

# BRITISH COLUMBIA OPERATORS DIGEST

A NEWSLETTER FOR WATER AND WASTEWATER OPERATORS

MARCH 2000 NUMBER 99

## Steady Growth of Number of Operators in B.C.

The Environmental Operators Certification Program continues to grow at a steady rate. The 2,256th operator was certified in December 1999. 1998 saw the 2,000th operator certified, while previously in 1991 the 1,000th operator was certified. Of course not all operators who attain certification remain in the program, as some move to other careers, retire, etc. At present there are over 1,400 active certified operators in the program. The graph at right, illustrates the continued growth of the program since its inception in 1969. Next issue of the Digest will focus on the history of the certification program over the past thirty years.

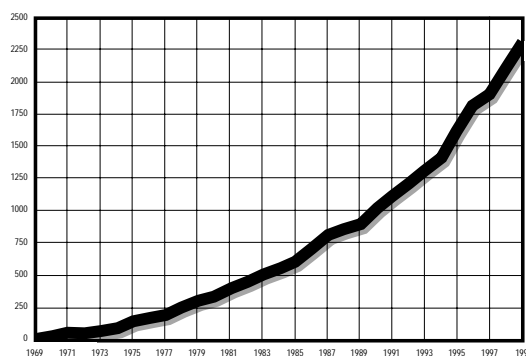


EOCP Board of Directors at a recent board meeting in Vancouver.

Sitting from left to right: **Kevin Ramsay, Al Lane, Joe McGowan, Bill Hyslop.**

Standing from left to right: **Eric Jackson, Bernie Taekema, Barb Striegler (Executive Assistant), Don Gare, Terry Thrun (Office Assistant), Leo Albrecht** Missing: **Dave McLean.**

Operator Certifications 1969 - 1999



### WHAT'S INSIDE THIS ISSUE . . .

2 / EDITOR'S NOTES

3 / BOARD ELECTIONS/OPERATOR OF THE YEAR

4 / NEW CATEGORIES AND EXAMS

5 / PERSONAL PROFILE

6 / NEW MEMBERS AND UPGRADES

7 / NEW MEMBERS AND UPGRADES

8 / PLANT PROFILE

9 / PLANT PROFILE cont'd

10 / WATER ANAGRAMS

11 / WORD GAME ANSWERS

12 / THINK SAFETY!

13 / BOARD BUSINESS BRIEFS

14 / VERNON COMPLETES LIQUID WASTE MANAGEMENT PLAN UPDATE

15 / PROFESSIONAL SERVICES

16 / 2000 SPRING CALENDAR

## Environmental Operators Certification Program

The B.C. 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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Smithers, B.C. V0J 3P0  
**Phone:** (250) 847-8883 **Fax:** (250) 847-4155  
**e-mail:** dgare@eocp.org  
**Internet:** 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, EOCP  
101 - 224 West 8th Ave.,  
Vancouver, B.C. V5Y 1N5  
**Phone:** (604) 874-4784 **Fax:** (604) 874-4794  
**e-mail:** eocp@eocp.org

Business card sized advertisement space is available at \$50.0 per issue or \$175.0 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 1,400 active members.



Design and Layout by: Olive Design

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## Editor's Notes

Spring once again brings the Annual BCWWA Conference which will be held in Victoria in April, and the Annual Operators School to be held in Vancouver in May. Information and registration for both events is through the BCWWA office by phone at 604.540.0111. Exam sessions are scheduled for the conference and the school.

1999 has been a busy year for the EOCP Board and office staff with 2000 looking to continue that trend as the Program continues its steady growth. The Industrial Wastewater Treatment, Small Water Systems, and Small Wastewater Systems exams will soon be ready for qualified operators to write. These exams will benefit many operators throughout B.C. and the Yukon who could not qualify for the regular water or wastewater exams.

Spring is also the time for the annual Board elections and nominations for Operator of the Year, both which are detailed elsewhere in this newsletter. Also included in this issue is a plant profile of the French Creek Pollution Control Centre on Vancouver Island, listings on new and upgraded operators, Board Business, a word puzzle and an article on the City of Vernon's Liquid Waste Management Plan.

Once again, comments and submissions are always welcome.

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### 1999/2000 BOARD OF DIRECTORS

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

## 2000 Certification Board Elections

This year's Nominating Committee members are Don Gare, Bill Hyslop and Errol Franson.

There are five positions on the Board to be filled by three operators, one government representative, and one education liaison. The Nominating Committee is pleased to present the following slate of candidates:

### Operators:

Leo Albrecht  
Eric Jackson  
Al Lane

### Government Representative:

Bernie Taekema

### Education Liaison:

Kevin Ramsay

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 31, 2000 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 14, 2000. 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 5, 2000.*

## Operator of the Year Nominations

The EOCP Board is seeking nominations for the Operator of the Year Award. The Vic Terry Award, as it is known, is presented by the BCWWA at their annual conference to a certified operator chosen by the EOCP Board. Nominations may be submitted by operators, municipal officials, supervisors, or any member of the BCWWA.

