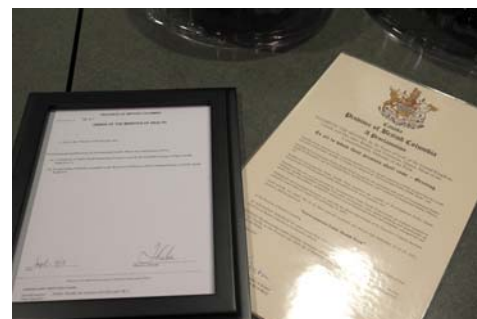


C.P.H.I.(C) Designation Legislatively Recognized in the BC Public Health Act by order of the Minister of Health

The Canadian Institute of Public Health Inspectors – British Columbia (BC) Branch is thrilled to share the following announcement with all CPHI(C) certificate holders who are employed in the health authorities in BC. As of September 3, 2013, the BC Minister of Health has ordered that C.P.H.I.(C) issued by CIPHI, or an equivalent certificate accepted to the Board of Certification of CIPHI, is legislatively recognized in Sections 78(1) of the BC Public Health Act as the training and qualifications for Environmental Health Officers in BC.



After the new BC Public Health Act was adopted in 2008, the CIPHI BC Branch held multiple discussions with the Ministry of Health about the recognition of the C.P.H.I. (C) certification as the qualifications and training for employees who are designated as environmental health officers working in BC health authorities. The BC Branch received strong support from the regional directors of the health authorities and certified environmental health officers in BC during this process. On World Environmental Health Day, the BC Branch was honoured by the presence of the Assistant Deputy Minister, Ms. Arlene Paton, who made this important announcement at the CIPHI BC Centenary Award Ceremony.



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Message From The Editor

As I put together this issue, two stories really jumped out at me; our BC representatives of the 100 Members of Distinction and the recipients of the CIPHI Centennial Award stories both highlight strong advocates for and contributors to the field of Environmental Public Health. The CIPHI mission also uses the term advocacy, referencing a goal of Environmental Public Health Professionals across the country. We are to be advocates in the field of Public Health. And who better than us to advocate for a profession and field we all strongly believe in? We have all been formally trained, we all have some work experience (maybe just a practicum, maybe 20 years on the job) and we have all seen, or can see, what a strong Public Health program does for the people around it.

I see advocates for our profession everywhere, some are posting topics on their social media accounts, others are responding to questions from friends or acquaintances with facts and data from our field and still others go out of their way to try and influence trends and policy at a higher level and so much more. Some of these activities are done by us as part of our job but I see so many advocating for public health as part of their day to day lives. They have such a strong passion that personal/professional boundaries blur and there is only wish to bring awareness and good.

This is a trait that I see in many EPHPs and it is particularly strong in those who were highlighted in the two stories referenced above.

Where will we be in another 100 years? It's my hope that the field of public health continues to grow and flourish, that we begin to put acute care out of business, that all people will become advocates for public health, not just those with training and experience and that when planning starts around celebrating 200 years of our Institute there are so many members who deserve such honours as Distinction or Awards that the organizing committee has a difficult time.

To get there we all need to be advocates for our field. Ask yourself where you want to see public health and our Institute in another 100 years; it's what we do today that will paint that picture.



Respectfully,
Sarah MacDougall,
Editor

Tim Shum New Executive Director of Population Health



Effective October 7th, 2013 Tim Shum has accepted the position of Executive Director Population Health with the Fraser Health Authority.

Tim has been with Fraser Health for more than 15 years, most recently as the Regional Director, Health Protection. He has held progressively senior leadership positions, as Director, Environmental Health from 1997 - 2002 with the Simon Fraser Health Region; Chief Environmental Health Officer from 1993 - 1997 with the City of Burnaby and the Assistant Director, Environmental Health from 1988 - 1993 with the Calgary Board of Health.

Tim holds a Masters degree in Health Services Administration, an Advanced Diploma in Management, a Bachelor of Science degree in Mathematics, and a Diploma in Environmental Health Technology. Congratulations of your promotion Tim!

BRANCH UPDATE

Meet Dale Chen – President Elect

Hello everyone! It has been a very quick process and I suddenly find myself writing a self-introduction for the BC Page presenting myself as the new President



Elect of CIPHI. I am still early in the process of settling into the role and I am pretty certain that this process will last the entire 2 years of my term as President Elect. I initially did not realize that this commitment was for 6 years, as the terms for President-Elect, President and Past President all last 2 years. However, I hope that this will provide me an opportunity to meet many more of you and learn from the wealth of knowledge and experience that is present in our organization and profession.

