

On November 28, join us in Richmond for a workshop on watersheds, the water balance and *restorative development*. Adapting to climate change requires transformational changes in how we value nature and service land.

## **Blue Ecology – A workshop on interweaving First Nations cultural knowledge and Western science**

The workshop is an outreach and professional development event, held under the umbrella of the Georgia Basin Inter-Regional Education Initiative, and designed to further the conversation in Metro Vancouver about moving towards “Sustainable Watershed Systems, through Asset Management”



### **A CALL TO ACTION**

All of us have an impact on the land, on the water, and on the way things look. And decisions made today will ripple through time. To make the right choices, decision-makers at all levels and scales must understand how and where the rhythms of water are changing.

Michael Blackstock’s big idea for interweaving First Nations cultural knowledge and Western science – **Blue Ecology water cycle** – is especially powerful. The essence of Michael’s vision is ‘embrace a water-first approach’. It is an idea whose time has come.

The workshop will have a town-hall format. Michael will be joined by two ‘water champions’ who have achieved national prominence - the **CBC’s Bob McDonald**, host of *Quirks & Quarks*; and **Member of Parliament Fin Donnelly**, who has twice swum the length of the Fraser – along with a supporting cast from the Partnership for Water Sustainability in British Columbia.

The Fraser River is a centrepiece for the workshop program.

*Co-hosted by:*

**Partnership for  
Water Sustainability in  
British Columbia**



**Irrigation Industry  
Association of  
British Columbia**



*Sponsors:*



## Blue Ecology – *Interweaving First Nations cultural knowledge and Western science*

Moving Towards “Sustainable Watershed Systems, through Asset Management”

<b>5<sup>th</sup> annual event in the Water Sustainability Year-End Workshop Series</b>	
<b>November 28, 2017 --- at the Radisson Hotel, 8181 Cambie Road, Richmond, BC</b>	
<b>Cost</b> (before GST):	<p>Early Bird (until &amp; incl. Nov 8) = \$125 for members &amp; \$175 for non-members                      = \$95 for First Nations &amp; stewardship groups                      = \$50 for students</p> <p>Late Registration (after Nov 8) = \$175 for members &amp; \$225 for non-members                      = \$120 for First Nations &amp; stewardship groups                      = \$75 for students</p> <p><b>Note:</b> <i>Member rates are for PWSBC and IIABC members</i></p>
<b>Online Registration:</b>	<p><a href="https://www.civicinfo.bc.ca/event/2017/Blue-Ecology">https://www.civicinfo.bc.ca/event/2017/Blue-Ecology</a></p> <p>IIABC members register directly via the IIABC website at  <a href="https://www.irrigationbc.com/irrigation/conventions/view/27">https://www.irrigationbc.com/irrigation/conventions/view/27</a></p>
<b>Program Details:</b>	<p>Visit the waterbucket.ca website: <a href="http://waterbucket.ca/cfa/category/partnership-for-water-sustainability-annual-workshop-series/2017-blue-ecology/">http://waterbucket.ca/cfa/category/partnership-for-water-sustainability-annual-workshop-series/2017-blue-ecology/</a></p>
An initiative under the umbrella of the Water Sustainability Action Plan for British Columbia	

<b>DRAFT PROGRAM – September 2017</b>		
8:00	<i>Registration / Meet &amp; Greet</i>	
<i>THEME FOR MORNING SESSION:</i> <b>Watershed, Rivershed, What’s the Difference?</b>		
9:00	<b>MODULE A: Connect the Drops</b>	Fin Donnelly
	First Nations Welcome – to be confirmed What Happens on the Land Matters - <i>Kim Stephens will set context for Module A and the day</i>	
10:30	<i>Refreshment Break</i>	
11:00	<b>MODULE B: The Fraser River, Agriculture and Food Security</b>	Ted van der Gulik
	Convening for Action in British Columbia - <i>Richard Boase will set context for Module B</i>	
12:00	<i>Lunch</i>	
<i>THEME FOR AFTERNOON SESSION:</i> <b>What Happens on the Land Matters!</b>		
1:00	<b>MODULE C: Water From A Global Perspective &amp; Beyond</b>	Bob McDonald
	Science & Spirit: An Inclusive Journey - <i>Eric Bonham will set context for Module C</i>	
2:15	<i>Refreshment Break</i>	
2:30	<b>MODULE D: Blue Ecology – an Attitude Switch!</b>	Michael Blackstock
	Getting the Most from Natural Drainage Infrastructure - <i>Tim Pringle will set context for Module D</i>	
3:45	<b>Closing Remarks</b>	Eric Bonham

