

# OPERATOR DIGEST

WINTER 2020 | NUMBER 143



Quarterly Newsletter of the  
Environmental Operators  
Certification Program – BC/Yukon

## INNOVATION

### BLACKWATER SYSTEM

Vancouver Convention Centre West,  
trailblazers since 2010

P6

D VESSEL  
NOT WELD  
OR BURN

T2 Bioreactor



Bruce Caister (EOCP Certified Operator,  
WT III, WD I, WWT IV) with the T2 Bioreactor.

## OPERATOR PROFILE

Joel Bilodeau, Water  
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# OPERATOR DIGEST

The **Operator Digest** is the official newsletter of the **Environmental Operators Certification Program**.

Submissions for publication in the Digest are welcome. Please email them to the EOCP office at [eocp@eocp.ca](mailto:eocp@eocp.ca)

Changes of address, annual dues, Continuing Education Requirements, exam applications, as well as general inquiries about the program should be addressed to:

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The Environmental Operators Certification Program is a charter member of the Association of Boards of Certification and is a registered society with more than 4,500 active members.

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## OPERATOR PROFILE

### Joel Bilodeau

Water Operations Supervisor



#### **How did you become an Operator?**

When working as an Equipment Operator for the Town of Carman (Manitoba), I was approached by my boss when a position opened up at the Class III Lime/Soda Softening Plant. Interested in the opportunity to learn something new, I eagerly accepted the job and started training to be an Operator.

#### **How long have you been an Operator?**

I have been working with treatment, distribution and collection for 15 years. I started when I was 19.

#### **What are your core functions?**

Currently working as Water Operations Supervisor with Teck Resources, my main functions are to oversee the daily operations at the recently commissioned Saturated Rock Fill (SRF) treatment facility which has proven to be an economical and effective method of removing selenium and nitrate from mine impacted water. Previous to this, I was always working with municipal treatment/distribution systems and worked closely with clients and the public. This has been a refreshing change and an excellent learning opportunity to broaden my skills and play a part in protecting the environment in the Elk Valley.

**What is your typical day?** I work closely with many skilled and highly educated teammates from diverse backgrounds. My day always starts with safety at the forefront, we hold a daily safety toolbox talk before discussing the work plan at the site. I supervise Water/Wastewater Treatment Technicians and contractors working at the SRF. My office is at 1,750 metres! Keeping the water flowing and

ensuring it's on spec for discharge is my main priority.

**What do you most enjoy about the work?** I have always enjoyed working anywhere where I'm learning. Certainly in this role with Teck, I'm learning a LOT and that's what makes it fun. The people in the group are super. When you enjoy working with others and are open to accepting new ideas, and working together for common goals, life is just so much easier and fun.

**What are some challenges you face?** I currently work 7 to 12 hour days. This was an adjustment for me working at ways to maintain healthy living. My job-related challenges change daily but no matter how much is going on (which can be a LOT sometimes), making sure I give the important issues my full attention is key.

**What advice do you have on how to have a successful career as an Operator?** I always tell people when they ask me about what I do, that I work in the best industry. There will always be high demand and sound job security. I always tell people to always work just a little outside of their comfort zone and push yourself. This will make you a better Operator and it's amazing how quickly you will progress. Always take opportunity to grow and work together with everyone, even if you don't always like them ;) Things change and people change, and I find that through the hardest work challenges, if you work together with people, the sense of accomplishment is so much better.

**What do you do when you aren't working?** My wife and I have two Labs, we love getting out in the mountains and going for adventures. We also travel a lot. In the last 18 months, we've been to 8 countries and the Yukon. It's been a great couple years.

**What else can you tell us about working as an Environmental Operator?** A very smart engineer once told me a story about troubleshooting a manganese problem in a drinking water plant, if anyone reading this has experienced unexpected manganese issues, they should listen up... When things get crazy, just stay calm, boil some water and pour a cup of tea. Garry Drachenberg told me that story many times when teaching a water treatment course I took at Red River College. For some reason, it stuck with me forever and it was used many times, especially when manganese came to find me!

**Whom would you recognize as a mentor?** See answer above.



# MESSAGE FROM THE DIRECTORS AND STAFF



**Mike Firlotte, Chair   Kalpna Solanki, CEO**

in developing countries recover from disaster situations and build capacity.

Our Customer Relationship Manager (CRM) was updated to allow for automatic annual membership dues invoicing every November for the following year. Please log in at <https://crm.eocp.ca/> and ensure the 'billing contact' information on your profile is correct. If you have not yet received an invoice for your 2020 membership dues, please contact us.

In 2017 we started the roll-out of our new facility classification models that are considered to be best of class in North America and have now been merged into our CRM. A key initiative for 2020 is to ensure that all facilities have classifications that are up to date – classifications completed within the last five years and/or when a facility had significant modifications.

To ensure stakeholders utilize the CRM to its full capacity, we are continuing with webinars on a scheduled as well as request basis. Webinars are available on:

- CRM Basics
- Applying for Exams
- Facility Classification

Please check the Calendar of Events at <https://eocp.ca/events-calendar/> to see the webinar schedule. If you wish to have a webinar for a stakeholder group, please contact us – we can do that for you!

We are also continuing work with the



**Chris Lawrence, EOCP Chair-Elect and Mike Firlotte, EOCP Chair, at the ABC Conference in Mobile, Alabama.**

'Compliance Project', a collaborative effort with ministries in BC and YK to ensure that all water and wastewater facilities are appropriately classified, and have at least one Operator certified at a level commensurate with the classification level of the facility.

Reaching out to our membership is important to us. If you want us to come and do a presentation to your work or community group, please contact us.

A HUGE thank-you to our Operators who recently returned from the Bahamas on a mission for Operators Without Borders (OWB). They volunteered their time to provide invaluable support to communities in need. We would also like to acknowledge the support of ABC and CaribDA for providing funding for this incredibly important initiative.

As we enter this new year and new decade, we will continue to advocate for our membership, promote the profession of water and wastewater Operators, and collaborate with our stakeholders to ensure all people have safe drinking water and wastewater management – we firmly believe that this is possible.

Mike Firlotte, Chair  
Kalpna Solanki, Chief Executive Officer

What a great start to a new year and a new decade!

To begin with, registration for the EOCP's second conference, #EOCP2020 will be live on the 9th of March. Make sure to save the date for #EOCP2020 which will be from the 14th to 16th of September 2020 in Vancouver!

Two board directors and staff attended the ABC conference in Mobile Alabama and had the opportunity to interact with water and wastewater professionals from across North America. A key focus of this conference was on learning strategies, exam writing, and exam question development. This issue of the Operator Digest has part two of an article on tips for exam writing based on presentations at the conference, as well as feedback from leading training providers. Also at the conference, ABC presented Operators Without Borders with a \$5,000 cheque to support the work of OWB in assisting water and wastewater utilities







## A New Water Treatment Plant for PARKSVILLE & NANOOSE BAY

By Jenni Green, P. Eng

The Englishman River Water Service (ERWS) project is a joint venture between the City of Parksville (74%) and the Regional District of Nanaimo (26%). The project, which now supplies water to the communities of Parksville and the NanOOSE Bay water service area, was conceptualized in the early 2000s.

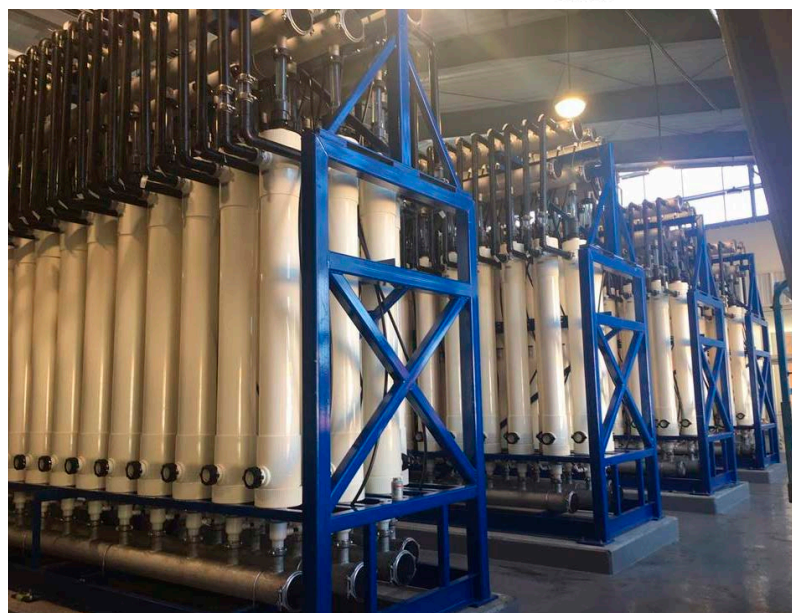
Over the past 20 years, considerable effort was devoted to planning the water system so it would both meet community needs and be environmentally sound. There are many factors contributing to the need to expand the water supply infrastructure such as greater reliability and security, higher drinking water quality standards and increasing water demands.

Different water treatment technology processes were reviewed and considered suitable for treating the Englishman River water source. These were:

- Direct filtration
- Conventional treatment (sedimentation/media filtration)
- Dissolved air flotation/media filtration (DAF)
- Membrane filtration
- Ballasted flocculation (Actiflo®/media filtration)

Direct filtration technology was ruled out due to the inability to readily handle turbidity spikes. The pilot testing for dissolved air flotation technology showed that organic material was too heavy to allow this technology to perform well under all conditions. Ballasted flocculation technology uses rapid sand filtration and easily handles high turbidity spikes; however, this technology was determined to be too excessive in low turbidity events and therefore results in high operational costs. Pilot testing determined membrane technology water treatment best suits the Englishman River water source.

There are naturally occurring microbiological pathogens such as E. coli present in the surface water which has typically been removed using chlorine disinfection. There are also organisms such as Cryptosporidium and Giardia which are not removed with the use of chlorine. The most effective means to ensure



*Membranes installed in the new facility.*



such organisms do not find their way into the community's potable water supply is by using the multi-barrier approach which is required by Island Health to meet their health standards and to be in compliance with Canadian Drinking Water Guidelines.

The new facility provides water treatment capacity of 16 million liters per day, consisting of membrane filtration, ultra-violet (UV) light and chlorine disinfection. Construction began in 2017 and was substantially completed in December 2019.

As with any construction project of this magnitude, there were a number of challenges. Over the 2-year construction period, there were close to 100 change orders. At a total cost of \$41.7 million dollars, it was the largest, and most expensive, construction project that has ever been completed by the City of Parksville. Just over \$12 million came from provincial and federal governments. Contractors, engineers and project managers were located all over North America, which made coordinating project meetings difficult at times. The chosen water treatment technology was new to the City's certified operators. There was a big learning curve to climb in order to get the operators trained and confident with the new system. The team worked well together and overcame all of the challenges they were faced with.

Construction of the new in-river water intake posed challenges from a permitting perspective. There were multiple jurisdictions involved who needed to sign off on the installation of the new intake and transmission line which ran underneath the river to the reservoir. A cofferdam was constructed in the river to facilitate the work. During commissioning of the facility, heavy fall rain caused drastic raw water quality changes. High flow, turbidity and organic content was encountered on a daily basis during the commissioning process. This required the new operators to make a variety of quick processes changes.

In Fall of 2019, operations staff worked with the EOCP to pre-classify the new facility. Based on information provided, it was determined that the facility classification would be level IV water treatment, making this the 21st Level IV treatment facility in BC, and the fifth on Vancouver Island. This re-enforces the need for highly trained operators in the region. With challenges related to water quality, and a move to implement higher water quality standards, there is an increased need for highly trained Operators across all of BC.



*Crew meeting during the initial WTP excavation.*

***"It was overall a great commissioning experience, and we have only made the facility better by addressing the deficiencies and problems."***

Jonathan McLuskie, City of Parksville



*River intake structure.*



# BLACKWATER SYSTEM



## VANCOUVER CONVENTION CENTRE WEST, TRAILBLAZERS SINCE 2010

By Kalpna Solanki, BSc, MBA, CPHI(C)

There are new stories every day on climate change, climate emergency, and the importance of water conservation. Yet, there are only a handful of systems in BC/Yukon that have sophisticated systems in place that treat wastewater as a resource, and truly cut down on the use of potable water for uses such as flushing toilets and watering gardens.

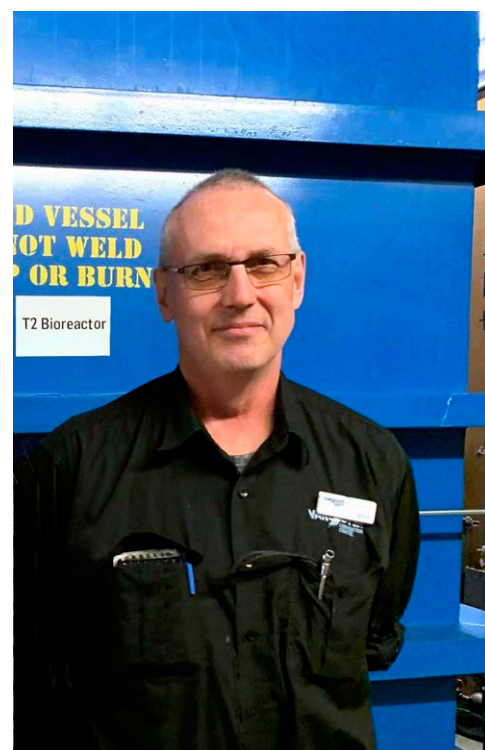
The Vancouver Convention Centre West has 4,339m<sup>2</sup> (466,500 ft<sup>2</sup>) of function space – that's a lot of toilets and sinks. Add to that, there are a number of restaurants within the complex as well – that's even more toilets and sinks.

As the world's first **double LEED® Platinum certified convention centre**, the facility is committed to being as 'green' as possible and has its own unique Blackwater Treatment Plant that is run by Bruce Caister (EOCP Certified Operator,

WT III, WD I, WWT IV). Wastewater from the convention centre and restaurants is collected in an equalization tank with a volume of 75,708L (20,000 gallons).

To keep hydrogen sulphide under control, an aeration system that pumps in air at a rate of 311L/min (11 ft<sup>3</sup>/min) has been installed, and the tank is also dosed with hydrogen peroxide. For additional odour control, carbon filters have also been installed. There is also a safeguard in place: if the equalization tank gets filled, a lift station can discharge wastewater to the city's sewer system.

The wastewater then goes through two bioreactors in series, and then through membrane filters. The resulting effluent is treated with sodium hypochlorite and stored in three tanks that in combination hold 100,000L. The system can treat up to 250m<sup>3</sup> of wastewater per day, the



Bruce Caister with the T2 Bioreactor.

effluent looks very clear and odourless coming out of the sampling tap, and has a chlorine residual of 0.5 ppm.

The system not only saves potable water – up to 37,355 meters<sup>3</sup>/year - but importantly also demonstrates that a building even as large and complex as the Vancouver Convention Centre, can treat its wastewater for reuse. The treated effluent is used for flushing 150 toilets and also for irrigation of the roof garden that is 24,281 m<sup>2</sup> (6 acres) in size and covers almost the entire convention centre.

In addition, although not currently in use, the facility also has a reverse osmosis system in place for desalinating ocean water.

It has never made sense to use drinking water to flush toilets, and with increasing pressures to reduce, reuse, and recycle, we hope more facilities will implement systems that are more 'green'.



*Reverse Osmosis Unit.*



*The clear and odourless treated effluent. Used for flushing 150 toilets and irrigating the roof garden.*



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By Valerie Jenkinson (OWB Chair) and Kalpna Solanki (OWB Treasurer)

*All photos are from the deployment to rebuild after Hurricane Dorian struck in September 2019 in the Bahamas, and are provided by volunteer Gavin Waterfield.*

2019 was an incredible year of growth for Operators Without Borders. The organization was registered as a non-profit in Canada, and paperwork has been filed for it to gain charitable status.

The website was finalized and launched, and allows for Operators to volunteer, utilities to apply for volunteers, and allows donors to help fund the very important work of OWB <https://operatorswithoutborders.org/>

The first deployment of OWB was to Dominica in 2017 after Hurricane Irma and Maria which were undertaken by Glen Ketcham, Marcel Misuraca, and Jason Mank.

With more than 60 Operators in the database, and thankfully no disasters in 2018, the OWB Board made the decision to extend the mandate to assist utilities in developing countries with training and operational assessments. The first capacity building assignment was in Belize

*Gavin Waterfield, left, had lots of help in the Bahamas from Davado, a local water Operator.*

*Gavin commented, "Overall this was a great experience, I met a lot of great people and made lifetime memories."*

where OWB trained 120 staff members on Confined Space, Trenching and Excavating, Utility Hazards, Chemical Safety as well as completing an operational assessment. Team members were Ian (Mac) McIlwham, Patrick Reeves, Dan Skidmore, and Ron Enns.

"Many countries are challenged in providing their people with safe water and wastewater management, especially in post-disaster situations. By funding certified water and wastewater Operators from Canada and the US to help build, install, and maintain their systems, we can achieve that basic need. Through education and hands-on demonstration, even the most desperate and struggling country can begin to provide clean water and basic wastewater treatment to its people. Operators Without Borders provides the necessary help to accomplish that goal and can bring a future to those in desperate need of safe water and wastewater management." – Ron Enns, EOCP Certified Operator, Manager, Business Development, Kwantlen Polytechnic University.



*Pulling well pumps. – We were tasked with sampling the salinity from some wells that weren't operational so we pulled the existing pumps out to lower our mobile setup down.*



*New test well – some new test wells being installed looking for fresh water.*



*We found this boat at least 5km inland tangled in the trees, one of the local operators claimed it was his so we affectionately named it Evi's boat.*



The second capacity building assignment was in Barbados where the OWB team undertook an operational assessment and helped develop emergency response plans. The request from Barbados came at the very last minute and fortunately, the following Operators volunteered with less than one week's notice: Ian McWilliam, Jim McKerr, Victor Poyotte, Dan Skidmore and Mike Caston.

The most recent deployment was in response to the devastation caused by Hurricane Dorian in the Bahamas where



*This is well field 6, we spent a lot of time here as there are over 120 wells. The salt water level here was 22' you could tell from the bark missing at the top of the trees!*

parts of Grand Bahamas and the main city in Abaco - Marsh Harbour - were wiped out. The assistance of OWB was requested by the Grand Bahamas Port Authority, which oversees water services, to assess what was needed.

An initial team made up of Jason Mank, Marcel Misuraca, Andy Phillips (from St.

Kitts), and Valerie Jenkinson completed an assessment and put together a schedule for the teams that followed. In all, five teams were deployed giving a total of 17 weeks of volunteer time. A major development here is that the Canadian volunteers, Ulli Holdenried, Jim McKerr, Gavin Waterfield, and Brian Earl were  
*OWB continued page 10*



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# CEUs SOME COMMON MISCONCEPTIONS

By Heather Reynolds

## With the start of 2020 comes the beginning of a new CEU reporting period for all EOCP Operators.

Hopefully, you (or your Operators) have completed the CEUs for the 2018-2019 reporting period, and you are now starting to look into training for the 2020-2021 period - due Dec 31, 2021. If you have not yet submitted your CEUs for the 2018-2019 period, you have until March 31st

to get your CEUs allocated to your CRM profile. Operators holding certificate types Level I-IV require 2.4 CEUs with 0.6 CEUs core to their certification/s held, while Operators holding SWS and SWWS certification require 1.2 CEUs with 0.3 CEUs core required for their certification/s.

## Several changes to the CEUs came into effect on Jan 1, 2020.

The EOCP communicated these details via the Operator Digest, social media channels, and email, but we want to highlight them again:

**1. BWD Operators now require 0.6 CEUs of training every two years.** The 2020-2021 period is the first with a CEU requirement for BWD Operators, due Dec 31, 2021

**2. New Jan 1, 2020 – Safety Courses are now Related, not Core** – e.g. First Aid. For a list of the 59 courses affected, please contact the EOCP Office at [eocp@eocp.ca](mailto:eocp@eocp.ca)

As you make your plans for CEUs for the upcoming two years, please keep in mind the calculation rules that apply to CEUs. These rules have not changed since the Continuing Education Requirement (CER) for BC/YT Operators was implemented in the mid-2000s:

- 1. CEUs do not divide between reporting periods.** The whole CEU value stays together.
  - This rule is in place to encourage Continuing Education, rather than Operators getting three reporting periods behind and racing through a high CEU value course. Operators need to continue their education through the lifetime of their career in the industry.
- 2. Related CEUs are not discarded.** A core of 0.6 CEUs is required for

each certificate held, the rest of the CEU requirement can be from related training e.g. First Aid, WHMIS, Supervisory, etc.

**3. CEUs allocate based on date completed, not date submitted.**

- Every CEU submitted needs to include your Name, the Course Title, and the Course Date. If the Date completed says 2016 – it will not count for 2020-2021 period.
- The EOCP also looks at expiry dates e.g. Traffic Control tickets with a 3 Years Expiry. If the wallet card submitted expires in 2021, your training was in 2018 and will be allocated to the 2018-2019 period.

**4. Operators are exempt from the reporting period within which they are Certified.** If you write and pass your Level I or Small Systems Certification Exam in Feb 2020, you are exempt from the 2020-2021 period.

**5. Operators that hold only OIT Certification do not have a CEU requirement.** Only after an Operator writes and passes their Level I or Small Systems Certification Exam will CEUs be required.

**6. CEUs fall back to old reporting periods if you are behind, but do not jump ahead if you have extra.** Any extra CEUs are kept on your CRM profile, ready for when you apply for your Level II, III, or IV exams.

**If you have any specific questions that pertain to your personal CEU requirements for the 2020-2021 period – please contact us at [eocp@eocp.ca](mailto:eocp@eocp.ca) and we can address your specific requirements based on Certificates held.**

*OWB continued from page 9*

joined by OWB's first volunteers from the US, Tom McGrain, Todd Saums, and Aisha Niang. The teams assisted the GBPA in conducting on-going sampling at the wells for salinity, helped the geologists and hydrologists locate new water sources, worked with other NGOs to build and maintain emergency RO systems, cleaned up work sites made unsafe by the hurricane damage, and advised and assisted in other areas as requested.

"It is important for water professionals to get involved and share their knowledge, skills, and training. Water and wastewater services are vital to human life and basic needs. Trained professionals are a necessity in this field of work." – Todd Saums, Certified Operator, Northwestern Water and Sewer District (Bowling Green, Ohio).

"I would like to thank you for the opportunity to help the people of Grand Bahama Island. It was a surreal experience and has change my life for the better. Given the opportunity, I will gladly join efforts in the future." – Tom McGrain, Certified Operator, Northwestern Water and Sewer District (Bowling Green, Ohio)

"The members of the Ohio Water Environment Federation are proud of Todd and Tom and their commitment to travel to the Bahamas to assist with the water and wastewater infrastructure recovery efforts that are ongoing in the wake of Hurricane Dorian," said. "What could be better or more meaningful than water professionals assisting other water professionals in need?" – Kim Riddell-Furry, OWEA President

Whilst we now have more than 60 Operators who have signed up to volunteer, fundraising efforts to send them on missions are ongoing. Silent auctions at the Canadian Water and Wastewater Association, and Environmental Operators Certification Program conferences, and donations from the Ohio Water Environment Federaton, Caribbean Desalination Association (CaribDA), and the Associated Boards of Certification (ABC) have been instrumental in funding the missions.

The OWB Board is incredibly grateful to all the volunteers who gave so selflessly of their time, and the donors who made it possible for the volunteers to be deployed on missions. Together, these efforts have made a difference to the wellbeing of thousands.



# THAT FOUR LETTER WORD

## EXAM PART 2

by Kalpna Solanki, BSc MBA CPHI(C)

In preparation for my exam, I used many of the skills I identified in my last article on exams, but of course, as many of us do, I procrastinated...and had to take some time off to study. The end result was worth it though...I got 91%!

Along the way, and after attending the ABC Conference recently, I realized that some additional tools can be utilized to succeed at exams.

While people often read and reread material over and over again, a more effective method is to quiz yourself. An article that discusses some tips for retention is from the New York Times: How to Improve Your Memory (Even if You Can't Find Your Car Keys) at <https://tinyurl.com/y43njha5>

**Practice exams are great for recalling what you have learned.**

Sometimes, Operators do practice exams in the hope that one or more of the practice questions will be on the actual exam. Trust me, that won't happen, but practice questions will help in many ways, including:

- for Operators who have not written exams in a while, practice questions will help reduce the fear factor;
- training you to read a question thoroughly; and, if you are lucky,
- testing your ability to answer questions that may be similar.

### Cloze Reading

Another method that I have used and did not know that it had a name was to 'fill in the blank'. This method of learning is called Cloze Reading at <https://tinyurl.com/rh3zd8o> whereby you create their own study guide with questions such as:

The radius of a circle is one-half the \_\_\_\_\_.

- A. circumference
- B. chord
- C. diameter
- D. arc

Regarding math (that other four-letter word!), if you look at a math question, and it looks like this to you:

**Q:** If I have 10 ice cubes, and you have 11 apples; how many pancakes will fit on the roof?

**A:** Purple, because aliens don't wear hats.

Help is on the way in the form of an excellent math workshop from Sidney Innerebner on 'Math Strategies for Success' which is at: <https://tinyurl.com/tpzabmr>

### Read the question carefully

In addition to that though, as pointed out by a couple of training providers, is the importance of thoroughly reading the exam question – every single word of it! Just simply scanning the question and picking out key words to formulate an answer could result in ignoring some key concepts, such as:

A treatment plant has two clarifiers 30m wide and 2.5m deep. The flow is 12 ML per day. What is the detention time?

The speed-reader picks out the words 'clarifier' and 'detention time', immediately looks up the formula for detention time and realizes the volume needs to be calculated. The word 'two', is essential, and is missed entirely.

Related to this is the importance of reviewing the exam at the end in case you have missed any questions, or have inadvertently put in two answers for one question (if you're doing a written exam).

### Lastly, a tip from a training provider:

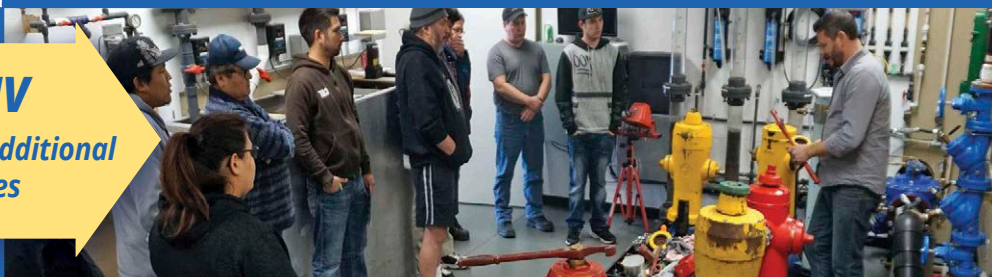
"The second thing I tell my Level III and IV students is to trust their gut when they select an answer. I always ask a student who tells me they failed their exam by two or three questions: "How many answers did you go back and change?". Humans have this amazing power of second guessing themselves, usually to their detriment.

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# EOCP TRADESHOW AND CONFERENCE

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[https://events.myconferencesuite.com/EOCP Tradeshow and Conference 2020/reg/landing](https://events.myconferencesuite.com/EOCP%20Tradeshow%20and%20Conference%202020/reg/landing)



## 2018 CONFERENCE FEEDBACK

“Great job, especially for a first conference! As a speaker I found the experience very professional, well organised and useful. It was an excellent opportunity to meet operators in BC and learn from them.”

- Presenter

“The conference was well organized and thought out. Can't wait for the 2020 conference.”

- Conference Delegate

“Very well organized and structured! Kudos to all the EOCP staff and volunteers!”

- Conference Delegate

“You guys raised the bar – this was an excellent tradeshow. We will be back!”

- Vendor

WATER



TRANSPORT

LEADERSHIP

WASTEWATER

2020 CONFERENCE THEME

# LEADING EDGE

Four learning streams:

- water
- wastewater
- transport  
(distribution and collection)
- leadership

Wastewater workshop at 2018 conference.



## EOCP TRADESHOW AND CONFERENCE

*Designed for Operators, by Operators.*

**VENUE: Marriott Pinnacle Hotel  
Vancouver, BC.**

For more information, check out the  
EOCP website or contact the EOCP.

[www.eocp.ca](http://www.eocp.ca)  
[eocp@eocp.ca](mailto:eocp@eocp.ca)

T 604.874.4784  
F 604.874.4794



# IN MEMORIAM

## Russell Victor Megas

December 12th, 1967 – November 15th, 2019  
Former Operations Supervisor at Metro Vancouver



Russell Victor Megas, 51 years of age, passed away peacefully at the North Shore Hospice on the 15th of November 2019. Russ is survived by his wife Christine, his mother, and several family members.

Russ worked as an artist before starting his life-long career with Metro Vancouver in 1988 working up at the Cleveland Dam in Water Operations. He then worked at the control room for Metro Vancouver where he was considered to be a genius at controlling the ever-growing system. Russ then went on to become a Foreman for water operations, continuing on to become a Supervisor. Russ

was a very highly regarded and respected member of the Sewer and Drainage Operations team and liked by all who had the privilege to know him.

Russ was an amazing person, and his love for family and friends was unsurpassed. He was never happier than when he was helping others. He enjoyed volunteering as a Ski Patrol member at Seymour Mountain, and anything to do with animals and the water. Russ taught courses at BCWWA and had the opportunity to develop a course as well. He never stopped learning, taking courses online, through work and in Operation Supervisory Skills at BCIT. Russ was also an invaluable member of the EOCP's Subject Matter Expert group, and was always happy to help whenever the EOCP called on him.

A Celebration of Life was held on the 1st of December 2019 in North Vancouver. Please visit Russ' memorial site at <https://tinyurl.com/vvjqdnv> to sign the book of condolences.