I am still relatively new to the profession, having graduated from BCIT in 2010, so I have not yet had the opportunity to meet most of you. However, despite my relatively short time in the profession, I have witnessed and experienced a great deal of the passion and enthusiasm that is present in the field. I hope that I will be able to match the level of energy that I have witnessed and do it justice.

For those of you curious for some additional background information, I have a previous undergraduate degree from UBC and I am also currently pursuing my Masters via distance education. Following my practicum, I moved immediately to Prince George to start my career as the Environmental Health Officer covering a portion of Prince George and north to Mackenzie. I have been here ever since.

While I will be learning a great deal from my fellow executive members, especially our Past President Gary Tam and President Crystal Brown, I also hope to be able to support them in advancing the cause of our profession and CIPHI as an organization. I sincerely hope that I will be able to meet and exceed both my own personal expectations as well as those of you all.

Yours Truly,
Dale Chen

Branch Activities

As the leaves turn color we are reminded that fall is here. Fall is a busy time for the BC Branch as we wrap up business for the year and start planning for the next. Some of the activities that we have been working on are:

1. *Environment Public Health Week 2013* was observed the third week in September. The theme for this year was “100 years of Distinction”. Environment Health Week was established in 2003 as a way of recognizing the work of Environmental Public Health Professionals (EHP’s) such as certified Public Health Inspectors, certified Environmental Health Officers and other allied Environmental/Public Health occupations across Canada and internationally. The event also seeks to improve the visibility of our profession to the general public and within the public health family.

This year in BC, BC Branch councilors and EHPs throughout the province, worked with their city councils to have EPHW proclaimed. The following list is of the sites in BC that proclaimed EPHW in 2013:

1. Government of British Columbia
2. City of Dawson Creek
3. City of Richmond
4. City of Port Coquitlam
5. City of North Vancouver
6. City of Fort St. John
7. City of Victoria
8. City of Parksville
9. District of Saanich
10. District of Central Saanich
11. City of Victoria
12. District of Oak Bay

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page 4



Goodbye from outgoing President – Gary Tam

I was asked to do an exiting speech before I pass on the torch to the incoming President. I have pondered about it for the last two months, and realized that the word “exiting” does not resonate with me. I am not saying that I do not want to give up this presidency role, in fact, I do see that it is time for me to move on to another role. However, I never see myself “exiting” from anything or to anything. From Day 1 when I entered the executives of CIPHI BC Branch, I saw myself as a volunteer who tried to give what I could to the Branch and to this profession - just like many other volunteers in the past 100 years of CIPHI.

Branch President - a position I dreamed about and I thought I would never attain. I am very fortunate to have been in this position for the past two years, surrounded by great award-winning leaders in

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Branch Activities continued

2. 100 Members of Distinction: The BC Branch is pleased to announce that as a way to honour CIPHI's history, we have purchased “Honouring their contributions: 100 members of distinction” booklets for each CIPHI member of 2013 in BC and Yukon.

The 100 Members of Distinction project is part of CIPHI's centenary celebrations. Information and photos were collected on individuals who have advanced the Environmental Health profession and CIPHI. The purpose of the booklet is to recognize these people and the foundation they have laid over the last 100 years. 22 of the members listed in the booklet are from BC and are highlighted in this edition of the BC Page.

3. CIPHI BC Branch Annual General Meeting was held at 4:30 pm on September 26, 2013 (Thursday) at the Jim Pattison Pavilion located in Vancouver General Hospital (855 West 12th Ave, Vancouver).

During the AGM, the BC Branch elected new executives to the branch council. Dale Chen, from Northern Health has stepped up to be the newly elected President Elect of the BC Branch for the next two years. Gary Tam has moved into the role of Past President, and I have taken over the role as President. Gordon Moseley from Interior Health has taken over from Jeremy Chow as Recording Secretary. Emily Woodrow and Stacey Sowa from VIHA have come aboard as Councilors. Since the AGM, Jessica Ip was appointed to the BC Branch as a councilor.

4. Vacant Positions: CIPHI BC Branch, similarly to CIPHI National, is an organization that depends on volunteers who are passionate about the

profession, and can bring this profession forward at a steady pace. CIPHI BC Branch currently has openings for the following positions:

BC Branch Councilor
 BC Branch Corresponding Secretary
 BC Branch Webmaster
 BC Page Editor

If you are interested or know of anyone who is interested in any of the above positions, please send a letter of interest to Crystal Brown at president@ciphi.bc.ca

Lastly, I would like to congratulate all of the students who were recently successful in completing the Board of Certification requirements.



Goodbye from Gary continued

the modern time, such as Tim Roark, Charlie Young, Claudia Kurzac, Steve Chong, Jasmina Egeler, and Keir Cordner, who have provided great ideas, support, encouragement and hope that inspired me to be better in this position every day.