### Nomination Guidelines

- The nominee must be a member of good standing of the Environmental Operators Certification Program.
- The nominee must have provided exemplary service to water or wastewater operations over an extended period of time.
- Written submissions must be received by March 31, 2000 at the Board Office.

## Vic Terry Awards

1999	Dave Sivyer	1988	Bernie Udala
1998	Norm Gobbi	1987	Leo Albrecht
1997	John Tailford	1986	H. Scott Lee
1996	Dave McLean	1985	Ted McDowell
1995	Glen Dunville	1984	Lloyd Scrimshaw
1994	No Award	1983	David Bain
1993	No Award	1982	Graeme Faris
1992	No Award	1981	Richard Morris
1991	No Award	1980	Gerry Stevens
1990	No Award	1979	Dale Cannon
1989	Norm Burow	1978	Robert Wilson

# NEW CATEGORIES AND EXAMS

The EOCP is finalizing the development of new operator categories and the corresponding exams. There are two new areas that operators will soon qualify for certification - Industrial Wastewater Treatment, and Small Systems. The Industrial Wastewater Treatment will include certification at Levels I, II, III, and IV. The Small Systems category will include certification in Small Water Systems, Small Wastewater Systems - Lagoons, and Small Wastewater Systems - Mechanical. The EOCP is completing the exams for the new categories which should be available later this spring. For information on the new categories and availability of exams, please call the Board Office or check the EOCP web page at [www.eocp.org](http://www.eocp.org).

## SMALL SYSTEM CRITERIA

**Background:** Typically, small water distribution, water treatment, wastewater collection, or wastewater treatment facilities have operators who are not required for full-time daily attention. The systems are relatively simple, serve only a small population, and/or are operating for only a portion of any given year.

Most operators of such facilities are not able to meet the minimum requirements for Level I to IV certification; in particular, achieving the operating experience (2,000 hours) required to write a Level I exam in a reasonable period of time. Small System Classification and Operator Certification is intended to ensure the competency of operators who work on systems that may not normally fit within the regular certification process.

The criteria for Small System Classification and Operator Certification has been developed in conjunction with other jurisdictions in Canada and the United States, and follows the guidelines as identified with the Association of Boards of Certification.

### Criteria:

- The facility/system serves a maximum population of 50 people or per capita equivalents;
- The facility/system is classified as a Class I or Class II facility;
- The operator has at least six (6) calendar months of hands-on experience operating the facility/system or one equivalent to it or higher;
- The operator has a minimum of 50 hours of hands-on experience operating the facility/system or one equivalent to it or higher; and
- The operator must have a minimum Grade 10 education and have completed appropriate training for which a minimum of 1.5 continuing education units (CEU's) have been awarded by the EOCP. In the event that an operator can not meet the education requirement, experience may be exchanged for education on a year for year basis.

**Transferability:** An operator holding a small system certificate will be recognized as a certified operator at all similarly classified facilities/systems. The certificate will not be recognized at facilities/systems that are not considered small

systems. A small system certificate does not preclude an operator from writing exams to obtain a full Level I, II, or III certificate once the required experience and/or education is acquired. An operator holding a full certificate is recognized as a certified operator in any facility/system, including small systems, up to the level of his/her certificate.

**Categories:** Three types of Small System Facility Classification certificates will be issued:

- Small Water System (includes distribution and treatment up to Level II);
- Small Wastewater System - Lagoons (includes collection and treatment up to Level II);
- Small Wastewater Systems Mechanical (includes collection and treatment up to Level II).


Small System Operator certificates corresponding to the three types of facility classification will also be issued.

**Certification Exams:** Each exam will have a total of 50 multiple-choice questions based on the category as noted above

**Clarification:** Prior to choosing the small system process it is important that the owner/operator of a treatment facility, collection system, or distribution system contact EOCP staff to ascertain the restrictions associated with the process and to ensure the facility/system meets the small system criteria.

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# PERSONAL PROFILE



## Al Lane - Board Director

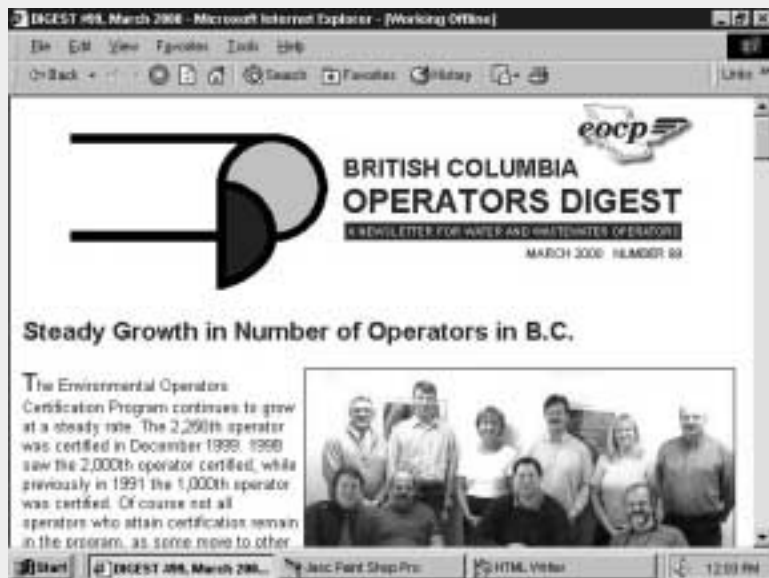
**A** I was raised and went to school in Port Coquitlam, BC. After finishing high school he worked at various jobs in the lower mainland from 1970 to 1978. He headed north and started working for the City of Prince George in June of 1978.

