

# KEEPING MANITOBA LIQUID

October 3 & 4, 2017



water & wastewater  
services



food production



agriculture



manufacturing



beverage  
manufacturing



tourism



Across Manitoba, leaders from business and industry and all levels of government are faced with tough decisions in the budgeting process. With one-third of our infrastructure in need of upgrade or replacement, allocation of scarce resources is a challenge. This coupled with declining water quality and extreme weather events that threaten expensive infrastructure, strain service delivery, impact property values, interrupt supply chains and effect commodity prices further add to the challenge. Often budgets are stretched in many directions and there are few resources left at the end of the day to dedicate to restoring, maintaining and protecting natural assets - which our economy depends upon.

Traditionally, from a government and business perspective, decisions made in the allocation of resources result from a cost-benefit analysis in which engineered infrastructure and the service it provides have identified criteria and corresponding value that are measured through a traditional infrastructure management lens.

Natural assets such as lakes, rivers, wetlands and aquifers are not considered this way nor are they valued in a way that can be measured within the same analysis. We must find a way to value our natural assets when decisions are being made, offering decision makers a complete view and an expanded set of options.

On October 3 and 4, 2017, Mayors and Reeves from 23 municipalities in the Capital Region and from the South Basin of Lake Winnipeg gathered at the University of Winnipeg to increase their understanding and begin to develop a framework to recognize, measure and account for Natural Assets and to ensure they are incorporated into a municipal Asset Management Program that is currently being contemplated within Manitoba Municipalities.

## Attendees

October 3, 2017:

Mark Anielski, President - Anielski Management Inc.  
Walter Badger, Councillor - Town of Stonewall  
Rathan Bonan, Sustainable Development - Energy MB Hydro  
Roy Brooke, Environmental Economist - Brooke & Associates Consulting  
Terry Brown, Partner - Legacy Bows Group  
Stephen Carlyle, MB Habitat, Heritage Corp  
Wayne Cole, SRP Canada  
Donna Dagg, Manager of Sustainable Development - MB Liquor and Lotteries  
Prachi Dey, Province of Manitoba  
Myron Dyck, Mayor - Town of Niverville  
Debbie Fiebelkorn, Mayor RM of St. Clements  
Arthur Friesen, Environment & Climate Change Canada  
Raymond Garand, Reeve - RM of Alexander  
Sean Goertzen, Climate Initiative Coordinator - Keystone Agriculture Producers  
Shelley Hart, Mayor - RM of East St. Paul  
Brian Hodgson, Reeve - Victoria Beach  
Colleen Kuruluk, Manager - Power Smart Marketing Programs MB Hydro  
Teddy Leano, Sustainable Development - Energy MB Hydro  
Dr. David Lobb, University of Manitoba  
Janice Lukes, Councillor - City of Winnipeg  
Sherril Matthes, Principle - Honest Agency  
Pat McCallum, BASIC  
Pat McGarry, Industry and Government Relations - Ducks Unlimited  
Greg McIvor, Pakwaytaysimoooin Bioenergy Inc.  
Mike McKernan, MLI3 Inc  
Lindsay Miereu, Environmental Coordinator - City of Winnipeg  
Michelle Molnar, Environmental Economist - David Suzuki Foundation  
Liam Mulhall, Engineer - Stantec  
Duane Nicol, CAO - City of Selkirk  
Jim Nostedt, Manager of Sustainability - Department of National Defence  
George Pike, Mayor - RM of St. Andrews  
Roger Rempel, Director - Climate Group Risk Sciences International  
Dimple Roy, Director of Water - IISD  
Bob Sandford, EPCOR Chair for Water and Climate Security United Nations Institute for Water, Environment and Health  
Hon. Rochelle Squires, Minister of Sustainable Development - Province of Manitoba  
Dr. Annette Trimbee, President - University of Winnipeg  
David van Vliet, Associate Professor - Department of City Planning University of Manitoba  
Adrian Vannahme, Special Assistant - Sustainable Development Province of Manitoba  
Dr. Hank Venema, Prairie Climate Research Centre  
Larry Wandowich, CAO - RM of Rosser  
Chris Weber, Senior Manager - Sustainability and Climate Change - Deloitte  
Terry Zdan, Manitoba Infrastructure

