

Fracture Lines:

*Will Canada's Water Be Protected in the
Rush to Develop Shale Gas?*

October 14, 2010
Campbell Conference Centre
Munk School of Global Affairs
University of Toronto
Toronto, Ontario

Presented By:

The Program on Water Issues

ABOUT POWI

The Program On Water Issues creates opportunities for members of the private, public, academic, and not-for-profit sectors to join in collaborative research, dialogue, and education.

The Program is dedicated to giving voice to those who would bring transparency and breadth of knowledge to the understanding and protection of Canada's valuable water resources. Since 2001, The Program On Water Issues has provided the public with analysis, information, and opinion on a range of important and emerging water issues.

Its location within the Munk School of Global Affairs at the University of Toronto provides access to rich analytic resources, state-of-the-art information technology, and international expertise.

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Adèle Hurley

Director

Program on Water Issues

October 14, 2010

Welcome and Introductory Remarks

Adèle Hurley is the Director of the Program on Water Issues at the Munk School of Global Affairs at the University of Toronto.

In the 1980s, during the early days of the Reagan Administration, Adèle Hurley moved to Washington and co-founded the Canadian Coalition on Acid Rain. For several years she worked on a successful campaign that brought about amendments to the *US Clean Air Act*, as well as regulations that reduced pollutants from large Canadian emitters.

In the early 1990s she was appointed to the Board of Ontario Hydro. In 1995, she was appointed by the Prime Minister's Office to serve as Canadian Co-Chair of the International Joint Commission, which oversees Canada/US Boundary water issues according to the Boundary Waters Treaty of 1909.

Adèle has served as a member of the Canadian Federal Government's International Trade Advisory Committee - Task Force on Environment and Trade Policy. She is a member of the advisory board of the Columbia Basin Trust and was appointed in 2006 to the board of directors of the Ontario Power Authority.

She has won numerous awards for her work including the Conservation Council of Ontario's Lieutenant Governor's Conservation Award.

Ben Parfitt

Author

Fracture Lines: Will Canada's Water be Protected in the Rush to Develop Shale Gas

October 14, 2010

Conference Paper

Ben Parfitt lives and works in Victoria, British Columbia. He has written extensively on natural resource and environmental issues since joining *The Vancouver Sun* as a reporter in 1986. After leaving the newspaper in 1993, he produced numerous award-winning investigative features on an array of environmental and natural resource issues including stories on hazardous wastes, endangered wildlife populations, the forest and natural gas industries and climate change.

For the past six years, he has divided his time between work as a resource policy analyst for the Canadian Centre for Policy Alternatives, where he most recently authored a report on forests and carbon storage, and work as a freelance writer. He is a coauthor with Michael M'Gonigle of *Forestopia: A Practical Guide to the New Forest Economy*, and author of *Forest Follies: Adventures and Misadventures in the Great Canadian Forest*.

Andrew Miall
Petroleum Geologist
University of Toronto

October 14, 2010
**Conference Paper
Response**

Dr. Andrew Miall is a Professor of Geology and holder of the Gordon Stollery Chair in Basin Analysis and Petroleum Geology at the University of Toronto. He specializes in teaching and research in the study of sedimentary basins. He has broad interests in energy and climate-change issues, and since 1998 he has taught a popular science-for-non-scientists course at the University of Toronto entitled "Geology and Public Issues". Professor Miall was awarded the Past President's Medal of the Geological Association of Canada in 1983 and became a Distinguished Fellow of that society in 1995. He served as Vice President of the Academy of Science of the Royal Society of Canada (RSC) from 2005 to 2007 and President of the Academy from 2007-2009. In September 2010 he was appointed to the Oil Sands Advisory Panel by Environment Minister Jim Prentice.

Tom Myers

Consultant

Hydrology and Water Resources

October 14, 2010

Panel Response to Conference Paper

Tom Myers is an independent researcher and consultant in hydrogeology and water resources. Tom specializes in groundwater modeling, hydrogeology, contaminant transport, regulatory compliance, water rights, and environmental and water policy. He focuses on mining and water resource development issues, coal-bed and shale-bed methane development and groundwater contamination.

His work includes original research and analysis as well as review of agency or industry prepared documents. Tom prepares evidence and expert reports in support of and appears as an expert witness in adversarial hearings and litigation.

Tom's academic background includes a B.S. in civil engineering from the University of Colorado, and an M.S. and Ph.D. in hydrology/hydrogeology from the University of Nevada, Reno. He has approximately 30 years of experience working for government, academic and private institutions. For the past six years, he has been exclusively an independent consultant with clients consisting primarily of conservation groups and county governments working to contain the environmental impacts of development proposals.

Marc D'Iorio

General Director, Office of Energy
Research and Development
Natural Resources Canada (NRCan)

October 14, 2010

Panel Response to Conference Paper

Dr. D'Iorio has had a longstanding career with the Government of Canada. He has worked as a scientist and has held a number of executive positions in Natural Resources Canada. Marc was appointed Director General (DG) of the Office of Energy Research and Development in 2010, after four years as Director General of the Geological Survey of Canada.

The Office of Energy Research and Development (OERD) is the Government of Canada's co-ordinator of energy Research and Development (R&D) activities. As DG, Dr. D'Iorio is responsible for the management of major Government initiatives such as the Clean Energy Fund and the ecoEnergy Technology Initiative. He is also responsible for the Program of Energy Research and Development, which supports energy R&D in thirteen federal Departments. OERD co-ordinates Canada's involvement in international energy R&D activities.

As DG of the Geological Survey of Canada, Dr. D'Iorio was responsible for a suite of programs that included: natural hazard geoscience research and related 24/7 operations to provided emergency management information; conducting scientific surveys in the Atlantic and Arctic Oceans for Canada's claim under the United Nations Convention on the Laws of the Sea (UNCLOS); federal geoscientific research on energy resources, including Arctic and offshore resources, and international collaboration on gas hydrates.

Dr. D'Iorio holds a Bachelor of Science in Geophysics and a Ph.D. in Mathematical Geology and has published and presented over 100 papers. He has been an adjunct professor of geology at the University of Ottawa and adjunct professor of remote sensing at the Université de Montréal, and is past Chair of the Canadian Remote Sensing Society.

Jan Jarrett
President and CEO
PennFuture

October 14, 2010
**Panel Response to
Conference Paper**

Jan Jarrett is President and CEO of Citizens for Pennsylvania's Future (PennFuture). As President of PennFuture, Jarrett works with a staff of 25 in offices in Harrisburg, Philadelphia, Pittsburgh, West Chester and Wilkes-Barre. PennFuture works to protect environmental quality and grow the green economy by advocating for progressive policies, enforcing environmental laws, and transforming markets.

Jarrett joined PennFuture when it was founded in 1998. She has earned the respect of leaders in the environmental and conservation community by leading successful campaigns to gain voter approval of the Growing Greener bond, adoption of the state rule requiring power plants to reduce mercury pollution, adoption of the Pennsylvania Clean Vehicle program, enactment of the recent \$650 million alternative energy package, passage of the Pennsylvania Climate Change Act and more.

She has more than 20 years of experience working in Pennsylvania on environmental and conservation causes. Before joining PennFuture, she worked at the Chesapeake Bay Foundation as its Grass-roots coordinator and led an alliance that ensured environmental interests were represented before proceedings at the Pennsylvania Public Utility Commission. Jarrett is also chair of the board of directors for the State Environmental Leadership Program, a national network of state-based environmental advocacy organizations.

Jarrett is a native of Pennsylvania and has a bachelor of social sciences from Penn State University.

Michael Binnion
President and CEO
Questerre Energy Corporation

October 14, 2010
**Panel Response to
Conference Paper**

Michael Binnion is the President and founding shareholder of Questerre Energy, a public oil and gas production company operating in Quebec. Questerre and its predecessor have been pioneers in natural gas exploration in Quebec for the last twenty years. They are currently commercializing the Utica shale gas discovery in the Lowlands.

Mr. Binnion is a long time believer in the deep natural gas potential of Quebec. He acquired the current land position held by Questerre in 1998 based on new geological ideas and has brought in the industry partners that participated in the giant Utica shale discovery on Questerre's land in 2008.

Mr. Binnion is a seasoned entrepreneur with a history of starting, financing and managing companies, primarily in the oil and gas sector. From 1996 to 2000 he was President of CanArgo Energy, one of the first Western companies to engage in oil and gas exploration in the Republic of Georgia. He played an active role in helping introduce legislation and a regulatory framework for the oil and gas industry in the country.

Roland Willson
Chief
West Moberly First Nations

October 14, 2010
**Panel Response to
Conference Paper**

Roland Willson is the Chief of the West Moberly Lake First Nations located in North-Eastern BC, in the heart of the economic boom of BC. For the past 10 years he has been engaged at every level of negotiations from the protection of Federal Treaty Rights under Treaty # 8 to Impact Benefit Agreements for his community.