From 1978 to 1983, Al worked as an equipment operator, and from 1983 to 1995 as an operator at the City of Prince George Wastewater Treatment Center working up to a Level III certification in WWT. From 1995 to 1997, he worked as senior lift station operator for the City of Prince George responsible for the operation and maintenance of 33 sewer lift stations and received Level I certification in WWC. From 1997 to 1999, Al was back as an operator at the City of Prince George Wastewater Treatment Center and worked towards his WWT Level IV certification which he received in 1998. He returned to the senior lift station operator position in March 1999.

Al has been an EOCP director from 1992 to 1996 and again from 1998 to the present. Al is on the Northern Operators School Committee and has helped in the organization of the Northern School in Prince George for many years. He has been married to Leanne for 25 years and has no children. In his spare time Al enjoys golfing, fly fishing, net surfing and making and drinking wine.

## www.eocp.org

Check out the Program's web page to view recent job vacancies and email notification of new plant profiles, recent and past newsletters and other information.



### IS YOUR OPERATOR CERTIFICATE(S) LOOKING A BIT DATED?

Covered with renewal stickers? Or do you have a BCWWOCP certificate? If you would like a new replacement certificate, just call Barb or Terry at the Board Office - the cost is \$15 per certificate and they take VISA.

# NEW MEMBERS AND UPGRADES

CERT. NO.	NAME		CITY	CERT. NO.	NAME		CITY
3160	Abbott, Edward	WD, I	Victoria, BC	1569	Cooper, Victor	WD, I	Nanaimo, BC
3197	Adams, Robert	WD, I	Surrey, B.C.	1864	Crowshaw, Steven	WD, II	Port Alberni, BC
3096	Allin, Douglas	WD, II	Garabaldi Highlands, BC	3143	Currie, William	WD, I	Nanaimo, BC
3151	Anderson, Cory	WD, I	Coquitlam, BC	1952	De Jong, Harold	CH,	Fort Nelson, BC
1484	Anderson, Stephen	OIT, WD	Penticton, BC	3192	De Santis, Lino	WWC, I	Vancouver, BC
1484	Anderson, Stephen	WWT, II	Penticton, BC	2090	Deane, Victor	WD, II	Victoria, BC
3156	Armistead, Allen	WWC, I	Prince George, BC	3206	DeCosse, Bradley	WD, I	Burnaby, BC
3137	Baird, Kenneth	OIT, WWT	Delta, BC	1802	Demchuk, Harry	WWC, II	Victoria, BC
1560	Ballack, Rawle	WWC, I	Vancouver, BC	2098	Dillabaugh, Darrell	WWC, I	Prince George, BC
1560	Ballack, Rawle	WD, I	Vancouver, BC	3205	Dineen, Kevin	WD, I	Surrey, BC
3111	Barrett, Patrick	WWC, I	Nanaimo, BC	3127	Di Stasio, Tony	WWC, II	Coquitlam, BC
800	Beatty, Fred	WD, I	Langley, BC	2082	Docking, Paul	WD, II	Nanaimo, BC
3070	Bedwell, Colin	WWC, II	Saanich, BC	3184	Douch, Robert	WD, I	Coquitlam, BC
878	Bell, Robert	WWC, I	Duncan, BC	1938	Drews, Glenn	WWT, II	Kelowna, BC
962	Berg, Dale	WWC, I	Prince George, BC	508	Edge, Brent	WT, II	Penticton, BC
3195	Bertolone, Nick	WWC, I	Coquitlam, BC	1115	Edge, Brian	WT, II	Penticton, BC
3173	Blackwell, Warren	OIT, WD	Victoria, BC	1749	Edwards, Brian	WWT, I	Cobble Hill, BC
2074	Bolan, Kevin	WD, II	Maple Ridge, BC	1553	Evanchu, David	WT, II	Penticton, BC
3157	Blair, Brian	WT, I	Port Clements, BC	3047	Faint, Rowan	WD, II	Kamloops, BC
3175	Bonnar, Steve	WD, I	Chilliwack, BC	3171	Fargo, Marnie	WD, I	Victoria, BC
3163	Bozzer, Denny	WD, I	Kelowna, BC	370	Fawkes, Brian	WWC, I	Sechelt, BC
3163	Bozzer, Denny	CH,	Kelowna, BC	370	Fawkes, Brian	WD, I	Sechelt, BC
3149	Burkowsky, Curtis	OIT, WWT	Chilliwack, BC	1939	Fjellner, Conny	WWT, II	Vancouver, BC
3144	Burow, Philip	OIT, WD	Qualicum Beach, BC	3146	Freeman, Neale	OIT, WWT	Duncan, BC
3208	Caldwell, Ronald	WD, I	Maple Ridge, BC	3012	Fry, Scott	WWT, II	Richmond, BC
3194	Campbell, Robert	WWC, I	Port Coquitlam, BC	3017	Furlong, Sue	WWT, I	Enderby, BC
1556	Campmans, Peter	WWC, II	Heffley Creek, BC	249	Garton, Randy	WWT, IV	Prince George, BC
1556	Campmans, Peter	WD, II	Heffley Creek, BC	3214	Geddes, Randal	WD, I	Nanaimo, BC
3167	Cantelo, John	WWC, I	Vancouver, BC	3130	Gehrer, Christopher	OIT, WWT	Surrey, BC
1994	Cave, Gregory	WD, II	Kamloops, BC	3130	Gehrer, Christopher	WWC, I	Surrey, BC
3136	Chambers,	WWT, I	Port Moody, BC	3170	Gibbs, Martin	WD, I	Summerland, BC
3045	Channell, Deborah	OIT, WWT	Sicamous, BC	1496	Gildemeister, Chrystal	WWT, III	Surrey, BC
3131	Chartrand, Dale	WD, I	Smithers, BC	3176	Gill, Tarlochan	WWC, I	Victoria, BC
3138	Chomolok, Steve	OIT, WWT	Errington, BC	3145	Glass, Mirjam	OIT, WWT	Kelowna, BC
3073	Chura, Daniel	WWC, II	Victoria, BC	1931	Greenwood, James	CH,	Whitehorse, Yukon
1364	Clifford, James	WWC, I	Hazelton, BC	1142	Gregg, Gary	WD, I	Port Coquitlam, BC
3193	Cole, Britton	WWC, I	Vancouver, BC	3165	Halladay, Steven	WD, I	Kamloops, BC



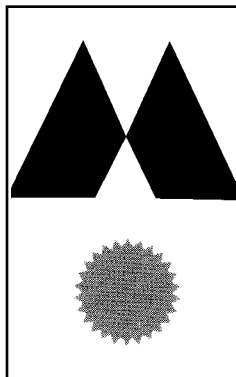
**Charles Armstrong, R.P.Bio.**  
Lab Manager

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# NEW MEMBERS AND UPGRADES

CERT. NO.	NAME		CITY	CERT. NO.	NAME		CITY
3186	Harris, Ed	OIT, WWC	Coquitlam, BC	3174	Miles, William	OIT, WD	Victoria, BC
3166	Harvey, David	WD, I	Kamloops, BC	3202	Miller, Douglas	WD, I	Burnaby, BC
1207	Held, Seigfried	WWT, I	Oliver, BC	3095	Miller, Parrish	WWC, I	Terrrace, BC
3204	Hoffman, Donald	WD, I	Port Moody, BC	3201	Mills, Arthur	WD, I	New Westminster, BC
3020	Hopson, Bruce	WD, II	Kamloops, BC	1133	Morton, Gary	WD, I	New Westminster, BC
3020	Hopson, Bruce	WD, I	Kamloops, BC	3212	Mummery, Christopher	WWC, I	Marysville, BC
1759	Horin, Jerry	WWT, III	Sardis, BC	3142	Murduff, Gordon	WD, I	Kelowna, BC
682	Houghton, Robert	WD, I	Surrey, BC	3210	Neal, Tyrone	WWC, I	Victoria, BC
3074	Huckin, Raymond	WWC, II	Victoria, BC	1143	Needham, Richard	WWC, II	Oliver, BC
774	Isbister, Graham	WD, I	Burnaby, BC	3133	Nelson, Ryan	WWT, I	Burns Lake, BC
3213	Jack, Robert	WWC, I	Nanaimo, BC	3140	Oakey, Steven	WWC, I	North Vancouver, BC
453	Jackson, Chris	WWC, II	Kamloops, BC	3148	Paradis, Jean	WWT, I	Garibaldi Highlands, BC
122	Jensen, Mike	WD, I	Port Coquitlam, BC	3066	Pearson, Suzanne	WWT, I	Powell River, BC
3150	Johnson, Sheryn	WD, I	Bowen Island, BC	3153	Philpot, Clifford	WWC, I	Mackenzie, BC
3203	Kalyk, Glen	WD, I	Burnaby, BC	1072	Pichette, Francis	WWT, II	Vancouver, BC
3164	Keiver, Kenneth	WD, I	Cranbrook, BC	1363	Poppleton, Byron	WWT, I	Mackenzie, BC
3132	Kennedy, John	WWT, I	Penticton, BC	3200	Price, Evan	WD, I	Chilliwack, BC
3177	Kerfont, Rick	WWC, I	Victoria, BC	3162	Reddick, Scott	OIT, WWT	Telkwa, BC
3178	Kiss, Erwin	WWC, I	Victoria, BC	3183	Redman, Ken	WD, I	Delta, BC
3076	Larocque, Neville	WWC, II	Victoria, BC	3135	Reeves, Edgar(Skip)	WWT, I	Gibsons, BC
3196	LeBlanc, Paul	WD, I	Vancouver, BC	3185	Robertson, Joseph	WD, I	Coquitlam, BC
3155	LeBrun, Sean	WD, I	Prince George, BC	3077	Robichaud, Smokey	WWC, II	Victoria, BC
3155	LeBrun, Sean	WWC, I	Prince George, BC	835	Samis, Kim	WD, IV	West Vancouver, BC
3207	Legault, Susan	WD, I	Coquitlam, BC	3182	Sawatzky, Brian	WD, I	Abbotsford, BC
1140	Legge, Robert	WWC, II	Vancouver, BC	3172	Seabrook, Jarvis	WD, I	Sooke, BC
3051	Lewis, Richard	WWT, II	Penticton, BC	3090	Shepherd, Dennis	WWC, I	Hudson's Hope, BC
3179	Liebscher, Grant	WWC, I	Victoria, BC	3187	Silverton, Steve	WWC, I	North Vancouver, BC
3191	Lofgren, Jefferey	WWC, I	Maple Ridge, BC	1388	Skulsky, Michael	WD, II	Chilliwack, BC
3139	Longworth, Michael	WWC, I	Burnaby, BC	3062	Smerychynski,	WWT, II	Richmond, BC
818	MacKenzie, Sandra	WWT, IV	Surrey, BC	3158	Smith, Johnny	WT, I	Skidgate, BC
1628	Marleau, Lyle	WD, II	Terrace, BC	3154	Sokoloski, Everett	WWC, I	Chetwynd, BC
3007	Marr, Andrew	WWT, II	Vernon, BC	3152	Stern, Christopher	WD, I	Prince George, BC
2095	Marteinson, David	WWC, II	Vancouver, BC	3152	Stern, Christopher	WWC, I	Prince George, BC
3003	Massender, Harold	WWC, II	Port Coquitlam, BC	1914	Stewart, David	WWT, I	Burns Lake, BC
3180	Matheson, Douglas	WWC, I	Victoria, BC	3169	Stickland, Bruce	WT, I	Penticton, BC
3122	Maurer, Donald	WWC, II	Burnaby, BC	936	Streicker, Stephan	WWT, II	Sechelt, BC
3190	Maximuk, Gregory	WWC, I	Port Coquitlam, BC	3147	Taw, Richard	WWT, I	Richmond, BC
3134	McBride, Douglas	WWC, I	Kamloops, BC	3147	Taw, Richard	WWT, II	Richmond, BC
3134	McBride, Douglas	WD, I	Kamloops, BC	3168	Thompson, Peter	WWC, I	Richmond, BC
1533	McCorkindale, Neil	OIT, WWC	Maple Ridge, BC	3159	Tkachuk, Warren	WD, I	Prince George, BC
3032	McIntyre, David	WWT, IV	Pitt Meadows, BC	3199	Torresani, Remo	WD, I	Surrey, BC
3181	McIntyre, Thomas	WD, I	Mission, BC	3198	van den Boogaard,	WD, I	Langley, BC
1358	McLean, Donald	WT, I	Chetwynd, BC	3129	Vester, Clint	WWC, II	Burnaby, BC
3189	McLure, Jo-Ella	WWC, I	Surrey, BC	1951	Villeneuve, John	WWT, I	Fort Nelson, BC
551	McPherson, George	WWT, II	Campbell River, BC	1127	Wardlaw, Alistair	WT, II	Penticton, BC
3141	McRae, Dale	WD, I	Genelle, BC	3188	Webber, Bryan	WWC, I	Port Coquitlam, BC
1461	Mealing, Greg	WT, II	Penticton, BC	3209	Whiting, Alan	WD, I	Burnaby, BC
1534	Megas, Russell	WD, IV	North Vancouver, BC	3161	Willison, Darwin	WWT, I	Quesnel, BC
3100	Metcalfe, David	WD, II	Kelowna, BC	3211	Wirsz, Dale	WD, I	Surrey, BC
3033	Meyer, Victor	WT, I	Kamloops, BC				

# PLANT PROFILE

## French Creek Pollution Control Center



**T**he French Creek Pollution Control Center (FCPPC) is a Class IV secondary wastewater treatment facility owned and operated by the Regional District of Nanaimo for the communities of Parksville and Qualicum on Vancouver Island. The FCPPC staff of six, all certified operators, are responsible for not only the FCPPC treatment plant but also the Nanoose Pollution Control Center (primary treatment plant), fourteen pump stations, interceptors and all force mains.