I am grateful to experience one of the most challenging times in the Branch when funding is scarce in the Health Authorities, and at a time when EHOs could not be funded to attend branch educational conferences. Consequently, the BC Branch needed to find new ways to bring educational opportunities to Environmental Public Health Professionals in BC. Without the support from the regional directors in the health authorities of BC, we could not have launched the BC Branch webinar series, the very first fully-established web-based education platform in CIPHI across Canada. I could not be more excited to share the CIPHI centenary celebration activities with my executives, counterparts, and EPHPs across Canada. It is a humbling experience to realize that I shared a similar role to such dedicated individuals like Ernest Hague, the very first national president, Alex Cross and Alexander Officer who spent countless volunteering hours to unite sanitarians together to form this Institute in 1913. These were visionaries who established the board of certification to assess individuals before they could be certified inspectors in 1935. Executives, such as Charlie Young, who worked with educational institutes, such as BCIT, to establish comprehensive environmental health programs to ensure that students obtain the required skillsets and knowledge before they entered the field in the 60's. Dedicated members, such as Tim Roark, Domenic Losito, Ken Christian & Lorraine Woolsey, who established the early ongoing education model, the Board of Registration, which raised our professional profile in this province in the late 80's, which is the cornerstone of the current CIPHI CPC Program in Canada. These historical moments continue

providing new inspiration to me and our Past and Incoming presidents to work closer with Tim Lambert in the BC Ministry of Health on legislative recognition of the CPHI(C) credential and CIPHI's CPC Program in the BC Public Health Act. And the voyage continues.

It blessed my heart dearly whenever I had the opportunity to meet with students in BCIT. They are always enthused about Environmental Health as their chosen future profession, as well as the academic curriculum that faculty staff spent many hours developing. You guys are like springs that will continue bringing new inspiration and new energy to move this profession forward.

This is what the BC Branch and the Institute are made of.

I give my heartfelt thanks to all the current and past executives, centenary celebration committee members, centenary awards team members, webmaster, BC Page editors, retiree representatives, branch historian, BOC coordinators, examiners, BOC and CoPE representatives for being the unsung heroes of this branch. There are no tasks too small; and you guys continue to expand the frontiers of the profession in the National CIPHI. Nothing could have been done without you guys! Thank you for all the work! I would like to thank our Past President, Keir Cordner, who has been a great mentor in this branch for the past two years. Congratulation to your recent achievement - the recipient of the CIPHI President's Award!

To the new Branch President, Crystal, it is time to make new history in this new centenary of CIPHI! To all the Environmental Public Health Professionals in BC and National, it has been my pleasure and honour to have served you for the past two years. Thank you!

**Personal note: I want to thank my wife, Monica, for her tremendous support and understanding over the past two years.*

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Centennial Award Recipients – BC Branch

The BC Centennial Award was awarded to four outstanding individuals who made significant contributions to the field of public health in BC. Ron Craig, Andy Hazelwood, Tim Roark and Charlie Young are the well deserved recipients. The awards were presented jointly by the BC Branch Past President, Gary Tam and BC Ministry of Health Assistant Deputy Minister, Arlene Paton. Ron Craig's daughter was in attendance to accept the award on his behalf. For more information on the recipients check out the BC Branch website.

Ron Craig



Tim Roark



Charlie Young



Andy Hazelwood



Award winners pictured with members of the selection committee.



Thanks to Jeremy Chow and Tim Roark for providing the photos.



Unique partnership: Shell Canada and Dawson Creek Reclamation Water Treatment Plant Upgrade

By Kevin Vieira and Merle Kroeker, Nelson Environmental Inc.

Introduction

The requirement of an adequate supply of quality potable water is an ongoing issue due to increasing populations in urban and rural municipalities, as well as demands from economic activities. In Canada, provinces are becoming more aware of the importance of maintaining quality water through proper management of water and wastewater. British Columbia and Alberta stand out compared to the rest of Canada as the only provinces with water re-use regulations, according to proceedings from a Canadian Council of Minister of the Environment (CCME)-sponsored workshop (Alberta, 2002).¹ British Columbia's

Municipal Sewage Regulations (MSR) have their roots from and are comparable to California's Title 22 code of regulations for recycled water. California was the first state to create regulation standards in 1918 and has since revised them. It remains one of the leading regions in North America for the maintenance of adequate water supply.²

British Columbia regulation standards have influenced and created incentives for water reclamation in many municipalities throughout the province. According to proceedings from the CCME workshop, 3% of wastewater generated within the province is reclaimed, thus reducing the demand on potable water

supply. A prime example of the benefits of reclaimed water projects in this province is the recent and truly unique partnership between Shell Canada and the City Of Dawson Creek. The project is slated to reduce the city's potable water use by 25%, earn an estimated \$1 million in annual revenue (according to *Water Canada* magazine), and provide a clean and reliable water supply for one of Shell's hydrocarbon recovery projects located in Northeastern BC.³

Dawson Creek

The City of Dawson Creek is located in Northeastern British Columbia, 1184 km (736 miles)

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A special thanks to the BCWWA for allowing us to reprint this article, originally published in *Watermark*.

