

# Cowichan Watershed Board Meeting

## DRAFT Minutes

Mon. June 26 , 2017 / 9:15am

Location: CVRD Boardroom,  
2<sup>nd</sup> Floor, 175 Ingram, Duncan, BC



**Co-Chair :** Mayor Jon Lefebure  
**Board Members Present:** Chief William Seymour, Ian Morrison, Chief Seymour, David Anderson, Debra Toporowski, Darin George, Tim Kulchyski, David Slade;  
**Other Participants:** Tom Rutherford  
**Regrets:** Laura Brown, Ross Forrest, David Froese  
**Minutes:** Jill Thompson

		Decision
1. Welcome		
2. Approval of Agenda		Approved
3. Approval of April Meeting Minutes. Business arising from Minutes.		Approved
4. Correspondence and announcements.	<p>See list at bottom. T.Rutherford reflected that CWB is serving a role as 'go-to' source for help with watershed issues for the community.            J. Lefebure noted there is public confusion over flow in river vs domestic water supply.</p> <p>T. Rutherford sought Board decision on whether to send a letter to DFO Minister to acknowledge reversal of decision to cut community fisheries programs. Agreed.</p>	Tom to send letter to Minister of Fisheries RE reversal of decision and emphasize the good work here.
5. Watershed co-governance progress – grant from Tides Canada Initiatives, BC Freshwater Legacy Initiative	<p>J. Lefebure – expressed importance of this support. Signals our commitment to ongoing progress</p> <p>Presentation by T. Rutherford <a href="#">[link]</a>            -\$200,000 over 18 months to support Cowichan Tribes and CWB staffing on co-governance, and provide a neutral Facilitation team to support a series of workshops into the CWB decision making model and mandate, and to build capacity for local watershed governance.</p> <p>Chief Seymour – Cowichan Tribes has concerns that Water Sustainability Act didn't address Rights and Title. The First Nations Leadership Council is trying to change that. We are doing that same process here through this table. We need to work with neighbours. There are so many concerns that we need to address. Working within WSA is the only way. Thankful for this initiative.</p> <p>D. George - expressed thanks also. Reflected on how Tsouke Nation took control of their watershed and the need to take the right approach to growth. The area is still growing. This is the right approach.</p> <p>L. Iannidinardo – agrees this is a good idea. Expressed interest in the role of facilitators and who they will be. Would like to see us</p>	Action – provide the Board with clarity RE Tides Canada funding and its independence from US Tides.

	<p>broaden our stewardship to foreshores - fresh and salt water. Would like us to be the subdivision approval officer at CVRD</p> <p>I. Morrison – supports the initiative. Expressed hope that we will broaden tent to take in all views, including opponents, in this process.</p> <p>D. Anderson – commented that Tides Canada is a great organization but there has been criticism and confusion about that so Directors should be prepared to address these concerns. Suggested we request a ½ page explanation from Tides Canada on its independence from American control over decisions.</p> <p>More info:  <a href="http://tidescanada.org/focus/healthy-watersheds/">tidescanada.org/focus/healthy-watersheds/</a>  <a href="http://www.refbc.com/initiatives/research-projects/bc-freshwater-legacy-initiative">http://www.refbc.com/initiatives/research-projects/bc-freshwater-legacy-initiative</a></p>	
<p>Coastal Restoration Fund</p>	<p>Presentation <a href="#">[link]</a> by Cheri Ayers and Craig Wightman outlining the elements of a new multi-year funding proposal, led by Cowichan Tribes. <i>Cowichan/Koksilah Watershed to Sea – Protecting and Restoring Canada’s Wild River Heritage as an Integral Link to the Salish Sea</i></p> <p>Project uses the lens of chinook to study and restore estuary and river habitats. Includes addressing Stoltz failure.</p> <p>L. Iannidinardo emphasized the importance of working with the Cowichan Estuary Management Committee and remaining open to all voices.</p> <p>C. Ayers- the proposal is for science and technical work (not management) so it doesn’t compete with the committee. Will support and provide more information to it. Trying to keep lines of communication open with other groups.</p> <p>T. Rutherford –our core principles include partnerships and “whole of watershed” approach.</p> <p>T. Rutherford - acknowledged leadership of Cowichan Tribes and willingness / maturity of stewardship community for this partnership. This is a huge multi-year opportunity to focus on the technical understanding of the watershed.</p> <p>C. Wightman – commented that better science is going to help everyone.</p> <p>D. Slade – inquired whether this should project should include getting the JUB out of the river?</p> <p>J. Lefebure - \$12 million for JUB already in place. 2 grants of \$6million.</p>	
<p>7 Riparian Working Group and related</p>	<p>Presentation by T. Rutherford <a href="#">[link]</a></p>	<p>Feedback to Working</p>