The FCPPC was originally built as an activated sludge plant with the capability of handling 12,000 person capacity. The upgrade of this facility for the increasing population was started in December 1994 and completed in July 1997.

### Process

- Septage handling with a 20,000 gallon dilution tank
- Headworks with grit removal and compaction of waste to a hopper.
- Primary sedimentation.
- Trickling filter with both influent and effluent wet wells.
- Solids contact tank and secondary clarifiers.
- WBS building for secondary solids thickening, parshall flume, sand filters for reclaimed water. Skimming from all sedimentation tanks go at this time to the ATAD along with the secondary solids.
- Three cell ATAD with two cooling cells and a 20,000 gallon cooling tower.
- Parkson one metre press with all solids to land application.
- Foul air tower scrubbers for foul air from the headworks, septage and ATAD areas. Foul air from the covered primary tanks and solids contact area go to the bottom of the TF.
- Bio-filter for foul air from the belt press area
- Effluent recovery for Eaglestar Golf Course, wash water and watering of the landscape.
- Scada system for the plant operations, including remote controls from the main pump stations. Septage monitoring, weather station and a Maximo maintenance program.
- Outfall to ocean (7,000 feet long and 200 feet deep) with effluent turbines to force effluent out when gravity system cannot handle flow.





## Facility Upgrade 1997

In 1992 the Regional District anticipated the need for a plant expansion at their Parksville facility. With current growth projections (now increased from 1975 estimates of 48,000 to 60,000 people), the Regional District was challenged with selecting an upgraded plant design which would meet these expansion needs in a now residentially surrounded and limited site. To meet this challenge, a process change from activated sludge to trickling filter solids contact was selected. This selection reduces the expansion footprint requirement significantly, reduces energy requirements and meets the 60,000 people capacity objective. The upgrade is further complemented by a decision to change to an autothermal thermophilic aerobic digestion (ATAD) away from the conventional aerobic digestion process. The ATAD saves space and is entirely constructed within the 12,000 person capacity aerobic digester (yet provides for 60,000

people). This digestion process change results in producing an EPA 503 Class A biosolid that is available for immediate use.

**T**he French Creek Pollution Control Center is energy efficient, produces Class A solids, and achieves a final effluent of quality consistently significantly better than that required by permit, is an operator friendly facility that, through PLC control, provides improved operations, improved process control, collection of historic trending information for troubleshooting, equipment operations data for maintenance management, reporting and better work environment.

*- Thanks to Harold Halvorson, Chief Operator FCPC*



# Manager Was Rat!

## (Water Anagrams)

Here is another anagram word game. Each group of letters when rearranged, spells out an object or term found in a water system. Each answer is one word. Fax your answers to the Board Office at (604) 874.4794 and include your phone number.

Three winners will be drawn from the correct replies. Winners receive an EOCP hat or mug – their choice!

- |                           |                              |
|---------------------------|------------------------------|
| 1. We art – _____         | 11. Rub it tidy – _____      |
| 2. Idiot ran foul – _____ | 12. Treat more – _____       |
| 3. Limp reel – _____      | 13. Hit another male – _____ |
| 4. Hurl icy ad – _____    | 14. Rye mettle – _____       |
| 5. Rhino cat lion – _____ | 15. Per users – _____        |
| 6. To roar ably – _____   | 16. Birds tuition – _____    |
| 7. Pimp gun – _____       | 17. Lyric end – _____        |
| 8. Sore river – _____     | 18. Used rail – _____        |
| 9. Cool firm – _____      | 19. Lit at zero – _____      |
| 10. Art owned rug – _____ | 20. No cent coin – _____     |

- PIPELINE SWABBING AND POLY PIGGING
- CROSS CONNECTION SURVEYS
- BACKFLOW PREVENTERS
- LEAK DETECTION
- LEAK REPAIRS
- FLOW TESTS



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# WORD GAME ANSWERS

Winners for the last issue of the Word Game were the Public Works Crew from Tahsis.

<p>1</p> <p>THOUSAND</p>	<p>2</p> <p>FLYING RIO</p>	<p>3</p> <p>T H E B U R T E S</p>	<p>4</p> <p>LOOK LOOK CROSSING</p>
<p>1. One in a thousand</p>	<p>2. Flying down to Rio</p>	<p>3. You are among (or surrounded by) the best</p>	<p>4. Look both ways before crossing</p>
<p>5</p> <p>GRAT'S</p>	<p>6</p> <p>Bones</p>	<p>7</p> <p>SPEECH</p>	<p>8</p> <p>IM IM IM DRAWN</p>
<p>5. Free fall</p>	<p>6. Feel it in one's bones</p>	<p>7. A figure of speech</p>	<p>8. I'm always over- drawn</p>
<p>9</p> <p>BARF</p>	<p>10</p> <p>COIN</p>	<p>11</p> <p>circumstance circumstance <del>BAD</del></p>	<p>12</p> <p>ear ear</p>
<p>9. Safe behind bars</p>	<p>10. Flip side of the coin</p>	<p>11. Not bad under the circumstances</p>	<p>12. In one ear, out the other</p>
<p>13</p> <p>sugar</p>	<p>14</p> <p>OF US IT IT OF US</p>	<p>15</p> <p>chop 2</p>	<p>16</p> <p>BQ</p>
<p>13. Sweetheart</p>	<p>14. It's between the two of us</p>	<p>15. Chop in two</p>	<p>16. Barbeque</p>



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# THINK SAFETY!

## *Gate Valve Safety*

Water services must often be temporarily turned off while emergency repairs or routine maintenance are done on a water distribution system. Sometimes one must manually operate a gate valve to isolate the area where the work is being done. Manually operating the gate valves can cause a variety of injuries, including sprains and strains of the back, knee, shoulder, elbow, and wrist.

### **Following are some safety tips when turning a gate valve:**

- Use warning lights and flashers when you stop a vehicle in traffic.
- Use caution when getting out of a vehicle in traffic.
- Park your vehicle between where you are working and the oncoming traffic when working on a valve that is in the road.
- Use traffic cones to mark your vehicle and work area. This helps protect you from oncoming traffic.
- Wear a hard hat, steel-toe safety shoes, work gloves, and a reflective safety vest.
- Remove the gate lid with a large screwdriver or other appropriate tool. Take care not to hurt your hand.
- Use a valve key that is the correct size and length. You may have to use a key extension to get the proper length.
- Make sure the key fits tightly on the valve nut. Watch out for rounded nuts.
- When you are operating the valve, the best height of the key is chest level. Do not use a key that is too long (*above your shoulders*) or too short (*below your waist*).
- Know the proper direction for opening and closing the valve. Some valves are left-hand turn.
- Grip the valve key firmly with both hands when operating.
- When operating the valve, maintain good footing, with your feet at least shoulder-width apart.
- Position your body as close to the valve key as possible.
- Turn the valve key with slow, controlled movements. Bend your knees if necessary.
- If the valve becomes too difficult to turn, ask another worker to help you, or use a valve-operating machine.
- Don't leave the key on the valve unattended. This may present a hazard for vehicles or pedestrians.
- Secure the gate lid when you are finished.

- *American Water Works Association*

# BOARD BUSINESS BRIEFS

*Recent business from EOCP Board Meetings held in Vancouver on October 4, 1999 and January 24, 2000.*

- Eric Jackson, Treasurer submitted his report, with the following for the 1999 calendar year:

Revenue:	\$135,139.48
Expenses:	\$141,372.30
Bank Balance:	\$17,513.27
GIC's:	\$51,638.56
<u>Mutual Funds:</u>	<u>\$18,189.00</u>
 Total Assets:	 \$87,340.83

The Treasurer explained that the expenditures for the year were higher than normal due to the purchase of Mutual Funds and the cost of the Industrial Exams development.

- Director Albrecht will draft an Exam Policy which will set out rules for exam sessions.
- Director Lane will amalgamate the existing two formula sheets that are used during exams.
- The Board has received legal advice and has changed the wording on certificates from "Certificate of Competency" to read "Certificate of Qualification."



- A motion was passed that "Certified Operator" stickers will be distributed to new operators and membership renewals in 2000. All new operators will receive an EOCP pin with their certificates.
- The Board will mail out a Directory of Certified Operators and Classified Facilities in the summer of 2000. The Directory will include a list of certified operators with level and category of certification and city; and a list of facilities with class and locations. The Directory will also be posted on the web site.

- Director Jackson presented a Draft Travel Policy which the Board accepted and approved. The Travel Policy outlines the travel and expense reimbursement procedures for Board Directors when attending Board Meetings.

- Directors Hyslop, Albrecht and Ramsay updated the Board on the status of Industrial Wastewater, Small Wastewater Systems, and Small Water Systems exams, respectfully. All the exams are in their final drafts and should be available later in the spring.

## EMPLOYMENT . . .

### APPRENTICESHIP POSITION REQUIRED

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*Reply in confidence by fax to:*  
**Brad Lofgren, Superintendent**  
**Westcoast Hydrant Services Ltd.**  
**12260 Vickers Way**  
**Richmond, B.C. V6V 1H9**  
**Fax: (604) 270-3851**

## Vernon Completes Liquid Waste Management Plan Update

The City of Vernon recently completed work on updating its Liquid Waste Management Plan (LWMP). The Plan was signed by Ms. Joan Sawicki, Minister of Environment, Lands and Parks in September 1999, and completed a four year program of updating the previous plan which in December 1985, was the first to be completed in B.C.

