d'épuration - Approche d'ultrafiltration <b><u>K. Adjalle</u>, S. K. Brar, M. Verma, R.D. Tyagi, J.R. Valero &amp; R.Y. Surampalli</b>	Évaluation de la performance d'un traitement des eaux de lest des navires et de la qualité des eaux traitées <b><u>E. Veilleux</u>, Y. D. Lafontaine &amp; O. Thomas</b>
3:20 pm	Coffee Break/ <i>Pause santé</i> Location: Poster Room/ <i>Lieu</i> : <i>Séance d'affichage</i> , EV 2.184		

Afternoon Sessions – II 3:30pm – 5:10pm/Séances de 15:30 à 17:10			
	Soil Contamination/ <i>Sol contaminé</i>	Advances in analytical methods/ <i>Méthodes analytiques avancées</i>	Water Treatment/ <i>Traitement de l'eau</i>
	Room/ <i>salle</i> : EV 2.260	Room/ <i>salle</i> : EV 2.204	Room/ <i>salle</i> : EV 2.238
	Session Chair/ <i>Présidente</i> : <b>C. N. Mulligan</b>	Session Chair/ <i>Président</i> : <b>S. Gamati</b>	Session Chair/ <i>Président</i> : <b>R. Leduc</b>
3:30 pm	Microbial degradation of aged phenanthrene in different soil environment <u>J. Jazestani</u> , <i>S. O. Prasher &amp; J. Hawari</i>	Caractérisation rapide de sédiments lacustres et de la rivière par extraction par ultrasons et spectrophotométrie UV-visible <b><u>O. Chabrol</u></b> , <i>G. Junqua &amp; O. Thomas</i>	Slow sand filtration of waterborne pathogens <b><u>J. DeLoyde</u></b> , <i>W. B. Anderson, P. M. Huck, S. A. Cleary &amp; S. Ndiongue</i>
3:50 pm	Sorption and desorption phenomena of phenanthrene ( a PAH) In Different Soil Environment <u>J. Jazestani</u> , <i>S. O. Prasher &amp; J. Hawari</i>	The challenges of experimenting with a hydrophobic trace contaminant <u>A.E. Stricker</u>	NOM removal by selected coagulants for membrane pre-treatment <b><u>M.J. Ratajczak</u></b> , <i>P. M.Huck, W. B. Anderson &amp; K. Exall</i>
4:10 pm	Effect of freeze and thaw cycles on the mobility and morphology of residual non-aqueous phase liquids <b><u>K. Haghighi</u></b> & <i>S. Ghoshal</i>	Analysis of organic and inorganic fractions of chloramines <u>F. Amiri</u> & <i>S. Aandrews</i>	Investigation on the mechanism of formation of disinfection by-products in rural Newfoundland communities <i>Rajya Lakshmi Kolla, Tahir Husain, Majid Abdi</i>
4:30 pm	Using in-situ biosurfactant production to enhance remediation of a co-contaminated soil in batch experiment <b><u>F. Jalali</u></b> & <i>C. N. Mulligan</i>	Techniques for the characterisation of attached nitrifying biofilm <b><u>R. Delatolla</u></b> , <i>D. Berk, Y. Comeau &amp; N. Tufenkji</i>	Optimization design for packed air saturator used in dissolved air flotation (DAF) <u>C.Y. Zhang</u> , <i>Z. Chen, M. Elektorowicz &amp; R. Lemieux</i>
4:50 pm	Evaluating the response of an immobilized whole-cell bioluminescent biosensor <b><u>M.H. Gravel</u></b> & <i>S. Ghoshal</i>	Diagnostic rapide des eaux de surface par spectrophotométrie UV <b><u>M.N. Marleu</u></b> , <i>E. Baurès &amp; O. Thomas</i>	Transient kinetics and inactivation of laccase enzyme during the catalytic oxidation of aqueous phenol <b><u>S. Kurniawati</u></b> & <i>J. A. Nicell</i>
5:40 pm	Announcement of P.H. Jones Award/Remise du prix P.H. Jones, Yves Comeau, President of CAWQ, Président de l'ACQE Announcement of the Best Poster Award/le prix pour le meilleur affiche, Zhi Chen, Symposium Technical Chair/Comité technique Location/ <i>Lieu</i> : EV 2.184		
6:00 pm	Social Event/ <i>Réception</i> , 1434 rue Crescent, Montréal		

**Note:** Presenter is underlined and the name of a student competing for the Philip H. Jones Award is in bold.

**Friday, November 3<sup>rd</sup> / vendredi le 3 novembre**

Posters/ *Affiches*  
Room/salle: EV 2.184

9:00am	<i>C.M. Chikhaoui, A. Madramootoo, &amp; N. Stampfl</i>	Effect of tile drain spacing on phosphorus losses from agricultural fields
	<i>F. Vasefy &amp; C.N. Mulligan</i>	Capability of rhamnolipid and two biological products in biodegradation of oil in marine environment
- 5:00pm	<i>H. Raihan, M. Elektorowicz, J. Oleszkiewicz, J. Ewing, &amp; A. Permut</i>	Application of electrokinetic sludge management in the cold region conditions
	<i>M.A.M. El Zeftawy &amp; Catherine N. Mulligan</i>	Recent trends in application of geographic information systems (GIS) for water, groundwater and soil investigation: an evaluation
	<i>L. Zhao, Z. Chen, &amp; K. Lee</i>	Modelling of the dispersion of produced water discharges in the Hibernia
	<i>H. Abdoli, A. Esmaily, M. Elektorowicz &amp; J. Oleszkiewicz</i>	Speciation of heavy metals in sludge, dewatered by electrokinetic process, using Visual MINTEQ
	<i>L. Mesones &amp; S.O. Prasher</i>	Modelling microorganism transport in riverbank filtration systems
	<i>E. Kozych, M. Elektorowicz &amp; J. Oleszkiewicz</i>	Analysis of electrokinetic removal of heavy metals from different types of biosolids
	<i>S.D. Dardashti, S. O. Prasher, C. A. Madramootoo, &amp; A. Madant</i>	Modelling surface and subsurface nitrogen transport in an agricultural watershed: fate and transport of nitrogen in subsurface flow
<i>A. Alshafie &amp; M. Elektorowicz</i>	Sorption of 17 $\alpha$ - ethynylestradiol in different soil environment	