



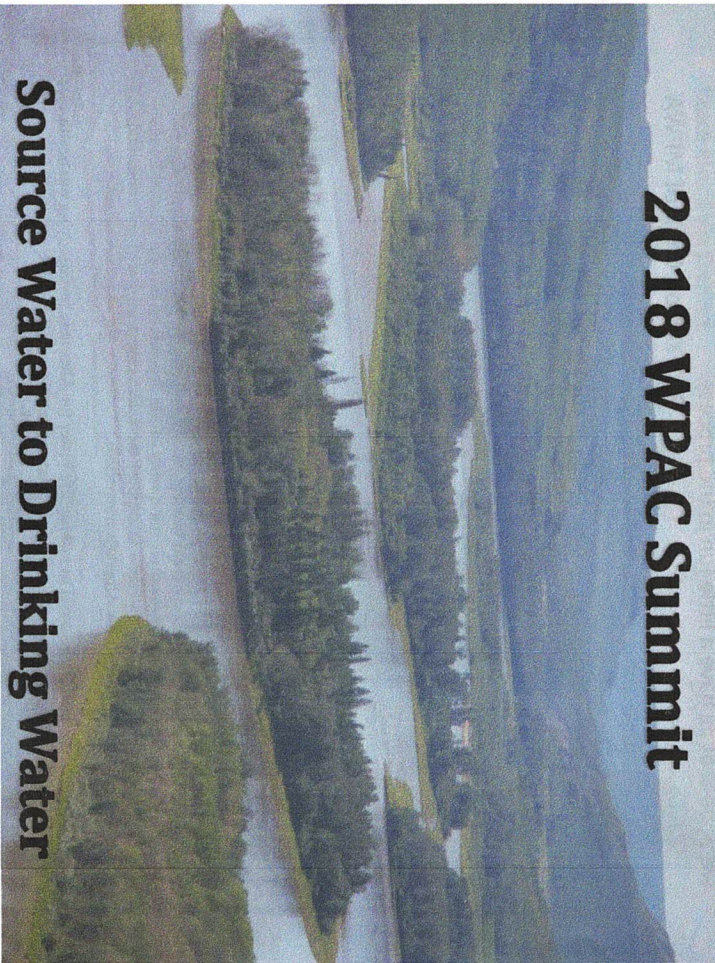
Alberta WPACS



**Mighty Peace Watershed Alliance**  
Diverse. Responsible. Connected.



# 2018 WPAC Summit



## Source Water to Drinking Water

### June 19 - 22, 2018

Sawridge Inn & Conference Center, Peace River, AB

2018 WPAC Summit - A Peace River Event

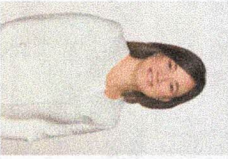


### Welcome to the Summit of Alberta WPACs.

We have a full agenda lined up, to expand and exercise your thinking on water from source to glass (theme). Our Peace Watershed has some unique characteristics, which we plan to share with you, but we also all have much in common to share with each other on the issues confronting water management in Alberta.

So welcome to our world here in the newest and most northerly Albertan WPAC, covering 30% of the province. We look forward to sharing information, exploring ideas, and learning from each other on how to advance watershed and water planning and management in Alberta. And we hope that all have a little fun in the process.

Rick Keillor, Chair of MPWA



Message from the Honourable Shannon Phillips  
Minister of Environment and Parks  
Minister Responsible for Climate Change Office

On behalf of the Government of Alberta, it is my pleasure to welcome you to the 2018 Alberta Watershed Planning and Advisory Council Summit. This year's theme, "Source Water to Drinking Water," provides an excellent opportunity to celebrate the life-giving value of water, highlight key collaborative initiatives to manage Alberta's watersheds and acknowledge the important role of Alberta's WPACs.

We all share the responsibility to ensure a healthy, secure and sustainable water supply for our communities, environment, and economy – our quality of life depends on it. I am grateful for the work we do in partnership with WPACs to support the achievement of shared environmental, social, and economic outcomes for Alberta's watersheds.