<p>updates Riparian Working Group update</p>	<p>L. Iannidinardo – commented on development pressures on foreshores and asked whether the Working Group can help with the science around residential septic fields that are under water? Reflected on the distinction between zoning and development permits.</p> <p>T. Rutherford – replied that the science is available – what is needed is outreach, education and compliance. We need to be more involved in decision making locally</p> <p>I. Morrison – commented that this is a challenging issue. Cowichan Lake and River Stewardship Society is doing a great job of educating residents and planting, but right now new owners are decimating riparian habitat in one weekend that will take decades to replace. Suggested we need a “state of riparian habitat” study to understand what’s damaged, replanted, etc.</p> <p>T. Rutherford – there was an inventory of lake habitats by DFO in 2012. – Questioned how we can implement change, how can we intervene? Suggested we need more education and compliance (local governance)</p> <p>L. Iannidinardo – commented that zoning needs consideration, particularly “recreational residential” and suggests the Working Group work to contribute to the zoning definition.</p>	<p>Group: Can the group help with science to improve zoning definitions?</p>
<p>b) TimberWest forest practices /hydrology field trip</p>	<p>Presentation by T. Rutherford <a href="#">[link]</a></p>	
<p>c) Stoltz update (see report)</p>	<p>Presentation by Craig Whiteman, BCCF- <a href="#">[link]</a> <i>Stoltz Bluff Sediment Remediation – 2017 Emergency Maintenance Proposal.</i></p> <p>- A significant slope failure this spring is adding sediment to the river for 27km to tidewater. Will be exacerbated with winter rains if not addressed. Partners needed for short-term and long-term solutions.</p>	
<p>8. Fish/Flows Working Group and Water Storage updates a) current lake levels/flows</p>	<p>Presentation by Brian Houle, Catalyst. <a href="#">[link]</a></p> <p>- Very good year for flows. Lake level expected to remain at full into beginning of July.</p> <p>- Due to the aspect of the snow pillows, Heather Mountain is a good indicator for Lake Cowichan but not Jump Creek.</p>	
<p>b) update on CVRD process to define long-term desired flow regime/levels</p>	<p>Update provided by T. Rutherford (Kate, Brian on vacation)</p> <p>- Tom reiterated the three steps needed to increase lake storage:</p> <ol style="list-style-type: none"> <li>a) Assess flow needs.</li> <li>b) Determine who will hold the license.</li> <li>c) Raise funds to replace the weir.</li> </ol> <p>CVRD is leading the project to (a) assess needs which is currently in the contracting process. This process is supported by a committee including Cowichan Tribes, Catalyst, CVRD, and CWB. A hired consultant will lead the assessment so all parties can participate fully without bias. Goal is end of fiscal year.</p> <p>The CWB Fish/Flows process and report to determine fish needs is done and will feed into the process. Final report going to Fish Flows</p>	

