Water Program

Business Strategy

2012 - 2017

April 2012

Theme 2: Data Management and Innovative Support for Long-term Watershed Research



Axel Anderson FRI Water Program Lead

FOREST HYDROLOGY RESEARCH IN CANADA

W. W. JEFFREY

Research Scientist, Canada Department of Forestry, Calgary, Alberta, and Co-ordinator, East Slopes (Alberta) Watershed Research Program

The Walt Jeffrey Project

Axel Anderson FRI Water Program Lead

W. W. Jeffrey

Dr. Walter W. Jeffrey, associate professor of forest hydrology, University of British Columbia, was one of three persons killed on August 14 in a heli-



copter crash on the Liard River at Fort Liard in the North West Territories.

Born in Ayton, Berwickshire, Scotland, in 1933, Dr. Jeffrey obtained a Bachelor of Science degree (Forestry) in 1953 and a Bachelor of Science (Honours) degree in 1954 from the University of Edinburgh. He studied at the Swiss Federal Insti-

tute of Technology, Zurich, Switzerland during 1954-1955. He obtained a Master of Forestry degree from Oregon State University in 1956 and the Doctor of Philosophy degree from Colorado State University in 1968.

Prior to joining the U. B. C. Faculty of Forestry in 1966, Walt spent several years as a Research Officer and Research Scientist in the Forest Research Branch of the Canada Department of Forestry in Ottawa, Ontario, and Calgary, Alberta. In 1962 he was appointed Co-ordinator, East Slopes (Alberta) Watershed Research Program and in 1965 was appointed Section Head, Watershed Management and Tree Biology Research for Alberta, the North West Territories and the Yukon Region.

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December 1969 The Forestry Chronicle 49

Data and Knowledge Paradigm

- How does data support development of knowledge?
- What data are worth preserving and sharing?
- What has value?



Surface water quality data

Alberta Environment tests the water quality of surface waters, rivers, streams, lakes, wetlands - across the province. All water quality data is available through a Water Database System.

Data disclaimer: Before utilizing any of these reports, please read the attached disclaimer.

Inventory of Sampling Locations and Water Quality Data

The Inventory of Sampling Locations and Water Quality Data report provides surface water quality sampling locations (stations), number of samples collected (sample count), sample count for four parameter groups (inorganics, trace metals, pesticides, organics), and the date ranges of sample collection.

Lake Water Quality Data

The Lake Water Quality Data report provides data for the lake selected. The report can be viewed in two ways:

- Detailed Data option: provides all the data over the period of record, for several commonly requested water quality variables. The data are provided in table format.
- Average Annual Trophic Data option: provides annual
 averages over the period of record, for three variables that
 are commonly associated with a lake's productivity or
 trophic state: total phosphorus, chlorophyll-a, and Secchi
 disk visibility. The annual averages are provided in table
 or graph format.

Trophic State of Alberta Lakes

The Trophic State of Alberta Lakes report summarizes average yearly values (concentrations) for all years of data for Alberta lakes. The variables summarized are three indicators of a lake's productivity or fertility: total phosphorus, chlorophyll-a and Secchi depth.

River Network Station Water Quality Data

The River Network Station Water Quality Data report provides data for Long-Term River Network monitoring stations in Alberta. The report provides data in two ways:

 Data download: common water quality variables for one or more stations. The data are provided in table format.

Data used to produce these reports are refreshed frequently from the surface water operational database (WDS). Data will not appear in these reports until they have fully passed the AENV validation process.

These reports are designed for on-screen viewing. Data reports can be downloaded to a comma delimited text file (.csv) and most graphs can be exported to an Acrobat file (.pdf). Reports are best viewed using Internet Explorer browser. Printer-friendly versions are not available at this time.

For further information on how to run these reports, send your questions to AENV-Web.SWQ@gov.ab.ca

If you require data not included in these reports, please contact swq.requests@gov.ab.ca.



Theme Objectives

- Determine if data management systems can be designed to archive watershed research data while still respecting unique privacy issues and at the same time foster researcher collaboration and preserve research investment.
- Determine the location and research value of historical datasets.
- Determine if the potential research value can be captured by archiving datasets with the intent of making them accessible for future research projects.
- Explore the history of forest hydrology research in the Province of Alberta and determine what how it relates to current and planned future initiatives.
- Determine if the coverage of long-term research sites is adequate to address potential future needs of the FRI partnership.
- Determine if the researcher and practitioner capacity is adequate to support long-term research sites and to respond to changing knowledge needs.

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Long-term watershed monitoring - From science to water management II

Session Coordinator: Sarah Boon

Session Chairs: Sarah Boon & Rita Winkler

HW11B - Friday June 8, 2012 - 13:30 to 15:00 - Room: KC 305

One hillslope does not a watershed make: An analysis of throughflow thresholds across 30 hillslopes for 6 years

K. Jencso, B. McGlynn & L.Marshall

Using long term agricultural runoff water quantity and quality monitoring data in the initial assessment of more recent installations

J. A. Elliott, D. A. A. Gallen, J. A. Vanrobaeys & J. Yarotski

Sensitivity of Yukon hydrologic response to climate warming: A case study for community and sectoral climate change adaptation

J. R. Janowicz

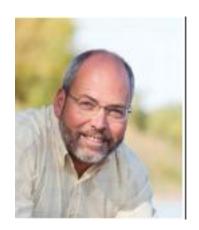
Not losing the investment: Can we archive data and foster collaboration between watershed researchers?

S. Ouellet, A. Anderson & M. Scarth













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