Managing our watersheds is essential to making life better for Albertans by improving our health, environment and economy. Best wishes for a stimulating and successful summit.

Sincerely,

Shannon Phillips  
Minister of Environment and Parks  
Minister Responsible for Climate Change Office



Thank you to our sponsors who have contributed to the 2018 AB WPAC Summit. Without their generous support, the MPWA would have not been able to provide this opportunity for the Directors and Staff of Alberta's 11 WPACs.

## Gold Sponsors



Peace River Pulp Division

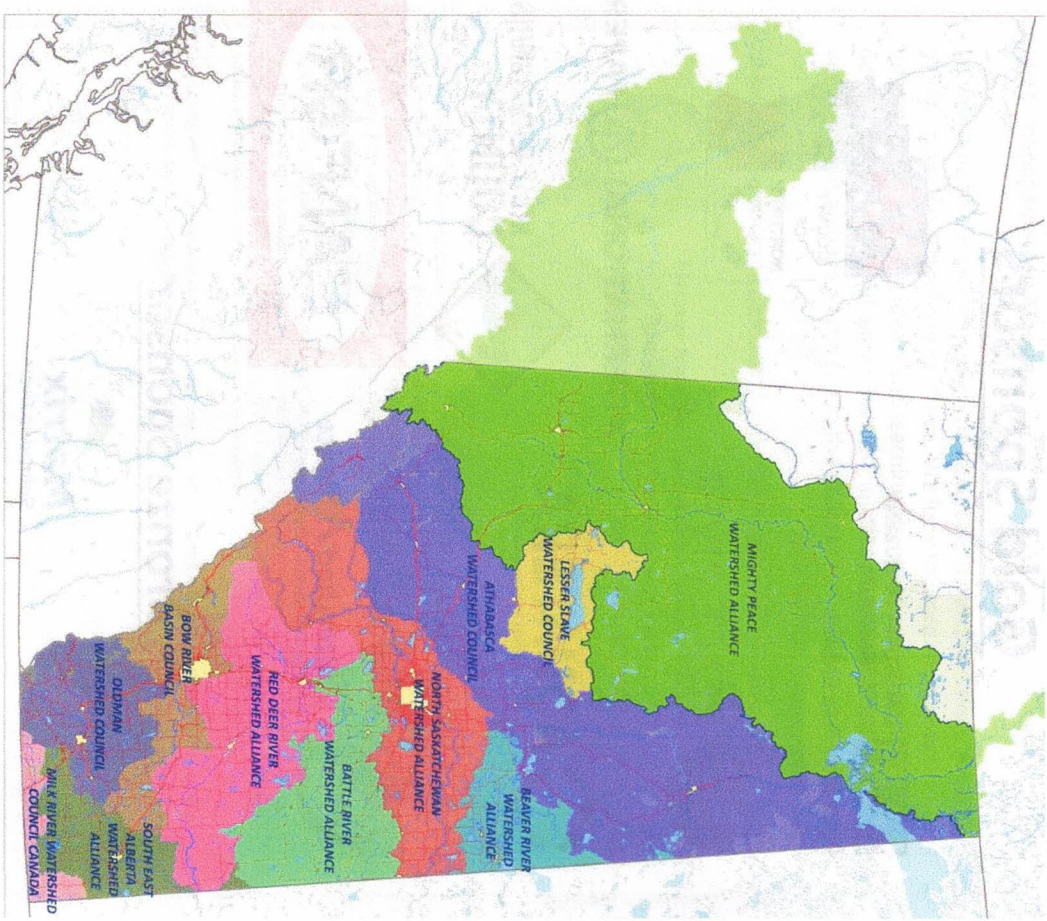


## Bronze Sponsor





# Alberta Watershed Planning & Advisory Councils



## Schedule

Summit 2018 – Tuesday, June 19 <sup>th</sup>	
1:00 – 4:00pm	Pre-Summit Tour – Peace Valley and Project Sites
3:30 – 4:30pm	Town of Peace River Walking Tour
5:30 - 7:15pm	Registration and Finger Food Reception - Ballroom
7:15pm	Welcome
7:30pm	The Peace : An Intertwining of Social and Transportation History of a Mighty River – Laura Gloor
8:30 pm	Rest and Relaxation