	<p>Working Group and will come to CWB for ratification after that. That process determined target (perfect) flows vs minimum flows needed for fish sustainability.</p> <p>T.Kulchyski – acknowledged the great partnership but pointed out that issues remain with the North Arm which will run dry again despite all our work and reminded us there is lots yet to do. Our work is paving the way to answer bigger questions. Hoping to move forward with governance and improve the basic level of planning so there is less crisis based management. This year there are great flows but the fish are so far behind because of high flows and late spring. But the more we work together the better we'll be.</p> <p>T. Rutherford - - acknowledge Rodger Hunter's work to secure a snow pillow for the watershed. The information is provides has been a huge help to make good decisions.</p>	
<p>9. Building Knowledge – Bill Floyd, Research Hydrologist, BC Ministry of Forests, Lands and Natural Resource Operations</p>	<p>Presentation by Bill Floyd, Bill Floyd, RPF, PhD Research Hydrologist and Adjunct Professor Geography Vancouver Island University. <b>See bio below.</b></p> <p>- Bill Floyd provided an in-depth presentation on current scientific understanding of how forest openings (cutblocks) affect water flows.</p> <p>Some key lessons:</p> <ul style="list-style-type: none"> <li>- Rain on snow effects are complicated. There is only a deep melt when there is also wind to permeate the stable snow surface.</li> <li>- Snow melts differently in drier climate than wet. In the interior, snow on a canopy “sublimates”; on the coast it mostly melts and falls through the canopy into soils.</li> <li>- Placement /orientation of cut blocks influences wind impact to snow melt.</li> <li>- New hydrology science is showing that “means” aren't the issue – it's the droughts and floods that matter. i.e. there are “mean” increases in temperatures, but it's the ‘tails’ (variation around the mean) that cause extreme weather.</li> <li>- Recommends using wind/energy data in assessments of Equivalent Clearcut Area (ECA) for forestry. ECA is overused as an indicator and we need to consider other variables e.g. type of watershed, current condition, fish, drinking watershed, stability, etc. In some watersheds ECA has much stronger relationship to stream flow.</li> <li>-Recommends limiting openings in high rain on snow areas and allowing for regeneration.</li> </ul> <p>More on Bill Floyd's work <a href="http://www.viu-hydromet-wx.ca/projects/">http://www.viu-hydromet-wx.ca/projects/</a></p>	
<p>Next meeting: Mon. July 31<sup>st</sup> 9:15-11:30am</p>		
<p>Adjourn</p>	<p>11:50am</p>	

\*Correspondence and Announcements

- Summer Student Outreach Team - Meet Hannah, Logan and Aini.
- Speakers Series: April 27 – “Well Aware” workshop with FLNRO’s Ben Robinson and David Slade + sneak-peak at “The Cowichan Hosers”
- Low Flow Irrigation Workshops in partnership with Municipality of North Cowichan and CVRD : Featuring educator from Irrigation Industry Association. Tues July 11th (7-9) and Sunday July 23rd (1:30-3:30pm). Locations TBD
- River Clean-up – Lake and Upper River Aug 20 (CLRSS) / Lower River Aug 27 (CWB). All CWB Directors are urged to come out and lead a team on 27th. RSVP to Jill.
- Cowichan Green Community Award – T. Rutherford accepted on our behalf

**BILL FLOYD**, PhD, RPF, is a Research Hydrologist and Adjunct Professor with the Ministry of Forests, Lands and Natural Resource Operations and Vancouver Island University. Dr. Floyd has over 20 years of experience working and studying in the field of Forest and Snow Hydrology, with a specific emphasis on roads and sediment, rain-on snow-processes, climate change and developing research focused high elevation weather station networks. He is currently on a partial secondment at Vancouver Island University to establish a Coastal Hydrology and Climate Change Research Lab, and to support the Hakai Institute’s Kwakshua Watersheds Program.

***Flood generating processes in coastal BC and the effects of forest management***

British Columbia’s coastal watersheds receive some of the highest amounts of precipitation in North America with elevations ranging from sea level to over 4000 meters, resulting in watershed discharge driven by rain and/or snow and/or glacial melt. Many of the biggest floods occur during “rain-on-snow” events where a shallow early season snowpack melts in conjunction with fall storms driven by “pine-apple express” or “atmospheric river” events. It is expected that climate change will increase the frequency of extreme weather events, as well as change snow pack dynamics, potentially shifting snow dominated watersheds into ones driven primarily by rain. Forest cover can influence the severity of flood events, especially when snowmelt is a factor. It is important to manage harvest levels in watersheds to ensure that snow melt dynamics, specifically during rain-on-snow events, does not increase flood frequency. One way to do this is to monitor stand level hydrological recovery, and set limits on total area harvested, with specific focus on portions of watersheds where forest cover removal may have the biggest potential impact on streamflow. Methods to assess stand level recovery will be discussed and how these metrics can be scaled to the watershed to minimize the impacts on stream flow and downstream values.

(Source: excerpt from agenda package of CWB’s [Cowichan Koksilah Forest Hydrology workshop](#), Nov. 21, 2016)