Regional Analysis Tools for Calculating the Magnitude of Extreme Floods – Speaker Bios

Alyssa Hendricks Dietrich

Senior Hydrometeorologist

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Alyssa is a senior hydrometeorologist with DTN, LLC (formerly MetStat, Inc.). She has a Bachelor of Science degree in Atmospheric Science from Purdue University with a minor in Natural Resources and Environmental Science, and a Master of Science degree in Watershed Science from Colorado State University. Alyssa was the technical lead for the British Columbia Regional Frequency Precipitation Analysis and Probable Maximum Precipitation studies. She has six years of experience as a dam safety meteorologist and has worked on all components of regional precipitation frequency and PMP studies, from detailed storm analyses to developing statistical relationships for mapping of precipitation estimates across the United States and Canada. In addition to extreme precipitation studies, Alyssa supports R statistical programming and GIS development for DTN's Hydrometeorology Professional Services team and is the forensic lead providing expert witness meteorological reports for litigation.

K. Jane Watt, PhD LL.D

Principal

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K. Jane Watt was consultant to NHC on the British Columbia Extreme Flood Project in the role of Senior Historian. Awarded her PhD in English from the University of Alberta in 1997, she is founder of Fenton Street Publishing and is a writer, editor, historian, and book producer. Author of *High Water: Living With the Fraser Floods* (2006), *Surrey: A City of Storie*s (2017), and *the Contemplative Practice of Writing* series (2019/2020), she has worked with a range of clients to capture the diverse history of British Columbia as it is expressed in relationships between people, place, and the regional economies that have shaped settlement patterns, agriculture, and economic development. Forthcoming in fall of 2020 is *We Are Kwantlen*, a book created in collaboration with the Kwantlen First Nation. She is the Past President of the British Columbia Historical Federation, an organization representing 100 non-profits in the history and heritage field, and is the Managing Editor of its flagship magazine, *British Columbia History.*

Piotr Kuraś, PE, PEng, RPF

Principal, Hydrologist

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Piotr Kuraś is a principal at Northwest Hydraulic Consultants Ltd. (NHC), specializing in hydrology. He completed a MASc (hydrology) following on a BSF (forest operations) at the University of British Columbia (UBC), with a portion of his studies spent at the University of Canterbury. Prior to his time at NHC, Piotr worked as a research scientist at UBC establishing the field monitoring program for the Baker Creek watershed study, which was initiated to evaluate the hydrologic impacts of the Mountain Pine Beetle outbreak and subsequent forest harvesting on the watershed's peak flow regime. He previously worked in forest engineering in British Columbia and forest management and fire fighting for the State of California. Piotr is currently registered as a professional engineer in British Columbia and Washington. For the Province of British Columbia's Regional Flood Frequency Analysis project, Piotr was the consultant project lead and manager. He has over 16 years of experience as a hydrologist in field monitoring, hydrologic modelling, statistical analysis, and watershed assessments with these subdisciplines complementing his project studies in water supply, hydropower, and infrastructure design. Piotr's most recent experience is in leading multi-disciplinary floodplain mapping projects.

Joel Trubilowicz, PhD, PEng

Environmental Data Scientist

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Joel has been conducting investigations of water resources and hydrology for more than 10 years in both consulting and academic roles. He focuses on hydrologic and environmental modelling, climate change impacts, data analysis, environmental monitoring and meteorology. He specializes computer programming for environmental data analysis, modelling, and visualization, primarily working in the statistical programming language 'R' where he is on the development team for multiple software packages used by the water resources community. Joel completed a PhD in Hydrology at the University of British Columbia Department of Geography in 2016, where he focused on hydrologic modelling of rain-on-snow and atmospheric rivers in BC's Coast Mountains. For the Province of British Columbia's Regional Flood Frequency Analysis project, Joel led the streamflow data analysis and regional frequency analysis.

Robert McLean, M.Sc, P.E.

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Rob McLean is a senior engineer with the province of British Columbia's Ministry of Forests, Lands, Natural Resource Operations and Rural Development Dam Safety Section. He completed a B.Sc. in Agricultural Engineering at the University of Manitoba, a M.Sc. in Civil Engineering from Queen's University at Kingston, a certificate in groundwater modeling at UNESCO-IHE in Delft, and a certificate in geostatistics from Mines ParisTech in Fontainebleau. He is registered as a professional engineer in British Columbia and Colorado. Rob is the manager of a project to develop baseline information in BC for completing Regional Flood Frequency Analysis, Regional Precipitation Frequency Analysis, and Probable Maximum Precipitation studies in the province. Rob has over 20 years of hydrology, hydrogeology and geotechnical engineering project experience in the mining and water storage industries in Canada and at several international mining projects.