Summit 2018 – Wednesday, June 20 <sup>th</sup>	
8:00 – 8:50am	Continental Breakfast - Ballroom
9:00am	Welcome to Summit & Introductions
	<b>The Big Picture – Ballroom</b>
9:30am	MPWA & Peace Watershed – Rhonda Clarke-Gauthier
10:30am	Downstream Perspectives: the Alberta-Northwest Territories Bilateral Water Management Agreement – Megan Beveridge and Tim Heron
11:15am	Forest Management and Watershed Planning – Gord Whitmore
12:00pm	LUNCH – Ballroom
1:00pm	6 WPAC Updates
2:00pm	Bigstone Cree Nation's Wabasca Lakes Source Water Protection Plan – Troy Stuart
	<b>Wetlands Management Effort on Drinking Water - Ballroom</b>
2:45pm	Monitoring and Management in the Peace-Athabasca Delta - Lori Parker
3:35pm	Southshore Wastewater Reclamation Project – Jeff Fetter
5:00pm	Buses leave for BBQ and relaxation by the River (and River Float) from main doors at the north parking lot
8:30pm	Rest and Relaxation

*Megan Beveridge - get the updates*  
*Tim Heron - Monitoring Athabasca - get the updates*  
*Megan Beveridge - NWT.*



<b>Summit 2018 – Thursday, June 21<sup>st</sup></b>	
8:00 – 8:50am	Continental Breakfast - Ballroom
9:00am	4 WPAC Updates - Ballroom
<b>Lakes &amp; Rivers</b>	
9:45am	<ul style="list-style-type: none"> <li>Community Based Monitoring Opportunities for Alberta Lakes – Bradley Peters, ALMS (Peace Room)</li> <li>Wapiti River Water Management Plan &amp; WCO for Drinking Water – Amanda Halawell and Ashley Rowney (Ballroom)</li> <li>South Saskatchewan Water Management Plan Review – Mike Murray (River Room)</li> </ul>
10:35am	<ul style="list-style-type: none"> <li>Municipal Watershed Partnership: Overview of the Sturgeon River Watershed Alliance – Annalisa Jensen (Peace Room)</li> <li>Collaborative watershed management in the Heart River watershed – Becky Devalerida &amp; Adam Norris (Ballroom)</li> <li>The City of Dawson Creek's Watershed Stewardship Program – Kayla Boyd &amp; Michelle Greenwood (River Room)</li> </ul>
11:15am	Water Security Levels for Indigenous Groups in Canada – Neil Spicer (Ballroom)
12:00pm	LUNCH - Ballroom
<b>Source Water Protection Planning - Ballroom</b>	
1:00pm	Source water protection plans and drinking water safety plans - what are they? - Donald Reid and Phil Boehme
1:45pm	Toward water security and climate change adaptation through source water protection planning: Stories from the Canadian Prairie – Bob Patrick
2:30pm	Pathways and Partnerships - Working Together Towards Water Sustainability In the Cowichan Watershed – Tom Rutherford
3:15pm	Break
3:30pm	Grimshaw Gravels Aquifer: The Road to an Aquifer Source Water Protection Plan - Adam Norris & Janice Reyda
4:15pm	Panel Discussion of afternoon speakers
4:45pm	Break



6:15pm	Reception - Ballroom
6:45pm	Banquet - Ballroom Guest Speaker Monique Dubé – Update on Watershed Monitoring, Environmental Monitoring and Science Division
8:30pm	Rest and Relaxation

<b>Summit 2018 – Friday, June 22<sup>nd</sup></b>	
8:00 – 8:50am	Continental Breakfast - Ballroom
<b>WPAC Tools - Ballroom</b>	
9:00am	Water Literacy in Alberta – Janine Higgins
9:30am	Shift Happens – David Samm
10:30am	WPACs working Together – Collaboration Opportunities
11:30am	Thanks for coming! Safe Travels Home.