In his role as Chief over the last 10 years he currently sits on many boards, is a founding Board Member of the Northeast Aboriginal Economic Development Centre - **NABC**, A short stint on the Regional Native Economic Development Advisory Board - **NADAB**. As well as several committees, BC FN Specific Claims Committee - **BCFNSSCC**, BC FN Gaming Revenue-Sharing Steering committee - **BCFNRS**, Co-Chair of the Northeast Regional Managers Committee -**NEMC** and has just recently accepted a position represent the BC AFN on the BC FN Energy and Mining Council.

In the Treaty-8 Territory of BC the First Nations are face with massive resource development challenges from Forestry, Oil and Gas, Mining, large scale hydro electric facilities, pipelines, Wind-farms, and now Site-C the proposed 3rd Hydro Electric Dam on the Peace River. While struggling to keep the balance between development, economic and business opportunities, the protection of the Treaty rights and self preservation.

Chris Tucker

Communications Director
Energy in Depth

October 14, 2010

Panel Response to Conference Paper

Chris Tucker is vice president of FD Public Affairs and the communications director for Energy In Depth, an outreach and education project created by the Independent Petroleum Association of America (IPAA) in 2008. His previous service includes stints on Capitol Hill as communications and policy staff for several members of Congress, and as chief speechwriter and advisor for the House Minority Whip. A native of northeastern Pennsylvania, home to some of the promising shale reservoirs in the world, Chris currently resides in Washington, D.C. with his wife Betsy and dog Liam.

Val Washington

**Deputy Commission for Remediation
and Material Management
New York State Department of
Environmental Conservation**

October 14, 2010

Statutory Authority and Regulatory Preparedness

Val Washington is an environmental lawyer currently serving as Deputy Commissioner for Remediation and Materials Management in the New York State Department of Environmental Conservation (DEC). Prior to her current post, she has held a number of government and nongovernment positions in the field of environmental protection, and has taught environmental courses as an adjunct professor at several colleges and universities. She served for 13 years under New York's Attorney General Robert Abrams as Deputy Chief in the Environmental Protection Bureau. Following her career as an Assistant Attorney General, she was named Executive Director of Environmental Advocates of New York, the State's leading environmental advocacy organization. After more than a decade of work in the non-profit sector, she returned to State government in May of 2007 to accept her current appointment. She oversees DEC's Divisions of Solid and Hazardous Materials, Environmental Remediation, and Mineral Resources.

David Neslin

Director

Oil and Gas Conservation Commission
Department of Natural Resources
(Colorado)

October 14, 2010

Statutory Authority and Regulatory Preparedness

David is the Director of the Colorado Oil and Gas Conservation Commission, which regulates oil and gas development in the State. During his tenure, the Commission has undertaken the first comprehensive updating of its rules in more than a decade, substantially expanded its staff, and issued a record number of drilling permits.

From 2007 until early 2009, he was also the Assistant Director for Energy and Minerals for the Colorado Department of Natural Resources. In that capacity, he worked with the Oil and Gas Conservation Commission, the Division of Reclamation, Mining and Safety, the Geological Survey, and other state agencies regarding energy and mineral development in Colorado.

Prior to joining the Department in 2007, David spent 24 years as an associate and partner in the international law firm of Arnold & Porter, LLP. At Arnold & Porter, he represented clients in a wide range of complex litigation matters, including environmental permitting disputes, government contracts claims, government enforcement actions, real estate disputes, and products liability litigation. He also assisted clients in obtaining numerous environmental, land use, and other regulatory approvals. In recent years, his clients included ski resorts, real estate developers, public utilities, local governments, Indian tribes, and mining, oil and gas, and pharmaceutical companies.

He has also written and lectured on wetlands regulation, threatened and endangered species, the National Environmental Policy Act, the Clean Water Act, and other environmental issues.

He is a graduate of the University of Washington and the University of Washington Law School.

Stephen Dvorkin

Partner

Dickstein Shapiro LLP

October 14, 2010

Legal Liability Issues: Investors, Industry, and Governments

Stephen A. Dvorkin serves as Deputy Practice Leader of Dickstein Shapiro's Insurance Coverage Practice and is the leader of that practice group in the firm's New York office. He joined the firm as a partner in 1996. Prior to entering into private practice, Mr. Dvorkin served as an Assistant United States Attorney for the Southern District of New York, and, previously, as Chief of the General Enforcement Branch of the Region II office of the United States Environmental Protection Agency. During his tenure with the federal Environmental Protection Agency, Mr. Dvorkin supervised a staff of 12 attorneys in the implementation and enforcement of the Clean Air Act, the so-called "Superfund" statute (the Comprehensive Environmental Response, Compensation and Liability Act), the Resource Conservation and Recovery Act, and several federal pesticides statutes, in a region comprising the States of New York and New Jersey, the Commonwealth of Puerto Rico, and the Territory of the U.S. Virgin Islands. In private practice, he has represented clients in numerous environmental disputes (including trials) and has rendered counsel regarding the environmental implications of corporate transactions.