Unique Partnership continued

from Vancouver, BC, and 590 km (367 miles) from Edmonton, Alberta. The city's water source is the Kiskatinaw River (Peace River tributary). This source is often plagued by high turbidity during the spring freshet, and low summer water levels due to lack of mountain snow melts or glaciers to replenish water volume. Recent growth in the oil and gas sector has led to increased pressure on the available potable water. Normally, the industry procures potable water from the city at filling stations for use in deep well injection, road dust control and mud preparation. Tapping potable water from Pine or Peace River to supplement the water obtained from Kiskatinaw River was considered. Due to the large distance between the river and city's reservoir, this option was found to be too costly to be practical.

Dawson Creek Strategy to Combat Potable Water Demand

To address the demand for potable water, the city decided to build a reclamation water treatment plant (RWTP) that would produce a minimum of 4000 m³/day by treating available wastewater. The city sought to establish a reliable, simple, low maintenance and low cost process that would maximize the existing infrastructure. More



importantly, the process would have to meet the British Columbia MSR for reclaimed water under the 'Unrestricted Public Access' category, and, as a result, would meet and exceed the CCME requirements on a year-round basis. This approach would also provide the required non-potable water to the oil and gas sector with the added benefit of reducing demand from the water supply. Other initiatives such as water conservation bylaws and adopting BC's 'Living Water Smart' approach to water management would ensure adequate water supply for the City of Dawson Creek and satellite communities that use the city's potable water.⁴

The City of Dawson Creek issued a request for a proposal from the private sector to raise capital for upgrading the existing wastewater treatment facility and meet unrestricted public access reclaimed water standards. In return, the

successful proponent was offered a 10-year right to 85% (3400 m³/day) of the reclaimed effluent from the treatment plant. Possible uses for the reclaimed water are in oil and gas production, dust control and sports field watering. Shell Canada provided the winning proposal and contributed a significant portion of required total capital.

The city reserved the right to the remaining 15% (600 m³/day) of reclaimed water for possible use in watering parks and sports fields. Alternatively, the city could offer this portion of reclaimed water for industry use for a nominal fee. The estimated 25% reduction in potable water demand would ensure that the city had an ample supply of water to meet future demands.

After discussions with the city's designated consultant, the conclusion was reached to

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Ian MacLean Retirement



Ian MacLean retired recently after dedicating over 30 years to the Environmental Public Health profession. Here are a few words from Ian on his retirement celebration:

The party was a surprise luncheon at Chapters Viewpoint in Kamloops. Our Regional Director, Yousuf Ali, arranged for a meeting regarding the Health Transfer the same day (AM) so that a lot of the staff could be there. That was a nice gesture and he presented me with a 32 year service award and shared some very nice words. I was very grateful. Almost all my district staff were there plus some from Vancouver. Several long time EHO's and Managers (including Ken Christian and Dan Ferguson) from IHA were there. Both Norm and Len Clarkson attended.



One of the Band Chief's was there as well as a long time friend. Band Administrator (who was actually on my interview board when I first joined Health Canada) attended as did a Health Director and several other Aboriginal Folks I have worked for over the years including one of the FN Nurses. Rita Manual was there and another former aboriginal employee that worked for us in the drinking water safety program attended. I was very humbled by that. My first Admin Assistant who must be approaching 80 attended as well as Dennis Wahoski and many others. What a fun time.

Pictured top: The man in his Kilt! , Below: RD Yousuf Ali, Peter Maze and Ian receiving long service (32 years) award.

Several folks spoke and were very kind with their remarks. We had some good laughs too. Mrs. McLean was very pleased. She really wanted me to have a good send off and it was fantastic due primarily to the staff at the Kamloops office – Erin Maze, Fiona Goorman, Kerrilyn Street, Priscilla Cheung and the admin assistant Bernice Debert and of course my wife Lenore. They got me good!

Wonderful memories!
Ian

All the best in retirement, Ian!



Upper Nicola Band Chief Dan Manuel presenting Ian with gift of hand made deer skin gloves. And Ian's wife Lenore.



Federal EHOs in BC Move to BC's Newest Health Authority

October 1st, 2013 marked an historic day in both British Columbia and all of Canada. After many years of hard work and planning the First Nations Health Authority was officially launched. This new health authority is BC's sixth and sees the oversight for the health of First Nation's people in our province move from the jurisdiction of Health Canada's First Nation and Inuit Health Branch to the First Nations Health Authority. This is the first move of its kind in Canada and includes the transfer of funding, staff and offices within BC. Already the First Nations Health Authority is making connections with other health authorities in the province to ensure the transition is seamless and there is no loss of service in any area.



Current and former EHOs who worked with First Nations out of Health Canada's Victoria office getting together to mark the occasion, from left to right are: Don McVicar, John Gibb, Isabella Carrera (Office Assistant), Gethsemene Luttrell and Mike Pichichero

This change has implications for Environmental Public Health Professionals who were previously employed by Health Canada. They now have a new employer who may, in the future, look at providing services differently but to ensure the transfer is as seamless as possible EHOs have been retained by the new health authority for the next few years and potentially far into the future.

It is an exciting time for the First Nations communities in BC and the country watches and hopes for success as we chart a new course for health in First Nations communities and the province of BC.

More information on this can be found on the [Health Canada](#) and [First Nations Health Authority](#) websites.

Ministry of Health to Review Fraser and Vancouver Coastal Health Authorities Structures

In a move to reduce health care costs, Terry Lake, Minister of Health, has ordered a review of structures of Fraser Health and Vancouver Coastal Health. There are various options on the table such as a potential merge of the two authorities, a redrawing of the boundaries between the two health authorities or other options that could help with reducing administrative costs and a continued move to standardized patient care.

Responsibility for Canadian Food Inspection Agency shifts to Health Canada

OTTAWA - Responsibility for the agency that polices the safety of the country's food supply is moving to Health Canada from Agriculture. The low-key reorganization will place responsibility for the Canadian Food Inspection Agency with the Health Department, alongside the Public Health Agency of Canada. The government says the move will bring the three agencies responsible for various facets of food safety under a single minister. It says the move will strengthen the whole food safety process.

The food inspection agency has handled a number of crises in recent years, including the deadly listeria outbreak in 2008 and the massive 2012 recall of contaminated beef from the XL Foods plant in Brooks, Alta.

Some of the agency's non-food activities, including economic and trade issues and some animal health and plant protection work, will remain with Agriculture and Agri-Food Canada. A news release says the CFIA will continue to support the Minister of Agriculture and Agri-Food in exercising these responsibilities.

In the release, the Conservative government says the move will bolster Canada's public safety system as a whole. "This will ensure clear

focus, easy collaboration and timely communication with Canadians when it comes to food safety," the news release said. "This change also further underscores the CFIA's commitment to food safety as a top priority."

The ministry shift comes as the government continues to implement its Safe Food for Canadians Act, first passed in the House in November 2012, and unveiled again in May of this year.

The legislation features tougher labelling rules, heightened inspection requirements and requires better traceability rules for animals destined for slaughter. The CFIA is currently seeking public comment on a number of sections within the act, including a regulatory framework. Comments are being accepted until the end of November and can be submitted online via the CFIA's website.

A comprehensive policy, the act was the government's response to the 2012 XL Foods Crisis, where an outbreak of E. coli in a Southern Alberta meat packing plant triggered one of the largest recalls in Canadian history. Eighteen people were infected and the packing plant was temporarily shutdown, a move that is estimated to have cost Canadian cattle ranchers \$16 million to \$27 million.

Source: Canadian Press

In a press release issued by Health Canada it indicated that, "Under the Minister of Health, the important day to day work of the CFIA, Health Canada and the Public Health Agency of Canada (PHAC) will not change. The three federal authorities have always worked closely together, but having these organizations report to the same Minister will help ensure coordinated and integrated federal approach to protecting Canadian families from unsafe food. The Minister of Agriculture and Agri-Food will continue to be responsible for non-food safety agricultural activities, including economic and trade issues, as well as important animal health and plant protection work. The new reporting structure and change-over will be taking place immediately, but it will take some time to complete the transition internally. To ensure continuity of service in managing any foodborne illness outbreaks, we will continue to use the existing Federal-Provincial-Territorial committees and the established Foodborne Illness Outbreak Response Protocol (FIORP)."

In Memoriam

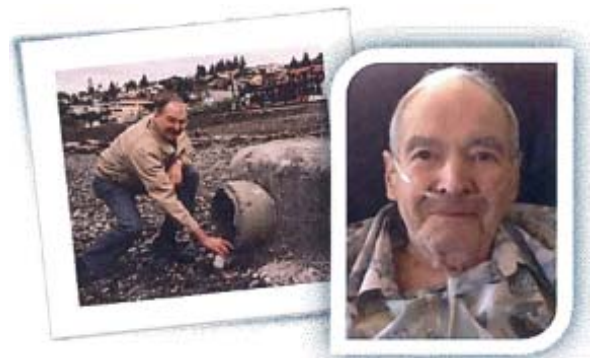
Cecil John Bridgen



Cecil John Bridgen better known as “Cec” started his career as a Public Health Inspector in 1973. Cec graduated from the Public Health Inspection Program at BCIT as a mature student and shortly thereafter received his CPHI(C) # 2193. John Gibb taught at BCIT back in the early days and remembered him as one of his students. John stated, “Cec was a soft spoken soul with a gentle and kind disposition”. Nic Losito remembers Cec as an Inspector in Nanaimo when he was starting and commented that,

“he was ever a gentleman!”. Gord Stewart indicated that, “Cec also worked in Boundary Health in Cloverdale and with me in White Rock. He retired in 1990. Cec was a dedicated EHO highly respected in the field and community.”

Cecil Bridgen passed away on August 10th at home with his family having just celebrated his 88th birthday on August 7th. A memorial service was held on August 20th at the Langley Presbyterian Church. The family suggested that in lieu of flowers a donation could be made in honor of Cec to the Canadian Cystic Foundation or to Habitat for Humanity.



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In Memoriam

Robert Gregor Scott

April 26, 1918 – August 20, 2013

Bob Scott started in the health field when he joined the Canadian Army Medical Corps. in September 1939 in Victoria. He went overseas in 1942 as a Sergeant with No.16 General Hospital serving in England, France, Belgium, Holland and Germany. He met his lovely wife Peggy in England and they were married in August 1945.



Bob was repatriated and returned to Victoria in November, 1945 accepting the position of Chief Orderly at St. Joseph's Hospital. Anxious to progress with a career in health he commenced Field Training with the Saanich and South Vancouver Island Health Unit in 1949 and secured his Certificate in Sanitary Inspection (Canada) # 727 in 1950.

Bob started working as a Sanitary Inspector for the B.C. Provincial Health Department, November 1st, 1950 with the Saanich and South Vancouver Island Health Unit and later moved to the North Okanagan Health Unit. Desirous of gaining further experience he transferred to the Selkirk Health Unit in Nelson. Management recognized Bob's excellent potential and he was soon promoted to Senior Sanitary Inspector for the Skeena Health Unit in Prince Rupert. After 3 ½ years in the "North" Bob moved south to the Senior PHI position at Boundary Health Unit with headquarters in Surrey. In 1962 he

was again promoted this time to the position of Consultant PHI in Victoria and later elevated to become the first Director of Public Health Inspection.

Bob joined the Canadian Institute of Sanitary Inspectors on August 8, 1951 and was active with the Institute for over 25 years. He served as BC Branch Recording Secretary from 1959 to 1962. During the years from 1962 to 1970 he

was a Councillor on the BC Branch Executive and Chairman of the Registration Committee responsible for drafting a proposed Act of Licensing for PHIs. He was a Corresponding Member for BC on the Board of Certification and supervised the examinations in BC for the certification of Public Health Inspectors for a number of years. He was keenly interested in upgrading the Field Training for aspiring inspectors and regularly helped PHIs find jobs. Bob was a member of the Advisory Committee for the PHI training program at the BC Institute of Technology and for several years as well he was a guest lecturer.

During his years as Director of Public Health Inspection for the Ministry of Health, he coordinated in-service training programs jointly sponsored by the BC Branch and the Ministry of Health.

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Bob Scott Memoriam continued

After retirement Bob served in the community with many volunteer organizations including the Kiwanis Club, the New Horizons program and Adopt-A-Child Canada. He stayed connected to the Institute and was a member of the 1982 CIPHI Convention Committee in Victoria.

Bob and Peggy have a son and daughter and at latest count have five grandchildren and eleven great grandchildren. They travelled extensively and enjoyed over 60 years together.

For his years of active participation in and support for the Institute and public health inspection Bob was awarded *Life Membership* by the Institute in 1982. Recently



Bob Scott receives a recognition pin at the Christmas luncheon in Victoria in 2010 from Ann Thomas. Chair of the Board of Certification, for his years of service as a Corresponding Member and Exam Coordinator.



Bob Scott receives Life Membership in the Institute from Tim Roark National President at the annual educational conference in Victoria in 1982.

Bob's lifetime commitment to Public Health Inspection and the Institute was recognized with his nomination to the "100 Members of Distinction" of the Institute.

Bob was always a congenial engaging man with a sharp wit. He will be missed by his family and many friends. A Celebration of the Life of Robert Gregor Scott was held on August 28th, 2013 at the Church of Our Lord in Victoria. The church was filled with family and many friends including quite a number Public Health Inspectors as well as representatives of The Canadian Legion.

Tim Roark
BC Branch Historian
2013

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



Click the icon and *Follow* the Branch on Twitter



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

It's Time to Test Your Home for Radon Gas

Author: Greg Baytalan is an Air Quality Specialist with Interior Health

Radon gas is the second leading cause of lung cancer after smoking. Radon is a naturally occurring gas found in the ground throughout the world. Most homes that are in contact with the ground will contain some amount of radon gas. Radon becomes more of a concern when it reaches high levels. Radon levels vary across the country. According to Health Canada about seven per cent of the Canadian homes have radon levels that may be putting residents at risk. Here in the B.C. Interior we have some "hot spot" areas with high radon levels in approximately 40 per cent of homes.

Being heavier than air, radon accumulates in low lying areas like basements. Many houses contain recreation rooms or suites in the basement that are occupied for many hours per day. Radon in combination with tobacco smoke, including second-hand smoke can increase the risk substantially. Health Canada estimates that one in three smokers exposed to high radon levels will develop lung cancer. Radon gas is colourless, odourless and tasteless, so the only way to know if the radon levels in your home are high is to conduct testing. The best time to test your home for radon gas is now through April. During the cooler months windows and doors are often closed and rising warm air in a home draws more radon from the ground.

Testing a home is easy and inexpensive. Testing involves placing a small puck-like kit within the lowest area of the home that could be occupied for more than four hours per day. The kit should remain in that location for a minimum of three months and then mailed to a laboratory for results.

Just because your neighbours tested their homes and found low results does not mean your home is low too. The test results for your home can be very different. This is because factors beyond the local geology influence the levels within a building. Essentially, radon takes the path of least resistance, and resistance can vary between homes. Radon can enter a home through the foundation, including concrete, and more so through cracks in a foundation or dirt floor such as older crawl spaces. It can also enter a home through the ventilation system.

The bottom line is that everyone should test their homes for radon to see if this gas (dubbed as the "silent killer") is lurking. If elevated radon levels are found, basic measures can be taken to address the problem. Further information on radon can be found on the Health Canada website <http://www.hc-sc.gc.ca/hl-vs/iyhvsv/environ/radon-eng.php>

Test kits are available from BC Lung Association. Give them a call at 1-800-665-LUNG (5864).

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Members of Distinction

As part of its 100 year celebration, CIPHI looked at EHOs past and present to identify 100 individuals, dedicated to the field of Environmental Public Health. As stated by our National President, Gary O'Toole, these members, "have been recognized for their influence in advancing the role of the Public Health Inspector, the science of health protection, improving the Institute or a combination thereof."

Of these 100 individuals, 22 are from British Columbia. Each of the members from our province have been identified here and all current members of the BC Branch have received a small booklet that highlights all 100 Members of Distinction along with a short write up as to why they deserve this title.

Ann Thomas



Bill Leith



Bob Herbison



Bob Scott



Bruce Stephen



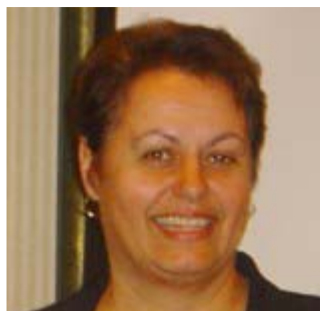
Charlie Young



Claude Stonehouse



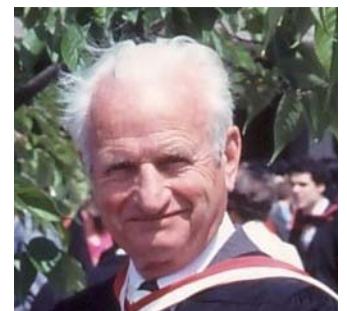
Claudia Kurzac



Donald McNab



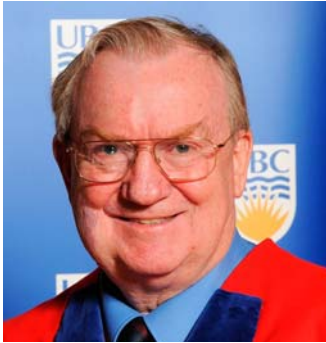
Dr. Cort Mackenzie



Thank you to Tim Roark for tracking down and compiling the Members of Distinction photos.

Members of Distinction continued

Dr. John Blatherwick



Howard Branston



Jasmina Egeler



John A. Stringer



Ken Christian



Len Hiebert



Nic Losito



Rita Manuel



Rob Bradbury



Stanley George



Tim Roark



Ken Clark



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add a Nelson Environmental Inc. SAGR (submerged attached growth reactor) process to provide post-lagoon BOD₅ and ammonia removal, and significantly reduce the demand on process equipment downstream. Added benefits to upgrading the process would be a significant reduction in lagoon effluent TSS and pathogens. For final turbidity and TSS polishing following the SAGR, cloth disk filters would be implemented as well as a chlorination unit for disinfection.

The SAGR process and its development

Lagoon-based treatment systems provide some ammonia removal (nitrification) capacity during the summer months, but are generally incapable of meeting low ammonia limits during prolonged periods of low water temperatures (< 1 °C). Many small communities in Canada and the northern United States are currently using lagoon systems for wastewater treatment, which

often experience process water temperatures below 1 °C for extended periods in the winter. As a result, continuously discharging systems cannot meet low ammonia limits during the winter months. An alternative is to store lagoon effluent for intermittent discharge when water temperatures improve. This approach is made impossible for many communities due to large capital and the associated land requirements.

The SAGR process was developed specifically to address these issues. The performance parameters and sizing of the SAGR process are based on extensive testing performed on post-lagoon demonstration systems located in Lloydminster, Saskatchewan and Steinbach, Manitoba. Lloydminster was commissioned in 2008 and is currently in operation, while the Steinbach pilot was operated for three years between 2007 and 2010.

Depending on effluent requirements, the system

design can be adjusted to meet effluent ammonia levels of <1.0 mg/L in the summer months, and <2.0 mg/L in the winter months, with influent water temperatures as low as 0.5°C. For the Dawson Creek RWTP, three SAGR beds (modules) were constructed to operate in parallel, following the existing aerated lagoon system.

SAGR process system description

The SAGR process can be used for nitrification following any secondary treatment process, including aerated or facultative lagoons. It is a clean gravel bed with a horizontal flow distribution chamber at the front end to distribute the influent wastewater across the width of the entire bed. The gravel provides the necessary surface area for the growth and attachment of a nitrifying biomass within the bed, and is sized to optimize bacterial growth and hydraulic flow. A horizontal effluent collection

continued on page 19

Table 1: SAGR influent and effluent averages (October 2011 - May 2012)

SAGR process		SAGR influent (post-lagoon)	Effluent (post-SAGR)	MSR requirements
BOD ₅	mg/L.	22.9	3.0	10 mg/L
TSS	mg/L.	19.5	6.2	10 mg/L
TAN	mg/L.	31	1.4	10/25 mg/L Summer/Winter

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chamber at the back end collects all of the treated effluent and channels it to the discharge structure. Sizing of the bed is based on influent loading rates and temperature as well as the required rate of nitrification.

Aeration laid along the SAGR floor provides continuous year-round aerobic conditions necessary for nitrification to take place within the bed. The aeration grid and bed layout are designed in such a way as to optimize biomass growth by balancing predation/decay with growth throughout the bed. This, in turn, minimizes long-term flow obstruction due to biomass overgrowth.

Dawson Creek SAGR commissioning and performance Nelson Environmental Inc. staff provided operational training and commission on September 13, 2011, following the successful completion of system construction.



All MSR effluent objectives as stated in Table 1 are met prior to the disc filters. This trend is expected to continue and improve as the SAGR process matures to establish an optimal biomass film within the beds.

Conclusions

Since September of 2011, the SAGR has been meeting its effluent quality objectives and, conversely, solving the potable water availability concerns. There is a potential for capital cost recovery for the City of Dawson Creek, given the fact that demand for reclaimed water by the oil and gas industry (within this geographic location) is high, and is most likely to remain that way for the foreseeable future. The RWTP effluent quality far exceeds the recently published CCME effluent quality requirements, and, as a result, the city is ahead of the curve in meeting the 30-year grace period allocated by the federal govern-

ment for wastewater treatment plant upgrades.

Shell Canada, on the other hand, has gained an alternative source for process/fracturing water that is cost effective and of high

quality. Shell has access to 3400 m³/day of water over a 10-year period for its initial investment, amounting to significant long-term savings and capital recovery. The company has also built a piped system to convey the reclaimed water from the RWTP to its site. Doing so will result in approximately 85 trucks per day that convey water from Dawson Creek's bulk filling station to the site being taken off the road. This translates into long-term cost savings, not to mention good environmental stewardship.

All of this is possible because of the SAGR's ability to provide high levels of wastewater treatment in cold climates, while preserving the low operational and maintenance required for lagoon-based wastewater treatment systems.

End notes

1. *Linking Water Science to Policy: Water Reuse and Recycling, a CCME-sponsored workshop, Calgary, Alberta (May 30 and 31, 2002)*
2. *Regulations Related to Recycled Water, California Department of Public Health, January 2009*
3. *Water Canada, The Complete Water Magazine, August 24, 2010. <http://watercanada.net/2010/shell-dawson-creek-agree-on-reclamation-plant/>*
4. *Municipal Sewage Regulation, Code of Practice for the Use of Reclaimed Water, Ministry of Environment, Lands and Parks, British Columbia.*

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