The new Plan continues the direction the City has been taking by making beneficial use of its treated wastewater. Now entering its 24th year of full-scale operation, the program irrigates over 2,500 acres of agricultural, recreational and silvicultural land south of the City. Treatment is by conventional headworks, clarifiers, trickling filters, and an anaerobic digester. Following treatment, the wastewater is pumped to a large reservoir where it is stored prior to being chlorinated and pumped to irrigation sites during the summer months. Digested bio-solids are spread on the irrigation fields throughout the year.

The updated Plan calls for continuation of the current uses, but supplemented by the phased implementation of dual distribution systems. A second water line containing reclaimed water will be installed to new selected residential areas. Homeowners will have the opportunity of using this quality of water for irrigation, thus reducing their demand on potable water, which will some day be in short supply in the Okanagan. The quality of the City's reclaimed water meets the criteria in the new Municipal Sewage Regulations for unrestricted public access uses, which include lawn and garden irrigation. The City's plan is to only allow the use of reclaimed water in residential areas where underground irrigation systems are in place, and which operate at night. Outside hose-bibbs will not be connected to the supply. Homeowners will be charged for reclaimed water at a rate considerably lower than potable water.

The Plan also calls for the phased construction of a new water reclamation plant, and the phasing out of the current plant, which is surrounded by commercial and residential activity.

Design work will commence shortly on the new plant, which will be located in a remote area south of the City. As population increases, second and third phases will be added and the present plant shut down. This will please a lot of people who claim to have breathing problems when they drive past the plant!

With the introduction of dual distribution systems, the Plan identified the need to integrate water and wastewater planning in the future. Huge savings are possible in future capital costs when water demands are decreased in new areas by up to 50% as a result of dual distribution systems. In addition, another beneficial use of treated wastewater is accomplished, thus improving environmental protection.

Dual water systems are currently in place in water short areas of U.S., such as California, Florida and Arizona. Some of these installations have been visited, and based on their success, the concept has been accepted in Vernon. It will take several years for the concept to gain wide public support, however, over 70% of residents that responded to a public questionnaire in Vernon supported the concept of dual systems.

Finally, the Plan update calls for the continuation of water efficiency in the community by further addressing residential use of water, and eliminating extraneous sources of wastewater by further investigation in to inflow and infiltration. Since the introduction of water meters in the community in 1992, the implementation of water and sewer rate structures based on water usage, and various other water efficiency programs, residential water usage in the City has been reduced by over 30%. The City plans to implement a major toilet replacement program over the next two years, where homeowners will be given a rebate for installing new 6 litre per flush toilets in their homes. New homes have been required to install the low water use toilets since July 1998.

- Thanks to Eric Jackson

MEETING THE CHALLENGE FOR OVER FIFTY YEARS

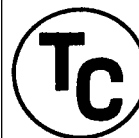


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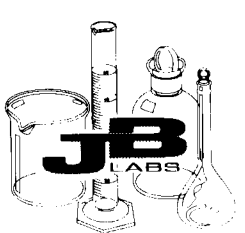
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# 2000 SPRING CALENDAR

## British Columbia Water & Waste Association Courses

### Vancouver Island Operator Workshop & MSC Display Feb. 28 – March 3

- Feb. 28 - March 3      Water Distribution Level II
- Feb. 28 - March 3      Pump Maintenance Course
- Feb. 28 - March 3      Wastewater Collection Level I
- Feb. 28 - March 1      Water Quality from Source to Distribution
- March 2                  Hydrants

*The workshop will be held at the Holiday Inn, in Victoria. There will be a Manufacturer & Suppliers Display March 1 and an exam session on March 3.*

- March 20 - 24          Small Water Systems Seminar  
Powell River

- March 20 - 24          Environmental Permit Process  
Control Analysis

*This workshop will be held at the City of Kamloops Wastewater Treatment Plant.*

### Kamloops Operator Workshop April 3 – 7

- April 3 - 7                Wastewater Treatment Level I
- April 3 - 7                Water Distribution Level I
- April 3 - 7                Wastewater Collection Level I
- April 3 - 7                Pump Maintenance Course

*The courses will be held at the Coast Canadian Inn except for the Pump Maintenance Course which will be held at the McGill Training Centre in Kamloops.*

- April 16 - 19            BCWWA Annual Conference in Victoria
- May 8 - 12              BCWWA UBC Operators School
- May 8                    EOCF Annual General Meeting at UBC

*For information on the above, please contact the BC Water & Waste Association Office at:*

BCWWA  
Ph: (604) 540-0111 Fx: (604) 540-4077  
342 - 17 Fawcett Road, Coquitlam, B.C. V3K 6V2  
Email: [bcwwa@bcwwa.org](mailto:bcwwa@bcwwa.org) / Web Page: [www.bcwwa.org](http://www.bcwwa.org)



*Operators will receive a "Certified Operator" hardhat sticker when the annual membership renewals are paid.*

British Columbia Water & Wastewater Association

# Victoria

Conference

April 15 - 19, 2000  
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