



BRITISH COLUMBIA OPERATORS DIGEST

A NEWSLETTER FOR WATER AND WASTEWATER OPERATORS

MARCH 2001 NUMBER 101



EOCP Toll Free Phone
1-866-552-3627 (EOCP)

The EOCP Board Office now has a toll free number to allow operators easier telephone access.

EOCP Strategic Planning Meeting

The EOCP Board of Directors and EOCP staff met in Vernon on February 4th and 5th with one day set aside for regular Board business and the other day for a strategic planning session. The planning session gave the Directors and staff the opportunity to bring forward ideas to promote, improve and plan for the future of the Certification Program. The Directors and staff submitted thirty-five suggestions, some from operators and some from themselves.

The suggestions covered all aspects of the Certification Program, including topics such as reviewing the Program Constitution, setting strict exam schedules, and reviewing long-term financial goals. The thirty-five suggestions were discussed and from these, seven strategies were discussed and planned in detail. The subject of mandatory water certification for operators was not included in the seven strategies as the Board is presently involved with the BCWWA and associated Provincial Ministries, and it is felt the mandatory certification is imminent.

The top seven strategies as determined at the Strategic Planning Meeting:

1. The EOCP Board must keep in close contact with the major players in government and industry. The Board felt it was very important to recruit and maintain our relationships with the BCWWA, Ministries of Health and Environment,

and other associations and government branches, through press releases/information packages, annual reports, newsletter, etc.

2. Own Examinations. The Board is not satisfied with the make up of the ABC standard exams, and is especially unhappy with the associated costs of the ABC exams. The Board will investigate creating and implementing our own exams.

(Continued on page 3)



David S. McKay Environmental Centre in Vernon

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Environmental Operators Certification Program

The BC Operators Digest is the official newsletter of the Program. Submissions for publication in the Digest are welcome and may be sent to the Editor:

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e-mail: dgare@eocp.org
Web: www.eocp.org

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

Ms. Barbara Striegler
Executive Assistant, EOC
101 - 224 West 8th Ave.,
Vancouver, BC V5Y 1N5
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Business card sized advertisement space is available at \$50.00 per issue or \$175.00 for four issues. GST and PST included. For other sized advertisements, please contact the Editor.

The Environmental Operators Certification Program is a charter member of the Association of Boards of Certification, and is a Registered Society with over 1,600 active members.



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Elections

2001 CERTIFICATION BOARD ELECTIONS

This year's Nominating Committee members are Al Lane and Bernie Taekema.

There are five positions on the Board to be filled by two operators, one government representative, and one industry representative. The following candidates have been nominated:

OPERATORS: Don Gare
Rod McCabe
Dan Skidmore

GOVERNMENT REPRESENTATIVE: Joe McGowan

INDUSTRY REPRESENTATIVE: Bill Hyslop

The Nominating Committee invites further nominations from the membership. Each nomination shall be supported by a minimum of three (3) certified operators and shall be submitted no later than March 30, 2001 by mail to:

EOCP Nominating Committee
101 -224 West 8th Avenue
Vancouver, B.C. V5Y 1N5
or by fax to (604) 874-4794

Ballots with instructions will be mailed to operators on April 12, 2001. Returned ballots must be mailed to:

EOCP
101 -224 West 8th Avenue
Vancouver, B.C. V5Y 1N5

The deadline for the receipt of ballots is May 11, 2001.

2000/2001 BOARD OF DIRECTORS

- Joe McGowan** - Chairman
- Bill Hyslop** - Industrial Waste
- Bernie Taekema** - Facilities Classification
- Kevin Ramsay** - BCWWA Liaison
- Leo Albrecht** - CEU Assessment
- Don Gare** - Digest Editor
- Eric Jackson** - Treasurer
- Al Lane** - Secretary
- Dave McLean** - Education Liaison

Board Business Briefs

Recent business from the EOCP Board Meetings held in Vancouver on October 2, 2000 and in Vernon on February 5, 2001.

- Eric Jackson, Treasurer presented his report, with the following for the 2000 calendar year:

Revenue:	\$ 131,532.46
Expenses:	\$ 132,467.02
Differences:	\$ 934.56
Bank Balance:	\$ 19,407.35
GIC's invested (2):	\$ 53,969.87
Mutual Funds	\$ 19,409.30
Total Assets	\$ 92,786.52

- GST Rebate - Our application for a GST rebate was denied as 50% income must come from a government grant. Revenue Canada will collect GST from us for the past four years. GST will be charged on all certification and classification fees from now on. Also the EOCP will retain the services of an accountant to audit the books annually or as required by the Treasurer.
- Review of ABC Exam Fees - The ABC exam fees have been raised to \$22.00 U.S. each. The Board resolved that the EOCP develop our own exam base by the end of the year.
- The Board decided that the year end will be changed from May 31 to December 31. This will take effect in 2002.
- The EOCP will provide a 1-800 telephone number for use by B.C. and Yukon operators.
- Requests from Employers for Exam Results where Certification is a Condition of Employment - The procedure of the Board is to give exam results only to the operator.
- The next Digest newsletter will be printed in colour.
- The Board decided to hold a lunch for active certified operators at the UBC School in May, and to give away an EOCP jacket by draw from the returned ballots in the May Board election.

EOCP STRATEGIC PLANNING MEETING

Con't from page 1

3. More Events and Services to Operators. The Board would like to provide operators with increased information via the Digest newsletter, provide opportunities such as an Operator Challenge at events like the UBC Symposium and BCWWA Conference; all in order to provide and receive information from operators.

4. Staff Position. As the Certification Program continues to grow, and with potentially a rapid large growth due to mandatory water certification, the Board will reassess the need for a future staff person.

5. Certifying Supervisors. There have been considerable requests for the Board to review the need for possibly an operator supervisor classification, which the Board will assess.

6. Better Communication within the EOCP Board. With the continued growth of the Program and the associated increased workloads for both Directors and staff, improved communication is required. The Board felt that teleconferences were less costly than additional meetings, and were effective in cases requiring timely decisions. As well, email is to be promoted for use amongst the Board and staff.

7. Owning or Leasing Office Space. The Board decided to continue with an annual lease for the present office space, understanding there may be additional space required in the near future. The long-term goal is to purchase office space.

The Board of Directors and staff all indicated that the planning session was effective and worthwhile. The session promoted frank and positive discussion of the directions the Certification Program will take and may need to take in the future. The Board welcomes comments that operators may have regarding the strategies reviewed by the Board. ■

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First Small Wastewater System Operator

A Kamloops engineer is the first certified Small Wastewater System Operator in British Columbia. Uwe Bartley, a building maintenance engineer with BC Buildings Corporation (BCBC), was awarded the certification last summer.

Uwe’s job with the Crown corporation involves providing engineering services to the provincial government and other public sector agencies for buildings and properties in the Kamloops area. He is responsible for water and wastewater treatment at nine properties outside the city’s service district. About three years ago, one of those properties, a provincial jail, was upgraded from sewage fields to a small wastewater treatment facility.

“Now we had a treatment facility that met our needs,” says Uwe, “but no one who really understood the operations process. My supervisor decided to send me off to Vancouver for training.”

“I’ve already changed some of the laundry and cleaning materials we use at the correctional facility because the wastewater treatment system works better and it’s good for the environment.”

Uwe took a BCWWA wastewater treatment course instructed by Leo Albrecht. The WWT I course is designed primarily for operators of much larger facilities and Uwe needed 2,000 hours of operating time in order to qualify to write the exam.

“Given the amount of time I usually spend at the wastewater facility, a few hours a day three times a week,” laughs Uwe, “it would have taken me right into my retirement to get certified.”




Uwe Bartley, Building Maintenance Engineer with BC Buildings Corp.

In the summer of 2000, the EOCP instituted the Small Wastewater System and Small Water System certification categories. Uwe became the first person in the province certified as a Small Wastewater System Operator.

“The course and the certification program are a great learning experience,” says Uwe. “They place a lot of emphasis on environmental protection. I’ve already changed some of the laundry and cleaning materials we use at the correctional facility because the wastewater treatment system works better and it’s good for the environment.”

Uwe plans to take his Small Water System exam next. He notes that the training and certification programs offered by the BCWWA and the EOCP are an important component of helping BCBC meet the stringent environmental standards of ISO 14001 certification.

Information on Small Water Systems and Small Wastewater Systems certification can be found in the EOCP Program Guide, or by calling the EOCP Office.



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First Industrial WWT Operators

Western Pulp Limited Partnership Port Alice Cellulose Operation is one of only three dissolving sulphite pulp mills in Canada. Rather than 'pulp', this mill produces chemical grade cellulose for a wide variety of chemical processes at customers plants around the globe. Purified wood (cellulose) fibres from the Port Alice Operation are dissolved in customers processes to produce sponges, rayon, cellulose acetate plastics, lacquers, pharmaceuticals, thickening agents and a large range of consumer products, to name a few.

Compared with the kraft pulp process, the process at Port Alice produces approximately three times the effluent BOD to be treated biologically per tonne of finished product, and consequently, the effluent treatment facilities are very large in comparison to kraft mills with much greater production capacities. If functioning as a municipal plant, this facility could service a community of over one million people. Additionally, a unique requirement of the plant is to biologically remove high levels of ammonia in the effluent to produce a non-toxic effluent. Typical DAILY numbers are:

Flow:	160,000 m ³
BOD concentration:	700 mg/l
BOD loading:	112 tonnes
Nitrogenous oxygen demand, expressed as BOD:	30 tonnes (in addition to BOD)
Primary sludge produced (and burned):	40 o.d. tonnes
Secondary (biological) sludge produced (and burned):	60 o.d. tonnes
CaO or quicklime used for influent neutralization:	40 o.d. tonnes
Electrical energy used:	4 mW/hr



Ian McKinnon, Operator



Kim DeCrane, Operator

The Class IV effluent treatment facilities consist of:

- high and low suspended solids collection and neutralization systems
- a 49m Sala primary clarifier
- a Zimpro lime make-down and distribution system
- a mixing and common neutralization tank
- a 119m activated sludge aeration basin with a special anoxic zone for denitrification
- four 1750 hp. Turbplex blowers and a Sanitaire coarse bubble aeration system
- two 76m Eimco secondary clarifiers
- a sludge dewatering system including two 4m Ashbrook gravity belt thickeners and two 12m FKC screw presses
- a 134m outfall and diffuser into Neroutsos Inlet
- a PC and PLC based distributed control system for single operator control of all the above
- a package Class II aerobic sanitary sewage treatment plant segregated from the industrial plant

The plant is designed and equipped to be operated 24 hours per day by single operators working 12 hour shifts on a compressed work-week. The operators are responsible for all aspects of operation and perform all in-process testing including COD, ph, NH₃-N and PO₄ residuals, SVI, SOUR, MLSS, VSS, system solids and sludge cake dryness. Operators also perform minor maintenance on lab and process equipment, and compile all records and statistics. Final effluent quality is tested by the Environmental Technicians in a separate facility.

Effluent Treatment Operator Kim DeCrane has been employed since September 1974 and started up the new effluent treatment plant in October 1995. Operator Ian McKinnon has been employed since May 1984 and joined the Effluent Treatment Department in September of 1996. Both operators were the first to write the new EOCP level II Industrial Exam in September 2000.

-Thanks to R.V. Palmer, Utilities Manager, Western Pulp Limited Partnership, Port Alice Cellulose Operation.



PLANT PROFILE: City of Revelstoke Greeley Creek Water Treatment Plant

Revelstoke was incorporated as a City in 1899. The early water supply came from Tapping Creek on the eastern slope of Mount Revelstoke, with the intake immediately above the present CP Rail station. With increased water demand due to community growth, the source was shifted several miles east to Bridge Creek in 1915. The source became inadequate and a new pipeline was constructed up the Illecillewaet Valley (pre Trans Canada Highway) to Hamilton Creek, and then, in 1930, to the present location on Greeley Creek.

Greeley Creek Watershed

Greeley Creek originates high in the Selkirk Mountains on the northwest slope of Mount Mackenzie and discharges into the Illecillewaet River about 8 kilometers above its confluence with the Columbia River. The watershed is in an area of some of the highest snowfall depths in North America. It varies in elevation from about 670 metres at the intake to a maximum of 2500 metres at Ghost Peak. In the lower levels, the watershed has a mature timber cover interrupted by second growth in slide areas. The northerly orientation of the Greeley Creek valley assures a snow cover in the upper levels into late summer, which is ideal for water supply. This area is distant from established development devoid of permanent roads and trails, and protected by nature from human trespass by its relative inaccessibility. The Greeley Creek watershed has never been logged.

Supply System

The existing water supply system to the City was designed in the 1920s. A concrete intake structure diverts water to a holding area where the heavier solids carried by the creek settle out. From there, the water flows by gravity through a 600mm diameter pipe to the Trans Canada Highway Reservoir and then to the City water distribution system. The 1996 project included construction of a new road and powerline to the intake. Chlorine has been used as a disinfectant since 1996 and is added to the water through a facility constructed in the vicinity of the intake. The City has 100 kilometers of water mains, 245 fire hydrants and about 2700 service connections serving approximately 7,350 people.

The Completed Project

The \$6,000,000 project consists of a new settling pond and improved Greeley Creek intake, a microfiltration membrane system, a clearwell reservoir, disinfection facilities, emergency



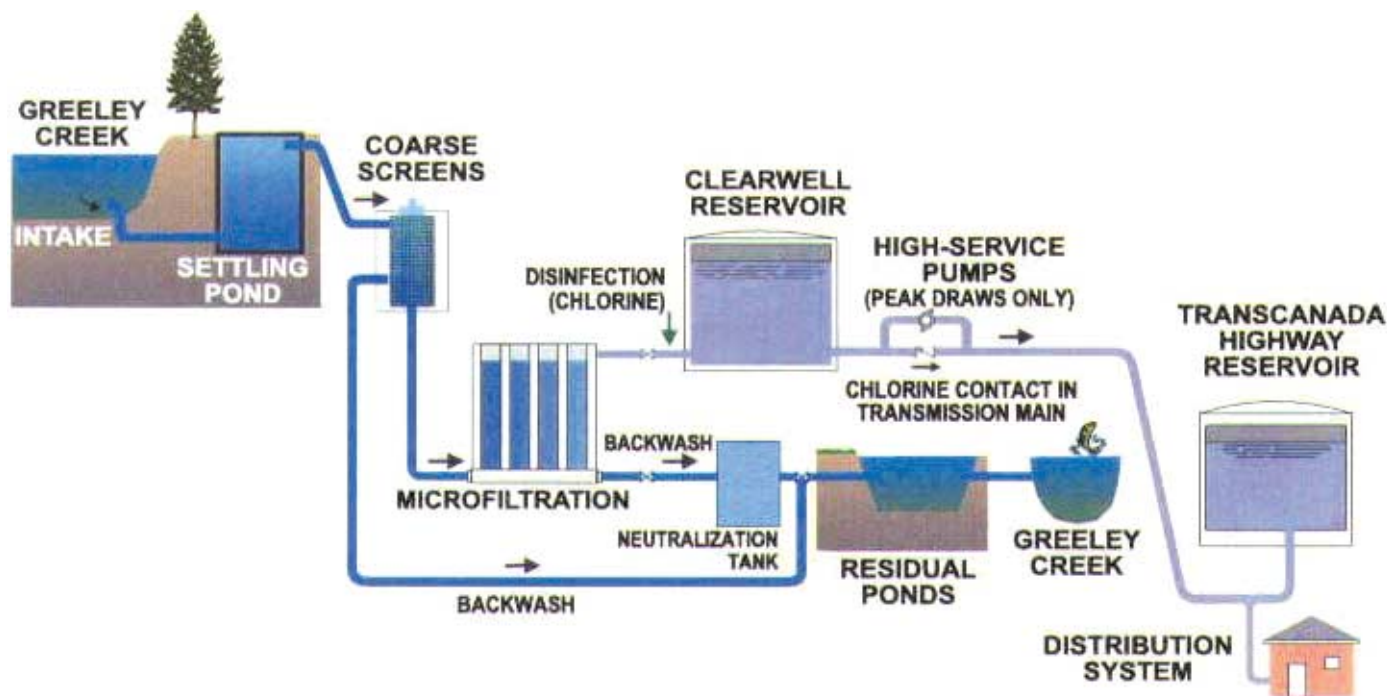
Greeley Creek Water Treatment Plant



Installation of microfiltration units



Microfiltration units



power supply, and an all new computer system to assist the plant operation. The citizens of the City and the Province of British Columbia have shared equally in the capital cost.

The principal removal is achieved by a micro-filtration membrane system, which has millions of hollow fibres with millions of microscopic pores.

Process

The principal removal is achieved by a microfiltration membrane system, which has millions of hollow fibres with millions of microscopic pores. As the Greeley Creek water passes through the microscopic pores, the suspended particles greater than 0.2 microns such as bacteria, cryptosporidium oocysts and giardia cysts are all removed. There are 5 USFilter Memcor CMF (Continuous Microfiltration) membrane units, each containing 90 modules that house 20,000 fibres each. No chemicals are added to the microfiltration membrane process.

As the feed stream flows from the outside to the center of the hollow fibre, contaminants accumulate on the outer wall of each fibre. Every one to two hours the process is "backwashed" for a two minute period. Compressed air (90 psi) flows from the

inside of the fibre to the outside of the fibre to dislodge the contaminants. Raw water is used to sweep the contaminants away. Every thirty to sixty days, the membranes are soaked in caustic and/or acid for several hours to dislodge particles not removed by backwashing. The backwash water flows to two solids settling ponds for disposal. After filtration, minor amounts of chlorine are added to destroy viruses and maintain the water quality to the user's tap.

The treated water quality meets the Drinking Water Guidelines of the Ministry of Health. In addition, the membrane system will provide protection against any new organisms greater than 0.2 microns that may become future health issues. ■

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OPERATOR PROFILE

Kevin McLuskey - Wastewater Technician

Kevin grew up in Westbank, B.C. where he graduated from high school. He played four years of junior hockey for the Summerland Buckaroos and the Prince George Spruce Kings in the BCJHL. After a year off from hockey, Kevin moved to Edinburgh, Scotland and played for the Murrayfield Racers of the Premier Hockey League.

Kevin returned to Canada and attended the Okanagan University College, graduating from the Water Quality Technology Program in 1998. He worked at various times as part of the coop program for Westbank Irrigation District, Okanagan-Similkameen Regional District, and Silver Star Ski Resort. He has also worked building prefab water and wastewater treatment plants for oversea installations, and operated Class III water and wastewater treatment plants in the food industry.

Kevin is certified as a Level I WWT and Level I WD operator and also has chlorine handler certification. He works as the wastewater technician for the Sunshine Coast Regional District, in Sechelt. He operates seven Class I wastewater treatment plants along the Sunshine Coast, as well as assisting in the operation of the Class III water distribution and Class II water treatment plant serving the Sunshine Coast.

Kevin is married to Kerrie, and has three boys. He enjoys golfing, weightlifting and coaching minor hockey.



Kevin McLuskey

—If you would like to submit an operator profile please call the Board Office.

Word Game Winners

The three EOCP hat winners from last issue's crossword puzzle are: John Magi, C.R.D.; Brian Johnston, City of Surrey; and Derek Bowen, District of Campbell River.



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NEW MEMBERS AND UPGRADES

CERT. NO.	NAME	CITY	CERT. NO.	NAME	CITY		
3407	Acton, Dave	WD, I	Vernon, BC	3458	de Brouwer, Michael	OIT, WWT	Harrison Hot Springs
3408	Agecutay, Eva	OIT, WWC	Port Coquitlam, BC	1952	De Jong, Harold	WWC, I	Fort Nelson, BC
3376	Aldrich, Michael	WWC, I	Kamloops, BC	1952	De Jong, Harold	WD, I	Fort Nelson, BC
3406	Allingham, Jack	WD, I	Lake Country, BC	3437	Deacon, Dantel	WD, I	Surrey, BC
3378	Almond, Graham	OIT, WD	Langley, BC	3419	Dean, Lloyd	WWC, I	Burnaby, BC
1830	Andersen, Randy	WD, I	Surrey, BC	3420	Delaplace, Robert	WWC, I	Richmond, BC
3151	Anderson, Cory	WWC, I	Burnaby, BC.	2010	Demers, Daniel	MWWT, II	Kelowna, BC
3394	Arinzol, Gustav	OIT, WD	Burnaby, BC	2082	Docking, Paul	CH,	Nanaimo, BC
1869	Arsenault, Ronald	WD, II	Cobble Hill, BC	2082	Docking, Paul	WWC, II	Nanaimo, BC
647	Austrom, Gordon	MWWT, IV	Vancouver, BC	1154	Dolphin, Morris	WD, I	Aldergrove, BC
3137	Baird, Kenneth	MWWT, I	Delta, BC	3436	Dove, Franklin	WD, I	Coquitlam, BC
3371	Baker, Steve	WD, I	Langley, BC	3405	Dube, Rod	WD, I	Invermere, BC
1560	Ballack, Rawle	WD, II	Vancouver, BC	897	Duckett, Ken	WWC, I	Surrey, BC
1191	Banman, Mike	WWC, I	Richmond, BC	3455	Edzerza, James	WD, I	Whitehorse, YT
3380	Bartley, Uwe	SWWS,	Kamloops, BC	3386	Embury, Richard	OIT, WWC	Kamloops, BC
3382	Bauer, Rick	WWC, I	Surrey, BC	3388	Enns, Derek	MWWT, I	Kelowna, BC
398	Beaumont, Robert	MWWT, IV	100 Mile House, BC	3442	Fader, Henry	WWC, I	Delta, BC
3454	Bernier, Ed	WD, I	Whitehorse, YT	3435	Farrell, Steve	WD, I	Burnaby, BC
3440	Bernier, Harley	WD, I	Surrey, BC	854	Ferguson, Michael	WD, I	North Vancouver, BC
1228	Bewley, Graham	WWC, III	Victoria, BC	3459	Firlotte, Michael	MWWT, I	Kelowna, BC
3379	Bosley, Daniel	MWWT, I	Kelowna, BC	2035	Fitzgerald, Kevin	WD, II	Cumberland, BC
3082	Bouwman, Gregory	CH,	Vernon, BC	586	Forscutt, Dave	MWWT, IV	Gibsons, BC
1631	Bowater, George	WD, II	Nanaimo, BC	3363	Friio, Richard	WD, I	Vancouver, BC
1577	Bowen, Derek	WD, II	Campbell River, BC	3456	Garth, Frank	WD, I	Whitehorse, YT
1465	Bregoliss, Mark	MWWT, III	Kamloops, BC	3217	Gloriani, Isidro	WWC, II	Richmond, BC
3359	Brown, Dean	WD, I	Surrey, BC	3284	Gottfriedson, Daniel	CH,	Kamloops, BC
3387	Burtiak, Darryl	MWWT, I	Vancouver, BC	1203	Green, Matthew	MWWT, III	North Vancouver, BC
3271	Cairns, Ian	WD, II	Delta, BC	1931	Greenwood, James	WD, I	Whitehorse, Yukon
3421	Caissie, Gerald	WWC, I	Pitt Meadows, BC	3385	Guzy, Walter	OIT, WWT	Vernon, BC.
1454	Campbell, John	WD, I	Surrey, BC	3434	Hand, John	WD, I	Langley, BC
3409	Campbell, Richard	WWC, I	Surrey, BC	3381	Harfman, Timothy	OIT, WWT	Kelowna, BC
1117	Carlick, William	WD, I	Whitehorse, YT	3333	Harper, Jason	WWC, I	Port Moody, BC
3270	Carnduff, Donald	WD, II	New Westminster, BC	3404	Harris, Tim	WD, I	Anmore, BC
1226	Carr, Robert	WD, IV	Comox, BC	3392	Harrison, Phil	WWC, I	Nanaimo, BC
1536	Carter, Brian	WD, III	Port Coquitlam, BC	1731	Harvey, Bill	WD, II	Whistler, BC
338	Case, Doug	MWWT, IV	Langley, BC	1580	Heinrichs, Roland	WD, II	Vernon, BC
3439	Chan, Kenneth	WD, I	Port Coquitlam, BC	3365	Henderson, Dennis	OIT, WD	Courtenay, BC
3444	Charles, Alex	WWC, I	Surrey, BC	3265	Henderson, Wayne	WWC, I	Whitehorse, YT
3438	Chu, Alfred	WD, I	Richmond, BC	3451	Hengen, Thomas	WD, I	Surrey, BC
3322	Clark, Phillip	WD, II	Maple Ridge, BC	3433	Heska, Grant	WD, I	Surrey, BC
3393	Cleveland, Ronald	OIT, WD	Parksville, BC	3411	Hicks, Terrance	WWC, I	Port Coquitlam, BC
3269	Coleman, Larry	WD, II	Surrey, BC	3403	Hill, Robert	WD, I	Parksville, BC
3360	Collette, Chris	WD, I	Maple Ridge, BC	3059	Hogg, Robert	MWWT, I	Brentwood Bay, BC
3361	Collins, Steven	WD, I	Abbotsford, BC	3019	Holmes, Donald	WD, I	Coquitlam, BC
3000	Cruz, Bayani	MWWT, II	Prince George, BC	3432	Holmstrom, Michael	WD, I	Langley, BC
3443	Curley, Christopher	WWC, I	Surrey, BC	682	Houghton, Robert	WWC, I	Surrey, BC
3331	Cyr, Marcel	WD, II	Port Coquitlam, BC	3412	House, Mark	WWC, I	Richmond, BC
3410	Daum, Troy	WWC, I	Maple Ridge, BC	3413	Howard, Robert	WWC, I	Vancouver, BC
2048	Davidson, Peter	WD, II	Whistler, BC	1434	Humble, Doug	WWC, I	Burnaby, BC

NEW MEMBERS AND UPGRADES (CONT'D)

CERT. NO.	NAME	CITY	CERT. NO.	NAME	CITY
1449	Hunt, Andrew	MWWT, IV <i>New Westminster, BC</i>	1043	Penner, Richard	WWC, II <i>Surrey, BC</i>
3445	Hutchinson, Kenneth	WWC, I <i>Aldergrove, BC</i>	1901	Perkins, Keith	MWWT, III <i>Quesnel, BC</i>
3375	Ieraci, Domenico	WD, I <i>Port Moody, BC</i>	1727	Peters, Greg	WWC, II <i>Coquitlam, BC</i>
3375	Ieraci, Domenico	WWC, I <i>Port Moody, BC</i>	3390	Pettitt, Darryl	WT, I <i>Rossland, BC</i>
3383	Iveson, Loren	OIT, WWT <i>Anmore, BC</i>	3427	Prasad, Jai	WD, I <i>Surrey, BC</i>
1824	Johnson, Kenneth	WD, II <i>White Rock, BC</i>	3391	Prenger, Jeremy	WT, I <i>Ladysmith, BC</i>
3372	Johnston, Brian	WWC, I <i>Surrey, BC</i>	3389	Ralph, James	MWWT, I <i>Port Hardy, BC</i>
3372	Johnston, Brian	WD, I <i>Surrey, BC</i>	1754	Richards, Tom	WD, II <i>Surrey, BC</i>
3384	Jorgenson, Randolph	MWWT, I <i>Fort Nelson, BC</i>	1045	Riley, Christopher	WD, I <i>Abbotsford, BC</i>
3203	Kalyk, Glen	WD, II <i>Burnaby, BC</i>	1821	Ritchie, Ronald	CH, <i>Vernon, BC</i>
3446	Kanda, Ajay	WWC, I <i>Surrey, BC</i>	1467	Robinson, James	MWWT, III <i>Parksville, BC</i>
3132	Kennedy, John	MWWT, II <i>Penticton, BC</i>	3260	Ruf, Mark	WD, II <i>Port Coquitlam, BC</i>
3414	King, Curtis	WWC, I <i>Coquitlam, BC</i>	929	Rykers, Henry	CH, <i>Princeton, BC</i>
3402	Kipp, Larry	WD, I <i>Salmon Arm, BC</i>	1438	Sauer, Garry	WD, I <i>Castlegar, BC</i>
3447	Knowles, Dennis	WWC, I <i>Surrey, BC</i>	3426	Scambler, Eric	WD, I <i>Langley, BC</i>
3377	Kozub, Jeremy	OIT, WWT <i>Lake Country, BC</i>	3245	Schuman, Jonathan	WWC, II <i>Nanaimo, BC</i>
3366	Kralj, Jason	WD, I <i>Coquitlam, BC</i>	3397	Sedman, Kenneth	WD, I <i>Kelowna, BC</i>
3263	Kuzyk, Randy	WD, II <i>Burnaby, BC</i>	3425	Shaheem, Zahid	WD, I <i>Surrey, BC</i>
3216	Kylmala, Senja	MWWT, II <i>Richmond, BC</i>	1781	Shields, Robert	WD, II <i>Richmond, BC</i>
3401	Lang, Richard	WD, I <i>Port Alberni, BC</i>	3187	Silverton, Steve	WWC, II <i>North Vancouver, BC</i>
3431	Launder, Vincent	WD, I <i>Burnaby, BC</i>	3257	Sinclair, Kevin	WD, II <i>Cobble Hill, BC</i>
3452	Leitch, David	OIT, WD <i>Nanaimo, BC</i>	3119	Smyth, Errol	MWWT, II <i>Mara, BC</i>
3430	Liu, Victor	WD, I <i>North Vancouver, BC</i>	3119	Smyth, Errol	WT, I <i>Mara, BC</i>
3430	Liu, Victor	WWC, I <i>North Vancouver, BC</i>	3415	Solon, Gary	WWC, I <i>Maple Ridge, BC</i>
3191	Lofgren, Jeffrey	WWC, II <i>Maple Ridge, BC</i>	3247	Spears, Mark	CH, <i>Tofino, BC</i>
3123	Mac Dougall, Grant	OIT, WD <i>Langley, BC</i>	3120	Stalker, Douglas	WWC, I <i>Richmond, BC</i>
1265	Manson, Donald	OIT, WT <i>Revelstoke, BC</i>	3417	Steele, Coral	WWC, I <i>Maple Ridge, BC</i>
3453	Marsden, Gary	MWWT, I <i>Summerland, BC</i>	243	Stevens, Gerry	WT, I <i>Lake Country, BC</i>
3448	McBeth, Steve	WWC, I <i>Surrey, BC</i>	3457	Stoker, Real	WD, I <i>Whitehorse, YT</i>
1490	McLean, Robin	MWWT, IV <i>Winfield, BC</i>	1826	Tack, Edmond	MWWT, II <i>Cloverdale, BC</i>
3429	McQuillan, Dan	WD, I <i>Cloverdale, BC</i>	3416	Tattrie, Alan	WWC, I <i>Burnaby, BC</i>
1534	Megas, Russell	WWC, I <i>North Vancouver, BC</i>	1836	Taylor, Martin	WD, I <i>Surrey, BC</i>
869	Meynert, Franz	MWWT, III <i>Delta, BC</i>	1178	Thies, Gordon	MWWT, IV <i>New Westminster, BC</i>
1273	Midgley, Allen	CH, <i>Cache Creek, BC</i>	1654	Thomas, Brad	WD, I <i>Sidney, BC</i>
3373	Mitchell, Gregory	WD, I <i>Surrey, BC</i>	3441	Thurston, Robert	OIT, WWT <i>Keremeos, BC</i>
3336	Morris, Duane	WD, II <i>Port Coquitlam, BC</i>	3424	Traford, Wesley	WD, I <i>Langley, BC</i>
3272	Morrison, Daryl	WD, II <i>Delta, BC</i>	3418	Tull, Gordon	WWC, I <i>Richmond, BC</i>
3346	Moser, Charles	MWWT, I <i>Castlegar, BC</i>	1942	Villanueva, Arvel	MWWT, III <i>Vancouver, BC</i>
3142	Murduff, Gordon	WD, II <i>Courtenay, BC</i>	1951	Villeneuve, John	CH, <i>Fort Nelson, BC</i>
1834	Neufeld, David	WD, I <i>Surrey, BC</i>	1951	Villeneuve, John	WWC, I <i>Fort Nelson, BC</i>
3005	Newton, Grenville	WWC, I <i>New Westminster, BC</i>	3423	Walsh, Neil	WD, I <i>New Westminster, BC</i>
3422	Nicholson, Stephen	WD, I <i>Chilliwack, BC</i>	3396	Watkins, Steve	WD, I <i>Parksville, BC</i>
3400	Obal, Michael	WD, I <i>Courtenay, BC</i>	941	Webb, Douglas	WD, I <i>Delta, BC</i>
2059	O'Hanley, Michael	MWWT, II <i>Nanaimo, BC</i>	3188	Webber, Bryan	WWC, II <i>Port Coquitlam, BC</i>
3428	Oliver, Fred	WD, I <i>Surrey, BC</i>	3374	Weber, Paul	WD, I <i>Surrey, BC</i>
1122	Osborne, Ray	WD, I <i>Whitehorse, YT</i>	3450	Wierda, Harry	WWC, I <i>Abbotsford, BC</i>
3399	Palmgren, Alan	WD, I <i>Williams Lake, BC</i>	3395	Wright, Herbert	WD, I <i>Parksville, BC</i>
3398	Parsons, William	WD, I <i>Prince Rupert, BC</i>	1883	Zeer, Bradley	WD, II <i>Sooke, BC</i>
3449	Peacock, Steven	WWC, I <i>Surrey, BC</i>			

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UPCOMING EVENTS

BCWWA Spring Calendar 2001

Kamloops Courses:

March 19 - 23 <i>City of Kamloops WWT Plant</i>	Environmental Laboratory Procedures (hands-on)
March 26 - 30 <i>Coast Canadian Inn, Kamloops</i>	WD Level II WWT Level II/III WWC Level II Chlorine Handling Pump Maintenance

Saanich Courses:

March 26 - 30 <i>Saanich Works Yard</i>	WD Level I
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Applications to write exams must be submitted to the EOCP Office no later than two weeks prior to the exam session.

UBC Operator Symposium:

May 14 - 18	WD Level I
May 14 - 18	WD Level II
May 14 - 18	WWC Level II
May 14 - 18	WWT Level I
May 14 - 18	Cross Connection Control
May 14 - 18	Chlorine Handling
May 15 - 17	Water Quality for Distribution Operators
May 15 - 16	Small Water Systems
May 17 - 18	Small Water Systems
May 14	PRV Maintenance (hands-on)
May 15	Life Stations
May 16	Hydrant Maintenance
May 16	Water Meter Repair & Testing

Please phone BCWWA @ (604) 540-0111 for information on the above courses.

