

# Runoff

*The newsletter of the BC Branch of the Canadian Water Resources Association*

**February 2007 Edition**



**CWRA ACRH**  
Canadian  
Water  
Resources  
Association      Association  
Canadienne  
des Ressources  
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## CWRA BC Branch 2006/2007

### **Executive Positions**

- President - John van der Eerden
- Vice-President - Peter Morgan
- Vice-President - Ed Quilty
- Past President - Paul Whitfield
- Secretary - Kristi McKay
- Treasurer - Stefan Joyce
- Communications - Peter McCann
- Finance Chair - Murray Kroeker

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#### **Geomorphology**

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Mike Miles, co-chair

#### **Student and Young Professionals**

Cindy Starzyk, chair

#### **SAAM**

Ed Quilty, chair  
Dennis Einarson, chair

#### **Project Wet**

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Ahmed Mtiraoui, newsletter  
Shafiq Islam

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Dave Murray  
John van der Eerden  
Paul Whitfield

### **Regional At Large Representatives**

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Dave Murray, Member at Large - Victoria  
Rita Winkler, Member at Large - Kamloops

## Table of Contents

CWRA BC Branch 2006/2007	2
Words from the Editor	4
BC Branch President's Report	5
2006 BC Branch Conference Summary	6
CWRA Awards Presented at 2006 Conference	7
BC Branch Sub-Committees	8
Revenge of the Chilliwack River	12
CWRA Memorial Scholarship	14
CWRA BC Branch Newsletter – Runoff Advertising Opportunities	15
CWRA BC Branch Newsletter – Runoff Call for Article Submissions	17
Job Opportunities	18

## Words from the Editor

By Ahmed Mtiraoui

**R**unoff is a publication of the BC Branch of the Canadian Water Resources Association. It is a scientific and educational newsletter established to encourage and foster interdisciplinary communication among persons of diverse backgrounds working on any aspect of water resources disciplines. Announcements or articles are welcomed for the February, June and October editions of the newsletter. Individuals interested in water resources are encouraged to participate in the activities of the CWRA BC Branch newsletter.

The CWRA British Columbia Branch plays a vital role in Canadian water resources management. In addition to holding conferences, the BC CWRA has distinguished itself by making its view known, in a variety of ways, to governmental agencies responsible for water. A water issues workshop was held by the BC CWRA to solicit views on future governmental water management strategies from diverse participants representing government, industry, academia and non-governmental

organizations. This approach was also followed on a national level for the CWRA report recommending future directions for water monitoring in Canada. I would encourage each of you to contribute to our activities as we get much more in return that we invest.

As a reminder, sponsorship of individual newsletters has been replaced by advertising opportunities ranging from professional card sized ads to three-paged project profiles.

The Branch Communication Sub-Committee is responsible for the publication of Runoff and is always looking for input from all members. If you are interested in helping out on the communication front or if you have any suggestions for the newsletter, please contact Ahmed Mtiraoui at [mtiraoui@interchange.ubc.ca](mailto:mtiraoui@interchange.ubc.ca)

◆

### An Important Message About Membership

If you have not registered yet for 2006-2007, but would like to ensure that you continue to receive this newsletter and other benefits of membership, please complete and mail the membership form.

If you would like to have your name removed from our mailing list or a correction made to your mailing label, please respond to CWRA's regular e-mail announcements (with a short note detailing your request).

## BC Branch President's Report

By John van der Eerden



After a brief hiatus following our successful 2006 Branch Conference, the BC CWRA Board is actively pursuing a number of activities. Notably, several of these initiatives involve expanding our linkages with other organizations and expanding our fields of practice.

For example, we are in the early stages of planning a seminar on the Hydrologic Impacts of the Mountain Pine Beetle Infestation in British Columbia. This event is being organized with input from the Ministry of Forests, Forrex and the CWRA and is expected to be held in Kelowna in early July.

Drinking Water Protection is a hot topic in BC as noted by several upcoming seminars and courses being offered on the topic in the near future. Not to be outdone, the BC CWRA plans to host a joint APEG-BC/CWRA - Source Water Protection seminar. This seminar will focus on issues of direct relevance to BC. These include watershed management issues such as agricultural and forestry activities in our watersheds and the need for source water protection. The seminar will delve into regulatory and non-regulatory tools and research.