## Summit Speakers

### Tuesday June 19

**Speaker: Laura Gloor**

**Time: 7:30 – 8:30PM**

**Topic: *The Peace: An Intertwining of Social and Transportation History of a Mighty River***

The Peace River, with its tributaries has sustained a diversity of flora, fauna and human life since its sinewy shape was carved by the act of retreating glaciers. Through archival resources from the Peace River Museum, Archives and Mackenzie Centre, this presentation will look at the vessels and people carried by the river as the Peace Country developed.

Originally well-travelled by the early indigenous people eight to ten thousand years ago, the river became one of the main routes



of commerce, linking the fur trade of Montreal to beyond the Rocky Mountains. Pony and dog teams traversed its icy path in the winter – then canoes and scows in the summer. New settlers eventually navigated their way to the fertile land of this watershed on paddle wheelers, followed by motorized riverboats. The riverboat era came to an end in 1952 with the last freighter plying the waters from Fort Vermilion to Hudson's Hope.

## Wednesday June 20

**Speakers: Megan Beveridge** (Manager, Transboundary

Waters, Government of the Northwest Territories) and **Tim**

**Heron** (Lands and Resources Manager, Lands and Resources, Northwest Territory Métis Nation)

**Time:** 10:30AM

**Topic: Downstream Perspectives: the Alberta-Northwest Territories Bilateral Water Management Agreement**

The NWT is the ultimate downstream jurisdiction in the Mackenzie River Basin. Bilateral water management agreements, including that with Alberta, are an important way to ensure NWT's aquatic ecosystems continue to support the ecological, economic, social, cultural and spiritual well-being of NWT residents and meet the vision of the NWT Water Stewardship Strategy: The waters of the NWT will remain clean, abundant, and productive for all time.

**Speaker: Gord Whitmore** (Land Management Group Lead at Daishowa-Marubeni International Ltd - Peace River Pulp Division)

**Time:** 11:15AM

**Topic: Forest Management and Watershed Planning**

Forests have long been established as critical for ensuring stable flows of good quality water and its associated values. Therefore, it



comes as no surprise that water quantity and quality are identified as key objectives for ensuring that the principle of maintaining soil and water for Sustainable Forest Management (SFM) is met. Forest companies holding FMAs in Alberta are required to develop strategic forest management plans that are aligned with the principles of SFM and that demonstrate the sustainability of values and objectives over a 200-year planning horizon, including water quantity and quality. Gordon will present an overview of Alberta's forest management planning processes and highlight how DMI's efforts, guided by scientific research, consultation with indigenous communities and the public, and Ecosystem-Based Management, assist them in planning and implementing activities in the forest.

**Speaker: Troy Stuart** (Manager of Lands & Consultation Department; Indigenous Lands, Wildlife and Environment, Bigstone Cree Nation)

**Time:** 2:00PM

**Topic: Bigstone Cree Nation's Wabasca Lake Source Water Protection Plan**

**Speaker: Lori Parker** (Ecologist Team Leader, Resource Conservation Team, Wood Buffalo National Park)

**Time:** 2:45PM

**Topic: Monitoring and Management in the Peace-Athabasca Delta**

As one of the largest freshwater deltas in the world, the Peace-Athabasca Delta in Wood Buffalo National Park is a unique part of the Peace/Slave River Basin. The delta consists of a few large lakes surrounded by thousands of smaller lakes and wetlands. Together, these represent one of the most significant waterfowl breeding areas in North America. The delta's sedge and grass meadows represent North America's largest undisturbed grasslands, providing critical habitat for the world's largest free-roaming herd



of wood bison. The delta also provides habitat for moose, muskrat, fish, and other species, and like all wetlands, acts as a natural filter, removing sediment and toxins from water. In recognition of its contribution to global biodiversity, the delta is recognized as a Ramsar Wetland of International Importance. As a signatory to the Ramsar Convention, Canada commits to designating such wetlands of international importance and to ensuring their effective management.

This presentation will outline Parks Canada's monitoring programs in the Peace-Athabasca Delta, a flood-dependent ecosystem, which includes efforts such as remote sensing of water extent, water quality monitoring, and wildlife/vegetation monitoring, and aims to bring together traditional Indigenous knowledge and western science. We will also present water management strategies currently in place as well as potential future courses of action to protect water quantity and quality in the delta and areas downstream of the delta.

**Speaker:** *Jeff Fetter* (Manager of the Associated Engineering Water Division in Edmonton)

**Time:** 3:35PM

**Topic:** *Southshore Wastewater Reclamation Project*

The Southshore communities include the Hamlets of Canyon Creek, Widewater, and Wagner within the Municipal District of Lesser Slave River No. 24 (MD). The communities are located between the south shore of Lesser Slave Lake and Highway 2, approximately 20 km west of the community of Slave Lake. The historic method of sewage disposal used was septic tanks and disposal fields or cesspools, which discharged into the soils adjacent residential properties. Private disposal systems can be suitable for rural developments, but start to present problems as areas density and the natural ecosystems do not have suitable assimilative capacity. The MD designated this area for growth pending implementation of a sustainable wastewater management system eliminating concerns over adverse impacts along the lake



shoreline. This presentation will review the project history and benefits of the unique treatment facility.

The MD and Associated Engineering began an evaluation of wastewater transmission and treatment alternatives in 2000, which resulted in the Southshore Communities Water Reclamation Master Plan finalized in 2003. Council and the Southshore residents were presented the plan and enthusiastically endorsed implementation of a new low pressure collection and water treatment system, which was implemented in phases from 2005 through 2012.

The Membrane Bioreactor (MBR) treatment system was the first Municipal application in Alberta that includes, influent flow equalization, process tanks and related equipment (anoxic, aeration, membranes and aerobic digester), nutrient removal (chemical phosphorus removal and nitrification-denitrification), ultraviolet disinfection, biosolids dewatering (centrifuge), and year-round effluent discharge through a forest wetland. The wetland design incorporates several dispersion ponds enabling winter effluent accumulation in the form of shallow ice lenses. Following the wetlands, the water quality now exhibits characteristics similar to background surface water runoff in the vicinity. The outcome of this project was a reliable, robust centralized treatment facility that has meet stringent effluent quality limits for over 10 years safeguarding the Lesser Slave Lake watershed

**Thursday June 21**

**Select a Session: 9:45 to 10:25**

**Session:** 1A

**Speaker:** *Bradley Peters* (Executive Director of the Alberta Lake Management Society)

**Topic:** *Community Based Monitoring Opportunities for Alberta Lakes*



The Alberta Lake Management Society (ALMS) partners with stewards across Alberta to collect water quality data on lakes through the flagship program, LakeWatch. While this program has collected valuable water quality data from over 100 unique water bodies in Alberta, the program design is not without its shortcomings. To address these shortcomings, ALMS introduced a pilot project in the summer of 2018 called LakeKeepers. This presentation will explore the opportunities for WPACs and WSGs to use this program to increase data collection and public engagement in their watersheds.

**Session: 1B**

**Speaker: Amanda Halawell** (AEP South and Central Planning Lead) & **Ashley Rowney** (Regulatory and Compliance Specialist at Aquatera)

**Topic: Wapiti River Watershed Management Plan & WCO for Drinking Water**

The motivation for developing the Wapiti River Water Management Plan (the Plan) was a concern about Wapiti River water diversions during winter low flow periods, a time in which bull trout, mountain whitefish and other native fish species are particularly sensitive to changes in flow. A five-year planning process led by the Steering Committee for the Plan culminated in a report with recommendations to the Government of Alberta on water management. These recommendations provide guidance on water allocation and set limits for diversions from the Wapiti River for human consumption and industrial use while balancing the interests of aquatic ecosystem health and water-based recreation objectives. The steering committee was made up of key stakeholders, including local municipalities, industry, the Mighty Peace Watershed Alliance, and provincial and federal governments. A structured decision making (SDM) approach was used to assess and make water conservation objectives.



