



## Groundwater Licensing in BC

*By Douglas Geller, M.Sc., P.Geo., Western Water Associates Ltd., Vernon, B.C.  
and Ryan Rhodes, B.Sc., P.Geo. Western Water Associates Ltd. & Okanagan Director of B.C.  
Groundwater Association*

In 2009, the BC government released its *Living Water Smart* strategy. This was followed by the Water Act Modernization process that included a considerable amount of consultation, leading up to a proposed policy to develop a new *Water Sustainability Act* to replace the *BC Water Act*. *Living Water Smart* intended to regulate large groundwater uses, and groundwater use in priority regions by 2012. As with many processes involving legislating significant change, it has taken longer than expected and it may be a few more years before the new act is passed and implemented. Let's review where things stand now.

As indicated on the government's *Living Water Smart* webpage, the four goals of Water Act Modernization are to protect stream health and aquatic environments, improve water governance arrangements, introduce more flexibility and efficiency in the water allocation system, and regulate groundwater use in priority areas and for large withdrawals.

As hydrogeologists and groundwater practitioners, we'll take some time here to discuss the fourth goal having to do with groundwater regulation, starting with a discussion of the current situation. We have been following this process for many years with great interest, especially since we live and work in the Okanagan Valley – one of the groundwater hot spots in the province where there has been talk of regulating groundwater use for many years.

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## Message From The Editor

It has been four years since I took on the role of BC Page, Editor and it is with excitement and sadness that I now pass the torch on to two new individuals that will lead the BC Page and editorial team into the future.

Editing the Page has been an enjoyable experience, I have gotten to know individuals from across the province and throughout our profession, I have had the chance to grow myself with this work and knowledge and I've gotten to feel like I am contributing to our profession in my own way. Thus, closing the chapter on this piece of my work brings me some sadness. However, it is always good to have fresh eyes and energies put into teams and projects and I know our new editors will bring their own special form of newness and creativity. I, too, go on to exciting things as, personally, my husband and I expect our second child (hopefully she is here by the time you receive this edition!). So, it is also with excitement that I write this, my final editorial.

As I think back to that first edition, the late nights, the thrill and the frustration, I know that I could not have done all this alone. The editorial

team comprised of Alex Kwan, past editor and associate editors Tim Roark and Isher Deol, were instrumental in helping me get every edition filled with content, edited and finalized for

distribution. Without them, I would have been lost and I am truly thankful.

It has also been my pleasure to work with a number of the BC Branch Presidents and President Elects. Keir, Gary, Crystal and Dale, it has been fun and I thank you for your support and contributions.

So enjoy this, my final edition, and look forward to the upcoming ones, under the new editors, I know I will!



Respectfully,  
Sarah MacDougall,  
Editor

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You can win an early bird registration for the 2014 CIPHI National Conference; or reimbursement for your 2014 membership fee **if you renew before February 28, 2014**

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## BRANCH UPDATE

It has been 4 months since I became the president-elect and as such, this is my first Branch Update. With the end of 2013, CIPHI has now moved on to its second century of promoting and education on what is now referred to as environmental public health. It is widely considered that public health is one of the greatest innovations of the last century and CIPHI has been a fundamental part of that in Canada. It is my hope that we will continue to innovate and grow into the future and continue to be at the forefront of public health.



In early December, the annual CIPHI Christmas Luncheons were held in Vancouver, Victoria and Kelowna. Due to the many changes that we have been experiencing in BC and the challenges that the various programs in the different health authorities face, it was feared that perhaps this year the luncheons would be an overall failure with very poor attendance. However, in Vancouver we had over 90 attendees in perhaps one of the best venues yet. We took the opportunity to acknowledge and recognize our Centennial Awards Recipients as well as retired members who were able to attend. We were also joined by a very large contingent of students. I hope that this is a good sign for the future of our organization and profession as they bring enthusiasm and new ideas.

Members of the executive also took the opportunity to meet face to face to discuss our plans for the coming year as well as expectations and goals. With the departure of many experienced executive members who have made enormous contributions to the BC Branch, there will be a learning curve for the new members on the executive including myself. It is hoped that the success of the Webinar

Education series can be continued in 2014 and there was discussion on how we can formally invite students to participate in CIPHI planning as students' contributions were invaluable in organizing and carrying out events during the past year.