## Attendees

October 4, 2017:

Michelle Aitkenhead	Bruce Henley	Colleen Munro
Rob Altemeyer	Detlef Hindemith	David Neufeld
Mark Anielski	Brian Hodgson	Emeka Nadi
Walter Badger	Ute Holweger	Brent Olynyk
Armand Belanger	Jillian Impey	Stan Parag
Terry Brown	Scott Johnston	Paul Pfrimmer
Roy Brooke	James Fehr	George Pike
Bob Campbell	Laurie Hunt	Tara Pratt
Jim Campbell	Larry Johannson	Santokh Randhawa
Peter Campbell	Scott Johnson	Roger Rempel
Stephen Carlyle	Kerry Lawless	Robert Rivard
Cheryl Christian	Ron Mamchuk	Bob Sandford
Gregory Charles Davidson	Joseph Manacsa	Margo Shaw
Dorothy Dobbie	Joe Masi	DJ Sigmundson
Shawn Dobson	Wanda McFadyen	Trevor Sims
William Dowie	Pat McGarry	Laurie Sinclair
Gerard Dube	Greg McIvor	Scott Spicer
Myron Dyck	Grant Melnychuk	Stephen Strang
Brad Erb	Michelle Molnar	Justin Swandel
Heather Erickson	Brian Morton	Warren Thompson
Chris Ewen	Liam Mulhall	Gordie Tumilson
Tiffany Fell	Colleen Munro	David van Vliet
Glen Fuhl	David Neufeld	Henry David Venema
Rick Gamble	Emeka Nadi	Mike Wakely
Raymond Garand	Brent Olynyk	Charles Posthumus
Matt Glavin	Stan Parag	Rick Wilson
Sean Goertzen	Paul Pfrimmer	Lance Yohe
Shannon Greer	George Pike	Qiuyan Yuan
Richard Grosshans	Michelle Molnar	Randy Woroniuk
Shelley Hart	Brian Morton	
Bob Haverluck	Liam Mulhall	

## PANEL EXPERTS



### **Mark Anielski (B.A., BScF, MScFE)**

President and CHO, Anielski Management Inc.

Mark is an economic strategist specializing in the economics of well-being. He is schooled in ecological economics, accounting and forestry. Mark believes that our measures of success should be focused on maximizing the well-being of people and the planet. He has advised nations and communities in Canada, Bhutan, French Polynesia, The Netherlands, Austria and China in their aspirations to develop a new economic model based on well-being and happiness.

He is the author of the award-winning book *The Economics of Happiness: Building Genuine Wealth*, which provides a blueprint for building the new economy of well-being. Mark is currently completing his next two books: *The Economy of Well-being* and *Money Grows on Trees* to be published in 2017. In 2008 Alberta Venture magazine named him one of Alberta's 50 most influential people. Mark was recently named to the Province of Alberta's Audit Committee which reviews the Government of Alberta's financial and annual reports. For the past 30 years Mark has been the President of Anielski Management Inc., an economic advisory services group that provides strategic economic counsel to communities, nations and businesses on how to build flourishing economies of well-being. He is an international expert in natural capital accounting and recently co-founded the Centre for Integral Finance and Economics (London, UK) that focuses on developing new tools to support the emerging field of impact investment and banking.



**Michelle Molnar**

Environmental Economist, David Suzuki Foundation

Michelle Molnar works at the David Suzuki Foundation as an Environmental Economist and Policy Analyst, where she focuses on the conservation of natural capital using various tools of ecological economics, policy analysis, and public outreach. She teaches Introduction to Ecological Economics at the British Columbia Institute of Technology through the Sustainable Business Leadership Program and is president of the Canadian Society for Ecological Economics (CANSEE). Michelle has an M.A. in Public Policy from Simon Fraser University, an M.A. in Philosophy from the University of Western Ontario, and a B.A. in Economics and Philosophy from the University of Western Ontario.



**Roy Brooke**

Principal, Brooke & Associates

Roy Brooke has held leadership positions in Canada, Europe and Africa in fields including urban sustainability, national politics, international development and humanitarian affairs. Roy divides his professional time between roles as Director of the Municipal Natural Assets Initiative (MNAI) and Principal of Brooke & Associates. The former is an initiative that helps local governments to develop resilient infrastructure alternatives at substantial savings by developing practical strategies to value nature's ability to provide municipal services and incorporating this information into mainstream asset management systems. The latter is a B Corp-certified consulting firm that helps organizations and communities to become more resilient and maximize positive social and environmental impacts.

Roy served as Director of Sustainability for the City of Victoria between 2011-2013. Between 2003-2011 he worked for the United Nations, including the World Health Organization, United Nations Environment Programme and UN Office for the Coordination of Humanitarian Affairs, mostly based in Geneva, Switzerland, and in 2008/09 in Kigali, Rwanda, where he was UNEP's Environment Programme Coordinator.



**Chris Weber**

Senior Manager - Climate Change and Sustainability, Deloitte

Chris is a senior manager in the sustainability and climate change practice at Deloitte. He works with organizations in the public and private sector to better manage sustainability and climate change challenges while they continue to pursue delivering their mandate. Chris provides advice and perspectives on better understanding the policy environment, developing greenhouse gas emission reduction strategies and plans, climate change risk assessment and adaptation, measuring economic, social and environmental performance, and reducing risks and seizing opportunities. Chris worked at the Green Municipal Fund, part of the Federation of Canadian Municipalities, for four years measuring the performance of infrastructure projects. He is now bringing together his interest and work experience with natural capital to address green infrastructure investments.

Chris was born and raised in Winnipeg and has a Masters in Natural Resource Management degree and a Bachelor of Science both from the University of Manitoba. Specific issue experience includes greenhouse gas management, greenhouse gas quantification for projects and inventories, development of greenhouse gas protocols, corporate social responsibility, economic modelling, policy development and analysis. Specific sectoral experience in agriculture, electricity sector, information and communications technology (ICT) including data centers and networks, chemicals in products, standards and food inspection and safety.



**Robert Sandford**

EPCOR Chair, Water Security at United Nations University Institute for Water Environment & Health

Bob Sandford holds fellowship positions at the University of Saskatchewan and University of Calgary, participates in several water-related organizations, and is a senior advisor to more than thirty former Heads of State on the Interaction Council. Bob has published many books, including Cold Matters: The State and Fate of Canada's Snow and Ice and Saving Lake Winnipeg.

## Summary and Results

The morning presentations on October 3, 2017 explored:

- the importance of measuring and managing our natural assets,
- how natural asset management can be incorporated into existing and new processes within business, industry and government, and;
- what the risks are to not including this type of analysis.

The common themes arising from the presentations and table discussions fell within four broad categories:

- 1) Increased risk and risk management – the presentations and resulting table discussions highlighted the increasing risks that communities face from reduced and flat budgets, increased demand for services, new regulations and responsibilities as well as the effects of a changing climate.
- 2) Embeddedness of the status quo – often our current governance models and decision making structures impede new and innovative solutions, and our current criteria or ways of evaluating information and outcomes are biased toward engineered approaches. We need to include new measures and criteria.
- 3) Establishing a common language – because natural assets are not part of the valuation process, communicating to funders and insurers is problematic. We need to find a way to measure natural assets in a way that is agreed upon to ensure they are evaluated and included along with engineered infrastructure assets. There is tremendous potential value in considering natural assets and a common language must be developed that includes financial considerations, due diligence, risk/benefit as well as the traditional, more aesthetic means of valuing natural assets.
- 4) Leadership capacity and collaboration – we need to find better ways to collaborate across municipal boundaries if we are going to be able to measure our natural assets. According to the United Nations, 50% - 80% of the projects that will increase our climate resilience globally take place at the municipal level. This means we will have to build municipal capacity and the ability to make decisions across jurisdictions.