The CWRA is also in talks with

the American Water Resources Association (AWRA) with the intent of co-hosting a seminar in Vancouver or Victoria in the near future and possibly a joint conference at a later date.

We are also participating with the Cooperative Committee of Water Associations (CCWA) and the Sustainable Infrastructure Society (SIS). The CCWA is an umbrella organization sponsored by the Ministry of Health. Its primary purpose is to create and foster linkage between organizations that are involved in Small Water Supply Systems. The mandate of the SIS includes the development and application of technology and resources for building the managerial, financial and operational capacity of community water suppliers in BC.

Our Working Groups are also involved in organizing various activities. Details of these initiatives

can be found in the Working Group reports contained in the following pages.

Further expanding the focus of the BC CWRA, we are having a kick-off meeting for the newly formed Biology Group. This group is being formed in recognition of the interaction of fish and wildlife and water resources activities. The Notice of this Inaugural Meeting is contained in this issue of RUNOFF.

Also, please watch for a similar notices in the near future to kick-off our inaugural meetings of the Floodplain Management and Coastal Groups.

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## 2006 BC Branch Conference

# WATER UNDER PRESSURE: BALANCING VALUES, DEMANDS AND EXTREMES

*CWRA B.C. Branch Conference  
October 25, 26, 27, 2006  
Renaissance Vancouver Hotel Harbourside  
Vancouver, BC, Canada*

The BC Branch recently held their provincial conference in Vancouver in late October 2006. The conference theme “Water Under Pressure: Balancing Values, Demands and Extremes” focussed on increasing demands on the water resource as the province rapidly develops in a period of strong economic growth. Over 160 delegates attended, with 67 technical presentations and addresses being delivered over the 3 days of the conference.

The opening keynote address was given by James Mattson, Assistant Deputy Minister for Water Stewardship for the Ministry of Environment. Other keynote speakers included:

Albert van Roodselaar, Ph.D., P.Eng. Division Manager, GVRD

Jack Hull, MBA, P.Eng., General Manager Water, CRD

Richard Hebda, Ph.D., Curator, Royal BC Museum

This was the first provincial conference where the subcommittees took on an organizing role. The Subcommittee on Automated Aquatic Monitoring (SAAM) and

the Geomorphology Subcommittee each were responsible for organizing and presenting several sessions at the conference. SAAM organized a series of technical presentations by hardware and software suppliers, providing opportunity for some hands on experience.

The Geomorphology Subcommittee also presented some excellent speakers. Peter Klingeman (Oregon State University) and Mike Church (UBC) spoke on the importance of physical processes in applied geomorphology, river engineering and channel restoration.

The Student and Young Professionals subcommittee was also involved; they took part by organizing a Careers Event on the Friday afternoon enabling their members to meet and discuss career opportunities with several professionals in the field.

The banquet was well attended, and Dr. John Nightingale, President of the Vancouver Aquarium, gave an excellent overview of climate change on a global scale and some of the maritime research being undertaken by the Aquarium.

The conference wrapped with a tour

of the Seymour-Capilano Drinking Water Filtration Plant and the Seymour Dam Seismic Upgrade project.

Four common themes arose from the papers and the presentations. These included:

- The need for long data sets to support research and design
- The value of information technology for data collection and processing
- The importance of using the most appropriate analytical tools for the problem at hand and
- The need to understand and focus on the physical processes at work

There was extensive dialogue between researchers, policy makers and practitioners, which bodes well for the future of the profession.

I sincerely thank the conference committee for their hard work, and the sponsors, exhibitors, delegates and volunteers who made the conference a success.

Peter Morgan  
Conference Chair

## CWRA Awards Presented at the Conference in October 2006

### **The CWRA BC Service Award**

The Service Award is for an outstanding contribution to the CWRA either Provincially or Nationally by a BC member. Such a contribution will normally include service in an elected or appointed position in support of seminars, conferences, publications or promotion of the CWRA.

This year's award went to Dave Murray, P.Eng. Dave was first elected as a BC Director in 1997, became Secretary in 1998, Vice President and a national director in 2000 and the BC Branch president in 2001. In addition to these executive positions he has participated in various CWRA activities, such as panel discussions, seminars, conference organizing committees and the communications committee. He has shown particular interest in issues such as Water Use Plans, streambank protection, and the Drinking Water Protection Act amongst others. Dave works for Kerr Wood Leidal in Victoria.