**Session: 1C**

**Speaker: Mike Murray** (Program Manager for the Bow River Basin Council)

**Topic: South Saskatchewan Water Management Plan Review**

The SSRB Phase II Water Management Plan was released in 2006. Included in the plan are some recommendations for future work to be done by or in partnership with WPACs found in the SSB. One recommendation was for a review of the plan to be undertaken at a time that the WPACs feel to be appropriate. The BRBC decided to fully fund a review project and engaged the SSB WPACs to create Basin Advisory Committees from membership and stakeholders to engage in the review. A major piece of this of this work is complete with the report writing underway. The intent of the project was to take an overview of the plan to see what is working, what may need some further review or more information and what are some of the challenges and potential future work that WPACs in the SSB could be doing to further our understanding of this watershed. Notably the original 2006 plan does not specifically deal with water quality and uncouples water quantity with water quality.

**Select a Session: 10:35 to 11:10**

**Session: 2A**

**Speaker: Annlisa Jensen** (Parkland County Councilor, Chair of the SRWA and the Vice-Chair of the NSWA)

**Topic: Municipal Watershed Partnership: Overview of the Sturgeon River Watershed Alliance**

To provide an overview of the progress of the Sturgeon River Watershed Alliance as a group of municipalities working together to address data gaps, create inter-municipal policy alignment and



the drafting of an Integrated Watershed Management Plan for the Sturgeon River Watershed in 2019.

**Session: 2B**

**Speaker: Becky Devalerola** (ALLUS Program Coordinator at Northern Sunrise County) & **Adam Norris** (Watershed Coordinator MPWA)

**Topic: Collaborative Watershed Management in the Heart River Watershed**

Historical overview and 2017 Water Quality Report on the Heart River Watershed in conjunction with an ALLUS Northern Sunrise program overview and how it's working in our County.

**Session: 2C**

**Speaker: Kayla Boyd** (Watershed Technician for the City of Dawson Creek) & **Michelle Greenwood** (Watershed Technician for the City of Dawson Creek)

**Topic: The City of Dawson Creek's Watershed Stewardship Program**

The Kiskatinaw River is the sole drinking water source for the City of Dawson Creek (City), the Village of Pouce Coupe and the surrounding rural residents. To help manage and protect our source water, the City launched the Watershed Stewardship Program in 2009; which provides a holistic approach through research, collaboration and education. With increased land use activity and global climate change, watershed management is becoming increasingly important for our community. Topics discussed will include hydrometric and water quality monitoring, water security, special projects, and the importance of stakeholder relationships.



**Speaker: Neil Spicer** (Master of Science Candidate at the University of Alberta)

**Time: 11:15AM**

**Topic: Water Security levels for Indigenous Groups in Canada**

There will be a brief introduction of the tracking change project that is led by Dr. Brenda Parlee. Then I will be introducing my research of water security, which is a huge problem for Indigenous communities across Canada. My presentation will examine the various factors that impact the levels of natural water security that include such things as climate change, pollution and contamination from resource extraction and how this can also impact levels of household water security. I examine how levels of natural water security can be potentially assessed in components that address the unique situations seen within many Indigenous communities across the country.

**Speakers: Donald Reid** (Drinking-water Quality Regulator AEP) & **Phil Boehme** (AEP Planner in Red Deer)

**Time: 1:00PM**

**Topic: Source Water Protection plans and drinking water safety plans: what are they?**

In Alberta, source water protection is occurring across various landscapes, utilizing several methods, and being led by diverse groups. For example, municipalities in Alberta are required to develop drinking water safety plans to assess risks to the source, treatment, network, and consumer components of their waterworks systems. There is a growing need for the integration of planning and risks management processes to guide source water protection, particularly in communities that lack the capacity to do so. This presentation will discuss what "source water protection plans" and "drinking water safety plans" are, and how these tools can be aligned to ensure the protection of source water for drinking water and other uses.





