



# Adapting to Climate Change

## Canada's First National

### Engineering

### Vulnerability Assessment



### of

### Public Infrastructure



APRIL 2008

### Appendix F

### PIEVC Committees Rosters



Canada

PIEVC  CVIIP

engineerscanada  ingénieurscanada



## Public Infrastructure Vulnerability Committee

Darrel Danyluk, P.Eng. Chair, Public Infrastructure Vulnerability Committee	
<b>MEMBERS</b>	
Robert P. Bowen Director General Institute for Research in Construction, National Research Council	Dan Hogan, P.Eng. PIEVC – Member-at-large c/o Associated Engineering (Sask.) Ltd.
Kelly Braden, P.Eng. Director of Operations City of Portage la Prairie	Paul Kovacs Executive Director Institute of Catastrophic Loss Reduction
Mark Corey Assistant Deputy Minister Natural Resources Canada	Tim McGrath A/Assistant Deputy Minister Real Property Branch Public Works and Government Services Canada
John Drover, P.Eng. Director Environment and Conservation Policy and Planning Government of Newfoundland and Labrador	André Musy Directeur général Ouranos
Hugh Fraser, P.Eng. Deputy Director of Engineering The Corporation of Delta Engineering Department	Mohamad Osseyrane, ing., M.ing. Direction de l'épuration des eaux usées / Wastewater Treatment Plant Ville de Montréal
Adrian Franko Director, Infrastructure Planning and Budgeting Branch Infrastructure Policy and Planning Ministry of Public Infrastructure Renewal	Robert Pratt Director, Infrastructure & Engineering Innovation Infrastructure Canada
David Grimes Assistant Deputy Minister Meteorological Service of Canada Environment Canada	Rob Pritchard, P.Eng. General Manager Utilities and Environmental Protection City of Calgary
Paul Guy, P.Eng. Director Asset Management Division Public Works and Services Government of the Northwest Territories	
Sandra Gwozdz, ing. Ingénieurs Canada, Conseil d'administration Directeure – OIQ	

### Resource and Support Group

Mondher BenHassine Transport Canada	Heather Auld, Associate Director, Adaptation and Impacts Research Group, Meteorological Service of Canada Environment Canada
Alain Bourque Directeur, Impacts et Adaptation Ouranos	Sukhi Cheema, P.Eng. Manager, Technical Services Public Works and Services Government of Northwest Territories
Monique Carpentier, P.Eng. Executive Director Policy Planning and Coordination Division Natural Resources Canada	James Clarkin A/Senior Project Manger, Highway Programs – Western Region Transport Canada
Michel Girard Director, Climate Change Canadian Standards Association	Paul Fesko, P.Eng. Manager, Strategic Services The City of Calgary Waterworks / Wastewater
Danlami Gomwalk Policy Analyst Asset Management Group Infrastructure Planning and Budgeting Branch Infrastructure Policy & Planning Division Ministry of Public Infrastructure Renewal	Pam Kertland Climate Change Impacts and Adaptation Directorate Natural Resources Canada
Yehuda Kleiner Group Leader, Buried Utilities National Research Council	Jennifer Lefevre, P.Eng. Vice-President, Operations OPENGATE
Brian R.Kyle, P.Eng. Facilities Life-cycle Management Technology, Real Property Programs Branch Public Works and Government Services Canada Services	Glenn McGillivray Managing Director Institute of Catastrophic Loss Reduction
David McKay (policy) Senior Policy Advisor Multimodal Transportation Government of Alberta	Edward Morofsky, P.Eng. Building Energy and Engineering Controls Specialist Innovations and Solutions Directorate Real Property Programs Branch Public Works and Government Services Canada
Don MacIver Director, Adaptation and Impacts Research Group Environment Canada	Habib Rahman Research Adviser National Research Canada



Adapting infrastructure  
to a changing climate  
**PIEVC**  
PUBLIC INFRASTRUCTURE  
ENGINEERING VULNERABILITY COMMITTEE

Adapter les infrastructures à  
l'évolution des conditions climatiques  
**CVIIP**  
LE COMITÉ SUR LA VULNÉRABILITÉ DE L'INGÉNIERIE  
DES INFRASTRUCTURES PUBLIQUES

Michael Mortimer, P. Eng. Program Manager, Built Environment Canadian Standards Association	Dan Sandink Research Coordinator Institute of Catastrophic Loss Reduction
---	---

Stormwater and Wastewater Expert Working Group (SWEWG)

Jennifer Lefevre, P.Eng. (Chair) Vice President Operations OpenGate Properties	Don Haley, P.Eng. Toronto and Region Conservation Authority
Dr. Jiri Marsalek, P.Eng.	Joan Klaassen Meteorological Service of Canada - Ontario Region Environment Canada
Vincent Lalonde, P.Eng. Engineering Department, City of Surrey	Alan Pang Director, Risk Management Services CGI Insurance Business Service
Alain Charron, P.Eng., M.Sc. BPR CSO	Darryl Dormuth, Ph.D. Research Officer Center for Sustainable Infrastructure Research National Research Council Canada
David McCartney City of Ottawa ----- Alain C. Gonthier, P.Eng. Manager, Infrastructure Management City of Ottawa Infrastructure Services Branch	Brent Burton, M.A.Sc., P.Eng. Senior Project Engineer Utility Analysis and Environmental Management Division Policy and Planning Department Metro Vancouver
John Hodgson Ph.D., P.Eng. City of Edmonton	Curtis Rampersad, P.Eng. Program Manager, Water Resources Unit Acting Program Manager Infrastructure Assessment and Program Development Unit Public Works and Services Department Infrastructure Services Branch
Peter Ross Halifax Regional Municipalities	