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# GROUNDWATER LICENSING

Soon to be mandatory in BC  
for non-household purposes

by Kalpna Solanki, BSc MBA CPHI(C)

On the 29th of February 2016, the Water Sustainability Act (WSA) became law, and groundwater licensing came into effect. Under the law, 20,000 businesses and landowners who had been using groundwater for non-household purposes before the WSA came into effect must apply for a licence. Yet, four years later, only 15% of groundwater users have applied for a water licence, while the rest of the users appear to be reluctant or unaware of the need to apply, and that the **deadline for compliance is only two years away**.

"Not obtaining a groundwater licence and hoping that government will never find out is doomed thinking," say Mike Wei, hydrogeologist and former deputy comptroller of water rights, and David Slade, water well drilling contractor.

**Don't Take a Risk, Don't Delay, Apply Now:** "If an existing groundwater user applies after March 1, 2022, they will be viewed as a completely new user and that seniority will be gone! In many watersheds where the streams are now fully recorded (no more licences being issued), the chance of an existing user getting a licence

applying after March 1, 2022 may not even be possible – imagine how that would impact the business or landowner?"  
- Mike Wei and David Slade.

Find out more:

<https://tinyurl.com/vcq4b2o>



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# STATISTICS

July 1 to December 31, 2019



# EOCP

Environmental Operators  
Certification Program

The figures in the Operator certification report reflects those Operators who have met their certification requirements for the 2018 -2019 reporting period, as well as having paid their 2019 Operator dues.

We just completed the two year, 2018 – 2019 CEU reporting period. We were busy with a large volume of course submissions, 1,417 Operators submitted training in the last three months of 2019, with 2,438 CEUs earned. That's 24,380 hours of training!! Thanks for getting your certificates to us.

Those of you who haven't submitted course completion certificates for the 2018 – 2019 period should do so as soon as possible. You can check your status by logging into your profile at <https://crm.eocp.ca/> and clicking on ACCOUNT to see if your

dues have been paid, and CEU under the LEARNING STATUS tab to confirm that your CEUs have been met. If your CEUs have not been met your status will be red flagged and you will be listed as not certified.

## Exam Statistics

- **372** Operators wrote certification exams in 61 exam sessions between October 1, 2019 and December 31, 2019.

## Facilities

- **30** facilities were newly classified or reclassified from October 1, 2019 to December 31, 2019.

## FACILITY CLASSIFICATION as of Dec. 31 2019

Classification	IV	III	II	I	Other	Total
WT	20	41	117	68		<b>246</b>
WD	33	64	176	139		<b>412</b>
WWC	5	20	83	120		<b>228</b>
WWT	29	33	96	65		<b>223</b>
SWS					906	<b>906</b>
SWWS					219	<b>219</b>
Total	87	158	472	392	1,125	<b>2,234</b>

## OPERATOR CERTIFICATION as of December 31, 2019

Classification	IV	III	II	MUII	I	MUI	OIT	Total
WT	27	72	170	7	270	16	28	<b>590</b>
WD	63	131	611	13	622	22	21	<b>1,483</b>
WWC	13	49	356	12	567	16	21	<b>1,034</b>
WWT	89	96	189	7	229	217	25	<b>652</b>
BWD								<b>42</b>
SWS								<b>598</b>
SWWS								<b>239</b>
OIT							74	<b>74</b>
Total								<b>4,712</b>

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# H<sub>2</sub>O/20

## SHARED PERSPECTIVES, CLEAR VISION

**48th ANNUAL CONFERENCE  
& TRADE SHOW**

APRIL 26 - 28, 2020 | PENTICTON, BC

## SHARED PERSPECTIVES, CLEAR VISION

With the growing impact of climate change, the water sector is in a time of uncertainty. As our environment continues to change rapidly around us, we have less clarity of what the future will look like than ever before. Historically, the segregated and isolated practice in the different areas of the water sector have led to siloed approaches to the common problems with little opportunity for collaborative and synergistic overlap. In order to mitigate the risks of our ever-changing environment, the water sector must come together to reflect on lessons from the past, build on successes of the present and develop a clear vision for the future.

Join us in Penticton, BC from April 26 – 28, 2020 for our 48th Annual Conference & Trade Show, focused on shared perspectives. This year's theme showcases how diverse perspectives from different areas of the sector may offer complimentary solutions to common problems the industry is facing. Through reflecting on lessons learned and examining current practices, the water sector may begin to form a clear '20/20' vision for what the future of water may hold.

**BCWWA 48<sup>TH</sup> ANNUAL CONFERENCE & TRADE SHOW**  
April 26 -28, 2020 | Penticton, BC

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