### **The CWRA BC Professional Award**

The Professional Award is for an outstanding contribution in

the field of water resources in BC. This does not have to go to a CWRA member. Such a contribution can be through teaching, research, leadership in water resources management through government, an NGO or individually.

This award went to Lynne Campo of Environment Canada. Many water resource professionals have dealt with Lynne since 1970, when she started her career with the Inland

Waters Branch in Vancouver, but few have actually met her. She has seen many changes in the technology used to gather and disseminate water resources data and has long been an efficient and authoritative source of this data and related information. Part of her responsibility is quality management before publication to ensure the high standard of data we have come to expect from the Water Survey of Canada. Fortunately Lynne is not retiring for a while yet. ♦



CWRA – BC Award Recipients 2006, Dave Murray (left), Lynne Campo (right) with Adrian Chantler (Chair of the Awards Committee)

## BC Branch Sub-Committees and Working Groups

Over the past two years we have been taking actions to provide more opportunities for active participation of all our members. We see active participation in all our seminars and conferences, frequently with great enthusiasm. However, there are often gaps in time where our members do not feel actively engaged. Modeled on the national structure that sponsors CSHS and CANCID, the BC CWRA has recently developed a series of sub-committees that focus on areas of interest and direct relevance to our members. These subcommittees are intended to increase the opportunities for all CWRA members to become involved and actively participate in an area of interest to you. As well, we welcome suggestions on the formation of additional subcommittees. We encourage each of you to become involved in a group that interests you.

The guidelines we are using is that a new group can be formed provided it has at least 10 CWRA members, has Terms of Reference that include meeting on a “regular” basis, and contributes to the existing

programs of the Branch through offering workshops, seminars or field trips open to all. They may also be involved in organizing conference sessions. We are looking for interest to form three more working groups: Biology, Coastal Waters and Flood-

plain management. If interested in Coastal Waters, please contact Edwin Wang at 604- 875-6391. For the others, please contact John van der Eerden at 604-293-1411.



### Current subcommittees include the following:

<b>Automated Aquatic Monitoring</b>	Ed Quilty <ed@AquaticInformation.com>
<b>Communications</b>	Peter McCann <Peter.McCann@bchydro.bc.ca>
<b>Hydrology</b>	Graham Lang <graham.lang@bchydro.com>
<b>Geomorphology</b>	Channa Pelpola <channa.pelpola@jacqueswhitford.com>
<b>Project Wet (Water Education)</b>	Paul Whitfield <paul.whitfield@ec.gc.ca>
<b>Student Chapter (BC Chapter of the CSHS)</b>	Cindy Starzyk <cstarzyk@eos.ubc.ca>
<b>Awards</b>	Paul Whitfield <paul.whitfield@ec.gc.ca>

## Automated Aquatic Monitoring Sub-Committee (SAAM)

By Ed Quilty

ed@aquaticinformatics.com



The SAAM committee enters 2007 with some great momentum. The SAAM Technical Sessions at the CWRA BC Branch Conference in October 2006 were an immense success by all accounts. A diverse and impressive list of experts in automated aquatic monitoring from across Canada and the Pacific Northwest presented on emerging technologies in diverse areas such as water quality and quantity sensors, freshwater and marine water quality monitoring networks, hydrometric networks, field methodologies, data collection and analysis standards and tools, and rating curves. We learned from interesting case studies that covered everything from the Alberta tar sands to Amazon headwaters. Special thanks to Stephen Albinati, Giselle Bouchard, Scott Stuart, Craig Nistor, Dennis Einarson, Frank van der Have, Kym Keogh, Mark Johnson, Richard Wagner, and Shawn Ternan for all of their hard work in pulling the workshop together.

Looking ahead at 2007, SAAM will be stepping up its efforts in the area of provincial, national, and international standards assessment and development. In particular, SAAM will be evaluating the new

BC standards for “Continuous Water Quality Sampling Programs: Operating Procedures” and will be working towards a goal of developing a discussion paper on standards for management and assessment of continuous water quality data.

### About SAAM:

SAAM committee members include a cross section from the water industry, including hydrologists, biologists, water resource engineers, government and academic researchers, sensor manufacturers, and software developers. SAAM’s goals are:

- to develop an open discussion forum for sharing of ideas and information on emerging technologies in the field of automated water monitoring;
- to disseminate research and practical case studies in the field of automated water monitoring;
- to provide leadership in areas relating to data management and assessment issues, including comparing and resolving regional, national, and international standards for data collection, management, and analysis;
- to promote and educate on the

field of automated water monitoring.