The opportunities to protect our natural assets exist within our current budgets (\$ 9.2B in upcoming provincial/federal agreements) but we will need leaders to champion alternative approaches that value our natural assets in the same way engineered infrastructure is valued.

To wrap up the morning presentations, participants identified and prioritized the natural assets in the Winnipeg Metropolitan Region and the South Basin of Lake Winnipeg that, in their opinion, provide the most value through ecosystem services to their communities. Below is an inventory of the identified assets and their ranked order:

#1 Rivers and water	63
#2 Wetlands	40
#3 Forests (including urban)	37
#4 Agricultural land	36
#5 Air quality	15
#6 Parks and grasslands	12
#7 Sunlight	3

Participants at the event worked in groups to share their vision of what the desired future state would be in the next five years related to the management of natural assets. A collective vision statement was formulated based on the many individual visions offered:

#### COLLECTIVE VISION

*Based on current best practice, science and modelling, we have developed a shared Natural Asset Management Framework to assist leaders from government, business and industry to have a common understanding, language, tools, policies and practices to support collaborative decision making in the allocation and investment of resources to restore, enhance, and protect our natural assets.*

The barriers to achieving this vision are:

1) Political will	61
2) Funding & resources	28
3) Education & awareness	27
4) Process & Priorities	21
5) Measurement, evaluation of outputs	16
6) Expertise & enabling tools	9

## Next Steps

The next steps in the development of a Municipal Natural Asset Management Framework are:

- 1) The PMCR is to create an alliance with representation from local government, Indigenous governments, business and industry, knowledge institutions and community leaders to explore next steps and develop a clear path forward with a shared set of priorities and objectives.
- 2) Based on consultation and the assessment of priority assets (wetlands and water courses), all data will be gathered from existing data sources held across the region to facilitate the creation of a Municipal Natural Asset Management Framework .
- 3) Work in partnership with various stakeholders including IISD, Ducks Unlimited, University of Winnipeg, Manitoba Hydro and the Province of Manitoba to develop a shared criteria to assist in the prioritization, evaluation, classification and communication of priority action.
- 4) Work with the experts in the field of municipal natural assets, the Association of Manitoba Municipalities (AMM), the Federation of Canadian Municipalities (FCM) and other stakeholders to explore the alignment of the development of a Natural Asset Inventory and Decision Framework with ongoing regional efforts to create a shared Municipal Natural Asset Management Framework, exploring the opportunity to align funding sources and other resources.
- 5) Determine and develop the tools necessary to build capacity across sectors and ensure the Framework is easy to use and transferable across jurisdictions.
- 6) Develop a process to measure, evaluate and report progress to ensure the money we spend is having the desired impact.



Pictured above from left to right: Honourable Rochelle Squires - Minister of Sustainable Development, Shelley Hart - Mayor of East St. Paul, Colleen Sklar - Executive Director of PMCR, Janice Lukes - City of Winnipeg Councillor, Terry Zdan, Dr. Annette Trimbee - President of University of Winnipeg, and Sherril Matthes - Partner at Honest Agency.



Pictured above: Bob Sandford from EPCOR Chair, Water Security at United Nations University Institute for Water Environment & Health opened the day on October 3, 2017 at the U of W.



Pictured above: a sold out room full of inspired leadership for the October 4, 2017 Panel Breakfast.



Pictured above: MLA Scott Johnston brought greetings at the Viscount Gort Hotel on the October 4, 2017 Panel Breakfast.



Our panel experts pictured from left to right: Roy Brooke, Michelle Molnar, Chris Weber, Mark Anielski and Bob Sandford



Dr. Hank Venema from Prairie Climate Research Centre engages panel in question and answer period.