To show support to our members, the BC Branch is once again holding a membership drive. Each member that renews before February 28<sup>th</sup> will be placed into a draw for their choice of a free membership or early bird registration paid for the 2014 National AEC in NFL. Membership fees are the largest source of income for CIPHI. This money is used to cover operational expenses in addition to planning educational opportunities, publishing the BC Page, and maintaining the website. Your contribution is vital in carrying out our advocacy activities such as those that resulted in the CPHI(C) becoming a requirement for EHOs in BC.

For those who may be interested in contributing their time as well, there are still a couple of empty councillor positions on the executive. We seek representation from all the different regions and programs in BC. Please contact Crystal Brown at [president@ciphi.bc.ca](mailto:president@ciphi.bc.ca).

Dale Chen,  
President Elect



# BCIT Environmental Health Program - What's New?

BCIT has conducted an institute-wide admissions review process over the last two years. A new admissions process came into effect as of November 15, 2013. At the Institute level, the postsecondary "English requirement" has been broadened to include courses in the Humanities and Social Sciences. All applications are now submitted online and all supporting documentation has to be submitted electronically. Applicants can be accepted on the basis of midterm grades if final grades are not yet available in the courses required for entry. The Institute developed several models and asked each department to select the model that worked best for that department. As with all new processes, we expect a few bumps in the road at the beginning but in the long run the new admissions process should mean that applicants will be informed of a decision much sooner than in the past.

With respect our specific program, we have streamlined our requirements. We no longer have two entry options (with or without a credential). We now only have one of the two previous options, namely, 60 credits of post-secondary course work. We still require post-secondary English (or equivalent), Biology, Microbiology and Chemistry. Completion of

Biostatistics/Statistics prior to entry is preferred. Six additional science credits are also required; the preferred courses are Organic Chemistry, Biochemistry, Human Anatomy, Human Physiology, Physics and Math but applicants are not limited to these courses. Applicants must also complete 18 credits at the 2<sup>nd</sup>-year level or higher in at least two subject areas. For all entrance requirements, applicants must achieve 67% or higher. Applicants are still required to contact an EHO in advance of applying; they then answer a number of questions which reflect the applicant's knowledge and views of the profession.

With input from our stakeholders our program will continue to evolve in the future. We hope these most recent changes will attract a broader range of applicants who can develop a skill set that stresses communication, education, promotion, mediation and advocacy to meet the needs of employers.

Lorraine Woolsey  
Program Head  
Environmental Health Program  
BCIT  
[lorraine\\_woolsey@bcit.ca](mailto:lorraine_woolsey@bcit.ca)

To view our website including the new entrance requirements and process, please go to:

<http://www.bcit.ca/study/programs/8500dbtech>



# Award Recipients

## National President's Award

Keir Cordner is pictured being awarded the National President's Award by Past President, Gary Tam.

Congratulations Keir!



## BC Branch Member of the Year Award

Glen Embree was selected as the 2013 BC Branch Member of the Year. He is seen here being presented with that award by Past President, Gary Tam.

Congratulations Glen!

# Award Recipients



## BC Branch Alex Nilson Award

Jasmina Egler is seen here being presented with the BC Branch 2013 Alex Nilson Award by Past President, Gary Tam.

**Congratulations Jas!**

## BCIT Bob Herbison Award

Daisuke Serizawa is pictured receiving the Bob Herbison Award as presented by Past President, Gary Tam.

**Congratulations  
Daisuke!**



## News From Fraser Health

As you read in the last issue, there are a number of changes under way in the Environmental Health Program starting with Tim Shum being promoted to Executive Director of Population Health as of October 7th, 2013. We now understand that Oonagh Tyson has been promoted to Director of Environmental Health for an interim period of six months. Congratulations Oonagh. A short time ago Brian Halley, who has been doing a great job in the Tobacco Control Program decided to retire and a fun send-off was held at the health unit for Brian. Originally from the “Rock”, Brian attended Ryerson and subsequently worked as a PHI in Ontario and then

the Williams Lake area for a number of years before moving to Simon Fraser in Coquitlam and then Maple Ridge. Another long-time employee James Wong has just retired and there was a great party for James at the San Remo Restaurant in PoCo on Jan 25<sup>th</sup>. Friends and coworkers from as far as Edmonton (Tony Mack) jammed the place for a wonderful dinner and a great party. We also hear through the grapevine that George Rice, EH Manager for the Abbotsford – Hope area is retiring as well. Our best wishes to Brian, James and George for long and enjoyable retirements.