With these goals in mind, SAAM develops and hosts workshops and training seminars and also contributes interesting case studies, technology advances, and industry news to issues of Runoff.

The next SAAM meeting will be held in Vancouver on Wednesday February 28, 2007. For more information contact Ed Quilty at 604-873-2782 or ed@aquaticinformatics.com. ♦

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## Geomorphology Sub-Committee

By Channa Pelpola

channa.pelpola@jacqueswhitford.com



### MISSION STATEMENT

***Our mission is to advance the science and standards of practice of geomorphology through an interdisciplinary approach.***

Our group will:

- promote geomorphology as a discipline and encourage the use of geomorphology in scientific and engineering projects;
- facilitate discussion and exchange of ideas between geomorphology professionals in the CWRA including scientists, engineers, and academia;
- provide a forum within the CWRA to present geomorphology applications, solutions, and lessons learned; and,
- create opportunities for professional development and technical information sharing through conferences and workshops.

As part of the Canadian Water Resources Association (CWRA) BC Branch 2006 Conference themed “Water Under Pressure: Balancing Values, Demands and Extremes”, a day and a half of geomorphology themed presentations which presented, organized by the CWRA Geomorphology Sub-Commit-

tee. The geomorphology technical presentations were book-ended by keynote addresses. To start the sessions, Dr. Peter Klingeman gave a presentation entitled “Rivers Under Threat” which explored the effect of human development on fluvial geomorphology and vice versa and encouraged a shift in thinking from traditional riverbank erosion protection practices to approaches which included active preservation of rivers and their floodplains. The sessions ended with a presentation by Dr. Mike Church who explored gravel management issues and also touched on the need to manage rivers in a way which included the floodplain and allowed for sustained natural channel development through natural river processes in order to maintain habitat function and flow capacity. In between, the technical sessions explored facets of riparian vegetation controls on river stability, gravel and sediment supply management, regime-based modelling of stream stability

and the effect of human development on rivers. The talks also included presentations on lake shore erosion management and the development of tidally-influenced channels.

The Geomorphology Sub-Committee of the CWRA looks forward to their next endeavour: a proposed 2-day field workshop on fluvial geomorphology at Carnation Creek on Vancouver Island, designed to demonstrate the latest science and standards of practice of geomorphology. Dates, program and registration information will be forthcoming.

Those interested in becoming a member of the Geomorphology subcommittee are asked to contact Channa Pelpola (604.412.2971). ♦



## Hydrology Sub-Committee

By David Hutchinson

The CSHS and CWRA (Quebec Branch) are co-hosting a workshop titled “Low flows – Predictions in Ungauged Basins” in Quebec City, April 12-13, 2007. This workshop will provide participants with latest information on low flow practice and research, especially as it pertains to predictions at ungauged locations. For more information on the workshop and registration, please go to the CWRA website ([http://www.cwra.org/About\\_CWRA/CWRA\\_Branches/Quebec/quebec.html](http://www.cwra.org/About_CWRA/CWRA_Branches/Quebec/quebec.html)).

UBC, SFU, and Environment Canada will be hosting a one-day workshop titled “Climate change and low flows: influence of glaciers and groundwater” at the SFU Downtown Campus on March 12, 2007. The workshop will present recent research results examining the effects of climatic variability and change on late summer streamflow, especially

in relation to glacier mass balance and glacier advance/retreat. While the event is by invitation-only, there are approximately 10 spaces available for CSHS members to attend. CSHS members who manage water resources in glacierized basins are particularly encouraged to attend. Please contact David Hutchinson ([david.hutchinson@ec.gc.ca](mailto:david.hutchinson@ec.gc.ca)) as soon as possible to confirm attendance. ♦

## Student and Young Professionals Sub-Committee

By Cindy Starzyk

### **CWRA SYP Mentorship Program**

The idea for a mentorship program was born out of a brainstorming session between SYP & CWRA members at the 2005 CWRA Annual Conference. A mentorship committee was struck and now we are extremely pleased to present the mentorship program to you!

### **What is the mentorship program?**

The purpose of the CWRA SYP mentoring program is to promote the management of Canada's water resources by strengthening the professional capacity of students & young professionals through meaningful mentorship opportunities & relationships. While mutually ben-

efiting students, young professionals & CWRA professionals, this program will foster a larger professional water community.

### **Why should you want a mentor relationship?**

Benefits for mentors:

- Develop relationships with new talent.
- Share valuable knowledge gained as a result of experience.
- Develop coaching, communication, & leadership skills.
- Motivate & support a person to raise his/her level of professional attainment.
- Gain personal satisfaction through contributing to the CWRA.

Benefits for mentees:

- Establish professional networks.
- Understand professional workplace culture.
- Improve professional knowledge.
- Master self-marketing techniques & build confidence.
- Identify & seize employment or job training placement opportunities.
- Continue the learning process.

### **How do you get involved?**

The mentor program has a National Program Coordinator, Farah El Ayoubi, ([farah.elayoubi@gmail.com](mailto:farah.elayoubi@gmail.com)) who will facilitate starting a mentoring relationship. Please visit the CWRA website for more info: [www.cwra.org](http://www.cwra.org). ♦

## Revenge of the Chilliwack River

*Adrian Chantler, P. Eng.*

*Hay & Company Consultants*

In November 2006 residents of the Chilliwack River valley in the Lower Mainland of BC experienced the latest in a series of devastating floods that left damaged homes, uprooted trees, mud, dead fish and angry, evacuated residents in its wake. There have been several such floods, including one in 1990, when four houses were destroyed.

According to the Provincial River Forecast Centre, the Chilliwack River area received 107 mm of rain in 12 hours and 153 mm in 24 hours during a 'pineapple express' over the November 5/6 period. The total rainfall over the five-day storm period was 328 mm at the Chilliwack River snow pillow. There was no snow on the ground; this was a rain-generated flood. The flood, which has been estimated to have a return period in the 20 to 30-year range, reached a peak discharge of about 1040 cubic metres per second, according to the gauge at Vedder Crossing. Comparable floods occurred in 1984, 1989, 1990, 1995 and 2003, but the only gauged peak flow in these years was 1150 cu m/s in 2003. The most recent estimate of the 200-year design flood is 1470 cu m/s. Unfortunately, peak flows derived from records at the Vedder

Crossing gauge are questionable, as the gauge is known to have problems with gravel deposition and a constantly changing rating curve. To compound the hydrological uncertainty, the hydrometric gauges 'Chilliwack River above Slesse Creek' and 'Slesse Creek near Vedder Crossing' were not operational during the flood, neither was the 'Coquihalla River above Alexander Creek' gauge.

The Fraser Valley Regional District and the Province have long recognized the Chilliwack as a wild river and have undertaken many studies and piecemeal upgrades of the flood and erosion protection works. The Regional District had initiated a study in the summer of 2006 to develop options for upgrading the dyke in the Wilson Road area, the location worst hit by the November 6 flood. The report was in preparation when the river overtopped a low section of dyke, constructed during the similar emergency in October 2003, and eroded half the width of an older dyke, threatening a house on the other side (see Photo 1). After the flood struck, Hay & Company was requested to provide a design for immediate construction of an upgraded dyke, and to provide

on-site services to implement the emergency repairs, which would later be incorporated into the longer term solution. A survey company was engaged by the Province to collect elevations of high water marks for use in future water surface profile modelling exercises. Water levels in the Wilson Road area noted during the November 2006 flood were close to those estimated in 1981 for a 200-year flood. This is mainly because the 200-year flood was much lower at that time (790 cu m/s) and may also be partly due to superelevation of the water surface at the outside of a bend and a result of gravel deposition in the river. The need for reliable hydrometric data and updated floodplain mapping has once again been clearly demonstrated in the context of this flood.

As a state of emergency had been declared by the Province, Provincial Emergency Program funding became available and no permits were required for construction of the work.

This flood and subsequent construction work attracted a lot of media attention, not hindered by the fact that Barry Penner, the BC Minister of Environment and John Les, the BC Minister of Public Safety and

Solicitor General are both Chilliwack MLAs. Both Ministers took a keen interest in the construction.

As the dyke was constructed during emergency conditions, during which the river could rise again at any time and potentially remove fill material placed for dyke construction, an unconventional construction sequence was adopted. This consisted of first placing a triangular cross section of heavy riprap for erosion protection on top of the existing dyke. A filter layer was then placed on the back face of the riprap and finally impermeable fill was placed on the landward side of this, to form the remainder of the dyke. In this way, the integrity of the work was protected at all times, at the cost of placement of more rock than would otherwise have been required. A layer of 1.2 m rock was placed underwater at the toe of the existing dyke and four rock spurs were constructed to supplement four that had been constructed in 2003. These proved to be effective in deflecting some of the high velocity flow away from the bank. Suitably sized material was placed on the riverside slope also.

The contractor, Emil Anderson Maintenance, did an expeditious

job, placing about 14,000 cubic metres of material in 12 days. At the peak of activity, nineteen trucks, three excavators and a bulldozer were in operation. Assistance provided on and off site by the Ministry of Environment and the Fraser Valley Regional District is gratefully acknowledged.

For those interested in reading some anecdotal accounts of various Chilliwack floods, the Chilliwack River Valley Historical Society has just published 'In the Arms of the Mountains, a History of the Chilliwack River Valley'. Copies can be purchased from the Fraser Valley Regional District. While primarily

a social history of the valley, it includes a chapter describing recent major flood events up to the 2003 event. The November 2006 flood, the lack of adequate hydrometric data for analysis and design, and the ongoing political debate on how the flood protection works should be improved further and who will look after them, are worthy of another chapter.



*The Chilliwack River looking downstream towards Wilson Road, approximately 24 hours after the flood peaked (photo courtesy of the Ministry of Environment)*



## CWRA Memorial Scholarship

**Y**aroslav Shumuk was a highly skilled water resources engineer specializing in hydrology, hydraulic modelling, river engineering and river morphology. He worked on major water resources project with all levels of government, the mining industry, and the forest industry. Over his career he was involved in projects for all the major rivers in British Columbia including the Fraser, Columbia, Thompson, Peace, Stikine and Skeena. Yaroslav passed away on 7th January, 2006 after a year long battle with brain cancer. He is remembered by his friends, colleagues, his wife, Ann, and children, Larissa, Keira and Daniel.

As a tribute to his dedication to water resources in British Co-

lumbia and to continue his legacy of mentorship to young professionals, donations are being made to the CWRA Memorial Scholarship in his name. This scholarship is managed by the CWRA and is awarded annually to a student studying water resources at a Canadian University.



If you wish to contribute to the scholarship donation, please send a cheque made payable to the Canadian Water Resources Association.

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Please note on the cheque "CWRA Memorial Scholarship – Yaroslav Shumuk". CWRA will issue tax receipts for donations greater than \$10.



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## CWRA BC Branch Newsletter – Runoff Advertising Opportunities

**R**unoff is our digital newsletter with circulation to over 1000 Branch members, affiliates and friends via email. It is also posted on the CWRA website for public viewing. The branch plans to publish Runoff three times yearly in February, June and October.

Runoff offers two advertising opportunities:

- General Advertisement: Quarter page and business card size spaces

are available.

- Project Profile: An article highlighting a project involving your company or organization. Your corporate logo can be clearly visible on this page and the profile will be clearly acknowledged as a paid advertisement.

Total advertisement space allocated within Runoff is limited to 2 letter-sized pages plus one project profile per issue. The space is allocated on

a first come first serve basis. The CWRA reserves the right to refuse any advertisement or project profile that we believe is inappropriate for the newsletter.

All submission and enquiries should be directed to the Runoff Editor listed below: Enquiries and advertisement submissions: Ahmed Mtiraoui. at [mtiraoui@interchange.ubc.ca](mailto:mtiraoui@interchange.ubc.ca).

### Advertising Rates for 2006

	Size	Rate*
Project Profile	3 pages (including all graphics)	\$ 400
1/4 page	3 3/8" w x 4 7/8" h	\$ 150
Professional card	3 1/2" w x 2" h	\$ 75

Your advertisement must be submitted electronically by the deadline for each issue. Submission deadline are:

Issue Date	Submission Deadline
June	May 20th
October	September 20th

### Requirements for the advertisement

- Your advertisement must be provided in one of the following formats: JPEG, TIFF, or BITMAP.

\* (GST extra)

## Requirements for project profile

The criteria for the project profiles are:

- *Topic must be of interest to CWRA members.*
- *The profile must be informative about water resources issues and may be technical in nature.*
- *The author is personally re-*

*sponsible for the accuracy of the article.*

The profile must be submitted to the editor electronically (in both MS Word and PDF file formats) and should include a brief biography of the author(s) and contact information. Note that the biography will not be published.

The profile should be typed in Times New Roman 11 pt and single

spaced. Articles must be less than 1000 words and may include photos or other graphics. The profile including all graphics cannot exceed 3 lettersized pages. All graphics must be captioned and sources should be cited for any photographs. Runoff reserves the right to edit with respect to length, clarity and conformity with the editorial guidelines.



## Upcoming Events

### Inaugural Meeting of the BC CWRA Biology Group

You are invited to attend the Inaugural Meeting of the BC CWRA Biology Group. This meeting is intended to introduce the CWRA and discuss the roles, responsibilities and opportunities of this newly formed group within the CWRA.

Date: February 6th, 2007  
Time: 4:00 p.m. (Lobby is locked after 4:00 so please be on time)  
Location: Environment Canada  
#201 - 401 Burrard St. Vancouver.

For more information, contact John van der Eerden at <[vandereerdenj@ae.ca](mailto:vandereerdenj@ae.ca)>

February 5-8, 2007

**River Restoration Northwest 2007 Symposium**  
Stevenson, Washington

June 25-28, 2007

"Science and Technology: Implications for Water Management"  
**60th Annual CWRA National Conference**  
Saskatoon, Saskatchewan

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## CWRA BC Branch Newsletter – Runoff

### Call for article submissions

**R**unoff is our digital newsletter with circulation to over 1000 Branch members, affiliates and friends via email. It is also posted on the CWRA website for public viewing. The branch plans to publish Runoff three times yearly in February, June and October.

We welcome the submission of water resources related articles for our feature articles. A feature article is different from a project profile in that no company name or logo should be highlighted in the feature article. The writer and his/her company are acknowledged as the author. In a project profile, both the company name and the logo may be clearly visible.

For each Runoff issue, we will select 2 to 4 articles to publish. If your article is selected, a free business card sized advertisement space for you or your company will be provided in appreciation. The articles are selected based on our expected interest to our members. If the topic is not time sensitive and we receive more than 4 suitable articles, we may (with your permission) publish the article in a later issue.

Other requirements for the feature article include the following:

- The article should reflect current issues or changes in water resources in BC.
- Topic must be of interest to our members.
- The article must be informative about water resources issues and may be technical in nature, but the article must not promote a company or a product.
- The author is personally responsible for the accuracy of the article.

Articles must be submitted to the editor electronically (in both MS

Word and PDF file formats) and should include a brief biography of the author(s) and contact information. Note that the biography will not be published. The article should be typed in Times New Roman 11 pt and single spaced. Articles must be less than 1000 words and may include photos or other graphics. The article including all graphics cannot exceed 3 letter sized pages. All graphics must be captioned and sources should be cited for any photographs. Runoff reserves the right to edit with respect to length, clarity and conformity with the editorial guidelines.



Your article must be provided to the editor electronically by the submission deadline for each issue. Submission deadlines are:

<b>Issue Date</b>	<b>Submission Deadline</b>
February	January 15th
June	May 15th
October	September 15th

All submissions and enquiries should be directed to the Runoff editors. Enquiries and advertisement Submission: Ahmed Mtiraoui at [mtiraoui@interchange.ubc.ca](mailto:mtiraoui@interchange.ubc.ca)



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Historically water professionals were obliged to use MS Excel or cumbersome scripting language-based packages to deal with large, unmanageable datasets. Aquatic Informatics™ Inc. developed AQUARIUS to maximize productivity while working with large time-series datasets. AQUARIUS also enables users to perform powerful analysis that has simply not been possible until now.

#### Aquatic Informatics is seeking a product specialist with the following skills:

##### Deal Breakers:

- ▶ Exceptional verbal communication skills
- ▶ Degree in Hydrology, Geophysics, Climatology, Statistics, or Environmental Science
- ▶ High energy and willingness to learn
- ▶ Passionate about delivering high quality client solutions
- ▶ Consider yourself a "people person"

##### Assets:

- ▶ Experience in software technical sales or support
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- ▶ Enjoy the hip Yaletown environment and would thrive in a trendy rough-edge converted warehouse office.

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