### Water Resources Expert Working Group (WREWG)

Paul Fesko, P.Eng. (Chair) Manager, Strategic Services The City of Calgary Waterworks / Wastewater	Hani Farghaly, P.Eng. Senior Engineer, Hydrotechnical Design Ontario Ministry of Transportation, Highway Design Office
Robert (Bob) Boon, P. Eng. Project Manager Earth Tech (Canada) Inc.	David Hill Executive Director Alberta Irrigation
Geoff R. Burn, P.Eng. Manager, Civil Infrastructure Group Associated Engineering Inc.	Joan Klaassen Meteorological Service of Canada - Ontario Region Environment Canada
Brent Burton, P.Eng. Senior Project Engineer Metro Vancouver Policy and Planning Department Utility Analysis and Environmental Management Division	L. Tim Lotimer, P.Geo. Senior Consultant Lotowater Technical Services Inc.
Dave Chalcraft, P.Eng. Independent Consultant, Water Resources	Yousef Hammamji, ing. Hydro Québec
Sukhi Cheema, P.Eng. Manager, Technical Services Public Works and Services, Govt of the NWT	Alfonso Rivera Natural Resources Canada

### Roads and Associated Structures Expert Working Group (RASEWG)

James Clarkin (Chair) Transport Canada	Dr. Bala Tharmabala Manager, Bridge Office Ministry of Transportation, Ontario
Dr. Baidar Bakht President, JMBT Structures Research	Mr. Adel Zaki, P.Eng. Chief Engineer, Bridges and Structures SNC-Lavalin
Hugh B. Donovan, P.Eng. Construction Services Engineer Transportation Department City of Edmonton	Don W. Hayley P.Eng. FEIC Director, Arctic Resource Development EBA Engineering Consultants Ltd.
Jadwiga Kroman, M.Sc., P. Eng., FCSCE. Manager, Bridges and Structures Transportation Infrastructure City of Calgary	David Hubley, P.Eng. Manager, Design and Construction Services Transportation and Public Works Halifax Regional Municipality



Dr. Zoubir Lounis, Ph.D., P.Eng. Research Officer & Group Leader CSSP National Research Council of Canada	Dr. John Newhook, P.Eng. Associate Professor, Civil Engineering Dalhousie University
Prof. Ian Moore, Ph.D., P.Eng. GeoEngineering Centre at Queen's Queen's University	Dirk Nyland, P.Eng. Chief Engineer British Columbia Ministry of Transportation
Dr. Aftab Mufti President ISIS Canada University of Manitoba	

### Buildings Expert Working Group (BEWG)

Brian Kyle, P.Eng. (Chair) Facilities Life-cycle Management Technology, Real Property Programs Branch Public Works and Government Services Canada Services	Steve Cornick Associate Research Officer, Heat and Moisture Performance of Envelopes Institute for Research in Construction (IRC) National Research Council Canada (NRC)
Michael Mortimer, P.Eng., PMP Canadian Standards Association	Michael Lacasse, P.Eng. Senior Research Officer Heat and Moisture Performance of Envelopes Institute for Research in Construction (IRC) National Research Council Canada (NRC)
Heather Auld Senior Science Adviser Science Assessment and Integration Branch, Meteorological Service of Canada, Environment Canada	Edward Morofsky, P.Eng. Building Energy and Engineering Controls Specialist Innovations and Solutions Directorate Real Property Programs Branch Public Works and Government Services Canada
Tom O'Neill, P.Eng. Executive Director Technical Services Branch Alberta Infrastructure and Transportation	Ed Hoeve, P.Eng. Principal Consultant, NT/NU EBA Engineering Consultants Ltd.
F. Michael Bartlett, P.Eng Spencer Engineering Building, Department of Civil and Environmental Engineering University of Western Ontario	Will Johnson, M.Eng., P.Eng. Assistant Director Licenses & Inspections Deputy Chief Building Officials City of Vancouver



Adapting infrastructure  
to a changing climate

Adapter les infrastructures à  
l'évolution des conditions climatiques

**PIEVC CVIIP**

PUBLIC INFRASTRUCTURE  
ENGINEERING VULNERABILITY COMMITTEE

LE COMITÉ SUR LA VULNÉRABILITÉ DE L'INGÉNIÉRIE  
DES INFRASTRUCTURES PUBLIQUES

<p>A H. (Habib) Rahman Associate Research Officer, Concrete Materials and Structural Technologies Institute for Research in Construction (IRC) National Research Council Canada (NRC)</p>	<p>Dr. Branko Ladanyi</p>
<p>Dave Allen Concrete Materials and Structural Technologies Institute for Research in Construction (IRC) National Research Council Canada (NRC)</p>	