### BC Branch has a new Webmaster – Elden Chan

Elden is a relatively new member to CIPHI BC Branch, and is completing his final term at BCIT in Environmental Health. As a result of having a broad range of interests, he currently holds a bachelor in microbiology and immunology, certificate in culinary arts, and work experience as a webmaster. He loves challenges, and the investigative nature of troubleshooting things from computers making funny noises, to recipes, to lab experiments gone awry. It seemed only natural that he put his adaptability and broad range of skills into a career in environmental health. Having a passion for technology and helping others, Elden leapt at the chance to take on the role of webmaster when it opened up. He is also passionate about the environmental health profession, and through witnessing the fruition of efforts by CIPHI BC Branch (the official recognition of the C.P.H.I. (C) designation in BC comes to mind), he was certain this was an organization he wanted to support and be part of. Elden believes communication and information are the cornerstones of any organization, and hopes his tenure as webmaster will help the BC Branch reach its membership.



## In Memoriam



**HAYES - Denis September 14, 1936 - December 27, 2013.** The family of Denis Hayes is saddened to announce that he passed away December 27 after a brief illness. Denis is survived by his children Denise (Ed) Sharkey, Marcella (Jason) Sirois and Tony (Val) Hayes, grandchildren Elena, Ailsa, Meghan and Miranda, as well as sister Anne Kavanagh of Cape Breton and brother Andy (Mary) Hayes of Cork City, Ireland.

Denis was born in Mallow, County Cork, Ireland and moved to Canada in 1953 at the age of 17. He quickly joined the Canadian Armed Forces and had a lengthy military career as a medic and public health specialist. He attained the rank of Master Warrant Officer. After leaving the Army in 1982, Denis and family moved to Campbell River where he embarked on a second career as federal Environmental Health Officer. He retired in 2002 after many years of making a positive difference in communities up and down

the coast. Denis always loved Ireland, but he adored Canada. He was passionate about hockey, French Immersion, public health, the Canyonview Trail and protecting the Beaver Lodge Lands. He was devoted to family and to physical fitness and completed more than 40 marathons in his lifetime, including several after the age of 70. He had a huge network of friends from all walks of life and was particularly fond of his many running partners, fellow Sportfit fans and Willows Pub regulars. He supported many good causes, particularly those that helped children and youth in need. He had a positive impact on the world. A memorial mass was held at St. Patrick's Roman Catholic Church on January 4th.

If you were a runner in Campbell River then you would have known Denis Hayes. He had a talent for running. Running fast "ran" in the family. In 1908 his great uncle Johnny Hayes won the gold medal in the marathon at the London Olympics. Denis ran his fastest marathon in two hours and 32 minutes. He was a founding member of the first running club in Campbell River called the River Runners in the mid 1980s. He helped to mentor youth runners in the Comets Track and Field club and was constantly introducing runners to the many great running trails in Campbell River.





# LOOKING BACK AT BCIT 45 YEARS AGO

It was not a given there would be a PHI college based program in BC even though there had been one in Ontario since 1952. However, for some years members of the BC Branch felt it was important for our profession to establish a college based degree program in BC to replace the existing correspondence course.



*BCIT Buildings 1960s*

Executive members worked behind the scenes promoting the idea and then one day their efforts started to pay off. Dr. Cort Mackenzie a highly respected Medical Health Officer was approached by the Branch and agreed to spearhead the establishment of a PHI degree program at UBC. The timing was right as Dr. Mackenzie had recently moved to UBC and was a Professor in the Department of Health Care and Epidemiology. Dr. Mackenzie used his new connections to promote the creation of a degree program at UBC. Although things looked good at first it was not long before it became evident that creating the first undergraduate degree program in Canada for the very small field of "Sanitary Inspectors" was not to be. About this time a lot was being done to promote and expand the BC Institute of Technology. After discussions and encouragement from the BC Branch, Dr. Mackenzie contacted BCIT officials and then worked with BC's health agencies and the BC Branch to establish a two year technical

program at BCIT for PHIs. The program accepted its first class of 23 students in the fall of 1967. Dr. Mackenzie continued to be involved as the UBC representative and Chairman of the BCIT Public Health Technology Advisory Committee for several years after the program was established.

Being a brand new program there were a lot of wrinkles that needed to be worked out while the program was in operation. Bill Rogers, one of the graduates of that first class stated, "The two year program was very heavy and we had to work real hard the whole two years. They threw everything at us but the kitchen sink." He indicated that everyone who stuck with it to the end graduated but many students kept dropping out after each semester. Twenty three started and 8 graduated in the spring of 1969. The relieved and overjoyed graduates were:

- Jim Brookes
- Len Boquski
- John Davidson
- Barry Lawley
- Bill Rogers
- Rita Swakum
- Dave Urquhart
- Roy Wong



*Jacket Crest*



*Jim Brookes*



*Len Boquski*



*John Davidson*



*Barry Lawley*

## LOOKING BACK AT BCIT 45 YEARS AGO continued



**Bill Rogers**



**Rita Swakum**



**Dave Urquhart**



**Roy Wong**

Len Penner, a Public Health Inspector from Manitoba, was the Department Head for the new program.



*Len Penner –  
Dept Head 1967-69*

The members of the BC Branch were very pleased to see all their efforts to create a full time college level program for PHIs finally come true. The BC Branch gave a beer stein adorned with a small blue CIPHI crest and the recipient's name engraved on it to each of the 8 graduates as a hearty congratulation from the BC Branch CIPHI for succeeding.

At the BC Branch Annual General Meeting on May 5, 1977, Dr. Cortlandt Mackenzie was made an Honorary Member of the B.C. Branch of CIPHI in recognition of his efforts to establish a degree program for PHIs at the University of BC; for his assistance in developing and implementing the Public Health Inspection Program at the BC Institute of Technology; and for his continuous support of PHIs. In 2000 Dr. Mackenzie was awarded National Honorary Membership in CIPHI for his many years of strong support for the profession of Public Health Inspection and the Institute.



*CIPHI Mug*

Tim Roark, Branch Historian

*Many thanks to Roy Wong and Bill Rogers for their assistance with pictures and information regarding this subject.*

Keep up to date on the latest news at the BC Branch website:

[www.ciphi.bc.ca](http://www.ciphi.bc.ca)

The page also contains information on membership, conferences, career opportunities, documents and much more. Check it out regularly!

Did you know the BC Branch is on Facebook and Twitter?



Click the icon to go and search BC Branch on Facebook to *Like* the page



Click the icon and *Follow* the Branch on Twitter

# Retirements

## James Wong



*Pictured (top left, clockwise): The happy retiree, the group celebrating James' retirement and James with his wife and son. All the best in your retirement James!*

## Brian Halley



*Pictured (above, clockwise): The group listening to stories as told by MC Ken Shaw, Brian himself recounting a story and Brian, the retiree, opening some gifts. Congratulations on your retirement Brian!*

## Groundwater Licensing in BC continued

From time to time, we've heard some statements to the effect that BC's groundwater resources are unregulated. But this is not really the case, as the following four points demonstrate:

- 1) First of all, to drill a well, one must be licensed (registered) with the government as a Qualified Well Driller. This has been the case for over seven years now.
- 2) In 2005, BC enacted the first phase of groundwater protection regulation that among other things outlined minimum standards for well construction, in addition to the aforementioned licensing of well drillers.
- 3) To develop groundwater for public (community) use, a permit is typically required from the regional health authority (e.g., permit to construct; permit to operate). Such permits may require assessments of water quality, source water protection, and potential risk of pathogens or surface water influence on wells (GWUDI).
- 4) Lastly, large groundwater withdrawals, with average flows in excess of 1,000 imperial gallons per minute (GPM), or 75 litres per second, may require an Environmental Assessment Certificate if the project is deemed reviewable under the *BC Environmental Assessment Act*. The scope and level of detail required for such projects is similar to that required in other jurisdictions that license groundwater extraction.



There are some other examples of ways in which groundwater is regulated in BC – particularly where the groundwater extraction occurs on lands under federal jurisdiction – but the above are the main points. Now let's move on to the aspects of groundwater that are not regulated:

- As most of us in the water industry know, a permit to extract groundwater, such as a license, is not required in BC.
  - There is no regulatory process to manage groundwater development in watersheds that are closed to further surface water licenses, or in areas with already stressed groundwater resources.
  - There is no statutory requirement to submit a well driller's report to document well construction. Many well drillers and well owners voluntarily submit their reports, but a reporting gap likely remains.
  - Monitoring, evaluation and reporting of groundwater use is not required.
- Injecting (recharging) water into an aquifer is mostly unregulated and/or minimum standards do not exist. This includes the following practices:
  - o Storm water disposal
  - o Geoexchange systems
  - o Artificial groundwater recharge/ Aquifer Storage and Recovery (ASR).

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## Groundwater Licensing in BC continued

- Finally, more detailed well construction requirements – as contemplated in the long-awaited *Phase 2 Groundwater Protection Regulation* – have not been implemented.

The proposed policy document at [http://livingwatersmart.ca/water-act/docs/wam\\_wsa-policy-proposal.pdf](http://livingwatersmart.ca/water-act/docs/wam_wsa-policy-proposal.pdf) indicates the pending legislation will address many but not all of the current gaps. Some of the regulatory gaps can be addressed on a project-by-project basis by working with regulatory agencies and stakeholders. The current Aquifer Storage and Recovery project on Vancouver Island (Englishman River Water Service) is a good case in point.



Assuming the legislation moves forward as indicated in the policy document, here is a glimpse of the future:

- Across most of the province, wells with capacities greater than about 50 imperial GPM would be licensed, except wells completed in consolidated bedrock formations, which would be regulated if the pumping rate is greater than about 10 GPM.

- To cover the costs of regulating the groundwater resource, there would be licensing and rental fees put into place.
- There would be a procedure to license or register existing groundwater supply wells.
- The rules might include provisions that address wells installed for investigation and testing purposes, or for long-term dewatering wells.
- Licensing procedures would include terms of reference for hydrogeological studies of appropriate scope and level of detail to allow for defensible impact assessments, including the potential effects of proposed wells for existing groundwater users, surface water license holders and valued ecosystem components. The level of detail required may vary depending on location, i.e., known water-stressed areas would presumably have more stringent assessment requirements.

With the 2013 provincial election nearly upon us, there is little point in speculating about when the new regulations will be legislated and implemented, or what the final set of new rules will look like in detail. It's assuring to know that the province intends to allow for a period of public comment on the actual drafts of the legislation prior to enactment. Regardless of the timing and the process to come, let's hope that all the good work that went into the Water Act Modernization process from both government, industry, and stakeholders leads to a workable set of new regulations that everyone can live with, and that will help foster long-term water sustainability.

*Reprinted with permission from BC Water & Waste Association (Watermark, Spring 2013).*

# Christmas Luncheons

## Vancouver



## Interior



# Christmas Luncheons

## Victoria



## Nanaimo



# BC Branch Executive 2014

[www.ciphi.bc.ca](http://www.ciphi.bc.ca)

<b>President</b>	<b>Crystal Brown</b>	<b>250-719-6533</b>	<a href="mailto:president@ciphi.bc.ca">president@ciphi.bc.ca</a> <a href="mailto:crystal.brown@northernhealth.ca">crystal.brown@northernhealth.ca</a>
<b>President Elect</b>	<b>Dale Chen</b>	<b>250-565-2150</b>	<a href="mailto:dale.chen@northernhealth.ca">dale.chen@northernhealth.ca</a>
<b>Past President</b>	<b>Gary Tam</b>	<b>604-233-3217</b>	<a href="mailto:gary.tam@vch.ca">gary.tam@vch.ca</a>
<b>Treasurer</b>	<b>John Pickles</b>	<b>604-983-6879</b>	<a href="mailto:john.pickles@vch.ca">john.pickles@vch.ca</a>
<b>Recording Secretary</b>	<b>Gordon Moseley</b>	<b>250-549-5725</b>	<a href="mailto:gordon.moseley@interiorhealth.ca">gordon.moseley@interiorhealth.ca</a>
<b>Corresponding Secretary</b>	<b>Vacant</b>		

## Councillors

<b>Greg Baytalan</b>	<b>250-980-5050</b>	<a href="mailto:greg.baytalan@interiorhealth.ca">greg.baytalan@interiorhealth.ca</a>
<b>Virginia Jorgensen</b>	<b>604-675-3913</b>	<a href="mailto:virginia.jorgensen@vch.ca">virginia.jorgensen@vch.ca</a>
<b>Daniel Fong</b>	<b>604-707-2464</b>	<a href="mailto:daniel.fong@bccdc.ca">daniel.fong@bccdc.ca</a>
<b>Paula Tait</b>	<b>250-565-2150</b>	<a href="mailto:paula.tait@northernhealth.ca">paula.tait@northernhealth.ca</a>
<b>Emily Woodrow</b>	<b>250-331-8518</b>	<a href="mailto:emily.woodrow@viha.ca">emily.woodrow@viha.ca</a>
<b>Stacey Sowa</b>	<b>250-737-2022</b>	<a href="mailto:stacey.sowa@viha.ca">stacey.sowa@viha.ca</a>
<b>Jessic Ip</b>	<b>604-675-3803</b>	<a href="mailto:jessica.ip@vch.ca">jessica.ip@vch.ca</a>
<b>Nadia Kyerematen</b>	<b>778-883-4522</b>	<a href="mailto:nadia.kyerematen@vch.ca">nadia.kyerematen@vch.ca</a>

## Branch Appointees

<b>BC Page Editor</b>	<b>Sarah MacDougall</b>	<b>250-263-6049</b>	<a href="mailto:sarah.macdougall@northernhealth.ca">sarah.macdougall@northernhealth.ca</a>
<b>BC Branch Historian</b>	<b>Tim Roark</b>	<b>778-574-1188</b>	<a href="mailto:tdroark@shaw.ca">tdroark@shaw.ca</a>
<b>BOC Coordinator</b>	<b>Gundie Volk</b>		<a href="mailto:gkvolk@telus.net">gkvolk@telus.net</a>
<b>B.O.C. Member</b>	<b>Ron Popoff</b>	<b>250-420-2233</b>	<a href="mailto:ron.popoff@interiorhealth.ca">ron.popoff@interiorhealth.ca</a>
<b>Webmaster</b>	<b>Elden Chan</b>	<b>778-991-0990</b>	<a href="mailto:EldenLChan@gmail.com">EldenLChan@gmail.com</a>

## BC Branch Address

c/o Gary Tam  
1200-601 West Broadway  
Vancouver, BC V5Z 4C2  
FAX: 604-736-8651



## Editorial Team

**Associate Editor:**  
**Isher Deol (VCH)**  
1200 – 600 West Braodway  
Vancouver, BC V5Z 4C2  
[Isher.Doel@vch.ca](mailto:Isher.Doel@vch.ca)

**Editor:**  
**Sarah MacDougall (NH)**  
10115 – 110 Ave.  
Fort St John, BC V1J 6M9  
[Sarah.macdougall@northernhealth.ca](mailto:Sarah.macdougall@northernhealth.ca)

**Associate Editor:**  
**Tim Roark**  
3301 – 164A Street  
Surrey, BC V3S 0G5  
[tdroark@shaw.ca](mailto:tdroark@shaw.ca)

**Past Editor:**  
**Alex Kwan (FH)**  
#218-610 Sixth St.,  
New Westminister, BC V3L 3C2  
[Alex.Kwan@fraserhealth.ca](mailto:Alex.Kwan@fraserhealth.ca)

## Editorial Policy

The objective of this newsletter is to keep the members of the BC Branch and other colleagues informed of local and national events that are of interest and importance to them.

The views, comments, or positions within the contents of the BC Page are those of the Editorial Team or the author and do not necessarily reflect those of either the BC Branch or the Canadian Institute of Public Health Inspectors.

The Editorial Team reserves the right to edit material submitted, solicited or unsolicited, for brevity, clarity and grammatical accuracy.

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