# **Blue Ecology – *Interweaving First Nations cultural knowledge and Western science***

Moving Towards “Sustainable Watershed Systems, through Asset Management”

## *THEME FOR MORNING SESSION:* **Watershed, Rivershed, What’s the Difference?**

9:00

### **MODULE A: Connect the Drops** - *featuring Fin Donnelly*

Fin Donnelly founded the Rivershed Society of British Columbia in 1996. Elected to Parliament in 2009, he has a long history working for a healthy environment. Twice he has swum the 1,400 km length of the Fraser River.

The term **rivershed** is more place-specific than watershed. It steers attention to a river in a particular geographical location and all activities and phenomena related to that area.

When a sense of place is organized around a river rather than a town or city, it encourages a mental shift from human settlement to the larger interconnected natural environment. Using the Fraser River as a centre piece, and the fact that Fin can connect from its source to the estuary, will be informative in framing the big picture at the outset.



*TOWN-HALL SEGMENT:*

11:00

### **MODULE B: The Fraser River, Agriculture and Food Security** - *featuring Ted van der Gulik*

The mighty Fraser River drains more than one-quarter of the land area of British Columbia. What happens in the Interior has implications and/or consequences for the Lower Mainland region at the mouth of the Fraser. Formerly the Senior Engineer in the Ministry of Agriculture, Ted van der Gulik has a compelling story about the inter-connection of climate change, drought, rising sea levels, Fraser River salinity, agricultural water supply and food security.

Agriculture is a large fresh water user and the demand for water will only increase as summers get longer, hotter and drier. The Ministry of Agriculture has developed a Water Demand Model that can determine agriculture’s water requirements today and in the future using global climate models stretching to the year 2100.

Climate change will raise sea levels and bring sea water farther up the Fraser River. This will limit the number of hours per year that fresh water is accessible for irrigation water supply in the Delta.



*TOWN-HALL SEGMENT:*

# Blue Ecology – *Interweaving First Nations cultural knowledge and Western science*

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## THEME FOR AFTERNOON SESSION: **What Happens on the Land Matters!**

1:00

### **MODULE C: Water From A Global Perspective & Beyond** – *featuring Bob McDonald*

Loved by audiences across Canada for making complex scientific issues understandable, meaningful, and fun, Bob McDonald’s truly global perspective reminds us of the limited availability of fresh water on the planet.

Water - this vital life sustaining resource demands a raised level of consciousness and commitment, from the global to the local level, regarding its protection and sustainable use. Protecting fresh water has the potential of being a catalyst for cooperation rather than conflict, a level of cooperation that seeks solutions for the common good and survival.

The call for an intercultural and intergenerational approach to water security issues has never been more timely or pressing than now, given the pending impacts of climate change. Water is truly the connector of all activities on earth. Addressing this challenge demands an integrated approach that blends both science and spirit.



TOWN-HALL SEGMENT:

2:30

### **MODULE D: Blue Ecology – an Attitude Switch!** – *featuring Michael Blackstock*

The journey to a water-resilient future starts with Western science acknowledging water for its central functional and spiritual roles in our world. Western science is not wrong. It is just not complete. It does not account for water as part of a living ecosystem, says Michael Blackstock, professional forester and independent scholar of European and First Nations (Gitksan) descent.

The **Blue Ecology** frame provides a holistic cultural context to enhance Western science's knowledge of the water cycle for the benefit of hydrologists and water managers. Recognized by UNESCO and the *International Association of Hydrological Sciences*, Blue Ecology has five guiding principles - Spirit, Harmony, Respect, Unity and Balance - and aligns with the **whole-system, water balance** approach.

To make the right choices moving forward, decision-makers must understand how and where the rhythms of water are changing. Then they can apply ecosystem-based understanding to adapt our practices to suit a changing climate. Michael’s thesis is to move through a five step interweaving process and "switch" our attitude (from *sovereign* knowledge to *collaborative* knowledge), and thus behaviors, arriving at a place of hope. Blue Ecology is a case study in this process.



TOWN-HALL SEGMENT: