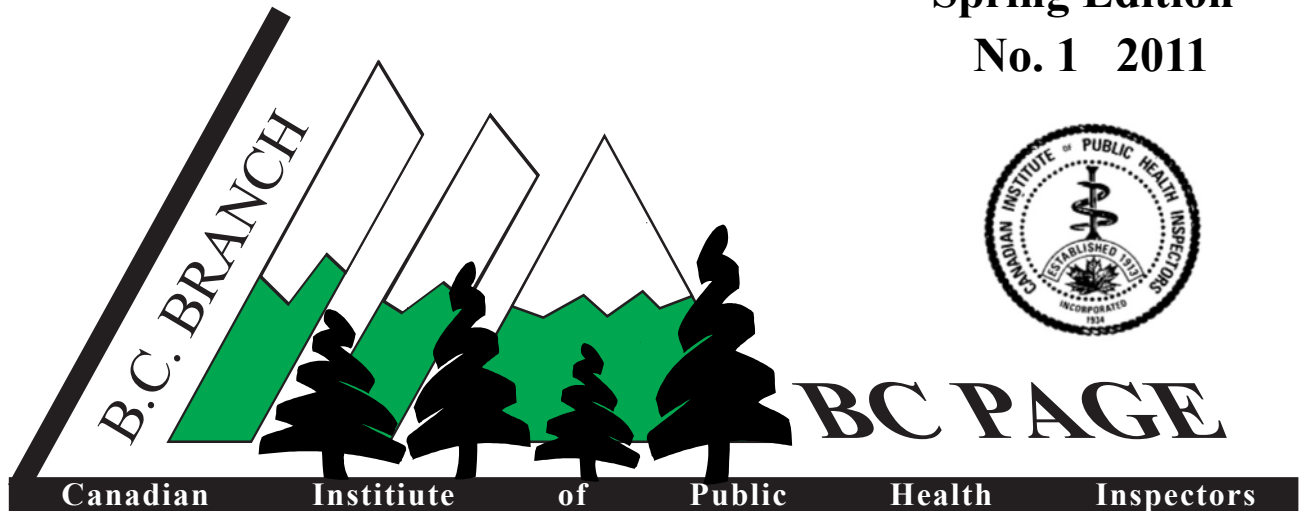


Spring Edition

No. 1 2011



RAW MILK SALE UPDATE

In the Fall 2010 issue of the *BC Page* Tim Shum, Regional Director of Environmental Health Protection for Fraser Health provided a report on their efforts to stop the sale of raw milk from the Home on the Range cow share operation. In January 2010 Fraser Health filed a petition with the Supreme Court of BC seeking a permanent injunction order prohibiting the farm operator or anyone else in BC from packaging and/or distributing raw milk and/or raw milk products for human consumption. In March 2010, the Supreme Court of BC granted Fraser Health a permanent injunction. In July 2010, EHOs visited the Chilliwack farm and confirmed that the operator continued to package and distribute raw milk to cow share members. The operator was placing a label, "NOT FOR HUMAN CONSUMPTION" on bottled raw milk as an attempt to get around the Regulation. Fraser Health then proceeded to seek a contempt of court order against the farm operator.

As a result, the matter has gone back before the Supreme Court to hear the contempt order. The original operator of the farm was found in contempt of court but was not fined, based on her undertaking not to continue operating the farm. The operation of the farm has been taken over by another party, who is

claiming to be now producing a cosmetic product. Health Canada has been made aware of the cosmetic production. The original operator of the farm has filed a constitutional challenge of the original injunction. Because of this court action, Fraser Health is holding off taking any action against the farm. The constitutional challenge is making its way through the court system at present. Fraser Health is not a party to this case, as the challenge is now against the law itself, not their actions. As a result, it is between the applicant and the BC Attorney General's office.

Our thanks to Tim Shum & George Rice with Fraser Health for this updated information. Stay tuned for the next chapter.

Highlights...

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[BCIT Awards](#) Page 13

Message From The Editor



The Ministry of Healthy Living and Sport put out an Environmental Health calendar for 2011. This calendar focuses on key areas of the work Environmental Health Officers do and the direction in which Environmental Health is heading here in BC. Tying population health and public health together one can look at how environmental factors affect the people. When you consider the social determinants of health, many can be linked back to the environment in which one lives. For example, we know the environment is key in our food production and drinking water sustainability but it also influences social, cultural and recreational experiences.

A newer concept is community engagement as it pertains to environmental health. There is a movement to ask the people what

they, as a community, need and how they propose we get there. Often they can identify area specific issues and come up with unique solutions that work for their community. When the community feels they are involved in the process they are also more likely to move with it. As EHOs this is not new to us. We have long known that having an operator identify a solution to a problem and how to implement it has a better outcome than simply telling the operator what to do and not engaging them.

The traditional work we do in food safety is outlined as is the increasing role of food security. Food safety is vital to the population; it is important that the food we buy in a grocery store is safe and will not make us ill. Food security refers to having nutritious, safe and affordable food. It allows us to support local food producers and have access to delicious, fresh food. The impacts ripple outward reducing vehicle emissions from food transportation, promoting sustainable communities and so on.

The environmental health calendar highlights programs and initiatives around the province. If you haven't seen a copy yet check it out.

Respectfully, Sarah MacDougall, Editor



To get a copy or copies of the calendar contact
bcairquality@gov.bc.ca

Alex Kwan welcomes a Son!



Congratulations to Alex Kwan and his wife Carmen on the birth of their son. Declan Kwan was born April 26th, 2011 weighing in at 7lbs, 9oz.

BRANCH UPDATE



After a very long winter season, the bees have finally come out and are working hard to gather pollen from cherry blossoms, tulips and daffodils in our backyards. CIPHI executives have also been working hard behind the scenes during the past few months.

First, we have successfully established a planning committee with Fraser Health Authority to coordinate our BC Branch Annual Education Conference, which will be held in October. This year we have chosen to deliver educational workshops that will primarily focus on the ethical issues revolving around the work of Environmental Public Health Professionals. The committee members are very excited about the workshop because we are collaborating with the professionals in the National Collaborating Centre for Environmental Health (NCCEH). In addition, for the first time in our branch history, we will be holding three individual workshops in three different locations (Greater Vancouver area, interior BC, and Northern BC). Therefore, you do not need to come to the venue for the workshop because we are bringing the workshops to you! Be sure to watch for more details throughout the summer about the workshop and registration.

Next, we have our Award and Website committee members working together to revamp the Award webpage. The new webpage provides a more transparent and comprehensive page, that provides better recognition to all Branch, BCIT, and NEC award recipients in the past years. We have also included their Kodak moments of receiving these awards in year

2010. Be sure to check out the pictures and give the recipients a well deserved pat at their backs when you see them receiving the various Awards.

Our Branch President has continued dialogue with the Ministry of Health in our efforts to have the CIPHI credential, and the Continuing Professional Competencies program recognized as the legislated qualification for Environmental Health Officers and ongoing training requirements within the Public Health Act. The dialogue remains favorable and we remain optimistic that we will succeed with these efforts.

Finally, CIPHI will take a proactive approach in promoting our professions via various media outlets in these upcoming months. As we are about to get into a predicted-to-be warmer than usual summer season, there are numerous opportunities to provide helpful and resourceful tips to the general public about Environmental Health. We hope you may support us by spreading the information to the local communities when these promotional articles are released.

We hope that you will all enjoy this predicted-to-be warmer than usual summer season! Don't forget! It takes every one of us to build a strong profession across the nation, so renew your membership TODAY and BE proud members of CIPHI. Be sure to update your profiles on our newly-improved Member Service Center!

Have a great summer holiday!

Gary Tam
President-Elect of CIPHI BC Branch



Metro Vancouver's Seymour Capilano Filtration Project

By Howard Dallimore, M.Sc., P. Eng., Senior Project Engineer, Metro Vancouver

Introduction

Almost twenty years ago Metro Vancouver began to evaluate options for water treatment in the Lower Mainland. Construction of the 1,800 ML/d Seymour Capilano Filtration Project eventually commenced in 2003. The filtration plant started supplying drinking water to the Lower Mainland in December 2009. The entire project will be completed in 2013. This is an exceptional water treatment project. Consider the following:

- It is the largest filtration plant in Canada and one of the biggest of its kind in North America.
- It treats water from two watersheds and, in addition to the filtration plant, includes a 16,000 hp pumping station (the largest in Canada), 7.1 km long twin tunnels and a 1.7 MW energy recovery facility.
- Spent filter backwash water is treated and over 98% is recycled to the head of the plant.
- It has the world's largest ultraviolet disinfection system.
- It includes a series of features to maximize energy efficiency.
- Extensive use of sustainable and environmental technologies were incorporated in its design and construction.
- The plant is fully automated and integrated with Metro Vancouver's SCADA system.

The filtration plant designers were SSBV, a consortium of Stantec, Amec and Black & Veach. The project managers are Pacific Liaison & Associates Ltd. In December 2002, the project received a \$100 million Canada/ BC Infrastructure Program grant for the plant along with a separate provincial grant of \$18 million for the pumping station.

Background

Metro Vancouver is the wholesale supplier of drinking water to 2.3 million people in the Lower Mainland. The water is supplied from reservoirs located in the Capilano, Seymour and Coquitlam watersheds. Seymour and Capilano together supply about 70% of the total.

The watersheds cover 585 km² of pristine mountain slopes. There are no properties, agriculture or industry within these areas and access is strictly controlled. In fact, the Greater Vancouver Water District was so confident about the purity of the supply that its drinking water was not disinfected until the 1940's when, as a direct result of the War Measures Act, chlorination equipment was installed. However, as we are now aware, no water source is perfect.



Issues at Seymour and Capilano include low pH and alkalinity, potential chlorine resistant *cryptosporidium* and *giardia*, as well as turbidity spikes which makes chlorination less effective. The project was driven by federal and provincial water quality requirements and demands by the regional medical health officers to meet those requirements.

Direct filtration became the most likely candidate for the treatment process, and was

eventually selected based on results obtained from the operation of two large pilot plant programs at Seymour Falls Dam.

Seymour Capilano Filtration Project

The original concept had been to filter Seymour water and to install an ozone disinfection system at Capilano. However, following the initial planning phase it became evident that in order to meet changing regulations, filtration of the Capilano water would be required at an earlier date than originally anticipated. After extensive studies of various options, which included a triple bottom line approach, the decision was made to filter Capilano water at an expanded Seymour plant.

The complete project includes the following elements;

- Capilano Pumping Station
- Capilano Energy Recovery and Break Head Tank
- Twin Tunnels linking Seymour and Capilano sites
- Seymour Capilano Filtration Plant (1800 m³/d)

Continued on page 5

Seymour Capilano Filtration Project continued

Filtration Plant Summary

The facility occupies a 9 hectare site in the Lower Seymour Conservation Reserve in North Vancouver. Water from Seymour is delivered via an existing main from Seymour Falls Dam, 11 km north of the plant. Pumps will deliver Capilano water to the plant via a raw water tunnel.

The process is essentially conventional direct filtration. Water from both watersheds is blended and enters the rapid mix head works

where coagulant and a polymer is added. It is then introduced to 12 flocculation basins and subjected to a slow mix process to allow for the formation of a pin floc. The conditioned water then passes through the filtration phase consisting of 24, 2 m deep dual-media anthracite and sand filters. The filtered water then enters one of the 24 UV disinfection reactors and from there flows to the 200 million litre capacity clearwell.

Upstream of the clearwell, lime is added for pH control and sodium hypochlorite to provide virus inactivation and a distribution system chlorine residual. Baffles within the clearwell prevent short-circuiting. Pipelines from the clearwell deliver water to the Seymour mains and, by 2013, to the treated water tunnel to feed the Capilano distribution system. Carbon dioxide (carbonic acid) is used to trim the pH of the final water and sodium hypochlorite is added to adjust the chlorine residual of the treated water as it leaves the plant. Water flows through the plant from north to south. The main components are:

- Inlet Blending (Below ground concrete chamber)
- Pre-Treatment Building (Coagulant and polymer storage, makeup and dosing)
- 12 flocculation tanks
- 24 filter tanks
- Filter galleries (Piping and valves, backwash pumps, maturation pumps, air scour blowers and UV reactors)
- Operations and Maintenance Centre
- Post-Treatment Building (pH adjustment, chlorination, sampling pumps, main pumping system, geothermal system)

- Clearwell
- Backwash treatment system

The plant designers took advantage of Vancouver's relatively mild climate and the flocculation and filter tanks are not enclosed. The savings in engineering, construction, operating and maintenance costs are significant.

The bulk of the treated water is delivered to the Seymour and Capilano transmission mains by gravity.



Landscaping

The plant is landscaped with native species, reducing the impact on the Lower Seymour Conservation Reserve to the greatest extent possible. The roof of the treated water clearwell has been landscaped to help create biodiversity and is accessible to the public. Part of the Operations and Maintenance Centre has a green roof.

Twin Tunnels Project

The delivery of water from the Seymour main to the plant is straightforward as the pipe runs adjacent to the plant. Bringing

water from the Capilano watershed is far more complex.

The 16,000 HP Capilano Pumping Station will deliver water from Capilano reservoir to the plant through a 7.1 km long, 3.8 m diameter tunnel. Treated water will be conveyed by gravity through a parallel tunnel to a 1.7 MW energy recovery facility where excess water pressure will be converted to electrical energy before the water is fed into the Capilano transmission main. The tunnels are bored in solid rock and at the deepest point are more than 0.6 km below the surface. Sections at each end will be lined with steel pipe. The tunnels are deep to avoid passing through a sediment filled valley in the Capilano area.

The scheduled date for tunnel completion is mid 2013. At that time, Capilano source water will be filtered and treated at the Seymour-Capilano Filtration Plant, then returned to the Capilano area for distribution through the existing system of water mains.

Disinfection

The USEPA Safe Drinking Water Act requires 3-log removal or inactivation of *giardia* cysts and 4-log removal or

Continued on page 11

CIPHI BC Branch Fall Educational Workshops

The BC Branch is excited to announce that it is actively organizing its 2011 Annual Educational Program. This year the Branch is developing an educational workshop on "Ethics in Action" in partnership with the National Collaborating Centre for Environmental Health (NCCEH). The workshop will look at ethical practice for working Environmental Public Health Professionals (EPHP's), and link it with cultural recognition and respect in the day to day work of EPHP's. The goal is to use real work scenarios in an interactive workshop and make the subject matter relative to working EPHP's.

We've decided that under the present fiscal restraint and travel restrictions that we would bring this year's education program to the people. We are hoping this will increase the opportunity for participation across the Province. The workshops will be offered in three locations in BC: Fraser Health Authority, Northern Health Authority, and Interior Health Authority. We are targeting October 4th, 5th, and 6th respectively as the workshop dates. The one day workshops will be recognized on an hour for hour basis under the Continuing Professional Competencies program as Professional Development Hours (PDH's).

The BC Branch Education Committee membership is well represented by each Health

Authority, Health Canada, as well as nationally by the NCCEH, and the collaboration has been very productive thus far. We will be including a social get together following each workshop so participants can mingle, snack, and imbibe. The Lower Mainland workshop will also include this year's BC Branch Annual General Meeting. We encourage your participation at the workshops as we work to meet your ongoing educational needs. Keep an eye out for more workshop information over the months to come.

Keir Cordner
CIPHI BC Branch President

Ethics in Action	
<i>A hands on workshop for</i>	
<i>Environmental Public Health</i>	
<i>Professionals</i>	
Langley	Oct. 4
Prince George	Oct. 5
Kelowna	Oct. 6

Caveat emptor on eating sprouts

Published On Wed Jan 12, 2011

Re: The indoor garden's tiny shooting stars, Living Jan. 10

At www.thestar.com

Nara Schoenberg's article encouraged people to grow and eat sprouts. As an environmental microbiologist for more than 38 years, I caution against following this recommendation.

In the U.S., since 1996, there have been at least 30 reported outbreaks of foodborne illness associated with different types of raw and lightly cooked sprouts. Most of these outbreaks were caused by Salmonella and E. coli infections. Recently, Tiny Greens Organic Farm of Urbana, Illinois, announced a recall of specific lots of Alfalfa Sprouts and Spicy Sprouts because they have the potential to be contaminated with Salmonella.

The CDC and Health Canada recommend that children, the elderly, pregnant women, and persons with weakened immune systems should avoid eating raw sprouts of any kind (including alfalfa, clover, radish, and mung bean sprouts). Cook sprouts thoroughly to reduce the risk of illness. Cooking thoroughly kills the harmful bacteria.

Request that raw sprouts not be added to your food. If you purchase a sandwich or salad at a restaurant or deli, check to make sure that raw sprouts have not been added. It is irresponsible to advocate an activity that could cause serious illness without including an adequate precautionary warning.

Michael Brodsky, Thornhill

Above is a "letter to the editor" on sprouts from Michael Brodsky. He was our former and most distinguished environmental microbiologist from the Ministry of Health lab on Resources Rd, Toronto and has authored the manual for Public Health Inspector, laboratory standards. (Now called Public Health Inspectors guide to the Principles and Practices of Environmental Microbiology)

Dennis Persaud, PHI Ontario Branch, CIPHI

Northern Health EHOs



Northern Health's Public Health Protection team met for training in Prince George March 8, 2011. The team is pictured above.

Back Row (left to right): Darrell Belanger, Matthew Shumaker, Crystal Brown, Dale Chen, Lloyd Lane, Sabrina Dosanjh, Pamela Stewart, Doug Quibell, Carmen Perry
Middle Row (left to right): Brian Steeves, Sarah MacDougall, Angela Wheeler, Paula Tait, Esther Tong, Neelam Parmar, Yvonne Liang, Jennifer Reid

Front Row (left to right): Lucy Beck, Dionne Sanderson, Jim Green, Lynette Winsor, Greg Tone

CIPHI Member Service Centre

Free 2011 Membership Contest

And the WINNERS are...

The Member Service Centre re-launch included a contest offering five free CIPHI annual memberships for those members who renewed and completed a list of four tasks on the MSC. One of the tasks was to provide feedback on the re-design...and the feedback was good!

We thank everyone who participated in the contest and to all that have visited the MSC to populate their member profiles, log their Professional Development Hours, do their Self-Assessments online, renew for 2011, answer Quick Polls, and partake in Blogs and discussion Forums.

Don't stop coming to the MSC just because the contest is over. We are in the process of moving the CIPHI website discussion forum over to the MSC so our members have a secure professional to professional forum for discussion. The Events module is getting some final touches so that it can serve as the National conduit for finding and registering for professional training and events. Please join the Communities and

participate in the blogs and forums. We built them to promote stronger collaboration and idea sharing amongst CIPHI's membership.

You'll find CIPHI's financial reports, committee activities, and more in the NEC Community, and we continue to add resources throughout the MSC that we hope will be beneficial. Keep the feedback coming so we can continue to grow the MSC and its services...

Now where was I... oh yeah, and the five 2011 free membership winners are:

Randy Ash – BC
 Julie Scarpino – Manitoba
 Lori Collins – Ontario
 Douglas Howse –Newfoundland
 Sarah Yusuf - Alberta

Congratulations from CIPHI and the Member Service Centre!

Keir Cordner
 BC Branch President



TIM ROARK
President

Tim Roark & Associates
 Environmental Health Consultants

3301 - 164 A Street
 Surrey, B.C. V3S 0G5

Tel/Fax 778-574-1188
 Email Tim.Roark@shaw.ca

Retirements

Alan Kerr Has Retired!!



After nearly 30 years in the field of Public Health Alan Kerr has decided to retire. Alan graduated from BCIT way back in 1982 and received his CPHI(C) a short time later. He is rumoured to have worked in Alberta for a few years before returning to BC but no trace has ever been located of him there. He did a brief stint with Vancouver where he became an integral part of the sailing crew of Rik Bernard, Arnaud Zondag and Doug Glenn on Admiral Carl Hutton's fine vessel and then on Captain Glenn's barque.

In the 90s he moved to Victoria where he has worked ever since. At a recent regional staff meeting Doug Glenn created a PowerPoint presentation titled "30 Seconds ...or less" in which he reviewed Alan's various careers. According to Doug, Alan has had quite the chequered past. Before he emigrated to Canada he was a member of the British Secret Service and his designation was 'Double oh 13' as you can see from his dashing photo in a tux. Now most of us would think that was a pretty exciting job – jet setting around the globe saving damsels in distress and averting nuclear holocaust. But Alan found that quite boring and after watching Monty Python one night decided to move to BC to become a lumberjack. He quit that career after finding out the stumps

were taller than him. Supposedly he had a brief career as a body double and then stunt double in adventure films plus worked at an amusement park until he was fired for hogging the kid's rides. You will need to talk to Alan or Doug to learn more about that.

The great news this was just the type of experience needed for working at VIHA. Alan soon found himself moving up the ladder and has retired from the position of "Regional Environmental Health Consultant." Ann Thomas, Regional Director, is clearly going to be lost with Alan having retired. Ann advised that, "Alan was a great support to Health Protection and was always willing to do whatever was needed of him at a moment's notice with no complaint. It wasn't always evident to some people just how broad the scope of his job was. Not only did he rise to all the challenges presented to him, he did it willingly and cheerfully. He is one of

the most laid back people I know and it got great results - from dealing with the media or taking on an irate client he managed it all with grace and good humour. I could always count on Alan's support and will miss him appearing at my door and asking, sincerely, "How are YOU doing?" And if I wasn't doing so well Alan would return with a Kit Kat chocolate bar to sooth the savage beast. He is truly one of a kind and he will be missed very much. While we wish him the best in his retirement we hope we haven't seen the last of Mr Kerr."

"Admiral Kerr" as he should now be titled will frequently be seen in his brigantine in the waters off Victoria and Vancouver so keep an eye open and you might get invited aboard for a dram of single malt whisky or a shot of Tequila. All the best in your retirement Alan.

Tim Roark
Historian
BC Branch



Photos (top left counter clockwise): Alan Kerr, Agent Double oh 13 ready for action; Admiral Kerr at the helm of his fine brigantine; Alan and Doug Glenn relaxing after another hard day at the office; "Paul Bunion" Kerr slays another tree.

Retirements

Richard Lawrence Retires

After a 36 year career with the Health Canada, Richard Lawrence, Regional Manager of Environmental Public Health Services has retired. Over 70 friends and colleagues attended a surprise party and lunch for Richard at the First Nations Indian Health Regional Office in Vancouver on March 17. Richard was truly surprised. Ian McLean was the Master of Ceremonies and was appropriately attired in a Tux with a large tartan cummerbund. Yousuf Ali, Regional Director of FNIH in BC spoke glowingly about Richard and indicated, *“he has enjoyed the respect of both our counterparts across the country and of the First Nations from around BC because of the work that he has driven throughout his career. Richard has always shown the utmost in dedication, not only to FNIH, but more importantly, to the First Nations that he has worked with and served during his career. The work he has done has improved policy and protected the people and the environment.”*

Grand Chief Doug Kelly of the First Nations Health Council told a story about working closely with public health staff and particularly Richard. He thanked him for his years of dedication and wonderful service to the Aboriginal Community in BC. All speakers related how Richard got things done and solved the bureaucratic approvals and problems later. After the usual shenanigans and great presents, Richard thanked all for attending and talked about his great career starting on the prairies, then in the high Arctic, Yukon and finally BC. He thanked all for their dedication, friendship and making him look so good. He indicated he is now looking forward to more time to relax, play hockey and continue boxing. A great cake was presented for Richard to cut and share with all.



Photos (top right clockwise): Yousuf Ali, FNIH Regional Director presents Richard with a plaque from Prime Minister Stephen Harper; Friends and colleagues await Richard's arrival at his surprise party; Linda Pillsworth presents hockey sticks to Richard (plus several other gifts from the group as well); Don MacVicar, Mike Pichichero and Cliff van Alstyne pose with Richard.

Seymour Capilano Filtration Project continued

inactivation of viruses. Direct filtration is credited with 2-log removal of giardia and 1-log removal of viruses as long as turbidity is maintained under 0.3 NTU. The UV system has been designed for 2-log inactivation of *giardia* and *cryptosporidium*. Treated filter backwash water and filter maturation water is recycled to the head of the plant. Virus inactivation will be achieved by chlorination using sodium hypochlorite to achieve CT values using the clearwell for chlorine contact time. Bulk sodium hypochlorite is delivered to the plant, although space has been allocated for future onsite sodium hypochlorite generation.

The selection of ultra violet as the primary disinfectant was taken as it provides inactivation of both *giardia* and *cryptosporidium* and is in keeping with Metro Vancouver's stated aim of minimizing the use of chemicals in the treatment of drinking water. There are 24 UV reactors, one for each filter, each equipped with 48 low pressure high output (LPHO) mercury vapour lamps enclosed in quartz sleeves. LPHO was selected over medium pressure technology based on lower overall life cycle costs.

Residuals Management

The residuals management system at the Seymour Capilano Filtration Plant is primarily designed to minimize impact on existing North Shore wastewater treatment facilities, to maximize opportunities for solids recycling and to maximize water use efficiency. Treated spent filter backwash water and maturation water is therefore recycled to the head of the plant.

Spent filter backwash water is conveyed by gravity to backwash equalization basins where it is stored prior to being pumped at a controlled rate to clarifiers equipped with plate settlers. The supernatant is returned to the head of the plant. The underflow is piped to thickeners. The thickener supernatant flows to an Actiflo treatment plant from where the liquid flow is piped to Burrard Inlet rather than the Lions Gate WWTP. The Actiflo sludge is returned to the thickeners. The thickener sludge is pumped to belt filter presses for solids/liquid separation. The liquid stream is returned to the thickeners. Solids are trucked off-site and beneficial uses are currently under review.

The discharge of the treated liquid stream presented challenges as the filtration plant is far from the nearest sewer, and in any case, the Lions Gate Wastewater Treatment Plant has limited hydraulic capacity. Following a favourable assessment by the Burrard Environmental Review Committee the decision was made to discharge the treated 3 – 9 ML/d effluent stream to Burrard Inlet. An

innovative concept was to make use of a decommissioned North Vancouver watermain for much of the pipe route.

Sustainable Technologies

Sustainability at Metro Vancouver means development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It is a balance of environmental, social and economic factors.

The project has been planned in strict accordance with Metro Vancouver's Sustainable Region Initiative and has utilized sustainable building, environmental technologies and best practices and from the planning stage to the present has taken community input into account. In fact, community monitoring and input has been, and still is, ongoing.

Aggregate for concrete was mined from a borrow pit 4 km north of the plant within the Lower Seymour Conservation Reserve. A concrete batch plant was also located north of the plant and only minimal quantities of concrete were trucked to the site from outside the immediate area. It has been estimated that, as a result, 75,000 trucks were diverted from local roads. EcoSmart concrete, in which significant proportions of the cement is replaced by fly ash, was utilized to reduce greenhouse gas emissions, (estimated to be about 10,000 tonnes), produced during cement production. The borrow pit is being backfilled with material excavated from the tunnels and will eventually be landscaped.

Best practices for stormwater management have been applied including wet ponds for detention, ditches and swales, green roofs, rainwater capture for flushing toilets, reduced paving surfaces and porous paving for the main parking area. Based on input from Lower Seymour Conservation Reserve stakeholders, and the advice of an arborist, the footprint of the plant was modified to preserve significant stands of mature trees. Care was taken to preserve and manage an existing amphibian pond and to construct new wet lands as part of storm water management.

The main building complex within the plant, the Operations and Maintenance Centre, was designed and constructed with the aim of Gold LEED® certification. It is heated and cooled using a geothermal system that utilizes the heat source and sink of the water in the clearwell via 40 km of looped HDPE pipe beneath the floor slab. Systems within the plant ensure that energy and water are used as efficiently as possible. Both the contractor and the owner retained environmental monitors to ensure that construction was carried out in an environmentally friendly manner.

Continued on page 12

Seymour Capilano Filtration Project continued

Green roof technologies were incorporated into the roofs of the clearwell and the filtration plant. The public now has access to the clearwell roof which is planted with native species.

Automation

The plant is fully automated and controlled by a computerized data acquisition and control system (CDACS) integrated with Metro Vancouver's SCADA system. The Metro Vancouver control room has been relocated from Lake City in Burnaby to the filtration plant.

Summary

The project came into existence because of the forethought and persistence of Greater Vancouver Water District staff, members of the public, Water Committee and Board, with the endorsement of the region's medical health officers. The expertise of consulting engineers, equipment suppliers and contractors with the support of Metro Vancouver staff turned the vision into reality.

The Seymour Capilano Filtration Project will ensure a safe and dependable drinking water supply for millions of consumers for many decades to come. It is a major Canadian project of which we can all be proud.

Update

In mid 2011, Metro Vancouver will begin construction work on a new \$110 million ultraviolet disinfection facility for the Coquitlam source water. Commissioning and start-up is projected for late 2013.

In other words, major water treatment upgrades should be completed for all three of the region's water supplies by 2013.



Pictured above author Howard Dallimore

Thanks to the BCWWA for allowing us to reprint this article.

R U HOT ENUF? (To avoid food poisoning!)

A creative new food safety campaign, [R U HOT ENUF](#), has been unveiled this month with an important message for British Columbians: Use a digital food and fridge thermometer at home to avoid food poisoning! Hundreds of thousands of people in BC suffer from food poisoning every year. Food poisoning, which is especially dangerous to young children, is commonly caused by undercooked meat, and under-chilled food, both of which can be avoided. The [R U HOT ENUF](#) campaign is taking this message to the people, with the help of a [superhero](#), some great prizes to be won, and the voice of celebrity chef, [Chuck Currie](#).

<http://www.youtube.com/watch?v=9-TtwK9oins>

<http://www.youtube.com/watch?v=Y0eoWOMJ1Sc>

For more information, tips and resources, please visit the [R U HOT ENUF web site](#).

BCIT Awards



Pictured is Marta Jaeckel being presented the *John A Stringer Memorial Award* from Gary Tam on behalf of the BC Branch, CIPHI. Congratulations Marta!



Misty Palm happily receives the 2010 *Bill Leith Award* from Lorraine Woolsey Program Health of Environmental Health at BCIT. Congratulations Misty!

Recently Certified EHOs

2009 BC Certified EHOs

April Candidates

Eddie Fung
Ravinder Monga
Gordon Moseley
Gurinder Saini
Dionne Sanderson
Binny Sivia

October Candidates

Jessie Andrus
Rory Beise
Gurleen Bhatia
Joanne Chang
Sonam Chatha
Tina Chen
Jeremey Chow
Kevin Freer
Juliana Gola
Hui Hang
Emily Ho
Merima Kostecki

Raymond Lam
Venus Lee
Katherine MacQuarrie
Angela Meyer
Misty Palm
Neelam Parmar
John Pickles
Boddy Sidhu
Michelle Truong
Kelcy Watts
Erin Yehia
Isaac Yung

2010 BC Certified EHOs

April Candidates

Christopher Johnston
Lewis Johnston
Stephaen Kirkpatrick
Jessica Ponto
Pel minder Sandhu

October Candidates

Amanda Anderson
Anahita Bazarjani
Jastinder Bhatti
Emily Boggis
Stephanie Chak
Dale Chen
Priscilla Cheung
Tracie Cheung
Sabrina Dosanjh
Mark Hall

Heidi Ho
Marta Jaekel
Sara Li
Kuljeet Rai
Nicolas Schmitt
Adrian Thorp
Esther Tong
Isabel Vitipong
Dahlia Tousuf
Lall Singh

Congratulations to all the newly certified Environmental Health Officers!

7x

The number of times you should wash your hands daily to increase the likelihood of staying healthy.

Source: Professor Marilyn Lee, Occupational and Public Health, Ryerson University, Toronto.

BC Branch Executive 2010

www.ciphi.bc.ca

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