Mr. Dvorkin has represented major corporate and institutional clients in the litigation of complex insurance coverage disputes since 1987. He has borne lead counsel responsibility for dozens of those cases and has achieved very substantial recoveries for the firm's policyholder clients, either through negotiation or in the form of judgments entered in cases that could not otherwise be resolved.

Additionally, Mr. Dvorkin has borne lead counsel responsibility in litigated actions in the following substantive areas, among others: constitutional law, food and drug law, tax law, government procurement contracts, civil rights, and medical (surgical) malpractice. He has tried cases in a number of those substantive areas of law and has argued issues presented in those cases before federal and state courts of appeal.

Mr. Dvorkin is a Martindale-Hubbell A/V-rated attorney. He is a recognized leader in the insurance coverage practice, and is so identified in *New York Super Lawyers*. According to *Chambers USA* (which includes him in its compendium of "America's Leading Lawyers for Business"), Mr. Dvorkin is "a knowledgeable and experienced coverage lawyer," described by peers as "smart and very thorough."

Mr. Dvorkin has written on environmental and insurance law issues for publications including the *New York Law Journal*, the *Journal of Insurance Coverage*, the *Oil & Gas Journal*, the *Insurance Litigation Reporter*, and *Risk Management*, and he has spoken on both insurance and environmental law issues before bar groups and associations of city planners.

Mr. Dvorkin received his B.A., with honors, from University College of New York University (1969), and J.D. and L.L.M. degrees from the New York University School of Law, J.D. (1973 and 1981, respectively).

Wally Braul

Partner

Fraser Milner Casgrain

October 14, 2010

Legal Liability Issues: Investors, Industry, and Governments

Wally Braul is a partner at Fraser Milner Casgrain LLP, based in its Vancouver and Calgary offices. His practice is devoted to regulatory approvals and litigation in environmental and aboriginal law matters across Canada. Wally is frequently retained to give strategic advice and negotiate regulatory and financial solutions to environmental and aboriginal law issues, particularly with respect to shale gas, pipeline, wind farm and mining projects. He leads Fraser Milner Casgrain's National Aboriginal Practice Group and has been recognized by *The Best Lawyers in Canada* and other peer reviews as one of Canada's leading environmental lawyers.

Jon Jensen
Executive Director
Park Foundation

October 14, 2010
**Legal Liability Issues:
Investors, Industry, and
Governments**

Jon Jensen is Executive Director of the Park Foundation. Park Foundation, based in Ithaca, New York, awards over \$17 million annually via national and regional programs in higher education, media, environment and animal welfare as well as local programs in sustainability, human services, arts and culture, and communications. In this role he serves as the interface between the Foundation's program and investment activities.

Jon's previous positions include Associate Director of the Pew Conservation Scholars Program, Senior Program Associate of the Pew Charitable Trusts, and Executive Director of the Wildlife Preservation Trust International. He has a B.S. in Psychobiology from Albright College and a M.S. in Animal Behavior from Bucknell University.

His career in philanthropy includes over 28 years of grantmaking experience and founding roles in The Funders Network for Smart Growth and Livable Communities, where he also served as chair of the board, and the Environmental Grantmakers Association, an organization where he twice served as chair. He has received career achievement awards from Ohio Citizen Action, the Institute for Conservation Leadership and Ohio Environmental Council.

Abrahm Lustgarten

Reporter
ProPublica

October 14, 2010

Shale Gas Development and Water Protection: Lessons Learned and the Way Forward

Abrahm Lustgarten is a former staff writer and contributor for *Fortune*, and has written for *Salon*, *Esquire*, the *Washington Post* and the *New York Times* since receiving his master's in journalism from Columbia University in 2003. In 2010 he received the George Polk Award for environmental reporting. He is the author of the book *China's Great Train: Beijing's Drive West and the Campaign to Remake Tibet*, a project that was funded in part by a grant from the John D. and Catherine T. MacArthur Foundation. And he is working on a forthcoming book about BP and the causes of the oil spill in the Gulf of Mexico.