**Speaker: Bob Patrick** (Professor and Chair of Regional and Urban Planning Program, University of Saskatchewan)

**Time:** 1:45PM

**Topic: Toward water security and climate change adaptation through source water protection planning: Stories from the Canadian Prairie**

This presentation will draw on multiple source water protection planning exercises conducted with First Nations in the Canadian Prairie. The presentation will illustrate how source water protection planning offers much more than the protection of a drinking water supply. Source water protection also helps to advance local water security while providing adaptation measures to climate change.

Challenges facing source water protection appear to be less scientific and technical but more institutional and organizational. Barriers to the implementation of source water protection plans will be discussed with potential solutions sought from the audience!

**Speaker: Tom Rutherford** (Executive Director, Cowichan Watershed Board)

**Time:** 2:30PM

**Topic: Pathways and Partnerships - Working Together Towards Water Sustainability in the Cowichan Watershed**

This presentation will tell the story of the Cowichan Watershed board - and how it is using an innovative partnership model to work towards water sustainability "from source water to drinking water." Topics touched upon will include a brief overview of the Cowichan Valley, the origins and current structure of the Cowichan Watershed Board and its approach to implementing change "on the ground". Examples of successes, failures and ongoing challenges will be given along with some key "take-away" points that might be useful to water stewardship organizations from other watersheds.



**Speakers: Adam Norris** (Watershed Coordinator MPWA & **Janice Reyda** (MD of Peace Councilor)

**Time:** 3:30PM

**Topic: Grimsshaw Gravels Aquifer: The Road to an Aquifer Source Water Protection Plan**

The Grimsshaw Gravels Aquifer Management Advisory Association is an organization constituted by the municipalities that lie above the Aquifer. Over the last 20 years this group has worked in various ways to maintain the quality of the aquifer. Most recently a Source Water Protection Plan has been undertaken to ensure a proactive management approach.

**Banquet Speaker: Monique Dubé** (Executive Director, Integrated Environmental Analytics & Prediction Branch, Environmental Monitoring and Science Division and Oil Sands Monitoring Program - Science Co-Lead, Alberta Environment and Parks)

**Time:** 7:30PM

**Topic: Update on Watershed Monitoring, Environmental Monitoring and Science Division, Alberta Environment and Parks**

Dr. Monique Dubé will provide an update on watershed monitoring within the Province of Alberta including key areas of priority under the Oil Sands Monitoring Program and cumulative effects assessment.

## Friday June 22

**Speaker: Janine Higgins** (Community Engagement Lead, AEP)

**Time:** 9:00AM

**Topic: Water Literacy in Alberta**

A review of water literacy in AB & opportunities for collaboration.



**Speaker: David Samm** (General Manager, BRWA)

**Time: 9:30PM**

**Topic: Shift Happens**

Succession planning is a topic that is difficult in some organizations. It raises the spectra of difficult conversations and walking on eggshells. Leadership changes at the staff and board level happen and given what's at stake with any leadership change, it is a very important discussion for boards and executive staff to have. How can organizations have open and regular conversations about executive transition planning? David has started thinking and acting on his transition will share his thoughts on the topic from his experience working with a Watershed Planning and Advisory Council, the Battle River Watershed Alliance.

**Speaker: 4 WPACs - WPAC Collaboration and Panel**

**Time: 10:30AM**

New and old ideas around collaboration and partnerships to achieve watershed management and planning goals.

**SUMMIT Hosting WPAC:**

*Mighty Peace Watershed Alliance – MPWA*

**Summit Planning Committee:**

*Bob Cameron*

*Dan Benson*

*Dave Walty*

*Elaine Manzer*

*Rick Keillor*

*Adam Norris, Watershed Coordinator*

*Megan Graham, Education/Outreach Coordinator*

*Rhonda Clarke-Gauthier, Executive Director*



**NOTES:**